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COMPLIANCE STATUS REPORT

Compliance Status Report
Former Reynolds Metal Company Facility
Moultrie, Colquitt County, Georgia
HSI #10425

Miller Brewing Company

September 15, 2016

TABLE OF CONTENTS

Executive Summary ..... **iii**
CSR Certification ..... **v**
Geologist Certification ..... **vi**
Public Notice ..... **vii**
1.0 Introduction 1
1.1 Objectives 1
1.2 Current Owner and Responsible Party 1
1.3 Site Description and History 1
1.4 Overview of Regional Geologic and Hydrogeologic Conditions 2
2.0 Summary of Previous Investigations and Regulatory History 3
3.0 Methodology 5
3.1 Water Level Survey 5
3.2 Groundwater Sampling 5
3.3 Sample Handling, Preservation, Chain of Custody, and Laboratory Analysis 6
3.4 Quality Assurance/Quality Control 6
3.5 Equipment Decontamination 6
3.6 Waste Handling 6
4.0 Current Understanding of Environmental Conditions 7
4.1 Hydrogeologic Conditions 7
4.2 Source Description 7
4.3 Nature and Extent of Groundwater Constituents 8
4.4 Evaluation of Risk 8
4.4.1 Groundwater 8
4.4.2 Surface Water 9
4.4.3 Vapor Intrusion 9
5.0 Conclusions 11
6.0 References 12

Tables

1. Summary of Groundwater Monitoring Parameters
2. Summary of Well Construction Details and Groundwater Elevations
3. Summary of Groundwater Analytical Results, December 2012
4. Summary of Groundwater Delineation Criteria and RRS

Figures

1. Site Location
2. Site Plan
3. Detailed Site Plan
4. Lines of Section
5. Geologic Cross Sections A-A' and B-B'
6. Historical Summary of Potentiometric Surfaces
7. Tetrachloroethene Concentration above RRS (December 2012)
8. Trichloroethene Concentration above RRS (December 2012)
9. Cis-1,2-Dichloroethene Concentration above RRS (December 2012)
10. Vinyl Chloride Concentration above RRS (December 2012)

Appendices

Volume I

A. CSR Checklist
B. Warranty Deed and Tax Plat
C. Historical Groundwater Analytical Results
D. Groundwater Modeling Evaluation and Summary
E. Uniform Environmental Covenant, Property Abutters, and Title Report
F. Vapor Intrusion Evaluation

Volume II (Included on CD) - Historical Investigation Reports

G. Revised Compliance Status Report, Miller Brewing Company, Moultrie, Georgia (O'Brien & Gere, June 2004)
H. Ground Water Monitoring Report (O'Brien & Gere, January 2006)
I. Corrective Action Monitoring and Evaluation Report (O'Brien & Gere, April 2008)
J. 2008 Annual Monitoring Report (O'Brien & Gere, February 2009)
K. 2009 Annual Monitoring Report (O'Brien & Gere, February 2010)
L. 2010 Annual Monitoring Report (O'Brien & Gere, March 2011)
M. 2011 Annual Monitoring Report (O'Brien & Gere, March 2012)
N. 2012 Annual Monitoring Report (O'Brien & Gere, August 2013)

EXECUTIVE SUMMARY

In December 2013, the site applied for entry into the Georgia Voluntary Remediation Program based on the demonstration that there are no complete exposure pathways present once the Uniform Environment Covenant (UEC) is applied. GAEPD accepted the site into this program on May 6, 2014. This Compliance Status Report has been submitted to meet the requirements of the Georgia Voluntary Remediation Program and to pursue delisting of this site.

In 1988, following discovery of a release from waste solvent piping associated with an underground storage tank (UST) at the former Reynolds Metal Company facility, Miller Brewing Company performed investigation and corrective action in the soils and groundwater at the site. The piping associated with this UST was removed and soils contaminated with chlorinated solvents were excavated. Additional investigations were performed and summarized in the *Compliance Status Report* (CH2M Hill, 1998) and the *Revised Compliance Status Report* (O'Brien & Gere, June 2004). The 2004 CSR certified site soil as meeting the Type 4 site-specific non-residential property RRS and identified chlorinated aliphatic hydrocarbons (CAHs) in groundwater at concentrations above the Type 4 RRS.

In 2004, the *Corrective Action Plan* (O'Brien & Gere, January 2004) identified corrective action for groundwater at the site. This plan was approved by the Georgia Environmental Protection Division (GAEPD) in March 2004 and included two components. The first component was enhanced bioremediation consisting of injection of a lactate formulation into groundwater with concentrations of CAHs above RRS. Injections were performed in October 2004 and again in October 2006 with the objective of reducing volatile organic compounds (VOCs) to be levels below the Type 4 RRS. Groundwater monitoring was performed semiannually following these injections. The CAP identifies the second component of the corrective action as Monitored Natural Attenuation (MNA) to bring site groundwater into compliance with the Type 1/3 RRS once the injection had reduced concentrations below Type 4 RRS. The October 2007 groundwater monitoring event identified two constituents (trichloroethene and vinyl chloride) that remained above the Type 4 RRS; however, for these constituents, the Type 4 RRS are the same as the Type 1/3 RRS. Therefore, following the October 2007 monitoring event, the *Corrective Action Monitoring and Evaluation Report* (O'Brien & Gere, April 2008) recommended the implementation of MNA at the site. This recommendation was accepted by GAEPD for a five year evaluation period.

The MNA evaluation period was completed in 2012, which was the last groundwater monitoring event performed at the site. This monitoring indicated seven constituents exceeded the Type 1 RRS in the overburden groundwater (chloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, isobutyl alcohol, tetrachloroethene, trichloroethene, and vinyl chloride). Concentrations in excess of the Type 1 RRS extend approximately 80 feet downgradient of the source area and represent a nearly idealized distribution for chlorinated ethenes undergoing biodegradation via reductive dechlorination. Tetrachloroethene (PCE) and trichloroethene (TCE) are highest in the former source area, elevated concentrations of cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride concentrations are detected in the source area and extending downgradient, and ethenes are present in the source area with increasing concentrations near the downgradient extent of the plume. VOCs are limited in extent vertically, with concentrations of chlorinated ethenes an order of magnitude lower in the deep monitoring wells (below 17 feet below surface [fbs]).

Potential exposure pathways were evaluated at the site. These exposure pathways include groundwater, surface water, and soil vapor.

Groundwater

In 2011, a steady-state groundwater flow and transport model was developed for the site using MODFLOW®. The objective of this model was to represent site groundwater flow, which is limited by the extremely low hydraulic conductivity of the soil. Solute transport simulations were performed 60 years beyond 2011, to 2071, to evaluation plume migration and CAH concentrations. The transport simulations indicate that CAH concentrations in excess of the RRS will not migrate off Site within the 60-year period modeled. These results show human consumption of groundwater at the site is an incomplete pathway because:

- Hydraulic conductivity is extremely low (approximately 0.003 ft/day), and it is estimated that contaminants would take more than 1,000 years to reach the nearest receptor (a water supply well approximately 1,300 feet southwest of the site), even assuming there is no attenuation of CAHs (which is contradicted by more than 14 years of groundwater monitoring data showing clear evidence of CAH attenuation).
- The nearest receptor is a water supply well that is likely installed in the Floridan Aquifer, which is screened more than 300 fbs beneath a sequence of low permeability sediment that comprises the Hawthorne Formation.
- The placement of a UEC on the subject property (in accordance with O.C.G.A. §44-16-1) to prohibit the installation of a drinking water well on the property will prevent consumption of groundwater on the property from becoming a complete pathway. Proposed text for the UEC is included as Appendix E.

Surface Water

Two small ponds are located to the southwest and southeast of the facility. Although it is possible that groundwater discharges to these ponds, the extremely low hydraulic conductivity at the site, the documented limit of the contaminant plume, minimal migration observed, empirical evidence for degradation of the groundwater constituents, and results of the modeling, demonstrate that it is unlikely that groundwater constituents will affect these surface water bodies.

Soil Vapor

Because a portion of the contaminant plume is located beneath the building vapor intrusion modeling was performed using two qualitative models developed by the United States Environmental Protection Agency (USEPA): the Vapor Intrusion Screening Level (VISL) Calculator and the Johnson & Ettinger (J&E) Groundwater-Advanced Model (GW-ADV). These results for these models indicate that the risks and hazards from potential vapor intrusion are acceptable.

CSR CERTIFICATION

I certify under penalty of law that this report and all attachments were prepared under my direction in accordance with a system designated to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Based on my review of the findings of this Voluntary Remediation Program (VRP) Compliance Status Report (CSR) with respect to the respect to the Soil Risk Reduction Standards (RRSs), I have determined that:

1. The Site is incompliance with the Type 4 Soil RRSs.
2. With the use of an Environmental Covenant, the Site groundwater complies with the provisions, purposes, cleanup standards, and policies of the VRP (per OCGA 12-8-108(7)).



Stephen Rogers
General Counsel
Miller Brewing Company

GEOLOGIST CERTIFICATION

I certify that I am a qualified ground-water scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in ground water hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgements regarding ground-water monitoring and contaminant fate and transport. I further certify that this report was prepared by me, or by a subordinate working under my direction.

Michael Hall

Michael Hall, PG 001625
Senior Managing Scientist
OBG



PUBLIC NOTICE

In accordance with Rule 391-3-13-.06(5) of the Georgia Rules for Hazardous Sites Response, a public notice will be published in the local newspaper of general circulation, and the legal organ of the local governments, announcing that the CSR is available for inspection by the general public. These public notices will include the information and text as specified in the rules regarding status of the site, contacts, date of review, and location(s) for reviewing the document. The public notice will read as follows:

Public Notice of Submission of Compliance Status Report
For a site in the
Georgia Hazardous Site Inventory

This is to inform all interested persons that a compliance status report has been submitted for the Former Reynolds Metal Company Facility, 278 Highway 319 South, Moultrie, Colquitt County, Georgia 31768-1299, HSI Site No. 10425/Tax Parcel M052 012. The Georgia Environmental Protection Division, Department of Natural Resources, State of Georgia (EPD) has placed this site on the Hazardous Site Inventory pursuant to its authority under the Hazardous Site Response Act and Rules promulgated thereunder. As required by the Rules for Hazardous Site Response, the responsible party for this site was required to investigate the site and submit a compliance status report to EPD summarizing the results of that investigation. EPD is currently reviewing the compliance status report to determine if corrective action is needed for regulated substances that have been released at this site. Before EPD decides whether corrective action is needed, the public has the opportunity to review the compliance status report and provide comments to EPD about the report. In accordance with Rule 391-3-19-.06(5)(a) of the Georgia Rules for Hazardous Site Response and 12-8-107(f) of the Georgia Voluntary Remediation Program Act, notice is hereby made of a 30-day public comment period on the compliance status report for the former Miller Brewing Facility. Written or oral comments can be made to Ms. Susan Kibler, Environmental Protection Division 2 Martin Luther King Jr. Drive, SE Suite 1054 East Floyd Tower, Atlanta, Georgia 30334-9000, (404) 657-8600. The designated contact person for the Miller Brewing Company is Mr. Stephen Rogers, Miller Brewing Company, 3939 West Highland Blvd., Milwaukee, WI 53217, (414) 931-4599. A copy of the compliance status report may be viewed and copied at the following locations: Georgia Department of Natural Resources (at the above listed address) and the Moultrie-Colquitt County Library 204 5th Street, Southeast, Moultrie, GA 31768 (229) 985-6540.

1.0 INTRODUCTION

The Miller Brewing Company (Miller) has prepared this Updated Compliance Status Report (CSR) for the former Miller Brewing Facility (Site) in Moultrie, Georgia for the Georgia Department of Environmental Production Division (GAEPD). In 2004, a *Revised Compliance Status Report* (O'Brien & Gere, June 2004, Appendix G) was submitted to GAEPD in 2004, as required by the Hazardous Site Response Act (HSRA) Rule 391-3-19-.07. Following submittal of the 2004 CSR, corrective action was performed at the Site to address the overburden groundwater and on May 6, 2014, the Site was accepted into the Voluntary Remediation Program (VRP). This updated CSR includes a summary of the current understanding of site conditions and has been prepared to meet the requirements of the Georgia Voluntary Remediation Program and to pursue delisting of this site.

1.1 OBJECTIVES

As required by the Georgia Voluntary Remediation Program Act 12-8-107(e), a CSR must confirm "consistency of the corrective action with the provisions, purposes, standards, and policies of the voluntary remediation program and certifying the compliance of the relevant voluntary remediation property with the applicable cleanup standards in effect at the time". The purpose of this updated Compliance Status Report is to provide a description of the current conditions at the Site and to certify compliance with currently applicable cleanup standards.

1.2 CURRENT OWNER AND RESPONSIBLE PARTY

Site
Site Name: Reynolds Metal Company

Site Address: 278 Highway 319 South, Moultrie, GA, 31768

HSI Site Number: 10425

Property Owner
Property Owner: Joint Development Authority of Brooks, Colquitt, Grady, Mitchell, and Thomas Counties

Owner Address: PO Box 487 Moultrie, Georgia 31776

Responsible Party
Responsible Party: Miller Brewing Company

Responsible Party Address: 3939 West Highland Boulevard, Milwaukee, WI, 53201

Responsible Party Contact: Stephen Rogers

Responsible Party Phone Number: 414-931-4599

A legal description of the site is provided in the warranty deed and tax plat information located in Appendix B of this report.

1.3 SITE DESCRIPTION AND HISTORY

The Moultrie facility encompasses approximately 28 acres on Highway 319 South in Moultrie, Colquitt County, Georgia (Figure 1). Miller constructed the facility in 1980 and owned and operated it until 1993, when the property was purchased by Reynolds Metal Company (Reynolds). Reynolds sold the property to the Ball Corporation (Ball) on August 10, 1998. The property was then sold to GBA Associates on November 3, 2003 and transferred to the Joint Development Authority of Brooks, Colquitt, Grady, Mitchell, and Thomas Counties on March 26, 2004. Icehouse America currently leases the property, where they manufacture, store, and distribute ice vending machines.

The facility is located south of Moultrie along Highway 319 and is surrounded by residential, agricultural, and commercial operations. The closest residences to the facility are approximately 500 feet northwest of the site (Appendix B).

1.4 OVERVIEW OF REGIONAL GEOLOGIC AND HYDROGEOLOGIC CONDITIONS

The Moultrie Facility is located in the Coastal Plain physiographic province. Surficial soils in Colquitt County are generally thin and poorly developed. Soils near the site belong to the Tifton series, which is characterized as sandy or silty clay. Underlying the surficial soils is the Miocene Age Hawthorne formation, which functions as a semi-confining unit for the underlying limestone formation. The Hawthorne occurs near ground surface and extends to a depth of up to 300 fbs. This formation is composed primarily of interbedded clays and similar fine-grained materials of low permeability. The Hawthorne is underlain by limestone and the Floridan Aquifer, the primary source of potable water for the region.

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REGULATORY HISTORY

In September 1988, four USTs were removed from the site. These consisted of two No. 2 fuel oil USTs, a waste oil UST, and a waste solvent UST. During the removal, a release was discovered from a portion of the piping that was connected to the waste solvent UST. At the time of release, the liquid in the tank contained 2-butanone, otherwise known as methyl ethyl ketone (MEK), isopropyl alcohol, and butyl cellusolve. Based on interviews with site personnel, this UST had historically contained hexane, heptane, xylene, and toluene. In response to this release, the following activities and investigations were performed:

- 1988 – Closure and removal of four USTs. Removal of piping associated with the former waste solvent tank, and excavation and disposal of solids contaminated with chlorinated solvents (Westinghouse Environmental Services, 1988);
- 1993 – Phase II Site Assessment performed in support of the property transfer from Miller to Reynolds (CH2M Hill, 1993);
- 1994 – Site Investigation performed (The Earth Technology Corp., 1994);
- 1995 – Supplemental Site Investigation performed (Earth Tech, 1995);
- 1995 – Release notification submitted to Georgia EPD;
- 1998 – Phase II Subsurface Investigation was performed as part of the property transfer from Reynolds to Ball. Soil and sediment samples were collected (McLaren/Hart, 1998);
- 1998 – Compliance status investigation performed (CH2M Hill, 1998); and
- 2000, 2001, and 2004 – Supplemental compliance status investigations performed.

In June 2004, a *Revised Compliance Status Report* was submitted to GAEPD (O'Brien & Gere). The historical reports listed above are included as Appendix G of that CSR. Analytical data provided in the CSR delineated the nature and extent of chlorinated ethenes in soil and groundwater and defined the area of groundwater affected by the concentrations of CAHs above the Risk Reduction Standards (RRS). The 2004 CSR summarized the data from a series of investigation and remedial activities performed from 1998-2004, calculated site-specific RRS for soil and groundwater, and certified site soil as meeting the Type 4 site-specific, non-residential property RRS. A description of the soil and groundwater investigations performed prior to 2004, including investigation approach, methodology, and results is included in the 2004 CSR, which identified no further action required with respect to site soil.

The 2004 CSR identified CAHs, and in particular, chlorinated ethenes in groundwater at concentrations above the RRS in a number of wells surrounding the former waste solvent tank piping (Figures 2 & 3). It is likely that these constituents are derived from the historic release from the waste solvent tank piping. The January 2004 *Corrective Action Plan* (CAP, O'Brien & Gere, January 2004), as approved by GAEPD in March 2004, details the selected remedial measures for groundwater and provides the basis for corrective action at the site.

Corrective Action at the Site was prompted by the understanding that site groundwater does not meet the Georgia RRS. As described in the CAP, there are two components to the groundwater corrective action.

The first component was enhanced bioremediation consisting of injection of a lactate formulation, ABC®, into the groundwater with concentrations of CAHs above RRS. The lactate formulation accelerates microbial activity, which in turn facilitates reductive dechlorination of the CAHs. Injection was performed with a Geoprobe® at injection nodes laid out on a grid pattern. The injection events occurred two years apart in October 2004 and October 2006. During the second injection event, in October 2006, zero valent iron was added to the lactate solution in order to improve its efficacy by further enhancing reducing conditions. These injection events were followed by monitoring which took place in April 2005, October 2005, April 2006, April 2007, and October 2007. The goal of the lactate injection was to bring site groundwater into compliance with non-residential (Type 4) RRS. These were calculated for the 2004 CSR following the requirements as set forth in Chapter 39-3-19 of the HSRA.

The RRS values represent an acceptable level of theoretical human health risk associated with analytes found in soil and groundwater at the site.

Once the Type 4 RRS are achieved, the approved CAP identifies the second component of the corrective action as MNA to bring site groundwater into compliance with the Type 1/3 RRS. The lactate injection at the site has reduced most VOCs to levels below the Type 4 RRS; however, the October 2007 groundwater monitoring event identified two constituents (trichloroethene and vinyl chloride) that remained above the Type 4 RRS. For these constituents, the Type 4 RRS are the same as the Type 1/3 RRS. Based on this understanding, the *Corrective Action Monitoring and Evaluation Report* (O'Brien & Gere, April 2008) recommended the implementation of MNA at the site. This recommendation was accepted by GAEPD for a 5-year evaluation period.

Following completion of the MNA evaluation, Miller submitted an application to the Georgia Voluntary Remediation Program on December 27, 2013. This application included a *Voluntary Remediation Plan* proposing a UEC to restrict use of groundwater at the site, and requesting delisting and suspension of groundwater monitoring. The GAEPD accepted the site into the VRP with minor revisions to the Voluntary Remediation Plan (O'Brien & Gere, 2015) and with the requirement that an updated Compliance Status Report be submitted to GAEPD to document current conditions and environmental status. This document has been prepared to meet this requirement.

3.0 METHODOLOGY

The methodology for field activities performed prior to 2004 is documented in the *Revised Compliance Status Report* (O'Brien & Gere, June 2004, Appendix G). These procedures include:

- Drilling
- Soil Sampling and Analyses
- Well Installation and Development
- Groundwater Sampling and Analyses
- Data documentation and Quality Assurance/Quality Control (QA/QC)
- Ground water level measurements
- Hydraulic conductivity measurements.

General procedures used for groundwater monitoring activities performed from 2004 through 2012 are described in the sections below. Additional details regarding the methodology and deviations from these procedures are provided in the following monitoring reports, which are included as Appendix G of this report.

- *Ground Water Monitoring Report* (O'Brien & Gere, January 2006, Appendix H)
- *Corrective Action Monitoring and Evaluation Report* (O'Brien & Gere, April 2008, Appendix I)
- *2008 Annual Monitoring Report* (O'Brien & Gere, February 2009, Appendix J)
- *2009 Annual Monitoring Report* (O'Brien & Gere, February 2010, Appendix K)
- *2010 Annual Monitoring Report* (O'Brien & Gere, March 2011, Appendix L)
- *2011 Annual Monitoring Report* (O'Brien & Gere, March 2012, Appendix M)
- *2012 Annual Monitoring Report* (O'Brien & Gere, August 2013, Appendix N).

3.1 WATER LEVEL SURVEY

At the beginning of each groundwater sampling event, a site-wide water level survey was conducted. Wells were opened to allow pressure equilibration for at least 2 hours, after which water level depths from the top-of-casing (TOC) were then measured using a decontaminated (Section 3.5) electronic water level meter. Measured depths were compared to surveyed TOC elevations to calculate groundwater elevations.

3.2 GROUNDWATER SAMPLING

Groundwater samples were collected following low-flow purging methodology. Each well was purged at the lowest feasible rate, with the majority of wells purged at 125 mL/min or less. During purging, water quality parameters (temperature, pH, conductivity, oxidation reduction potential (ORP), and dissolved oxygen, were measured continuously with a water quality meter quipped with a flow-through cell. Purging continued until at least one well volume of water was removed from the well and water quality parameters had stabilized (dissolved oxygen, redox, and turbidity to within 10%, specific conductance to within 3%, and pH to within 0.1 pH unit). In the event that wells ran dry during purging, wells were allowed to recover (for at least 24 hours) until a sufficient quantity of water was present in the well to collect a groundwater sample. The recovered well was then sampled, with no further purging.

Groundwater samples were collected following the USEPA Region 4 Groundwater sampling Operating Procedure (OP, USEPA, 2007). Low-density polyethylene (LDPE) tubing was used in the well, and dedicated silicon tubing in the peristaltic pump. Samples collected for VOC analysis were collected using the reverse pump method. Under this method, the peristaltic pump was turned off and the tubing was removed from the well. The pump was reversed and the sample was emptied into 40-mL sample vials preserved with hydrochloric acid. Completely

emptying the tubing was avoided to prevent introducing water that was in contact with the flexible pump head tubing into the sample.

3.3 SAMPLE HANDLING, PRESERVATION, CHAIN OF CUSTODY, AND LABORATORY ANALYSIS

Following collection, samples were immediately placed in a cooler packed with wet ice and shipped under chain of custody via overnight courier service to a NELAP-certified analytical laboratory. Samples were analyzed for VOCs, semi-volatile organic compounds (SVOCs), and geochemical parameters as identified on the Table 1. Copies of the laboratory analytical reports and NELAP certifications are provided in the reports referenced in the sections above.

3.4 QUALITY ASSURANCE/QUALITY CONTROL

QA/QC samples were collected for each groundwater sampling event. These QA/QC samples included duplicates and laboratory supplied trip blank samples for VOC analysis. One duplicate was collected during each sampling event. Duplicates consistent of a split of a field sample placed in a separate set of containers, and labeled as duplicate. Duplicate samples were analyzed for the same parameters as field samples. One trip blank was included for each shipment of groundwater samples for VOC analysis. Trip blanks were provided by the analytical laboratory and consisted of ultra-pure water placed in containers in the laboratory and shipped along with empty containers. Trip blanks were returned with the filled sample containers, and analyzed for VOCs.

3.5 EQUIPMENT DECONTAMINATION

Non-dedicated groundwater sampling equipment was decontaminated using a low-sudsing detergent solution, and rinsed with distilled water.

3.6 WASTE HANDLING

Water produced during groundwater sampling and equipment decontamination was placed in DOT-approved steel 55-gallon drums for proper off-site disposal.

4.0 CURRENT UNDERSTANDING OF ENVIRONMENTAL CONDITIONS

The following sections provide a summary of environmental conditions at the site for a more detailed descriptions, please refer to the *2012 Annual Monitoring Report* (O'Brien & Gere, August 2013, Appendix N).

4.1 HYDROGEOLOGIC CONDITIONS

Unconsolidated overburden at the site consist of clayey sand, sandy clay, and clay to a depth of at least 50 fbs. Boreholes installed during previous investigations were not extended beyond 50 fbs and the total depth of the overburden at the Site has not been determined. Fill consisting of poorly-graded sand is present across the site, and extends up to 8 fbs in some areas (Figures 4 and 5).

Overburden groundwater at the site is unconfined and encountered a depths ranging from less than 1 to greater than 16 fbs (Table 2). The low hydraulic conductivity at the site (ranging from 0.0004 to 0.0210 ft/day) impedes the groundwater levels in the wells from reaching static equilibrium and accentuates the effects of transient events such as recharge, barometric pressure changes, and pumping (The Earth Technology Corp., 1993). Historically, groundwater flow has typically been to the east; however, the 2011 and 2012 potentiometric surfaces identified a mound in the former source area, with groundwater flow to the north, east, and west (Figure 6).

Most of the monitoring wells at the site are screened in the upper portion of the overburden groundwater (1 to 15 fbs). Two monitoring wells onsite are screened at greater depths within the overburden groundwater. Monitoring well CH2MW-4D is screened from 36 to 46 fbs, and is located next to shallow monitoring well CH2PP-1. Monitoring well CH2MW-114D is screened from 17.5 to 22.5 fbs and is paired with shallow monitoring well ETCMW-114. Comparison of the shallow and deep water levels measured in these monitoring well pairs indicates a pronounced and consistent downward hydraulic gradient.

Because of the low hydraulic conductivity and consequent low groundwater flow velocity, well yields are limited in the overburden groundwater in the vicinity of the site, and the overburden aquifer in the area is unlikely to be used for groundwater supply.

As identified in the 1998 CSR a windshield survey identified 22 private water supply wells within a ½ mile radius of the site (CH2M Hill, 1998). The facility currently obtains all water from the City of Moultrie and it is understood that the facility has obtained water from the City of Moultrie for the entire 36-year duration of operations. The 1998 CSR identified the closest private water supply wells approximately 2,100 feet north-northeast of the release area and approximately 1,300 feet southwest of the release area. These wells are presumed to be obtaining water from the Floridan aquifer, which is located approximately 300 fbs. The shallow groundwater at the site is perched within the upper portion of the Hawthorn Formation, which extends from the surface (or just below), and extends to the top of the Floridan Aquifer. The Hawthorn consists predominantly of clay and silt, and represents a confining or semi-confining layer for the Floridan Aquifer.

Two small ponds are located approximately 0.4 miles and 0.25 miles to the southwest and southeast of the Moultrie Facility, respectively (Figure 1). Damming of an ephemeral creek that originates near the Moultrie Facility formed the pond to the southeast. It is possible that the groundwater discharges to this creek and pond; however, given the low hydraulic conductivity calculated (0.0004 – 0.0210 ft/day, as discussed above), it is unlikely that shallow site groundwater would migrate to this surface water in less than 100 years and would attenuate long before reaching it.

4.2 SOURCE DESCRIPTION

Based on the historical investigation, the source of regulated compounds has been identified as the former waste solvent UST located north of the building and west of the unloading area (Figure 3). This UST, its associated piping, and impacted soils in the source area were removed in 1988 (Section 2.1). A summary of subsequent investigations is included in Section 2.1 and in the historical reports included as Appendices G through N.

4.3 NATURE AND EXTENT OF GROUNDWATER CONSTITUENTS

The Georgia Voluntary Remediation Program Act identifies residential cleanup standards as the default site delineation concentration criteria [12-8-108(1)(E)]. Groundwater sampling was last performed in 2012. The 2012 groundwater monitoring data identifies seven constituents that exceed the Type 1 RRS in the overburden groundwater at the site (Table 3). These constituents include chloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, isobutyl alcohol, tetrachloroethene, trichloroethene, and vinyl chloride (Table 4). Concentrations in excess of the Type 1 RRS extend approximately 80 feet downgradient of the source area (Table 3). Additional information about the extent of contaminants in groundwater can be found in the *2012 Annual Monitoring Report* (O'Brien & Gere, 2013, Appendix N).

The concentration of CAHs measured in 2012 represent a nearly idealized distribution for chlorinated ethenes undergoing biodegradation via reductive dechlorination, with tetrachloroethene (PCE) and trichloroethene (TCE) highest in the source area, elevated cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride concentrations in the source area and extending downgradient, and ethenes present in the source area with increasing concentrations near the downgradient extent of the plume (Figures 7 through 10).

Available data indicate VOCs are limited in extent vertically. Monitoring well CH2MW-114D is located in the source area and screened from 17.5 to 22.5 fbs and paired with shallow monitoring well ETCMW-114. With the exception of 1,1-dichloroethene, the concentration of all constituents detected at CH2MW-114D in 2012 (cis-1,2-dichloroethene and trichloroethene) are an order of magnitude lower than the concentration detected at ETCMW-114 (O'Brien & Gere, 2015). Furthermore, there were no constituents detected in 2012 at CH2MW-4D which is located downgradient of the source area and screened from 36 to 46 fbs. Historically, there have been no detections at this well with the exception of sporadic low level detections (below the RRS) of acetone, methylene chloride, and toluene (Appendix C). Given the low frequency and concentrations, these detections are not suggestive of contaminant migration from the source area.

4.4 EVALUATION OF RISK

An evaluation of potential receptors and exposure pathways for the site was included in the *Revised Voluntary Remediation Plan* (O'Brien & Gere, 2015). This evaluation was based on available site information, including data from historical soil and groundwater investigations conducted at the site. The evaluation identified exposure pathways through groundwater, surface water, and soil vapor. A summary of these pathways and their potential receptors is included below. Additional details can be found in the *Revised Voluntary Remediation Plan.*

4.4.1 Groundwater

Groundwater migration is the primary pathway for contaminant migration at the site. To further evaluate the groundwater exposure pathway, steady-state groundwater flow and transport models were developed for the site. The steady state groundwater flow model was developed using the United States Geological Survey (USGS) groundwater flow model code MODFLOW® to represent site groundwater flow, including the low hydraulic conductivity soils and influence of site utilities. The transient solute transport model was developed using the RT3D model code to represent historic transport and predict future transport and attenuation of the site CAH plume (Clement, 2001). The transport model accounted for previous in situ remedial actions and estimates of CAH attenuation rates based on site data. The Visual MODFLOW® modeling platform was employed for the modeling effort. Forward simulations generated from the model were used to evaluate the possible future CAH migration and concentrations at the site. These simulations indicate that CAHs will not migrate off site at concentrations in excess of the RRS.

Individual calibration and sensitivity evaluations demonstrate that combined flow and transport models provide reasonable representations of groundwater flow and solute transport processes at the Site and can be used to evaluate the possible future CAH migration and concentrations at the Site. A detailed description of the modeling inputs, assumptions, calibration and results is provided in Appendix D.

Solute transport simulations were performed for 60 years beyond 2011, to 2071, to evaluate plume migration and changes in CAH concentrations. The transport simulations indicate that CAH concentrations in excess of the RRS will not migrate off Site within the 60 year time period. These results also showed human consumption of groundwater at the site to be an incomplete exposure pathway because:

- Because of the low hydraulic conductivity (approximately 0.003 ft/day), it is estimated that contaminants would take more than 1,000 years to reach the nearest receptor (a water supply well approximately 1,300 feet southwest of the site), even assuming there is no attenuation of CAHs (which is contradicted by more than 14 years of groundwater monitoring data demonstrating attenuation).
- The nearest receptor is a water supply well that is likely installed in the Floridan Aquifer, and therefore screened more than 300 fbs beneath a sequence of low permeability sediment that comprises the Hawthorne Formation.
- The placement of a UEC on the subject property (in accordance with O.C.G.A. §44-16-1) to prohibit the installation of a drinking water well on the property. Proposed text for the UEC is included as Appendix E.

Although the model has been carefully developed and calibrated using historical Site data, some limitations are present. These limitations include the small areal extent of the plume, limited historical data, potential subsurface heterogeneities caused by utilities, and the limited groundwater flow resulting from the low hydraulic conductivity. It is important to note that these limitations are inherent in any model and their effects are negated by the low hydraulic conductivity and at this Site which limits the migration of groundwater. Furthermore, the attenuation of the groundwater plume observed in the historical groundwater modeling show that the plume is not migrating and this, when compared with the modeling results, show that the model is appropriate for use at this Site.

4.4.2 Surface Water

Two small ponds are located to the southwest and southeast of the facility. Both ponds were formed by the damming of an ephemeral creek, and it is possible that groundwater discharges to this creek and pond; however, given the low hydraulic conductivity at the site, the demonstrated limit of the contaminant plume, minimal observed migration, empirical evidence for degradation, demonstrated attenuation of the groundwater constituents, and modeling results, it appears unlikely that groundwater constituents will affect these surface water bodies.

4.4.3 Vapor Intrusion

A potential pathway of human exposure at the site is the migration of VOC vapors into the building from the underlying groundwater. These vapors have the potential to enter the indoor air space through small cracks in the slab of the building where they could subsequently be inhaled by site workers. Two quantitative models developed by the USEPA were used to evaluate the potential for vapor intrusion to occur in the building. The VISL Calculator is a Microsoft Excel-based screening –level tool that can be used to calculate carcinogenic risks and non-carcinogenic hazards and/or target screening concentrations for various media through the application of conservative default assumptions.

Five VOCs (1,1-dichloroethane (1,1-DCA), 1-1-dichloroethene (1,1,-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), trichloroethene (TCE), and vinyl chloride) were detected in December 2012 in the groundwater sample from monitoring well ETCMW-113, located beneath the building. Using commercial exposure scenarios, the VISL model identified that:

- Non-carcinogenic indoor air hazards are acceptable for all five constituents detected beneath the building
- Carcinogenic indoor air risks are acceptable for all five constituents detected beneath the building.
- The cumulative screening-level cancer risk for all detected constituents is lower than the USEPA's cumulative risk threshold.

To build on the VISL Screening Calculator results and to provide a more comprehensive, site-specific evaluation of vapor intrusion at the building, the USEPA's J&E GW-ADV Model was also employed. This Excel-based model allows for manipulation of site-specific parameters to calculate non-carcinogenic hazards and carcinogenic risks associated with inhalation of VOC vapors from contaminated subsurface media. The results for the J&E Model indicate that for the most recent sampling event (December 2012), risks and hazards from potential vapor intrusion are considered acceptable based on the USEPA-derived vapor intrusion models.

Additional details regarding the assumptions, inputs, and results from both vapor intrusion models are included in Appendix F.

5.0 CONCLUSIONS

An extensive and detailed series of investigations has been performed at the Site. Based on the data obtained from these investigations, the following conclusions can be made regarding soil and groundwater conditions at the Site.

Soil

Site soil meets the Type 4 site-specific, non-residential property RRS and has been certified as doing so in the 2004 CSR (O'Brien & Gere, January 2004, Appendix G).

Overburden Groundwater

Seven regulated compounds (chloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, isobutyl alcohol, tetrachloroethene, trichloroethene, and vinyl chloride) were detected at concentrations above the Type 1/3 RRS in the groundwater samples collected in 2012. Groundwater migration is the primary pathway for contaminant migration at the site. Groundwater modeling simulations indicate that these constituents will not migrate off site at concentrations in excess of the RRS. The placement of a UEC on the property will prohibit the installation of a drinking water well on the property and will make the consumption of groundwater on the property an incomplete pathway.

Soil Vapor

The vapor intrusion evaluation was performed based on the current Site conditions and building configurations. This evaluation identified that there were no excess risks; however, if changes are made to the building, vapor intrusion will need to be re-evaluated.

Based on these conditions, the site can be delisted from the Hazardous Sites Inventory and additional monitoring can be discontinued.

6.0 REFERENCES

CH2M Hill. *Compliance Status Report. Former Miller Brewing Company Can Plant. Moultrie, Georgia.* Prepared for: Miller Brewing Company. September 1998.

CH2M Hill. *Field Investigation Report of the Miller Brewing Company Container Plant, Moultrie, Georgia.* Prepared for: Reynolds Metal Company. October 1993.

Clement, TP, RT3D v2.5 *A Modular Computer Code for Simulating Reactive Multispecies Transport in 3-Dimensional Groundwater Systems*; Pacific Northwest National Laboratory, PNNL-SA-11720, 2001.

Earth Tech. *Supplemental Site Investigation Report of the Former Miller Brewing Company Container Plant in Moultrie, Georgia*. Prepared for: Miller Brewing Company. August 1995

McLaren/Hart, Inc. *Phase II Subsurface Investigation. Reynolds Metal Company, Moultrie Can Plant, Moultrie, Georgia 31768.* Prepared for: Ball Corporation. May 21, 1998.

O'Brien & Gere. *2012 Annual Monitoring Report. Miller Brewing Company Can Plant. Moultrie, Georgia.* April 16, 2013.

O'Brien & Gere. *Corrective Action Monitoring and Evaluation Report. Miller Brewing Company Can Plant. Moultrie, Georgia.* April 2008.

O'Brien & Gere. *Corrective Action Plan. Miller Brewing Company, Moultrie, Georgia.* January 2004.

O'Brien & Gere. *Revised Compliance Status Report. Miller Brewing Company, Moultrie, Georgia.* June 2004.

O'Brien & Gere. *Revised Voluntary Remediation Plan. Former Miller Can Manufacturing Plant. Moultrie, Georgia*. *HSI #10425.* February 2015.

The Earth Technology Corporation. *Site Investigation Report for the Former Miller Brewing Company Moultrie Container Division Facility.* TETC Project No. 94-4130-04. March 22, 1994.

The Earth Technology Corporation. *Summary Report (Step 1) Moultrie Container Division Facility.* TETC Project No. 94-4124-01. December 10, 1993.

USEPA. *Groundwater Sampling Operating Procedure, Number: SESDPROC-301-R1.* Region 4, USEPA, Science and Ecosystem Support Division, Athens, GA.

Westinghouse Environmental Services. *Soil Sampling & Analysis Report for Miller Brewing Company, Red Label Pipe Area, Moultrie Can Plant, Moultrie, Georgia.* WES Job No. 4125-88-150. October 1988.

Tables

Table 1
Summary of Monitoring Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameter	Analytical Method
Volatile Organic Compounds	
Acetone	8260 B
2-Butanone (MEK)	
Benzene	
Carbon Disulfide	
Chloroethane	
1,1-Dichloroethane (1,1-DCA)	
1,2-Dichloroethane (1-,2-DCA)	
1,1-Dichloroethene (1,1-DCE)	
cis-1,2-dichloroethene (cis-1,2-DCE)	
trans-1,2-dichloroethene (trans-1,2-DCE)	
Isobutyl Alcohol	
Tetrachloroethene (PCE)	
Toluene	
1,1,1-Trichloroethane (TCA)	
Trichloroethene (TCE)	
Trichlorofluoromethane	
Vinyl Chloride	
Xylenes (total)	
Laboratory Geochemical Parameters	
Alkalinity	SM 2320 B
Chloride	300.0
Sulfate	
Nitrate	353.2
Sulfide	SM 4500-S2 F
Methane	RSK-175
Ethane	
Ethene	
Soluble Organic Carbon (Dissolved)	SM 5310 D
Total Organic Carbon	
Manganese	6010 C
Total Iron	
Field Geochemical Parameters	
Temperature	--
Conductivity	--
Dissolved Oxygen	--
pH	--
Oxidation/Reduction Potential (ORP)	--
Carbon Dioxide	--
Ferrous Iron	--

Table 2
Summary of Well Construction Details and Ground Water Elevations
Former Miller Brewing Can Plant
Moultrie, Georgia

Well	Ground Surface Elevation[1] (ft msl)	TOC Elevation[1] (ft msl)	Total Well Depth from Ground Surface (ft)	Screened Interval (ft bgs)	Well Diameter (in)	Depth to Water Below Top of Casing (ft)										
						4/6/2004	4/25/2005	10/24/2005	4/17/2006	4/16/2007	10/22/2007	12/8/2008	12/14/2009	12/6/2010	12/5/2011	12/3/2012
CH2MW-1	293.62	293.84	10	5 - 10	1	6.45	4.55	8.13	5.43	7.33	3.18	2.62	1.22	5.16	5.72	6.79
CH2MW-1A[2]	292.87	293.01	15	5 - 15	2	11.21	6.38	13.36	8.75	11.67	5.02	4.78	--	--	--	--
CH2MW-2[2]	295.34	295.43	13.5	3.5 - 13.5	2	4.86	3.55	8.48	3.98	5.53	9.87	3.97	--	--	--	--
CH2MW-3	295.45	295.53	13	3 -13	2	4.92	3.55	8.10	4.72	5.85	0.97	3.69	2.08	9.96	8.11	9.51
CH2MW-4D	293.65	293.54	45.93	36 - 46	2	16.05	16.10	19.44	15.62	16.71	18.88	13.79	13.88	19.31	17.87	19.41
CH2MW-5[2]	295.28	295.44	15	5 - 15	2	7.43	2.90	9.66	5.35	7.79	3.80	4.91	--	--	--	--
ETCMW-113	296.32	296.32	12	2 - 12	2	6.25	4.40	7.07	5.58	5.75	5.94	5.12	4.93	6.51	6.48	7.47
ETCMW-114	294.02	297.66	11.7	1.7 - 11.7	4	7.78	6.60	8.15	7.36	7.94	6.52	6.67	5.89	7.61	7.76	8.19
CH2MW-114D	294.16	297.45	22.5	17.5 - 22.5	1	8.54	7.00	9.88	8.40	9.32	9.99	8.64	8.55	11.13	9.64	10.24
ETCMW-115	293.22	296.10	11.5	1.5 - 11.5	2	6.19	5.14	6.96	5.39	6.49	4.79	4.72	3.76	5.85	6.51	6.90
ETMW-116	292.29	292.29	11	1 - 11	4	1.98	0.70	1.81	1.16	1.46	0.89	0.70	0.52	1.37	1.95	1.34
ETMW-117	292.30	292.30	11	1 - 11	2	2.40	0.89	2.71	1.29	2.42	0.71	1.30	0.24	1.90	1.81	1.94
ETMW-118	292.34	292.34	11	1 - 11	2	2.90	0.40	3.42	2.15	1.61	1.73	2.20	1.54	3.32	2.69	3.15
ETMW-119	294.26	297.05	11	1 - 11	2	6.86	5.70	8.02	6.31	6.65	5.66	5.32	4.14	6.38	6.86	7.73
ETMW-120	293.76	296.84	11	1 - 11	2	6.69	4.50	9.42	5.46	7.18	4.77	4.56	3.69	6.27	7.29	8.32
ETMW-121	294.84	298.02	11	1 - 11	2	7.70	5.78	11.72	6.43	8.72	6.75	4.53	2.91	11.48	10.12	12.31
OBGMW-122[2]	NA	295.98	15	5 - 15	2	8.13	6.40	10.58	7.02	9.01	6.00	6.17	--	--	--	--
OBGMW-123[2]	NA	296.09	13	3 - 13	2	6.45	4.70	9.28	5.40	6.80	8.44	3.24	--	--	--	--
OBGMW-124[2]	NA	NA	14	4 - 14	2	NA	5.70	10.08	7.29	8.78	7.43	4.90	--	--	--	--
CH2PP-1	293.56	293.72	12	7 - 12	1	7.67	5.55	9.45	7.63	8.81	6.00	3.56	2.87	9.22	8.61	9.20

Well	Ground Surface Elevation[1] (ft msl)	TOC Elevation[1] (ft msl)	Total Well Depth from Ground Surface (ft)	Screened Interval (ft bgs)	Well Diameter (in)	Water Level Elevation (ft msl)										
						4/6/2004	4/25/2005	10/24/2005	4/17/2006	4/16/2007	10/22/2007	12/8/2008	12/14/2009	12/6/2010	12/5/2011	12/3/2012
CH2MW-1	293.62	293.84	10	5 - 10	1	287.39	289.29	285.71	288.41	286.51	290.66	291.22	292.62	288.68	288.12	287.05
CH2MW-1A[2]	292.87	293.01	15	5 - 15	2	281.80	286.63	279.65	284.26	281.34	287.99	288.23	--	--	--	--
CH2MW-2[2]	295.34	295.43	13.5	3.5 - 13.5	2	290.57	291.88	286.95	291.45	289.90	285.56	291.46	--	--	--	--
CH2MW-3	295.45	295.53	13	3 -13	2	290.61	291.98	287.43	290.81	289.68	294.56	291.84	293.45	285.57	287.42	286.02
CH2MW-4D	293.65	293.54	45.93	36 - 46	2	277.49	277.44	274.10	277.92	276.83	274.66	279.75	279.66	274.23	275.67	274.13
CH2MW-5[2]	295.28	295.44	15	5 - 15	2	288.01	292.54	285.78	290.09	287.65	291.64	290.53	--	--	--	--
ETCMW-113	296.32	296.32	12	2 - 12	2	290.07	291.92	289.25	290.74	290.57	290.38	291.20	291.39	289.81	289.84	288.85
ETCMW-114	294.02	297.66	11.7	1.7 - 11.7	4	289.88	291.06	289.51	290.30	289.72	291.14	290.99	291.77	290.05	289.90	289.47
CH2MW-114D	294.16	297.45	22.5	17.5 - 22.5	1	288.91	290.45	287.57	289.05	288.13	287.46	288.81	288.90	286.32	287.81	287.21
ETCMW-115	293.22	296.10	11.5	1.5 - 11.5	2	289.91	290.96	289.14	290.71	289.61	291.31	291.38	292.34	290.25	289.59	289.20
ETMW-116	292.29	292.29	11	1 - 11	4	290.31	291.59	290.48	291.13	290.83	291.40	291.59	291.77	290.92	290.34	290.95
ETMW-117	292.3	292.30	11	1 - 11	2	289.90	291.41	289.59	291.01	289.88	291.59	291.00	292.06	290.40	290.49	290.36
ETMW-118	292.34	292.34	11	1 - 11	2	289.44	291.94	288.92	290.19	290.73	290.61	290.14	290.80	289.02	289.65	289.19
ETMW-119	294.26	297.05	11	1 - 11	2	290.19	291.35	289.03	290.74	290.40	291.39	291.73	292.91	290.67	290.19	289.32
ETMW-120	293.76	296.84	11	1 - 11	2	290.15	292.34	287.42	291.38	289.66	292.07	292.28	293.15	290.57	289.55	288.52
ETMW-121	294.84	298.02	11	1 - 11	2	290.32	292.24	286.30	291.59	289.30	291.27	293.49	295.11	286.54	287.90	285.71
OBGMW-122[2]	NA	295.98	15	5 - 15	2	287.85	289.58	285.40	288.96	286.97	289.98	289.81	--	--	--	--
OBGMW-123[2]	NA	296.09	13	3 - 13	2	289.64	291.39	286.81	290.69	289.29	287.65	292.85	--	--	--	--
OBGMW-124[2]	NA	NA	14	4 - 14	2	NA	NA	NA	NA	NA	NA	NA	--	--	--	--
CH2PP-1	293.56	293.72	12	7 - 12	1	286.05	288.17	284.27	286.09	284.91	287.72	290.16	290.85	284.50	285.11	284.52

Notes

[1]Elevations based on a survey performed by H.J. Griffen and Associates in June 1998. Elevations reference a DOT benchmark.
Monitoring wells OBGMW-122 and OBGMW-123 surveyed ack to CH2MW-4D and CH2MW-3, respectively.

[2]Wells CH2MW-1A, CH2MW-2, CH2MW-5, OBGMW-122, OBGMW-123 and OBGMW-124 were abandoned on 12/8/2008.

Table 3
Summary of Groundwater Sampling Results
December 2012

Parameters	CAS No.	Units	Type 1/Type 3 RRS	Type 4 RRS [1]	CH2MW-1	CH2MW-3	CH2MW-4D	ETCMW-113	ETCMW-114	CH2MW-114D	ETCMW-115	ETMW-116	ETMW-117	ETMW-118	ETMW-119	ETMW-120	ETMW-121	CH2PP-1
					12/10/2012	12/10/2012	12/4/2012	12/4/2012	12/3/2012	12/10/2012	12/6/2012	12/4/2012	12/4/2012	12/3/2012	12/4/2012	12/3/2012	12/10/2012	12/10/2012
Acetone	67-64-1	mg/L	4		< 0.010	< 0.010	< 0.010	< 0.010	< 0.100	**0.340**	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.010	< 0.010	< 0.010	< 0.100	< 0.100	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.0050	< 0.0050	< 0.00050	< 0.00050	**0.00065**	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.0050	< 0.0050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Chloroethane	75-00-3	mg/L	0	1.23	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.0050	< 0.0050	< 0.00050	**0.0045**	**0.002**	**0.0011**	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.00050	< 0.00050	< 0.00050	**0.0099**	**0.034**	< 0.0050	**0.0034**	**0.0080**	**0.0061**	**0.0054**	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.00050	< 0.00050	< 0.00050	< 0.0050	< 0.0050	< 0.0050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.00050	< 0.00050	< 0.00050	**0.0037**	**0.0070**	**0.013**	< 0.00050	< 0.00050	**0.00056**	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07	1.02	< 0.00050	< 0.00050	< 0.00050	**0.15**	**1.300**	**0.400**	**0.042**	**0.0024**	**0.027**	**0.0054**	**0.00054**	**0.0018**	**0.00096**	< 0.00050
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.0050	< 0.0050	< 0.00050	< 0.00050	< 0.00050	< 0.0050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.050	< 0.050	< 0.050	< 0.500	< 0.500	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005	< 0.00050	< 0.00050	< 0.00050	< 0.00050	**0.024**	< 0.0050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Toluene	108-88-3	mg/L	1		< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.0050	< 0.0050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.0050	< 0.0050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005	**0.00098**	< 0.00050	< 0.00050	**0.00098**	**0.450**	**0.0079**	**0.016**	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.0050	< 0.0050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Vinyl Chloride	75-01-4	mg/L	0.002	0.002	< 0.00050	< 0.00050	< 0.00050	**0.0066**	< 0.0050	< 0.0050	**0.0022**	**0.100**	**0.042**	**0.037**	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.0050	< 0.0050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050

Notes:

(1) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 4
Summary of Groundwater Delineation Criteria
and Risk Reduction Standards
Former Miller Brewing Facility
Moultrie, GA

Constituent	CAS	Type 1/3 RRS (mg/L)	Type 4 RRS (mg/L)
Chloroethane	75-00-3	0.001	1.23
1,1-dichloroethene	75-35-4	0.007	--
Cis-1,2-dichloroethene	156-59-2	0.07	1.02
Isobutyl Alcohol	78-83-1	10	--
Tetrachloroethene	127-18-4	0.005	0.005
Trichloroethene	79-01-6	0.005	0.005
Vinyl Chloride	75-01-4	0.002	0.002

Note: Type 1/3 RRS is identified as the delineation standards for the Georgia Voluntary Remediation Program. Type 4 RRS were calculated for compounds exceeding the Type 1/3 RRS.

Figures

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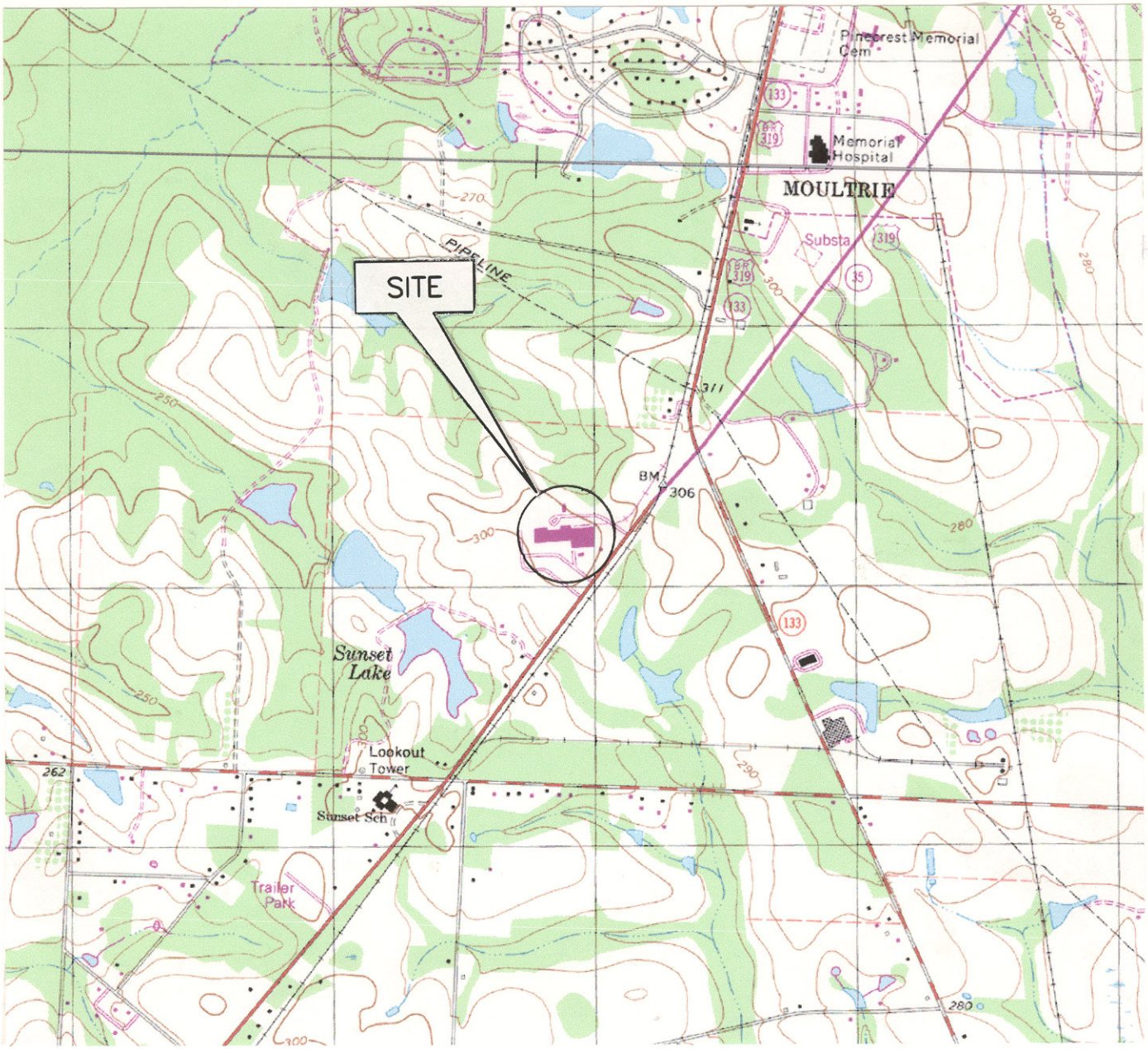
FIGURE 1



SITE LOCATION MAP

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GA.

MAP SOURCE: USGS 7.5-MIN. SERIES TOPOGRAPHIC QUADRANGLE "COOLIDGE, GA" AND "MOULTRIE, GA".

1 0 1/2 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

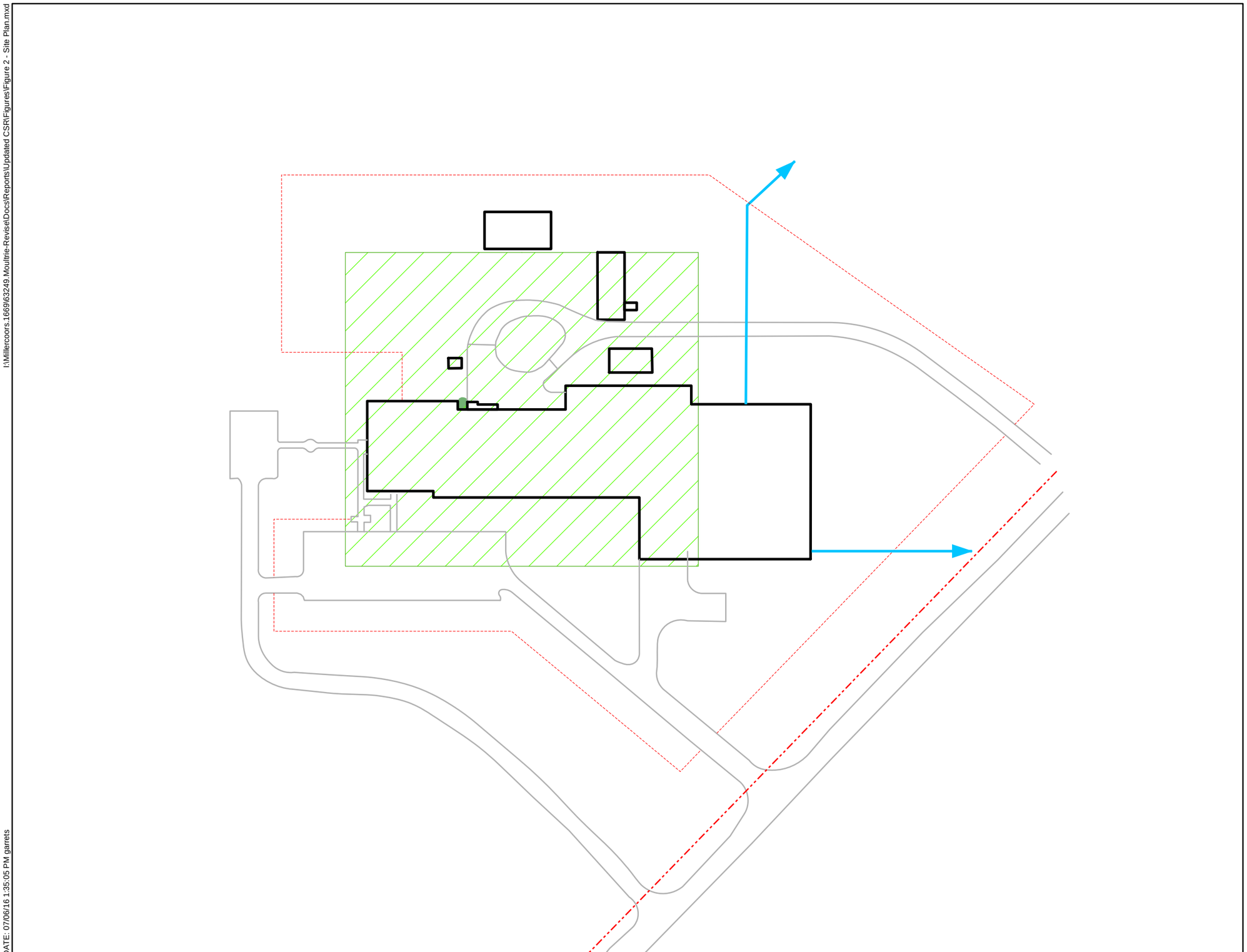
1 0 5 1 KILOMETER

SCALE: 1:24000

O'BRIEN & GERE ENGINEERS, INC.

FILE NO. 26765

FIGURE 2



N

- Chain Linked Fence
- Property Boundary
- road
- Storm Water Drainage
- Area shown on Figure 3
- Former Waste Solvent Tank Piping Release

Miller Brewing
Moultrie, GA

SITE PLAN

0 75 150 300
Feet

7/6/16
63249

O'BRIEN & GERE

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I:\Millercoors.1669\63249.Moultrie-Revise\Docs\Reports\Updated CSR\Figures\Figure 2 - Site Plan.mxd

I:\Millercoors.1669\63249.Moultrie-Revise\Docs\Reports\Updated CSR\Figures\Figure 3 - Detailed Site Plan.mxd

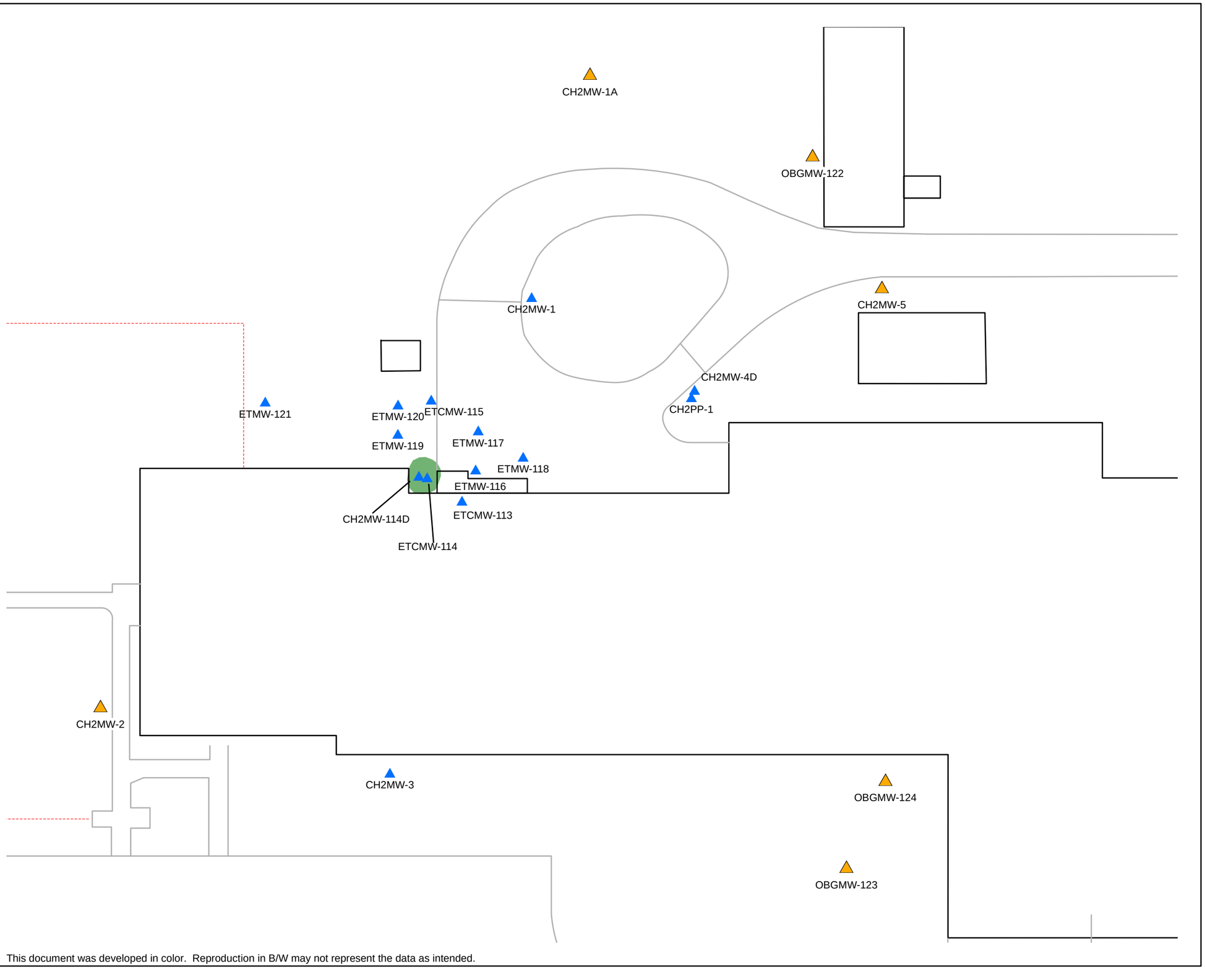

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FIGURE 3

N

LEGEND

- Existing Monitoring Well
- Abandoned Monitoring Well
- Main Plant Metal Building
- building
- Chain Linked Fence
- Road
- Former Waste Solvent Tank Piping Release

Miller Brewing
Moultrie, GA

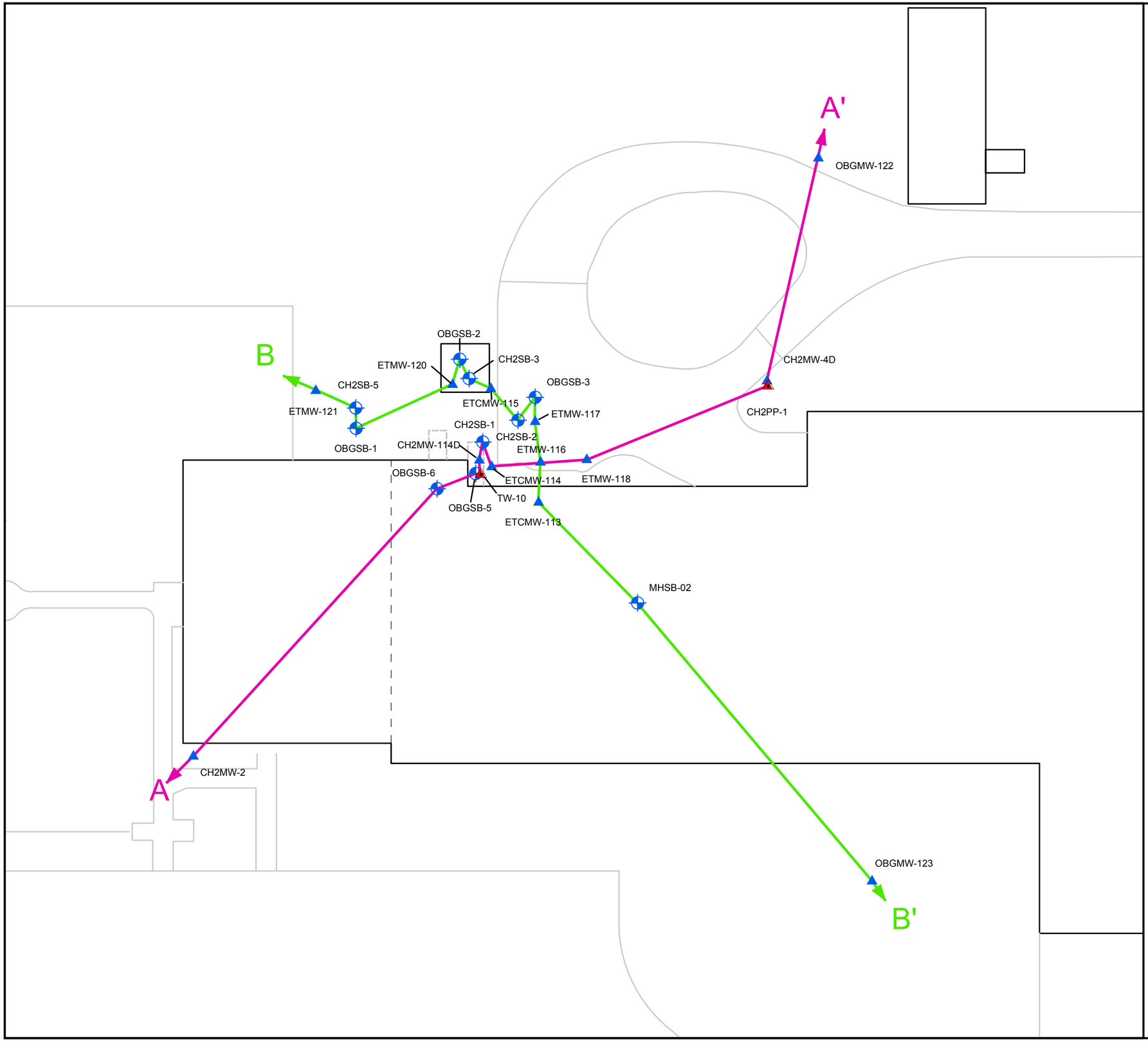
DETAILED SITE PLAN

0 25 50 100
Feet

11/11/13
49924

O'BRIEN & GERE

FIGURE 4



Monitoring Well

Temporary Well

Soil Boring

A-A'

B-B'

N

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

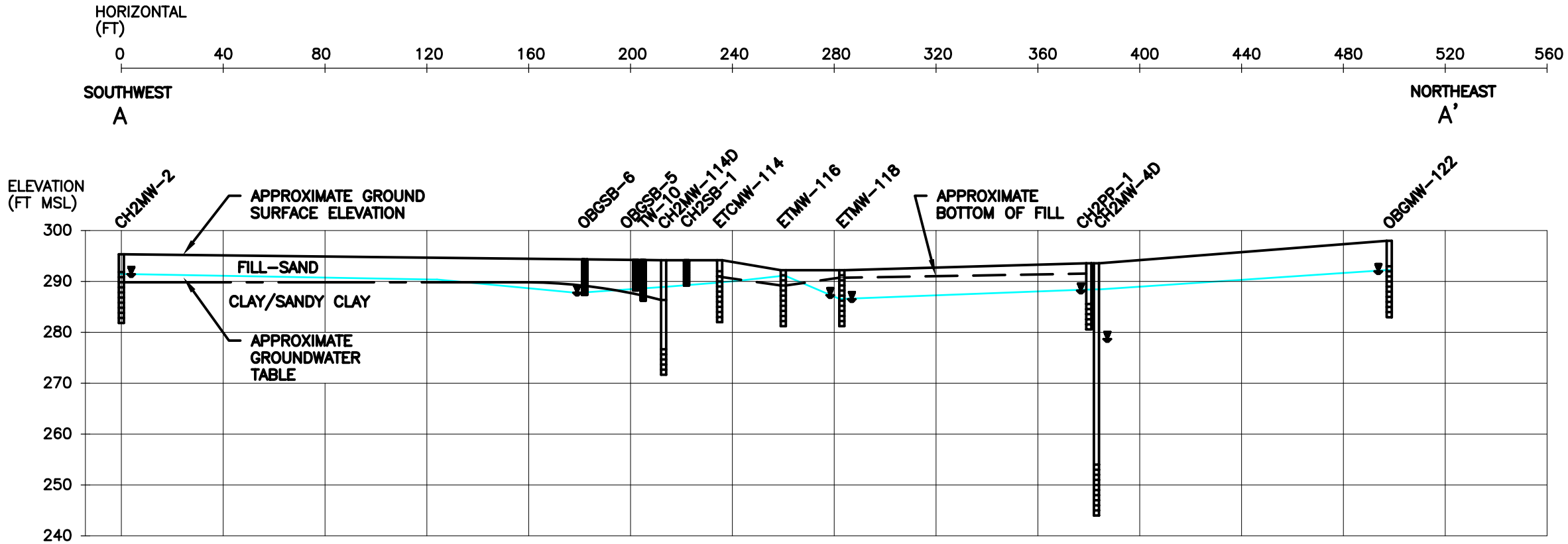
LINES OF SECTION

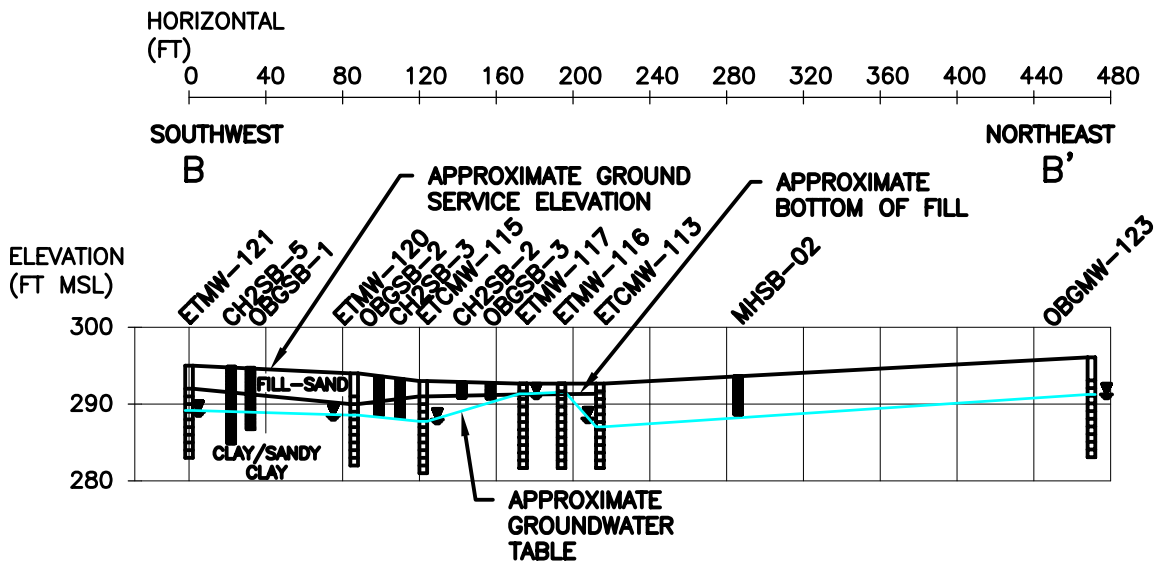
Feet

0 50 100

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 5





LEGEND

- GROUNDWATER ELEVATION
- SCREENED INTERVAL
- SOIL BORING
- GROUNDWATER TABLE

NOTES

1. The depth and thickness of the subsurface strata and affected soil limits indicated on the sections were generalized from and interpolated between test locations. Information on actual subsurface conditions exist only at the specific locations and dates indicated. Subsurface conditions and water levels at other locations may differ from conditions occurring at the indicated locations.

2. Elevations based on a study performed by H.J. Griffin & Associates in June 1998. Elevations reference a DOT benchmark.

3. Soil descriptions were taken from boring wells completed by Earth Tech in 1994 and 1995 and CH2M HILL in 1998.

4. Ground water levels and other data were collected on Jan. 19 2001.

FORMER MILLER
BREWING COMPANY
CAN PLANT
MOULTRIE, GA.

GEOLOGIC CROSS SECTIONS A–A' AND B–B'

FILE NO. 1669.32883.004
MAY 2003

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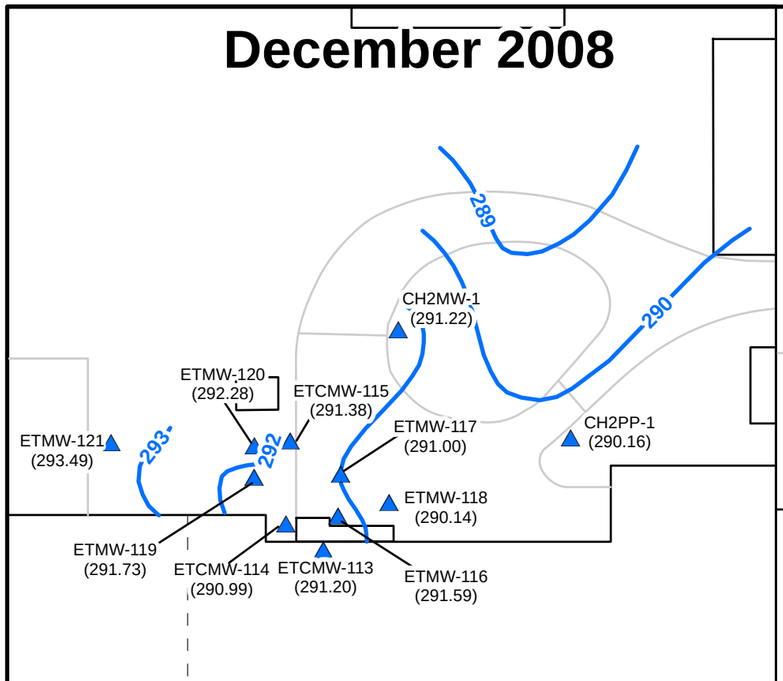
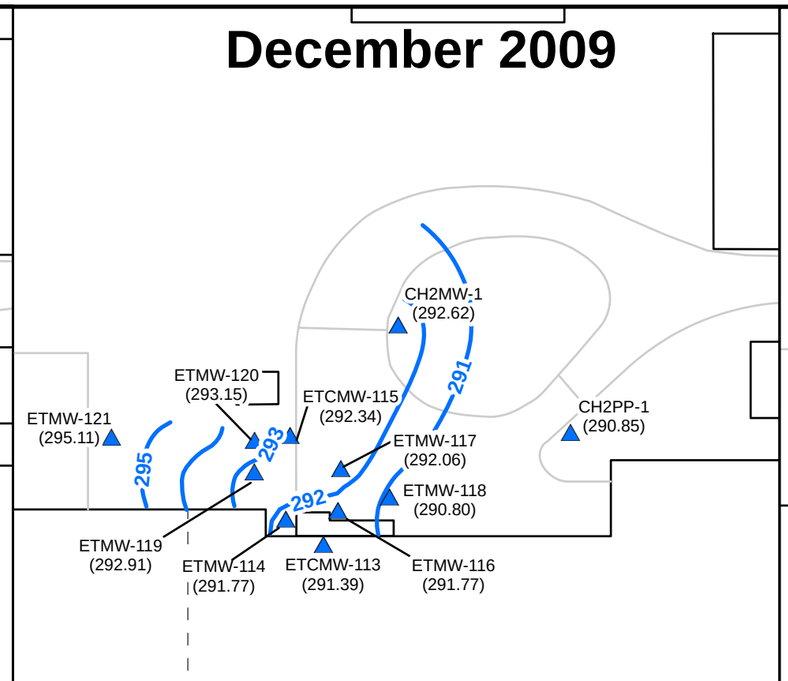
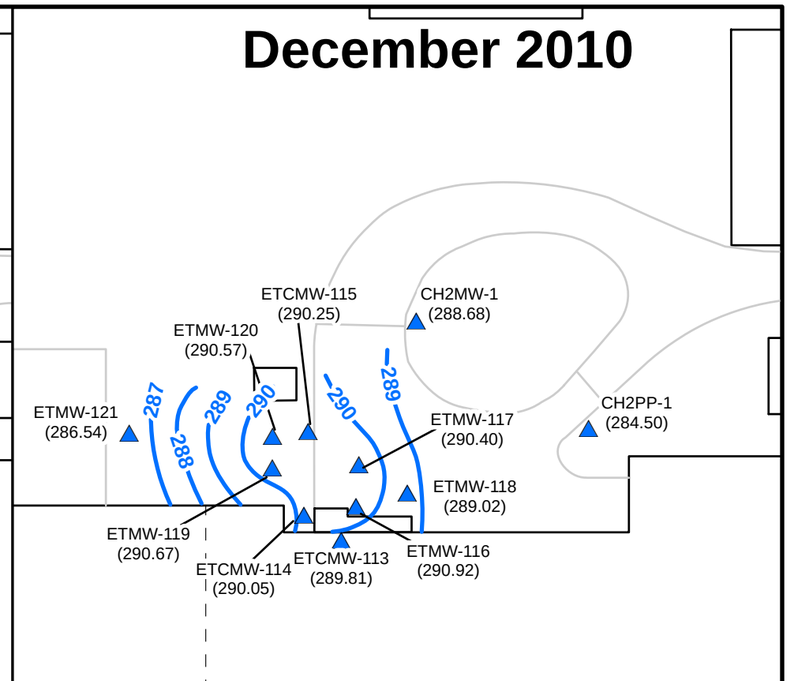
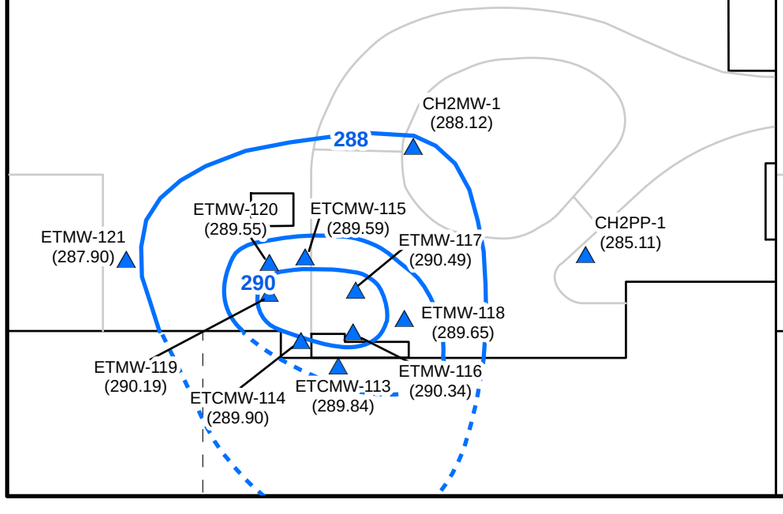
I:\RALEIGH\PROJECTS\1669\32883\DWGS\FIG-4.DWG 1=1
PLOT DATE: 05/16/03 073 ASC









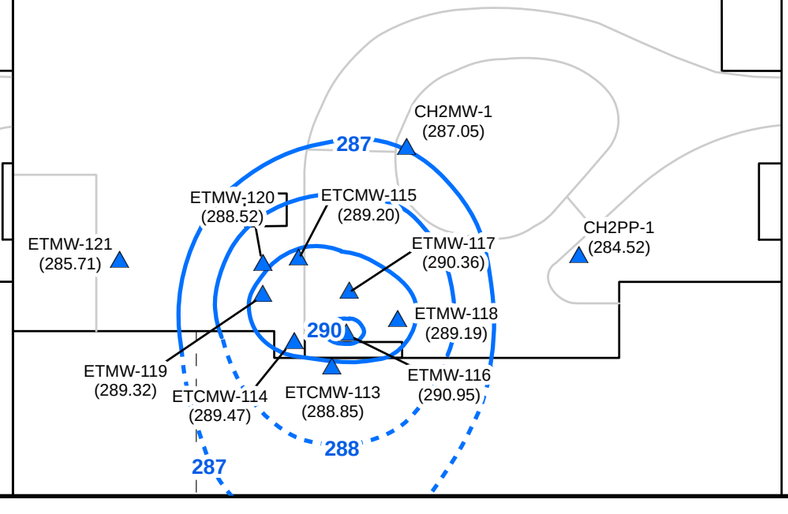


FIGURE 6

HISTORICAL SUMMARY OF
POTENTIOMETRIC SURFACE

2008 - 2012

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

▲ Wells and Borings

Groundwater Elevation (ft msl)

Inferred Groundwater Elevation (ft msl)

0 37.5 75 150 Feet

N

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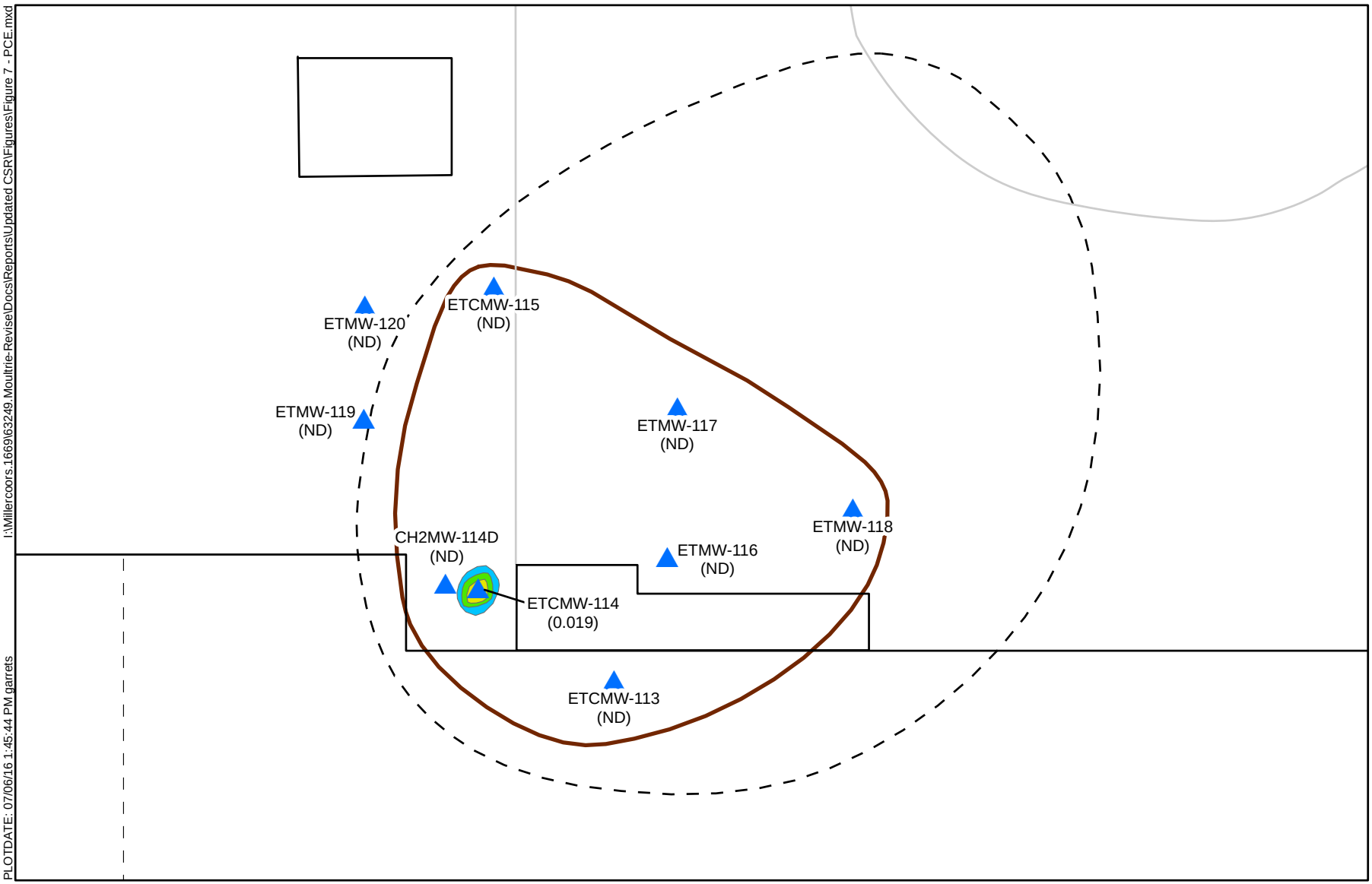

Tetrachloroethene (PCE) concentration above RRS (mg/L)

- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

Monitoring Well

Treatment Area

Groundwater Delineation

ND indicates that PCE was not detected at concentrations above the Type 1/3 RRS.

PCE Type 1/3 RRS = 0.005 mg/L

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA
December 2012

TETRACHLOROETHENE CONCENTRATION ABOVE RRS

0 10 20 40
Feet

N

FIGURE 7

7/6/16
63249

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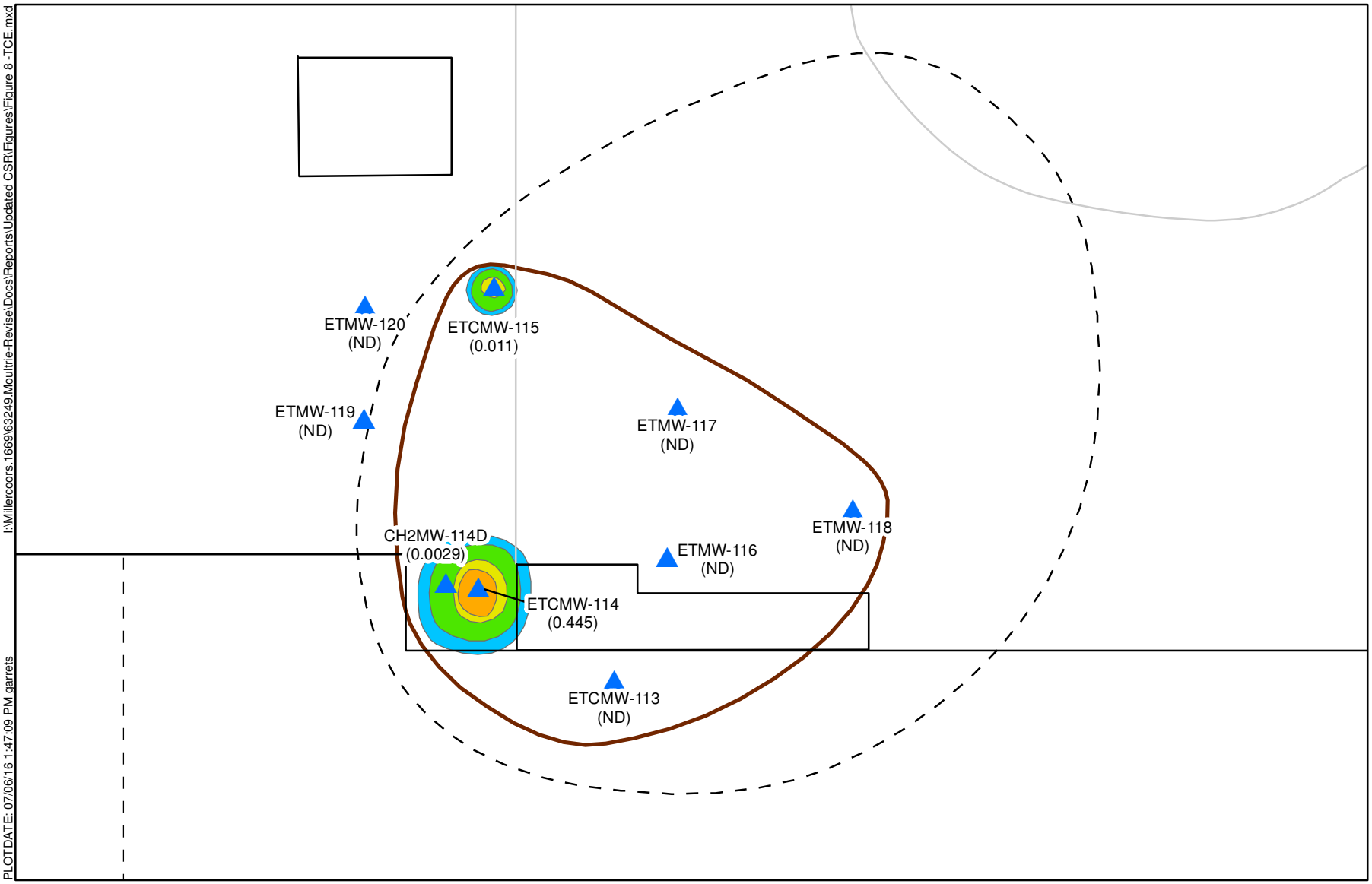

Trichloroethene (TCE)
concentration above RRS (mg/L)

- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

Monitoring Well
Treatment Area
Groundwater Delineation

ND indicates that TCE was not detected at concentrations above the Type 1/3 RRS.

TCE Type 1/3 RRS = 0.005 mg/L

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA
December 2012

TRICHLOROETHENE CONCENTRATION ABOVE RRS

0 10 20 40
Feet

N

FIGURE 8

7/6/16
63249

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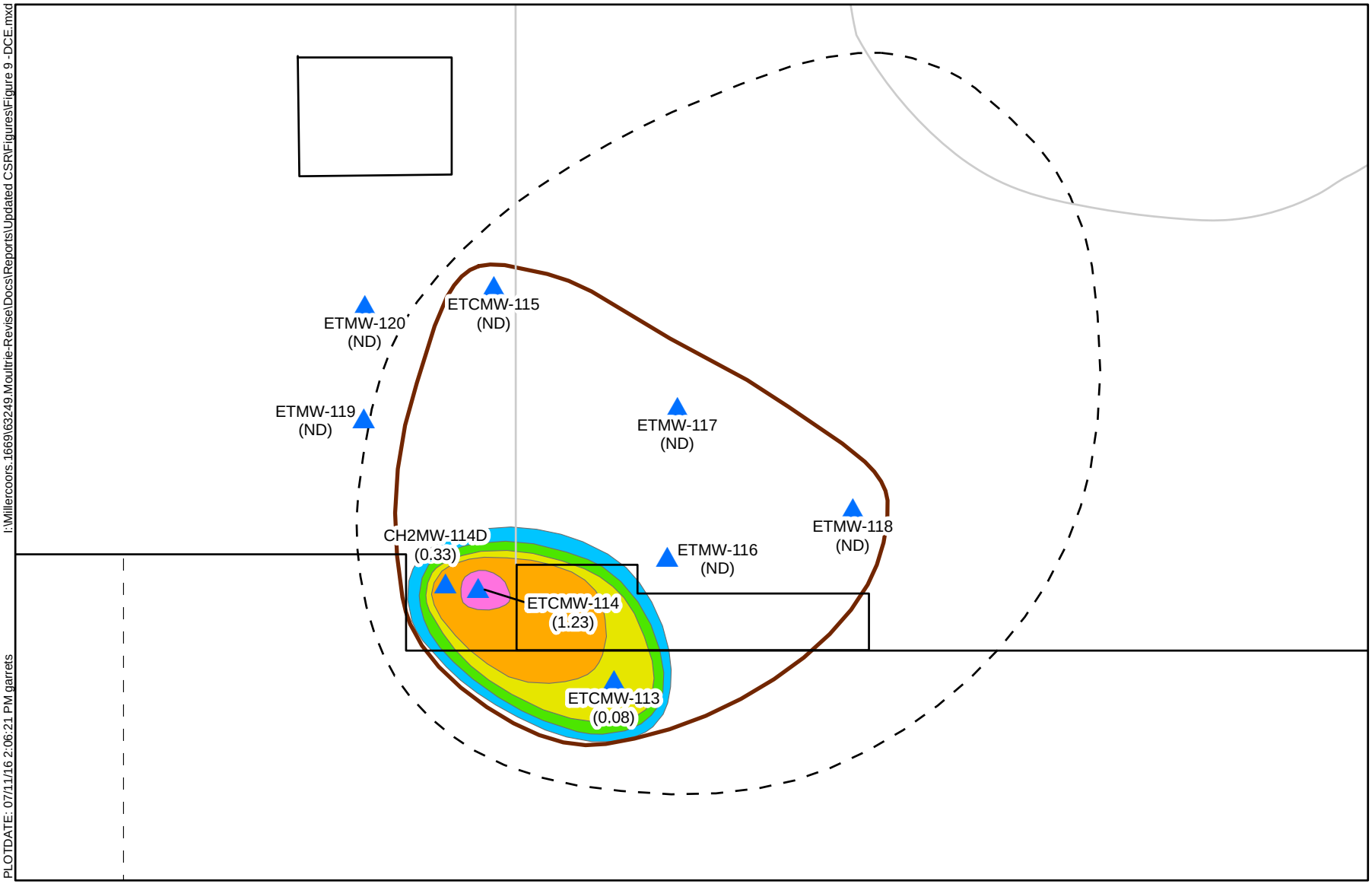

cis-1,2-Dichloroethene (cis-1,2-DCE) concentration above RRS (mg/L)

- >1.0000
- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

Monitoring Well

Treatment Area

Groundwater Delineation

ND indicates that cis-1,2-DCE was not detected at concentrations above the Type 1/3 RRS.

cis-1,2-DCE Type 1/3 RRS = 0.07 mg/L

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA
December 2012

CIS-1,2-DICHLOROETHENE CONCENTRATION ABOVE RRS

0 10 20 40
Feet

N

FIGURE 9

7/6/16
63249

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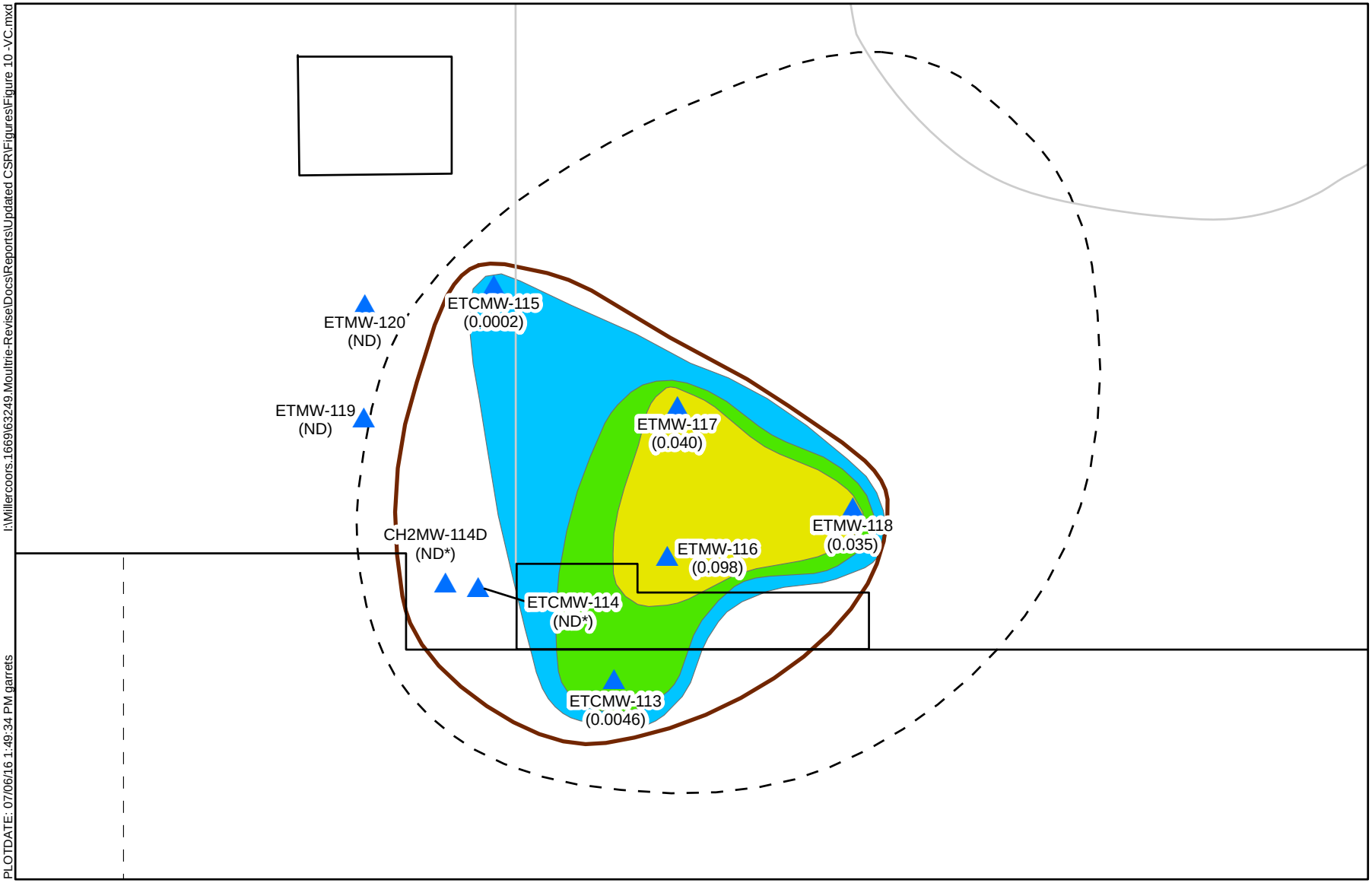

Vinyl Chloride (VC)
concentration above RRS (mg/L)

- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009
- Monitoring Well
- Treatment Area
- Groundwater Delineation

ND indicates that vinyl chloride was not detected at concentrations above the Type 1/3 RRS.

ND* indicates vinyl cloride was not detected; however, the detection limit was greater than the Type 1/3 RRS.

vinyl chloride Type 1/3 RRS = 0.002 mg/L

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA
December 2012

VINYL CHLORIDE CONCENTRATION ABOVE RRS IN 2012

0 10 20 40
Feet

N

FIGURE 10

7/6/16
63249

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Appendix A

CSR Checklist

Compliance Status Report
Review Checklist

Site Name:	Reynolds Metal Company Property			**HSI # :**	10425
City/County:	Moultrie, Colquitt County, Georgia			**CSR Date:**	July 2016
PRP:	Miller Brewing Company	**Revision No. (if applicable):**		**Consultant**	OBG

Release to Soil?	**YES**	**NO**	**Release to Groundwater:**	**YES**	**NO**	
Soil RRS Certification:	**Type 1**	**Type 2**	**Type 3**	**Type 4**	**Type 5**	**Cannot certify**
GW RRS Certification:	**Type 1**	**Type 2**	**Type 3**	**Type 4**	**Type 5**	**Cannot certify**

RULE SECTION	DESCRIPTION OF REQUIREMENT	Y or [-]	Location in CSR (i.e. pg.)
391- 3-19-.06(3)(b)(1)	**A description of each known source which has contributed to or is contributing to a release at the site including:**	Y	Section 4.2
391- 3-19-.06(3)(b)(1)(i)	**Source name, number, or other descriptor;**	Y	Section 4.2
391- 3-19-.06(3)(b)(1)(ii)	**Location of source on a map (minimum scale of 1" = 200');**	Y	Figure 3
391- 3-19-.06(3)(b)(1)(iii)	**Name of each regulated substance released from each source;**	Y	Section 2.1
391- 3-19-.06(3)(b)(1)(iv)	**Chronology of each source of a release; and**	Y	Section 2.1
391- 3-19-.06(3)(b)(1)(v)	**If source is an engineered structure or waste management unit, a description of the function, design, dimensions, capacity and operation of the source, including as-built construction diagrams**	[-]	*UST Removed*

RULE SECTION	DESCRIPTION OF REQUIREMENT	Y or Ξ	Location in CSR (i.e. pg.)
	where available.		
Releases to Soil			
391- 3-19-.06(3)(b)(2)	**Complete definition of horizontal and vertical extent of soil contamination to background. Background shall be determined using samples representative of soil conditions not affected by a release of a regulated substance. In support of the definition of the extent of contamination, the CSR shall include, at a minimum:**	[-]	*Located in Historic CSR*
391- 3-19-.06(3)(2)(b)(i)	**General approach used;**	[-]	
391- 3-19-.06(3)(b)(2)(ii)	**Analytical parameters selected and the rationale for selection;**	[-]	
391- 3-19-.06(3)(b)(2)(iii)	**Map of minimum scale of 1" = 200' showing location of all sampling points by sample number, and vertical cross-sections where appropriate. Concentrations of constituents should be indicated by isoconcentration lines.**	[-]	
391- 3-19-.06(3)(b)(2)(iv)	**Sampling and analysis procedures including:**	[-]	
391- 3-19-.06(3)(b)(2)(iv)(I)	**Sampling equipment and collection techniques;**	[-]	
391- 3-19-.06(3)(b)(2)(iv)(II)	**Field analytical or measurement techniques including make and model of equipment and calibration schedule and type;**	[-]	
391- 3-19-.06(3)(b)(2)(iv)(III)	**Sample handling and preservation techniques;**	[-]	
391- 3-19-.06(3)(b)(2)(iv)(IV)	**Equipment decontamination procedures;**	[-]	
391- 3-19-.06(3)(b)(2)(iv)(V)	**Chain-of-custody procedures;**	[-]	
391- 3-19-.06(3)(b)(2)(iv)(VI)	**Lab techniques including references to analytical methods, including QA/QC procedures;**	[-]	
391- 3-19-.06(3)(b)(2)(v)	**A description of any statistical procedures used to evaluate the data;**	[-]	
391- 3-19-.06(3)(b)(2)(vi)	**Procedures used to establish background soil concentrations; and**	[-]	

RULE SECTION	DESCRIPTION OF REQUIREMENT	Y or Ξ	Location in CSR (i.e. pg.)
391- 3-19-.06(3)(b)(2)(vii)	**Narrative and tabular summary of all pertinent field data and the results of all final lab analyses that are supported by sufficient QA/QC control data to validate the results.**	[-]	
Releases to Groundwater			
391- 3-19-.06(3)(b)(3)	**Complete definition of horizontal and vertical extent of groundwater contamination to background. Background shall be determined using samples representative of groundwater conditions not affected by a release of a regulated substance. In support of the definition of the extent of contamination, the CSR shall include, at a minimum:**	[-]	*Located in Historic CSR*
391- 3-19-.06(3)(b)(3)(i)	**Analytical parameters selected and the rationale for selection;**	[-]	
391- 3-19-.06(3)(b)(3)(ii)	**A description of methods used to characterize sub-surface geology;**	[-]	
391- 3-19-.06(3)(b)(3)(iii)	**A description of methods used to characterize vertical and horizontal groundwater flow gradients, flow rates, and flow directions;**	[-]	
391- 3-19-.06(3)(b)(3)(iv)	**Methods used to determine hydraulic conductivities and other pertinent hydrogeological characteristics, including a description of any slug and/or aquifer tests;**	[-]	
391- 3-19-.06(3)(b)(3)(v)	**A description of groundwater monitoring well locations, and their installation and construction methods, including:**	[-]	
391- 3-19-.06(3)(b)(3)(v)(I)	**A map (minimum scale 1"= 200') depicting all existing well locations including a survey of each well=s surface reference point and the elevation of its top-of-casing;** [-]	Y	Table 2 Figure 3
391- 3-19-.06(3)(b)(3)(v)(II)	**Type of well casing material;**	[-]	
391- 3-19-.06(3)(b)(3)(v)(III)	**Description of well intake design including screen slot size and length, filter pack materials and length, and method of filter pack emplacement;**	[-]	
391- 3-19-.06(3)(b)(3)(v)(IV)	**Method used to seal the well from the surface and any other features designed to prevent or minimize downward migration of**	[-]	

RULE SECTION	DESCRIPTION OF REQUIREMENT	Y or Ξ	Location in CSR (i.e. pg.)
	contaminants along the well annulus; and		
391- 3-19-.06(3)(b)(3)(v)(V)	**Description of methods and procedures used to develop the wells.**	[-]	
391- 3-19-.06(3)(b)(3)(vi)	**Description of all sampling and analysis procedures used including:**	Y	Section 3.0
391- 3-19-.06(3)(b)(3)(vi)(I)	**Procedures and timing for measuring groundwater elevations for each sampling event;**	Y	Section 3.1
391- 3-19-.06(3)(b)(3)(vi)(II)	**Well evacuation procedures including well volume evacuated prior to sampling;**	Y	Section 3.2
391- 3-19-.06(3)(b)(3)(vi)(III)	**Sample withdrawal techniques, sampling equipment and materials;**	Y	Section 3.2
391- 3-19-.06(3)(b)(3)(vi)(IV)	**Sample handling and preservation techniques;**	Y	Section 3.3
391- 3-19-.06(3)(b)(3)(vi)(V)	**Equipment decontamination procedures;**	Y	Section 3.5
391- 3-19-.06(3)(b)(3)(vi)(VI)	**Chain-of-custody procedures;**	Y	Section 3.3
391- 3-19-.06(3)(b)(3)(vi)(VII)	**Lab techniques including references to analytical methods, including QA/QC procedures;**	Y	Section 3.4 Table 1
391- 3-19-.06(3)(b)(3)(vii)	**Description of procedures used to determine background groundwater concentrations;**	[-]	*Located in Historic CSR*
391- 3-19-.06(3)(b)(3)(viii)	**Map (minimum scale of 1" = 200') or less depicting the horizontal extent of contamination. Concentrations should be indicated by isoconcentration lines.**	Y	Figures 7-10
391- 3-19-.06(3)(b)(3)(ix)	**Map (minimum scale of 1" = 200') or less depicting the potentiometric surface of groundwater;**	Y	Figure 6
391- 3-19-.06(3)(b)(3)(x)	**Maps and vertical cross-sections of appropriate scale depicting concentrations for all contaminants superimposed upon site stratigraphic features and monitoring wells; and**	Y	Figures 4-10
391- 3-19-.06(3)(b)(3)(xi)	**Narrative and tabular summary of all pertinent field data and the results of all final lab analyses that are supported by sufficient**	Y	Section 4.3 Table 3

RULE SECTION	DESCRIPTION OF REQUIREMENT	Y or Ξ	Location in CSR (i.e. pg.)
	QA/QC control data to validate the results.		
ADDITIONAL REQUIREMENTS			
391- 3-19-.06(3)(b)(4)	**A description of any human or environmental receptors who may have been or could potentially be exposed to a release at the site.**	[Y]	Section 4.4
391- 3-19-.06(3)(b)(5)	**A description of all properties which are part of the site including the address and location of such property, its legal description, and the property owner=s name, address and telephone number.**	[Y]	Section 1.2 Appendix B
391- 3-19-.06(3)(b)(6)	**The name, address, and telephone number of any other person who may be a responsible party for the site and a description of the type and amount of regulated substances such party may have contributed to a release.**	[Y]	Section 1.2 Section 2.1
391- 3-19-.06(3)(b)(7)	**A summary of previous actions taken to eliminate, control or minimize any potential risk at the site, including actions taken to comply with the risk reduction standards.**	[Y]	Section 2.1
391- 3-19-.06(3)(b)(10)	**Attached to the front of the CSR, concise statement of the findings of the report presented in plain language, immediately followed by the certification required by 391-3-19-.06(4)(a).**	[Y]	Executive Summary
391-3-19-.06(4)(a)	**The CSR shall include a compliance certification regarding the responsible party=s own determination as to the status of a site or any individual property at a site with regard to the applicable risk reduction standards for all regulated substances evaluated by the CSR.**	[Y]	CSR Certification
391-3-19-.06(4)(b)	**The CSR certification shall be signed by the applicable person described in Items 1 - 4 of .03(6)(c). Where the CSR is submitted for two or more cooperating responsible parties, the certification may be signed by a duly authorized representative of said responsible parties.**	[Y]	CSR Certification
391-3-19-.06(4)(c)	**Any person signing the certification of compliance shall make the certification specified in the Rules.**	[Y]	CSR Certification

RULE SECTION	DESCRIPTION OF REQUIREMENT	Y or Ξ	Location in CSR (i.e. pg.)
391- 3-19-.06(5)(a)	**Within 7 days of submitting the CSR, RP shall publish a notice in both a major local newspaper of general circulation and the legal organ of the local governments in whose jurisdiction the site is located, announcing that such a report is available for inspection by the general public, including:**	[Y]	Public Notice
391- 3-19-.06(5)(a)(1)	**The name, address, and location of the site as it appears on the HSI, and, if the plan applies to less that the full site, the street address and owner=s name of the applicable properties;**	[Y]	Section 1.2
391- 3-19-.06(5)(a)(2)	**The statement provided in this section;**	[Y]	Public Notice
391- 3-19-.06(5)(a)(3)	**Announcement of a 30-day comment period and the name, address, and phone number of the EPD contact person to whom written or oral comments can be made;**	[Y]	Public Notice
391- 3-19-.06(5)(a)(4)	**Name, address, and phone number of the RP or its designated contact person; and**	[Y]	Public Notice
391- 3-19-.06(5)(a)(5)	**Location where the report may be viewed or copied.**	[Y]	Public Notice
391- 3-19-.06(5)(e)	**Within 7 days of submitting the CSR to EPD, the RP shall provide to the count government in the county in which the site is located and to the government of any city in whose jurisdiction the site is located the same information required above.**	[Y]	Public Notice
391-3-19-.07(4)	**For corrective action to be in compliance with these standards, the following common elements are required:**	[Y]	Public Notice
391-3-19-.07(4)(a)	**Removal of all free product to the extent practicable.**	[-]	
391-3-19-.07(4)(b)	**No soil remaining in place shall exhibit the hazardous waste characteristics of ignitability, corrosivity, or reactivity.**	[Y]	*Located in Historic CSR*
391-3-19-.07(4)(c)	**Shall not allow exposure to concentrations which would cause food chain contamination, damage to soils or to biota which could impair the use of the soils for agricultural or silvicultural purposed, adverse effects on vegetation or wildlife, or the accumulation of vapors in**	[Y]	Section 4.3

RULE SECTION	DESCRIPTION OF REQUIREMENT	Y or Ξ	Location in CSR (i.e. pg.)
	buildings or other structures which pose a threat to human health and the environment.		
391-3-19-.07(4)(d)	**Shall protect the waters of the State from releases that would cause surface water to exceed the Georgia in-stream water quality standards.**	[Y]	Section 4.3.1
391-3-19-.07(4)(e)	**If the detection limit and/or the background concentration for a regulated substance is greater than the concentration specified in any risk reduction standard, the greater of the detection limit or background shall be used for determining compliance with the risk reduction standards.**	[-]	

_____ Groundwater work certified by a geologist, etc.

_____ Corrective Action Plan included.

Additional Notes:

Appendix B

Warranty Deed and Tax Plat

BOOK PG
0816 0037

GEORGIA, COLQUITT COUNTY
CLERK'S OFFICE, SUPERIOR COURT
RECORDED IN BOOK 816 FOLIO 37-39
ON 26th DAY OF March, 2004
Margie Skinner DEPUTY CLERK

FILED
CLERK OF SUPERIOR COURT
COLQUITT COUNTY, GA
2004 MAR 26 PM 4:52
CAROLYN M. BRAZEL, CLERK

RTD 2

NTD

SPACE ABOVE THIS LINE IS FOR RECORDING DATA

After Recording, Return To:
FALLIN & McINTOSH
P.O. Box 250
Moultrie, GA 31776
229-985-5881

LIMITED WARRANTY DEED AND BILL OF SALE

GEORGIA, COLQUITT COUNTY NTD

THIS INDENTURE, made this 26th day of **March, 2004**, between **G. B. A. ASSOCIATES, LLC**, a Georgia corporation (hereinafter referred to as "Grantor") , and **JOINT DEVELOPMENT AUTHORITY OF BROOKS, COLQUITT, GRADY, MITCHELL AND THOMAS COUNTIES**, a public body corporate and politic of the State of Georgia (hereinafter referred to as "Grantee").

WITNESSETH:

FOR AND IN CONSIDERATION of the sum of **Ten and 00/100 ($10.00) Dollars** in hand paid at and before the execution, sealing and delivery hereof, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor has granted, bargained, sold, aliened, conveyed and confirmed, and by these presents does grant, bargain, sell, alien, convey and confirm unto Grantee, its successors and assigns, all that tract(s) or parcel(s) of land lying and being in Mitchell County, Georgia, and being more particularly described on Exhibit "A", attached hereto and incorporated herein by this reference (the "Property").

GRANTOR SHALL warrant and forever defend the right and title to said tract or parcel of land unto Grantee, and the successors, legal representatives and assigns of Grantee, against the claims of all persons claiming, owning or holding by, through or under Grantor, except for claims arising under or by virtue of the Permitted Exceptions.

GRANTEE, for the benefit of itself and its successors and assigns, accepts the Property AS IS, WHERE IS, with all faults related to its environmental condition and shall forever discharge and release the Grantor from all causes of action and claims under any environmental, health or safety law, rule, regulation, ordinance or common law theory, including, without limitation, any cause of action for contribution or

otherwise under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Sec. 9601, et. seq., arising out of or resulting from the environmental condition of the Property.

GRANTOR also hereby sells, conveys and sets over unto Grantee, in "as is condition" and without warranty, all of its right, title and interest in and to all fixtures, trade fixtures, equipment and tangible personal property located on the Property on the date hereof.

IN WITNESS WHEREOF, the undersigned officers of Grantor have executed this instrument in the name of and on behalf of Grantor, under seal, on the day and year first above written.

Signed, sealed and delivered
in the presence of:

Unofficial Witness

Linda T. Gay
Notary Public

(OFFICIAL SEAL)
NOTARY PUBLIC, GEORGIA
LINDA T. GAY
COUNTY OF COLQUITT
My Commission Expires Sept 26, 2004

GRANTOR:

G. B. A. ASSOCIATES, LLC

By: _____
K. GREGORY ISAACS, Manager

By: _____
DANIEL L. DUNN, Manager

EXHIBIT "A"

All that tract or parcel of land situate, lying ad being in Land Lot 400 in the Eighth (8th) Land District in Colquitt County, Georgia, being 28.03 acres as shown by that plat dated January 30, 2004, designated as "Plat of Survey for G.B.A. Associates, LLC", and recorded in Plat Book 37, Page 182-A, Colquitt County Records; the property being more specifically described as follows:

To locate the point of beginning commence at the Northwest corner of Land Lot 400 and run thence along the North line of the Land Lot North 89 degrees 55 minutes 00 seconds East a distance of 2401.87 feet to a point; run thence South 09 degrees 48 minutes 00 seconds West a distance of 367.19 feet to a point; run thence South 14 degrees 28 minutes 02 seconds West an arc length distance of 458.58 feet (a chord distance of 458.07 feet with a radius of 2814.79 feet) to a point; run thence South 33 degrees 01 minute 02 seconds West a distance of 271.98 feet to a point; run thence South 33 degrees 43 minutes 49 seconds West a distance of 186.74 feet to a point; run thence South 33 degrees 29 minutes 14 seconds West a distance of 313.11 feet to a point on the Northwesterly margin of the right of way of U. S. Highway 319 (State Route 35), this being the point of beginning; run thence South 33 degrees 29 minutes 14 seconds West along the Northwesterly margin of the right of way of U. S. Highway 319 a distance of 817.61 feet to a point; continue thence South 32 degrees 18 minutes 59 seconds West along the Northwesterly margin of the right of way of U. S. Highway 319 a distance of 10.80 feet to a point; run thence North 54 degrees 53 minutes 01 seconds West a distance of 53.73 feet to a point; run thence North 45 degrees 56 minutes 07 seconds West a distance of 138.51 feet to a point; run thence North 56 degrees 25 minutes 19 seconds West a distance of 207.63 feet to a point; run thence North 77 degrees 18 minutes 24 seconds West an arc length distance of 238.01 feet (a chord distance of 232.78 feet with a radius of 326.48 feet) to a point; run thence South 81 degrees 48 minutes 31 seconds West a distance of 281.65 feet to a point; run thence North 08 degrees 18 minutes 07 seconds West a distance of 906.97 feet to a point; run thence North 81 degrees 41 minutes 53 seconds East a distance of 870.82 feet to a point; run thence South 61 degrees 14 minutes 16 seconds East a distance of 533.03 feet to a point; run thence South 13 degrees 52 minutes 31 seconds East a distance of 338.68 feet to a point on the Northwesterly margin of the right of way of U. S. Highway 319, this being the point of beginning.



N

Property Boundary

Land Use of Abutting Parcels

Industrial (M052 XXX)

Commercial (M052 XXX)

Residential (C039A XXX)

Tax Parcel Map

Former Miller Brewing
Canning Faility
Moultrie, GA

0 250 500 1,000 Feet

10/9/2014
49924

O'BRIEN & GERE

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

PLOTDATE: 10/09/14 12:52:51 PM garrets

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Appendix C

Historical Groundwater Analytical Results

APPENDIX C
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS	Type 4 RRS [1]	Downgradient												Downgradient						
					CH2MW-1												CH2MW-1A						
					5/29/1998	4/29/2002	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/24/2007	12/8/2008	12/16/2009	12/8/2010	12/7/2011	12/10/2012	6/4/1998	4/29/2002	4/7/2004	4/28/2005	10/26/2005	4/18/2006	4/18/2007
Acetone	67-64-1	mg/L	4		-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.01	< 0.010	-		< 0.01	< 0.01	**0.031**	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.01	< 0.010	-	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		-		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	-		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0	1.23	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.001	-	**0.0015**	**0.0013**	< 0.001	**0.00059**	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.00284**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[1]	1.02	**0.00107**	**0.003**	**0.0013**	**0.0011**	**0.0011**	**0.00052**	< 0.0005	< 0.0005	< 0.0005	< 0.0025	**0.00059**	< 0.0005	< 0.00050	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07	0.92	-	**0.003**	-	-	-	-	-	-	-	-	-	-	-	-	< 0.0005	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.25	< 0.050	< 0.050	< 0.050	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0		-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005
Naphthalene	91-20-3	mg/L	0.02		-	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001	0.01	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005	< 0.001	**0.0012**	**0.0039**	**0.0041**	**0.0044**	**0.00202**	**0.00176**	**0.00082**	**0.0012**	< 0.0025	**0.0023**	**0.00069**	**0.00098**	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.00		-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001

Notes:

(1) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument
calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

\- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX C
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS	Type 4 RRS [1]	Upgradient											
					CH2MW-2											
					5/29/1998	6/4/1998	8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2006 DUP1	4/18/2007	4/18/2007 DUP-02
Acetone	67-64-1	mg/L	4		-	-	**0.003**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0	1.23	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0001	< 0.001	< 0.0001	< 0.0001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07	0.92	-	-	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	-	**0.0007**	**0.0006**	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0		-	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001	0.01	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.00		-	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001

Notes:
(1) Type 4 RRS calculated for compounds exceeding Type 1 RRS
Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
mg/L Milligram per liter
NA Not Available
- Not Analyzed
Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX C
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS	Type 4 RRS [1]	Upgradient																
					CH2MW-3																
					5/29/1998	6/4/1998	8/23/2000	11/9/2000	11/9/2000 DUP	1/24/2001	4/6/2004	4/27/2005	4/27/2005 DUP2	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010	12/7/2011	12/10/2012
Acetone	67-64-1	mg/L	4		-	-	< 0.003	< 0.003	**0.003**	**0.003**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010
Benzene	71-43-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		-	-	**0.0007**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloroethane	75-00-3	mg/L	0	1.23	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloromethane	74-87-3	mg/L	0		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.0005	**0.0006**	**0.0005**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	< 0.001	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07	0.92	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	-	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0		-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.0005	**0.002**	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Toluene	108-88-3	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001	0.01	-	-	< 0.0005	**0.001**	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.0005	**0.0007**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	**< 0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.00		-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Xylenes (total)	1330-20-7	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050

Notes:

(1) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

\- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX C
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS	Type 4 RRS [1]	Cross Gradient CH2MW-4D														Cross Gradient CH2MW-5							
					8/6/1998	8/23/2000	11/9/2000	1/25/2001	4/8/2004	4/26/2005	4/26/2005 DUP1	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009	12/8/2010	12/8/2010 DUP-1	12/7/2011	12/4/2012	8/5/1998	4/7/2004	4/27/2005	10/26/2005	10/26/2005 DUP 2	4/20/2006	4/20/2006 DUP2	4/17/2007
Acetone	67-64-1	mg/L	4		-	**0.007**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Chloroethane	75-00-3	mg/L	0	1.23	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	< 0.005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07	0.92	-	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.1	< 0.1	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	**0.0008**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0		-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	-	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005
Naphthalene	91-20-3	mg/L	0.02		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Toluene	108-88-3	mg/L	1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	**0.00071**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001	0.01	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	**< 0.0005**
Trichlorofluoromethane	75-69-4	mg/L	2		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.00		-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Notes:
(1) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument
calibration range for the analysis
D- Dilution analysis result
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX C
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS	Type 4 RRS [1]	In Plume															
					ETCMW-113															
					1/21/1994	11/3/1994	3/31/1995	5/27/1998	9/7/2000	11/9/2000	1/25/2001	4/6/2004	4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010	12/7/2011	12/4/2012
Acetone	67-64-1	mg/L	4		< 0.100	< 0.001	< 0.050	-	**0.007**	**0.026**	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.235 D**	**0.448 D**	**0.038**	< 0.01	< 0.01	**0.028**	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.100	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.191 D**	**0.380 D**	**0.014**	< 0.01	< 0.01	< 0.01	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.005	< 0.001	-	**0.0006**	< 0.005	**0.002**	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	**0.0016**	**0.00052**	**0.00092**	**0.00069**	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		< 0.100	< 0.005	< 0.005	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0056 D**	< 0.001	< 0.0005	**0.00810 D**	< 0.005	**0.00072**	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloroethane	75-00-3	mg/L	0	1.23	< 0.010	< 0.001	< 0.001	-	**0.001**	< 0.005	**0.002**	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	**0.0057**	< 0.0005	**0.0024**	< 0.0005	< 0.00050
Chloromethane	74-87-3	mg/L	0		< 0.005	< 0.010	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.010	-	-	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005		< 0.005	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.063**	**0.035**	**0.026**	**0.01006**	**0.056 D**	**0.024**	**0.036 D**	**0.022**	**0.018 D**	**0.011**	**0.00884**	**0.0173 D**	**0.0117 D**	**0.0089**	**0.0069**	**0.019**	**0.020**	**0.0099**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.005	< 0.001	-	**0.0008**	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.017**	< 0.005	**0.003**	**0.00244**	**0.027 E**	< 0.005	**0.020 D**	**0.007**	**0.0051 D**	**0.003**	**0.00274**	**0.0083 D**	< 0.005	**0.0055**	**0.0032**	**0.0042**	**0.0085**	**0.0037**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	-	**0.017**	**0.022**	**0.02213**	-	-	**0.100 D**	**0.066 D**	**0.091 D**	**0.058**	**0.0554 D**	**0.178 D**	**0.147 D**	**0.200**	**0.120**	**0.280**	**0.300**	**0.15**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	< 0.001	-	-	-	0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	**0.00058**	< 0.0005	< 0.00050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07	0.92	-	-	-	-	< 0.0005	< 0.005	**0.110 D**	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.100	-	-	-	-	-	-	< 0.050	< 0.200	< 0.1	< 0.050	**1.45 D**	< 0.5	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.005	< 0.001	-	**0.002**	< 0.005	**0.0006**	< 0.002	< 0.0008	< 0.002	< 0.002	< 0.02	< 0.02	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0		< 0.050	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.005	< 0.02	< 0.01	< 0.005	< 0.050	< 0.05	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.05	< 0.005	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005	**0.028**	**0.014**	**0.0084**	**0.00649**	**0.044 D**	**0.013**	**0.035 E**	**0.016**	**0.0078 D**	**0.0061**	**0.00361**	**0.00640 D**	< 0.005	< 0.0005	**0.00053**	**0.0022**	< 0.0005	< 0.00050
Toluene	108-88-3	mg/L	1		< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001	0.01	-	-	< 0.002	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.003	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.005	< 0.004	< 0.001	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005	**0.290**	**0.062**	< 0.005	**0.06938**	**0.530 D**	**0.150**	**0.240 D**	**0.16 D**	**0.056 D**	**0.059**	**0.0246**	**0.0406 D**	< 0.0005	**0.0025**	**0.0028**	**0.0035**	**0.0016**	**0.00098**
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.006	-	**0.0009**	< 0.005	**0.001**	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.010	< 0.01	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.005	-	< 0.007	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.00		< 0.100	< 0.005	< 0.008	-	-	-	-	< 0.002	< 0.0008	< 0.005	< 0.002	< 0.0200	< 0.020	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002	< 0.001	< 0.001	< 0.009	**0.00137**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.010	< 0.01	**0.0092**	**0.006**	**0.0068**	**0.027**	**0.0066**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.005	< 0.010	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.010	< 0.01	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050

Notes:

(1) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX C
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS	Type 4 RRS [1]	In Plume																									
					ETCMW-114																									
					1/21/1994	1/21/1994 DUP	11/3/1994	11/3/1994 DUP	3/31/1995	3/31/1995 DUP	5/27/1998	8/23/2000	11/10/2000	1/24/2001	1/24/2001 DUP	4/29/2002	4/29/2002 DUP	4/7/2004	4/7/2004 DUP	4/28/2005	10/27/2005	4/20/2006	4/17/2007	4/17/2007 DUP-01	10/24/2007	10/24/2007 DUP-02	12/10/2008	12/16/2009	12/9/2010	12/9/2010 DUP-2	12/5/2011	12/3/2012
Acetone	67-64-1	mg/L	4		**3.300**	**2.300**	**0.060**	< 0.010	< 5	< 5	-	**1.8**	< 0.089	< 0.003	< 0.003	-	-	< 0.001	< 0.01	< 0.1	< 0.5	< 0.1	< 0.50	<2	< 0.01	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1	< 0.01	< 0.100
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	**2.600**	**1.500**	**0.030**	**0.020**	< 5	< 5	-	**3.9**	< 0.089	< 0.003	< 0.003	< 0.003	< 0.003	< 0.001	< 0.01	< 0.1	< 0.5	< 0.1	< 0.50	<2	< 0.01	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1	< 0.01	< 0.100
Benzene	71-43-2	mg/L	0.005		**0.0075**	**0.018**	**0.011**	**0.008**	< 0.10	< 0.10	-	< 0.042	< 0.018	**0.003**	**0.003**	-	-	**0.0016**	**0.0017**	< 0.005	< 0.005	< 0.005	< 0.025	< 0.10	**0.00170**	**0.00165**	< 0.005	**0.0029**	< 0.005	< 0.005	**0.00096**	< 0.0050
Carbon Disulfide	75-15-0	mg/L	4		< 0.100	< 0.100	< 0.005	< 0.005	< 0.5	< 0.5	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0050
Chloroethane	75-00-3	mg/L	0	1.23	**0.410**	**1.300**	**1.2**	< 0.010	**0.930**	**1.200**	-	< 0.042	**0.120**	**0.061 E**	**0.062 E**	-	-	**0.0053**	**0.0053**	< 0.010	< 0.001	< 0.010	< 0.05	< 0.20	**0.0149**	**0.0143**	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0050
Chloromethane	74-87-3	mg/L	0		< 0.005	< 0.005	< 0.010	**1.100**	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.010	< 0.001	< 0.010	< 0.05	< 0.20	< 0.001	< 0.001	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.010	< 0.010	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	< 0.010	< 0.050	< 0.20	< 0.001	< 0.001	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005		< 0.0005	< 0.0005	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.690**	**1.200**	**0.710**	**0.580**	**0.400**	**0.450**	**0.09321**	**0.230**	**0.200**	**0.12 D**	**0.12 D**	-	-	**0.11 D**	**0.11 D**	**0.062 D**	**0.13**	**0.0839 D**	**0.102 D**	< 0.10	**0.0520 E**	**0.0505 E**	**0.045**	**0.033**	**0.055 D**	**0.052 D**	**0.043**	**0.034**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		**0.011**	**0.015**	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	**0.004**	**0.004**	-	-	**0.0029**	**0.0029**	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	**0.00082**	**0.00080**	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.019**	**0.110**	**0.570**	**0.260**	**0.310**	**0.330**	**0.20412**	**0.260**	**0.120**	**0.12 D**	**0.11 D**	**0.39 D**	**0.33 D**	**0.13 D**	**0.13 D**	**0.100 D**	**0.24**	**0.138 D**	< 0.025	< 0.10	**0.00691**	**0.00642**	**0.066**	**0.053**	**0.085 D**	**0.081 D**	**0.085**	**0.0070**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	-	-	**15**	**12**	**11**	**12**	**4.841**	-	-	**3.4 D**	**3.3 D**	**3.8 D**	**3.7 D**	**2.4 D**	**2.4 D**	**1.7 D**	**4.4**	**3.160 D**	**1.830 D**	**1.760 D**	**0.185 E**	**0.179 E**	**1.1**	**0.820**	**1.500 D**	**1.400 D**	**1.500 D**	**1.300**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	< 0.005	< 0.005	< 0.1	< 0.1	-	-	-	**0.004**	**0.003**	**0.009**	**0.007**	**0.0025**	**0.0025**	< 0.005	< 0.05	**0.0314 D**	< 0.025	< 0.10	**0.00331**	**0.00313**	< 0.005	**0.0014**	< 0.005	< 0.005	**0.0032**	< 0.0050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07	0.92	-	-	-	-	-	-	-	< 0.042	< 0.018	**3.1 D**	**3.1 D**	**3.9 D**	**3.8 D**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		**0.0085**	**0.020**	**0.007**	**0.005**	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		**0.310**	**0.330**	-	-	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050	< 0.500	< 5	< 0.5	<2.5	<10	< 0.050	< 0.050	< 0.5	< 0.050	< 0.5	< 0.5	< 0.05	< 0.500
Methylene Chloride	75-09-2	mg/L	0.005		**0.0088**	**0.0052**	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	**0.001**	**0.003**	-	-	< 0.002	< 0.002	< 0.020	< 0.1	< 0.0200	< 0.10	< 0.40	< 0.002	< 0.002	-	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0		**0.077**	**0.080**	**0.018**	**0.015**	< 5	< 5	-	< 0.210	< 0.089	< 0.003	< 0.003	-	-	< 0.005	< 0.005	< 0.05	< 0.5	< 0.050	< 0.25	< 1.0	< 0.005	< 0.005	-	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.01	< 0.05	< 0.010	< 0.05	< 0.2	< 0.001	< 0.001	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.001	< 0.001	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.1	< 0.0005	< 0.0005	-	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005	**0.039**	**0.120**	**0.013**	**0.012**	< 0.100	< 0.100	**0.03293**	**0.140**	**0.036**	**0.039 E**	**0.039 E**	-	-	**0.11 D**	**0.12 D**	**0.074 D**	**0.13**	**0.101 D**	< 0.025	< 0.10	< 0.0005	< 0.0005	**0.006**	**0.0092**	**0.021 D**	**0.020 D**	**0.026**	**0.024**
Toluene	108-88-3	mg/L	1		**0.072**	**0.150**	**0.057**	**0.049**	< 0.100	< 0.1 00	-	< 0.042	< 0.018	**0.008**	**0.008**	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	**0.00222**	**0.00202**	< 0.005	**0.00099**	< 0.005	< 0.005	< 0.0005	< 0.0050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001	0.01	-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	< 0.010	< 0.025	< 0.10	< 0.001	< 0.001	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	< 0.01	< 0.050	< 0.20	< 0.001	< 0.001	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		**0.041**	**0.170**	< 0.005	< 0.005	< 0.100	< 0.100	< 0.001	< 0.042	< 0.018	**0.002**	**0.002**	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005	**0.420**	**0.670**	**0.14**	**0.120**	**0.400**	**0.440**	**0.662**	**3.100 D**	**0.740**	**0.82 D**	**0.79 D**	**4.5 D**	**4.0 D**	**1.6 D**	**1.7 D**	**1.0 D**	**2.2**	**1.480 D**	< 0.025	< 0.10	**0.00897**	**0.00823**	**0.44**	**0.34**	**0.520 D**	**0.500 D**	**0.590 D**	**0.450**
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.010	< 0.05	< 0.010	< 0.05	< 0.001	< 0.001	< 0.001	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0057	< 0.0058	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.00		**3.800**	**3.600**	< 0.005	< 0.010	< 1.000	< 1.0	-	-	-	-	-	-	-	< 0.002	< 0.002	< 0.020	< 0.1	< 0.0200	< 0.10	< 0.40	< 0.002	< 0.002	-	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002	< 0.001	< 0.001	< 0.01	< 0.01	< 0.100	< 0.100	**0.01956**	< 0.042	< 0.018	**0.001**	**0.001**	-	-	< 0.001	< 0.001	< 0.010	**0.026**	**0.0236 D**	**3.740 D**	**3.550 D**	**.524 E**	**0.547 E**	< 0.005	**0.0052**	**0.047 D**	**0.040 D**	**0.0033**	< 0.0050
Xylenes (total)	1330-20-7	mg/L	0.01		**0.045**	**0.095**	**0.024**	**0.020**	< 0.300	< 0.300	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.010	< 0.05	< 0.20	**0.00169**	**0.00165**	< 0.005	**0.00057**	< 0.005	< 0.005	< 0.0005	< 0.0050

Notes:

(1) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

\- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX C
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS	Type 4 RRS [1]	In Plume												In Plume											
					CH2MW-114D												ETCMW-115											
					6/4/1998	4/7/2004	4/28/2005	10/26/2005	4/20/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/8/2010	12/7/2011	12/10/2012	11/3/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008	12/16/2009	12/8/2010	12/7/2011	12/6/2012
Acetone	67-64-1	mg/L	4		-	< 0.01	**0.190 D**	**0.52**	< 0.01	< 0.1	**0.123 E**	< 0.010	**0.53**	**0.390**	**0.410**	**0.340**	< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	< 0.025	< 0.025	< 0.010	< 0.010	< 0.010	**0.012**	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	< 0.01	**0.430 D**	< 0.1	< 0.01	< 0.1	**0.0442**	**0.063**	< 0.01	**0.120**	**0.096**	< 0.100	< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	< 0.025	< 0.025	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzene	71-43-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050	< 0.005	< 0.001	< 0.0005	**0.00062**	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	**0.00074**	**0.00076**	**0.0015**	< 0.0005	< 0.0050	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloroethane	75-00-3	mg/L	0	1.23	-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050	< 0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloromethane	74-87-3	mg/L	0		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.0018**	**0.0077**	**0.00830 D**	< 0.01	< 0.001	< 0.005	**0.00249**	**0.0007**	**0.00098**	**0.0012**	**0.00078**	< 0.0050	**0.042**	**0.025**	**0.0064**	**0.0063**	**0.0076**	**0.00367**	**0.00848 D**	**0.00308 D**	**0.00087**	**0.0011**	**0.0039**	**0.0038**	**0.0034**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.005 J	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0046**	**0.0053**	**0.0060 D**	< 0.01	< 0.001	**0.00580 D**	**0.00395**	**0.0051**	**0.0081**	**0.013**	**0.012**	**0.013**	< 0.005	< 0.001	< 0.0005	< 0.0025	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.0161**	**0.088 D**	**0.120 D**	**0.097**	< 0.001	**0.204 D**	**0.146 E**	**0.120**	**0.280**	**0.400**	**0.400 D**	**0.400**	**0.210**	**0.120**	**0.086 D**	**0.041 D**	**0.094**	**0.0346**	**0.120 D**	**0.0318 D**	**0.0078**	**0.011**	**0.040**	**0.046 D**	**0.042**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	**0.00076**	**0.00051**	< 0.0050	< 0.005	< 0.001	< 0.0005	**0.00067**	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	< 0.050	< 0.500	< 1	< 0.1	< 0.005	**0.622 E**	**1.300**	< 0.050	**0.079**	< 0.050	< 0.500	-	-	< 0.050	< 0.250	< 0.1	< 0.050	< 0.125	< 0.125	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	< 0.002	< 0.002	< 0.02	< 0.002	< 0.0200	< 0.002	-	-	-	-	-	< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	< 0.005	< 0.005	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0		-	< 0.005	< 0.005	< 0.1	< 0.01	< 0.050	< 0.005	-	-	-	-	-	< 0.01	< 0.50	< 0.005	< 0.005	< 0.01	< 0.005	< 0.0125	< 0.0125	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005	**0.011**	**0.010**	**0.0072 D**	< 0.01	< 0.001	**0.00530 D**	**0.00288**	**0.0042**	**0.0038**	**0.0046**	**0.00055**	< 0.0050	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Toluene	108-88-3	mg/L	1		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001	0.01	-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0025	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005	**0.105**	**0.200 D**	**0.230 D**	**0.240**	< 0.001	**0.135 D**	**0.056 E**	**0.140**	**0.087**	**0.076**	**0.025**	**0.0079**	**0.170**	**0.120**	**0.016**	**0.0057**	**0.0039**	**0.00901**	**0.0214 D**	**0.0079 D**	**0.0027**	**0.0032**	**0.0068**	**0.014 D**	**0.016**
Trichlorofluoromethane	75-69-4	mg/L	2		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.00		-	< 0.002	< 0.002	< 0.05	< 0.005	< 0.0200	< 0.002	-	-	-	-	-	< 0.005	< 0.010	< 0.002	< 0.002	< 0.005	< 0.002	< 0.005	< 0.005	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002	< 0.001	< 0.001	< 0.001	< 0.005 J	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	**0.00068**	**0.0025**	< 0.0050	< 0.001	< 0.001	**0.0015**	**0.025**	**0.014**	**0.00346**	**0.00915 D**	< 0.0025	**0.0011**	< 0.0005	**0.0010**	**0.0029**	**0.0022**
Xylenes (total)	1330-20-7	mg/L	0.01		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050	< 0.005	< 0.003	< 0.0005	**0.00061**	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050

Notes:

(1) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument
calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX C
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS	Type 4 RRS [1]	In Plume															
					ETMW-116															
					12/20/1994	3/31/1995	5/26/1998	8/23/2000	8/23/2000 DUP	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/16/2009	12/7/2010	12/6/2011	12/4/2012
Acetone	67-64-1	mg/L	4		< 0.010	< 0.25	-	**0.010**	**0.011**	**0.036 B**	< 0.003	< 0.01	**0.360 D**	**1.6**	**0.968 D**	**0.398 D**	< 0.05	**0.29**	< 0.01	< 0.01	< 0.01	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.25	-	< 0.003	< 0.003	< 0.025	< 0.003	< 0.01	**0.053 D**	**0.38**	**0.163 D**	< 0.1	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.025	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0037 D**	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloroethane	75-00-3	mg/L	0	1.23	< 0.010	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	**0.007**	**0.0088**	**0.0079**	**0.0049**	**0.0045**
Chloromethane	74-87-3	mg/L	0		< 0.010	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	**0.0007**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005		-	-	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.062**	**0.045**	**0.03585**	**0.045 D**	**0.039 D**	**0.012**	**0.012**	**0.018**	**0.023 D**	< 0.01	**0.00870 D**	**0.00910 D**	**0.00660 D**	**0.0065**	**0.0084**	**0.0099**	**0.0089**	**0.0080**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.005	-	**0.0007**	**0.0007**	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.005 J	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.008**	**0.012**	**0.01349**	**0.016**	**0.018**	< 0.005	**0.004**	**0.0055**	**0.0090 D**	< 0.007 J	**0.00540 D**	< 0.005	< 0.0025	< 0.0005	< 0.0005	**0.00082**	< 0.0005	< 0.00050
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.085**	**0.074**	**0.05735**	-	-	-	**0.026 D**	**0.039**	**0.100 D**	**0.18**	**0.221 D**	**0.0831 D**	< 0.0025	**0.011**	**0.0043**	**0.014**	**0.0026 D**	**0.0024**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	-	-	-	-	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07	0.92	-	-	-	< 0.0005	< 0.0005	< 0.005	**0.024**	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	-	-	< 0.050	**1.8**	**1.5**	< 0.5	< 0.005	< 0.25	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.005	-	**0.001**	**0.0009**	< 0.005	< 0.0005	< 0.002	< 0.001	< 0.002	< 0.005	< 0.0200	< 0.01	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0		< 0.010	< 0.25	-	< 0.003	< 0.003	< 0.025	< 0.003	< 0.005	< 0.025	< 0.1	< 0.05	< 0.050	< 0.025	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005	**0.034**	**0.022**	**0.018**	**0.024**	**0.022 D**	**0.007**	**0.005**	**0.011**	**0.012 D**	**0.0062 J**	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Toluene	108-88-3	mg/L	1		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	**0.0025**	< 0.0005	< 0.0005	**0.00065**	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001	0.01	-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005	**0.560**	**0.420**	**0.26512**	**0.420 D**	**0.350 D**	**0.130**	**0.100 D**	**0.15 D**	**0.170 D**	**0.12**	< 0.005	**0.0291 D**	< 0.0025	< 0.0005	< 0.0005	**0.0017**	< 0.0005	< 0.00050
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	**0.001**	**0.001**	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.00		< 0.010	< 0.050	-	-	-	-	-	< 0.002	< 0.01	< 0.05	< 0.020	< 0.020	< 0.01	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002	< 0.010	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.005 J	**0.0171 D**	**0.0581 D**	**0.0384 D**	**0.120**	**0.170**	**0.130**	**0.120**	**0.100**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.015	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.01	< 0.010	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050

Notes:

(1) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

\- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX C
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS	Type 4 RRS [1]	In Plume																
					ETMW-117																
					12/21/1994	3/31/1995	8/23/2000	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/2008 DUP-2	12/15/2009	12/15/2009 DUP-2	12/8/2010	12/6/2011	12/4/2012
Acetone	67-64-1	mg/L	4		< 0.010	< 0.1	< 0.018	< 0.003	**0.003**	< 0.01	< 0.04	< 0.01	< 0.01	**2.090 D**	**0.513 ED**	**0.016**	**0.012**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.213 D**	**0.0785 D**	< 0.01	< 0.01	< 0.0005	< 0.01	< 0.01	< 0.01	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.002	< 0.004	**0.0008**	**0.002**	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	**0.0015**	**0.0017**	**0.0014**	**0.0013**	**0.0010**	**0.00069**	**0.00065**
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.010	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	**0.00054**	**0.0007**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloroethane	75-00-3	mg/L	0	1.23	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	**0.0027**	**0.0029**	< 0.0005	**0.003**	< 0.0005	**0.0011**	**0.002**
Chloromethane	74-87-3	mg/L	0		< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005		-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.012**	**0.025**	**0.017**	**0.017**	**0.008**	**0.0098**	**0.014 D**	**0.013**	**0.0105**	**0.00935 D**	**0.00825 D**	**0.0048**	**0.0056**	**0.0043**	**0.004**	**0.0066**	**0.0049**	**0.0061**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	**0.005**	< 0.004	**0.003**	**0.002**	**0.0022**	**0.0038 D**	**0.0026**	**0.00075**	**0.00305 D**	< 0.0025	< 0.0005	**0.0010**	< 0.0005	< 0.0005	**0.00078**	< 0.0005	**0.00056**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.014**	`	-	-	**0.016**	**0.02**	**0.030 D**	**0.03**	**0.0225**	**0.0315 D**	**0.0762 D**	**0.041**	**0.050**	**0.021**	**0.018**	**0.027**	**0.019**	**0.027**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.002	-	-	< 0.0005	< 0.0005	< 0.002	< 0.001	**0.00213**	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07	0.92	-	-	< 0.004	< 0.0005	**0.015**	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	< 0.050	< 0.2	< 0.1	< 0.050	**2.930 D**	< 0.25	< 0.0005	< 0.0005	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.002	< 0.004	**0.0006**	**0.002**	< 0.002	< 0.008	< 0.002	< 0.002	< 0.010	< 0.010	-	-	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0		< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.005	< 0.02	< 0.01	< 0.005	< 0.025	< 0.025	-	-	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005	< 0.005	**0.008**	**0.005**	**0.005**	**0.002**	**0.0032**	**0.0050 D**	**0.0042**	**0.00378**	**0.00435 D**	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Toluene	108-88-3	mg/L	1		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001	0.01	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005	**0.130**	**0.210**	**0.120**	**0.070**	**0.050 D**	**0.064 D**	**0.094 D**	**0.098**	**0.079 D**	**0.0744 D**	**0.0302 D**	**0.00056**	**0.00066**	< 0.0005	< 0.0005	**0.0017**	< 0.0005	< 0.00050
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.00		< 0.010	< 0.020	-	-	-	< 0.002	< 0.008	< 0.005	< 0.002	< 0.010	< 0.010	-	-	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	**0.024**	**0.025**	**0.044**	**0.050**	**0.045**	**0.047**	**0.042**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.006	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050

Notes:

(1) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

\- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX C
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS	Type 4 RRS [1]	In Plume														
					ETMW-118														
					12/20/1994	3/31/1995	5/26/1998	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	10/24/2007 DUP-01	12/9/2008	12/15/2009	12/9/2010	12/6/2011	12/6/2011 DUP-2	12/3/2012	12/3/2012 DUP-001
Acetone	67-64-1	mg/L	4		< 0.005	< 0.05	-	< 0.01	**0.021**	< 0.02	< 0.01	**0.192 D**	< 0.5	< 0.5	**0.37**	**0.56**	**0.37**	**0.066**	**0.065**	< 0.010	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.05	-	< 0.01	< 0.01	< 0.02	< 0.01	< 0.050	< 0.5	< 0.5	**0.26**	**0.49**	**0.22**	**0.031**	**0.028**	< 0.010	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	-	< 0.0005	**0.00079**	< 0.002	< 0.0005	**0.00370 D**	< 0.025	< 0.025	**0.0028**	**0.0012**	**0.0010**	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Chloroethane	75-00-3	mg/L	0	1.23	< 0.005	< 0.001	-	< 0.001	< 0.001	**0.0038**	**0.00437**	< 0.005	< 0.05	< 0.05	**0.0032**	**0.0019**	**0.0013**	**0.00071**	< 0.0005	**0.0011**	**0.0016**
Chloromethane	74-87-3	mg/L	0		< 0.010	< 0.001	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005		-	-	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.014**	**0.021**	**0.01884**	**0.0033**	**0.014**	**0.011**	**0.00961**	**0.0139 D**	< 0.025	< 0.025	**0.014**	**0.012**	**0.0064**	**0.0065**	**0.0062**	**0.0054**	**0.0055**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	**0.0046**	**0.00292**	**0.00061**	**0.0037**	**0.0054**	**0.00489**	**0.00575 D**	< 0.025	< 0.025	**0.003**	**0.0024**	**0.00081**	< 0.0005	< 0.0005	< 0.00050	< 0.00050
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [1]	1.02	**0.012**	**0.023**	**0.01722**	**0.0057**	**0.120 D**	**0.13**	**0.127 D**	**0.117 D**	**0.108 D**	**0.111 D**	**0.088**	**0.096**	**0.050**	**0.0085**	**0.0080**	**0.0054**	**0.0053**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050	< 0.0050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	< 0.050	< 0.050	< 0.2	< 0.050	**25.6 DH**	**13.0 D**	**13.2 D**	**0.069**	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.002	< 0.002	< 0.004	< 0.002	< 0.010	< 0.100	< 0.100	-	-	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0		< 0.010	< 0.05	-	< 0.005	< 0.005	< 0.02	< 0.005	< 0.025	< 0.25	< 0.25	-	-	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005	< 0.010	**0.009**	**0.008**	**0.0019**	< 0.0005	**0.0032**	**0.00257**	**0.00460 D**	< 0.025	< 0.025	**0.0032**	**0.0015**	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001	0.01	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005	**0.069**	**0.110**	**0.08682**	**0.021**	**0.0031**	**0.049**	**0.0316**	**0.0489 D**	**0.0390 D**	**0.0400 D**	**0.037**	**0.018**	**0.002**	**0.00083**	**0.00069**	< 0.00050	< 0.00050
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.00		< 0.010	< 0.010	-	< 0.002	< 0.002	< 0.01	< 0.002	< 0.010	< 0.100	< 0.100	-	-	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002	< 0.010	< 0.001	< 0.001	< 0.001	**< 0.001**	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	**0.033**	**0.031**	**0.016**	**0.044**	**0.041**	**0.037**	**0.037**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.005	< 0.05	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050

Notes:

(1) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

\- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX C
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS	Type 4 RRS [1]	Cross Gradient															
					ETMW-119															
					12/20/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	10/25/2005 DUP 1	4/18/2006	4/17/2007	10/25/2007	12/9/2008	12/9/2008 DUP-1	12/14/2009	12/14/2009 DUP-1	12/9/2010	12/5/2011	12/4/2012	12/4/2012 DUP-002
Acetone	67-64-1	mg/L	4		< 0.005	< 0.050	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0212**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0998 DH**	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	< 0.010	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Chloroethane	75-00-3	mg/L	0	1.23	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Chloromethane	74-87-3	mg/L	0		< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005		-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[1]	1.02	< 0.05	**0.0016**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.00064**	< 0.0005	**0.00054**	**0.00053**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0		< 0.010	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001	0.01	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005	< 0.005	**0.0034**	< 0.0005	**0.00061**	< 0.001	< 0.001	**0.00053**	**0.00074**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.00		< 0.010	< 0.010	< 0.002	< 0.002	< 0.005	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050

Notes:

(1) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument
calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

\- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX C
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS	Type 4 RRS [1]	Cross Gradient														
					ETMW-120														
					12/20/1994	3/31/1995	5/26/1998	5/26/1998 DUP	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/23/2007	12/11/2008	12/14/2009	12/9/2010	12/5/2011	12/3/2012
Acetone	67-64-1	mg/L	4		< 0.005	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloroethane	75-00-3	mg/L	0	1.23	< 0.005	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloromethane	74-87-3	mg/L	0		< 0.010	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005		-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.001	**0.00184**	**0.00166**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	< 0.05	**0.0048**	**0.00543**	**0.00525**	**0.0011**	**0.0012**	**0.0052**	< 0.0005	**0.00135**	**0.00094**	**0.00056**	**0.00073**	**0.0032**	**0.0014**	**0.0018**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0		< 0.010	< 0.05	-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005	< 0.010	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001	0.01	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	**0.0018**	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005	< 0.005	**0.0017**	**0.00138**	**0.00128**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0021**	< 0.0005	< 0.00050
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.00		< 0.010	< 0.010	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002	< 0.010	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050

Notes:
(1) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX C
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS	Type 4 RRS [1]	Upgradient																	
					ETMW-121																	
					12/20/1994	3/31/1995	5/27/1998	8/23/2000	11/10/2000	1/24/2001	4/7/2004	4/28/2005	10/26/2005	4/19/2006	4/18/2007	10/23/2007	12/11/2008	12/14/2009	12/6/2010	12/6/2011	12/6/2011 DUP-1	12/10/2012
Acetone	67-64-1	mg/L	4		< 0.005	< 0.05	-	**0.009**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloroethane	75-00-3	mg/L	0	1.23	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloromethane	74-87-3	mg/L	0		< 0.010	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	< 0.05	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.00096**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07	0.92	-	-	-	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	-	**0.0009**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0		< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005	< 0.010	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001	0.01	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005	< 0.005	< 0.001	< 0.001	**0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.00		< 0.010	< 0.010	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002	< 0.010	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050

Notes:
(1) Type 4 RRS calculated for compounds exceeding Type 1 RRS
Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
mg/L Milligram per liter
NA Not Available
- Not Analyzed
Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX C
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS	Type 4 RRS [1]	Cross Gradient								Cross Gradient								
					OBGMW-122								OBGMW-123								
					8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	9/8/2000	11/9/2000	1/24/2001	4/29/2002	4/6/2004	4/6/2004 DUP	4/27/2005	10/25/2005	4/20/2006	4/18/2007
Acetone	67-64-1	mg/L	4		**0.016**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.003	< 0.003	< 0.003	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	**0.003**	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0	1.23	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.0005	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07	0.92	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		**0.001**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	**0.001**	< 0.0005	< 0.0005	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0		< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.003	< 0.003	< 0.003	-	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005
Naphthalene	91-20-3	mg/L	0.02		< 0.0005	**0.001**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001	0.01	< 0.0005	**0.002**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.0005	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.00		-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001

Notes:
(1) Type 4 RRS calculated for compounds exceeding Type 1 RRS
Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
mg/L Milligram per liter
NA Not Available
- Not Analyzed
Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX C
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS	Type 4 RRS [1]	Down Gradient					Cross Gradient											Upgradient		In Plume	
					OBGMW-124					CH2PP-1											CH2PP-2	CH2PP-3 [B]	Sump 1	Sump 2
					4/21/2004	4/27/2005	10/26/2005	4/20/2006	4/18/2007	6/30/1998	4/7/2004	4/26/2005	10/25/2005	4/19/2006	4/17/2007	10/24/2007	12/10/2008	12/15/2009	12/8/2010	12/10/2012	5/29/1998	(not sampled)	11/3/1994	11/3/1994
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	**0.021**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	-	-	**0.790**	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	-	-	**0.420**	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.005	< 0.005
Carbon Disulfide	75-15-0	mg/L	4		**0.00063**	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.005	< 0.005
Chloroethane	75-00-3	mg/L	0	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.010	< 0.010
Chloromethane	74-87-3	mg/L	0		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	**1.3**	< 0.010
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	**0.00057**	**0.00055**	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	**0.240**	< 0.005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.005	< 0.005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	**0.046**	< 0.005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [1]	1.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	**0.013**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	**1.5**	< 0.005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.005	< 0.005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	< 0.005	< 0.005
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	< 0.005	< 0.005
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0		< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	< 0.010	< 0.010
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	< 0.005	< 0.005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0021**	< 0.00050	< 0.001	-	**0.077**	< 0.005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	-	**0.018**	< 0.005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	**0.140**	< 0.005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0017**	< 0.00050	< 0.001	-	**0.250**	**0.016**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	-	-	-
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.00		< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	< 0.010	< 0.010
Vinyl Chloride	75-01-4	mg/L	0.002	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	< 0.010	< 0.010
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.005	< 0.005

Notes:

(1) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

\- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

Appendix D

Groundwater Modeling Evaluation and Summary

BACKGROUND

The former Miller Brewing Company Canning Facility (Site) in Moultrie, Georgia has been undergoing corrective action under the Georgia Hazardous Sites Response Act (HSRA). In September 1988, four underground storage tanks (USTs) at the Site were removed. These tanks consisted of two No. 2 fuel oil USTs, a waste oil UST, and a waste solvent UST. During removal, a release was discovered from a portion of piping that was connected to the waste solvent UST. In response to this release, a series of investigation and remediation activities have been performed.

In June 2004, a Compliance Status Report (CSR) was submitted to the Georgia Environmental Protection Division (GAEPD). The CSR identified chlorinated aliphatic hydrocarbons (CAHs) in the groundwater at a number of wells surrounding the former waste solvent tank piping. The CSR identified groundwater at concentrations in excess of the Type 1 and Type 4 RRS, extending approximately 80 feet downgradient of the source area. The CSR identified Site soil as meeting the Type 4 site-specific, non-residential property RRS.

Because groundwater at the Site did not meet the RRS, corrective action was implemented. As described in the Corrective Action Plan (CAP), there were two components to the groundwater corrective action. The first component was enhanced bioremediation through injection of a proprietary lactate formulation (ABC®) into the affected groundwater. The lactate formulation accelerates microbial activity, which in turn facilitates reductive dechlorination of the chlorinated ethenes. The goal of this injection was to reduce VOCs in the groundwater to below the Type 4 RRS. The injection events occurred in October 2004 and October 2006. During the second injection event, zero valent iron (ZVI) was added to the lactate solution in order to improve the efficacy by further enhancing reducing conditions.

The historical analytical results for the Site indicate that following the injection of lactate in 2004 and 2006, a reduction in contaminant concentrations was observed. In general, tetrachlorethene (PCE) and trichlorethene (TCE) concentrations decreased as concentrations of the daughter products of their degradation, cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride (VC) increased. This trend suggests that the lactate successfully increased the biodegradation of the chlorinated ethenes (Table 1). Furthermore, annual groundwater monitoring showed the migration of these constituents has been limited because of the low hydraulic conductivity of the soil.

In 2008, Miller began implementing Monitored Natural Attenuation (MNA) as the second component of the approved corrective action. Natural attenuation monitoring continued through December 2012.

SITE GEOLOGY

The Site geology consists of 1-3 ft of fill overlying clayey sand, sandy clay, and clay. Based on previous investigations, the clayey deposits are over 50 ft thick. Groundwater at the site is unconfined and encountered at depths ranging from approximately 1 foot to greater than 17 feet below surface (fbs). Hydraulic conductivity at the site is extremely low (1.4×10^{-7} cm/sec to 7.5×10^{-6} cm/sec). Because of the low hydraulic conductivity and limited recharge rates resulting from the impermeable cover provided by the building and paved areas, ground water flow at this Site is slow and irregular (Figure 1). In general, groundwater on the eastern portion of the facility flow to the east and groundwater on the western portion of the treatment area flows to the west. A table of measured Site groundwater elevations is included at Table 2.

MODELING APPROACH

In order to evaluate potential future plume migration, a steady state groundwater flow model and a transient solute transport model were developed. The groundwater flow model was developed to provide a representative flow system required to complete the solute transport simulations. Both models were developed based on the conceptual site model (CSM) for the Site. The CSM incorporates the following:

- The small size of the plume;

- The potential influence of utilities on plume development;
- The low hydraulic conductivity of the groundwater zone;
- The injection remedial efforts; and
- The overall apparent limited plume migration during the period of Site monitoring.

The United States Geological Survey (USGS) groundwater flow model code MODFLOW (Harbaugh et. al., 2000) was used to develop the groundwater flow model. The transport model RT3D (Clement, 2001) was used for the solute transport simulations. The Visual MODFLOW® modeling platform was employed for the modeling effort.

MODEL INPUTS AND ASSUMPTIONS

The groundwater flow and solute transport models were developed to provide a representation of the Site groundwater flow and transport processes. To the extent possible, Site data were used as the basis for the model input parameters. Where Site data were not available, input parameters consistent with the CSM were developed based on values available in professional literature. Some input parameters were later revised during the model calibration process based on evaluation of the calibration modeling results. The initial, pre-calibration, model input parameters are presented in Table 3 and Figures 2 through 6.

With regard to the solute transport modeling, CAH compounds were first documented in the groundwater in 1994. It is not known when the release occurred or the nature of the release. As noted above, lactate was injected into the subsurface in 2004 and 2006. These injections encouraged CAH degradation; however, some monitoring wells showed significant declines in CAH concentrations prior to 2004. Based on the results of the Site investigations, the distribution of CAH concentrations, and observed concentration declines, it was assumed that the Site CAH concentrations reflect a dissolved plume, and not a separate liquid phase.

MODEL CALIBRATION

The steady state flow model was calibrated to the average groundwater elevations between 1998 and 2008. Table 4 provides the target groundwater elevations and the simulated groundwater elevations from the calibrated model. This flow model calibration does not include upgradient wells CH2MW-2, CH2MW-3, and OGBMW-123, which were located to the south and west of the building (and were abandoned in 2008). The simulated heads in these wells are higher than observed and could not be reduced during the calibration effort. Since these wells are located upgradient and do not directly affect the area of plume migration, the removal of the wells from the calibration is not considered critical to the solute transport simulations.

During the flow model calibration process, hydraulic conductivity values were adjusted and boundary conditions of recharge and constant head cells were revised to adjust the model output to match the measured historical water levels. The calibrated hydraulic conductivities are K_1 = 0.006 ft/day and K_2 = 0.23 ft/day (Figure 3). The calibrated flow model included recharge of 0.022 in/yr. Constant head cells located to the south of the Site were set at an elevation of 278 ft. Constant head cells located to the north of the Site were set at an elevation of 275 ft.

The calibrated flow model statistics are:

- Residual Mean = -0.09
- Absolute Residual Mean = 0.458 ft
- Root Mean Squared = 0.583 ft
- Normalized RMS = 8.60%
- Correlation Coefficient = 0.949
- Mass Balance = 0.08%

Figure 7 presents the calibrated groundwater flow contours.

For solute transport model calibration, a 2,555 day simulation was completed to represent the time period 2004 to 2011. CAH degradation rates were adjusted to provide calibration of model outputs for TCE, cis-1,2-DCE, and VC to measured historical levels. Figure 8 and Table 5 present the results of the calibration simulation. Relatively good calibration was achieved (correlation coefficients for TCE, cis-1,2-DCE, and VC of 0.9998, 0.9721, and 0.9025, respectively). The calibrated biodegradation zone rates for TCE, cis-1,2-DCE, and VC are presented in Table 6 and the biodegradation zones are shown on Figure 6. These values are generally within the range of values reported in the professional literature for these CAHs.

The calibration of both the flow and solute transport model indicate that the Site model provides reasonable representations of groundwater flow and solute transport processes at the Site and can be used to evaluate the possible future CAH migration and concentrations at the Site.

SENSITIVITY EVALUATION

The groundwater flow and solute transport models were evaluated for input parameter sensitivity. For the flow model, hydraulic conductivity and recharge are sensitive parameters and are closely linked. Higher hydraulic conductivity requires higher recharge to calibrate to the target elevations. Conversely, a low hydraulic conductivity requires a low recharge rate. While there are no Site data to constrain the recharge rate, there are data to constrain the hydraulic conductivity values. In addition, the limited distribution of the plume and the general lack of migration observed since monitoring began in 1994 suggest that the hydraulic conductivity is low.

For the solute transport model hydraulic conductivity, effective porosity, longitudinal diffusivity, and CAH degradation are sensitive parameters. Hydraulic conductivity, effective porosity, and diffusivity all are directly related to solute transport and therefore will affect the solute transport results. A summary of the sensitivity evaluation is included in Attachment A. Degradation rates directly affect solute transport concentrations and therefore are sensitive input parameters. The degradation rates used in the model were calibrated based on plume concentration changes between 2004 and 2011. The Site data demonstrate that CAH degradation is occurring and it is reasonable to assume that it will continue to occur in the future. Since many Site wells show more significant concentration declines prior to 2004, calibration of the model to degradation rates between 2004 and 2011 may provide for less aggressive attenuation of the plume than was observed prior to 2004.

The Corrective Measures Study recognizes that the 2004 CAH plume dimensions may be partially the result of facilitated migration along Site utilities. Given the small plume area, potential heterogeneity caused by utilities, low volume of groundwater flow resulting from low Site hydraulic conductivity, and potential anthropologic affects from injections and sampling in low hydraulic conductivity materials, the groundwater flow and solute transport models have to be recognized as approximations with limited information to constrain the model.

FORWARD SIMULATIONS

The calibrations of both the flow and solute transport models indicate that the models provide a reasonable representation of groundwater flow and solute transport processes at the Site and that the models can be used to evaluate possible future CAH migration and concentrations at the Site. Solute transport simulations were performed for 60 years beyond 2011, to 2071, to evaluate plume migration and CAH concentrations. Attachment B presents time versus concentration plots for each monitoring well and a series of concentration maps in 5 year increments for TCE, cis-1,2-DCE, and vinyl chloride. The transport model simulations indicate that CAH concentrations in excess of the RRS standards will not migrate off Site. The following text provides a summary of the transport model results, by constituent.

TCE

Model simulations predict that concentrations of TCE, which was located predominately around the source area (ETCMW-114 and CH2MW-114D) in 2011 (Figure 9), will steadily decrease with time. Model simulations

indicate that in 2041, TCE concentrations will decrease to concentrations less than 0.100 mg/L (Figure 10). By 2071, only a small area of TCE will remain present around ETCMW-115 and concentrations of TCE across the Site will be below 0.010 mg/L, although this concentration remains above the Type 4 RRS of 0.005 mg/L (Figure 11).

Cis-1,2-DCE

Similar to TCE, model simulations of DCE concentrations show a steady decrease from the 2011 concentrations show in Figure 12. By 2041, the DCE plume, which had extended towards CH2MW-1 and CH2PP-1 in 2011, will be present in a much smaller area surrounding the source area (Figure 13). Extending the model simulations to 2071, only a small area of DCE will be present immediately north of the source area at concentrations below the Type 1/3 RRS (Figure 14).

VC

Because vinyl chloride is a daughter product of the degradation of DCE, model simulations indicate increasing concentrations of vinyl chloride as DCE degrades. Figure 15 presents the 2011 simulated vinyl chloride concentration distribution. By 2041 vinyl chloride concentrations have decreased (Figure 16), and simulations predict vinyl chloride will no longer be present in the groundwater by 2071.

Overall, modeling results show concentrations of TCE, DCE, and VC decrease during the period of time from2011 to 2071. Simulations show that across the Site, DCE is expected to decrease to concentrations below the Type 1/3 RRS and vinyl chloride is expected to no longer be detected by 2071. While model simulations show TCE is the only constituent with concentrations above the Type 1/3 RRS in 2071, it is only present in a small area surrounding ETCMW-115. Model output files are provided in Attachment C.

REFERENCES

Aziz, C.E., C.J. Newell, J.R. Gonzales, P. Haaz, T.P. Clement, and Y. Sun, 2000, Biochlor Natural Attenuation Decision Support System User's Manual, USEPA EPA/600/R-00/008.

Brady MM, and LA Kunkel, 2003, Practical Technique for Quantifying Drainage Porosity in Ground Water; in Ground Water: Prevention, Assessment, and Remediation, 20th Conference and Exposition, Costa Mesa, California, pp. 146-151.

Clement, TP, RT3D v2.5 A Modular Computer Code for Simulating Reactive Multispecies Transport in 3-Dimensional Groundwater Systems; Pacific Northwest National Laboratory, PNNL-SA-11720, 2001.

Harbaugh, A.W., E.R. Banta, M.C. Hill, and M.G. McDonald, 2000, MODFLOW-2000, the U.S. Geological Survey Modular Ground Water Model – User Guide to Modularization Concepts and the Ground-Water Flow Process: U.S. Geological Survey Open-File Report 00-92, 121p.

Tables

1- CAH Concentrations
2- Summary of Groundwater Elevations
3- Model Input Parameters
4- Flow Model Calibration Results
5- Transport Model Calibration Results
6- Calibrated Biodegradation Rates

Figures

1- Groundwater Elevation Contours
2- Model Area
3- Hydraulic Conductivities
4- 2004 TCE Concentration Prior to Injection

5- 2004 DCE Concentration Prior to Injection
6- Input Biodegradation Zones
7- Simulated Groundwater Flow Contours
8- Transport Model Calibration Results
9- TCE Concentration 2011 – Model Results
10- Projected TCE Concentration 2041
11- Projected TCE Concentration 2071
12- DCE Concentration 2011 – Model Results
13- Projected DCE Concentration 2041
14- Projected DCE Concentration 2071
15- VC Concentration 2011 – Model Results
16- Projected VC Concentration 2041

Attachments

A. Sensitivity Evaluation Output
B. Projected CAH Concentration Figures
C. Flow and Transport Model Output Files (on CD)

Tables

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS [1]	Type 4 RRS [2]	Downgradient CH2MW-1											
				5/29/1998	4/29/2002	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/24/2007	12/8/2008	12/16/2009	12/8/2010	12/7/2011
Acetone	67-64-1	4		-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	2	2.79	-	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.01
Benzene	71-43-2	0.005		-		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	4		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
Chloroethane	75-00-3	0.001	1.23	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0005	< 0.0005
Chloromethane	74-87-3	0.001		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
Dibromomethane	74-95-3	0.0005		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		< 0.001	-	**0.0015**	**0.0013**	< 0.001	**0.00059**	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	**0.00284**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	**0.00107**	**0.003**	**0.0013**	**0.0011**	**0.0011**	**0.00052**	< 0.0005	< 0.0005	< 0.0005	< 0.0025	**0.00059**	< 0.0005
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	**0.003**	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
Isobutyl Alcohol	78-83-1	10		-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.25	< 0.050	< 0.050
Methylene Chloride	75-09-2	0.005		-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-
Naphthalene	91-20-3	0.02		-	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
Toluene	108-88-3	1		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	0.07		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	< 0.001	**0.0012**	**0.0039**	**0.0041**	**0.0044**	**0.00202**	**0.00176**	**0.00082**	**0.0012**	< 0.0025	**0.0023**	**0.00069**
Trichlorofluoromethane	75-69-4	2		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	0.04		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
Vinyl Acetate	108-05-4	0.002		-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-
Vinyl Chloride	75-01-4	0.002	0.002	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	0.01		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.0005

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument
calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS [1]	Type 4 RRS [2]	Downgradient CH2MW-1A							Upgradient CH2MW-2											
				6/4/1998	4/29/2002	4/7/2004	4/28/2005	10/26/2005	4/18/2006	4/18/2007	5/29/1998	6/4/1998	8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2006 DUP1	4/18/2007	4/18/2007 DUP-02
Acetone	67-64-1	4		-		< 0.01	< 0.01	**0.031**	< 0.01	< 0.01	-	-	**0.003**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	2	2.79	-	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	0.005		-		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	4		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	0.001	1.23	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	0.001		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0001	< 0.001	< 0.0001	< 0.0001	< 0.001	< 0.001
Dibromomethane	74-95-3	0.0005		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	10		-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	-	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	0.005		-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	**0.0007**	**0.0006**	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	-	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005
Naphthalene	91-20-3	0.02		-	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	1		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	0.07		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	2		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	0.04		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	0.002		-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	-	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	< 0.002
Vinyl Chloride	75-01-4	0.002	0.002	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	0.01		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS (1)	Type 4 RRS (2)	Upgradient CH2MW-3 5/29/1998	6/4/1998	8/23/2000	11/9/2000	11/9/2000 DUP	1/24/2001	4/6/2004	4/27/2005	4/27/2005 DUP2	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010	12/7/2011
Acetone	67-64-1	4		-	-	< 0.003	< 0.003	**0.003**	**0.003**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	2	2.79	-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	4		-	-	**0.0007**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	0.001	1.23	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	0.001		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	-	-	< 0.0005	**0.0006**	**0.0005**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
Dibromomethane	74-95-3	0.0005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	< 0.001	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
Isobutyl Alcohol	78-83-1	10		-	-	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	0.005		-	-	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-
Naphthalene	91-20-3	0.02		-	-	< 0.0005	**0.002**	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	1		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	-	-	< 0.0005	**0.001**	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	0.07		-	-	< 0.0005	**0.0007**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	**< 0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	2		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	0.04		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
Vinyl Acetate	108-05-4	0.002		-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-
Vinyl Chloride	75-01-4	0.002	0.002	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	0.01		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument
calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS [1]	Type 4 RRS [2]	Cross Gradient CH2MW-4D														
				8/6/1998	8/23/2000	11/9/2000	1/25/2001	4/8/2004	4/26/2005	4/26/2005 DUP1	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009	12/8/2010	12/8/2010 DUP-1	12/7/2011
Acetone	67-64-1	4		-	**0.007**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	2	2.79	< 0.010	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	0.005		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	4		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	0.001	1.23	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	0.001		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
Dibromomethane	74-95-3	0.0005		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	< 0.005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Isobutyl Alcohol	78-83-1	10		-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	0.005		-	**0.0008**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-
Naphthalene	91-20-3	0.02		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	**0.00071**	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	0.07		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	2		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	0.04		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Vinyl Acetate	108-05-4	0.002		-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-
Vinyl Chloride	75-01-4	0.002	0.002	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	0.01		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

\- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS [1]	Type 4 RRS [2]	Cross Gradient							
				CH2MW-5							
				8/5/1998	4/7/2004	4/27/2005	10/26/2005	10/26/2005 DUP 2	4/20/2006	4/20/2006 DUP2	4/17/2007
Acetone	67-64-1	4		-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	2	2.79	< 0.010	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	0.005		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Carbon Disulfide	75-15-0	4		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Chloroethane	75-00-3	0.001	1.23	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	0.001		-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	0.0005		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Isobutyl Alcohol	78-83-1	10		-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.1	< 0.1	< 0.050
Methylene Chloride	75-09-2	0.005		-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		-	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005
Naphthalene	91-20-3	0.02		-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Toluene	108-88-3	1		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	0.07		-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	**< 0.0005**
Trichlorofluoromethane	75-69-4	2		-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	0.04		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Vinyl Acetate	108-05-4	0.002		-	< 0.002	< 0.002	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
Vinyl Chloride	75-01-4	0.002	0.002	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	0.01		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument
calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS [1]	Type 4 RRS [2]	In Plume ETCMW-113															
				1/21/1994	11/3/1994	3/31/1995	5/27/1998	9/7/2000	11/9/2000	1/25/2001	4/6/2004	4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010	12/7/2011
Acetone	67-64-1	4		< 0.100	< 0.001	< 0.050	-	**0.007**	**0.026**	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.235 D**	**0.448 D**	**0.038**	< 0.01	< 0.01	**0.028**
2-Butanone (MEK)	78-93-3	2	2.79	< 0.100	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.191 D**	**0.380 D**	**0.014**	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	0.005		< 0.005	< 0.005	< 0.001	-	**0.0006**	< 0.005	**0.002**	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	**0.0016**	**0.00052**	**0.00092**	**0.00069**
Carbon Disulfide	75-15-0	4		< 0.100	< 0.005	< 0.005	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0056 D**	< 0.001	< 0.0005	**0.00810 D**	< 0.005	**0.00072**	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	0.001	1.23	< 0.010	< 0.001	< 0.001	-	**0.001**	< 0.005	**0.002**	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	**0.0057**	< 0.0005	**0.0024**	< 0.0005
Chloromethane	74-87-3	0.001		< 0.005	< 0.010	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	< 0.010	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-
Dibromomethane	74-95-3	0.0005		< 0.005	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		**0.063**	**0.035**	**0.026**	**0.01006**	**0.056 D**	**0.024**	**0.036 D**	**0.022**	**0.018 D**	**0.011**	**0.00884**	**0.0173 D**	**0.0117 D**	**0.0089**	**0.0069**	**0.019**	**0.020**
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		< 0.005	< 0.005	< 0.001	-	**0.0008**	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	**0.017**	< 0.005	**0.003**	**0.00244**	**0.027 E**	< 0.005	**0.020 D**	**0.007**	**0.0051 D**	**0.003**	**0.00274**	**0.0083 D**	< 0.005	**0.0055**	**0.0032**	**0.0042**	**0.0085**
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	-	**0.017**	**0.022**	**0.02213**	-	-	**0.100 D**	**0.066 D**	**0.091 D**	**0.058**	**0.0554 D**	**0.178 D**	**0.147 D**	**0.200**	**0.120**	**0.280**	**0.300**
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		< 0.005	< 0.005	< 0.001	-	-	-	0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	**0.00058**	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	-	-	-	< 0.0005	< 0.005	**0.110 D**	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-	-
Isobutyl Alcohol	78-83-1	10		< 0.100	-	-	-	-	-	-	< 0.050	< 0.200	< 0.1	< 0.050	**1.45 D**	< 0.5	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	0.005		< 0.005	< 0.005	< 0.001	-	**0.002**	< 0.005	**0.0006**	< 0.002	< 0.0008	< 0.002	< 0.002	< 0.02	< 0.02	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		< 0.050	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.005	< 0.02	< 0.01	< 0.005	< 0.050	< 0.05	-	-	-	-
Naphthalene	91-20-3	0.02		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.05	< 0.005	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	**0.028**	**0.014**	**0.0084**	**0.00649**	**0.044 D**	**0.013**	**0.035 E**	**0.016**	**0.0078 D**	**0.0061**	**0.00361**	**0.00640 D**	< 0.005	< 0.0005	**0.00053**	**0.0022**	< 0.0005
Toluene	108-88-3	1		< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	-	-	< 0.002	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	0.07		-	-	< 0.003	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.005	< 0.005	< 0.004	< 0.001	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	**0.290**	**0.062**	< 0.005	**0.06938**	**0.530 D**	**0.150**	**0.240 D**	**0.16 D**	**0.056 D**	**0.059**	**0.0246**	**0.0406 D**	< 0.0005	**0.0025**	**0.0028**	**0.0035**	**0.0016**
Trichlorofluoromethane	75-69-4	2		-	-	< 0.006	-	**0.0009**	< 0.005	**0.001**	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.010	< 0.01	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	0.04		< 0.005	-	< 0.007	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-	-
Vinyl Acetate	108-05-4	0.002		< 0.100	< 0.005	< 0.008	-	-	-	-	< 0.002	< 0.0008	< 0.005	< 0.002	< 0.0200	< 0.020	-	-	-	-
Vinyl Chloride	75-01-4	0.002	0.002	< 0.001	< 0.001	< 0.009	**0.00137**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.010	< 0.01	**0.0092**	**0.006**	**0.0068**	**0.027**
Xylenes (total)	1330-20-7	0.01		< 0.005	< 0.005	< 0.010	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.010	< 0.01	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument
calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS (1)	Type 4 RRS (2)	In Plume													
				ETCMW-114													
				1/21/1994	1/21/1994 DUP	11/3/1994	11/3/1994 DUP	3/31/1995	3/31/1995 DUP	5/27/1998	8/23/2000	11/10/2000	1/24/2001	1/24/2001 DUP	4/29/2002	4/29/2002 DUP	4/7/2004	4/7/2004 DUP
Acetone	67-64-1	4		**3.300**	**2.300**	**0.060**	< 0.010	< 5	< 5	-	**1.8**	< 0.089	< 0.003	< 0.003	-	-	< 0.001	< 0.01
2-Butanone (MEK)	78-93-3	2	2.79	**2.600**	**1.500**	**0.030**	**0.020**	< 5	< 5	-	**3.9**	< 0.089	< 0.003	< 0.003	< 0.003	< 0.003	< 0.001	< 0.01
Benzene	71-43-2	0.005		**0.0075**	**0.018**	**0.011**	**0.008**	< 0.10	< 0.10	-	< 0.042	< 0.018	**0.003**	**0.003**	-	-	**0.0016**	**0.0017**
Carbon Disulfide	75-15-0	4		< 0.100	< 0.100	< 0.005	< 0.005	< 0.5	< 0.5	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005
Chloroethane	75-00-3	0.001	1.23	**0.410**	**1.300**	**1.2**	< 0.010	**0.930**	**1.200**	-	< 0.042	**0.120**	**0.061 E**	**0.062 E**	-	-	**0.0053**	**0.0053**
Chloromethane	74-87-3	0.001		< 0.005	< 0.005	< 0.010	**1.100**	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	< 0.010	< 0.010	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001
Dibromomethane	74-95-3	0.0005		< 0.0005	< 0.0005	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		**0.690**	**1.200**	**0.710**	**0.580**	**0.400**	**0.450**	**0.09321**	**0.230**	**0.200**	**0.12 D**	**0.12 D**	-	-	**0.11 D**	**0.11 D**
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		**0.011**	**0.015**	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	**0.004**	**0.004**	-	-	**0.0029**	**0.0029**
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	**0.019**	**0.110**	**0.570**	**0.260**	**0.310**	**0.330**	**0.20412**	**0.260**	**0.120**	**0.12 D**	**0.11 D**	**0.39 D**	**0.33 D**	**0.13 D**	**0.13 D**
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	-	-	**15**	**12**	**11**	**12**	**4.841**	-	-	**3.4 D**	**3.3 D**	**3.8 D**	**3.7 D**	**2.4 D**	**2.4 D**
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		< 0.005	< 0.005	< 0.005	< 0.005	< 0.1	< 0.1	-	-	-	**0.004**	**0.003**	**0.009**	**0.007**	**0.0025**	**0.0025**
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	-	-	-	-	-	-	< 0.042	< 0.018	**3.1 D**	**3.1 D**	**3.9 D**	**3.8 D**	-	-
Ethylbenzene	100-41-4	0.7		**0.0085**	**0.020**	**0.007**	**0.005**	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	10		**0.310**	**0.330**	-	-	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050
Methylene Chloride	75-09-2	0.005		**0.0088**	**0.0052**	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	**0.001**	**0.003**	-	-	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		**0.077**	**0.080**	**0.018**	**0.015**	< 5	< 5	-	< 0.210	< 0.089	< 0.003	< 0.003	-	-	< 0.005	< 0.005
Naphthalene	91-20-3	0.02		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	< 0.001	< 0.001	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	**0.039**	**0.120**	**0.013**	**0.012**	< 0.100	< 0.100	**0.03293**	**0.140**	**0.036**	**0.039 E**	**0.039 E**	-	-	**0.11 D**	**0.12 D**
Toluene	108-88-3	1		**0.072**	**0.150**	**0.057**	**0.049**	< 0.100	< 0.1 00	-	< 0.042	< 0.018	**0.008**	**0.008**	-	-	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	0.07		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		**0.041**	**0.170**	< 0.005	< 0.005	< 0.100	< 0.100	< 0.001	< 0.042	< 0.018	**0.002**	**0.002**	-	-	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	**0.420**	**0.670**	**0.14**	**0.120**	**0.400**	**0.440**	**0.662**	**3.100 D**	**0.740**	**0.82 D**	**0.79 D**	**4.5 D**	**4.0 D**	**1.6 D**	**1.7 D**
Trichlorofluoromethane	75-69-4	2		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	0.04		< 0.0057	< 0.0058	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	0.002		**3.800**	**3.600**	< 0.005	< 0.010	< 1.000	< 1.0	-	-	-	-	-	-	-	< 0.002	< 0.002
Vinyl Chloride	75-01-4	0.002	0.002	< 0.001	< 0.001	< 0.01	< 0.01	< 0.100	< 0.100	**0.01956**	< 0.042	< 0.018	**0.001**	**0.001**	-	-	< 0.001	< 0.001
Xylenes (total)	1330-20-7	0.01		**0.045**	**0.095**	**0.024**	**0.020**	< 0.300	< 0.300	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS (1)	Type 4 RRS (2)	In Plume											
				ETMW-114 Continued											
				4/28/2005	10/27/2005	4/20/2006	4/17/2007	4/17/2007 DUP-01	10/24/2007	10/24/2007 DUP-02	12/10/2008	12/16/2009	12/9/2010	12/9/2010 DUP-2	12/5/2011
Acetone	67-64-1	4		< 0.1	< 0.5	< 0.1	< 0.50	<2	< 0.01	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1	< 0.01
2-Butanone (MEK)	78-93-3	2	2.79	< 0.1	< 0.5	< 0.1	< 0.50	<2	< 0.01	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1	< 0.01
Benzene	71-43-2	0.005		< 0.005	< 0.005	< 0.005	< 0.025	< 0.10	**0.00170**	**0.00165**	< 0.005	**0.0029**	< 0.005	< 0.005	**0.00096**
Carbon Disulfide	75-15-0	4		< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005
Chloroethane	75-00-3	0.001	1.23	< 0.010	< 0.001	< 0.010	< 0.05	< 0.20	**0.0149**	**0.0143**	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005
Chloromethane	74-87-3	0.001		< 0.010	< 0.001	< 0.010	< 0.05	< 0.20	< 0.001	< 0.001	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	< 0.01	< 0.05	< 0.010	< 0.050	< 0.20	< 0.001	< 0.001	-	-	-	-	-
Dibromomethane	74-95-3	0.0005		< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		**0.062 D**	**0.13**	**0.0839 D**	**0.102 D**	< 0.10	**0.0520 E**	**0.0505 E**	**0.045**	**0.033**	**0.055 D**	**0.052 D**	**0.043**
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	**0.00082**	**0.00080**	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	**0.100 D**	**0.24**	**0.138 D**	< 0.025	< 0.10	**0.00691**	**0.00642**	**0.066**	**0.053**	**0.085 D**	**0.081 D**	**0.085**
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	**1.7 D**	**4.4**	**3.160 D**	**1.830 D**	**1.760 D**	**0.185 E**	**0.179 E**	**1.1**	**0.820**	**1.500 D**	**1.400 D**	**1.500 D**
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		< 0.005	< 0.05	**0.0314 D**	< 0.025	< 0.10	**0.00331**	**0.00313**	< 0.005	**0.0014**	< 0.005	< 0.005	**0.0032**
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-	-
Isobutyl Alcohol	78-83-1	10		< 0.500	< 5	< 0.5	<2.5	<10	< 0.050	< 0.050	< 0.5	< 0.050	< 0.5	< 0.5	< 0.05
Methylene Chloride	75-09-2	0.005		< 0.020	< 0.1	< 0.0200	< 0.10	< 0.40	< 0.002	< 0.002	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		< 0.05	< 0.5	< 0.050	< 0.25	< 1.0	< 0.005	< 0.005	-	-	-	-	-
Naphthalene	91-20-3	0.02		< 0.01	< 0.05	< 0.010	< 0.05	< 0.2	< 0.001	< 0.001	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	< 0.005	< 0.05	< 0.005	< 0.025	< 0.1	< 0.0005	< 0.0005	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	**0.074 D**	**0.13**	**0.101 D**	< 0.025	< 0.10	< 0.0005	< 0.0005	**0.006**	**0.0092**	**0.021 D**	**0.020 D**	**0.026**
Toluene	108-88-3	1		< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	**0.00222**	**0.00202**	< 0.005	**0.00099**	< 0.005	< 0.005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	< 0.01	< 0.05	< 0.010	< 0.025	< 0.10	< 0.001	< 0.001	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	0.07		< 0.01	< 0.05	< 0.01	< 0.050	< 0.20	< 0.001	< 0.001	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	**1.0 D**	**2.2**	**1.480 D**	< 0.025	< 0.10	**0.00897**	**0.00823**	**0.44**	**0.34**	**0.520 D**	**0.500 D**	**0.590 D**
Trichlorofluoromethane	75-69-4	2		< 0.010	< 0.05	< 0.010	< 0.05	< 0.001	< 0.001	< 0.001	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005
1,2,3-Trichloropropane	96-18-4	0.04		< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-	-
Vinyl Acetate	108-05-4	0.002		< 0.020	< 0.1	< 0.0200	< 0.10	< 0.40	< 0.002	< 0.002	-	-	-	-	-
Vinyl Chloride	75-01-4	0.002	0.002	< 0.010	**0.026**	**0.0236 D**	**3.740 D**	**3.550 D**	**.524 E**	**0.547 E**	< 0.005	**0.0052**	**0.047 D**	**0.040 D**	**0.0033**
Xylenes (total)	1330-20-7	0.01		< 0.005	< 0.05	< 0.010	< 0.05	< 0.20	**0.00169**	**0.00165**	< 0.005	**0.00057**	< 0.005	< 0.005	< 0.0005

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS (1)	Type 4 RRS (2)	In Plume										
				CH2MW-114D										
				6/4/1998	4/7/2004	4/28/2005	10/26/2005	4/20/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/8/2010	12/7/2011
Acetone	67-64-1	4		-	< 0.01	**0.190 D**	**0.52**	< 0.01	< 0.1	**0.123 E**	< 0.010	**0.53**	**0.390**	**0.410**
2-Butanone (MEK)	78-93-3	2	2.79	-	< 0.01	**0.430 D**	< 0.1	< 0.01	< 0.1	**0.0442**	**0.063**	< 0.01	**0.120**	**0.096**
Benzene	71-43-2	0.005		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	4		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	**0.00074**	**0.00076**	**0.0015**	< 0.0005
Chloroethane	75-00-3	0.001	1.23	-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	0.001		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-
Dibromomethane	74-95-3	0.0005		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		**0.0018**	**0.0077**	**0.00830 D**	< 0.01	< 0.001	< 0.005	**0.00249**	**0.0007**	**0.00098**	**0.0012**	**0.00078**
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		-	< 0.0005	< 0.0005	< 0.005 J	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	**0.0046**	**0.0053**	**0.0060 D**	< 0.01	< 0.001	**0.00580 D**	**0.00395**	**0.0051**	**0.0081**	**0.013**	**0.012**
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	**0.0161**	**0.088 D**	**0.120 D**	**0.097**	< 0.001	**0.204 D**	**0.146 E**	**0.120**	**0.280**	**0.400**	**0.400 D**
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	**0.00076**	**0.00051**
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-
Isobutyl Alcohol	78-83-1	10		-	< 0.050	< 0.500	< 1	< 0.1	< 0.005	**0.622 E**	**1.300**	< 0.050	**0.079**	< 0.050
Methylene Chloride	75-09-2	0.005		-	< 0.002	< 0.002	< 0.02	< 0.002	< 0.0200	< 0.002	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		-	< 0.005	< 0.005	< 0.1	< 0.01	< 0.050	< 0.005	-	-	-	-
Naphthalene	91-20-3	0.02		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	**0.011**	**0.010**	**0.0072 D**	< 0.01	< 0.001	**0.00530 D**	**0.00288**	**0.0042**	**0.0038**	**0.0046**	**0.00055**
Toluene	108-88-3	1		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	0.07		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.001	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	**0.105**	**0.200 D**	**0.230 D**	**0.240**	< 0.001	**0.135 D**	**0.056 E**	**0.140**	**0.087**	**0.076**	**0.025**
Trichlorofluoromethane	75-69-4	2		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	0.04		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-
Vinyl Acetate	108-05-4	0.002		-	< 0.002	< 0.002	< 0.05	< 0.005	< 0.0200	< 0.002	-	-	-	-
Vinyl Chloride	75-01-4	0.002	0.002	< 0.001	< 0.001	< 0.001	< 0.005 J	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	**0.00068**	**0.0025**
Xylenes (total)	1330-20-7	0.01		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

\- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS [1]	Type 4 RRS [2]	In Plume ETCMW-115											
				11/3/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008	12/16/2009	12/8/2010	12/7/2011
Acetone	67-64-1	4		< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	< 0.025	< 0.025	< 0.010	< 0.010	< 0.010	**0.012**
2-Butanone (MEK)	78-93-3	2	2.79	< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	< 0.025	< 0.025	< 0.010	< 0.010	< 0.010	< 0.010
Benzene	71-43-2	0.005		< 0.005	< 0.001	< 0.0005	**0.00062**	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	4		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	0.001	1.23	< 0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	0.001		< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-
Dibromomethane	74-95-3	0.0005		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		**0.042**	**0.025**	**0.0064**	**0.0063**	**0.0076**	**0.00367**	**0.00848 D**	**0.00308 D**	**0.00087**	**0.0011**	**0.0039**	**0.0038**
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	< 0.005	< 0.001	< 0.0005	< 0.0025	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	**0.210**	**0.120**	**0.086 D**	**0.041 D**	**0.094**	**0.0346**	**0.120 D**	**0.0318 D**	**0.0078**	**0.011**	**0.040**	**0.046 D**
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		< 0.005	< 0.001	< 0.0005	**0.00067**	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-	-
Isobutyl Alcohol	78-83-1	10		-	-	< 0.050	< 0.250	< 0.1	< 0.050	< 0.125	< 0.125	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	0.005		< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	< 0.005	< 0.005	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		< 0.01	< 0.50	< 0.005	< 0.005	< 0.01	< 0.005	< 0.0125	< 0.0125	-	-	-	-
Naphthalene	91-20-3	0.02		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	1		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	0.07		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0025	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	**0.170**	**0.120**	**0.016**	**0.0057**	**0.0039**	**0.00901**	**0.0214 D**	**0.0079 D**	**0.0027**	**0.0032**	**0.0068**	**0.014 D**
Trichlorofluoromethane	75-69-4	2		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	0.04		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-	-
Vinyl Acetate	108-05-4	0.002		< 0.005	< 0.010	< 0.002	< 0.002	< 0.005	< 0.002	< 0.005	< 0.005	-	-	-	-
Vinyl Chloride	75-01-4	0.002	0.002	< 0.001	< 0.001	**0.0015**	**0.025**	**0.014**	**0.00346**	**0.00915 D**	< 0.0025	**0.0011**	< 0.0005	**0.0010**	**0.0029**
Xylenes (total)	1330-20-7	0.01		< 0.005	< 0.003	< 0.0005	**0.00061**	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS (1)	Type 4 RRS (2)	In Plume ETMW-116															
				12/20/1994	3/31/1995	5/26/1998	8/23/2000	8/23/2000 DUP	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/16/2009	12/7/2010	12/6/2011
Acetone	67-64-1	4		< 0.010	< 0.25	-	**0.010**	**0.011**	**0.036 B**	< 0.003	< 0.01	**0.360 D**	**1.6**	**0.968 D**	**0.398 D**	< 0.05	**0.29**	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	2	2.79	< 0.010	< 0.25	-	< 0.003	< 0.003	< 0.025	< 0.003	< 0.01	**0.053 D**	**0.38**	**0.163 D**	< 0.1	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	0.005		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	4		< 0.005	< 0.025	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0037 D**	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	0.001	1.23	< 0.010	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	**0.007**	**0.0088**	**0.0079**	**0.0049**
Chloromethane	74-87-3	0.001		< 0.010	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	-	-	-	**0.0007**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-
Dibromomethane	74-95-3	0.0005		-	-	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		**0.062**	**0.045**	**0.03585**	**0.045 D**	**0.039 D**	**0.012**	**0.012**	**0.018**	**0.023 D**	< 0.01	**0.00870 D**	**0.00910 D**	**0.00660 D**	**0.0065**	**0.0084**	**0.0099**	**0.0089**
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		< 0.005	< 0.005	-	**0.0007**	**0.0007**	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.005 J	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	**0.008**	**0.012**	**0.01349**	**0.016**	**0.018**	< 0.005	**0.004**	**0.0055**	**0.0090 D**	< 0.007 J	**0.00540 D**	< 0.005	< 0.0025	< 0.0005	< 0.0005	**0.00082**	< 0.0005
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	**0.085**	**0.074**	**0.05735**	-	-	-	**0.026 D**	**0.039**	**0.100 D**	**0.18**	**0.221 D**	**0.0831 D**	< 0.0025	**0.011**	**0.0043**	**0.014**	**0.0026 D**
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		< 0.005	< 0.005	-	-	-	-	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	-	-	< 0.0005	< 0.0005	< 0.005	**0.024**	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	-
Isobutyl Alcohol	78-83-1	10		-	-	-	-	-	-	-	< 0.050	**1.8**	**1.5**	< 0.5	< 0.005	< 0.25	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	0.005		< 0.005	< 0.005	-	**0.001**	**0.0009**	< 0.005	< 0.0005	< 0.002	< 0.001	< 0.002	< 0.005	< 0.0200	< 0.01	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		< 0.010	< 0.25	-	< 0.003	< 0.003	< 0.025	< 0.003	< 0.005	< 0.025	< 0.1	< 0.05	< 0.050	< 0.025	-	-	-	-
Naphthalene	91-20-3	0.02		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	**0.034**	**0.022**	**0.018**	**0.024**	**0.022 D**	**0.007**	**0.005**	**0.011**	**0.012 D**	**0.0062 J**	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	1		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	**0.0025**	< 0.0005	< 0.0005	**0.00065**
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	0.07		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	**0.560**	**0.420**	**0.26512**	**0.420 D**	**0.350 D**	**0.130**	**0.100 D**	**0.15 D**	**0.170 D**	**0.12**	< 0.005	**0.0291 D**	< 0.0025	< 0.0005	< 0.0005	**0.0017**	< 0.0005
Trichlorofluoromethane	75-69-4	2		-	-	-	**0.001**	**0.001**	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	0.04		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	-
Vinyl Acetate	108-05-4	0.002		< 0.010	< 0.050	-	-	-	-	-	< 0.002	< 0.01	< 0.05	< 0.020	< 0.020	< 0.01	-	-	-	-
Vinyl Chloride	75-01-4	0.002	0.002	< 0.010	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.005 J	**0.0171 D**	**0.0581 D**	**0.0384 D**	**0.120**	**0.170**	**0.130**	**0.120**
Xylenes (total)	1330-20-7	0.01		< 0.005	< 0.015	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.01	< 0.010	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

\- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS (1)	Type 4 RRS (2)	In Plume ETMW-117															
				12/21/1994	3/31/1995	8/23/2000	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/2008 DUP-2	12/15/2009	12/15/2009 DUP-2	12/8/2010	12/6/2011
Acetone	67-64-1	4		< 0.010	< 0.1	< 0.018	< 0.003	**0.003**	< 0.01	< 0.04	< 0.01	< 0.01	**2.090 D**	**0.513 ED**	**0.016**	**0.012**	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	2	2.79	< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.213 D**	**0.0785 D**	< 0.01	< 0.01	< 0.0005	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	0.005		< 0.005	< 0.002	< 0.004	**0.0008**	**0.002**	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	**0.0015**	**0.0017**	**0.0014**	**0.0013**	**0.0010**	**0.00069**
Carbon Disulfide	75-15-0	4		< 0.005	< 0.010	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	**0.00054**	**0.0007**	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	0.001	1.23	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	**0.0027**	**0.0029**	< 0.0005	**0.003**	< 0.0005	**0.0011**
Chloromethane	74-87-3	0.001		< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-
Dibromomethane	74-95-3	0.0005		-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		**0.012**	**0.025**	**0.017**	**0.017**	**0.008**	**0.0098**	**0.014 D**	**0.013**	**0.0105**	**0.00935 D**	**0.00825 D**	**0.0048**	**0.0056**	**0.0043**	**0.004**	**0.0066**	**0.0049**
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	< 0.005	**0.005**	< 0.004	**0.003**	**0.002**	**0.0022**	**0.0038 D**	**0.0026**	**0.00075**	**0.00305 D**	< 0.0025	< 0.0005	**0.0010**	< 0.0005	< 0.0005	**0.00078**	< 0.0005
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	**0.014**	`	-	-	**0.016**	**0.02**	**0.030 D**	**0.03**	**0.0225**	**0.0315 D**	**0.0762 D**	**0.041**	**0.050**	**0.021**	**0.018**	**0.027**	**0.019**
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		< 0.005	< 0.002	-	-	< 0.0005	< 0.0005	< 0.002	< 0.001	**0.00213**	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	-	< 0.004	< 0.0005	**0.015**	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-	-
Isobutyl Alcohol	78-83-1	10		-	-	-	-	-	< 0.050	< 0.2	< 0.1	< 0.050	**2.930 D**	< 0.25	< 0.0005	< 0.0005	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	0.005		< 0.005	< 0.002	< 0.004	**0.0006**	**0.002**	< 0.002	< 0.008	< 0.002	< 0.002	< 0.010	< 0.010	-	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.005	< 0.02	< 0.01	< 0.005	< 0.025	< 0.025	-	-	-	-	-	-
Naphthalene	91-20-3	0.02		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	< 0.005	**0.008**	**0.005**	**0.005**	**0.002**	**0.0032**	**0.0050 D**	**0.0042**	**0.00378**	**0.00435 D**	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	1		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	0.07		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	**0.130**	**0.210**	**0.120**	**0.070**	**0.050 D**	**0.064 D**	**0.094 D**	**0.098**	**0.079 D**	**0.0744 D**	**0.0302 D**	**0.00056**	**0.00066**	< 0.0005	< 0.0005	**0.0017**	< 0.0005
Trichlorofluoromethane	75-69-4	2		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	0.04		-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-	-
Vinyl Acetate	108-05-4	0.002		< 0.010	< 0.020	-	-	-	< 0.002	< 0.008	< 0.005	< 0.002	< 0.010	< 0.010	-	-	-	-	-	-
Vinyl Chloride	75-01-4	0.002	0.002	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	**0.024**	**0.025**	**0.044**	**0.050**	**0.045**	**0.047**
Xylenes (total)	1330-20-7	0.01		< 0.005	< 0.006	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument
calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS (1)	Type 4 RRS (2)	In Plume ETMW-118 12/20/1994	3/31/1995	5/26/1998	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	10/24/2007 DUP-01	12/9/2008	12/15/2009	12/9/2010	12/6/2011	12/6/2011 DUP-2
Acetone	67-64-1	4		< 0.005	< 0.05	-	< 0.01	**0.021**	< 0.02	< 0.01	**0.192 D**	< 0.5	< 0.5	**0.37**	**0.56**	**0.37**	**0.066**	**0.065**
2-Butanone (MEK)	78-93-3	2	2.79	< 0.010	< 0.05	-	< 0.01	< 0.01	< 0.02	< 0.01	< 0.050	< 0.5	< 0.5	**0.26**	**0.49**	**0.22**	**0.031**	**0.028**
Benzene	71-43-2	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	4		< 0.005	< 0.005	-	< 0.0005	**0.00079**	< 0.002	< 0.0005	**0.00370 D**	< 0.025	< 0.025	**0.0028**	**0.0012**	**0.0010**	< 0.0005	< 0.0005
Chloroethane	75-00-3	0.001	1.23	< 0.005	< 0.001	-	< 0.001	< 0.001	**0.0038**	**0.00437**	< 0.005	< 0.05	< 0.05	**0.0032**	**0.0019**	**0.0013**	**0.00071**	< 0.0005
Chloromethane	74-87-3	0.001		< 0.010	< 0.001	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-
Dibromomethane	74-95-3	0.0005		-	-	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		**0.014**	**0.021**	**0.01884**	**0.0033**	**0.014**	**0.011**	**0.00961**	**0.0139 D**	< 0.025	< 0.025	**0.014**	**0.012**	**0.0064**	**0.0065**	**0.0062**
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	< 0.005	**0.0046**	**0.00292**	**0.00061**	**0.0037**	**0.0054**	**0.00489**	**0.00575 D**	< 0.025	< 0.025	**0.003**	**0.0024**	**0.00081**	< 0.0005	< 0.0005
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	**0.012**	**0.023**	**0.01722**	**0.0057**	**0.120 D**	**0.13**	**0.127 D**	**0.117 D**	**0.108 D**	**0.111 D**	**0.088**	**0.096**	**0.050**	**0.0085**	**0.0080**
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-
Isobutyl Alcohol	78-83-1	10		-	-	-	< 0.050	< 0.050	< 0.2	< 0.050	**25.6 DH**	**13.0 D**	**13.2 D**	**0.069**	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	0.005		< 0.005	< 0.001	-	< 0.002	< 0.002	< 0.004	< 0.002	< 0.010	< 0.100	< 0.100	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		< 0.010	< 0.05	-	< 0.005	< 0.005	< 0.02	< 0.005	< 0.025	< 0.25	< 0.25	-	-	-	-	-
Naphthalene	91-20-3	0.02		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	< 0.010	**0.009**	**0.008**	**0.0019**	< 0.0005	**0.0032**	**0.00257**	**0.00460 D**	< 0.025	< 0.025	**0.0032**	**0.0015**	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	0.07		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	**0.069**	**0.110**	**0.08682**	**0.021**	**0.0031**	**0.049**	**0.0316**	**0.0489 D**	**0.0390 D**	**0.0400 D**	**0.037**	**0.018**	**0.002**	**0.00083**	**0.00069**
Trichlorofluoromethane	75-69-4	2		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	0.04		-	-	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-
Vinyl Acetate	108-05-4	0.002		< 0.010	< 0.010	-	< 0.002	< 0.002	< 0.01	< 0.002	< 0.010	< 0.100	< 0.100	-	-	-	-	-
Vinyl Chloride	75-01-4	0.002	0.002	< 0.010	< 0.001	< 0.001	< 0.001	**< 0.001**	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	**0.033**	**0.031**	**0.016**	**0.044**	**0.041**
Xylenes (total)	1330-20-7	0.01		< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.005	< 0.05	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS (1)	Type 4 RRS (2)	Cross Gradient ETMW-119													
				12/20/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	10/25/2005 DUP 1	4/18/2006	4/17/2007	10/25/2007	12/9/2008	12/9/2008 DUP-1	12/14/2009	12/14/2009 DUP-1	12/9/2010	12/5/2011
Acetone	67-64-1	4		< 0.005	< 0.050	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0212**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	2	2.79	< 0.01	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0998 DH**	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01
Benzene	71-43-2	0.005		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	4		< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	0.001	1.23	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	0.001		< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
Dibromomethane	74-95-3	0.0005		-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	< 0.05	**0.0016**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.00064**	< 0.0005
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Isobutyl Alcohol	78-83-1	10		-	-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	0.005		< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		< 0.010	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-
Naphthalene	91-20-3	0.02		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	1		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	0.07		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	< 0.005	**0.0034**	< 0.0005	**0.00061**	< 0.001	< 0.001	**0.00053**	**0.00074**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	2		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	0.04		-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Vinyl Acetate	108-05-4	0.002		< 0.010	< 0.010	< 0.002	< 0.002	< 0.005	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-
Vinyl Chloride	75-01-4	0.002	0.002	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	0.01		< 0.005	< 0.003	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS (1)	Type 4 RRS (2)	Cross Gradient ETMW-120													
				12/20/1994	3/31/1995	5/26/1998	5/26/1998 DUP	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/23/2007	12/11/2008	12/14/2009	12/9/2010	12/5/2011
Acetone	67-64-1	4		< 0.005	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	2	2.79	< 0.010	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	0.005		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	4		< 0.005	< 0.005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	0.001	1.23	< 0.005	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	0.001		< 0.010	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
Dibromomethane	74-95-3	0.0005		-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		< 0.005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	< 0.005	< 0.001	**0.00184**	**0.00166**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	< 0.05	**0.0048**	**0.00543**	**0.00525**	**0.0011**	**0.0012**	**0.0052**	< 0.0005	**0.00135**	**0.00094**	**0.00056**	**0.00073**	**0.0032**	**0.0014**
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
Isobutyl Alcohol	78-83-1	10		-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	0.005		< 0.005	< 0.001	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		< 0.010	< 0.05	-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-
Naphthalene	91-20-3	0.02		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	< 0.010	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	0.07		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.005	**0.0018**	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	< 0.005	**0.0017**	**0.00138**	**0.00128**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0021**	< 0.0005
Trichlorofluoromethane	75-69-4	2		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	0.04		-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
Vinyl Acetate	108-05-4	0.002		< 0.010	< 0.010	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-
Vinyl Chloride	75-01-4	0.002	0.002	< 0.010	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	0.01		< 0.005	< 0.003	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument
calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS (1)	Type 4 RRS (2)	Upgradient ETMW-121															
				12/20/1994	3/31/1995	5/27/1998	8/23/2000	11/10/2000	1/24/2001	4/7/2004	4/28/2005	10/26/2005	4/19/2006	4/18/2007	10/23/2007	12/11/2008	12/14/2009	12/6/2010	12/6/2011	12/6/2011 DUP-1
Acetone	67-64-1	4		< 0.005	< 0.05	-	**0.009**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
2-Butanone (MEK)	78-93-3	2	2.79	< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzene	71-43-2	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	4		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	0.001	1.23	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	0.001		< 0.010	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
Dibromomethane	74-95-3	0.0005		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	< 0.05	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	-	-	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Isobutyl Alcohol	78-83-1	10		-	-	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	0.005		< 0.005	< 0.001	-	**0.0009**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-
Naphthalene	91-20-3	0.02		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	< 0.010	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	0.07		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	< 0.005	< 0.001	< 0.001	**0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	2		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	0.04		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Vinyl Acetate	108-05-4	0.002		< 0.010	< 0.010	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-
Vinyl Chloride	75-01-4	0.002	0.002	< 0.010	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	0.01		< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument
calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS [1]	Type 4 RRS [2]	Cross Gradient OBGMW-122							
				8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007
Acetone	67-64-1	4		**0.016**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	2	2.79	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	4		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Chloroethane	75-00-3	0.001	1.23	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	0.001		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	< 0.0005	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	0.0005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	10		-	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	0.005		**0.001**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Naphthalene	91-20-3	0.02		< 0.0005	**0.001**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Toluene	108-88-3	1		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	< 0.0005	**0.002**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	0.07		< 0.0005	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	2		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	0.04		< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	0.002		-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002
Vinyl Chloride	75-01-4	0.002	0.002	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	0.01		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument
calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS [1]	Type 4 RRS [2]	Cross Gradient OBGMW-123									
				9/8/2000	11/9/2000	1/24/2001	4/29/2002	4/6/2004	4/6/2004 DUP	4/27/2005	10/25/2005	4/20/2006	4/18/2007
Acetone	67-64-1	4		< 0.003	< 0.003	< 0.003	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	2	2.79	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	0.005		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	4		< 0.0005	**0.003**	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Chloroethane	75-00-3	0.001	1.23	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	0.001		< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	0.0005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	10		-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050
Methylene Chloride	75-09-2	0.005		**0.001**	< 0.0005	< 0.0005	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		< 0.003	< 0.003	< 0.003	-	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005
Naphthalene	91-20-3	0.02		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Toluene	108-88-3	1		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	0.07		< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	0.005	0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	2		< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	0.04		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	0.002		-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002
Vinyl Chloride	75-01-4	0.002	0.002	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	0.01		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument
calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 1
CAH Concentrations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Parameters	CAS No.	Type 1/Type 3 RRS (1)	Type 4 RRS (2)	Down Gradient					Cross Gradient										Upgradient		In Plume	
				OBGMW-124					CH2PP-1										CH2PP-2	CH2PP-3	Sump 1	Sump 2
				4/21/2004	4/27/2005	10/26/2005	4/20/2006	4/18/2007	6/30/1998	4/7/2004	4/26/2005	10/25/2005	4/19/2006	4/17/2007	10/24/2007	12/10/2008	12/15/2009	12/8/2010	5/29/1998	(not sampled)	11/3/1994	11/3/1994
Acetone	67-64-1	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	**0.021**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	**0.790**	< 0.010
2-Butanone (MEK)	78-93-3	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	**0.420**	< 0.010
Benzene	71-43-2	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.005	< 0.005
Carbon Disulfide	75-15-0	4		**0.00063**	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.005	< 0.005
Chloroethane	75-00-3	0.001	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.010	< 0.010
Chloromethane	74-87-3	0.001		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	**1.3**	< 0.010
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-
Dibromomethane	74-95-3	0.0005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	**0.00057**	**0.00055**	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	**0.240**	< 0.005
1,2-Dichloroethane (1,2-DCA)	107-06-2	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.005	< 0.005
1,1-Dichloroethene (1,1-DCE)	75-35-4	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	**0.046**	< 0.005
cis-1,2-Dichloroethene (cis-1,2-DCE)	156-59-2	0.07	1.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	**0.013**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	**1.5**	< 0.005
trans-1,2-Dichloroethene (trans-1,2-DCE)	156-60-5	0.1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.005	< 0.005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	0.07	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	0.7		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.005	< 0.005
Isobutyl Alcohol	78-83-1	10		< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-
Methylene Chloride	75-09-2	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	< 0.005	< 0.005
4-methyl-2-pentanone (MIBK)	108-10-1	0.005		< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	< 0.010	< 0.010
Naphthalene	91-20-3	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	0.0002	0.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.005	< 0.005
Tetrachloroethene (PCE)	127-18-4	0.005	0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0021**	< 0.001	-	**0.077**	< 0.005
Toluene	108-88-3	1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	**0.018**	< 0.005
1,2,3-Trichlorobenzene	87-61-6	0.001	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	0.2		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	**0.140**	< 0.005
Trichloroethene (TCE)	79-01-6	0.005	0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0017**	< 0.001	-	**0.250**	**0.016**
Trichlorofluoromethane	75-69-4	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
1,2,3-Trichloropropane	96-18-4	0.04		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-
Vinyl Acetate	108-05-4	0.002		< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	< 0.010	< 0.010
Vinyl Chloride	75-01-4	0.002	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.010	< 0.010
Xylenes (total)	1330-20-7	0.01		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.005	< 0.005

Notes:

All units in mg/L

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Type 4 RRS calculated for compounds exceeding Type 1 RRS

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument
calibration range for the analysis

D- Dilution analysis result

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Table 2
Summary of Groundwater Elevations
Former Miller Brewing Canning Facility
Moultrie, Georgia

Well	Ground Surface Elevation[1] (ft msl)	TOC Elevation[1] (ft msl)	Total Well Depth from Ground Surface (ft)	Screened Interval (ft bgs)	Well Diameter (in)	Depth to Water Below Top of Casing (ft)									
						4/6/2004	4/25/2005	10/24/2005	4/17/2006	4/16/2007	10/22/2007	12/8/2008	12/14/2009	12/6/2010	12/5/2011
CH2MW-1	293.62	293.84	10	5 - 10	1	6.45	4.55	8.13	5.43	7.33	3.18	2.62	1.22	5.16	5.72
CH2MW-1A[2]	292.87	293.01	15	5 - 15	2	11.21	6.38	13.36	8.75	11.67	5.02	4.78	--	--	--
CH2MW-2[2]	295.34	295.43	13.5	3.5 - 13.5	2	4.86	3.55	8.48	3.98	5.53	9.87	3.97	--	--	--
CH2MW-3	295.45	295.53	13	3 -13	2	4.92	3.55	8.10	4.72	5.85	0.97	3.69	2.08	9.96	8.11
CH2MW-4D	293.65	293.54	45.93	36 - 46	2	16.05	16.10	19.44	15.62	16.71	18.88	13.79	13.88	19.31	17.87
CH2MW-5[2]	295.28	295.44	15	5 - 15	2	7.43	2.90	9.66	5.35	7.79	3.80	4.91	--	--	--
ETCMW-113	296.32	296.32	12	2 - 12	2	6.25	4.40	7.07	5.58	5.75	5.94	5.12	4.93	6.51	6.48
ETCMW-114	294.02	297.66	11.7	1.7 - 11.7	4	7.78	6.60	8.15	7.36	7.94	6.52	6.67	5.89	7.61	7.76
CH2MW-114D	294.16	297.45	22.5	17.5 - 22.5	1	8.54	7.00	9.88	8.40	9.32	9.99	8.64	8.55	11.13	9.64
ETCMW-115	293.22	296.10	11.5	1.5 - 11.5	2	6.19	5.14	6.96	5.39	6.49	4.79	4.72	3.76	5.85	6.51
ETMW-116	292.29	292.29	11	1 - 11	4	1.98	0.70	1.81	1.16	1.46	0.89	0.70	0.52	1.37	1.95
ETMW-117	292.30	292.30	11	1 - 11	2	2.40	0.89	2.71	1.29	2.42	0.71	1.30	0.24	1.90	1.81
ETMW-118	292.34	292.34	11	1 - 11	2	2.90	0.40	3.42	2.15	1.61	1.73	2.20	1.54	3.32	2.69
ETMW-119	294.26	297.05	11	1 - 11	2	6.86	5.70	8.02	6.31	6.65	5.66	5.32	4.14	6.38	6.86
ETMW-120	293.76	296.84	11	1 - 11	2	6.69	4.50	9.42	5.46	7.18	4.77	4.56	3.69	6.27	7.29
ETMW-121	294.84	298.02	11	1 - 11	2	7.70	5.78	11.72	6.43	8.72	6.75	4.53	2.91	11.48	10.12
OBGMW-122[2]	NA	295.98	15	5 - 15	2	8.13	6.40	10.58	7.02	9.01	6.00	6.17	--	--	--
OBGMW-123[2]	NA	296.09	13	3 - 13	2	6.45	4.70	9.28	5.40	6.80	8.44	3.24	--	--	--
OBGMW-124[2]	NA	NA	14	4 - 14	2	NA	5.70	10.08	7.29	8.78	7.43	4.90	--	--	--
CH2PP-1	293.56	293.72	12	7 - 12	1	7.67	5.55	9.45	7.63	8.81	6.00	3.56	2.87	9.22	8.61

Well	Ground Surface Elevation[1] (ft msl)	TOC Elevation[1] (ft msl)	Total Well Depth from Ground Surface (ft)	Screened Interval (ft bgs)	Well Diameter (in)	Water Level Elevation (ft msl)									
						4/6/2004	4/25/2005	10/24/2005	4/17/2006	4/16/2007	10/22/2007	12/8/2008	12/14/2009	12/6/2010	12/5/2011
CH2MW-1	293.62	293.84	10	5 - 10	1	287.39	289.29	285.71	288.41	286.51	290.66	291.22	292.62	288.68	288.12
CH2MW-1A[2]	292.87	293.01	15	5 - 15	2	281.80	286.63	279.65	284.26	281.34	287.99	288.23	--	--	--
CH2MW-2[2]	295.34	295.43	13.5	3.5 - 13.5	2	290.57	291.88	286.95	291.45	289.90	285.56	291.46	--	--	--
CH2MW-3	295.45	295.53	13	3 -13	2	290.61	291.98	287.43	290.81	289.68	294.56	291.84	293.45	285.57	287.42
CH2MW-4D	293.65	293.54	45.93	36 - 46	2	277.49	277.44	274.10	277.92	276.83	274.66	279.75	279.66	274.23	275.67
CH2MW-5[2]	295.28	295.44	15	5 - 15	2	288.01	292.54	285.78	290.09	287.65	291.64	290.53	--	--	--
ETCMW-113	296.32	296.32	12	2 - 12	2	290.07	291.92	289.25	290.74	290.57	290.38	291.20	291.39	289.81	289.84
ETCMW-114	294.02	297.66	11.7	1.7 - 11.7	4	289.88	291.06	289.51	290.30	289.72	291.14	290.99	291.77	290.05	289.90
CH2MW-114D	294.16	297.45	22.5	17.5 - 22.5	1	288.91	290.45	287.57	289.05	288.13	287.46	288.81	288.90	286.32	287.81
ETCMW-115	293.22	296.10	11.5	1.5 - 11.5	2	289.91	290.96	289.14	290.71	289.61	291.31	291.38	292.34	290.25	289.59
ETMW-116	292.29	292.29	11	1 - 11	4	290.31	291.59	290.48	291.13	290.83	291.40	291.59	291.77	290.92	290.34
ETMW-117	292.3	292.30	11	1 - 11	2	289.90	291.41	289.59	291.01	289.88	291.59	291.00	292.06	290.40	290.49
ETMW-118	292.34	292.34	11	1 - 11	2	289.44	291.94	288.92	290.19	290.73	290.61	290.14	290.80	289.02	289.65
ETMW-119	294.26	297.05	11	1 - 11	2	290.19	291.35	289.03	290.74	290.40	291.39	291.73	292.91	290.67	290.19
ETMW-120	293.76	296.84	11	1 - 11	2	290.15	292.34	287.42	291.38	289.66	292.07	292.28	293.15	290.57	289.55
ETMW-121	294.84	298.02	11	1 - 11	2	290.32	292.24	286.30	291.59	289.30	291.27	293.49	295.11	286.54	287.90
OBGMW-122[2]	NA	295.98	15	5 - 15	2	287.85	289.58	285.40	288.96	286.97	289.98	289.81	--	--	--
OBGMW-123[2]	NA	296.09	13	3 - 13	2	289.64	291.39	286.81	290.69	289.29	287.65	292.85	--	--	--
OBGMW-124[2]	NA	NA	14	4 - 14	2	NA	NA	NA	NA	NA	NA	NA	--	--	--
CH2PP-1	293.56	293.72	12	7 - 12	1	286.05	288.17	284.27	286.09	284.91	287.72	290.16	290.85	284.50	285.11

Notes

[1]Elevations based on a survey performed by H.J. Griffen and Associates in June 1998. Elevations reference a DOT benchmark.
Monitoring wells OBGMW-122 and OBGMW-123 surveyed ack to CH2MW-4D and CH2MW-3, respectively.

[2]Wells CH2MW-1A, CH2MW-2, CH2MW-5, OBGMW-122, OBGMW-123 and OBGMW-124 were abandoned on 12/8/2008.

Table 3
Model Input Parameters
Former Miller Brewing Canning Facility
Moultrie, Georgia

Input Parameter	Initial Input Value	Final Model Value	Comments
Horizontal Extent	1,600 ft by 1,600 ft	1,600 ft by 1,600 ft (no change) (see Figure 2)	This area encompasses the portion of the site where the plume is present, but extends beyond the existing plume, which is approximately 120 ft long, to allow for future contaminant transport and minimize potential boundary conditions affecting the plume transport area.
Vertical Extent	10 ft	10 ft (no change)	The site boring logs show 1-3 ft of fill overlying a clay unit that is over 100 ft thick. Across the majority of the site, the fill is unsaturated. The majority of the site wells are shallow and extend to depths between 11 and 15 ft. Two deep wells are present, ETCMW-114D is approximately 23 ft deep and CH2MW-4D is approximately 50 ft deep. Since the majority of the wells are shallow with approximately 10 ft of saturated thickness, a single 10 ft thick model layer is considered to be representative of the site.
Model Cell Size	5 ft by 5 ft in plume area	5 ft by 5 ft in plume area (no change)(see Figure 2)	Cell size is 5 ft by 5 ft in the area of the plume and then expands to a maximum size of 40 ft by 40 ft outside the plume area
Horizontal Hydraulic Conductivity	0.003 ft/day (1×10^{-6} cm/sec)	K_1 = 0.006 ft/day K_2 = 0.23 ft/day (see Figure 3)	There are limited hydraulic conductivity data available for the site because of the low permeability of the clay. Available hydraulic conductivity ranges from 7.5×10^{-6} cm/sec to 1.4×10^{-7} cm/sec (Earth Tech Summary Report, 1993) with a mean hydraulic conductivity of 1×10^{-6} cm/sec. Hydraulic conductivities were modified during the calibration process.
Vertical Hydraulic Conductivity	0.003 ft/day	K_1 = 0.006 ft/day K_2 = 0.23 ft/day	There are no site data on vertical hydraulic conductivity. Since it is a one layer model, the vertical hydraulic conductivity is assumed to be the same as the horizontal hydraulic conductivity.
Groundwater Recharge	1 in/yr	0.022 in/yr	There are no site information on groundwater recharge. An estimated recharge rate was developed during flow model calibration.
Constant Head Cells	Various heads and configurations	Revised during calibration (see Figure 2)	Constant head cells were included to provide groundwater flow and were located along the northern and southern edges of the model area to be consistent with observed area drainage features. The constant head cell locations and elevations were modified during the calibration process.
Porosity	0.40	0.40 (no change)	There are no site data on porosity. A specified value of 0.40 was used in the model based on typical values for clay (Brady & Kunkel, 2003).
Effective Porosity	0.06	0.06 (no change)	There are no site data for effective porosity. A specified value of 0.06 was used in the model based on typical clay values (Brady & Kunkel, 2003).
Storage	0.06	0.06 (no change)	There are no site data on storage. A specified value of 0.06 was used to be consistent with the effective porosity of clay.

Table 3
Model Input Parameters
Former Miller Brewing Canning Facility
Moultrie, Georgia

Input Parameter	Initial Input Value	Final Model Value	Comments
Target Groundwater Elevations	(See Table 2)	(see Table 4)	Target groundwater elevations for groundwater flow model calibrations were based on average groundwater elevations between the years 1998 and 2008. This range of dates includes the most complete selection of wells and the average elevations are similar to the average elevations for 1998 to 2011. This flow model calibration does not include upgradient wells CH2MW-2, CH2MW-3, and OGBMW-123, which were located to the south and west of the building (and were abandoned in 2008). The simulated heads in these wells are higher than observed and could not be reduced during the calibration effort.
Initial CAH Concentrations	(see Figures 4 & 5)	(no change)	Initial CAH concentrations are based on the April 2004 groundwater sampling event, which was the last sampling event prior to lactate injections. The assigned initial CAH concentrations reflected the general CAH distribution without matching the concentration at each monitoring well. Initial concentrations of TCE and cis-1,2-DCE were specified in the model. Vinyl chloride (VC) was not present in 2004. TCE, cis-1,2-DCE, and VC were the CAH parameters modeled since they are the most prevalent compounds with the largest plumes and the greatest potential for plume expansion.
Biodegradation Rates	Varied	Modified during calibration for final distribution and values see Table 6 and Figure 6	There are no site data for biodegradation rates. The biodegradation rates were estimated based on evaluation of output from the calibration process, and adjusted to fit observed site conditions. The values in the calibrated model are generally within the range of values reported in the professional literature for these CAHs.
Dispersivity	1 ft	1 ft (no change)	There are no site dispersivity data. A value of 1 ft was specified in the model, which is about 0.1 times the plume length of 120 ft (Aziz et. al., 2000).
Bulk Density	1.6 kg/L	1.6 kg/L (no change)	There are no site data for bulk density. A value of 1.6 kg/L was specified in the model based on Biochlor references (Aziz et. al., 2000).
Retardation	1	1 (no change)	There are no site data for retardation. Values for the distribution coefficients (K_d) were set so that retardation values were 1. This provides a conservative evaluation with respect to plume migration because it assumes no effective retardation of the plume.

Table 4
Flow Model Calibration Results
Former Miller Brewing Canning Facility
Moultrie, Georgia

Well	Average Elevations (ft)	Simulated Elevations (ft)	Elevation Difference (ft)
CH2MW-1	288.41	287.42	0.99
CH2MW-1A	284.28	284.37	-0.09
CH2MW-2*	289.92	294.15	-4.23
CH2MW-3*	290.94	293.20	-2.26
CH2MW-5	289.11	290.51	-1.40
ETCMW-113	290.45	290.70	-0.25
ETCMW-114	290.27	290.74	-0.47
ETCMW-115	290.41	289.84	0.57
ETMW-116	290.70	290.20	0.50
ETMW-117	290.46	289.72	0.74
ETMW-118	289.76	289.57	0.19
ETMW-119	290.69	290.53	0.16
ETMW-120	290.65	290.20	0.45
ETMW-121	291.06	291.31	-0.25
OBGMW-122	289.39	289.16	0.23
OBGMW-123*	290.72	293.78	-3.06
CH2PP-1	287.00	287.11	-0.11

Notes:
* - Well not used for calibration

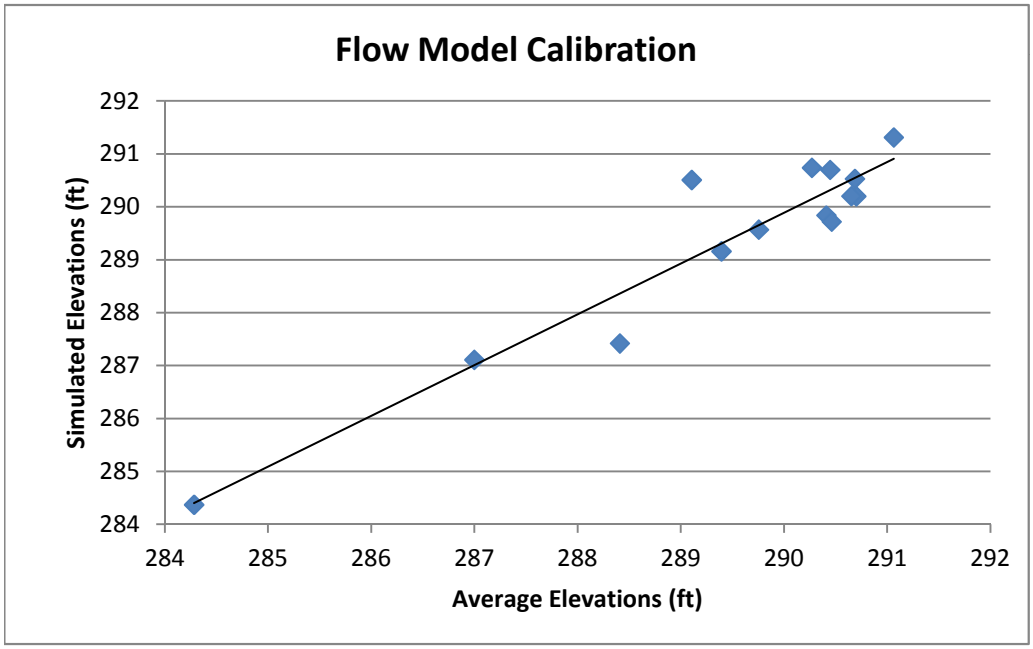


Table 5
Transport Model Calibration Results
Former Miller Brewing Canning Facility
Moultrie, Georgia

Initial Model Conditions - 2004

Well	TCE (mg/L)		DCE (mg/L)		VC (mg/L)	
	Observed	Specified	Observed	Specified	Observed	Specified
ETCMW-114	1.600	1.600	2.400	2.400	ND	ND
ETCMW-113	0.160	0.060	0.066	0.090	ND	ND
ETMW-116	0.15	0.15	0.039	0.030	ND	ND
ETMW-118	0.021	0.020	0.006	0.005	ND	ND
ETMW-117	0.064	0.060	0.020	0.030	ND	ND
ETCMW-115	0.016	0.020	0.086	0.090	0.0015	ND
CH2MW-1	0.004	0.005	0.001	0.002	ND	ND
CH2PP-1	ND	ND	ND	ND	ND	ND

Model Calibration to 2011 Data

Well	TCE (mg/L)		DCE (mg/L)		VC (mg/L)	
	Observed	Simulated	Observed	Simulated	Observed	Simulated
ETCMW-114	0.590	0.675	1.500	1.439	0.003	0.010
ETCMW-113	0.002	0.002	0.300	0.052	0.027	0.032
ETMW-116	ND	0.006	0.003	0.004	0.120	0.136
ETMW-118	0.001	0.001	0.009	0.011	0.044	0.010
ETMW-117	ND	0.002	0.019	0.023	0.047	0.046
ETCMW-115	0.014	0.015	0.046	0.047	0.003	0.003
CH2MW-1	0.007	0.003	ND	0.001	ND	0.001
CH2PP-1*	0.002	ND	ND	ND	ND	ND

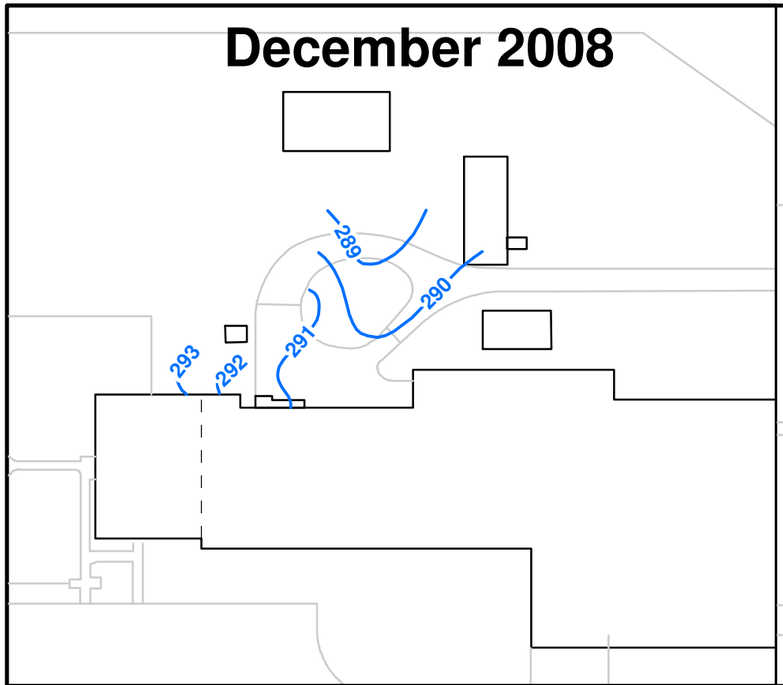
Notes:

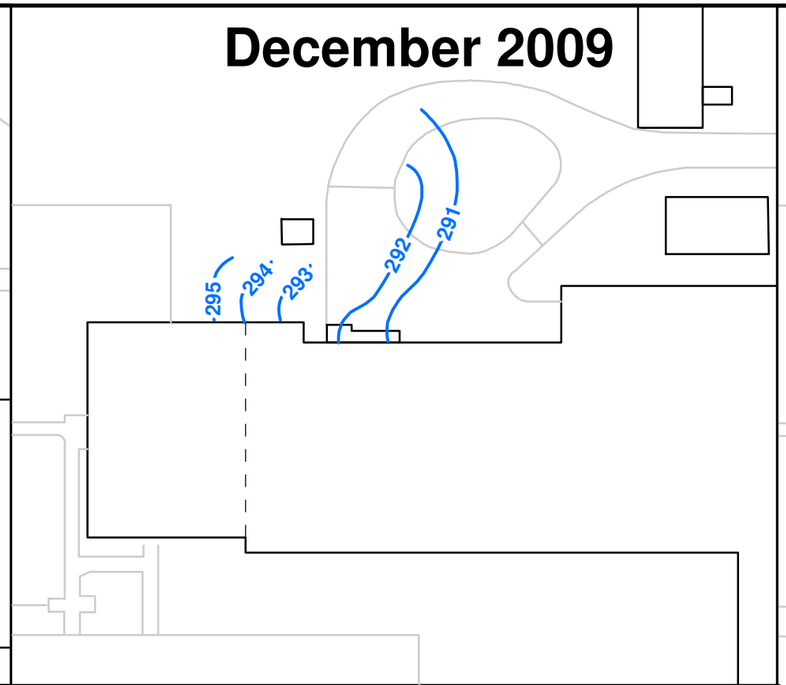
* Simulated TCE concentration is between ND and 3 µg/l in adjacent cells

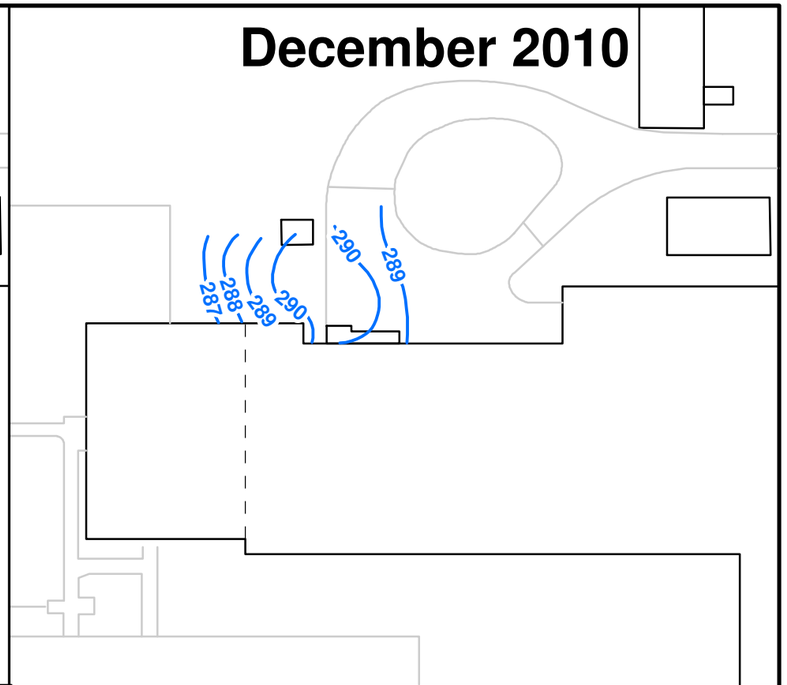
Table 6
Calibrated Biodegradation Rates
Former Miller Brewing Canning Facility
Moultrie, Georgia

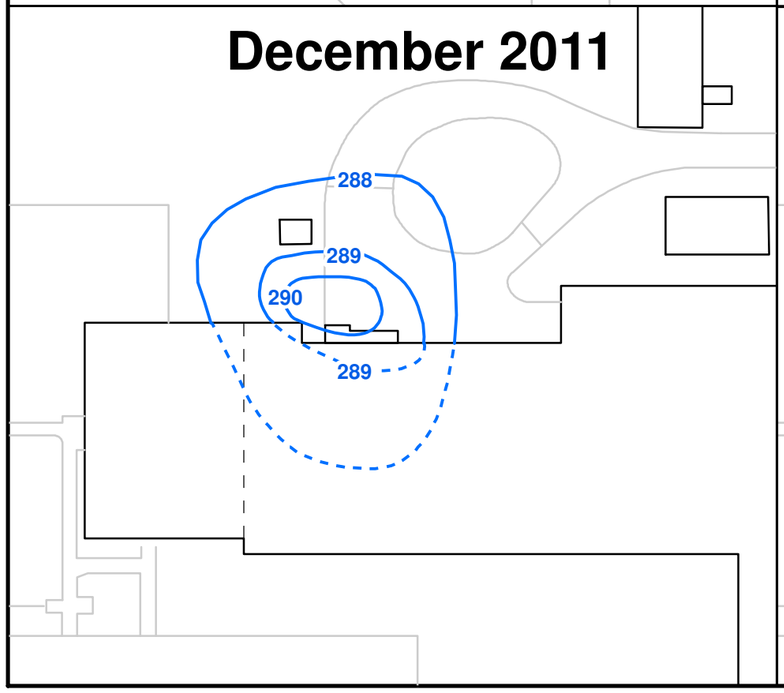
Calculated Biodegradation Rates (day^{-1})			
Biodegradation Zone	**TCE to cis-1,2-DCE**	**Cis-1,2-DCE to VC**	**VC to Ethene**
1	0.003	0.001	0.0006
2	0.0011	0.0011	0.1
3	0.0045	0.001	0.0006
4	0.0003	0.001	0.01
5	0.0045	0.02	0.0007
6	0.0045	0.01	0.0006
7	0.0045	0.001	0.0005

Figures









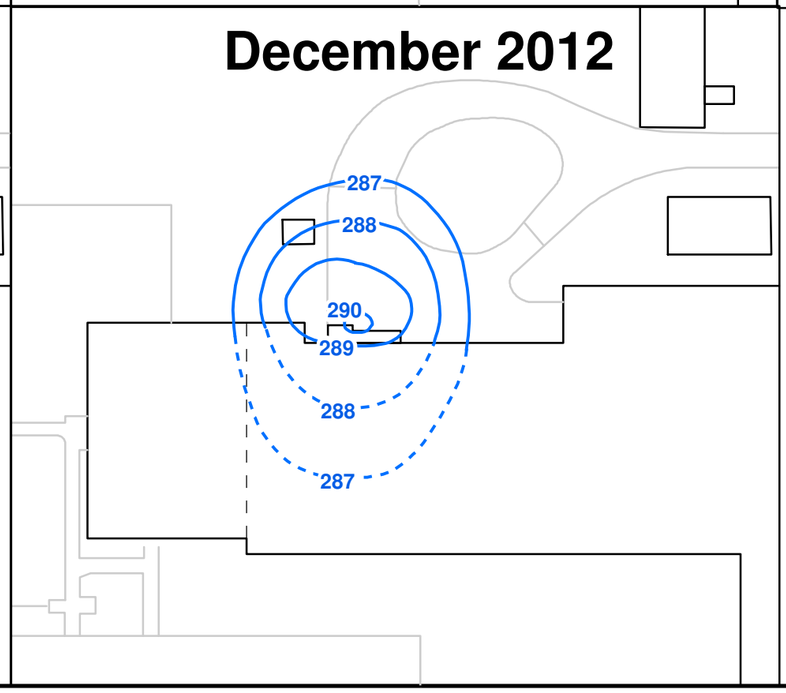


FIGURE 1

HISTORICAL SUMMARY OF
POTENTIOMETRIC SURFACES

2008 - 2012

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

Groundwater Elevation (ft msl)

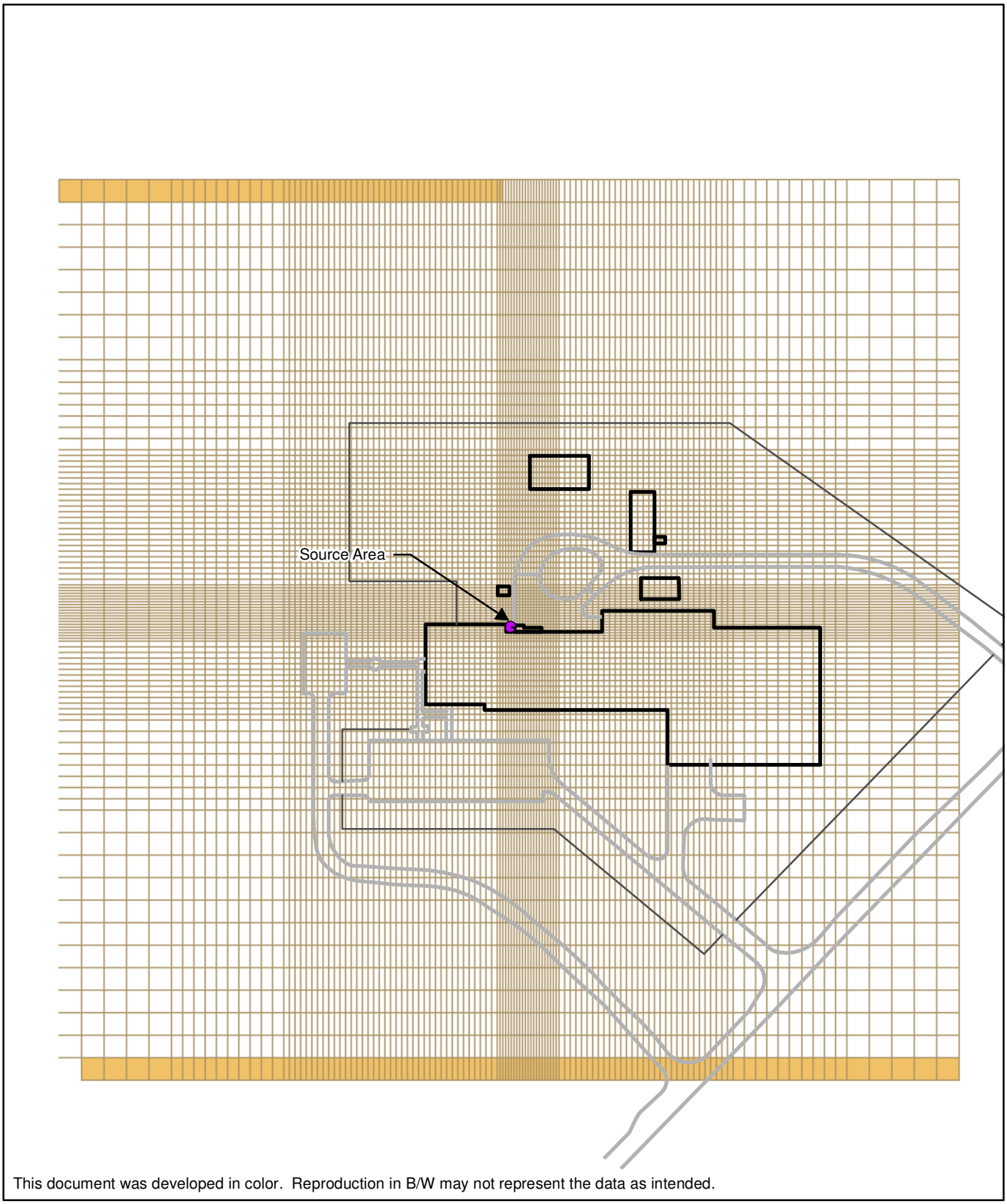
Inferred Groundwater Elevation (ft msl)

0 50 100 200 Feet

N

O'BRIEN & GERE

FIGURE 2



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Waste Solvent Tank Piping Release
Model Cells
Constant Head Cells
Buildings
fence
road

MILLER BREWING COMPANY
MOULTRIE, GA

MODEL AREA

N

0 125 250 500
Feet

08/01/14
52159

O'BRIEN & GERE

PLOTDATE: 11/10/14 12:53:02 PM GarretS
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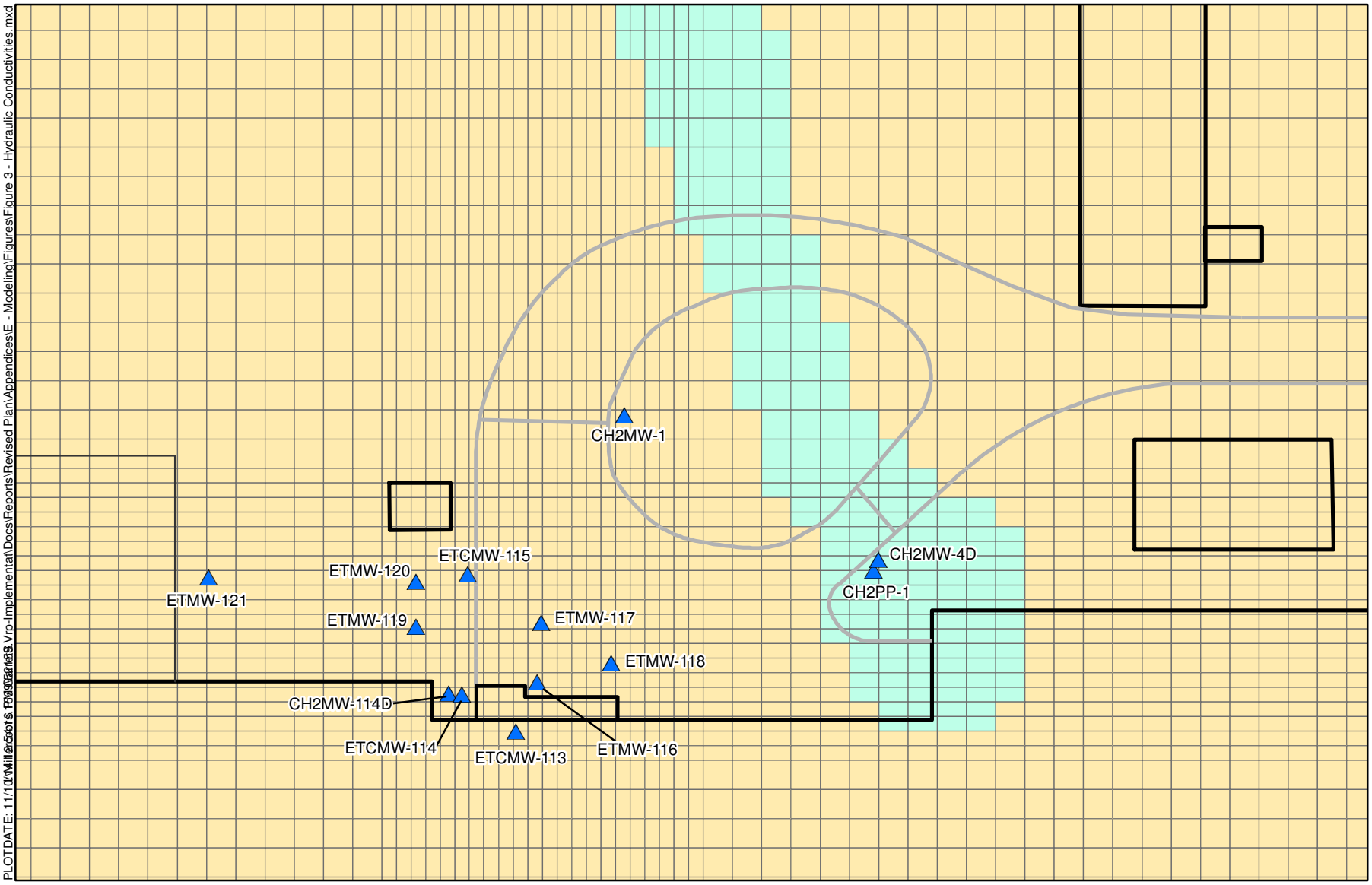


Hydraulic Conductivity (ft/day)

- 0.006
- 0.23

- Monitoring Wells
- Buildings
- Fencline
- Roadway

MILLER BREWING COMPANY
MOULTRIE, GA

HYDRAULIC CONDUCTIVITIES

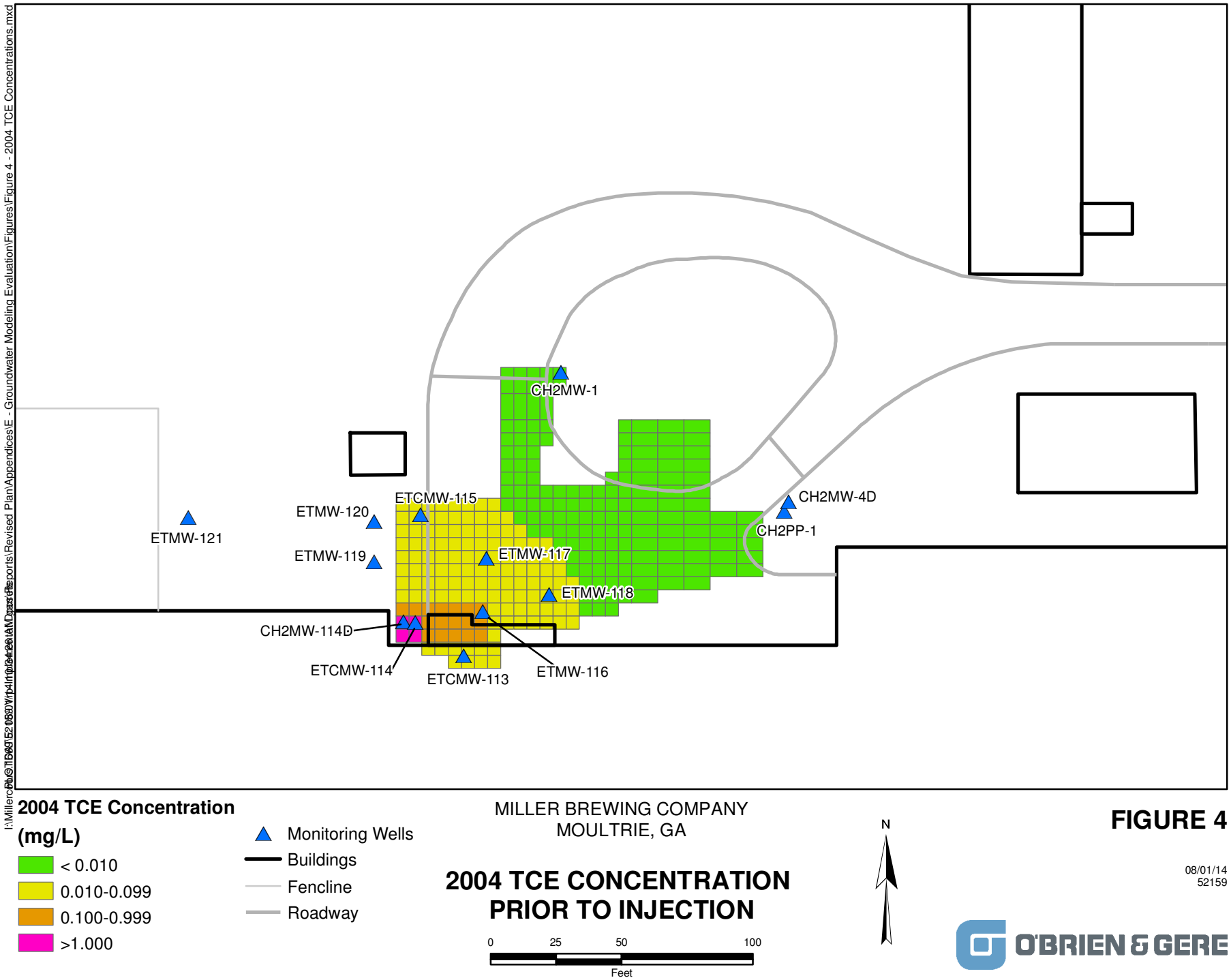
0 25 50 100
Feet

N

FIGURE 3

08/01/14
52159

O'BRIEN & GERE



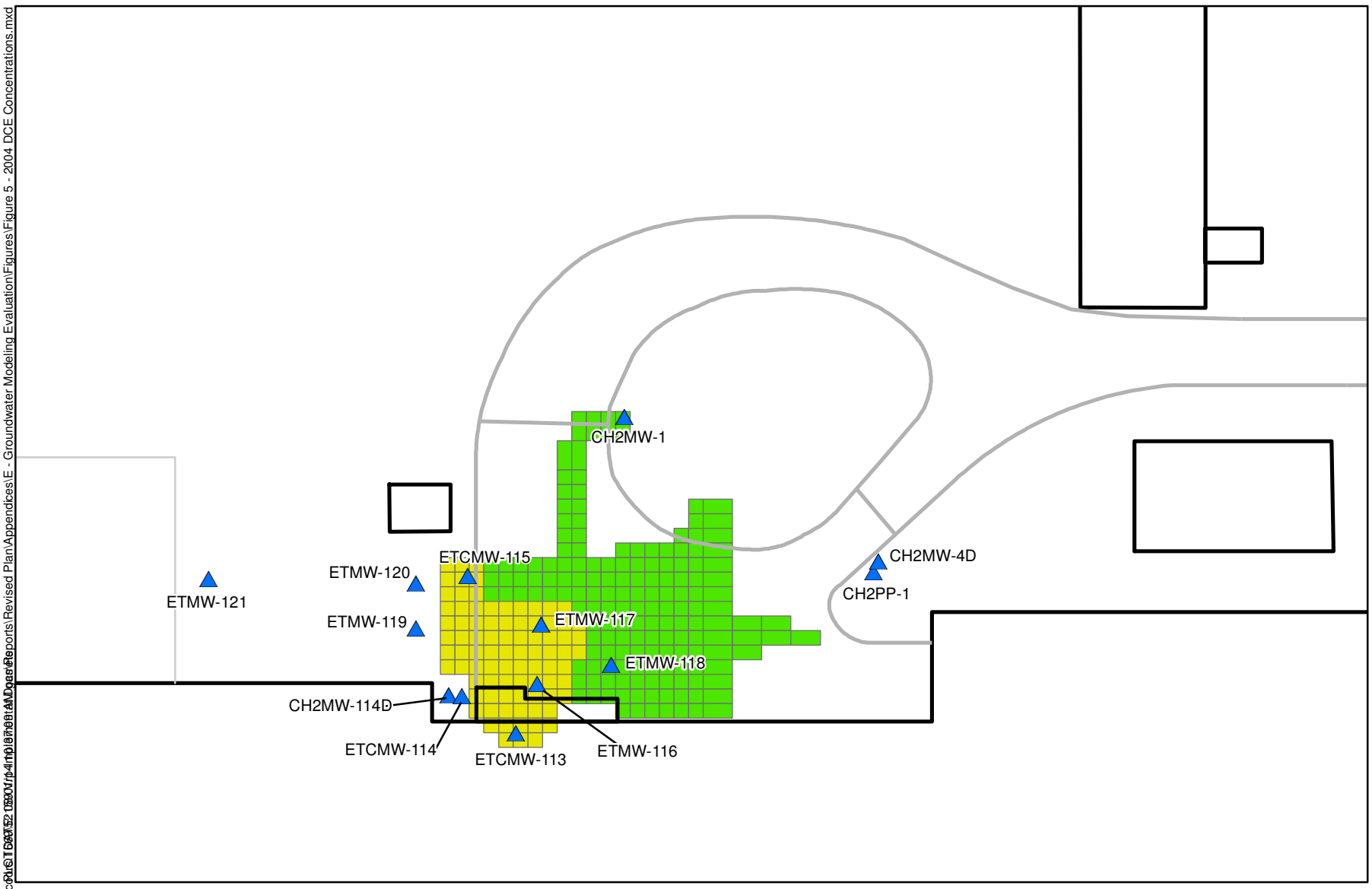
MILLER BREWING COMPANY
MOULTRIE, GA

2004 TCE CONCENTRATION PRIOR TO INJECTION

FIGURE 4

08/01/14
52159

O'BRIEN & GERE



2004 DCE Concentration (mg/L)

- < 0.010
- 0.010-0.099
- 0.100-0.999
- >1.000

- Monitoring Wells
- Buildings
- Fencline
- Roadway

MILLER BREWING COMPANY
MOULTRIE, GA

2004 DCE CONCENTRATION PRIOR TO INJECTION

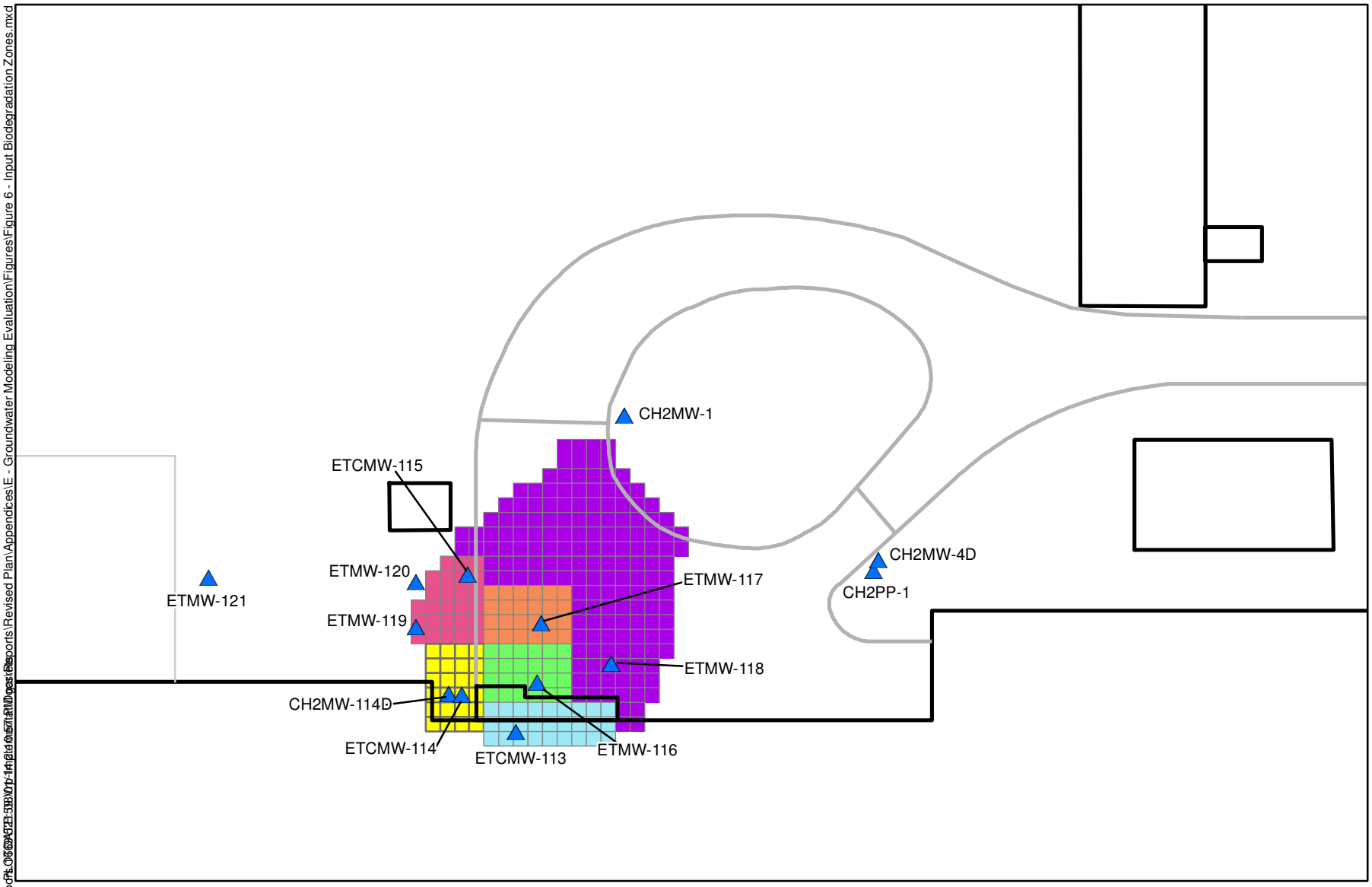
0 25 50 100
Feet

N

FIGURE 5

08/01/14
52159

O'BRIEN & GERE



Note: Zone 1 extends to limits of the model

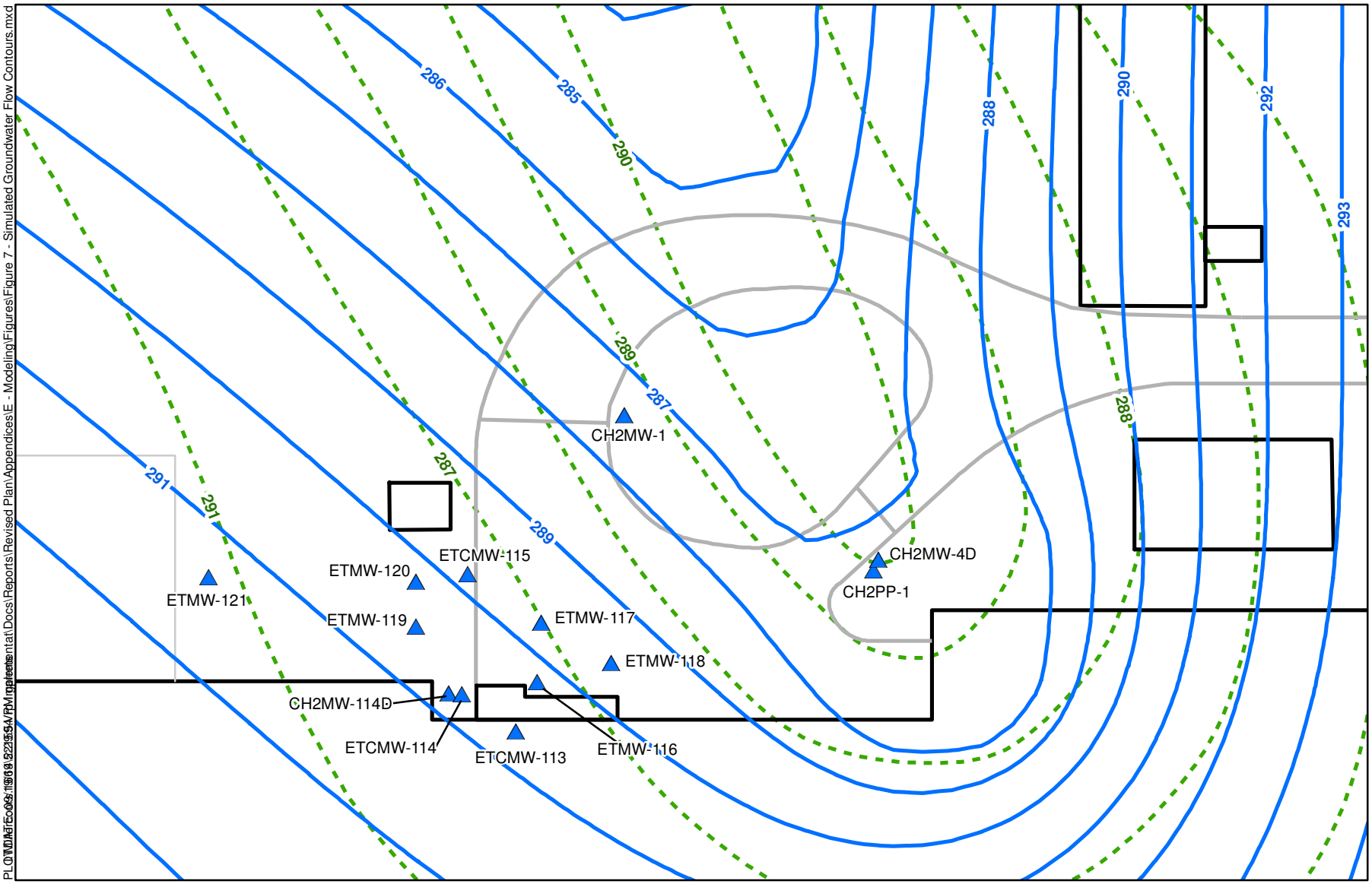
MILLER BREWING COMPANY
MOULTRIE, GA

INPUT BIODEGRADATION ZONES

FIGURE 6

08/01/14
52159

O'BRIEN & GERE



Monitoring Wells

Average Historical Groundwater Flow Contour (ft. msl)

Calibrated Groundwater Flow Contours (ft. msl)

Buildings

Fencline

Roadway

MILLER BREWING COMPANY
MOULTRIE, GA

GROUNDWATER FLOW CONTOURS

0 25 50 100
Feet

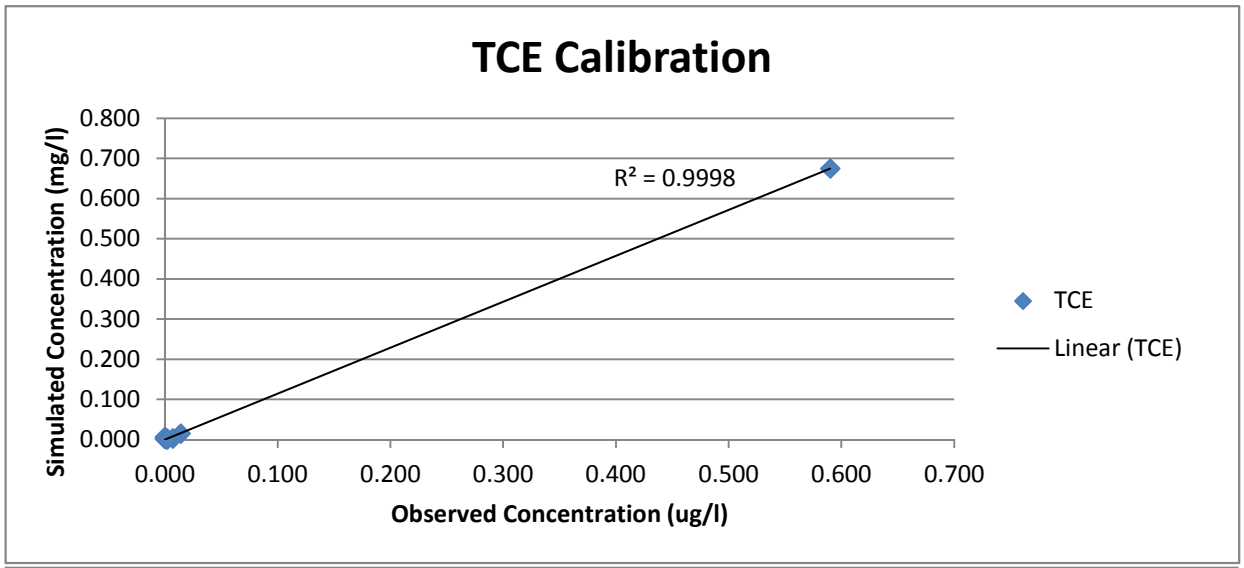
N

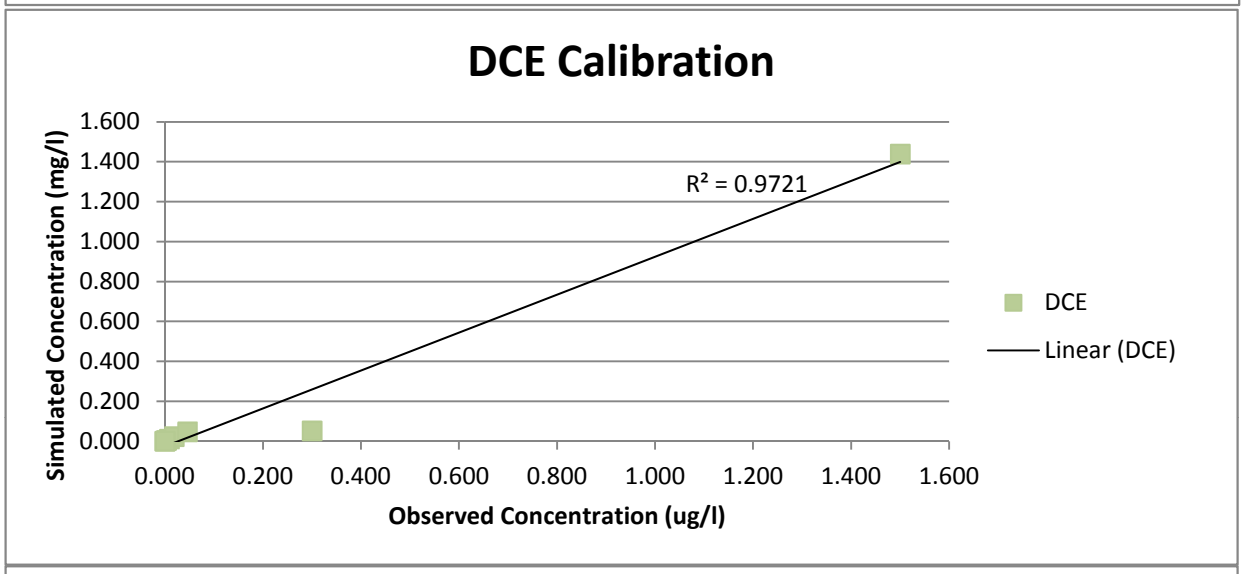
FIGURE 7

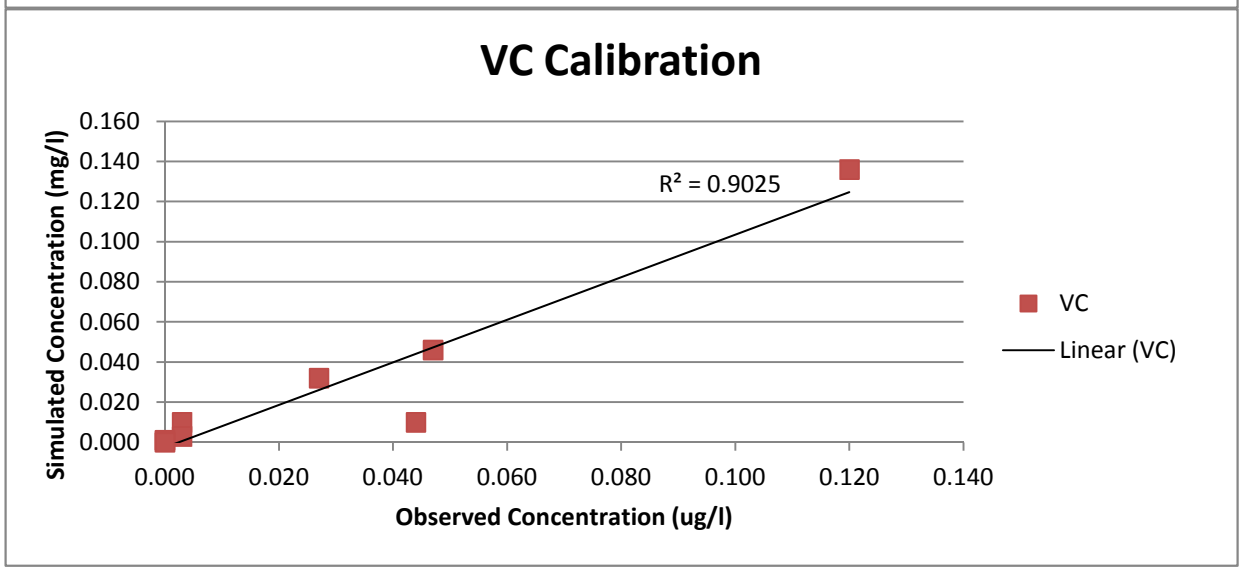
08/02/12
49078

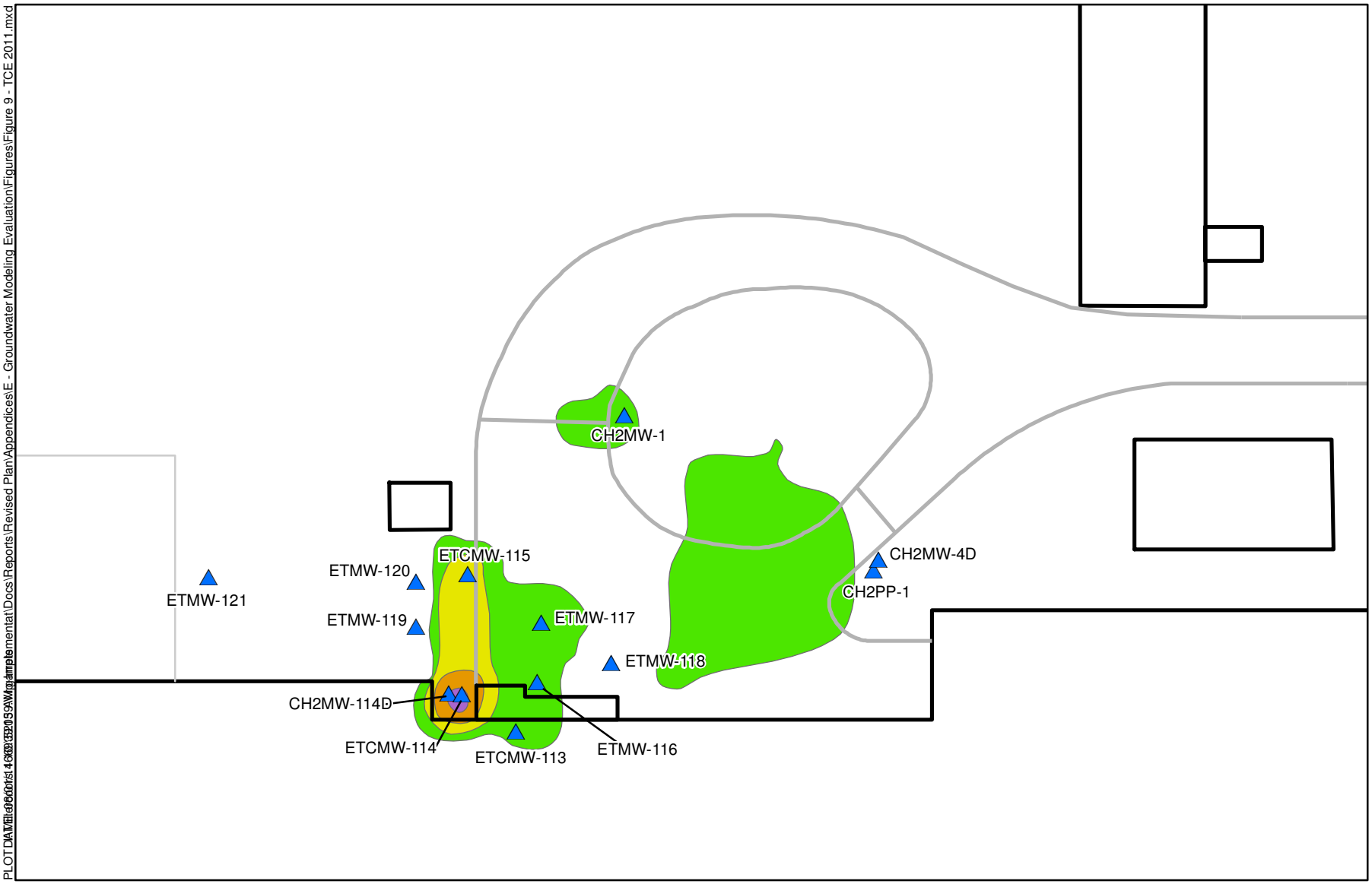
O'BRIEN & GERE

Figure 8
Transport Model Calibration Results
Former Miller Canning Facility
Moultrie, GA









2011 TCE Concentration (mg/L)

- 0.001-0.009
- 0.010-0.099
- 0.100-0.499
- > 0.500

- Monitoring Wells
- Buildings
- Fencline
- Roadway

TCE Type 1/3 RRS = 0.005 mg/L

MILLER BREWING COMPANY
MOULTRIE, GA

TCE CONCENTRATION MODEL RESULTS 2011

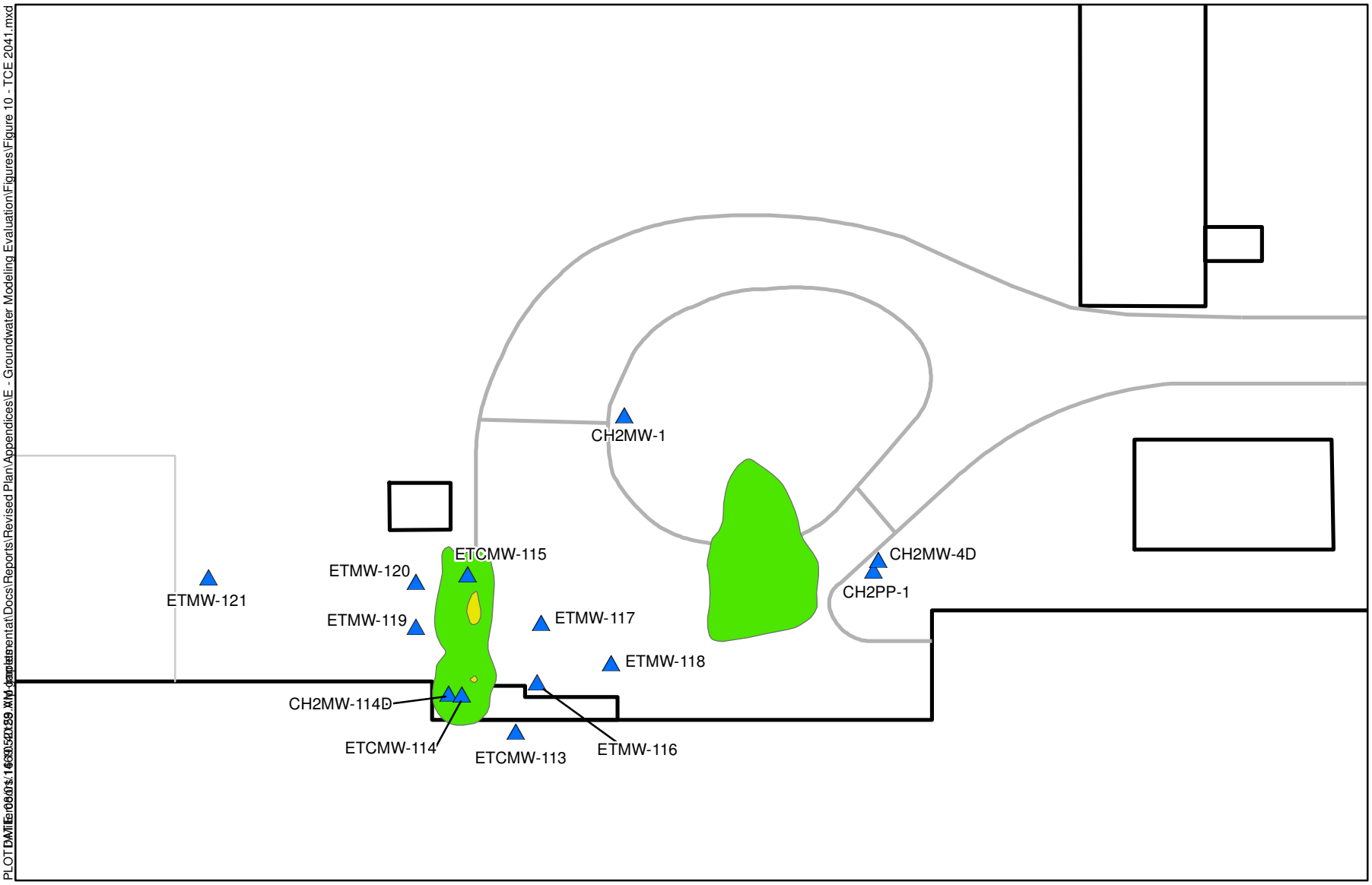
0 25 50 100
Feet

N

FIGURE 9

08/01/14
52159

O'BRIEN & GERE



2041 TCE Concentration (mg/L)

- 0.001-0.009
- 0.010-0.099

- Monitoring Wells
- Buildings
- Fencline
- Roadway

TCE Type 1/3 RRS = 0.005 mg/L

MILLER BREWING COMPANY
MOULTRIE, GA

PROJECTED TCE CONCENTRATION 2041

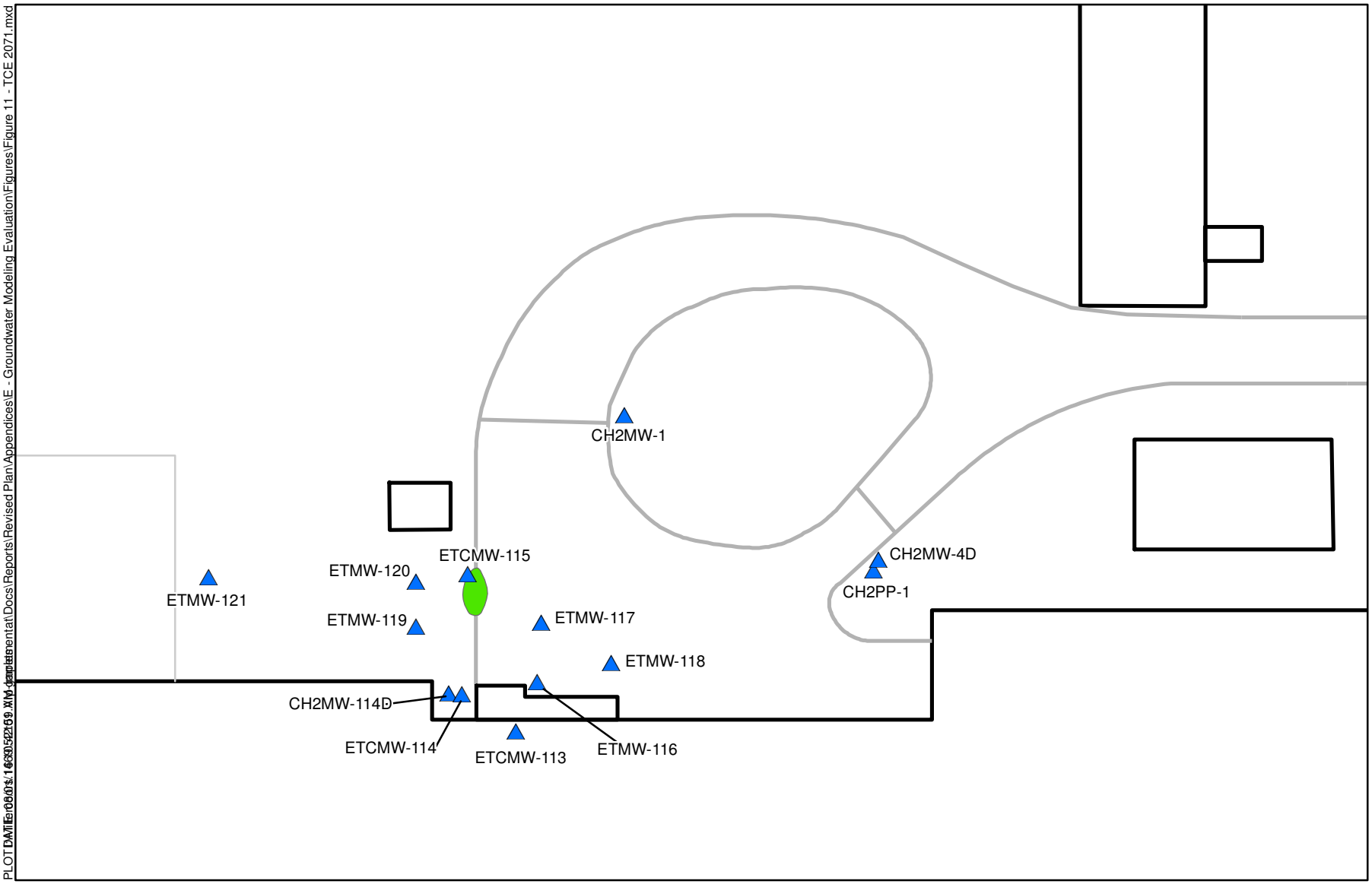
0 25 50 100
Feet

N

FIGURE 10

08/01/14
52159

O'BRIEN & GERE



2071 TCE Concentration (mg/L)

0.001-0.009

Monitoring Wells

Buildings

Fencline

Roadway

TCE Type 1/3 RRS = 0.005 mg/L

MILLER BREWING COMPANY
MOULTRIE, GA

PROJECTED TCE CONCENTRATION 2071

0 25 50 100

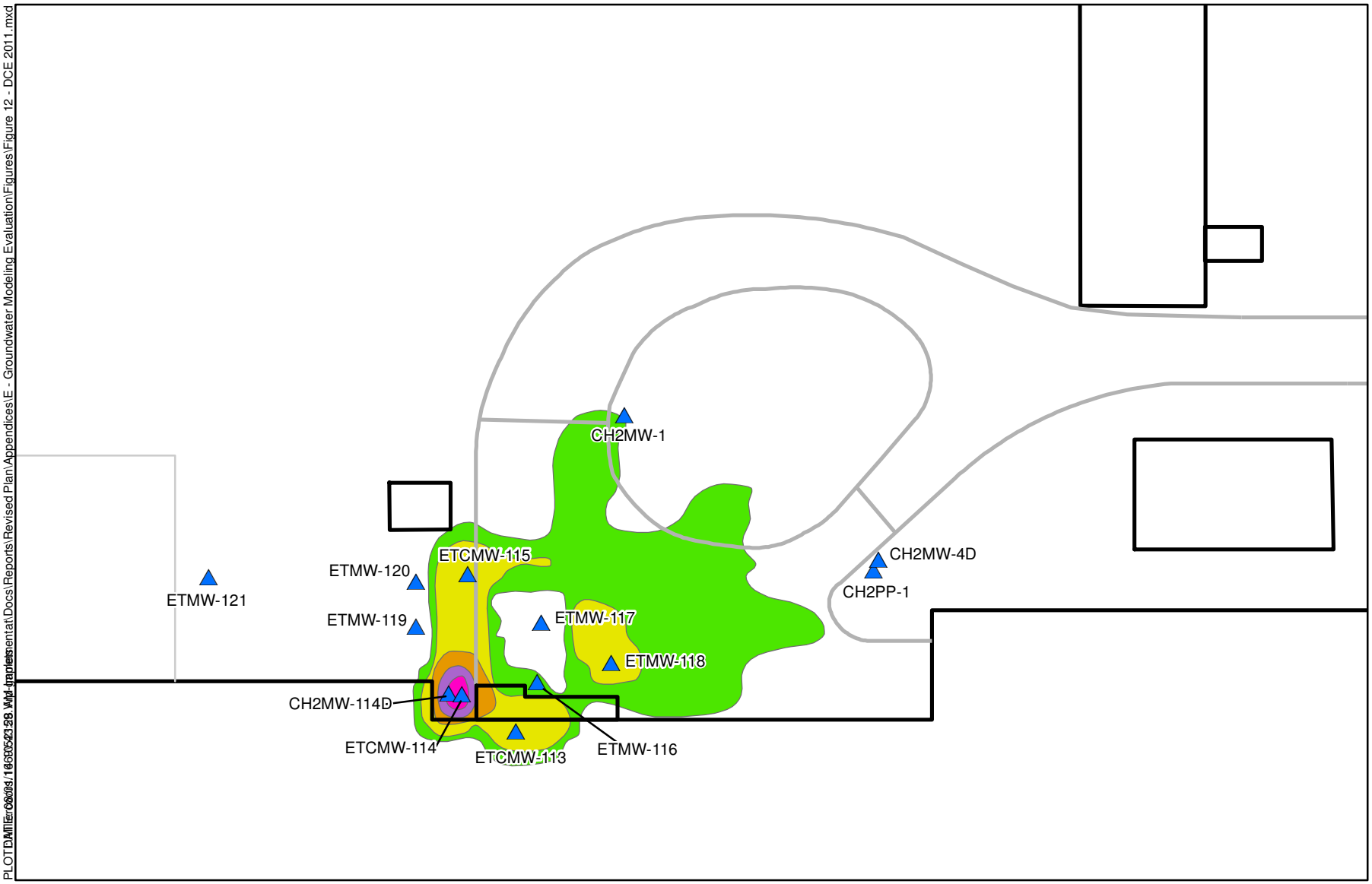
Feet

N

FIGURE 11

08/01/14
52159

O'BRIEN & GERE



2011 DCE Concentration (mg/L)

- 0.001-0.009
- 0.010-0.099
- 0.0100-0.499
- 0.500-0.999
- >1.000

Monitoring Wells
Buildings
Fencline
Roadway

DCE Type 1/3 RRS = 0.07 mg/L

MILLER BREWING COMPANY
MOULTRIE, GA

DCE CONCENTRATION MODEL RESULTS 2011

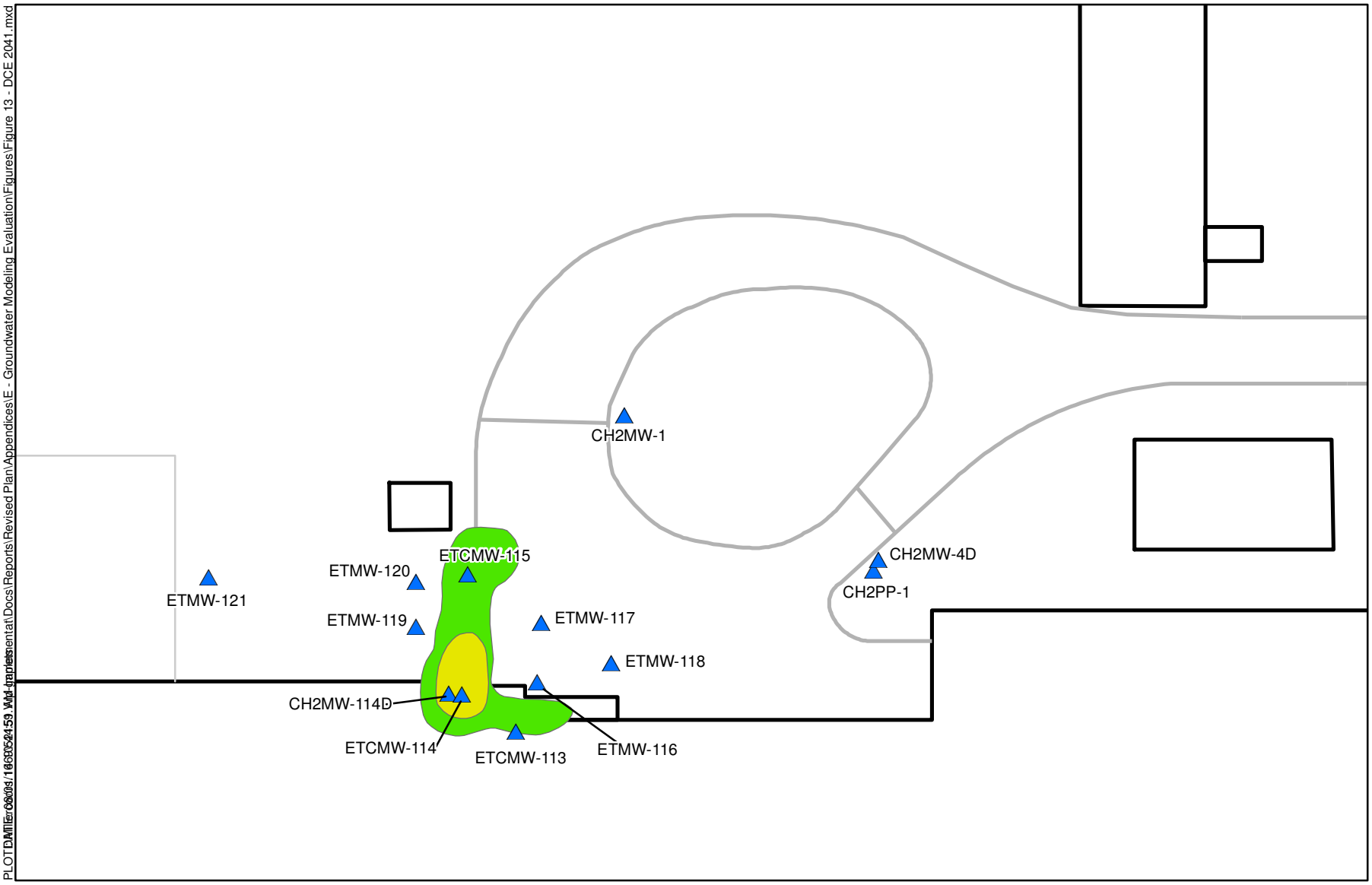
0 25 50 100
Feet

N

FIGURE 12

08/01/14
52159

O'BRIEN & GERE



2041 DCE Concentration (mg/L)

- 0.001-0.009
- 0.010-0.099

- Monitoring Wells
- Buildings
- Fencline
- Roadway

DCE Type 1/3 RRS = 0.07 mg/L

MILLER BREWING COMPANY
MOULTRIE, GA

PROJECTED DCE CONCENTRATION 2041

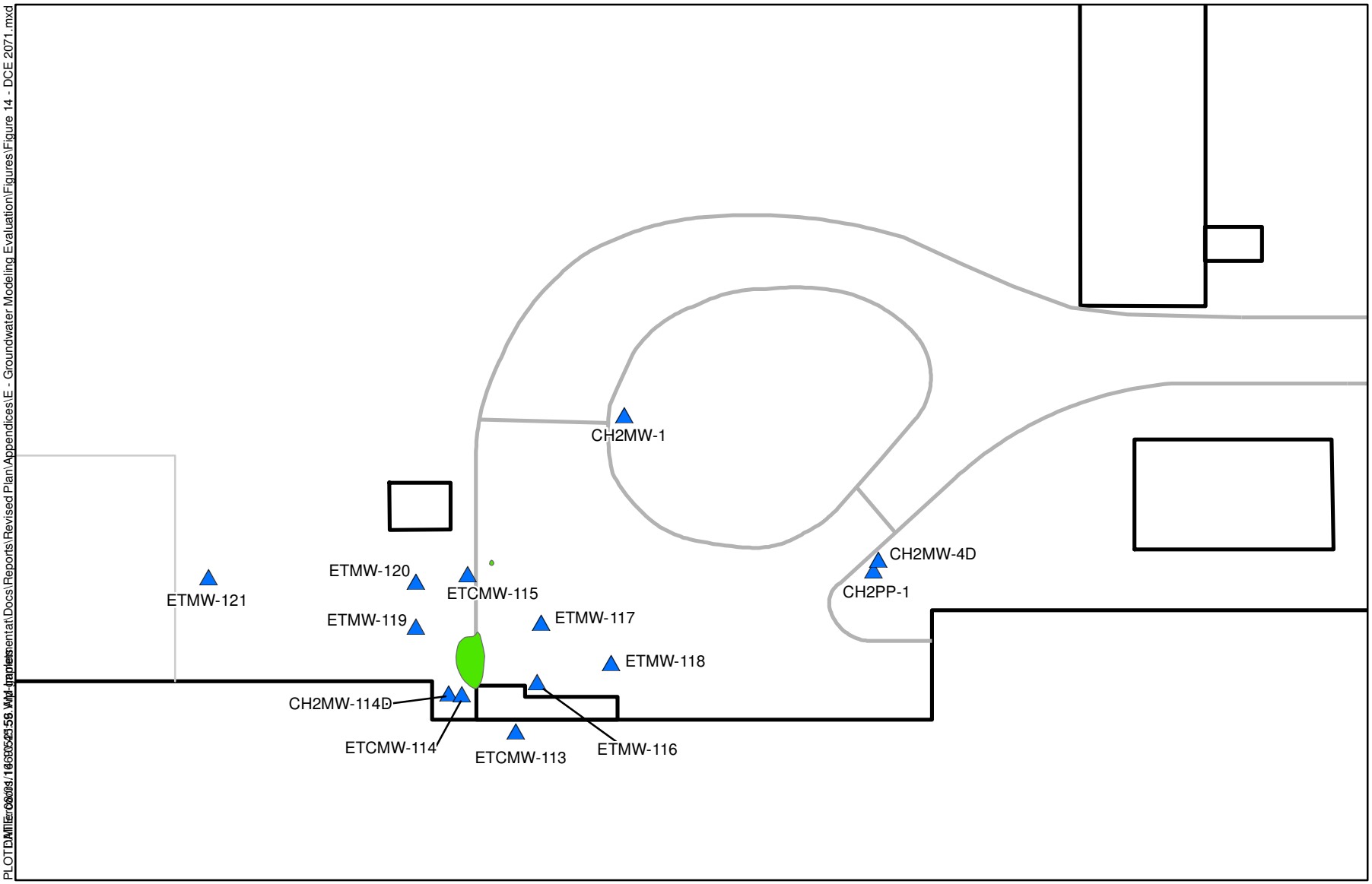
0 25 50 100
Feet

N

FIGURE 13

08/01/14
52159

O'BRIEN & GERE



2071 DCE Concentration (mg/L)

0.001-0.009

Monitoring Wells

Buildings

Fencline

Roadway

DCE Type 1/3 RRS = 0.07 mg/L

MILLER BREWING COMPANY
MOULTRIE, GA

PROJECTED DCE CONCENTRATION 2071

0 25 50 100

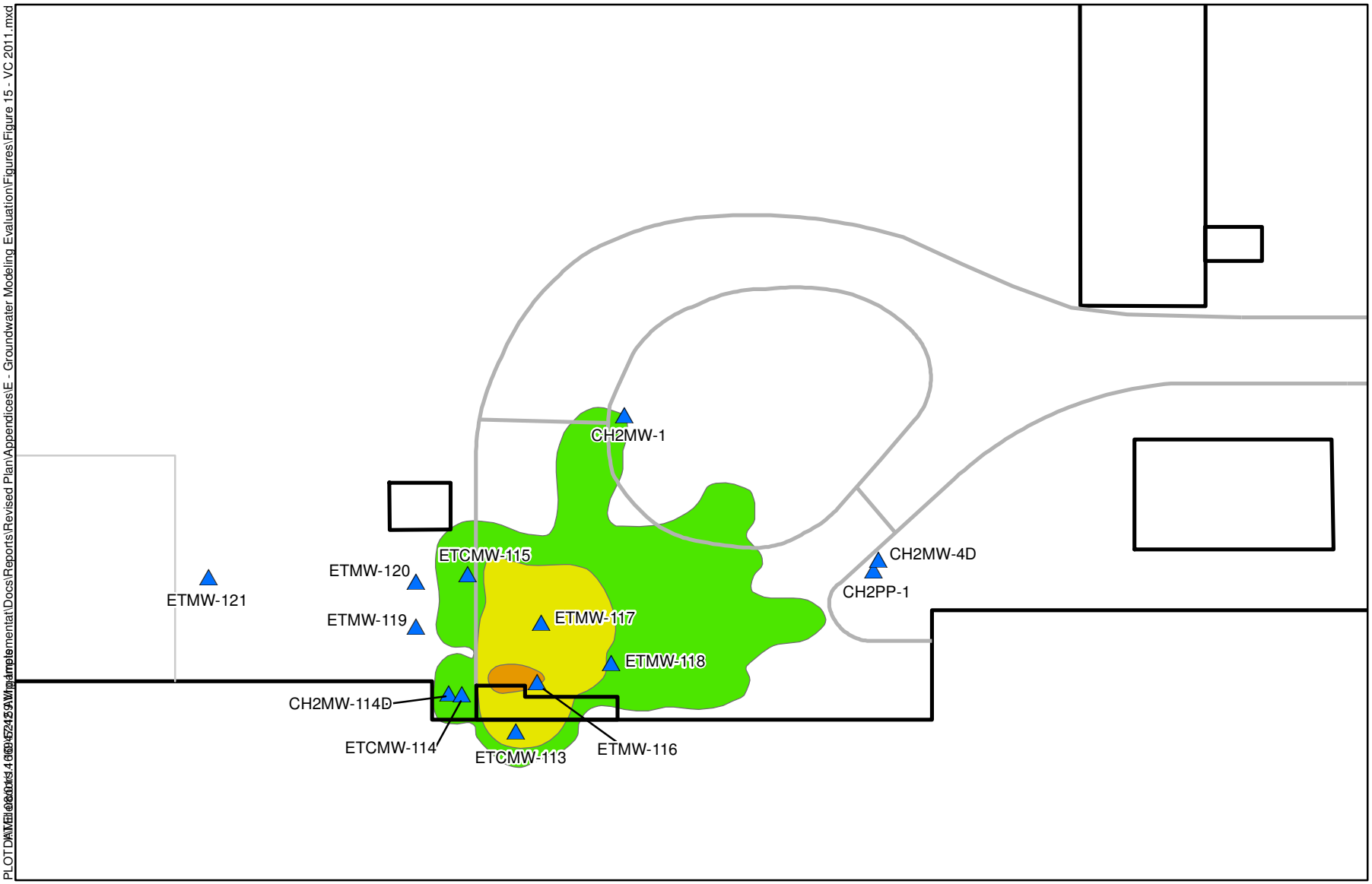
Feet

N

FIGURE 14

08/01/14
52159

O'BRIEN & GERE



2011 VC Concentration (mg/L)

- 0.001-0.009
- 0.010-0.099
- 0.100-0.499

Monitoring Wells
Buildings
Fencline
Roadway

VC Type 1/3 RRS = 0.002 mg/L

MILLER BREWING COMPANY
MOULTRIE, GA

VC CONCENTRATION MODEL RESULTS 2011

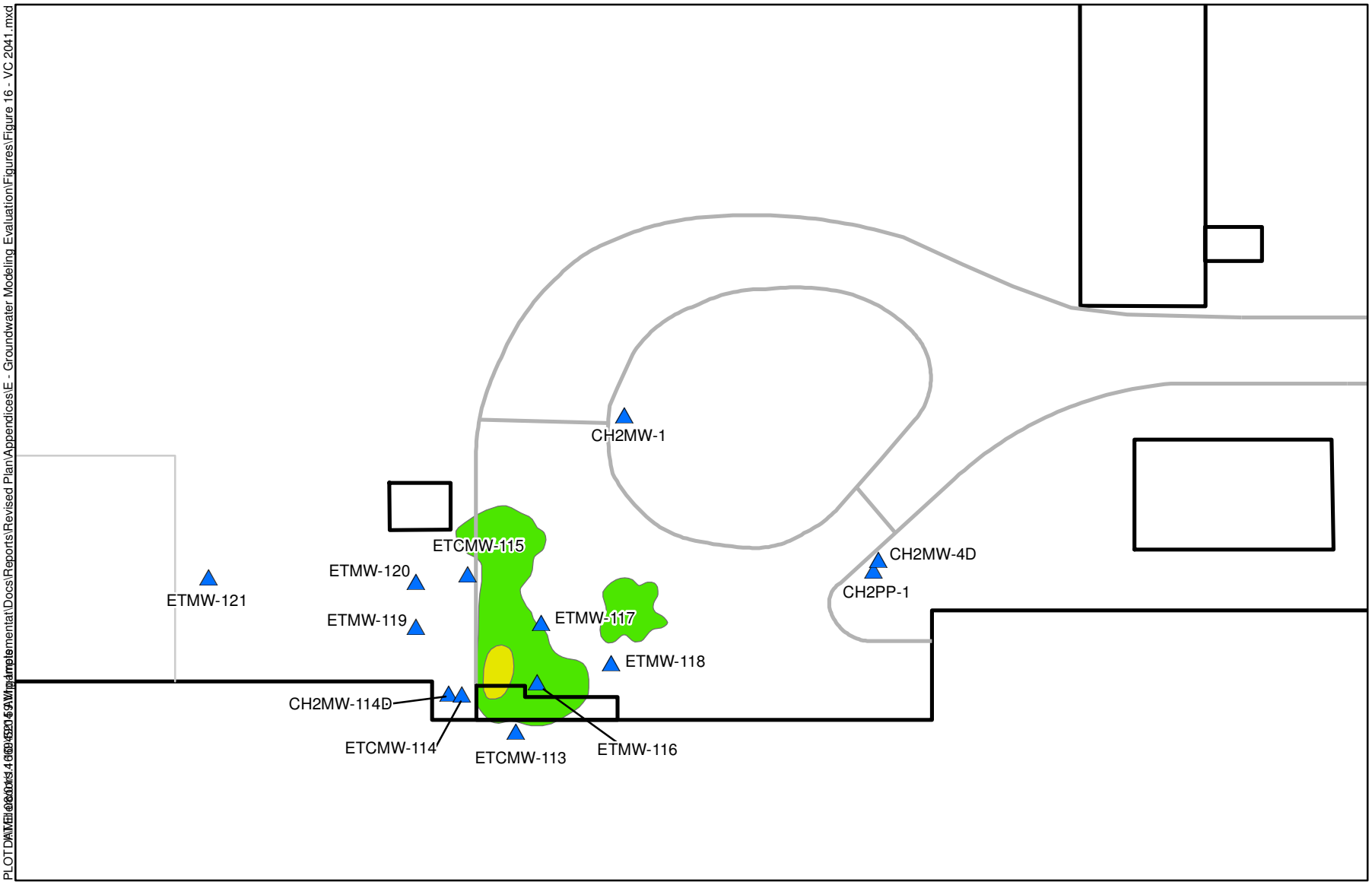
0 25 50 100
Feet

N

FIGURE 15

08/01/14
52159

O'BRIEN & GERE



2041 VC Concentration (mg/L)

- 0.001-0.009
- 0.010-0.099

- Monitoring Wells
- Buildings
- Fencline
- Roadway

VC Type 1/3 RRS = 0.002 mg/L

MILLER BREWING COMPANY
MOULTRIE, GA

PROJECTED VC CONCENTRATION 2041

0 25 50 100
Feet

N

FIGURE 16

08/01/14
52159

O'BRIEN & GERE

Attachment A

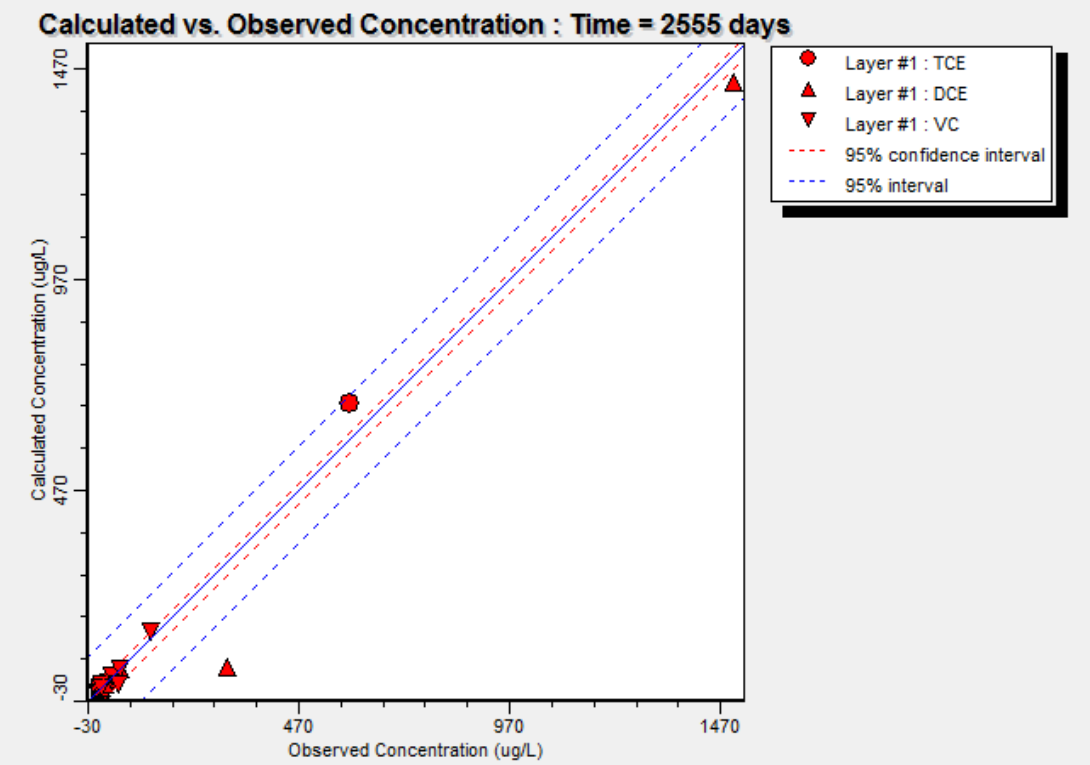
Sensitivity Evaluation

Sensitivity Evaluation
Former Miller Canning Facility
Moultrie, GA

	Calibrated Input Value	Sensitivity Evaluation Input Value	Absolute Residual Mean	Root Mean Squared	Normalized RMS %
Calibrated Model	NA	NA	20.1	55.5	3.7
Input Variable					
Sensitivity Run: Low K (ft/day)	0.006	0.003	19.0	54.6	3.6
Sensitivity Run: High K (ft/day)	0.006	0.03	72.6	205.7	13.7
Sensitivity Run: Low n_e	0.06	0.01	68.2	156.0	10.4
Sensitivity Run: High n_e	0.06	0.2	57.3	152.1	10.1
Sensitivity Run: Low Dispersion (ft)	1	0.1	19.2	56.9	3.8
Sensitivity Run: High Dispersion (ft)	1	10	42.8	121.5	8.1
Sensitivity Run: low porosity	0.4	0.1	20.1	55.5	3.7
Sensitivity Run: Low TCE Degradation (day^{-1})	0.0003 - 0.0045	0.0001	77.9	191.6	12.8
Sensitivity Run: high TCE Degradation (day^{-1})	0.0003 - 0.0045	0.008	43.6	132.0	8.8

SENSITIVITY EVALUATION RESULTS
FORMER MILLER CANNING FACILITY
MOULTRIE, GA

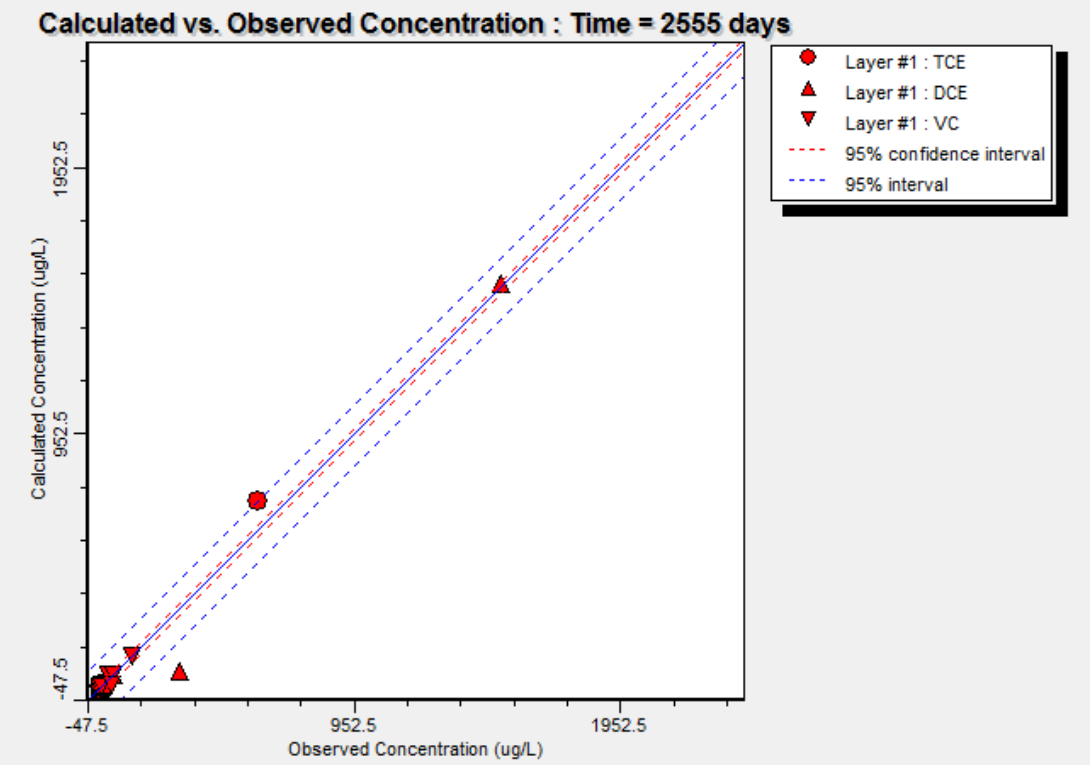
Calibration Run



Max. Residual: -247.515 (ug/L) at ETCMW-113/A
Min. Residual: 0.008 (ug/L) at CH2PP-1/A
Residual Mean : -9.102 (ug/L)
Abs. Residual Mean : 20.098 (ug/L)

Num. of Data Points : 24
Standard Error of the Estimate : 11.411 (ug/L)
Root Mean Squared : 55.478 (ug/L)
Normalized RMS : 3.699 (%)
Correlation Coefficient : 0.985

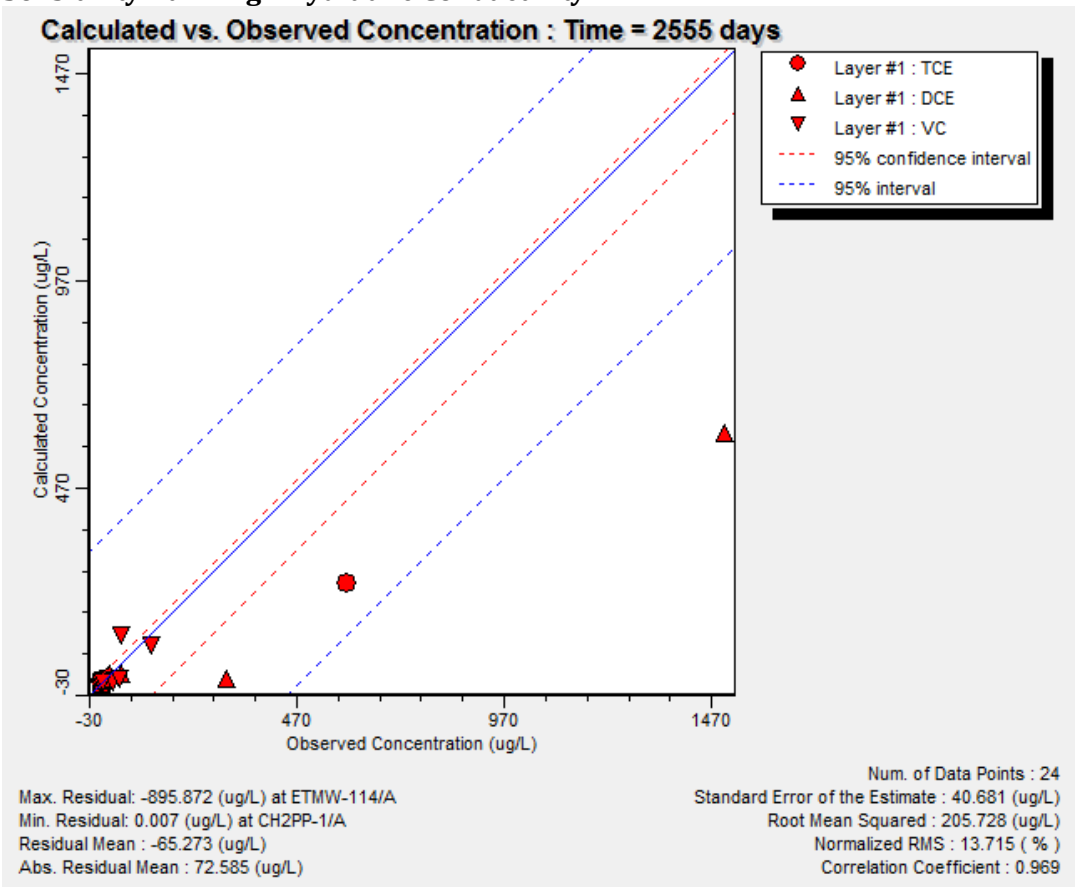
Sensitivity Run: Low Hydraulic Conductivity



Max. Residual: -240.968 (ug/L) at ETCMW-113/A
Min. Residual: 0.008 (ug/L) at CH2PP-1/A
Residual Mean : -4.671 (ug/L)
Abs. Residual Mean : 19.013 (ug/L)

Num. of Data Points : 24
Standard Error of the Estimate : 11.356 (ug/L)
Root Mean Squared : 54.662 (ug/L)
Normalized RMS : 3.644 (%)
Correlation Coefficient : 0.986

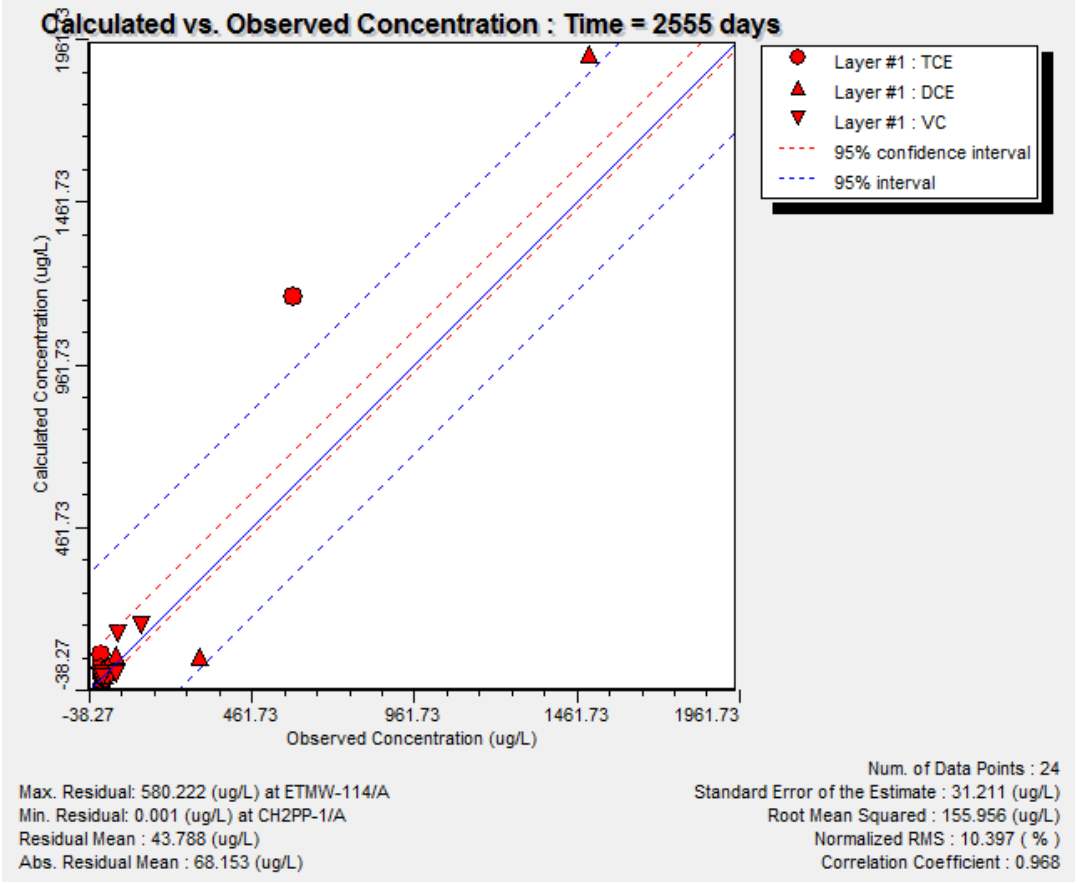
Sensitivity Run: High Hydraulic Conductivity



Max. Residual: -895.872 (ug/L) at ETMW-114/A
Min. Residual: 0.007 (ug/L) at CH2PP-1/A
Residual Mean : -65.273 (ug/L)
Abs. Residual Mean : 72.585 (ug/L)

Num. of Data Points : 24
Standard Error of the Estimate : 40.681 (ug/L)
Root Mean Squared : 205.728 (ug/L)
Normalized RMS : 13.715 (%)
Correlation Coefficient : 0.969

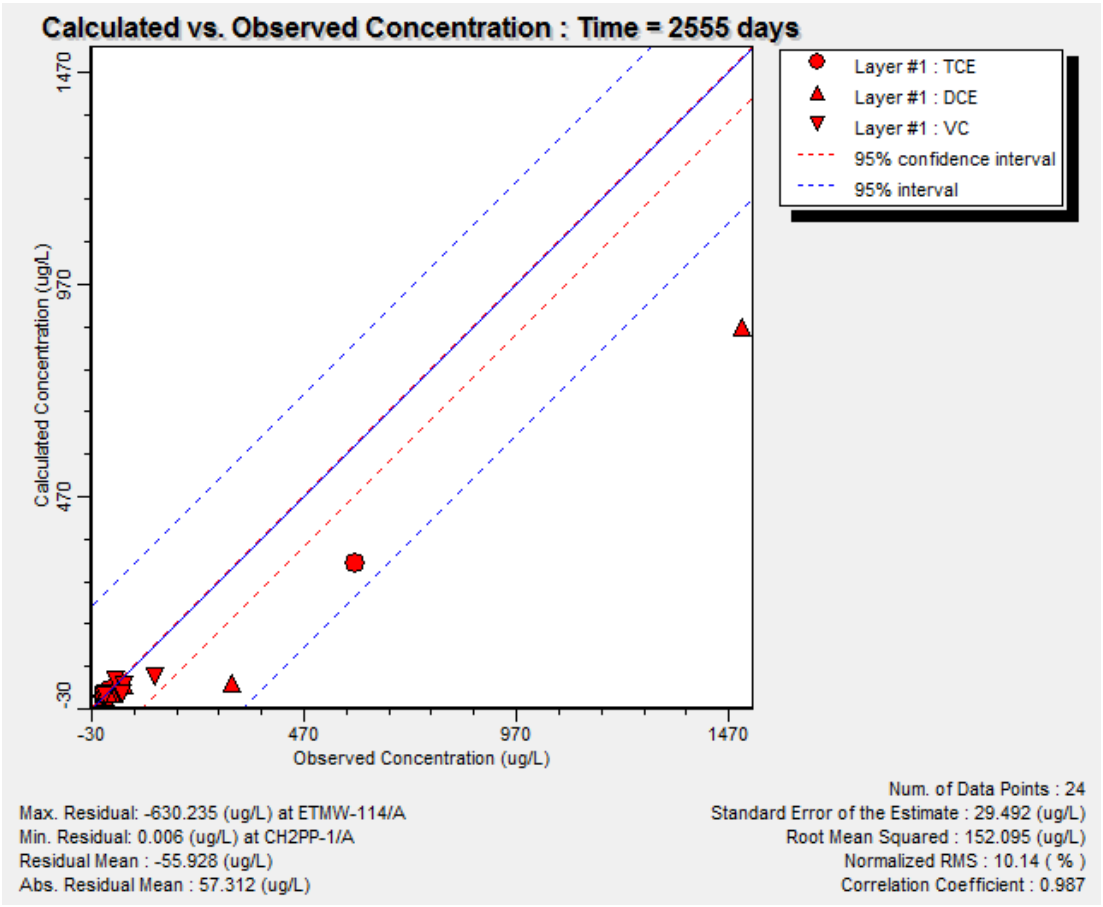
Sensitivity Run: Low Effective Porosity



Max. Residual: 580.222 (ug/L) at ETMW-114/A
Min. Residual: 0.001 (ug/L) at CH2PP-1/A
Residual Mean : 43.788 (ug/L)
Abs. Residual Mean : 68.153 (ug/L)

Num. of Data Points : 24
Standard Error of the Estimate : 31.211 (ug/L)
Root Mean Squared : 155.956 (ug/L)
Normalized RMS : 10.397 (%)
Correlation Coefficient : 0.968

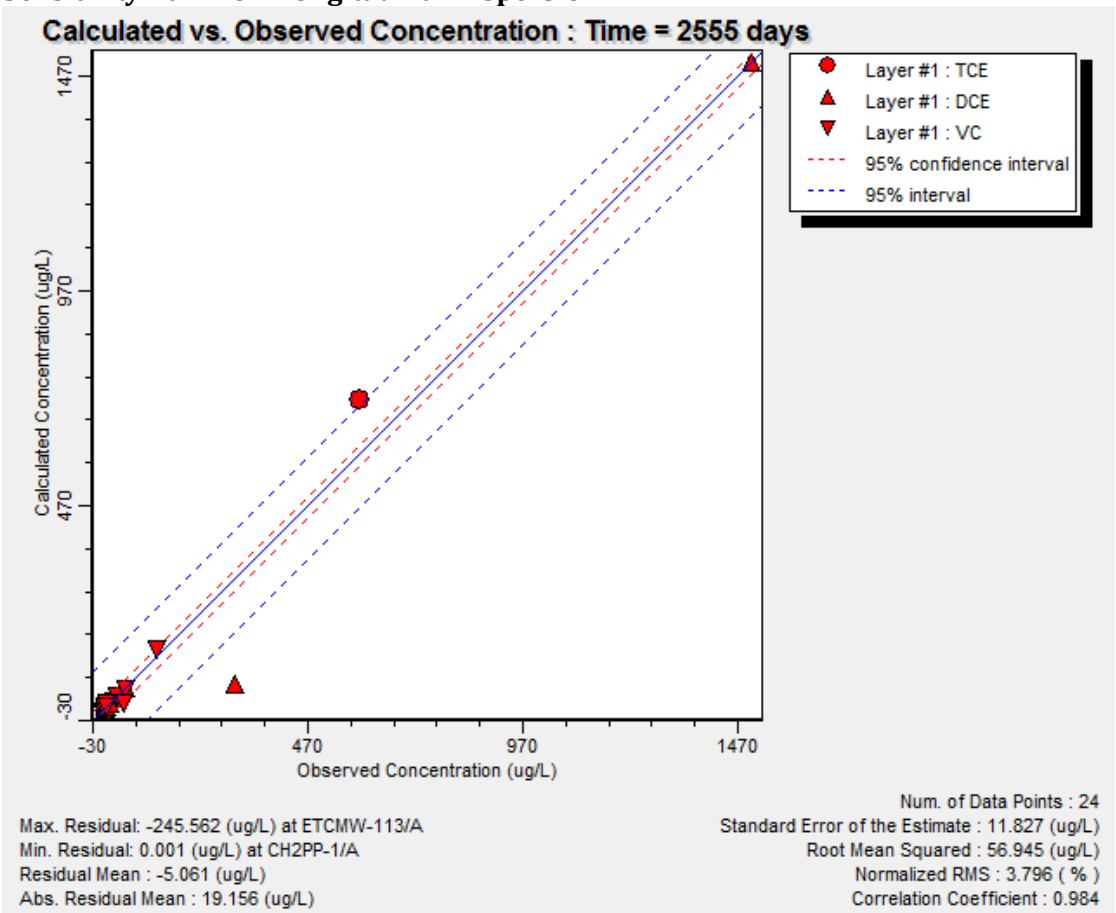
Sensitivity Run: High Effective Porosity



Max. Residual: -630.235 (ug/L) at ETMW-114/A
Min. Residual: 0.006 (ug/L) at CH2PP-1/A
Residual Mean : -55.928 (ug/L)
Abs. Residual Mean : 57.312 (ug/L)

Num. of Data Points : 24
Standard Error of the Estimate : 29.492 (ug/L)
Root Mean Squared : 152.095 (ug/L)
Normalized RMS : 10.14 (%)
Correlation Coefficient : 0.987

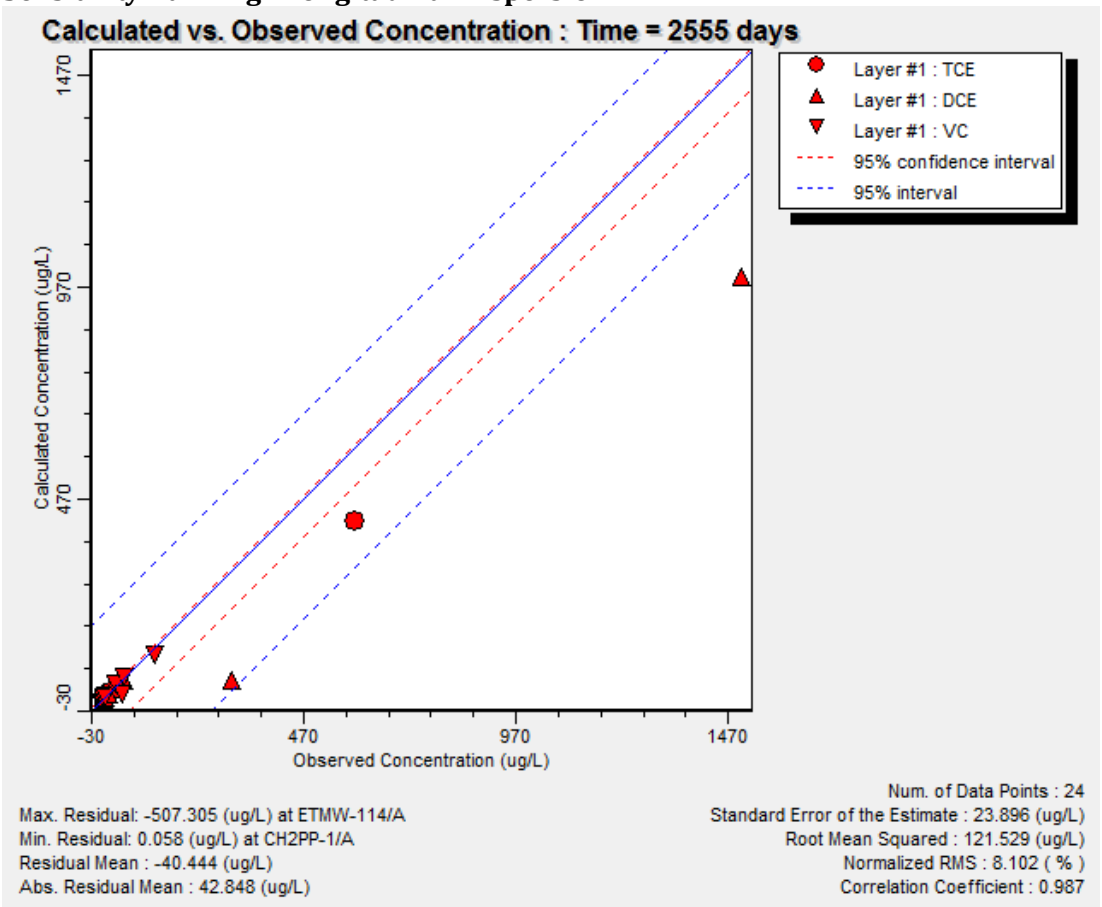
Sensitivity Run: Low Longitudinal Dispersion



Max. Residual: -245.562 (ug/L) at ETCMW-113/A
Min. Residual: 0.001 (ug/L) at CH2PP-1/A
Residual Mean : -5.061 (ug/L)
Abs. Residual Mean : 19.156 (ug/L)

Num. of Data Points : 24
Standard Error of the Estimate : 11.827 (ug/L)
Root Mean Squared : 56.945 (ug/L)
Normalized RMS : 3.796 (%)
Correlation Coefficient : 0.984

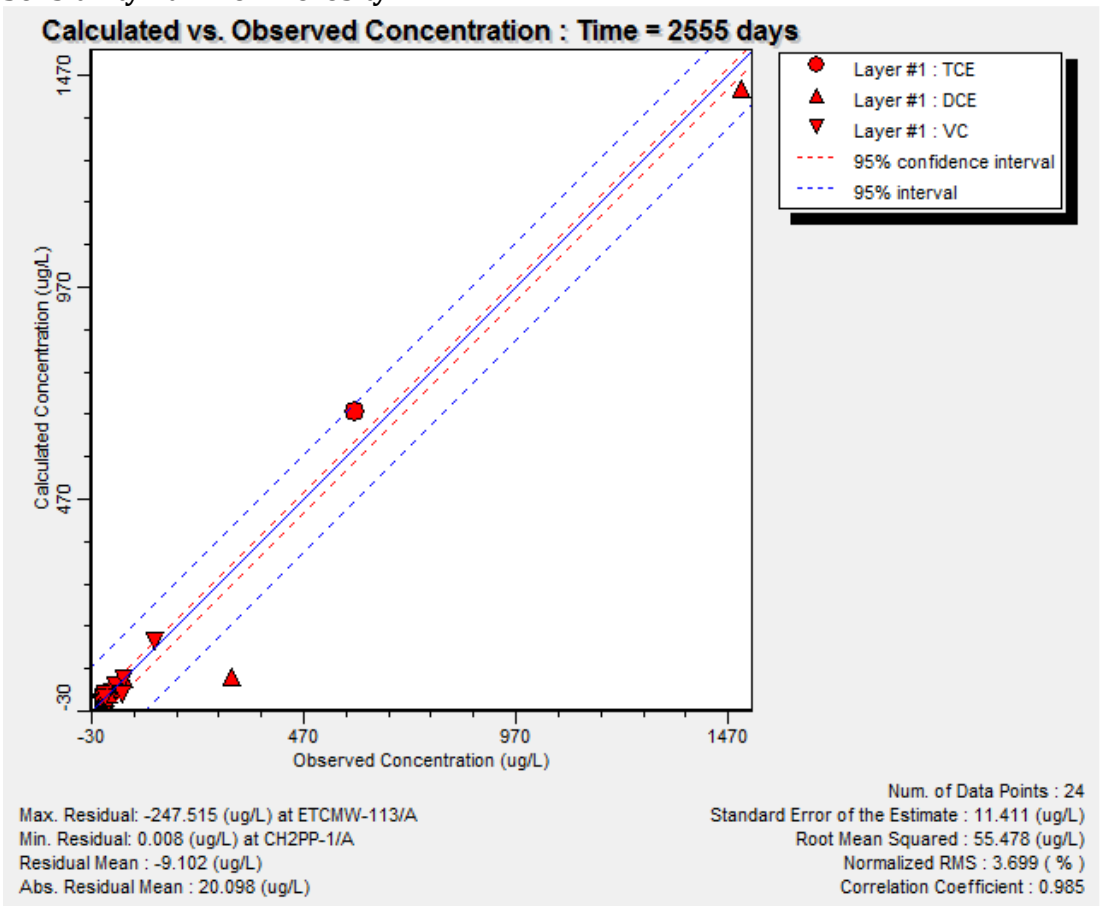
Sensitivity Run: High Longitudinal Dispersion



Max. Residual: -507.305 (ug/L) at ETMW-114/A
Min. Residual: 0.058 (ug/L) at CH2PP-1/A
Residual Mean : -40.444 (ug/L)
Abs. Residual Mean : 42.848 (ug/L)

Num. of Data Points : 24
Standard Error of the Estimate : 23.896 (ug/L)
Root Mean Squared : 121.529 (ug/L)
Normalized RMS : 8.102 (%)
Correlation Coefficient : 0.987

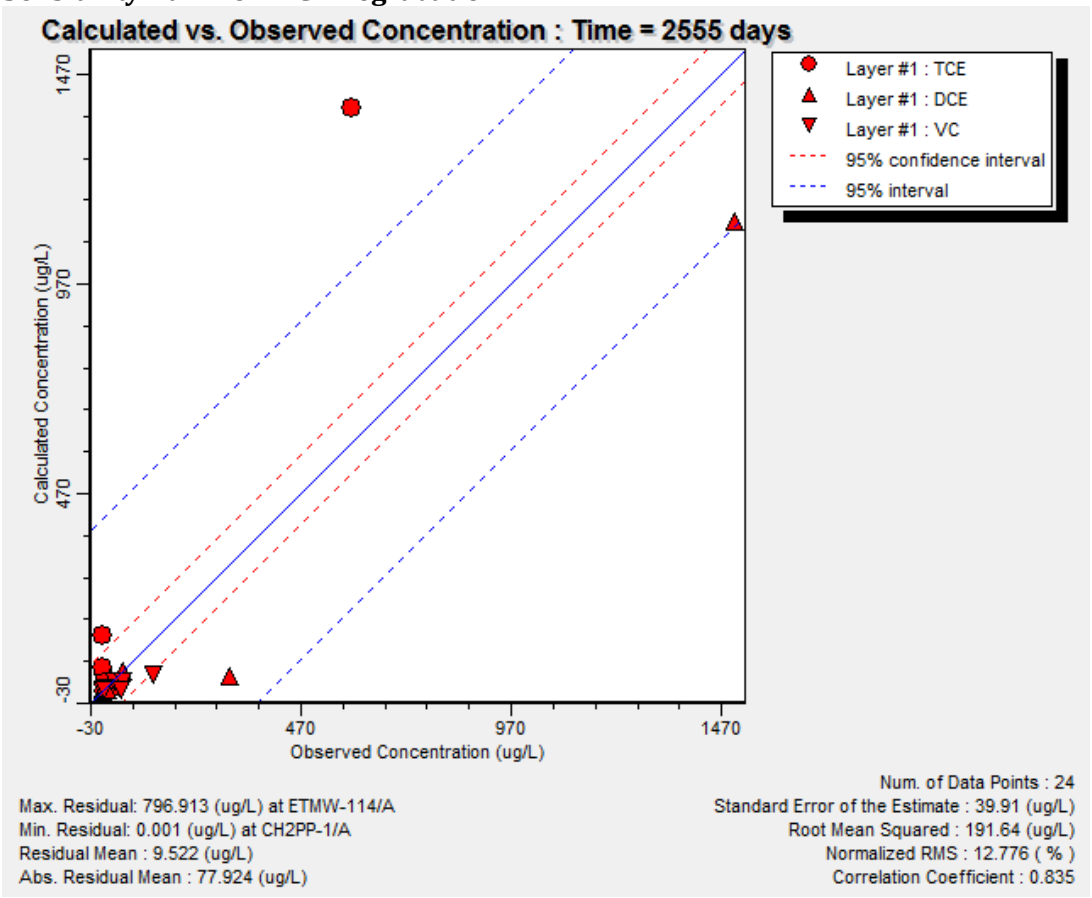
Sensitivity Run: Low Porosity



Max. Residual: -247.515 (ug/L) at ETCMW-113/A
Min. Residual: 0.008 (ug/L) at CH2PP-1/A
Residual Mean : -9.102 (ug/L)
Abs. Residual Mean : 20.098 (ug/L)

Num. of Data Points : 24
Standard Error of the Estimate : 11.411 (ug/L)
Root Mean Squared : 55.478 (ug/L)
Normalized RMS : 3.699 (%)
Correlation Coefficient : 0.985

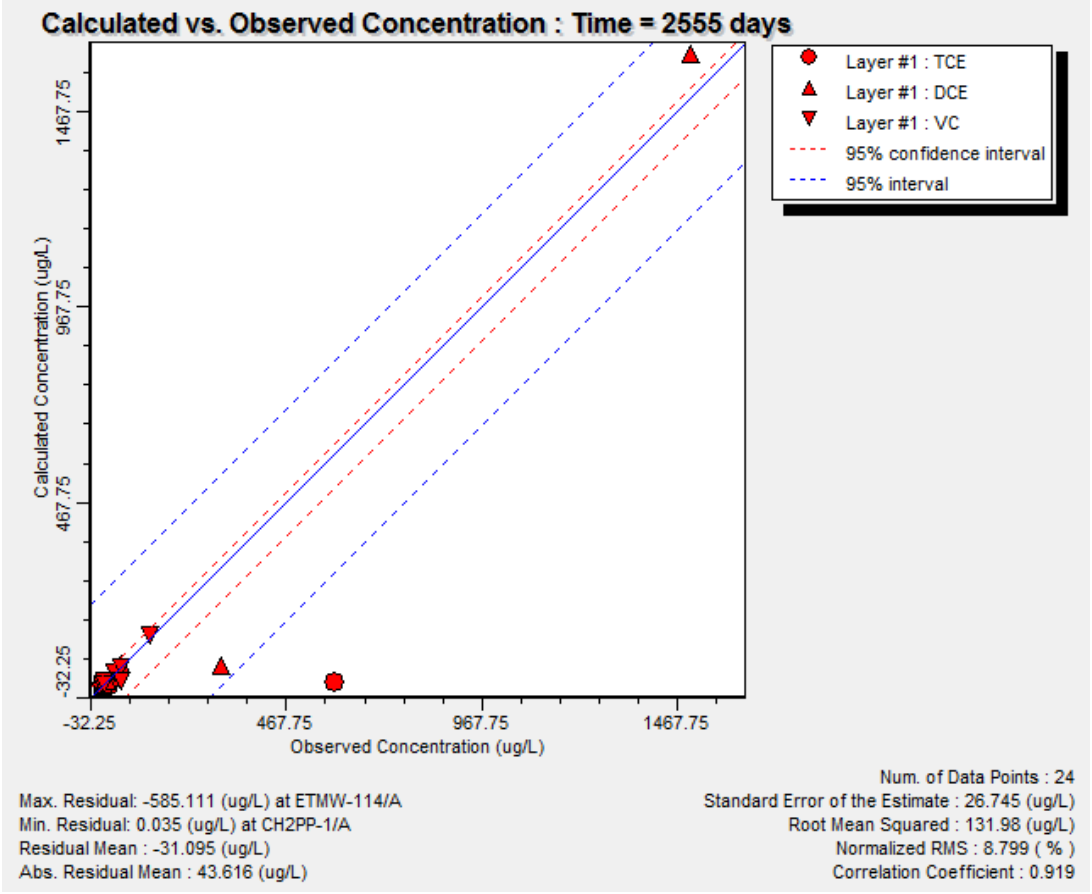
Sensitivity Run: Low TCE Degradation



Max. Residual: 796.913 (ug/L) at ETMW-114/A
Min. Residual: 0.001 (ug/L) at CH2PP-1/A
Residual Mean : 9.522 (ug/L)
Abs. Residual Mean : 77.924 (ug/L)

Num. of Data Points : 24
Standard Error of the Estimate : 39.91 (ug/L)
Root Mean Squared : 191.64 (ug/L)
Normalized RMS : 12.776 (%)
Correlation Coefficient : 0.835

Sensitivity Run: High TCE Degradation



Max. Residual: -585.111 (ug/L) at ETMW-114/A
Min. Residual: 0.035 (ug/L) at CH2PP-1/A
Residual Mean : -31.095 (ug/L)
Abs. Residual Mean : 43.616 (ug/L)

Num. of Data Points : 24
Standard Error of the Estimate : 26.745 (ug/L)
Root Mean Squared : 131.98 (ug/L)
Normalized RMS : 8.799 (%)
Correlation Coefficient : 0.919

Attachment B

Projected CAH Concentrations

Transport Model Output by Observation Well
Former Miller Brewing Can Plant
Moultrie, Georgia

Concentration in mg/L

Elapse	Elapse		ETMW-118			ETMW-117			ETMW-116			ETMW-115			ETMW-114			ETCMW-113			CH2MW-1		
Time (days)	Time (years)	Year	VC	DCE	TCE	VC	DCE	TCE	VC	DCE	TCE	VC	DCE	TCE	VC	DCE	TCE	VC	DCE	TCE	VC	DCE	TCE
70	0	2004	0.0002	0.0061	0.0183	0.0027	0.0323	0.0549	0.0139	0.0329	0.1371	0.0029	0.0884	0.0199	0.0168	2.3731	1.5630	0.0038	0.0865	0.0548	0.0001	0.0020	0.0050
139	0	2004	0.0005	0.0070	0.0168	0.0055	0.0343	0.0503	0.0282	0.0347	0.1253	0.0043	0.0869	0.0198	0.0166	2.3461	1.5268	0.0075	0.0880	0.0501	0.0002	0.0020	0.0049
279	1	2005	0.0011	0.0086	0.0140	0.0111	0.0372	0.0421	0.0563	0.0356	0.1047	0.0052	0.0839	0.0195	0.0163	2.2926	1.4568	0.0138	0.0854	0.0419	0.0003	0.0019	0.0048
418	1	2005	0.0018	0.0098	0.0117	0.0167	0.0391	0.0353	0.0819	0.0344	0.0875	0.0053	0.0811	0.0193	0.0159	2.2381	1.3902	0.0201	0.0867	0.0350	0.0004	0.0019	0.0048
558	2	2006	0.0026	0.0107	0.0098	0.0220	0.0401	0.0295	0.1034	0.0319	0.0731	0.0051	0.0783	0.0191	0.0155	2.1851	1.3266	0.0260	0.0866	0.0292	0.0005	0.0018	0.0047
697	2	2006	0.0033	0.0114	0.0082	0.0269	0.0404	0.0247	0.1205	0.0287	0.0610	0.0050	0.0753	0.0188	0.0151	2.1323	1.2653	0.0311	0.0819	0.0244	0.0006	0.0017	0.0046
837	2	2006	0.0040	0.0119	0.0069	0.0314	0.0402	0.0207	0.1335	0.0255	0.0510	0.0048	0.0727	0.0186	0.0148	2.0798	1.2073	0.0308	0.0805	0.0204	0.0007	0.0017	0.0045
963	3	2007	0.0047	0.0122	0.0059	0.0350	0.0397	0.0176	0.1427	0.0225	0.0433	0.0046	0.0704	0.0184	0.0144	2.0306	1.1568	0.0301	0.0797	0.0160	0.0008	0.0015	0.0038
1,103	3	2007	0.0054	0.0124	0.0049	0.0383	0.0388	0.0148	0.1496	0.0193	0.0362	0.0045	0.0676	0.0182	0.0140	1.9789	1.1035	0.0379	0.0776	0.0125	0.0009	0.0015	0.0038
1,242	3	2007	0.0060	0.0124	0.0041	0.0405	0.0376	0.0124	0.1523	0.0165	0.0303	0.0043	0.0653	0.0179	0.0137	1.9278	1.0526	0.0416	0.0758	0.0097	0.0009	0.0015	0.0038
1,382	4	2008	0.0066	0.0124	0.0035	0.0431	0.0363	0.0104	0.1548	0.0142	0.0253	0.0042	0.0630	0.0177	0.0133	1.8771	1.0040	0.0410	0.0739	0.0081	0.0010	0.0013	0.0038
1,521	4	2008	0.0071	0.0124	0.0029	0.0454	0.0348	0.0087	0.1558	0.0122	0.0211	0.0040	0.0609	0.0173	0.0130	1.8274	0.9575	0.0388	0.0720	0.0067	0.0009	0.0013	0.0037
1,660	5	2009	0.0076	0.0122	0.0024	0.0459	0.0333	0.0073	0.1551	0.0104	0.0177	0.0039	0.0587	0.0169	0.0125	1.7661	0.9134	0.0351	0.0699	0.0052	0.0010	0.0013	0.0037
1,800	5	2009	0.0081	0.0120	0.0020	0.0453	0.0317	0.0061	0.1497	0.0088	0.0148	0.0037	0.0567	0.0165	0.0122	1.7182	0.8714	0.0374	0.0678	0.0044	0.0009	0.0013	0.0036
1,939	5	2009	0.0085	0.0118	0.0017	0.0462	0.0301	0.0051	0.1539	0.0074	0.0124	0.0037	0.0547	0.0163	0.0116	1.6361	0.8313	0.0374	0.0612	0.0037	0.0010	0.0013	0.0036
2,079	6	2010	0.0088	0.0116	0.0014	0.0460	0.0285	0.0043	0.1507	0.0063	0.0103	0.0036	0.0529	0.0161	0.0112	1.5843	0.7931	0.0397	0.0589	0.0031	0.0010	0.0013	0.0035
2,189	6	2010	0.0090	0.0114	0.0012	0.0447	0.0273	0.0037	0.1480	0.0055	0.0090	0.0034	0.0514	0.0159	0.0110	1.5496	0.7635	0.0363	0.0573	0.0027	0.0010	0.0013	0.0036
2,328	6	2010	0.0093	0.0111	0.0010	0.0463	0.0258	0.0031	0.1412	0.0047	0.0075	0.0033	0.0497	0.0157	0.0106	1.4993	0.7285	0.0342	0.0555	0.0022	0.0009	0.0013	0.0033
2,467	7	2011	0.0096	0.0108	0.0009	0.0461	0.0242	0.0026	0.1384	0.0039	0.0063	0.0032	0.0479	0.0154	0.0104	1.4651	0.6950	0.0287	0.0536	0.0019	0.0011	0.0012	0.0030
2,555	7	2011	0.0096	0.0106	0.0008	0.0460	0.0230	0.0023	0.1357	0.0035	0.0056	0.0031	0.0469	0.0153	0.0102	1.4390	0.6754	0.0319	0.0525	0.0017	0.0011	0.0012	0.0030
2,695	7	2011	0.0097	0.0103	0.0006	0.0462	0.0217	0.0019	0.1311	0.0030	0.0047	0.0031	0.0453	0.0151	0.0099	1.3977	0.6439	0.0316	0.0507	0.0014	0.0012	0.0012	0.0028
2,834	8	2012	0.0098	0.0100	0.0005	0.0443	0.0204	0.0016	0.1211	0.0025	0.0039	0.0031	0.0429	0.0148	0.0095	1.3340	0.5975	0.0315	0.0489	0.0011	0.0012	0.0012	0.0027
2,973	8	2012	0.0098	0.0097	0.0005	0.0431	0.0188	0.0013	0.1124	0.0020	0.0033	0.0029	0.0415	0.0146	0.0091	1.2891	0.5686	0.0296	0.0467	0.0009	0.0013	0.0011	0.0025
3,113	9	2013	0.0097	0.0094	0.0004	0.0441	0.0176	0.0011	0.1053	0.0017	0.0027	0.0027	0.0397	0.0144	0.0087	1.2318	0.5406	0.0314	0.0424	0.0007	0.0013	0.0011	0.0025
3,252	9	2013	0.0096	0.0091	0.0003	0.0444	0.0164	0.0009	0.0999	0.0015	0.0023	0.0026	0.0377	0.0142	0.0085	1.1955	0.5069	0.0313	0.0405	0.0006	0.0013	0.0011	0.0025
3,392	9	2013	0.0095	0.0088	0.0003	0.0450	0.0151	0.0008	0.0920	0.0014	0.0019	0.0024	0.0363	0.0139	0.0081	1.1445	0.4860	0.0326	0.0388	0.0005	0.0014	0.0010	0.0024
3,506	10	2014	0.0093	0.0085	0.0002	0.0443	0.0143	0.0007	0.0887	0.0012	0.0017	0.0024	0.0357	0.0138	0.0078	1.1029	0.4593	0.0266	0.0376	0.0004	0.0014	0.0010	0.0024
3,645	10	2014	0.0093	0.0083	0.0002	0.0427	0.0133	0.0006	0.0825	0.0010	0.0014	0.0024	0.0345	0.0136	0.0076	1.0695	0.4277	0.0252	0.0345	0.0004	0.0013	0.0009	0.0023
3,785	10	2014	0.0095	0.0080	0.0002	0.0413	0.0124	0.0005	0.0754	0.0008	0.0012	0.0022	0.0333	0.0132	0.0074	1.0416	0.3931	0.0219	0.0332	0.0003	0.0013	0.0009	0.0022
3,924	11	2015	0.0091	0.0077	0.0001	0.0405	0.0116	0.0004	0.0703	0.0007	0.0010	0.0022	0.0322	0.0130	0.0070	0.9917	0.3734	0.0224	0.0320	0.0003	0.0014	0.0009	0.0022
4,063	11	2015	0.0092	0.0074	0.0001	0.0389	0.0108	0.0003	0.0665	0.0006	0.0008	0.0021	0.0311	0.0128	0.0069	0.9788	0.3530	0.0170	0.0308	0.0002	0.0013	0.0009	0.0022
4,203	12	2016	0.0092	0.0072	0.0001	0.0392	0.0100	0.0003	0.0602	0.0005	0.0007	0.0020	0.0295	0.0126	0.0066	0.9366	0.3369	0.0187	0.0297	0.0002	0.0013	0.0009	0.0021
4,342	12	2016	0.0091	0.0069	0.0001	0.0372	0.0091	0.0002	0.0555	0.0005	0.0006	0.0019	0.0282	0.0123	0.0064	0.9070	0.3215	0.0216	0.0273	0.0002	0.0013	0.0008	0.0021
4,380	12	2016	0.0091	0.0068	0.0001	0.0366	0.0090	0.0002	0.0554	0.0006	0.0005	0.0019	0.0279	0.0123	0.0064	0.8991	0.3175	0.0210	0.0270	0.0001	0.0013	0.0008	0.0021
4,450	12	2016	0.0090	0.0067	0.0001	0.0362	0.0087	0.0002	0.0518	0.0005	0.0005	0.0018	0.0273	0.0122	0.0063	0.8871	0.3101	0.0200	0.0265	0.0001	0.0012	0.0008	0.0021
4,589	13	2017	0.0092	0.0065	0.0001	0.0365	0.0078	0.0002	0.0471	0.0005	0.0004	0.0018	0.0260	0.0120	0.0060	0.8444	0.2920	0.0195	0.0254	0.0001	0.0012	0.0008	0.0021
4,729	13	2017	0.0085	0.0062	0.0000	0.0343	0.0073	0.0001	0.0429	0.0004	0.0004	0.0017	0.0250	0.0118	0.0058	0.8173	0.2764	0.0192	0.0234	0.0001	0.0012	0.0008	0.0020
4,868	13	2017	0.0100	0.0060	0.0000	0.0318	0.0067	0.0001	0.0423	0.0003	0.0003	0.0016	0.0239	0.0115	0.0056	0.7909	0.2550	0.0183	0.0225	0.0001	0.0012	0.0007	0.0018
5,008	14	2018	0.0092	0.0058	0.0000	0.0298	0.0062	0.0001	0.0419	0.0002	0.0003	0.0016	0.0229	0.0113	0.0054	0.7651	0.2450	0.0191	0.0217	0.0001	0.0013	0.0008	0.0018
5,147	14	2018	0.0086	0.0056	0.0000	0.0266	0.0058	0.0001	0.0415	0.0002	0.0002	0.0015	0.0219	0.0112	0.0052	0.7258	0.2338	0.0204	0.0209	0.0001	0.0013	0.0008	0.0018
5,240	14	2018	0.0086	0.0055	0.0000	0.0261	0.0053	0.0001	0.0479	0.0002	0.0002	0.0015	0.0217	0.0111	0.0050	0.7100	0.2240	0.0145	0.0200	0.0001	0.0013	0.0008	0.0018
5,379	15	2019	0.0079	0.0053	0.0000	0.0245	0.0050	0.0001	0.0483	0.0001	0.0002	0.0015	0.0210	0.0109	0.0049	0.6893	0.2118	0.0129	0.0193	0.0001	0.0013	0.0007	0.0018
5,518	15	2019	0.0076	0.0051	0.0000	0.0234	0.0046	0.0001	0.0425	0.0001	0.0001	0.0014	0.0203	0.0107	0.0047	0.6661	0.1987	0.0115	0.0186	0.0001	0.0013	0.0007	0.0017
5,658	16	2020	0.0073	0.0049	0.0000	0.0215	0.0044	0.0000	0.0363	0.0001	0.0001	0.0013	0.0194	0.0106	0.0046	0.6436	0.1896	0.0093	0.0175	0.0001	0.0013	0.0007	0.0017
5,797	16	2020	0.0066	0.0047	0.0000	0.0190	0.0040	0.0000	0.0336	0.0001	0.0001	0.0012	0.0188	0.0105	0.0043	0.6038	0.1767	0.0090	0.0168	0.0000	0.0013	0.0007	0.0017
5,937	16	2020	0.0063	0.0045	0.0000	0.0168	0.0037	0.0000	0.0327	0.0000	0.0001	0.0012	0.0181	0.0103	0.0041	0.5715	0.1640	0.0095	0.0162	0.0000	0.0014	0.0007	0.0017
6,076	17	2021	0.0062	0.0044	0.0000	0.0151	0.0034	0.0000	0.0306	0.0000	0.0001	0.0011	0.0172	0.0101	0.0038	0.5407	0.1522	0.0087	0.0145	0.0000	0.0013	0.0007	0.0016
6,200	17	2021	0.0059	0.0042	0.0000	0.0144	0.0032	0.0000	0.0303	0.0000	0.0001	0.0011	0.0168	0.0099	0.0038	0.5348	0.1396	0.0098	0.0142	0.0000	0.0013	0.0007	0.0016
6,339	17	2021	0.0052	0.0041	0.0000	0.0127	0.0029	0.0000	0.0281	0.0000	0.0000	0.0011	0.0165	0.0098	0.0037	0.5159	0.1251	0.0110	0.0137	0.0000	0.0012	0.0006	0.0016
6,479	18	2022	0.0051	0.0040	0.0000	0.0130	0.0026	0.0000	0.0278	0.0001	0.0000	0.0011	0.0160	0.0096	0.0035	0.4978	0.1190	0.0105	0.0126	0.0000	0.0014	0.0006	0.0016
6,618	18	2022	0.0051	0.0039	0.0000	0.0121	0.0025	0.0000	0.0264	0.0001	0.0000	0.0010	0.0152	0.0094	0.0034	0.4801	0.1138	0.0109	0.0121	0.0000	0.0013	0.0006	0.0015
6,758	19	2023	0.0046	0.0037	0.0000	0.0115	0.0023	0.0000	0.0240	0.0001	0.0000	0.0010	0.0145	0.0093	0.0032	0.4510	0.1071	0.0090	0.0114	0.0000	0.0012	0.0006	0.0014
6,897	19	2023	0.0045	0.0037	0.0000	0.0111	0.0021	0.0000	0.0232	0.0003	0.0000	0.0009	0.0140	0.0092	0.0030	0.4178	0.0943	0.0094	0.0110	0.0000	0.0013	0.0006	0.0014
7,037	19	2023	0.0045	0.0036	0.0000	0.0104	0.0020	0.0000	0.0250	0.0002	0.0000	0.0009	0.0133	0.0089	0.0029	0.4106	0.0812	0.0089	0.0106	0.0000	0.0013	0.0006	0.0013
7,167	20	2024	0.0046	0.0035	0.0000	0.0096	0.0018	0.0000	0.0243	0.0003	0.0000	0.0008	0.0129	0.0089	0.0028	0.3967	0.0779	0.0091	0.0102	0.0000	0.0014	0.0006	0.0013
7,306	20	2024	0.0046	0.0034	0.0000	0.0092	0.0017	0.0000	0.0222	0.0003	0.0000	0.0008	0.0125	0.0088	0.0027	0.3765	0.0720	0.0091	0.0098	0.0000	0.0013	0.0006	0.0012
7,446	20	2024	0.0048	0.0033	0.0000	0.0082	0.0016	0.0000	0.0196	0.0002	0.0000	0.0008	0.0119	0.0087	0.0025	0.3451	0.0689	0.0088	0.0094	0.0000	0.0012	0.0006	0.0012
7,585	21	2025	0.0046	0.0032	0.0000	0.0079	0.0015	0.0000	0.0187	0.0001	0.0000	0.0007	0.0109	0.0084	0.0021	0.2988	0.0659	0.0078	0.0091	0.0000	0.0012	0.0006	0.0012
7,725	21	2025	0.0043	0.0031	0.0000	0.0075	0.0014	0.0000	0.0175	0.0001	0.0000	0.0007	0.0106	0.0083	0.0020	0.2886	0.0620	0.0063	0.0087	0.0000	0.0011	0.0006	0.0012
7,864	22	2026	0.0041	0.0030	0.0000	0.0070	0.0013	0.0000	0.0179	0.0001	0.0000	0.0007	0.0103	0.0081	0.0020	0.2838	0.0582	0.0067	0.0082	0.0000	0.0011	0.0006	0.0012
8,003	22	2026	0.0042	0.0029	0.0000	0.0065	0.0012	0.0000	0.0196	0.0001	0.0000	0.0006	0.0095	0.0079	0.0019	0.2739	0.0557	0.0054	0.0074	0.0000	0.0011	0.0006	0.0011
8,030	22	2026	0.0039	0.0029	0.0000	0.0064	0.0012	0.0000	0.0212	0.0001	0.0000	0.0006	0.0095	0.0079	0.0019	0.2742	0.0552	0.0054	0.0075	0.0000	0.0011	0.0005	0.0011
8,100	22	2026	0.0041	0.0029	0.0000	0.0063	0.0012	0.0000	0.0239	0.0000	0.0000	0.0006	0.0088	0.0076	0.0019	0.2694	0.0540	0.0056	0.0073	0.0000	0.0011	0.0005	0.0011
8,239	23	2027	0.0038	0.0028	0.0000	0.0061	0.0011	0.0000	0.0229	0.0000	0.0000	0.0005	0.0077	0.0077	0.0017	0.2409	0.0513	0.0059	0.0067	0.0000	0.0011	0.0005	0.0011
8,379	23	2027	0.0042	0.0028	0.0000	0.0057	0.0010	0.0000	0.0239	0.0000	0.0000	0.0004	0.0070	0.0076	0.0014	0.1978	0.0491	0.0055	0.0064	0.0000	0.0010	0.0005	0.0010
8,518	23	2027	0.0042	0.0028	0.0000	0.0054	0.0009	0.0000	0.0227	0.0000	0.0000	0.0004	0.0060	0.0075	0.0014	0.1915	0.0470	0.0050	0.0055	0.0000	0.0010	0.0005	0.0010
8,658	24	2028	0.0046	0.0027	0.0000	0.0056	0.0009	0.0000	0.0213	0.0000	0.0000	0.0004	0.0059	0.0070	0.0013	0.1852	0.0436	0.0043	0.0051	0.0000	0.0010	0.0005	0.0010

Transport Model Output by Observation Well
Former Miller Brewing Can Plant
Moultrie, Georgia

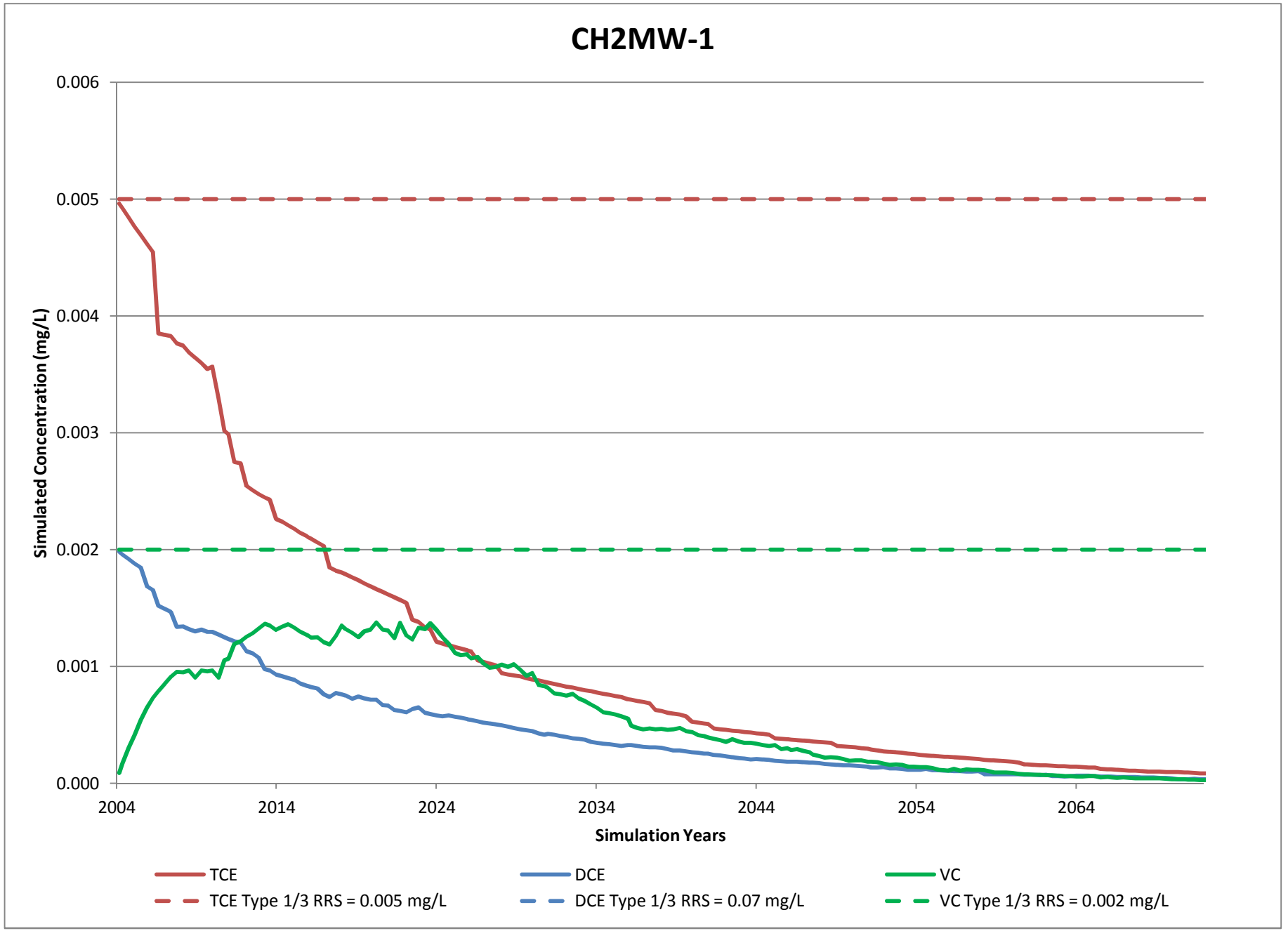
Concentration in mg/L

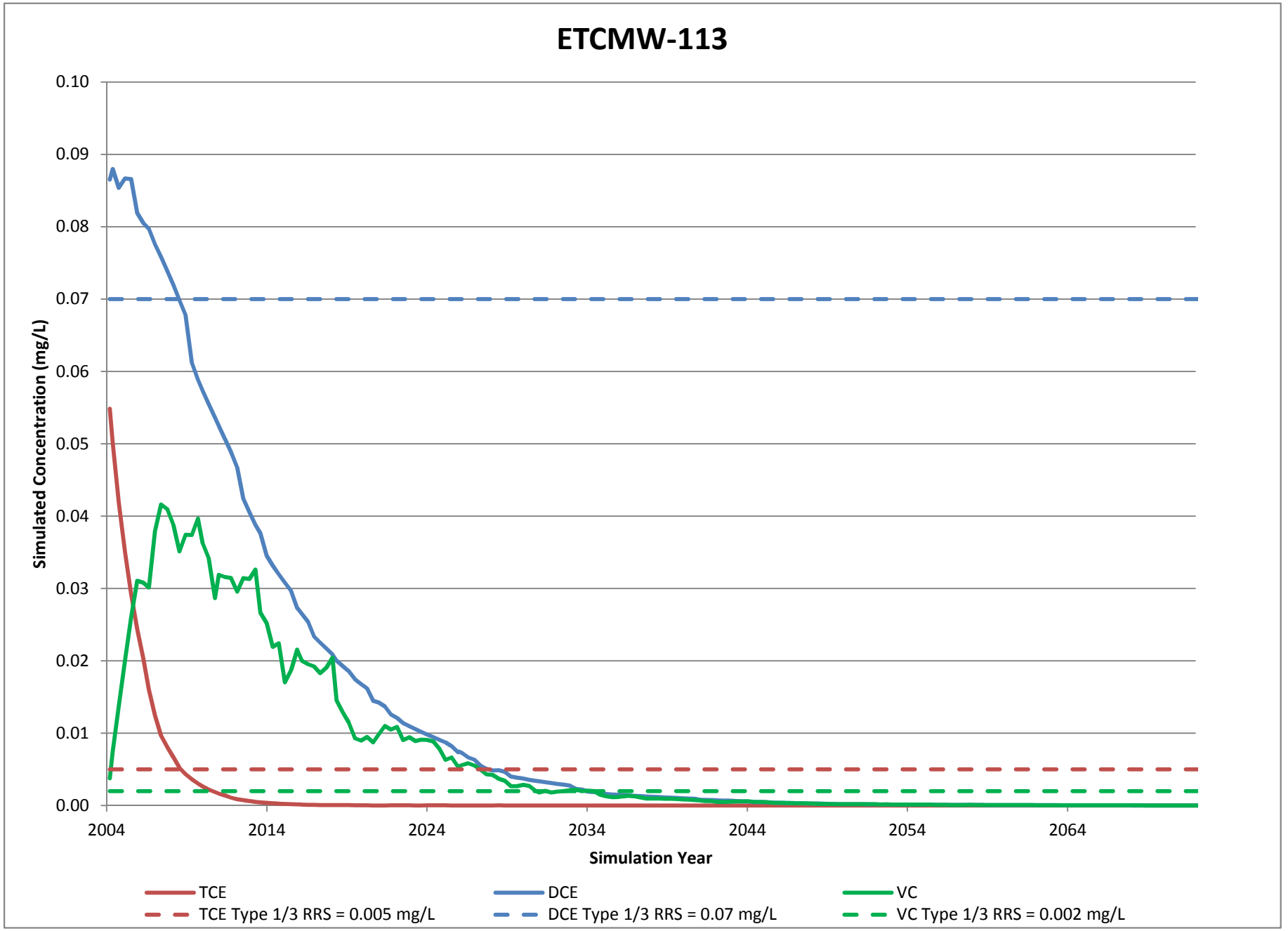
Elapse	Elapse		ETMW-118			ETMW-117			ETMW-116			ETMW-115			ETMW-114			ETCMW-113			CH2MW-1		
Time (days)	Time (years)	Year	VC	DCE	TCE	VC	DCE	TCE	VC	DCE	TCE	VC	DCE	TCE	VC	DCE	TCE	VC	DCE	TCE	VC	DCE	TCE
8,797	24	2028	0.0041	0.0025	0.0000	0.0054	0.0008	0.0000	0.0191	0.0001	0.0000	0.0004	0.0058	0.0067	0.0013	0.1787	0.0407	0.0042	0.0048	0.0000	0.0010	0.0005	0.0009
8,936	24	2028	0.0039	0.0025	0.0000	0.0050	0.0008	0.0000	0.0180	0.0000	0.0000	0.0004	0.0056	0.0067	0.0012	0.1727	0.0389	0.0037	0.0049	0.0000	0.0010	0.0005	0.0009
9,076	25	2029	0.0033	0.0023	0.0000	0.0049	0.0007	0.0000	0.0163	0.0000	0.0000	0.0004	0.0055	0.0066	0.0012	0.1670	0.0372	0.0034	0.0047	0.0000	0.0010	0.0005	0.0009
9,215	25	2029	0.0031	0.0022	0.0000	0.0047	0.0007	0.0000	0.0149	0.0000	0.0000	0.0003	0.0053	0.0064	0.0011	0.1596	0.0356	0.0027	0.0040	0.0000	0.0010	0.0005	0.0009
9,355	26	2030	0.0029	0.0021	0.0000	0.0043	0.0006	0.0000	0.0141	0.0000	0.0000	0.0003	0.0052	0.0065	0.0011	0.1516	0.0341	0.0027	0.0039	0.0000	0.0009	0.0005	0.0009
9,494	26	2030	0.0027	0.0021	0.0000	0.0040	0.0006	0.0000	0.0139	0.0000	0.0000	0.0003	0.0050	0.0062	0.0010	0.1454	0.0330	0.0029	0.0037	0.0000	0.0009	0.0004	0.0009
9,633	26	2030	0.0026	0.0020	0.0000	0.0035	0.0005	0.0000	0.0128	0.0000	0.0000	0.0003	0.0047	0.0061	0.0010	0.1357	0.0316	0.0027	0.0036	0.0000	0.0008	0.0004	0.0009
9,772	27	2031	0.0025	0.0019	0.0000	0.0033	0.0005	0.0000	0.0116	0.0000	0.0000	0.0003	0.0046	0.0062	0.0009	0.1251	0.0301	0.0021	0.0034	0.0000	0.0008	0.0004	0.0009
9,855	27	2031	0.0025	0.0018	0.0000	0.0033	0.0005	0.0000	0.0112	0.0000	0.0000	0.0003	0.0045	0.0062	0.0009	0.1213	0.0293	0.0018	0.0034	0.0000	0.0008	0.0004	0.0009
9,994	27	2031	0.0025	0.0017	0.0000	0.0031	0.0004	0.0000	0.0114	0.0000	0.0000	0.0003	0.0044	0.0058	0.0008	0.1174	0.0268	0.0020	0.0032	0.0000	0.0008	0.0004	0.0008
10,134	28	2032	0.0024	0.0016	0.0000	0.0029	0.0004	0.0000	0.0103	0.0000	0.0000	0.0003	0.0043	0.0055	0.0008	0.1136	0.0256	0.0018	0.0031	0.0000	0.0008	0.0004	0.0008
10,273	28	2032	0.0023	0.0016	0.0000	0.0028	0.0004	0.0000	0.0100	0.0000	0.0000	0.0003	0.0042	0.0054	0.0008	0.1087	0.0235	0.0019	0.0030	0.0000	0.0008	0.0004	0.0008
10,413	29	2033	0.0022	0.0015	0.0000	0.0026	0.0003	0.0000	0.0087	0.0000	0.0000	0.0003	0.0041	0.0052	0.0006	0.0869	0.0225	0.0020	0.0029	0.0000	0.0008	0.0004	0.0008
10,552	29	2033	0.0021	0.0014	0.0000	0.0024	0.0003	0.0000	0.0083	0.0000	0.0000	0.0003	0.0040	0.0053	0.0006	0.0843	0.0221	0.0021	0.0028	0.0000	0.0007	0.0004	0.0008
10,692	29	2033	0.0023	0.0013	0.0000	0.0025	0.0003	0.0000	0.0072	0.0000	0.0000	0.0003	0.0039	0.0051	0.0006	0.0808	0.0212	0.0022	0.0023	0.0000	0.0007	0.0004	0.0008
10,831	30	2034	0.0023	0.0012	0.0000	0.0023	0.0003	0.0000	0.0069	0.0000	0.0000	0.0002	0.0037	0.0055	0.0006	0.0783	0.0192	0.0020	0.0022	0.0000	0.0007	0.0004	0.0008
10,970	30	2034	0.0022	0.0011	0.0000	0.0022	0.0002	0.0000	0.0064	0.0000	0.0000	0.0002	0.0034	0.0050	0.0005	0.0703	0.0184	0.0020	0.0019	0.0000	0.0006	0.0003	0.0008
11,110	30	2034	0.0021	0.0011	0.0000	0.0020	0.0002	0.0000	0.0060	0.0000	0.0000	0.0002	0.0034	0.0048	0.0005	0.0684	0.0176	0.0020	0.0019	0.0000	0.0006	0.0003	0.0008
11,249	31	2035	0.0020	0.0011	0.0000	0.0019	0.0002	0.0000	0.0053	0.0001	0.0000	0.0002	0.0032	0.0047	0.0004	0.0628	0.0173	0.0015	0.0018	0.0000	0.0006	0.0003	0.0008
11,389	31	2035	0.0020	0.0011	0.0000	0.0018	0.0002	0.0000	0.0052	0.0001	0.0000	0.0002	0.0032	0.0042	0.0004	0.0609	0.0152	0.0013	0.0016	0.0000	0.0006	0.0003	0.0007
11,528	32	2036	0.0018	0.0010	0.0000	0.0018	0.0002	0.0000	0.0047	0.0000	0.0000	0.0002	0.0031	0.0041	0.0004	0.0590	0.0140	0.0012	0.0015	0.0000	0.0006	0.0003	0.0007
11,667	32	2036	0.0017	0.0010	0.0000	0.0017	0.0002	0.0000	0.0046	0.0000	0.0000	0.0002	0.0030	0.0040	0.0004	0.0567	0.0131	0.0012	0.0015	0.0000	0.0006	0.0003	0.0007
11,680	32	2036	0.0017	0.0010	0.0000	0.0018	0.0002	0.0000	0.0046	0.0000	0.0000	0.0002	0.0030	0.0040	0.0004	0.0566	0.0131	0.0012	0.0015	0.0000	0.0006	0.0003	0.0007
11,750	32	2036	0.0016	0.0010	0.0000	0.0016	0.0001	0.0000	0.0044	0.0000	0.0000	0.0002	0.0030	0.0040	0.0004	0.0557	0.0124	0.0012	0.0015	0.0000	0.0005	0.0003	0.0007
11,889	33	2037	0.0017	0.0009	0.0000	0.0017	0.0001	0.0000	0.0046	0.0000	0.0000	0.0002	0.0029	0.0036	0.0004	0.0539	0.0110	0.0013	0.0014	0.0000	0.0005	0.0003	0.0007
12,029	33	2037	0.0016	0.0008	0.0000	0.0017	0.0001	0.0000	0.0042	0.0000	0.0000	0.0002	0.0028	0.0036	0.0004	0.0516	0.0095	0.0013	0.0014	0.0000	0.0005	0.0003	0.0007
12,168	33	2037	0.0016	0.0008	0.0000	0.0016	0.0001	0.0000	0.0042	0.0000	0.0000	0.0002	0.0027	0.0036	0.0004	0.0512	0.0074	0.0011	0.0013	0.0000	0.0005	0.0003	0.0007
12,307	34	2038	0.0015	0.0007	0.0000	0.0015	0.0001	0.0000	0.0038	0.0000	0.0000	0.0002	0.0026	0.0033	0.0003	0.0489	0.0058	0.0010	0.0013	0.0000	0.0005	0.0003	0.0006
12,439	34	2038	0.0014	0.0008	0.0000	0.0015	0.0001	0.0000	0.0038	0.0000	0.0000	0.0002	0.0025	0.0033	0.0003	0.0472	0.0056	0.0010	0.0012	0.0000	0.0005	0.0003	0.0006
12,578	34	2038	0.0014	0.0007	0.0000	0.0015	0.0001	0.0000	0.0036	0.0000	0.0000	0.0002	0.0024	0.0033	0.0003	0.0456	0.0054	0.0010	0.0012	0.0000	0.0005	0.0003	0.0006
12,718	35	2039	0.0012	0.0007	0.0000	0.0016	0.0001	0.0000	0.0034	0.0000	0.0000	0.0002	0.0023	0.0034	0.0003	0.0439	0.0052	0.0009	0.0011	0.0000	0.0005	0.0003	0.0006
12,857	35	2039	0.0012	0.0007	0.0000	0.0015	0.0001	0.0000	0.0032	0.0000	0.0000	0.0001	0.0022	0.0034	0.0003	0.0424	0.0050	0.0009	0.0011	0.0000	0.0005	0.0003	0.0006
12,996	36	2040	0.0011	0.0006	0.0000	0.0015	0.0001	0.0000	0.0031	0.0000	0.0000	0.0001	0.0021	0.0034	0.0003	0.0400	0.0048	0.0009	0.0010	0.0000	0.0004	0.0003	0.0006
13,136	36	2040	0.0011	0.0006	0.0000	0.0017	0.0001	0.0000	0.0026	0.0000	0.0000	0.0001	0.0021	0.0034	0.0003	0.0385	0.0047	0.0008	0.0010	0.0000	0.0004	0.0003	0.0005
13,275	36	2040	0.0011	0.0006	0.0000	0.0018	0.0001	0.0000	0.0023	0.0000	0.0000	0.0001	0.0020	0.0033	0.0003	0.0371	0.0044	0.0008	0.0010	0.0000	0.0004	0.0003	0.0005
13,414	37	2041	0.0010	0.0006	0.0000	0.0017	0.0001	0.0000	0.0023	0.0000	0.0000	0.0001	0.0020	0.0032	0.0003	0.0358	0.0043	0.0008	0.0009	0.0000	0.0004	0.0003	0.0005
13,500	37	2041	0.0010	0.0005	0.0000	0.0016	0.0001	0.0000	0.0022	0.0000	0.0000	0.0001	0.0020	0.0030	0.0002	0.0350	0.0040	0.0007	0.0008	0.0000	0.0004	0.0003	0.0005
13,639	37	2041	0.0010	0.0005	0.0000	0.0017	0.0001	0.0000	0.0026	0.0000	0.0000	0.0001	0.0020	0.0029	0.0002	0.0337	0.0039	0.0006	0.0008	0.0000	0.0004	0.0002	0.0005
13,779	38	2042	0.0010	0.0005	0.0000	0.0015	0.0001	0.0000	0.0025	0.0000	0.0000	0.0001	0.0019	0.0030	0.0002	0.0325	0.0037	0.0006	0.0008	0.0000	0.0004	0.0002	0.0005
13,918	38	2042	0.0009	0.0005	0.0000	0.0015	0.0000	0.0000	0.0031	0.0000	0.0000	0.0001	0.0019	0.0029	0.0002	0.0313	0.0035	0.0005	0.0007	0.0000	0.0004	0.0002	0.0005
14,057	39	2043	0.0009	0.0005	0.0000	0.0015	0.0000	0.0000	0.0030	0.0000	0.0000	0.0001	0.0018	0.0030	0.0002	0.0293	0.0033	0.0005	0.0007	0.0000	0.0004	0.0002	0.0005
14,197	39	2043	0.0008	0.0004	0.0000	0.0015	0.0000	0.0000	0.0028	0.0000	0.0000	0.0001	0.0017	0.0029	0.0002	0.0274	0.0032	0.0005	0.0007	0.0000	0.0004	0.0002	0.0004
14,336	39	2043	0.0007	0.0004	0.0000	0.0014	0.0000	0.0000	0.0027	0.0000	0.0000	0.0001	0.0017	0.0028	0.0002	0.0264	0.0031	0.0006	0.0006	0.0000	0.0003	0.0002	0.0004
14,476	40	2044	0.0007	0.0004	0.0000	0.0013	0.0000	0.0000	0.0027	0.0000	0.0000	0.0001	0.0017	0.0027	0.0002	0.0255	0.0028	0.0006	0.0006	0.0000	0.0003	0.0002	0.0004
14,615	40	2044	0.0007	0.0004	0.0000	0.0013	0.0000	0.0000	0.0026	0.0000	0.0000	0.0001	0.0016	0.0026	0.0002	0.0245	0.0027	0.0006	0.0006	0.0000	0.0003	0.0002	0.0004
14,754	40	2044	0.0006	0.0004	0.0000	0.0014	0.0000	0.0000	0.0024	0.0000	0.0000	0.0001	0.0016	0.0025	0.0002	0.0232	0.0026	0.0005	0.0005	0.0000	0.0003	0.0002	0.0004
14,894	41	2045	0.0006	0.0004	0.0000	0.0014	0.0000	0.0000	0.0024	0.0000	0.0000	0.0001	0.0015	0.0023	0.0002	0.0224	0.0025	0.0005	0.0005	0.0000	0.0003	0.0002	0.0004
15,033	41	2045	0.0006	0.0003	0.0000	0.0013	0.0000	0.0000	0.0023	0.0000	0.0000	0.0001	0.0015	0.0020	0.0002	0.0216	0.0024	0.0005	0.0005	0.0000	0.0003	0.0002	0.0004
15,172	42	2046	0.0006	0.0003	0.0000	0.0012	0.0000	0.0000	0.0022	0.0000	0.0000	0.0001	0.0014	0.0020	0.0001	0.0197	0.0021	0.0004	0.0004	0.0000	0.0003	0.0002	0.0004
15,312	42	2046	0.0006	0.0003	0.0000	0.0012	0.0000	0.0000	0.0020	0.0000	0.0000	0.0001	0.0014	0.0019	0.0001	0.0184	0.0021	0.0004	0.0004	0.0000	0.0003	0.0002	0.0004
15,330	42	2046	0.0006	0.0003	0.0000	0.0012	0.0000	0.0000	0.0020	0.0000	0.0000	0.0001	0.0014	0.0019	0.0001	0.0184	0.0020	0.0004	0.0004	0.0000	0.0003	0.0002	0.0004
15,400	42	2046	0.0006	0.0003	0.0000	0.0012	0.0000	0.0000	0.0019	0.0000	0.0000	0.0001	0.0014	0.0020	0.0001	0.0176	0.0019	0.0004	0.0004	0.0000	0.0003	0.0002	0.0004
15,539	43	2047	0.0006	0.0003	0.0000	0.0012	0.0000	0.0000	0.0019	0.0000	0.0000	0.0001	0.0014	0.0019	0.0001	0.0170	0.0019	0.0004	0.0003	0.0000	0.0003	0.0002	0.0004
15,678	43	2047	0.0005	0.0003	0.0000	0.0012	0.0000	0.0000	0.0017	0.0000	0.0000	0.0001	0.0013	0.0019	0.0001	0.0160	0.0018	0.0003	0.0003	0.0000	0.0003	0.0002	0.0004
15,818	43	2047	0.0006	0.0003	0.0000	0.0012	0.0000	0.0000	0.0015	0.0000	0.0000	0.0001	0.0013	0.0019	0.0001	0.0156	0.0018	0.0003	0.0003	0.0000	0.0003	0.0002	0.0004
15,890	44	2048	0.0005	0.0003	0.0000	0.0012	0.0000	0.0000	0.0015	0.0000	0.0000	0.0001	0.0013	0.0018	0.0001	0.0153	0.0017	0.0003	0.0003	0.0000	0.0002	0.0002	0.0004
16,029	44	2048	0.0005	0.0003	0.0000	0.0011	0.0000	0.0000	0.0013	0.0000	0.0000	0.0001	0.0012	0.0017	0.0001	0.0147	0.0017	0.0003	0.0003	0.0000	0.0002	0.0002	0.0004
16,168	44	2048	0.0004	0.0003	0.0000	0.0011	0.0000	0.0000	0.0012	0.0000	0.0000	0.0001	0.0012	0.0017	0.0001	0.0136	0.0016	0.0002	0.0003	0.0000	0.0002	0.0002	0.0003
16,308	45	2049	0.0004	0.0002	0.0000	0.0011	0.0000	0.0000	0.0011	0.0000	0.0000	0.0001	0.0012	0.0017	0.0001	0.0131	0.0015	0.0002	0.0002	0.0000	0.0002	0.0002	0.0003
16,447	45	2049	0.0003	0.0002	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000	0.0000	0.0001	0.0011	0.0017	0.0001	0.0126	0.0014	0.0002	0.0002	0.0000	0.0002	0.0002	0.0003
16,586	45	2049	0.0003	0.0002	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000	0.0000	0.0001	0.0011	0.0017	0.0001	0.0121	0.0014	0.0002	0.0002	0.0000	0.0002	0.0002	0.0003
16,726	46	2050	0.0003	0.0002	0.0000	0.0010	0.0000	0.0000	0.0010	0.0000	0.0000	0.0001	0.0011	0.0016	0.0001	0.0117	0.0013	0.0002	0.0002	0.0000	0.0002	0.0002	0.0003
16,865	46	2050	0.0003	0.0002	0.0000	0.0008	0.0000	0.0000	0.0010	0.0000	0.0000	0.0001	0.0010	0.0015	0.0001	0.0113	0.0012	0.0002	0.0002	0.0000	0.0002	0.0001	0.0003
17,004	47	2051	0.0004	0.0002	0.0000	0.0008	0.0000	0.0000	0.0009	0.0000	0.0000	0.0001	0.0010	0.0015	0.0001	0.0108	0.0012	0.0002	0.0002	0.0000	0.0002	0.0001	0.0003
17,143	47	2051	0.0004	0.0002	0.0000	0.0008	0.0000	0.0000	0.0009	0.0000	0.0000	0.0001	0.0010	0.0015	0.0001	0.0107	0.0011	0.0002	0.0002	0.0000	0.0002	0.0001	0.0003
17,230	47	2051	0.0004	0.0002	0.0000	0.0007	0.0000	0.0000	0.0009	0.0000	0.0000	0.0001	0.0009	0.0015	0.0001	0.0100	0.0011	0.0002	0.0002	0.0000	0.0002	0.0001	0.0003
17,369	48	2052	0.0004	0.0002	0.0000	0.0007	0.0000	0.0000	0.0009	0.0000	0.0000	0.0001	0.0009	0.0015	0.0001	0.0091	0.0010	0.0002	0.0002	0.0000	0.0002	0.0001	0.0003

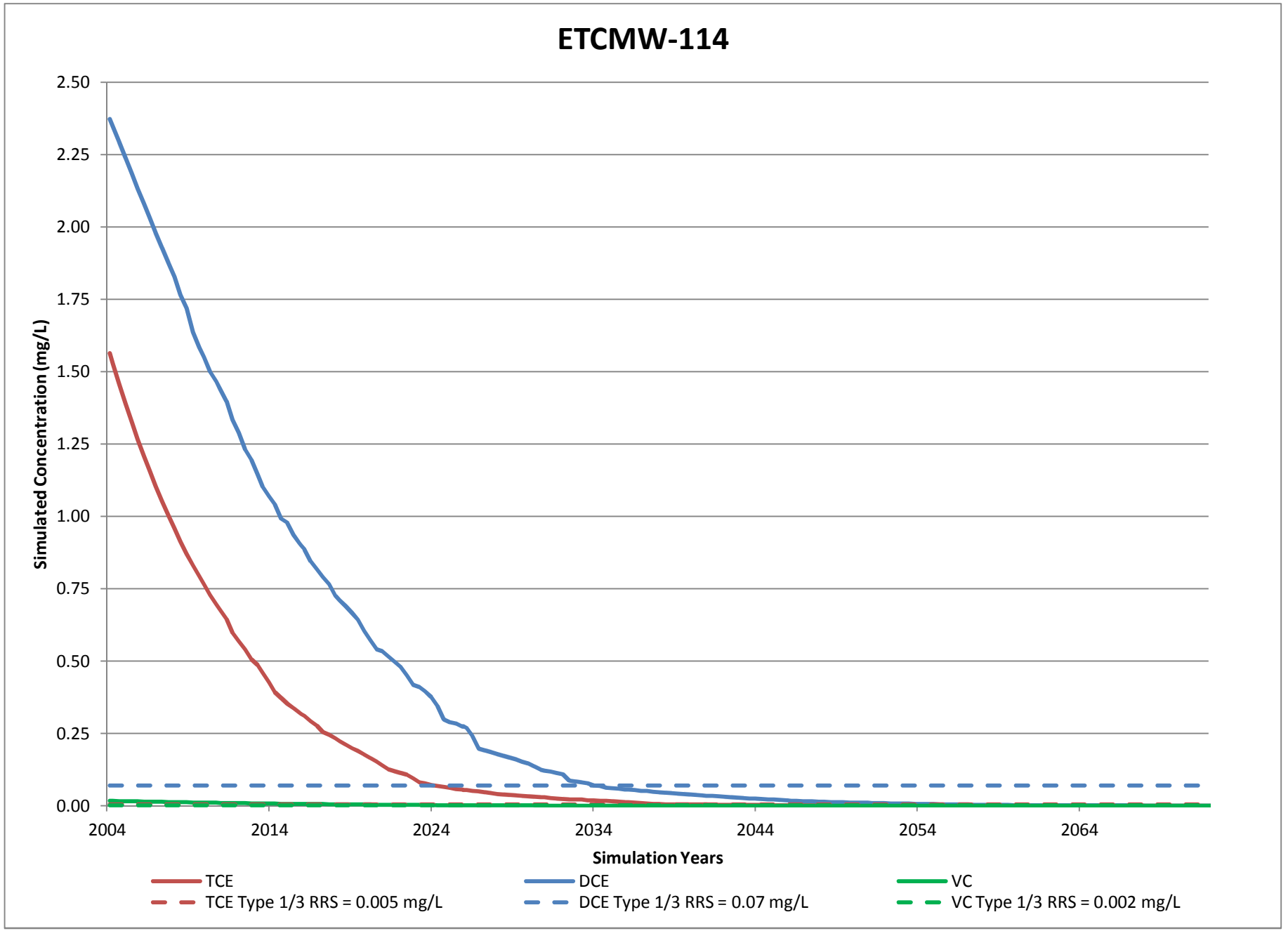
Transport Model Output by Observation Well
Former Miller Brewing Can Plant
Moultrie, Georgia

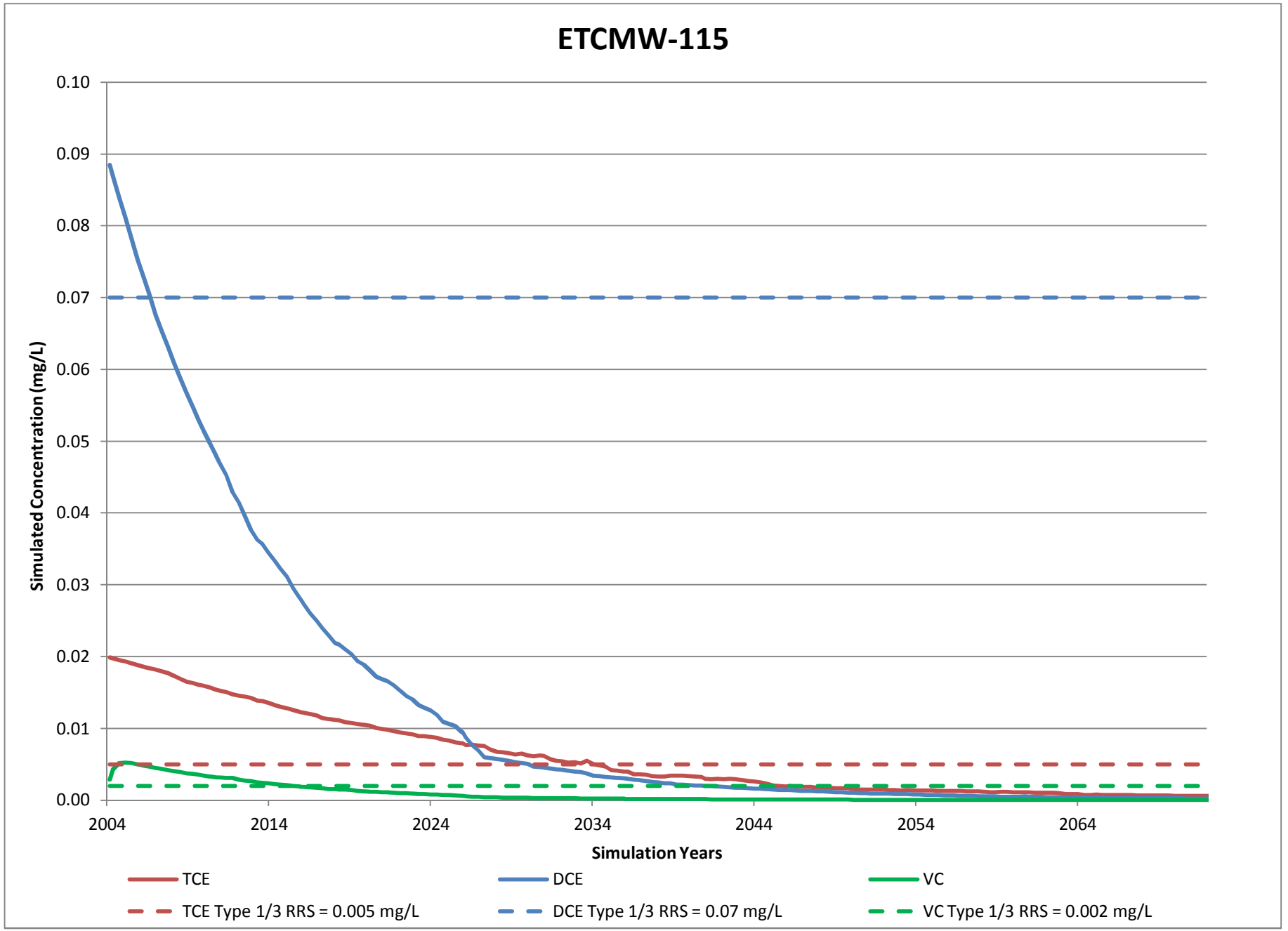
Concentration in mg/L

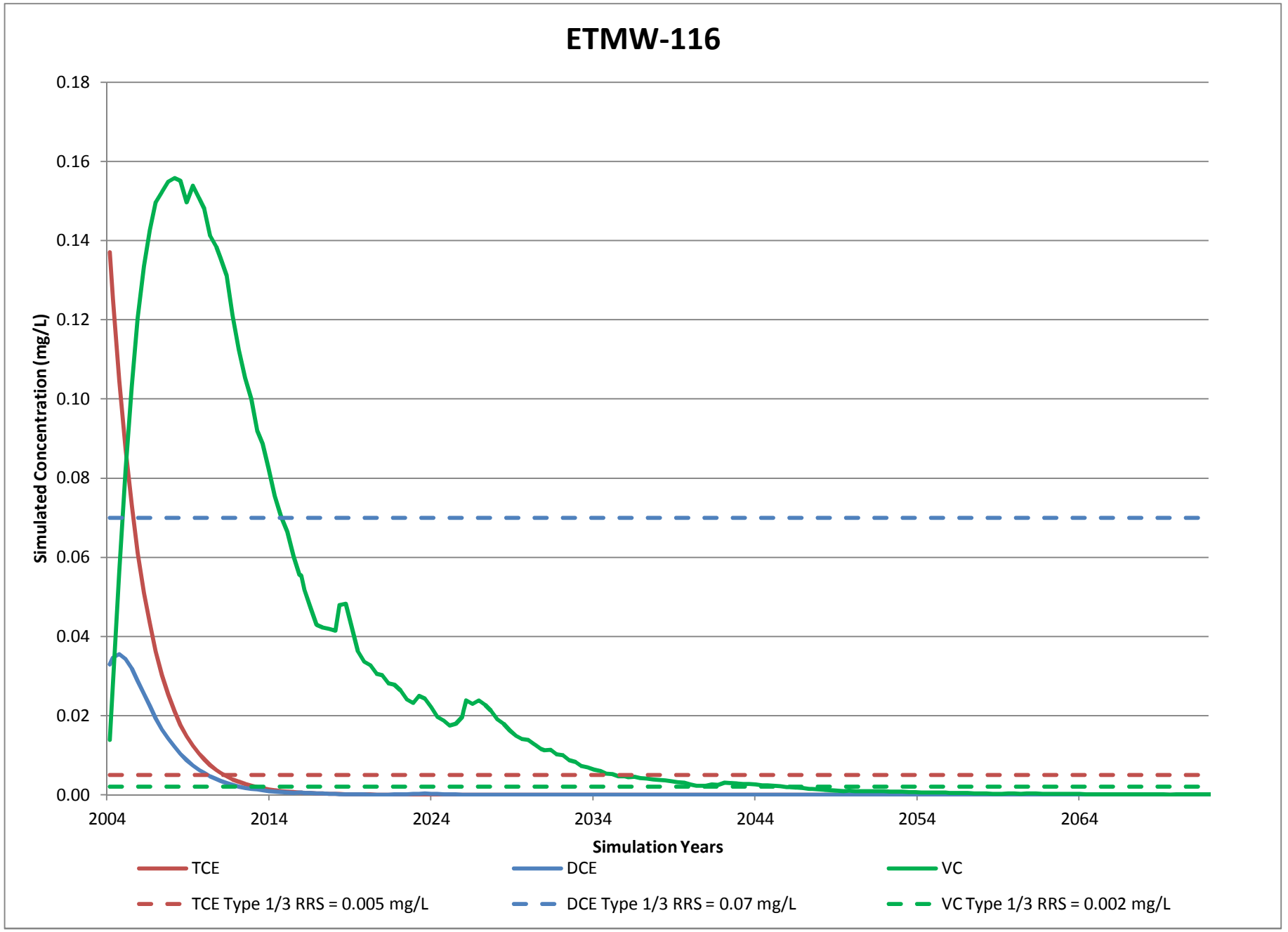
Elapse	Elapse		ETMW-118			ETMW-117			ETMW-116			ETMW-115			ETMW-114			ETCMW-113			CH2MW-1		
Time (days)	Time (years)	Year	VC	DCE	TCE	VC	DCE	TCE	VC	DCE	TCE	VC	DCE	TCE	VC	DCE	TCE	VC	DCE	TCE	VC	DCE	TCE
17,508	48	2052	0.0004	0.0002	0.0000	0.0007	0.0000	0.0000	0.0009	0.0000	0.0000	0.0001	0.0009	0.0015	0.0001	0.0088	0.0010	0.0002	0.0002	0.0000	0.0002	0.0001	0.0003
17,648	48	2052	0.0003	0.0002	0.0000	0.0006	0.0000	0.0000	0.0008	0.0000	0.0000	0.0001	0.0009	0.0014	0.0001	0.0085	0.0009	0.0001	0.0002	0.0000	0.0002	0.0001	0.0003
17,787	49	2053	0.0003	0.0001	0.0000	0.0006	0.0000	0.0000	0.0008	0.0000	0.0000	0.0001	0.0009	0.0014	0.0001	0.0079	0.0008	0.0001	0.0001	0.0000	0.0002	0.0001	0.0003
17,926	49	2053	0.0003	0.0001	0.0000	0.0005	0.0000	0.0000	0.0008	0.0000	0.0000	0.0001	0.0009	0.0014	0.0001	0.0076	0.0008	0.0001	0.0001	0.0000	0.0002	0.0001	0.0003
18,065	49	2053	0.0003	0.0001	0.0000	0.0005	0.0000	0.0000	0.0007	0.0000	0.0000	0.0001	0.0008	0.0014	0.0001	0.0073	0.0008	0.0001	0.0001	0.0000	0.0001	0.0001	0.0003
18,205	50	2054	0.0003	0.0001	0.0000	0.0006	0.0000	0.0000	0.0007	0.0000	0.0000	0.0001	0.0008	0.0014	0.0000	0.0070	0.0007	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
18,344	50	2054	0.0003	0.0001	0.0000	0.0005	0.0000	0.0000	0.0006	0.0000	0.0000	0.0001	0.0008	0.0014	0.0000	0.0067	0.0007	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
18,483	51	2055	0.0003	0.0001	0.0000	0.0006	0.0000	0.0000	0.0006	0.0000	0.0000	0.0000	0.0008	0.0013	0.0000	0.0062	0.0006	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
18,623	51	2055	0.0003	0.0001	0.0000	0.0005	0.0000	0.0000	0.0006	0.0000	0.0000	0.0000	0.0007	0.0013	0.0000	0.0059	0.0006	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
18,762	51	2055	0.0002	0.0001	0.0000	0.0005	0.0000	0.0000	0.0006	0.0000	0.0000	0.0000	0.0007	0.0013	0.0000	0.0054	0.0006	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
18,901	52	2056	0.0002	0.0001	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000	0.0000	0.0000	0.0007	0.0013	0.0000	0.0052	0.0005	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
18,980	52	2056	0.0002	0.0001	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000	0.0000	0.0000	0.0007	0.0013	0.0000	0.0050	0.0005	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
19,119	52	2056	0.0002	0.0001	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000	0.0000	0.0000	0.0006	0.0013	0.0000	0.0049	0.0005	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
19,259	53	2057	0.0002	0.0001	0.0000	0.0005	0.0000	0.0000	0.0005	0.0000	0.0000	0.0000	0.0006	0.0013	0.0000	0.0043	0.0005	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
19,398	53	2057	0.0002	0.0001	0.0000	0.0004	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0006	0.0013	0.0000	0.0041	0.0005	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
19,537	54	2058	0.0002	0.0001	0.0000	0.0005	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0006	0.0012	0.0000	0.0040	0.0004	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
19,677	54	2058	0.0002	0.0001	0.0000	0.0004	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0006	0.0012	0.0000	0.0039	0.0004	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
19,816	54	2058	0.0002	0.0001	0.0000	0.0005	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0006	0.0012	0.0000	0.0037	0.0004	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
19,955	55	2059	0.0002	0.0001	0.0000	0.0004	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0005	0.0011	0.0000	0.0034	0.0004	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
20,031	55	2059	0.0002	0.0001	0.0000	0.0004	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0005	0.0011	0.0000	0.0032	0.0004	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
20,170	55	2059	0.0002	0.0001	0.0000	0.0004	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0005	0.0011	0.0000	0.0030	0.0004	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
20,309	56	2060	0.0002	0.0001	0.0000	0.0004	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0005	0.0012	0.0000	0.0027	0.0003	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
20,449	56	2060	0.0002	0.0001	0.0000	0.0004	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0005	0.0011	0.0000	0.0025	0.0003	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
20,588	56	2060	0.0001	0.0001	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0005	0.0011	0.0000	0.0024	0.0003	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
20,727	57	2061	0.0001	0.0001	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0005	0.0011	0.0000	0.0020	0.0003	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
20,800	57	2061	0.0001	0.0001	0.0000	0.0003	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0005	0.0011	0.0000	0.0020	0.0003	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
20,939	57	2061	0.0001	0.0001	0.0000	0.0003	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0005	0.0011	0.0000	0.0019	0.0003	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
21,079	58	2062	0.0001	0.0001	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0004	0.0010	0.0000	0.0018	0.0002	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
21,218	58	2062	0.0001	0.0000	0.0000	0.0003	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0004	0.0010	0.0000	0.0018	0.0002	0.0001	0.0001	0.0000	0.0001	0.0001	0.0002
21,357	59	2063	0.0001	0.0000	0.0000	0.0003	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0004	0.0010	0.0000	0.0017	0.0002	0.0000	0.0001	0.0000	0.0001	0.0001	0.0001
21,497	59	2063	0.0001	0.0000	0.0000	0.0003	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0004	0.0010	0.0000	0.0016	0.0002	0.0000	0.0001	0.0000	0.0001	0.0001	0.0001
21,636	59	2063	0.0001	0.0000	0.0000	0.0003	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0004	0.0009	0.0000	0.0015	0.0002	0.0000	0.0001	0.0000	0.0001	0.0001	0.0001
21,775	60	2064	0.0001	0.0000	0.0000	0.0003	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0004	0.0008	0.0000	0.0015	0.0002	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001
21,914	60	2064	0.0001	0.0000	0.0000	0.0003	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0004	0.0008	0.0000	0.0014	0.0002	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001
22,054	60	2064	0.0001	0.0000	0.0000	0.0003	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0004	0.0008	0.0000	0.0013	0.0002	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001
22,193	61	2065	0.0001	0.0000	0.0000	0.0003	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0004	0.0007	0.0000	0.0013	0.0001	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001
22,332	61	2065	0.0001	0.0000	0.0000	0.0002	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0004	0.0008	0.0000	0.0012	0.0001	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001
22,472	62	2066	0.0001	0.0000	0.0000	0.0002	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0007	0.0000	0.0012	0.0001	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001
22,611	62	2066	0.0001	0.0000	0.0000	0.0003	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0007	0.0000	0.0011	0.0001	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001
22,630	62	2066	0.0001	0.0000	0.0000	0.0003	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0007	0.0000	0.0011	0.0001	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001
22,700	62	2066	0.0001	0.0000	0.0000	0.0003	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0007	0.0000	0.0011	0.0001	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001
22,839	63	2067	0.0001	0.0000	0.0000	0.0003	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0007	0.0000	0.0011	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
22,978	63	2067	0.0001	0.0000	0.0000	0.0003	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0007	0.0000	0.0010	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
23,118	63	2067	0.0001	0.0000	0.0000	0.0002	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0007	0.0000	0.0010	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
23,257	64	2068	0.0001	0.0000	0.0000	0.0002	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0007	0.0000	0.0009	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
23,396	64	2068	0.0001	0.0000	0.0000	0.0002	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0007	0.0000	0.0009	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
23,535	64	2068	0.0001	0.0000	0.0000	0.0002	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0007	0.0000	0.0009	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
23,675	65	2069	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0007	0.0000	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
23,814	65	2069	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0007	0.0000	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
23,953	66	2070	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0006	0.0000	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
24,093	66	2070	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0006	0.0000	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
24,232	66	2070	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0006	0.0000	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
24,371	67	2071	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0003	0.0006	0.0000	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
24,460	67	2071	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0002	0.0006	0.0000	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
24,599	67	2071	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0002	0.0006	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
24,739	68	2072	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0002	0.0006	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
24,878	68	2072	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0002	0.0006	0.0000	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
25,000	68	2072	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0002	0.0006	0.0000	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001

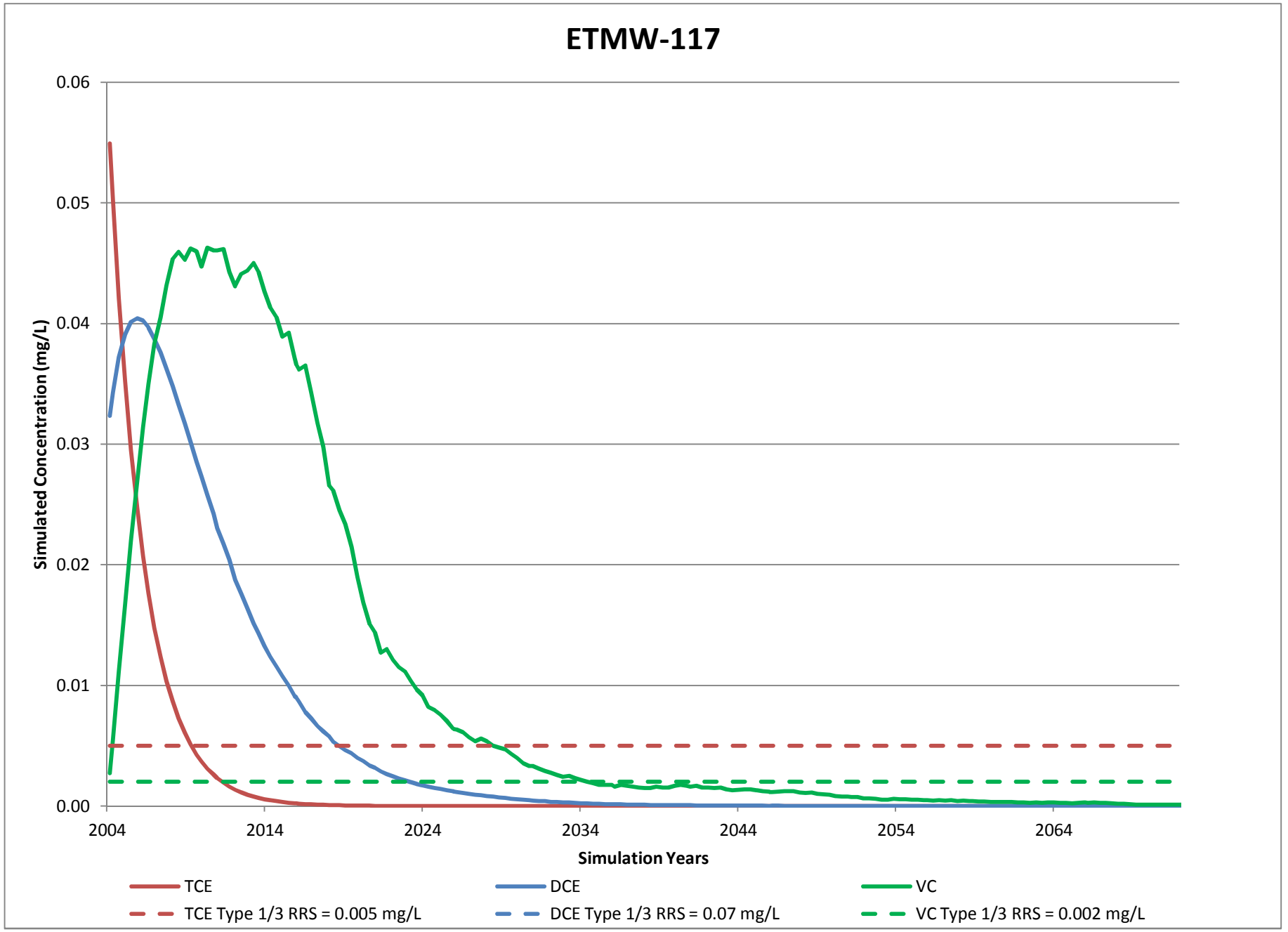

CH2MW-1
0.006
0.005
0.004
0.003
0.002
0.001
0.000
Simulated Concentration (mg/L)
2004
2014
2024
2034
2044
2054
2064
Simulation Years
TCE
DCE
VC
TCE Type 1/3 RRS = 0.005 mg/L
DCE Type 1/3 RRS = 0.07 mg/L
VC Type 1/3 RRS = 0.002 mg/L


ETCMW-113
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Simulated Concentration (mg/L)
2004
2014
2024
2034
2044
2054
2064
Simulation Year
TCE
DCE
VC
TCE Type 1/3 RRS = 0.005 mg/L
DCE Type 1/3 RRS = 0.07 mg/L
VC Type 1/3 RRS = 0.002 mg/L


ETCMW-114
2.50
2.25
2.00
1.75
1.50
1.25
1.00
0.75
0.50
0.25
0.00
Simulated Concentration (mg/L)
2004
2014
2024
2034
2044
2054
2064
Simulation Years
TCE
DCE
VC
TCE Type 1/3 RRS = 0.005 mg/L
DCE Type 1/3 RRS = 0.07 mg/L
VC Type 1/3 RRS = 0.002 mg/L


ETCMW-115
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Simulated Concentration (mg/L)
2004
2014
2024
2034
2044
2054
2064
Simulation Years
TCE
DCE
VC
TCE Type 1/3 RRS = 0.005 mg/L
DCE Type 1/3 RRS = 0.07 mg/L
VC Type 1/3 RRS = 0.002 mg/L


ETMW-116
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
Simulated Concentration (mg/L)
2004
2014
2024
2034
2044
2054
2064
Simulation Years
TCE
DCE
VC
TCE Type 1/3 RRS = 0.005 mg/L
DCE Type 1/3 RRS = 0.07 mg/L
VC Type 1/3 RRS = 0.002 mg/L


ETMW-117
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Simulated Concentration (mg/L)
2004
2014
2024
2034
2044
2054
2064
Simulation Years
TCE
DCE
VC
TCE Type 1/3 RRS = 0.005 mg/L
DCE Type 1/3 RRS = 0.07 mg/L
VC Type 1/3 RRS = 0.002 mg/L

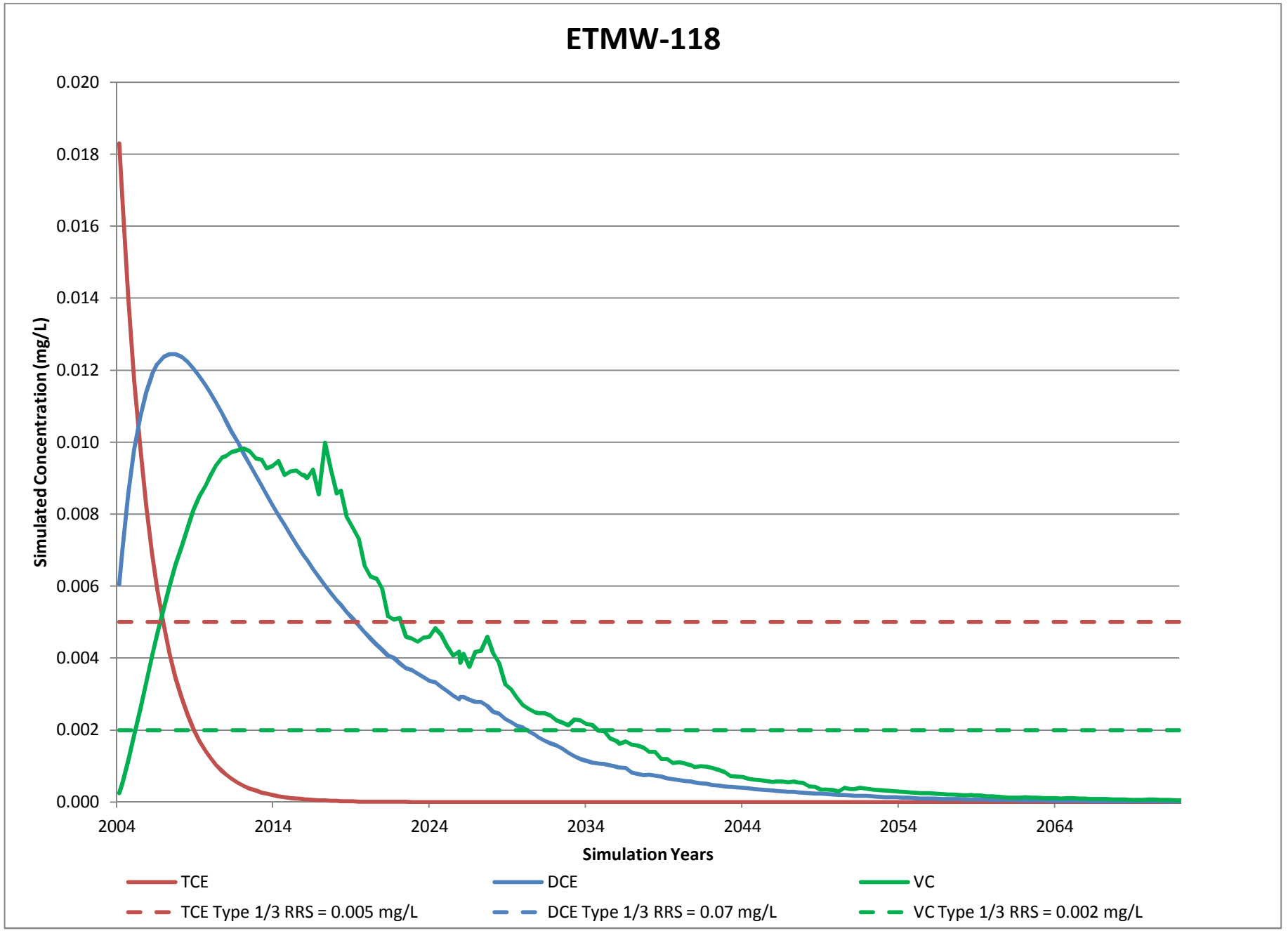
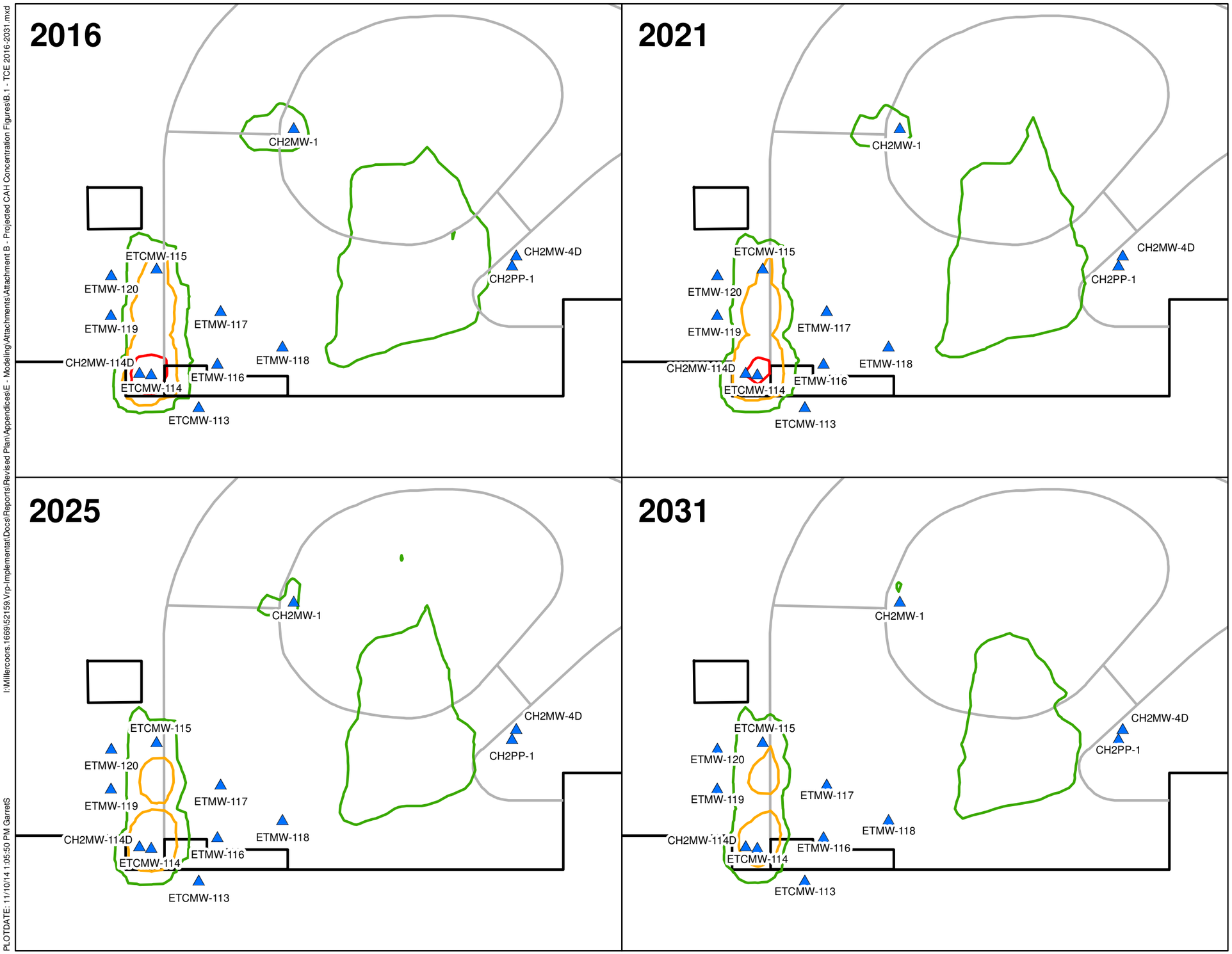

ETMW-118
0.020
0.018
0.016
0.014
0.012
0.010
0.008
0.006
0.004
0.002
0.000
Simulated Concentration (mg/L)
2004
2014
2024
2034
2044
2054
2064
Simulation Years
TCE
DCE
VC
TCE Type 1/3 RRS = 0.005 mg/L
DCE Type 1/3 RRS = 0.07 mg/L
VC Type 1/3 RRS = 0.002 mg/L

FIGURE B.1



N

Monitoring Well

Buildings

Roadway

TCE Concentration (mg/L)

0.001-0.009

0.010-0.099

0.100-0.499

> 0.500

TCE Type 1/3 RRS = 0.005 mg/L

Miller Brewing Company
Moultrie, GA

PROJECTED TCE CONCENTRATION 2016 - 2031

0 10 20 40
Feet

08/08/14
52159

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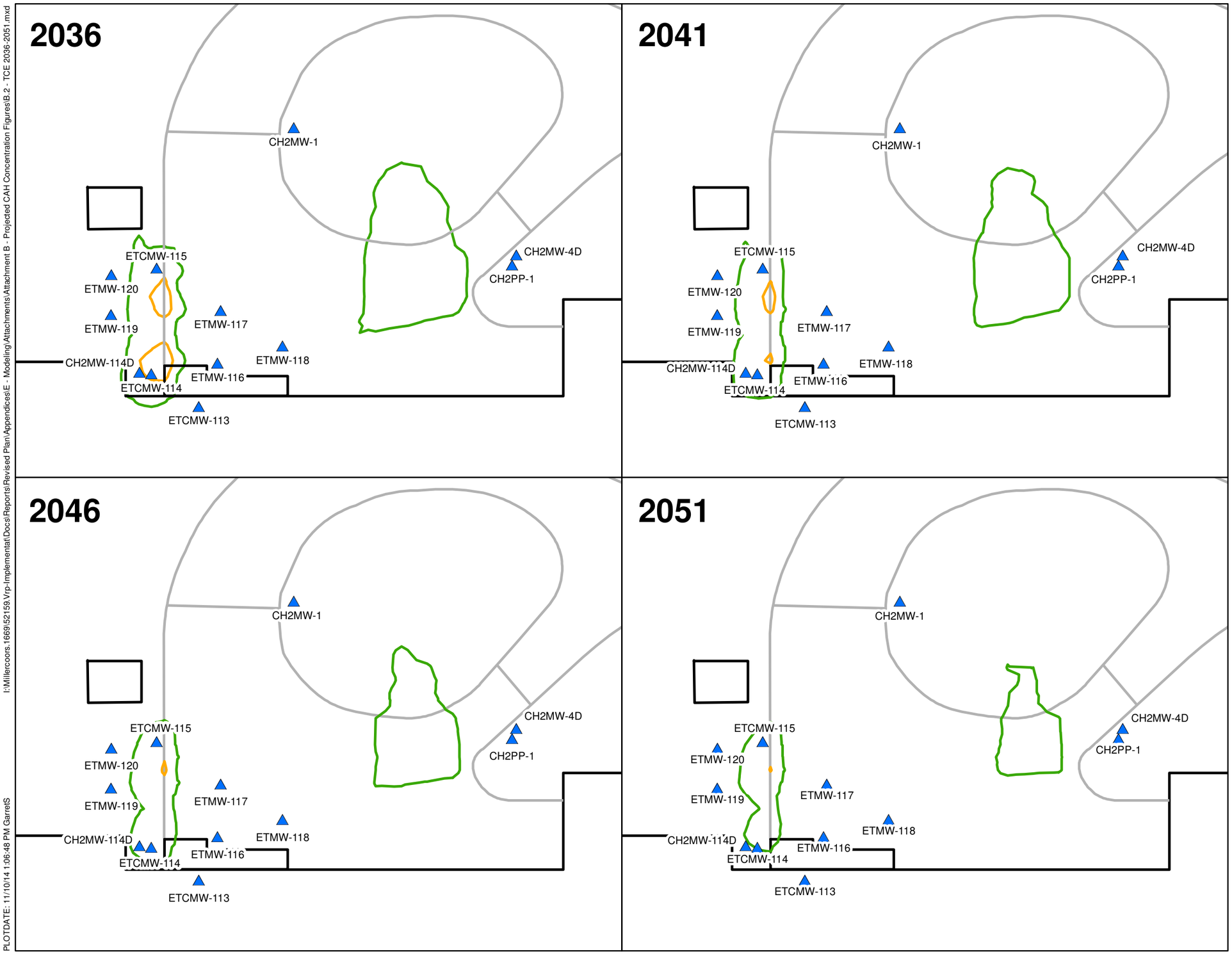
FIGURE B.2



N

Monitoring Well
Buildings
Roadway

TCE Concentration (mg/L)

0.001-0.009
0.010-0.099
0.100-0.499
> 0.500

TCE Type 1/3 RRS = 0.005 mg/L

Miller Brewing Company
Moultrie, GA

PROJECTED TCE CONCENTRATION 2036 - 2051

0 10 20 40
Feet

08/08/14
52159

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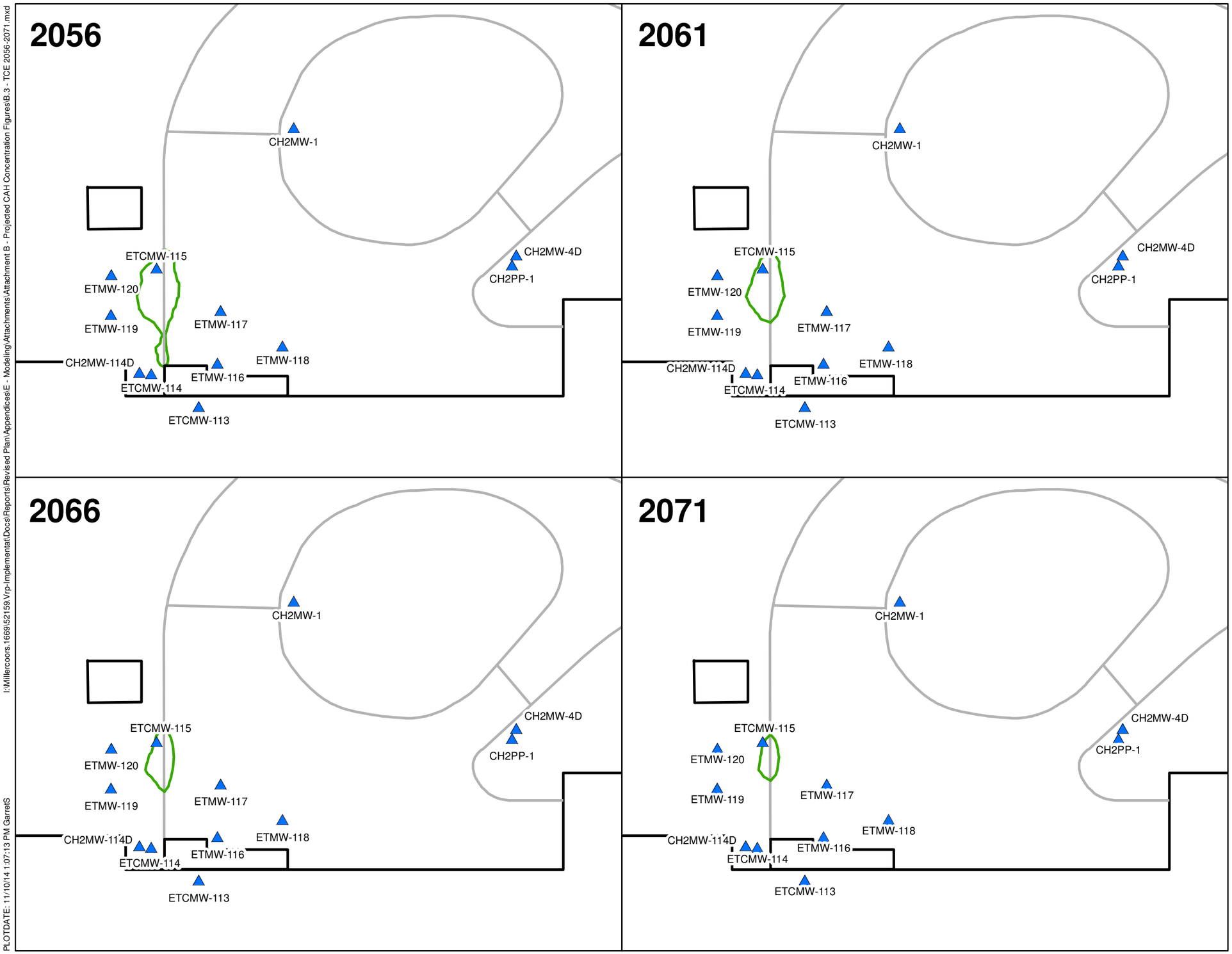
FIGURE B.3



N

Monitoring Well
Buildings
Roadway

TCE Concentration (mg/L)

0.001-0.009
0.010-0.099
0.100-0.499
> 0.500

TCE Type 1/3 RRS = 0.005 mg/L

Miller Brewing Company
Moultrie, GA

PROJECTED TCE CONCENTRATION 2056 - 2071

0 10 20 40
Feet

08/08/14
52159

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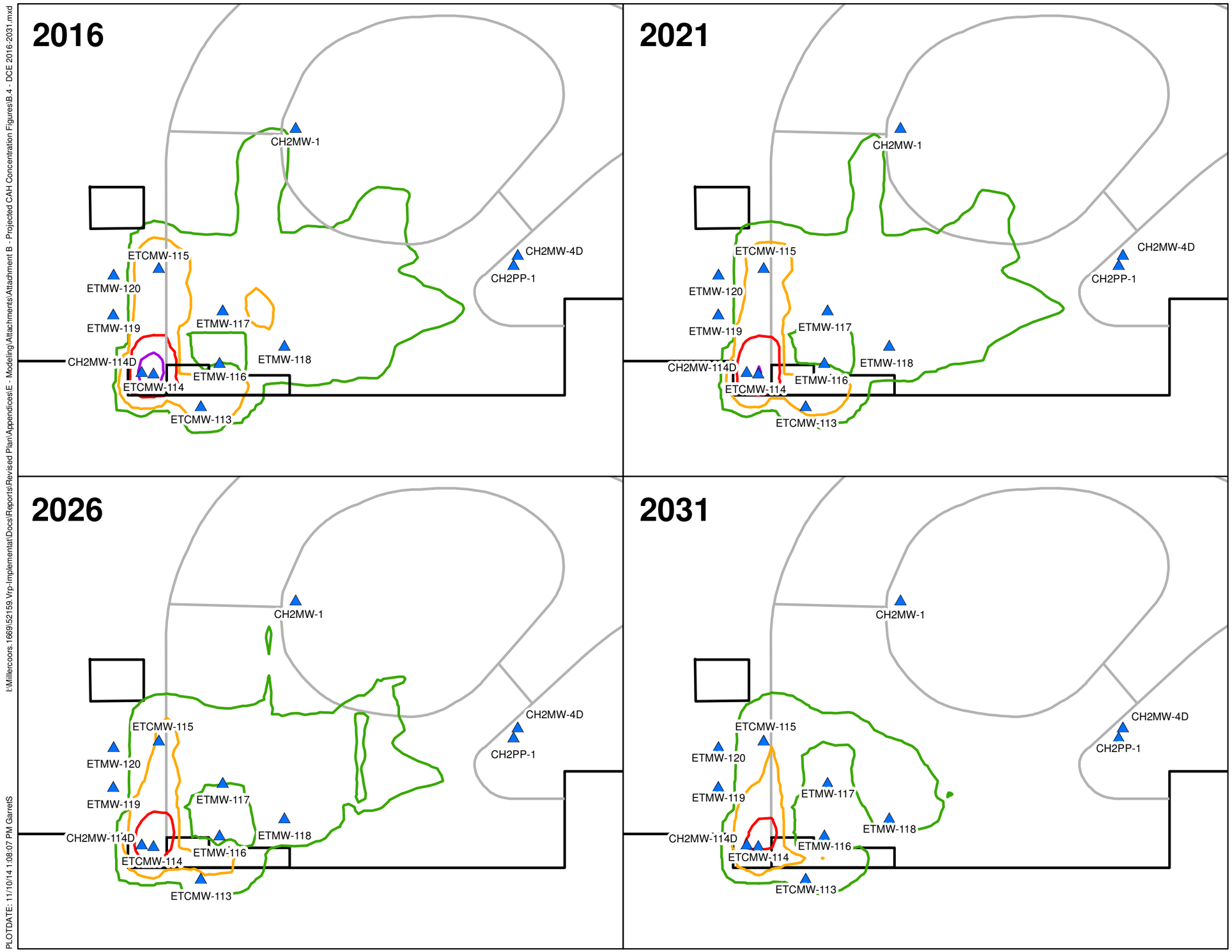
FIGURE B.4



N

Monitoring Well
Buildings
Roadway

DCE Concentration (mg/L)

0.001-0.009
0.010-0.099
0.100-0.499
> 0.500

DCE Type 1/3 RRS = 0.07 mg/L

Miller Brewing Company
Moultrie, GA

PROJECTED DCE CONCENTRATION 2016-2031

0 10 20 40
Feet

08/08/14
52159

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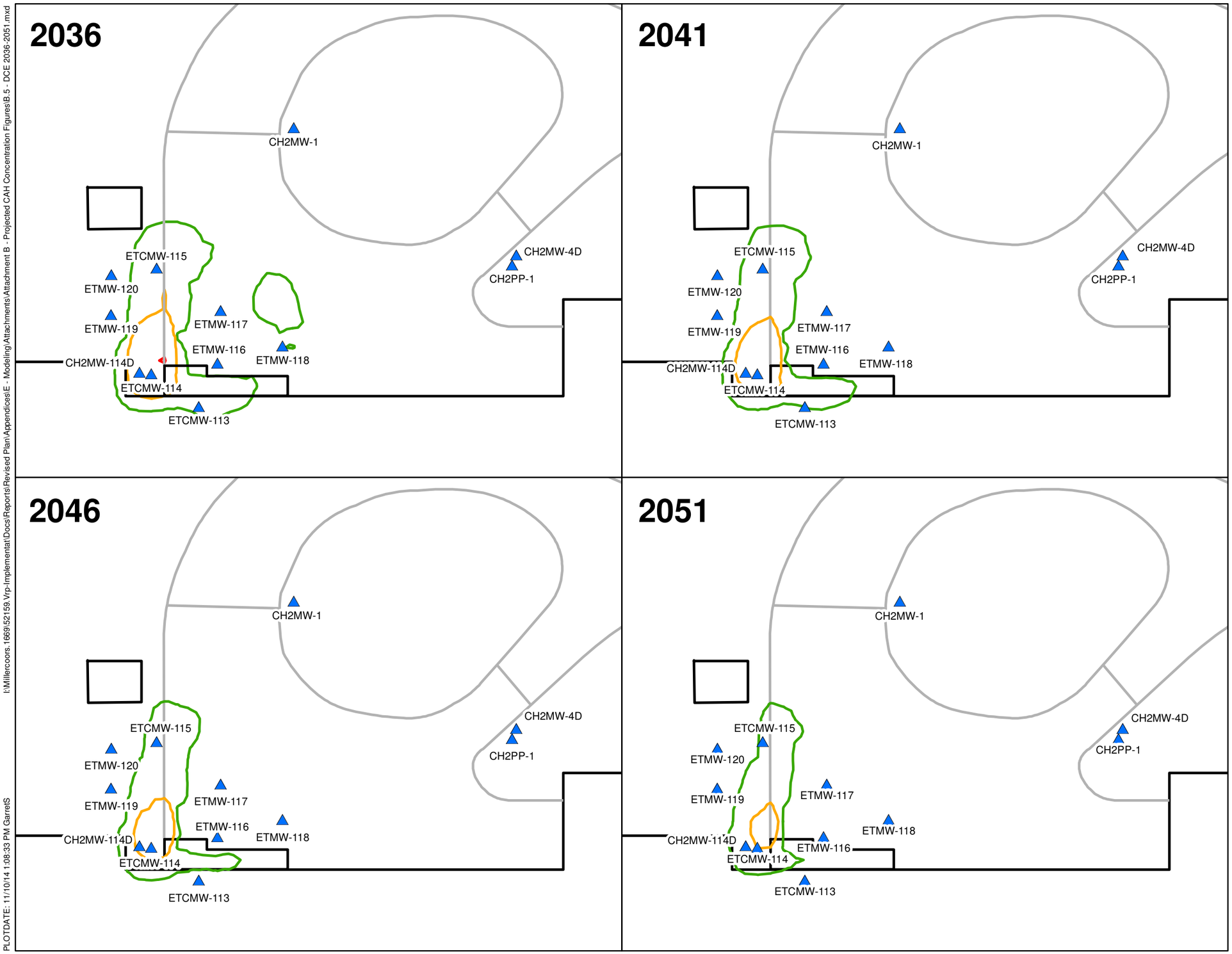
FIGURE B.5



N

Monitoring Well
Buildings
Roadway

DCE Concentration (mg/L)

0.001-0.009
0.010-0.099
0.100-0.499
> 0.500

DCE Type 1/3 RRS = 0.07 mg/L

Miller Brewing Company
Moultrie, GA

PROJECTED DCE CONCENTRATION 2036-2051

0 10 20 40
Feet

08/08/14
52159

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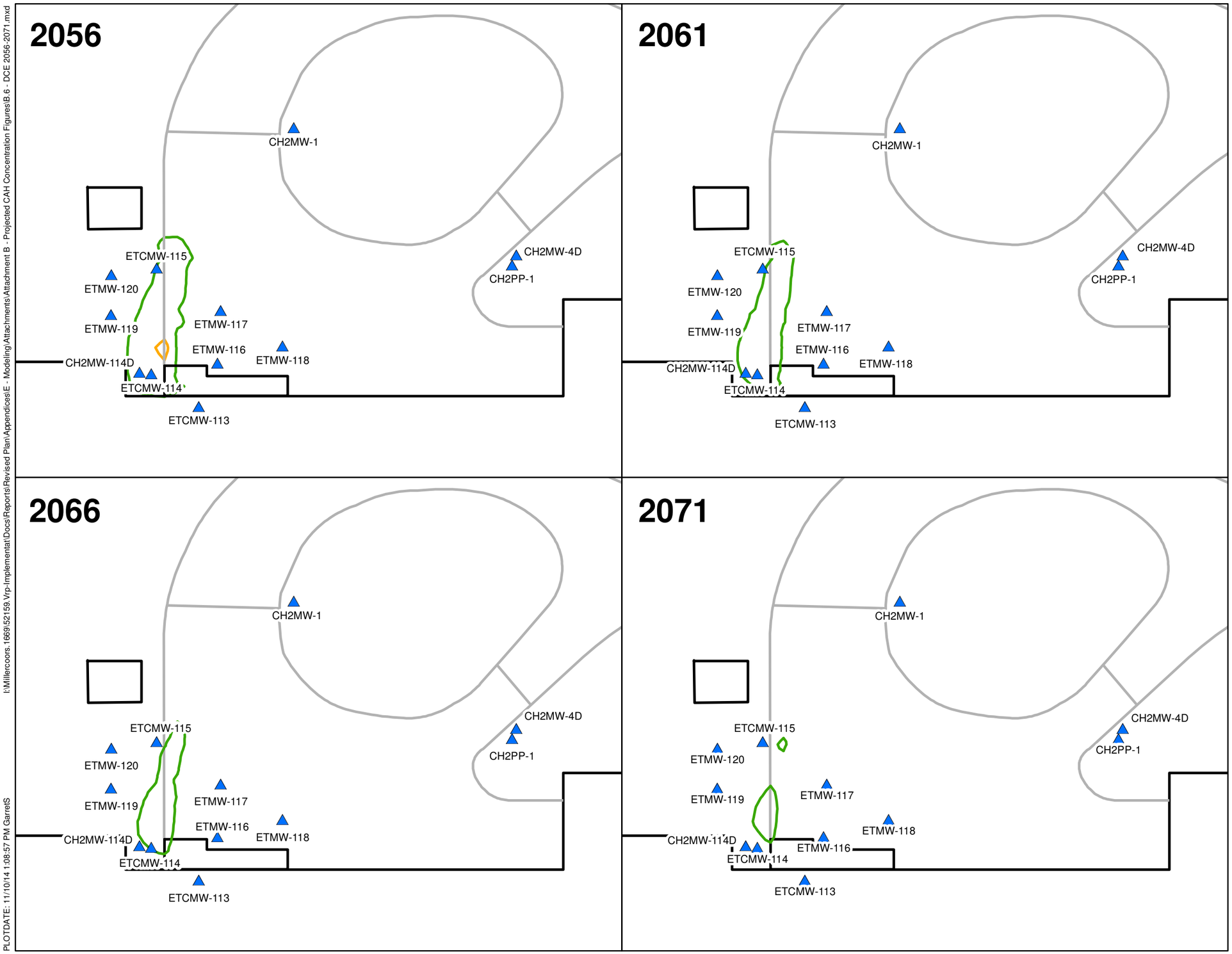
FIGURE B.6



N

Monitoring Well
Buildings
Roadway

DCE Concentration (mg/L)

0.001-0.009
0.010-0.099
0.100-0.499
> 0.500

DCE Type 1/3 RRS = 0.07 mg/L

Miller Brewing Company
Moultrie, GA

PROJECTED DCE CONCENTRATION 2056-2071

0 10 20 40
Feet

08/08/14
52159

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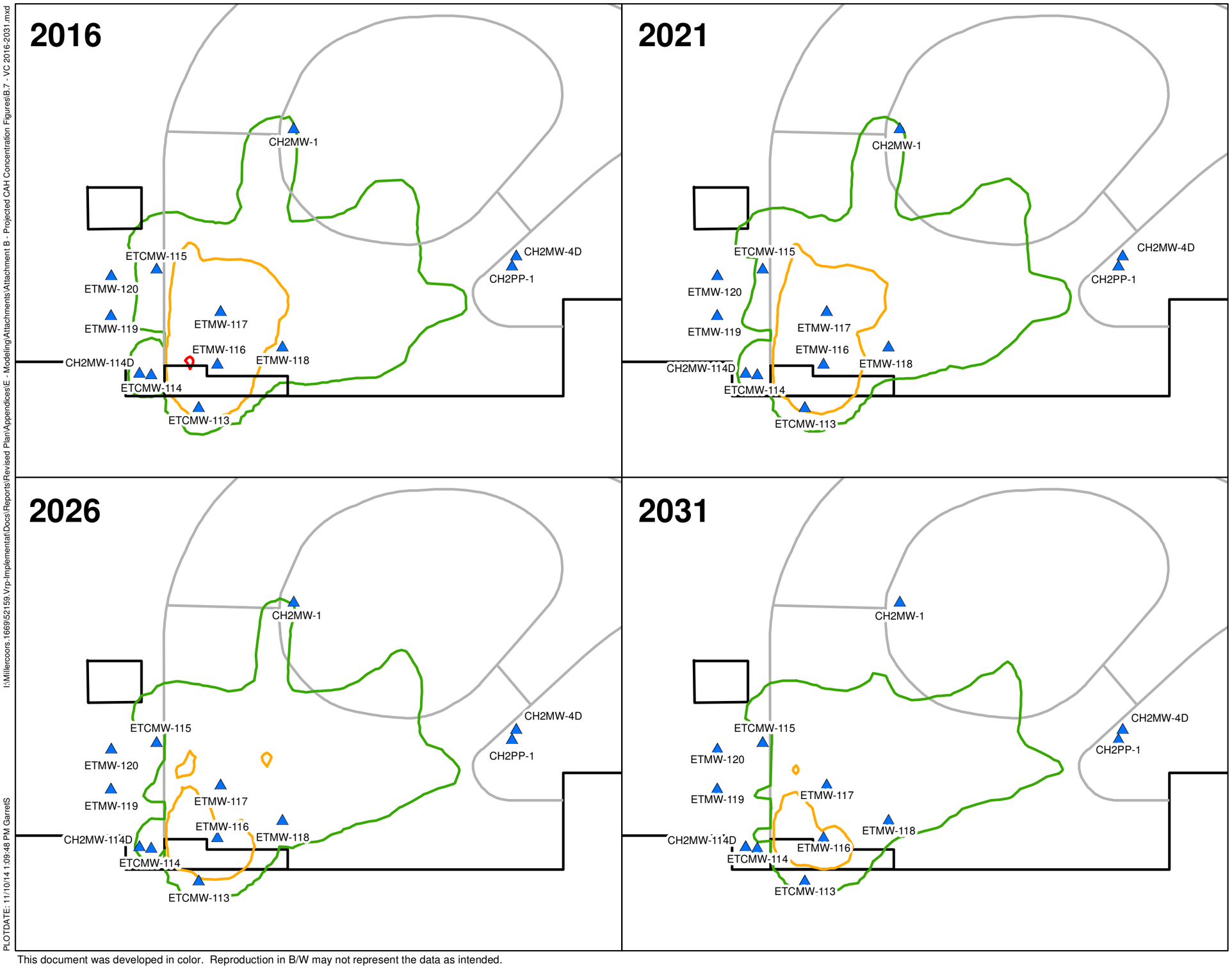
FIGURE B.7



N

Monitoring Well
Buildings
Roadway

VC Concentration (mg/L)

0.001-0.009
0.010-0.099
0.100-0.499
> 0.500

VC Type 1/3 RRS = 0.002 mg/L

Miller Brewing Company
Moultrie, GA

PROJECTED VC CONCENTRATION 2016-2031

0 10 20 40
Feet

08/08/14
52159

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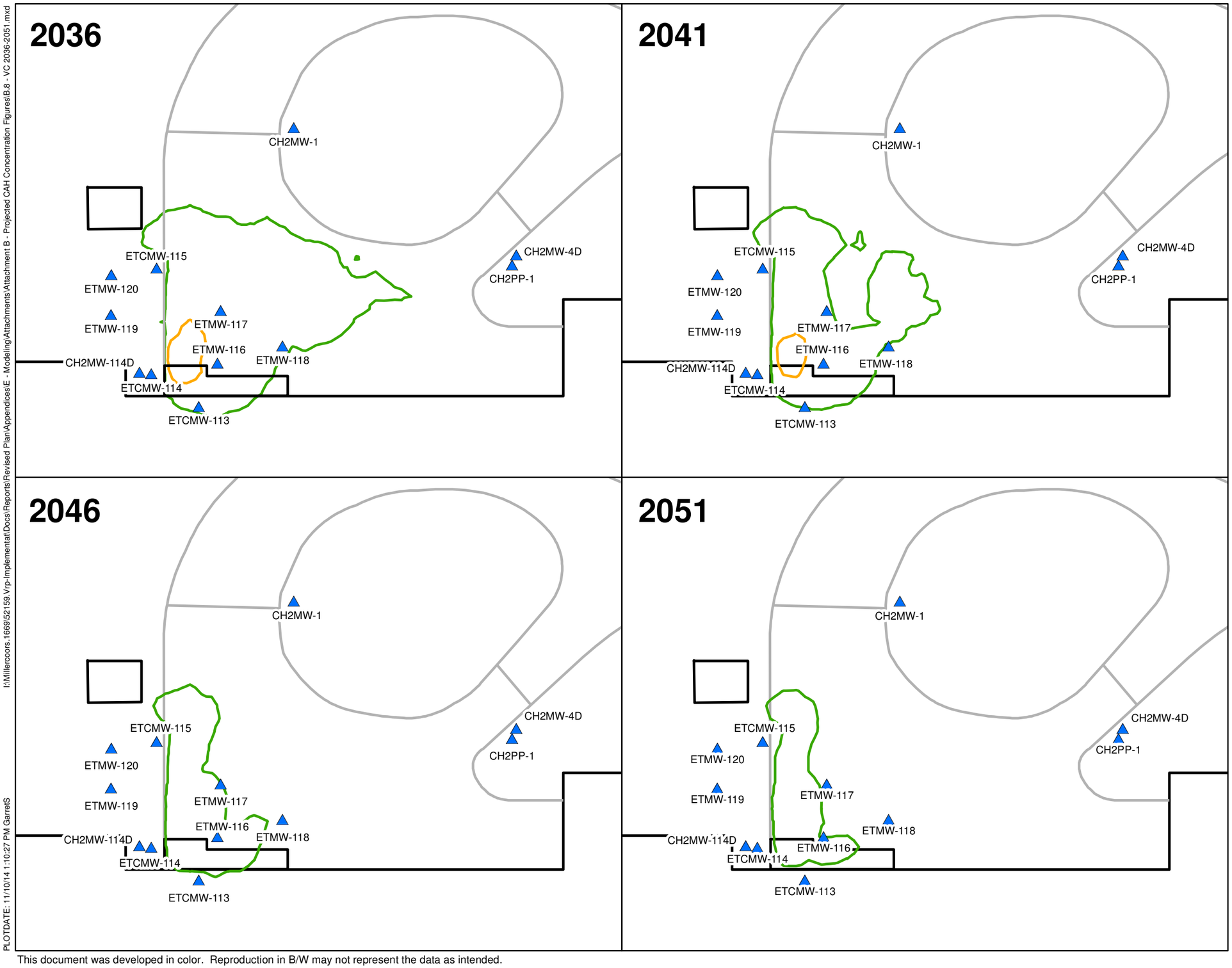
FIGURE B.8



N

- Monitoring Well
- Buildings
- Roadway

VC Concentration (mg/L)

- 0.001-0.009
- 0.010-0.099
- 0.100-0.499
- > 0.500

VC Type 1/3 RRS = 0.002 mg/L

Miller Brewing Company
Moultrie, GA

PROJECTED VC CONCENTRATION 2036-2051

0 10 20 40
Feet

08/08/14
52159

O'BRIEN & GERE

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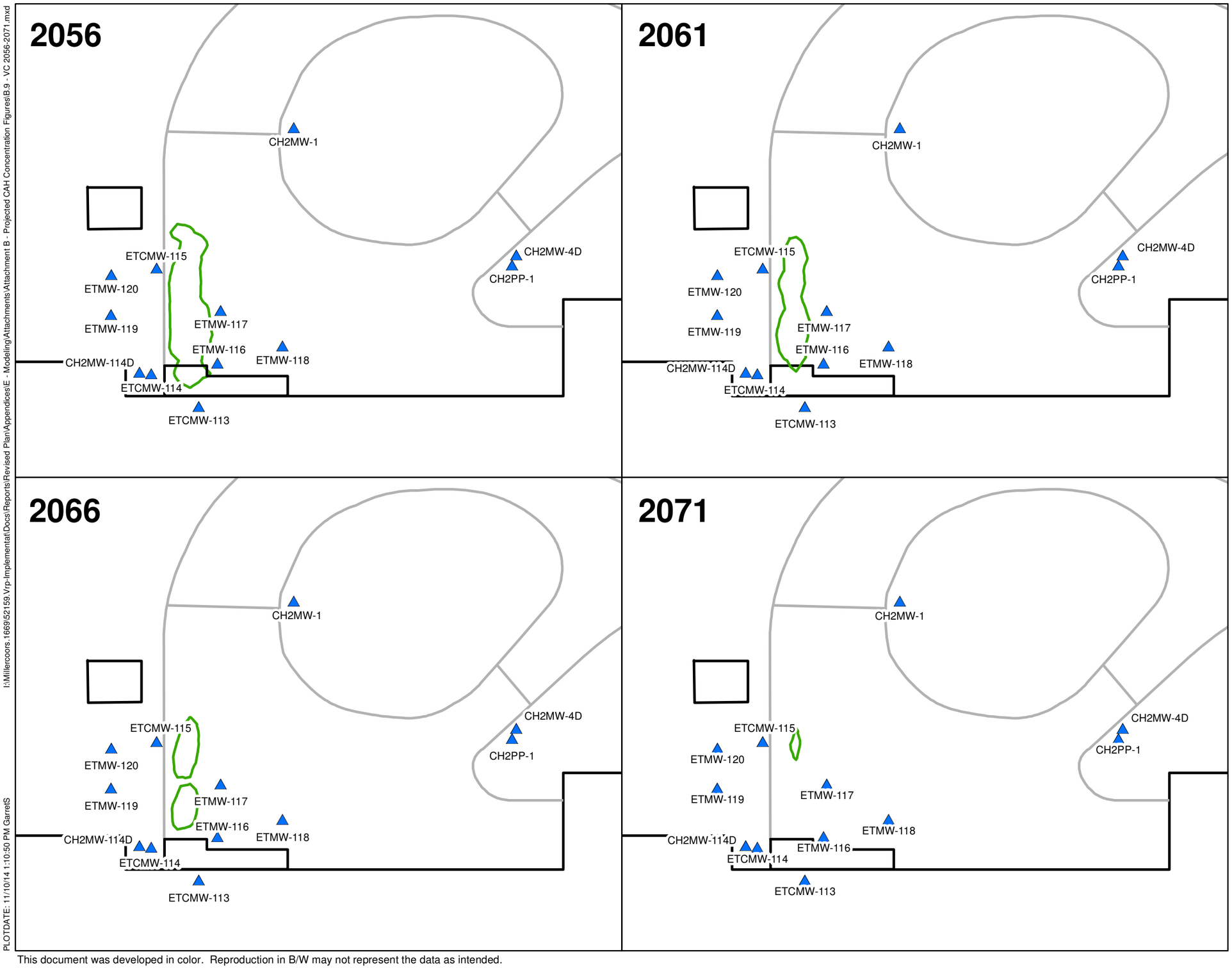
FIGURE B.9



N

- Monitoring Well
- Buildings
- Roadway

VC Concentration (mg/L)

- 0.001-0.009
- 0.010-0.099
- 0.100-0.499
- > 0.500

VC Type 1/3 RRS = 0.002 mg/L

Miller Brewing Company
Moultrie, GA

PROJECTED VC CONCENTRATION 2056-2071

0 10 20 40
Feet

08/08/14
52159

O'BRIEN & GERE

I:\Millercoors.1669\52159.Vrp-Implementat\Docs\Reports\Revised Plan\AppendicesIE - Modeling\Attachments\Attachment B - Projected CAH Concentration Figures\B.9 - VC 2056-2071.mxd

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This document was developed in color. Reproduction in B/W may not represent the data as intended.

Attachment C

Model Output (on CD)

Appendix E

Uniform Environmental Covenant, Property Abutters, and Title Report

After Recording Return to:

Georgia Environmental Protection Division
Response and Remediation Program
2 Martin Luther King, Jr. Drive, SE
Suite 1054 East Tower
Atlanta, Georgia 30334

CROSS-REFERENCE:
Deed Book:
Page:

Environmental Covenant

This instrument is an Environmental Covenant executed pursuant to the Georgia Uniform Environmental Covenants Act, OCGA § 44-16-1, *et seq.* This Environmental Covenant subjects the Property identified below to the activity and/or use limitations specified in this document. The effective date of this Environmental Covenant shall be the date upon which the fully executed Environmental Covenant has been recorded in accordance with OCGA § 44-16-8(a).

Fee Owner of Property/Grantor:
Joint Development Authority of Brook, Colquitt, Grady, Mitchell, and Thomas Counties
P.O. Box 487
Moultrie, GA 31775-0487

Grantee/Holder:
Joint Development Authority of Brook, Colquitt, Grady, Mitchell, and Thomas Counties
P.O. Box 487
Moultrie, GA 31775-0487

Grantee/Entity with express power to enforce:
State of Georgia
Department of Natural Resources
Environmental Protection Division
2 Martin Luther King Jr. Drive, SE
Suite 1456 East Tower
Atlanta, GA 30334

Parties with interest in the Property:
Ice House America
1597 The Greens Way
Jacksonville Beach, FL 32250

State Highway Department of Georgia
(Georgia Department of Transportation)
One Georgia Center
600 West Peachtree NW
Atlanta, Georgia 30308

City of Moultrie, Georgia
PO Box 3368
Moultrie, GA 31776-3368

Note Holder Reserve, LLC
390 North Orange Avenue, Suite 1400
Orlando, FL 32801

Property:

The property subject to this Environmental Covenant is the former Reynolds Metal Company Property (hereinafter "Property"), located on 278 Highway 319 South in Moultrie, Colquitt County, Georgia. This tract of land was conveyed on March 26, 2004, from G.B.A. Associates, LLC to Joint Development Authority of Brooks, Colquitt, Grady, Mitchell, and Thomas Counties recorded in Deed Book 816, Page 37, Colquitt County Records. The Property is located in Land Lot 400 of the 8th District of Colquitt County, Georgia. The Property consists of 28.03 acres as shown by that plat dated January 30, 2004, designated as "Plat of Survey for G.B.A. Associates LLC," recorded in Plat Book 37, Page 182-A, Colquitt County Records. A complete legal description of the area is attached as Exhibit A and a map of the area is attached as Exhibit B.

Tax Parcel Number(s):

Tax ID parcel number MO52 012 of Colquitt County, Georgia

Name and Location of Administrative Records:

The corrective action at the Property that is the subject of this Environmental Covenant is described in the following documents (as same may be amended from time to time with written approval from EPD):

- Corrective Action Plan: January 2004
- Revised Compliance Status Report: June 2004
- Corrective Action Monitoring and Evaluation Report: January 2006
- Corrective Action Monitoring and Evaluation Report: April 2008
- 2008 Annual Monitoring Report: February 2009
- 2009 Annual Monitoring Report: February 2010
- 2010 Annual Monitoring Report: March 23, 2011
- 2011 Annual Monitoring Report: March 20, 2012
- 2012 Annual Monitoring Report: April 16, 2013
- Voluntary Remediation Program Application: December 2013
- Georgia Environmental Protection Division letter dated May 6, 2014 approving entry of the Reynolds Metal Company Property HSI Site No. 10425 into the VRP
- Revised Voluntary Remediation Plan: February 2015

These documents are available at the following location in the files for HSI Number 10425:

Georgia Environmental Protection Division
Response and Remediation Program
2 MLK Jr. Drive, SE, Suite 1054 East Tower
Atlanta, GA 30334
M-F 8:00 AM to 4:30 PM excluding state holidays

Description of Contamination and Corrective Action:

This Property has been listed on the state's hazardous site inventory and has been designated as needing corrective action due to the presence of hazardous wastes, hazardous constituents, or hazardous substances regulated under state law. Contact the property owner or the Georgia Environmental

Protection Division for further information concerning this Property. This notice is provided in compliance with the Georgia Hazardous Site Response Act.

This Declaration of Covenant is made pursuant to the Georgia Uniform Environmental Covenants Act, O.C.G.A. § 44-16-1 *et seq*. by Joint Development Authority of Brooks, Colquitt, Grady, Mitchell, and Thomas Counties, its successors and assigns, Joint Development Authority of Brook, Colquitt, Grady, Mitchell, and Thomas Counties, and the State of Georgia, Department of Natural Resources, Environmental Protection Division (hereinafter "EPD"), its successors and assigns. This Environmental Covenant is required because a release of chloroethane; 1,1-dichloroethene; cis-1,2-dichloroethene; tetrachloroethene; trichloroethene; and vinyl chloride occurred on the Property. Chloroethane; 1,1-dichloroethene; cis-1,2-dichloroethene; tetrachloroethene; trichloroethene; and vinyl chloride are "regulated substances" as defined under the Georgia Hazardous Site Response Act, O.C.G.A. § 12-8-90 *et seq.*, and the rules promulgated thereunder (hereinafter "HSRA" and "Rules", respectively). The Corrective Action consists of the installation and maintenance of engineering controls and institutional controls (limiting use of the property to non-residential activities and restrictions on use of groundwater) to protect human health and the environment.

Grantor, Joint Development Authority of Brooks, Colquitt, Grady, Mitchell, and Thomas Counties (hereinafter "Joint Development Authority"), hereby binds Grantor, its successors and assigns to the activity and use restriction(s) for the Property identified herein and grants such other rights under this Environmental Covenant in favor of the Joint Development Authority and EPD. EPD shall have full right of enforcement of the rights conveyed under this Environmental Covenant pursuant to HSRA, O.C.G.A. § 12-8-90 *et seq*., and the rules promulgated thereunder. Failure to timely enforce compliance with this Environmental Covenant or the use or activity limitations contained herein by any person shall not bar subsequent enforcement by such person and shall not be deemed a waiver of the person's right to take action to enforce any non-compliance. Nothing in this Environmental Covenant shall restrict EPD from excising any authority under applicable law.

The Joint Development Authority makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, pursuant to O.C.G.A. § 44-16-5(a); is perpetual, unless modified or terminated pursuant to the terms of this Covenant pursuant to O.C.G.A. § 44-16-9; and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereinafter "Owner"). Should a transfer or sale of the Property occur before such time as this Environmental Covenant has been amended or revoked then said Environmental Covenant shall be binding on the transferee(s) or purchaser(s).

The Environmental Covenant shall inure to the benefit of the Joint Development Authority EPD, and their respective successors and assigns and shall be enforceable by the Director or his agents or assigns, and other party(ies) as provided for in O.C.G.A. § 44-16-11 in a court of competent jurisdiction.

Activity and/or Use Limitation(s)

1. Registry. Pursuant to O.C.G.A. § 44-16-12, this Environmental Covenant and any amendment or termination thereof, may be contained in EPD's registry for environmental covenants.

2. Notice. The Owner of the Property must give thirty (30) day advance written notice to EPD of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete

provision for continued monitoring, operation, and maintenance of the Corrective Action. The Owner of the Property must also give thirty (30) day advance written notice to EPD of the Owner's intent to change the use of the Property, apply for building permit(s), or propose any site work that would affect the Contamination on the Property.

3. Notice of Limitation in Future Conveyances. Each instrument hereafter conveying an interest in the Property subject to this Environmental Covenant shall contain a notice of the activity and use limitations set forth in this Environmental Covenant and shall provide the recorded location of the Environmental Covenant.

4. Activity and Use Limitation(s). The Property shall be used only for non-residential uses, as defined in Section 391-3-19-.02 of the Rules and defined in and allowed under the Colquitt County's zoning regulations as of the date of this Environmental Covenant. Any residential use on the Property shall be prohibited until such a time as EPD has concurred that the soil is in compliance with Type 1 or 2 Risk Reduction Standards, as defined in Georgia Rules of Hazardous Site Response (Rules) Section 391-3-19-.07, and the vapor intrusion pathway has been addressed for residential use. Any activity on the Property that may result in the release or exposure to the regulated substances that were contained as part of the Corrective Action, or create a new exposure pathway, is prohibited.

5. Groundwater Limitation. The use or extraction of groundwater beneath the Property for drinking water or for any other non-remedial purposes shall be prohibited.

6. Permanent Markers. Permanent markers on each side of the Property shall be installed and maintained that delineate the restricted area as specified in Section 391-3-19-.07(10) of the Rules. Disturbance or removal of such markers is prohibited.

7. Right of Access. In addition to any rights already possessed by EPD, the Owner shall allow authorized representatives of EPD and/or the Joint Development Authority the right to enter the Property at reasonable times for the purpose of evaluating the Corrective Action; to take samples, to inspect the Corrective Action conducted at the Property, to determine compliance with this Environmental Covenant, and to inspect records that are related to the Corrective Action.

8. Recording of Environmental Covenant and Proof of Notification. Within thirty (30) days after the date of the Director's signature, the Owner shall file this Environmental Covenant with the Recorders of Deeds for each County in which the Property is located, and send a file stamped copy of this Environmental Covenant to EPD within thirty (30) days of recording. Within that time period, the Owner shall also send a file-stamped copy to each of the following: (1) each person holding a recorded interest in the Property subject to the covenant, (2) each person in possession of the real property subject to the covenant, (3) each municipality, county, consolidated government, or other unit of local government in which real property subject to the covenant is located, and (4) each owner in fee simple whose property abuts the property subject to the Environmental Covenant.

9. Termination or Modification. The Environmental Covenant shall remain in full force and effect in accordance with O.C.G.A. § 44-5-60, unless and until the Director determines that the Property is in compliance with the Type 1, 2, 3, or 4 Risk Reduction Standards, as defined in Section 391-3-19-.07 of the Rules, and removes the Property from the Hazardous Site Inventory, whereupon the Environmental Covenant may be amended or revoked in accordance with Section 391-3-19-08(7) of the Rules and O.C.G.A. § 44-16-1 *et seq*.

10. Severability. If any provision of this Environmental Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

11. No EPD Interest in Property Created. This Environmental Covenant does not in any way create any interest by EPD in the Property that is subject to the Environmental Covenant. Furthermore, the act

of approving this Environmental Covenant does not in any way create any interest by EPD in the Property in accordance with O.C.G.A. § 44-16-3(b).

Representations and Warranties.

Grantor hereby represents and warrants to the other signatories hereto:

a) That the Grantor has the power and authority to enter into this Environmental Covenant, to grant the rights and interests herein provided and to carry out all obligations hereunder;
b) That the Grantor is the sole owner of the Property and holds fee simple title which is free, clear and unencumbered;
c) That the Grantor has identified all other parties that hold any interest (e.g., encumbrance) in the Property and notified such parties of the Grantor's intention to enter into this Environmental Covenant;
d) That this Environmental Covenant will not materially violate, contravene, or constitute a material default under any other agreement, document or instrument to which Grantor is a party, by which Grantor may be bound or affected;
e) That the Grantor has served each of the people or entities referenced in Activity 7 above with an identical copy of this Environmental Covenant in accordance with O.C.G.A. § 44-16-4(d).
f) That this Environmental Covenant will not materially violate or contravene any zoning law or other law regulating use of the Property; and
g) That this Environmental Covenant does not authorize a use of the Property that is otherwise prohibited by a recorded instrument that has priority over the Environmental Covenant.

Notices.

Any document or communication required to be sent pursuant to the terms of this Environmental Covenant shall be sent to the following persons:

Georgia Environmental Protection Division
Branch Chief
Land Protection Branch
2 Martin Luther King Jr. Drive SE
Suite 1054 East Tower
Atlanta, GA 30334

Joint Development Authority of Brook, Colquitt, Grady, Mitchell, and Thomas Counties
P.O. Box 487
Moultrie, GA 31775-0487

Grantor has caused this Environmental Covenant to be executed pursuant to The Georgia Uniform Environmental Covenants Act, on the _____ day of _____, 20___.

Signed, sealed, and delivered in the presence of:

Unofficial Witness (*Signature*)

Unofficial Witness Name (*Print*)

Unofficial Witness Address (*Print*)

Notary Public (*Signature*)

My Commission Expires:_____

For the Grantor:

(Seal)

Name of Grantor (*Print*)

(Seal)

Grantor's Authorized Representative (*Signature*)

Authorized Representative Name (*Print*)

Title of Authorized Representative (*Print*)

Dated:_____

(NOTARY SEAL)

Signed, sealed, and delivered in the presence of:

Unofficial Witness *(Signature)*

Unofficial Witness Name (*Print*)

Unofficial Witness Address (*Print*)

Notary Public *(Signature)*

My Commission Expires:_____

For the State of Georgia
Environmental Protection Division:

(Seal)

(Signature)

Judson H. Turner
Director

Dated:_____

(NOTARY SEAL)

Signed, sealed, and delivered in the presence of:

Unofficial Witness (*Signature*)

Unofficial Witness Name (*Print*)

For the Holder:

Name of Grantor (*Print*)

Grantor's Authorized Representative (*Signature*)

Authorized Representative Name (*Print*)

Unofficial Witness Address (*Print*)

Title of Authorized Representative (*Print*)

Notary Public (*Signature*)

Dated:_____

My Commission Expires:_____

(NOTARY SEAL)

Exhibit A
Legal Description

All that tract or parcel of land situate, lying and being in Land Lot 400 in the Eight (8th) Land District in Colquitt County, Georgia, being 28.03 acres as shown by that plat dated January 30, 2004, designated as "Plat of Survey for G.B.A. Associates, LLC", and recorded in Plat Boot 37, Page 182-A, Colquitt County Records; the property being more specifically described as follows:

To locate the point of beginning commence at the Northwest corner of Land Lot 400 and run thence along the North line of the Land Lot North 89 degrees 55 minutes 00 seconds East a distance of 2401.87 feet to a point; run thence South 09 degrees 48 minutes 00 seconds West a distance of 367.19 feet to a point; run thence South 14 degrees 28 minutes 02 seconds West an arc length distance of 458.58 feet (a chord distance of 458.09 feet with a radius of 2814.79 feet) to a point; run thence South 33 degrees 01 minute 02 seconds West a distance of 271.98 feet to a point; run thence South 33 degrees 29 minutes 14 seconds West a distance of 313.11 feet to a point on the Northwesterly margin of the right of way of U.S. Highway 319 (State Route 35), this being the point of beginning; run thence South 33 degrees 29 minutes 14 seconds West along the Northwesterly margin of the right of way of U.S. Highway 319 a distance of 817.61 feet to a point; continue thence South 32 degrees 19 minutes 59 seconds West along the Northwesterly margin of the right of way of U.S. Highway 319 a distance of 10.80 feet to a point; run thence North 54 degrees 53 minutes 01 seconds West a distance of 53.73 feet to a point; run thence North 56 degrees 25 minutes 19 seconds West a distance of 207.63 feet to a point; run thence North 77 degrees 19 minutes 24 seconds West an arc length distance of 238.01 feet (a chord distance of 232.78 feet with a radius of 326.48 feet) to a point; run thence South 81 degrees 48 minutes 31 seconds West a distance of 281.65 feet to a point; run thence south 81 degrees 48 minutes 31 seconds West a distance of 281.65 feet to a point; run thence North 08 degrees 18 minutes 07 seconds West a distance of 906.97 feet to a point; run thence North 81 degrees 41 minutes 53 seconds East a distance of 870.82 feet to a point; run thence South 61 degrees 14 minutes 16 seconds East a distance of 533.03 feet to a point; run thence South 13 degrees 52 minutes 31 seconds East a distance of 228.68 feet to a point on the Northwesterly margin of the right of way of U.S. Highway 319, this being the point of beginning.

Exhibit B

Map of Area



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Subject Property (M052 012)
Abutting Properties (Parcel ID)

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GEORGIA

ABUTTING PROPERTIES

0 200 400 800
Feet

N

ATTACHMENT B

9/28/2015
52159

O'BRIEN & GERE

Subject Property	
Parcel ID	**M052 012**
Parcel Owner	Join Development Authority of Books, Colquitt, Grady, Mitchell & Thomas Counties
Mailing Address	PO Box 487 Moultrie, GA 31776
Parcel Address	278 US Hwy 319 S
Acreage	28.03
Property Class	I5 - Industrial

Abutting Property	
Parcel ID	**M052 199**
Parcel Owner	GBA Associates, LLC
Mailing Address	PO Box 2301 Moultrie, GA 31776
Parcel Address	US HWY 319 S
Acreage	70.14
Property Class	I5-Industrial
Parcel ID	**M052 008**
Parcel Owner	Lanthrop Rental LLC
Mailing Address	154 Kenley Lane Thomasville, GA 31792
Parcel Address	3025 Veterans Parkway S
Acreage	6.17
Property Class	C4-Commercial
Parcel ID	**M052 006**
Parcel Owner	FWS Partnership
Mailing Address	PO Box 3601 Moultrie, GA 31776
Parcel Address	US Hwy 319 S
Acreage	3.05
Property Class	C4-Commercial
Parcel ID	**M052 005A**
Parcel Owner	Lanthrop Rental LLC
Mailing Address	154 Kenley Lane Thomasville, GA 31792
Parcel Address	GA HWY 33 S
Acreage	9.99
Property Class	C4-Commercial
Parcel ID	**M052 002**
Parcel Owner	Joe T Sumner
Mailing Address	363 US HWY 319 S Moultrie, GA 31768
Parcel Address	US HWY 319 S
Acreage	3.44
Property Class	C4-Commercial

Information obtained from Colquitt County Board of Tax Assessors on September 14, 2016. http://www.qpublic.net/ga/colquitt/

Appendix F

Vapor Intrusion Evaluation

VISL Model

OSWER VAPOR INTRUSION ASSESSMENT
Groundwater Concentration to Indoor Air Concentration (GWC-IAC) Calculator Version 3.3.1, May 2014 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)
Average Groundwater Temperature (°C)	Tgw	20.6	Enter average of the stabilized groundwater temperature to correct Henry's Law Constant for groundwater target concentrations

	CAS	Chemical Name	Site Groundwater Concentration Cgw (ug/L)	Calculated Indoor Air Concentration Cia (ug/m^3)	VI Carcinogenic Risk CR	VI Hazard HQ	Inhalation Unit Risk IUR (ug/m^3)$^{-1}$	IUR Source*	Reference Concentration RfC (mg/m^3)	RFC Source*	Mutagenic Indicator i
	75-07-0	Acetaldehyde		--	--	--	2.20E-06	I	9.00E-03	I	
	67-64-1	Acetone		--	--	--			3.10E+01	A	
	75-86-5	Acetone Cyanohydrin		--	--	--			2.00E-03	X	
	75-05-8	Acetonitrile		--	--	--			6.00E-02	I	
	107-02-8	Acrolein		--	--	--			2.00E-05	I	
	107-13-1	Acrylonitrile		--	--	--	6.80E-05	I	2.00E-03	I	
	107-05-1	Allyl Chloride		--	--	--	6.00E-06	CA	1.00E-03	I	
	75-85-4	Amyl Alcohol, tert-		--	--	--			3.00E-03	X	
	11104-28-2	Aroclor 1221		--	--	--	5.70E-04	S			
	11141-16-5	Aroclor 1232		--	--	--	5.70E-04	S			
	103-33-3	Azobenzene		--	--	--	3.10E-05	I			
x	71-43-2	Benzene		--	--	--	7.80E-06	I	3.00E-02	I	
	100-44-7	Benzyl Chloride		--	--	--	4.90E-05	CA	1.00E-03	P	
	92-52-4	Biphenyl, 1,1'-		--	--	--			4.00E-04	X	
	108-60-1	Bis(2-chloro-1-methylethyl) ether		--	--	--	1.00E-05	H			
	111-44-4	Bis(2-chloroethyl)ether		--	--	--	3.30E-04	I			
	542-88-1	Bis(chloromethyl)ether		--	--	--	6.20E-02	I			
	107-04-0	Bromo-2-chloroethane, 1-		--	--	--	6.00E-04	X			
	108-86-1	Bromobenzene		--	--	--			6.00E-02	I	
	74-97-5	Bromochloromethane		--	--	--			4.00E-02	X	
	75-27-4	Bromodichloromethane		--	--	--	3.70E-05	CA			
	74-83-9	Bromomethane		--	--	--			5.00E-03	I	
	106-99-0	Butadiene, 1,3-		--	--	--	3.00E-05	I	2.00E-03	I	
x	75-15-0	Carbon Disulfide		--	--	--			7.00E-01	I	
	56-23-5	Carbon Tetrachloride		--	--	--	6.00E-06	I	1.00E-01	I	
	75-68-3	Chloro-1,1-difluoroethane, 1-		--	--	--			5.00E+01	I	
	126-99-8	Chloro-1,3-butadiene, 2-		--	--	--	3.00E-04	I	2.00E-02	I	
	108-90-7	Chlorobenzene		--	--	--			5.00E-02	P	
	98-56-6	Chlorobenzotrifluoride, 4-		--	--	--			3.00E-01	P	
	75-45-6	Chlorodifluoromethane		--	--	--			5.00E+01	I	
	67-66-3	Chloroform		--	--	--	2.30E-05	I	9.80E-02	A	
x	74-87-3	Chloromethane		--	--	--			9.00E-02	I	
	107-30-2	Chloromethyl Methyl Ether		--	--	--	6.90E-04	CA			
	76-06-2	Chloropicrin		--	--	--			4.00E-04	CA	
	98-82-8	Cumene		--	--	--			4.00E-01	I	
	57-12-5	Cyanide (CN-)		--	--	--			8.00E-04	S	
	110-82-7	Cyclohexane		--	--	--			6.00E+00	I	
	110-83-8	Cyclohexene		--	--	--			1.00E+00	X	
	96-12-8	Dibromo-3-chloropropane, 1,2-		--	--	--	6.00E-03	P	2.00E-04	I	Mut
	124-48-1	Dibromochloromethane		--	--	--	2.70E-05	CA			
	106-93-4	Dibromoethane, 1,2-		--	--	--	6.00E-04	I	9.00E-03	I	
	74-95-3	Dibromomethane (Methylene Bromide)		--	--	--			4.00E-03	X	
	764-41-0	Dichloro-2-butene, 1,4-		--	--	--	4.20E-03	P			
	1476-11-5	Dichloro-2-butene, cis-1,4-		--	--	--	4.20E-03	P			
	110-57-6	Dichloro-2-butene, trans-1,4-		--	--	--	4.20E-03	P			
	95-50-1	Dichlorobenzene, 1,2-		--	--	--			2.00E-01	H	
x	106-46-7	Dichlorobenzene, 1,4-		--	--	--	1.10E-05	CA	8.00E-01	I	
x	75-71-8	Dichlorodifluoromethane		--	--	--			1.00E-01	X	
x	75-34-3	Dichloroethane, 1,1-	9.9E+00	1.89E+00	2.5E-07	No RfC	1.60E-06	CA			
	107-06-2	Dichloroethane, 1,2-		--	--	--	2.60E-05	I	7.00E-03	P	
x	75-35-4	Dichloroethylene, 1,1-	3.7E+00	3.36E+00	No IUR	3.8E-03			2.00E-01	I	
	78-87-5	Dichloropropane, 1,2-		--	--	--	1.00E-05	CA	4.00E-03	I	
	542-75-6	Dichloropropene, 1,3-		--	--	--	4.00E-06	I	2.00E-02	I	
	77-73-6	Dicyclopentadiene		--	--	--			3.00E-04	X	
	75-37-6	Difluoroethane, 1,1-		--	--	--			4.00E+01	I	
	94-58-6	Dihydrosafrole		--	--	--	1.30E-05	CA			
	108-20-3	Diisopropyl Ether		--	--	--			7.00E-01	P	
	513-37-1	Dimethylvinylchloride		--	--	--	1.30E-05	CA			
	106-89-8	Epichlorohydrin		--	--	--	1.20E-06	I	1.00E-03	I	
	106-88-7	Epoxybutane, 1,2-		--	--	--			2.00E-02	I	

OSWER VAPOR INTRUSION ASSESSMENT
Groundwater Concentration to Indoor Air Concentration (GWC-IAC) Calculator Version 3.3.1, May 2014 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)
Average Groundwater Temperature (°C)	Tgw	20.6	Enter average of the stabilized groundwater temperature to correct Henry's Law Constant for groundwater target concentrations

	CAS	Chemical Name	Site Groundwater Concentration Cgw (ug/L)	Calculated Indoor Air Concentration Cia (ug/m^3)	VI Carcinogenic Risk CR	VI Hazard HQ	Inhalation Unit Risk IUR (ug/m^3)$^{-1}$	IUR Source*	Reference Concentration RfC (mg/m^3)	RFC Source*	Mutagenic Indicator i
	141-78-6	Ethyl Acetate		--	--	--			7.00E-02	P	
	75-00-3	Ethyl Chloride (Chloroethane)		--	--	--			1.00E+01	I	
	97-63-2	Ethyl Methacrylate		--	--	--			3.00E-01	P	
	100-41-4	Ethylbenzene		--	--	--	2.50E-06	CA	1.00E+00	I	
	75-21-8	Ethylene Oxide		--	--	--	8.80E-05	CA	3.00E-02	CA	
	151-56-4	Ethyleneimine		--	--	--	1.90E-02	CA			
	822-06-0	Hexamethylene Diisocyanate, 1,6-		--	--	--			1.00E-05	I	
	110-54-3	Hexane, N-		--	--	--			7.00E-01	I	
	591-78-6	Hexanone, 2-		--	--	--			3.00E-02	I	
	74-90-8	Hydrogen Cyanide		--	--	--			8.00E-04	I	
	7439-97-6	Mercury (elemental)		--	--	--			3.00E-04	I	
	126-98-7	Methacrylonitrile		--	--	--			3.00E-02	P	
	96-33-3	Methyl Acrylate		--	--	--			2.00E-02	P	
	78-93-3	Methyl Ethyl Ketone (2-Butanone)		--	--	--			5.00E+00	I	
	108-10-1	Methyl Isobutyl Ketone (4-methyl-2-pentanone)		--	--	--			3.00E+00	I	
	624-83-9	Methyl Isocyanate		--	--	--			1.00E-03	CA	
	80-62-6	Methyl Methacrylate		--	--	--			7.00E-01	I	
	25013-15-4	Methyl Styrene (Mixed Isomers)		--	--	--			4.00E-02	H	
	1634-04-4	Methyl tert-Butyl Ether (MTBE)		--	--	--	2.60E-07	CA	3.00E+00	I	
	75-09-2	Methylene Chloride		--	--	--	1.00E-08	I	6.00E-01	I	Mut
	91-20-3	Naphthalene		--	--	--	3.40E-05	CA	3.00E-03	I	
	98-95-3	Nitrobenzene		--	--	--	4.00E-05	I	9.00E-03	I	
	75-52-5	Nitromethane		--	--	--	8.80E-06	P	5.00E-03	P	
	79-46-9	Nitropropane, 2-		--	--	--	2.70E-03	H	2.00E-02	I	
	924-16-3	Nitroso-di-N-butylamine, N-		--	--	--	1.60E-03	I			
	111-84-2	Nonane, n-		--	--	--			2.00E-02	P	
	109-66-0	Pentane, n-		--	--	--			1.00E+00	P	
	75-44-5	Phosgene		--	--	--			3.00E-04	I	
	123-38-6	Propionaldehyde		--	--	--			8.00E-03	I	
	103-65-1	Propyl benzene		--	--	--			1.00E+00	X	
	115-07-1	Propylene		--	--	--			3.00E+00	CA	
	75-56-9	Propylene Oxide		--	--	--	3.70E-06	I	3.00E-02	I	
	100-42-5	Styrene		--	--	--			1.00E+00	I	
	630-20-6	Tetrachloroethane, 1,1,1,2-		--	--	--	7.40E-06	I			
x	79-34-5	Tetrachloroethane, 1,1,2,2-		--	--	--	5.80E-05	CA			
x	127-18-4	Tetrachloroethylene		--	--	--	2.60E-07	I	4.00E-02	I	
	811-97-2	Tetrafluoroethane, 1,1,1,2-		--	--	--			8.00E+01	I	
	109-99-9	Tetrahydrofuran		--	--	--			2.00E+00	I	
x	108-88-3	Toluene		--	--	--			5.00E+00	I	
	76-13-1	Trichloro-1,2,2-trifluoroethane, 1,1,2-		--	--	--			3.00E+01	H	
	120-82-1	Trichlorobenzene, 1,2,4-		--	--	--			2.00E-03	P	
x	71-55-6	Trichloroethane, 1,1,1-		--	--	--			5.00E+00	I	
x	79-00-5	Trichloroethane, 1,1,2-		--	--	--	1.60E-05	I	2.00E-04	X	
x	79-01-6	Trichloroethylene	9.8E-01	3.19E-01	1.1E-07	3.6E-02	see note	I	2.00E-03	I	TCE
	75-69-4	Trichlorofluoromethane		--	--	--			7.00E-01	H	
	96-18-4	Trichloropropane, 1,2,3-		--	--	--			3.00E-04	I	Mut
	96-19-5	Trichloropropene, 1,2,3-		--	--	--			3.00E-04	P	
	121-44-8	Triethylamine		--	--	--			7.00E-03	I	
	526-73-8	Trimethylbenzene, 1,2,3-		--	--	--			5.00E-03	P	
	95-63-6	Trimethylbenzene, 1,2,4-		--	--	--			7.00E-03	P	
	108-05-4	Vinyl Acetate		--	--	--			2.00E-01	I	
	593-60-2	Vinyl Bromide		--	--	--	3.20E-05	H	3.00E-03	I	
x	75-01-4	Vinyl Chloride	6.6E+00	6.63E+00	2.4E-06	1.5E-02	4.40E-06	I	1.00E-01	I	VC
	108-38-3	Xylene, m-		--	--	--			1.00E-01	S	
x	95-47-6	Xylene, o-		--	--	--			1.00E-01	S	
x	106-42-3	Xylene, P-		--	--	--			1.00E-01	S	
x	1330-20-7	Xylenes		--	--	--			1.00E-01	I	

Notes:

OSWER VAPOR INTRUSION ASSESSMENT
Groundwater Concentration to Indoor Air Concentration (GWC-IAC) Calculator Version 3.3.1, May 2014 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)
Average Groundwater Temperature (°C)	Tgw	20.6	Enter average of the stabilized groundwater temperature to correct Henry's Law Constant for groundwater target concentrations

CAS	Chemical Name	Site Groundwater Concentration Cgw (ug/L)	Calculated Indoor Air Concentration Cia (ug/m^3)	VI Carcinogenic Risk CR	VI Hazard HQ	Inhalation Unit Risk IUR (ug/m^3)$^{-1}$	IUR Source*	Reference Concentration RfC (mg/m^3)	RFC Source*	Mutagenic Indicator i

(1) **Inhalation Pathway Exposure Parameters (RME):**

Exposure Scenario	Units	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
Averaging time for carcinogens	(yrs)	ATc_R_GW	70	ATc_C_GW	70	ATc_GW	70
Averaging time for non-carcinogens	(yrs)	ATnc_R_GW	26	ATnc_C_GW	25	Atnc_GW	25
Exposure duration	(yrs)	ED_R_GW	26	ED_C_GW	25	ED_GW	25
Exposure frequency	(days/yr)	EF_R_GW	350	EF_C_GW	250	EF_GW	250
Exposure time	(hr/day)	ET_R_GW	24	ET_C_GW	8	ET_GW	8

(2) **Generic Attenuation Factors:**

Source Medium of Vapors	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
Groundwater (-)	AFgw_R_GW	0.001	AFgw_C_GW	0.001	AFgw_GW	0.001
Sub-Slab and Exterior Soil Gas (-)	AFss_R_GW	0.1	AFss_C_GW	0.1	AFss_GW	0.1

(3) **Formulas**

Cia, target = MIN(Cia,c; Cia,nc)
Cia,c (ug/m3) = TCR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)
Cia,nc (ug/m3) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RfC x (1000 ug/mg) / (ED x EF x ET)

(4) **Special Case Chemicals**

Trichloroethylene	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
	mIURTCE_R_GW	1.00E-06	mIURTCE_C_GW	0.00E+00	mIURTCE_GW	0.00E+00
	IURTCE_R_GW	3.10E-06	IURTCE_C_GW	4.10E-06	IURTCE_GW	4.10E-06

Mutagenic Chemicals — The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below:

Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

Age Cohort	Exposure Duration	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 26 years	10	1

Mutagenic-mode-of-action (MMOA) adjustment factor 25 This factor is used in the equations for mutagenic chemicals.

Vinyl Chloride — See the Navigation Guide equation for Cia,c for vinyl chloride.

Notation:
I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at: http://www.epa.gov/iris/subst/index.html
P = PPRTV. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at: http://hhpprtv.ornl.gov/pprtv.shtml
A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at: http://www.atsdr.cdc.gov/mrls/index.html
CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at: http://www.oehha.ca.gov/risk/ChemicalDB/index.asp
H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at: http://epa-heast.ornl.gov/heast.shtml
S = See RSL User Guide, Section 5
X = PPRTV Appendix
Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).
VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).
TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).
Yellow highlighting indicates site-specific parameters that may be edited by the user.
Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.
Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

Table 1
Hazard and Risk Summary for Detected Constituents in Groundwater
Vapor Intrusion Screening Calculator (VISL) Results
Former Miller Brewing Can Plant
Moultrie, Georgia

Chemical	Groundwater Concentration[1] (µg/L)	Non-Carcinogenic Hazard	Excess Cancer Risk
1,1-Dichloroethane	9.9	NA	2.5E-07
1,1-Dichloroethylene	3.7	0.0038	NA
cis-1,2-Dichloroethylene	150	NA	NA
Trichloroethylene	0.98	0.036	1.1E-07
Vinyl chloride	6.6	0.015	2.4E-06
Cumulative Hazard/Risk:		**0.05**	**3E-06**

Notes:
[1]Concentrations from monitoring well ETCMW-113 on Dec. 4, 2012.
NA - Not applicable.

Johnson and Ettinger Model

DATA ENTRY SHEET

GW-ADV Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION (enter "X" in "YES" box and initial groundwater conc. below)

YES X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial groundwater conc., C_W (µg/L)	Chemical
75343	9.90E+00	1,1-Dichloroethane

MORE ↓

ENTER Average soil/ groundwater temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to water table, L_{WT} (cm)	ENTER Totals must add up to value of L_{WT} (cell G28) Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum directly above water table, (Enter A, B, or C)	ENTER SCS soil type directly above water table	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
20.6	15	91	91	0	0	A	SC	SC		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SC	1.43	0.459	0.215								

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	6553	1372	366	0.1	0.25	

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-05	1

Used to calculate risk-based groundwater concentration.

END

RESULTS SHEET

RISK-BASED GROUNDWATER CONCENTRATION CALCULATIONS:

Indoor exposure groundwater conc., carcinogen (µg/L)	Indoor exposure groundwater conc., noncarcinogen (µg/L)	Risk-based indoor exposure groundwater conc., (µg/L)	Pure component water solubility, S (µg/L)	Final indoor exposure groundwater conc., (µg/L)
NA	NA	NA	5.06E+06	NA

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
1.7E-08	NA

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

1,1-Dichloroethane

SCROLL DOWN TO "END"

END

DATA ENTRY SHEET

GW-ADV Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION (enter "X" in "YES" box and initial groundwater conc. below)

YES X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial groundwater conc., C_W (µg/L)	Chemical
75354	3.70E+00	1,1-Dichloroethylene

MORE ↓

ENTER Average soil/ groundwater temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to water table, L_{WT} (cm)	ENTER Totals must add up to value of L_{WT} (cell G28) Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum directly above water table, (Enter A, B, or C)	ENTER SCS soil type directly above water table	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
20.6	15	91	91	0	0	A	SC	SC		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SC	1.43	0.459	0.215								

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	6553	1372	366	0.1	0.25	

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-05	1

Used to calculate risk-based groundwater concentration.

END

RESULTS SHEET

RISK-BASED GROUNDWATER CONCENTRATION CALCULATIONS:

Indoor exposure groundwater conc., carcinogen (µg/L)	Indoor exposure groundwater conc., noncarcinogen (µg/L)	Risk-based indoor exposure groundwater conc., (µg/L)	Pure component water solubility, S (µg/L)	Final indoor exposure groundwater conc., (µg/L)
NA	NA	NA	2.25E+06	NA

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	2.7E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

1,1-Dichloroethylene

SCROLL DOWN TO "END"

END

DATA ENTRY SHEET

GW-ADV Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION (enter "X" in "YES" box and initial groundwater conc. below)

YES X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial groundwater conc., C_W (µg/L)	Chemical
156592	1.50E+02	cis-1,2-Dichloroethylene

MORE ↓

ENTER Average soil/ groundwater temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to water table, L_{WT} (cm)	ENTER Totals must add up to value of L_{WT} (cell G28) Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum directly above water table, (Enter A, B, or C)	ENTER SCS soil type directly above water table	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
20.6	15	91	91	0	0	A	SC	SC		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SC	1.43	0.459	0.215								

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	6553	1372	366	0.1	0.25	

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-05	1

Used to calculate risk-based groundwater concentration.

END

RESULTS SHEET

RISK-BASED GROUNDWATER CONCENTRATION CALCULATIONS:

Indoor exposure groundwater conc., carcinogen (µg/L)	Indoor exposure groundwater conc., noncarcinogen (µg/L)	Risk-based indoor exposure groundwater conc., (µg/L)	Pure component water solubility, S (µg/L)	Final indoor exposure groundwater conc., (µg/L)
NA	NA	NA	3.50E+06	NA

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
NA	NA

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

cis-1,2-Dichloroethylene

SCROLL DOWN TO "END"

END

DATA ENTRY SHEET

GW-ADV Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION (enter "X" in "YES" box and initial groundwater conc. below)

YES X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial groundwater conc., C_W (µg/L)	Chemical
79016	9.80E-01	Trichloroethylene

MORE ↓

ENTER Average soil/ groundwater temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to water table, L_{WT} (cm)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum directly above water table, (Enter A, B, or C)	ENTER SCS soil type directly above water table	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of L_{WT} (cell G28)							
20.6	15	91	91	0	0	A	SC	SC		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SC	1.43	0.459	0.215								

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	6553	1372	366	0.1	0.25	

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-05	1
				Used to calculate risk-based groundwater concentration.	

END

RESULTS SHEET

RISK-BASED GROUNDWATER CONCENTRATION CALCULATIONS:

Indoor exposure groundwater conc., carcinogen (µg/L)	Indoor exposure groundwater conc., noncarcinogen (µg/L)	Risk-based indoor exposure groundwater conc., (µg/L)	Pure component water solubility, S (µg/L)	Final indoor exposure groundwater conc., (µg/L)
NA	NA	NA	1.47E+06	NA

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
7.9E-09	2.7E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

Trichloroethylene

SCROLL DOWN TO "END"

END

DATA ENTRY SHEET

GW-ADV Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION (enter "X" in "YES" box and initial groundwater conc. below)

YES X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial groundwater conc., C_W (µg/L)	Chemical
75014	6.60E+00	Vinyl chloride (chloroethene)

MORE ↓

ENTER Average soil/ groundwater temperature, T_S (°C)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to water table, L_{WT} (cm)	ENTER Totals must add up to value of L_{WT} (cell G28) Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum directly above water table, (Enter A, B, or C)	ENTER SCS soil type directly above water table	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
20.6	15	91	91	0	0	A	SC	SC		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SC	1.43	0.459	0.215								

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	6553	1372	366	0.1	0.25	

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-05	1

Used to calculate risk-based groundwater concentration.

END

RESULTS SHEET

RISK-BASED GROUNDWATER CONCENTRATION CALCULATIONS:

Indoor exposure groundwater conc., carcinogen (µg/L)	Indoor exposure groundwater conc., noncarcinogen (µg/L)	Risk-based indoor exposure groundwater conc., (µg/L)	Pure component water solubility, S (µg/L)	Final indoor exposure groundwater conc., (µg/L)
NA	NA	NA	8.80E+06	NA

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
1.7E-07	1.1E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

Vinyl Chloride

SCROLL DOWN TO "END"

END

Table 1
Hazard and Risk Summary for Detected Constituents in Groundwater
Johnson and Ettinger Model Results
Former Miller Brewing Can Plant
Moultrie, Georgia

Chemical	Groundwater Concentration[1] (µg/L)	Non-Carcinogenic Hazard	Excess Cancer Risk
1,1-Dichloroethane	9.9	NA	1.7E-08
1,1-Dichloroethylene	3.7	0.00027	NA
cis-1,2-Dichloroethylene	150	NA	NA
Trichloroethylene	0.98	0.0027	7.9E-09
Vinyl chloride	6.6	0.0011	1.7E-07
Cumulative Hazard/Risk:		**0.004**	**2E-07**

Notes:
[1]Concentrations from monitoring well ETCMW-113 on Dec. 4, 2012.
NA - Not applicable.

Appendix G

Revised Compliance Status Report, Miller Brewing Company, Moultrie, Georgia (O'Brien & Gere, June 2004)

REPORT

Revised Compliance Status Report
Miller Brewing Company
Moultrie, Georgia

Miller Brewing Company
Moultrie, Georgia

June 2004

O'BRIEN & GERE
ENGINEERS, INC.

1669/34350

Revised Compliance Status Report
Miller Brewing Company
Moultrie, Georgia

Miller Brewing Company
Moultrie, Georgia

June 2004

951 Aviation Parkway, Suite 1400
Morrisville, NC 27560

Contents

CSR Certification ..... **v**

Geologist Certification ..... **vii**

Public Notice ..... **ix**

Executive summary ..... **xi**

1. Introduction **1**
1.1. Background 1
1.2. Objectives 2
1.3. Scope of work 3
1.4. Site location and description 4
1.5. Regional geologic and hydrogeologic conditions 5
1.6. Previous investigations 5
1.7 Previous corrective action 9

2. Methodology **11**
2.1. Drilling 12
2.2. Soil sampling and analyses 12
2.3. Well installation and development 13
2.4. Ground water sampling and analyses 14
2.5. Data documentation and QA/QC 15
2.6. Ground water level measurements 16
2.7. Hydraulic conductivity testing 16

3. Current understanding of site conditions **19**
3.1. Site geologic conditions 19
3.2. Chemical constituents in soil 19
3.3. Site hydrogeologic conditions 20
3.4. Chemical constituents in ground water 21
3.5. Ground water geochemistry 22

4. Evaluation of risk **27**
4.1. Type 3 risk reduction standards 27
4.1.1. Type 3 assessment for constituents in soil 27
4.1.2. Type 3 assessment for ground water 30
4.2. Type 4 risk reduction standard 32
4.2.1. Soil 32
4.2.2. Ground water 33

5. Conclusions **35**

6. References **37**

List of Tables

1 Summary of VOCs Detected in Soil
2 Summary of Metals Detected in Soil
3 Summary of Analytical Detections in Sediment
4 Historical Summary of VOCs Detected in Ground Water
5 Summary of Ground Water Analytical and Field Data – October 1993
6 Target Analyte List for the April 2004 Sampling Event
7 Summary of Well Construction Details and Ground Water Elevations
8 Summary of Geochemical Constituents in Ground Water
9 VOCs Detected in Soil Compared to Type 3 RRS
10 VOCs Detected in Surface Soil Compared to Type 3 RRS
11 VOCs Detected in Soil Exceeding Type 3 RRS Compared to Type 4 RRS
12 Constituents Detected in Ground Water (April 2004) Compared to Type 1 and Type 3 RRS
13 Constituents Detected in Ground Water (April 2004) Exceeding Type 3 RRS Compared to Type 4 RRS

List of Figures

1 Site Location
2 Site Plan I
3 Site Plan II
4 Sediment Sampling Locations
5 Lines of Section
6 Cross Sections
7 Horizontal Extent of VOCs in Soil
8 Acetone and Methylene Chloride Detections in Soil
9 Vertical Extent of VOCs in Soil
10 June 1998 Potentiometric Surface Map
11 September 2000 Potentiometric Surface Map
12 January 2001 Potentiometric Surface Map
13 April 2002 Potentiometric Surface Map
14 April 2004 Potentiometric Surface Map
15 Horizontal Extent of VOCs in Ground Water (April 2004)
16 Vertical Extent of VOCs in Ground Water, Section A-A' (April 2004)
17 Vertical Extent of VOCs in Ground Water, Section B-B' (April 2004)

List of Appendices

Volume I

A Regulatory Correspondence
- Georgia EPD Notice of Deficiency – January 18, 2000
- Georgia EPD Correspondence – March 15, 2000
- Miller Response to NOD and Comments – April 10, 2000
- Georgia EPD Notice of Deficiency – December 13, 2001
- Georgia EPD Correspondence – February 7, 2003
- Miller Response to Comments – March 31, 2003
- Comments from Georgia EPD regarding CSR/CAP submitted May 2003 -–September 24, 2004

B Calculations for Risk Evaluation

C O'Brien & Gere Technical Policy and Procedures Instructions

D Field Forms
- Boring and Well Completion Diagrams
- Ground Water Sampling Log Forms for 2004

E Laboratory Analytical Data For Soil
- -August – September 2000
- -April 2004

Volume II

F Laboratory Analytical Data For Ground Water Sampling
- August – September 2000
- November 2000
- January 2001
- Ground Water Analytical Data Validation Summary
- April 2004

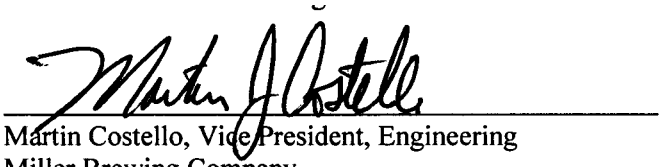
Volume III

G Previous Investigation Reports

CSR Certification

I certify under penalty of law that this report and all attachments were prepared under my direction in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Based on my review of the findings of this report with respect to the risk reduction standards of the Rules for Hazardous Site Response, Rule 391-3-19-.07, I have determined that this site is in compliance with Type 4 risk reduction standard for soil, and is not in compliance with any Type risk reduction standard for ground water.

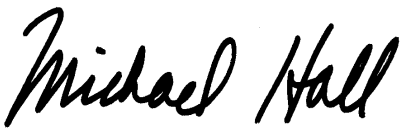


Martin Costello, Vice President, Engineering
Miller Brewing Company

6/28/04
Date

Geologist Certification

"I certify that I am a qualified ground-water scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in ground water hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding ground-water monitoring and contaminant fate and transport. I further certify that this report was prepared by myself or by a subordinate working under my direction."



_____
Signature

Michael S. Hall, P.G.
Print Name

Managing Associate, O'Brien & Gere Engineers, Inc.
Title

_____
Date

Public Notice

As required in Georgia HSRA Rule 391-3-19-.06(5), within 7 days after submitting to Georgia EPD this CSR, Miller Brewing Company will publish a notice in both a local newspaper of general circulation, namely the *Albany Herald* and the legal organ of the local governments, the *Moultrie Observer*, announcing that the CSR is available for inspection by the general public. These public notices will include the information and text as specified in the Rules regarding status of the site, contacts, date of review, and location(s) for reviewing the document.

Executive summary

This Compliance Status Report (CSR) presents site characterization data to document the current status of the former Miller Brewing Company (Miller) can plant located in Moultrie, Georgia (Moultrie Facility). As required by the Hazardous Site Response Act (HSRA) Rule 391-3-19-.07, this CSR documents the current status of the facility in meeting the risk reduction standards (RRS). Also included with this CSR is a compliance status certification. A CSR was required by the Georgia Department of Natural Resources, Environmental Protection Division (Georgia EPD) in a Call-In letter dated March 13, 1998.

The CSR summarizes data from a series of investigative and remedial activities that have been performed at the facility since 1988. These activities include:

- Closure of four underground storage tanks (USTs) in September 1988
- Removal of piping associated with a former waste solvent tank, and excavation and disposal of soils contaminated with chlorinated solvents in 1988
- A Phase II Site Assessment performed in 1993
- A Site Investigation performed in 1994
- A Supplemental Site Investigation performed in 1995
- A Phase II Subsurface Investigation performed in 1998
- An initial CSR Investigation performed in 1998
- Supplemental CSR Investigations performed in 2000, 2001, and 2004
- A limited ground water monitoring event in 2002.

Analysis of the soil and ground water data collected for the Moultrie Facility has identified the presence of chlorinated solvents in soil and ground water. Soil contamination is minimal, and appears to be restricted to the area immediately surrounding the former waste solvent tank piping where the excavation of contaminated soils was performed in 1988. These data are consistent with this area being the source of the contamination. The low concentrations in soil reflect residual contaminants not removed during the excavation in 1988.

Ground water contaminants have been detected in a number of wells surrounding the former waste solvent tank piping, and extend approximately 80 ft downgradient of this suspected source. The migration of these contaminants has been limited because of the low hydraulic conductivity of the soil. It is likely that these contaminants are also derived from the historic release from the waste solvent tank piping. Several rounds of geochemical data indicate that natural attenuation processes are acting upon the ground water contamination. With the removal of the contaminated soils surrounding the former waste solvent tank piping in 1988, the source of the ground water contamination was removed. The combination of source removal, low hydraulic conductivity, and active natural attenuation is likely controlling the migration of ground water contamination at the facility.

The potential, theoretical human health risks associated with the analytes found in ground water and soil samples collected at the Moultrie Facility were evaluated under the provision of the RRS as presented in Chapter 391-3-19 of the Hazardous Site Response Act and the Rules of the Georgia EPD. Site soil samples meet the Type 4 site-specific, non-residential property RRS, and have been certified as doing so. The conservative risk evaluation performed indicates that site ground water does not meet Type 1 through Type 4RRS and cannot be certified as doing so. The area of ground water contaminants that exceed Type 4 RRS is well constrained, and extends approximately 80 ft downgradient of the suspected source area.

Because ground water cannot be certified as meeting any of the Georgia RRS, corrective action will be required at this facility. The January 2004 Corrective Action Plan (CAP), as approved by Georgia EPD in March 2004, details the selected remedial measures and provides the basis for corrective action at the site.

As detailed in the January 2004 CAP, there are two components of corrective action at the site – Enhanced Bioremediation and Monitored Natural Attenuation (MNA). Enhanced Bioremediation of ground water will be implemented by injecting a lactate formulation, ABC®, targeting the plume. The addition of the lactate formulation will enhance microbial activity that facilitates reductive dechlorination of site constituents. Injection will be performed with a Geoprobe® on a grid pattern. It is anticipated that two injection events approximately two years apart will be necessary to permanently decrease concentrations to below Type 4 RRS.

Natural attenuation of site ground water, evident to be already occurring, will be monitored once Type 4 RRS are met. MNA will continue until Type 1 RRS are achieved site-wide for two consecutive monitoring events, after which a petition for closure will be submitted.

1. Introduction

This Compliance Status Report (CSR) presents site characterization data to document the current status of the former Miller Brewing Company (Miller) can plant located in Moultrie, Georgia (Moultrie Facility). The location of the Moultrie Facility is depicted in Figure 1. As required by the Hazardous Site Response Act (HSRA) Rule 391-3-19-.07, this CSR documents the current status of the facility in meeting the RRS. Also included with this CSR is a compliance status certification.

A CSR was required by the Georgia Department of Natural Resources, Environmental Protection Division (Georgia EPD) in a Call-In letter dated March 13, 1998. A CSR, prepared by CH2M Hill, was submitted to the Georgia EPD in September 1998 (1998 CSR). Several subsequent revisions of the CSR have been submitted in response to Notices of Deficiency and comments provided by Georgia EPD. The current CSR has been prepared in response to comments by the Georgia EPD to the May 2003 CSR. Georgia EPD's comments were provided by letter dated September 24, 2003.

1.1. Background

In September 1988, four underground storage tanks (USTs) were removed from the site. These consisted of two No. 2 fuel oil USTs, a waste oil UST, and a waste solvent UST. During the removal, a release was discovered from a portion of the piping that was connected to the waste solvent UST. In response to this release, the following investigation activities were performed:

- In September 1988, soils were excavated and soil samples collected in the area of the USTs and piping, as documented by Westinghouse Environmental Services in October 1988 (Appendix H)

- A Phase II Investigation was performed by CH2M Hill in October 1993 (Appendix H) as part of a purchase of the property from Miller by Reynolds Metals Company

- A 1994 Site Investigation Report and a 1995 Supplemental Site Investigation Report were completed by the Earth Technology Corporation and Earth Tech respectively, to further define the extent of contaminated media (Appendix H)

- As required by HSRA, a release notification was submitted by Miller to Georgia EPD on September 8, 1995 (Appendix A). Following notification, Georgia EPD scored the site above the threshold concentration, placed it on the Hazardous Site Inventory (HSI) list, and classified it as a Class II site requiring completion of

a CSR. As noted previously, the CSR Call-In letter from Georgia EPD required Miller to complete the CSR by September 15, 1998. Miller responded to this letter with a letter dated May 4, 1998 (Appendix A), in which the schedule for completion of an investigation and the CSR was presented to Georgia EPD

- A Phase II Subsurface Investigation was performed by McLaren/Hart Inc. in 1998 (Appendix H) as part a property transfer from Reynolds to Ball. Samples were collected for soil and sediment

- A field investigation was performed by CH2M Hill in 1998. At the conclusion of this investigation, CH2M Hill prepared the 1998 CSR (Appendix H), which was submitted to the Georgia EPD on September 15, 1998

- In response to Georgia EPD's Notice of Deficiency and comments to the 1998 CSR dated January 18, 2000 (Appendix A), a supplemental CSR investigation was undertaken, and a revised CSR was submitted to Georgia EPD on December 21, 2000. Subsequently, a CAP was also presented to Georgia EPD on March 23, 2001

- Georgia EPD provided comments to both the December 2000 CSR and March 2001 CAP by a letter dated December 13, 2001 (Appendix A), which prompted submittal of a Revised CSR in March 2002 and a Revised CAP in May 2002

- The Georgia EPD comments provided by letter dated February 7, 2003 (Appendix A) to the previous CSR and CAP prompted revision and resubmittal of the CSR and CAP in May 2003.

- The current CSR has been prepared in response to Georgia EPD comments dated September 24, 2003. A revised CAP was submitted in January 2004 and approved by Georgia EPD in March 2004. Regulatory correspondence pertaining to this CSR is provided in Appendix A.

1.2. Objectives

The objectives of the CSR Investigation are as follows:

- Characterize the geology, hydrogeology, and ground water quality at the facility

- Assess the impact to ground water and soil from the waste solvent release

- Identify potential migration pathways and potential receptors of ground water possibly affected by the volatile organic compounds (VOCs) detected in soil or ground water

- Assess the contribution of natural attenuation (including biodegradation) in reducing the concentrations of VOCs in the ground water

- Fulfill the requirements of a CSR as specified in HSRA Rule 391-3-19-.07.

1.3. Scope of work

To address the Georgia EPD comments made through September 2003 (Appendix A), O'Brien & Gere performed additional fieldwork to supplement the investigation completed for the 1998 CSR. Monitoring well designations refer to the environmental consultant responsible for installation (refer to Section 1.6 – Previous Investigations). The additional investigation work included:

- Installation of two shallow monitoring wells. OBGMW-123 was installed southeast of well ETCMW-113 (Figures 2 and 3) to delineate the extent of contamination in the ground water further southeast of the suspected source area. OBGMW-122 was installed between wells CH2MW-1A and CH2MW-5 to monitor ground water conditions between these two wells (Figure 2)

- Completion of seven soil borings (OBGSB-1 through OBGSB-7) and sampling to verify the presence of acetone and methylene chloride (Figure 3)

- Completion of slug tests on wells CH2MW-1A, CH2MW-2, CH2MW-3, ETMW-118, and ETMW-120

- Collection of ground water samples from the newly-installed shallow wells in addition to CH2MW-2, CH2MW-3, ETCMW-113, ETCMW-114, ETMW-116, ETMW-117, ETMW-121, and CH2MW-4D. These wells were sampled in August and November 2000 and again in January 2001. The samples were analyzed for VOCs in addition to monitored natural attenuation (MNA) parameters.

- Collection of ground water samples from four wells (CH2MW-1, CH2MW-1A, ETCMW-114 and OBGMW-123) and analysis of these samples for six VOCs in April 2002

- Installation of one monitoring (OBGMW-124) and three soil borings (OBGSB-8 through OBGSB-10) to further delineate soil and ground water conditions (Figure 3). Site-wide ground water sampling for VOCs and natural attenuation parameters was also performed in April 2004.

1.4. Site location and description

The Moultrie Facility is located in Colquitt County on Highway 319 South in Moultrie, Georgia. Figure 1 shows the approximate location of the facility. The ground surface at the facility slopes gently to the south and southeast. Miller built the facility in 1980 and owned and operated it until 1993, when the property was purchased by Reynolds Metals Company (Reynolds). Reynolds sold the property to the Ball Corporation (Ball) in August 1998. Ball operated the facility to manufacture, store, and distribute aluminum cans until it ceased operations in 2001. The property was purchased in November 2003 by GBA Associates. Property ownership was again transferred in March 2004 to the Joint Development Authority of Brooks, Colquitt, Grady, Mitchell, and Thomas, LLC, which currently leases the facility to Ice House of America. Ice House of America currently uses the facility to make and distribute ice.

Four USTs were previously present at the facility:

- Two 20,000-gal No. 2 fuel oil USTs – The No. 2 fuel oil was used for emergency purposes during power outages

- Waste oil UST (5220-gal) – The UST stored oily wastewater from the pretreatment plant at the facility

- Waste solvent UST (7500-gal) – The UST stored waste solvents from the manufacturing plant. Laboratory analytical results in 1988 (see Miller letter dated October 3, 1998 in Appendix H) showed that the liquid in the tank contained 2-butanone, otherwise known as methyl ethyl ketone (MEK), isopropyl alcohol, and butyl cellusolve. Based on interviews with site personnel, this UST had contained hexane, heptane, xylene, and toluene in the past.

These USTs were used from 1980 until they were removed in September 1988. The waste solvent UST was replaced with a drum storage facility, and the other three USTs were replaced with aboveground storage tanks. The waste solvent and the waste oil USTs were connected to the Red Label Room by below ground piping. During the UST removal, these pipes were closed *in situ* by filling the piping with concrete and capping the ends.

1.5. Regional geologic and hydrogeologic conditions

The Moultrie Facility is located in the Coastal Plain province. Surficial soils in Colquitt County are generally thin and poorly developed. Soils near the site belong to the Tifton series, which is characterized as sandy clay or silty clay. Underlying the surficial soils is the Miocene age Hawthorne formation, which functions as a semi-confining unit for the underlying limestone formation. The Hawthorne occurs near ground surface and extends to a depth of up to 300 ft below land surface. This formation is composed primarily of interbedded clays and similar fine-grained materials of low permeability. The Hawthorne is underlain by limestone and the Floridan aquifer, the primary source of potable water for the region.

1.6. Previous investigations

The reports associated with the following investigative phases are presented in Appendix H. The information provided is summarized from those reports.

1993 Phase II Field Investigation

A Phase II Field Investigation (CH2M Hill, 1993) was performed in 1993 as part of the property transfer from Miller to Reynolds. During this field investigation, twelve temporary monitoring points were installed. Soil samples were acquired and analyzed for VOCs (EPA Method 8240), total petroleum hydrocarbons (TPH), and oil and grease (O&G) from eleven of the well borings (TW-1-S through TW-6-S and TW-8-S through TW-12-S). Soil sampling points are depicted on Figures 2 and 3. Three sediment samples were also collected from a storm water drainage northeast of the facility (SD-2, SD-3, and SD-4) and another sediment sample (SD-1) was collected from storm water drainage feature west of the facility as shown on Figure 4. One additional sediment sample (B-2-S) was taken from a filled drainage ditch. These samples were also analyzed for VOCs, TPH, and O&G.

Soil data from locations TW-1-S through TW-6-S and TW-8-S through TW-12-S are presented in Table 5. Sediment data from SD-1 through SD-4 and boring B-2-S are included in Table 3. Although none of the samples had concentrations exceeding Georgia EPD notification criteria, one sample, TW-10-S had detectable concentrations of VOCs. This boring and temporary monitoring well was located near ETCMW-114 and CH2MW-114D which were subsequently installed. Analytical results from TW-10-S were consistent with subsequent investigation findings, as presented in this report. The Field Investigation Report including ground water sampling data are provided in Appendix H.

1994 Site Investigation

Based on the findings of the Phase II Field Investigation, a Site Investigation (The Earth Technology Corporation, 1994) was performed in January 1994 by The Earth Technology Corporation. Three monitoring wells (ETCMW-113, ETCMW-114, and ETCMW-115) were installed, and soil and ground water samples were collected from these locations (Figure 3). The monitoring wells were located in the source area (ETCMW-114), just inside the main plant building (ETCMW-113), and in a location believed to be upgradient of the source area (ETCMW-115). Ten additional sediment samples were collected from the storm water drainage area northeast of the facility (SS-101 to SS-110 on Figure 4). Sediment samples were analyzed from two depths at five of these locations (SS-101 through SS-105). The soil, ground water, and sediment samples were analyzed for VOCs by EPA Method 8240. O&G analyses were also performed on sediment samples. One soil sample was analyzed for moisture content, dry density, and permeability analyses.

During well installation, VOCs were detected in a soil sample from ETCMW-114 collected from 6 to 7 ft below surface (fbs). The highest concentrations of VOCs were detected in ETCMW-113 at a depth of 3.3 to 3.8 fbs. Other than methylene chloride, a suspected laboratory contaminant, no VOCs were detected in the soil sample collected from ETCMW-115. Table 1 presents soil analytical results from the Site Investigation.

Laboratory permeability analyses yielded a result of 1.4E-7 cm/sec. This is consistent with the low hydraulic conductivity estimated in other investigative phases. Moisture content and dry density were reported at 19.9% and 106.5 lbs per ft^3, respectively.

Sediment analyses indicated low (below HSRA reporting level) concentrations of methylene chloride, also attributed to laboratory cross contamination, in the samples, and m,p-xylenes in surface and subsurface samples from the east bank of the drainage channel. No other VOCs were reported in the sediment samples.

Ground water samples were collected in January 1994 from ETCMW-113 and ETCMW-114, but not from ETCMW-115 because it did not produce enough ground water for sample collection. Ground water samples from ETCMW-113 and ETCMW-114 contained detectable concentrations of VOCs. The following VOCs were detected at concentrations that exceeded federal drinking water maximum contaminant levels (MCLs): tetrachloroethene (PCE), trichloroethene (TCE), 1,1-dichloroethene (1,1-DCE), 1,2-dichloroethane (1,2-DCA), benzene, 2-butanone, methylene chloride, and xylenes. This report is found in Appendix H.

1995 Supplemental Site Investigation

A Supplemental Site Investigation (Earth Tech, 1995) was completed by Earth Tech in March 1995 to provide additional information relative to defining the extent of contamination resulting from the leak in the waste solvent UST piping. As part of this investigation, two trenches were excavated, soil samples were collected, and two sumps were installed. The investigation also included the installation of six monitoring wells (ETMW-116 through ETMW-121) and the collection of soil and ground water samples at each location. In addition, the three monitoring wells installed during the 1994 Site Investigation (ETCMW-113 through ETCMW-115) were resampled.

Trench 1 was located at the source area (Figure 3). The fill material excavated from the pit was composed of soft, loose, silty sand and gravel to a minimum depth of 4 fbs. The horizontal extent of the excavation was approximately 24 ft by 9 ft. Trench 2 was located 4 ft west of Trench 1, adjacent to the building foundation. Fill material was present to approximately 3 ft north of the building foundation to a depth of 7 fbs. Native material was encountered at an approximate depth of 6 fbs and consisted of hard, dense clay. Soil samples were collected from the trench and were field-screened with a photoionization detector (PID). One soil sample from each trench was analyzed for VOCs (EPA Method 8240); the soil sample from Trench 1 was also analyzed for semi-volatile organic compounds (SVOCs) using EPA Method 8270. In Trench 1, acetone was the only VOC detected in soils. VOCs were not detected in soil samples collected from Trench 2. Soil analytical results from the Supplemental Site Investigation are included in Table 1.

During installation of the monitoring wells, soil samples were collected from each of the six locations. Soil from the borings was field-screened with a PID and two samples from each boring were submitted for VOC analysis using EPA Method 8240. The only VOC detected in the soil samples was acetone (Table 1). The acetone was believed to be a result of laboratory contamination. Ground water samples collected from ETMW-116, ETMW-117, and ETMW-118 exhibited VOC concentrations that exceeded MCLs for one or more of the following compounds: PCE, TCE, 1,1-DCE, and cis-1,2,-dichloroethene (cis-1,2-DCE). Ground water samples from ETMW-119, ETMW-120, and ETMW-121 did not exceed MCLs. Ground water analytical results from the Supplemental Site Investigation report are presented in Table 4.

1998 Phase II Subsurface Investigation

A Phase II Subsurface Investigation was performed by McLaren/Hart, Inc. in 1998 (Appendix H) as part of the property transfer from Reynolds to Ball. During the investigation, seven soil samples collected from six locations were analyzed for VOCs (EPA Method 8260), RCRA metals (EPA Methods 6010/7000), and O&G (EPA Method 1664). The locations of these borings, MHSB-01 through MHSB-06, are shown on Figures 2 and 3. Analytical data are presented on Tables 1 and 2.

VOCs were not detected in any of the samples analyzed. Arsenic, barium, and chromium were detected in several soil samples at concentrations below HSRA Notification Levels. The other five RCRA metals were not detected.

In addition, one surface water sample was analyzed for RCRA Metals and O&G, and one sediment sample (MH-SD-01) was analyzed for VOCs, RCRA metals, and O&G. There were no reported detections from these analyses. The 1998 Phase II Subsurface Investigation Report is included in Appendix H.

1998 Compliance Status Investigation

The 1998 Compliance Status Investigation and subsequent Compliance Status Report (1998 CSR) for the Moultrie Facility was performed by CH2M Hill to meet the requirements of the Georgia Hazardous Site Response Act (HSRA). The objectives of the 1998 CSR were provide additional information about the horizontal and vertical extent of soil and ground water impacted by VOCs, to document the current status of the facility in meeting the RRS, and to present a corrective action plan for the site.

To meet these objectives, the following site characterization activities were performed:

- Installation of six shallow monitoring wells (CH2MW-1, CH2MW-1A, CH2MW-2, CH2MW-3, CH2MW-5, and CH2PP-1), two deep monitoring wells (CH2MW-4D and CH2MW-114D), and two temporary ground water monitoring points (CH2PP-2 and CH2PP-3)

- Sample collection and VOC analysis of soils from five borehole locations (CH2SB-1 through CH2SB-5)

- Collection of ground water samples from eleven shallow monitoring wells, one temporary monitoring well (one temporary well, CH2PP-3, did not yield any ground water), and two deep monitoring wells, and analysis for seven VOCs identified as Contaminants of Concern

- Ground water sample collection and geochemical parameter analysis from seven shallow monitoring wells

- A receptor survey identified private wells located within a ½-mile radius of the site.

The findings of the 1998 CSR are presented herein with subsequent CSR investigative findings. The 1998 CSR for the Moultrie Facility is presented in Appendix H. Regulatory response and subsequent Georgia EPD directives are documented in Appendix A.

1.7 Previous corrective action

UST closure

As noted above, the four USTs were removed in September 1988 (Westinghouse Environmental Services, 1988). This work was overseen by Bioenergy Systems, Ltd. Analytical results from soil samples collected before and after removal of the tanks indicated that no contamination existed at the location of the USTs. The UST excavations were backfilled with the excavated soil.

Piping closure and soil excavation

During the UST removal, visual evidence of contamination was identified along the waste solvent tank piping where the piping enters the production area of the main plant metal building (Figure 3). Five soil borings were completed to define the extent of contamination along the below ground piping by Westinghouse Environmental Services (Appendix H). Based on the analytical results from the soil borings, an area approximately 12 ft long by 10 ft wide was excavated to a depth of 8 ft, and approximately 12 yd^3 of soil was removed and disposed of in a permitted disposal facility. The extent of the excavation was defined by field screening with an organic vapor analyzer (OVA). A section of the piping was removed and the remaining ends were sealed. Prior to backfilling, one sample was collected from the excavation bottom and four samples were collected from the excavation walls to evaluate whether the contaminated soil had been removed. Analytical results indicated that low levels of 2-propanol, 2-butanone, and butyl cellusolve were still present in the samples collected from the side walls (see October 3, 1998 Letter in Appendix H). Fill soil was imported to backfill the excavation.

2. Methodology

A field investigation conducted in August and September 2000 by O'Brien & Gere, consisted of:

- drilling and sampling at seven borehole locations (OBGSB-1 through OBGSB-7)
- installation of two new shallow monitoring wells (OBGMW-122 and OBGMW-123)
- targeted ground water sampling for chemical and geochemical parameter analyses
- ground water level measurements
- hydraulic conductivity testing in the form of multiple slug tests.

Two additional natural attenuation monitoring events were conducted in November 2000 and January 2001. These field events consisted of targeted ground water sampling for chemical and geochemical parameter analyses and ground water level measurements.

A limited ground water monitoring event for targeted VOCs was conducted in April 2002. Samples from four monitoring wells (CH2MW-1, CH2MW-1A, ETCMW-114, and OBGMW-123) were analyzed for six VOCs considered contaminants of concern (COCs) at that time. This monitoring event was performed to evaluate the distribution and concentration of these COCs in ground water and to verify continued protection of human health and the environment.

The most recent investigative work performed in April 2004 consisted of:

- drilling and soil sampling at three borehole locations (OBGSB-8 through OBGSB-10)
- installation of one shallow monitoring well (OBGMW-124)
- comprehensive ground water sampling at twenty monitoring wells (including the newly installed monitoring well OBGMW-124) for VOCs previously reported at the site in addition to geochemical parameters
- ground water level measurements.

2.1. Drilling

Soil borings OBGSB-1 through OBGSB-5 and OBGSB-7 were installed using Geoprobe® percussive drilling techniques. New 4-ft PVC drill rod liners were used at each point, thereby eliminating the need to decontaminate drilling equipment in the field. Soil boring OBGSB-6, OBGSB-8 and OBGSB-9 were installed with a hand auger, and are located inside the production area of main plant building. Prior to sampling at these locations, the concrete floor of the building was breached using a concrete coring machine. Soil borings completed at the facility are shown on Figure 3.

2.2. Soil sampling and analyses

In August 2000, O'Brien & Gere performed additional soil sampling to further characterize the horizontal extent of contamination west of ETCMW-113 and ETCMW-114, near CH2SB-4, and north-northeast of CH2SB-2. This sampling was also intended to address possible laboratory contamination by acetone during previous investigations. Borings OBGSB-1 through OBGSB-5 correspond to previous sample locations where only acetone was detected. These locations and sample depths are indicated below:

Location	Corresponding Location	Sample Interval
OBGSB-1	CH2SB-5	6 – 8 ft fbs
OBGSB-2	CH2SB-3	3 – 5 ft fbs
OBGSB-3	ETMW-117	1 – 3 ft fbs 5 – 7 ft fbs
OBGSB-4	ETMW-118	5 – 7 ft fbs
OBGSB-5	Trench 1	6 ft fbs

Soil boring OBGSB-6 was installed to aid in delineating VOC impacted soil beneath the building and west of ETCMW-113 and ETCMW-114. The subsurface soil samples were field screened with a PID. Samples retrieved from 2 to 4 fbs and 5 to 7 fbs were submitted for laboratory analysis.

OBGSB-7, completed south-southeast of CH2MW-1, provides horizontal control of impacted soils near CH2SB-4 and northeast of CH2SB-2. One sample and one duplicate sample were collected from 6 to 8 fbs in the saturated zone and submitted for analysis.

O'Brien & Gere's samples from soil borings OBGSB-2 through OBGSB-5 were analyzed using EPA Method 8260B for acetone only. Samples from boring OBGSB-1, OBGSB-6 and OBGSB-7 as well as QA/QC duplicates and equipment blanks were analyzed using EPA Method 8260B for volatile organic compounds.

Additional soil sampling was performed in April 2004 to refine the delineation of soil constituents. Three soil boreholes were installed near the former source area and advanced to the water table. One borehole,

OBGSB-10, is exterior to and just north of the manufacturing building. One sample was collected at 2.5 fbs from this borehole. Two additional boreholes, OBGSB-8 and OBGSB-9, are interior to the manufacturing building. Samples were collected from depths of 1 fbs and 5 fbs in OBGSB-8, and from 1 fbs and 7 fbs in OBGSB-9. A duplicate soil sample was collected from the 7 fbs from OBGSB-9. Samples were submitted to O'Brien & Gere Laboratories of Syracuse, New York for analysis of a targeted list of VOCs by EPA Method 8260B. The targeted list of VOCs presented on Table 5 encompassed all constituents detected in soil or ground water since 1993.

O'Brien & Gere's Technical Policy and Procedure Instructions (TPPI) 011 - Geotechnical Soil Borings and Investigations, and TPPI 301 - Logging Unconsolidated Samples, were followed with two exceptions. First, due to acetone sampling comprising a significant portion of the program, isopropyl alcohol replaced acetone as the solvent for decontamination of sampling equipment. Second, boring logs were not prepared for the soil borings performed under this effort due to the close proximity of each to borings logged under previous efforts. O'Brien & Gere's TPPIs can be found in Appendix C.

2.3. Well installation and development

Two new shallow monitoring wells were installed in September 2000. Monitoring well OBGMW-122 was installed between monitoring wells CH2MW-1A and CH2MW-5 to monitor the VOC plume between the two existing wells. OBGMW-123 was installed southeast of ETCMW-113 to assist in the delineation of the extent of contamination in ground water further southeast of the suspected source.

To complete horizontal delineation of VOCs in ground water, an additional monitoring well was installed in April 2004. OBGMW-124 is located east of CH2MW-3 south of the manufacturing building.

These three shallow wells were constructed using 2-inch PVC well screen and solid riser pipe. The 10-ft well screens were installed with 2 ft of screen above the water table surface. Both monitoring wells were completed with a sand pack to 2 ft above the screened interval, bentonite seal to a minimum 1 ft above the sand pack, and a cement grout seal to grade. Each has a locking riser cap and a flush-mounted steel manhole. The final completion depths for OBGMW-122, OBGMW-123, and OBGMW-24 are 15 fbs, 13 fbs, and 14 fbs, respectively. Soil cuttings were screened using a PID. Well installation followed O'Brien & Gere's TPPI 303 – Overburden and Bedrock Screened Monitoring Well Installation. Logs for these wells are included in Appendix D.

2.4. Ground water sampling and analyses

The sections that follow describe the ground water sampling procedures that were used during the various sampling events performed since 2000.

August-September, 2000
During the August and September 2000 revised CSR investigation, ground water samples were collected from the two newly-installed monitoring wells, OBGMW-122 and OBGMW-123, and eight other monitoring wells, CH2MW-2, CH2MW-3, ETMW-113, ETMW-114, ETMW-116, ETMW-117, ETMW-121, and CH2MW-4D. The wells were purged using a low-flow, in-line submersible pump with a new length of polyethylene tubing used for each well. Due to the low productivity of the shallow aquifer, a minimum of one well volume of ground water was purged from each well. Most wells were pumped dry and allowed to recover adequately to obtain the required sample volume. Upon recording field parameters - pH, temperature, conductivity, dissolved oxygen (DO) and oxidation/reduction potential (ORP) - the samples were collected with Teflon® bailers and deposited into precleaned containers supplied by the laboratory. These containers each contained a pre-measured volume of preservative, as applicable.

Ground water samples were shipped to CompuChem in Cary, North Carolina for VOC analysis (EPA Method 8260B) and monitored natural attenuation (MNA) parameters. The MNA parameters are: sulfide, ethene, ethane, methane, chloride, dissolved total organic carbon (TOC), alkalinity, sulfate, nitrate, nitrite, soluble organic carbon, dissolved ferrous iron (field test), and total dissolved manganese (field test).

Samples shipped for laboratory analysis were sampled, prepared, preserved in accordance with OBG TPPI 304 - Ground Water Sampling. Ground water and blank samples prepared for analysis of VOCs were preserved with hydrochloric acid (HCl) and cooled with ice. MNA parameter analysis required preservation with HCl with the exception of analysis for Sulfide, which required ZnAc/NaOH.

November 2000 and January 2001
The November 2000 monitoring event followed the same sampling procedures described above and included VOC analysis (EPA Method 8260B) on ground water from eleven monitoring wells and MNA parameter analyses on ground water from nine well locations. An additional round of ground water monitoring was carried out in January 2001, also following the same sampling procedures described above. Ten wells were sampled for VOCs (EPA Method 8260B) and MNA parameter analyses.

April 2002
Monitoring activities conducted in April 2002 included sampling at three sentinel wells (CHWMW-1, CH2MW-1A, and OBGMW-123) and one monitoring well (ETCMW-114) in the plume to gauge natural

attenuation. Analyses for six volatile organic COCs (2-Butanone, 1,1-DCE, 1,2-DCE [total], cis-1,2-DCE, Naphthalene and Trichloroethene) by EPA Method 8260B was performed by CompuChem of Cary, NC.

April 2004
Site-wide ground water sampling was performed in April 2004. Twenty monitoring wells including the newly installed OBGMW-124 were sampled.

Samples for this monitoring event were collected following low-flow purging procedures. Prior to sampling, the depth to water was measured with an electronic water level meter. After this, clean, unused, quarter-inch polyethylene tubing was inserted into the well, and attached to a short length of clean, unused silicone hose. The hose was threaded through a peristaltic pump and the outflow was attached to a multi-parameter water quality meter equipped with a flow through cell. Ground water was then pumped from the well at a low rate (less than 300 ml/minute). The water level was continuously measured during purging, and the rate was adjusted to maintain the drawdown in the well below 1 foot, if possible. Because of the low productivity of the formation, the drawdown in some wells exceeded 1 ft.

Purging continued until at least one well volume of ground water was removed and water quality parameters (temperature, pH, conductivity, ORP, dissolved oxygen, and turbidity) had stabilized to within approximately 10% over two successive measurements two minutes apart. In some instances, wells were drawn dry before stabilization occurred. In this instance, the wells were allowed to recover, and the sample was collected immediately after a sufficient volume of water had collected in the well. Ground water sampling logs for the 2004 sampling event are included in Appendix D.

Sampling was performed by disconnecting the flow-through cell, and discharging the sample directly from the silicone tubing into the appropriate sample bottle. Samples were analyzed for an extended list of VOCs (Table 5) which encompassing all VOC constituents detected in soil or ground water since 1993. Additionally, geochemical parameter analysis was performed on samples from seven locations. Samples were submitted to O'Brien & Gere Laboratories of Syracuse, New York.

2.5. Data documentation and QA/QC

Each sample shipped off-site was documented on a Chain of Custody form on which sample medium, date and time of sample acquisition, applicable sample preservation, and other sample-specific information were noted. Completed Chain of Custody forms documenting the relinquishing of the samples from the site and receipt by the laboratory are included with the laboratory data reports for soil and ground water in Appendices E and F, respectively.

Field and laboratory quality control sampling consisted of collection of duplicate samples, equipment (rinsate) blanks, and trip blanks for VOC analysis by EPA Method 8260. The Chain of Custody forms document these quality control samples.

Eleven soil samples were analyzed from the August 2000 field event including one duplicate sample, plus one trip blank and one equipment blank. The August – September 2000 ground water sampling consisted of eleven samples including one duplicate. In addition, three trip blanks, one equipment blank, and two additional samples for laboratory control (designated by MS and MSD sample labels) accompanied the ground water samples. The November 2000 monitoring event consisted of the acquisition of eleven ground water samples including one duplicate sample for analysis of VOCs, plus two trip blanks and one equipment blank.

Ground water data from the August – September 2000 and November 2000 sampling events were validated according to the procedures specified in O'Brien & Gere's TPPI 102 – Data Validation. The data were found to be acceptable and usable for qualitative and quantitative purposes. The data validation report can be found in Appendix F.

The April 2002 ground water sampling consisted of VOC analysis of four samples plus one duplicate and one trip blank with additional sample volume provided for MS and MSD quality control analysis.

In April 2004, one duplicate sample accompanied five soil samples. Two duplicate ground water samples, three trip blanks and one MS/MSD sample were included with samples from twenty monitoring wells analyzed for VOCs. In addition, one duplicate sample and an MS/MSD sample accompanied seven samples for geochemical parameter analyses.

2.6. Ground water level measurements

Comprehensive measurements of ground water levels in site wells were collected during each sampling event since 2000. Ground water level measurements were taken with an electronic water level indicator. Ground water elevations were calculated using the known elevation of the top of casing for each well.

2.7. Hydraulic conductivity testing

Slug testing was performed during the field investigation completed in August 2000 to provide hydraulic conductivity information. After reviewing the well construction records and soil boring logs, O'Brien & Gere selected the following wells for slug testing: CH2MW-1A, CH2MW-2, CH2MW-3, ETMW-118, and ETMW-120.

Slug testing was performed by lowering an In-Situ® pressure transducer into the well to be tested, and fixing it in place with duct tape. The transducer was then attached to an In Situ Hermit® data logger, and water levels were monitored until they recovered. The water level in the well was then measured with an electronic water level meter, and the transducer was zeroed. After zeroing, slug testing was accomplished by inserting a decontaminated stainless steel cylinder into the well while simultaneously starting the data logger to collect measurements on a logarithmic scale. Once the water level in the well had recovered to within 95% of its initial level, the test was repeated by withdrawing the cylinder.

Data from the slug tests were evaluated, but the results were inconclusive because of the extremely low hydraulic conductivity of the aquifer material. The majority of the response recorded on the data logger was related to the filter pack for the well and was not indicative of the hydraulic conductivity of the surrounding formation. The formation response was so minimal, it was not possible to achieve a reliable analysis.

3. Current understanding of site conditions

The following sections summarize the findings of the current investigation, in addition to the findings from previous investigations.

3.1. Site geologic conditions

Natural soils at the site consist of clayey sand, sandy clay and clay to a depth of at least 50 fbs. No boreholes were extended beyond 50 fbs, and the total depth of the overburden was not determined at this site. Fill consisting of poorly graded sand is present across the site, and extends up to 8 fbs in some areas. Several cross sections were prepared to delineate the subsurface conditions. The locations of these lines of section are depicted in Figure 5. The cross sections are presented in Figure 6.

3.2. Chemical constituents in soil

Soil samples were analyzed for total VOCs using EPA Method 8240 or 8260. Table 1 provides the depth interval of the samples and summarizes the soil analytical detections for the site. Laboratory analytical reports for the O'Brien & Gere investigation are included in Appendix E. Analytical reports for previous investigations are included in Appendix H. Figure 7 presents VOC detections to-date, excluding acetone and methylene chloride, which are presented on Figure 8. Figure 9 presents the vertical extent of VOCs detected in soil, excluding acetone and methylene chloride, in cross section.

Acetone and methylene chloride have been detected at low levels across the site. These constituents are commonly used at analytical laboratories for decontamination of laboratory equipment. The widely reported detections of acetone and methylene chloride are likely to be relicts from laboratory usage and are not a concern at this site. None of the reported concentrations exceed the respective Type 3 RRS — 400 mg/kg for acetone and 0.50 mg/kg for methylene chloride.

Other than acetone and methylene chloride, detections of VOCs were restricted to a limited area, at low concentrations. Chloroethane, 1,1-DCA, ethylbenzene, 2-butanone, PCE, toluene, and xylenes were detected in CH2SB-1 from 3 to 5 fbs. Concentrations of TCE, 2-butanone, isobutyl alcohol, vinyl acetate and dibromomethane were detected in ETCSB-113A from 3.3 to 3.8 fbs. Concentrations of 2-butanone and vinyl acetate were detected in ETCSB-114A from 2 to 4 fbs. Trace levels of TCE were detected in CH2SB-2 from 0.5 to 2 fbs and in OBGSB-10 at 2.5 fbs. Cis-1,2-DCE was also detected at a trace concentration in OBGSB-10 at 2.5 fbs.

As shown on Figure 7, soils affected by VOCs (other than the probable laboratory contaminants acetone and methylene chloride,) are primarily limited to the area immediately surrounding CH2SB-1, ETCMW-113, and ETCMW-114, within 40 ft of the former waste solvent tank piping removed in 1988. The only VOCs detected outside of this area (other than the probable laboratory contaminants acetone and methylene chloride) was TCE detected in CH2SB-2 and OBGSB-10 and cis-1,2-DCE also detected in OBGSB-10. These results suggest that the former waste solvent tank piping were the source of the VOC contamination at this site and that any potential release was restricted to this area.

3.3. Site hydrogeologic conditions

Ground water at the site is unconfined, and encountered at depths ranging from 4 to 11 fbs. Table 6 summarizes the water level elevations calculated from measurements collected from 1998 to April 2004. Potentiometric surface maps (Figures 10 through 14) were prepared for the June 1998, September 2000, January 2001, April 2002, and April 2004 water level surveys. The potentiometric surface map for 2002 (Figure 13) differs from that presented in the CAP. The contouring for this map was modified based on further evaluation of ground water data and corrections to the location and elevation of several monitoring wells.

During each water level measurement, selected measurements were excluded from the contouring as anomalous. These anomalous elevations are likely because the low hydraulic conductivity of the soil at the site prevents the ground water levels in the wells from reaching equilibrium and accentuates the effects of transient events such as recharge, barometric pressure changes, and pumping.

Overall, ground water flow at the site would be expected to follow the topographic contour and flow to the east, however, ground water potentiometric surfaces indicate a gradient that is irregular, and varies across the site. In general, ground water on the western edge of the facility flows to the northeast and then to the north and ground water on the eastern edge of the facility flows to the northwest and then to the north. This irregular surface is probably caused by a combination of the low hydraulic conductivity at the site, and the varied recharge rates across the site resulting from the impermeable cover.

Two monitoring wells were screened at greater depths than the other monitoring wells at the site. CH2MW-4D is screened from 36 to 46 fbs, and is located next to shallow well CH2PP-1. CH2MW-114D is screened from 17.5 to 22.5 fbs and is paired with shallow monitoring well ETCMW-114. Comparison of the shallow and deep water levels measured in these monitoring well pairs indicate a pronounced and consistent (with one exception that probably reflects an anomalous measurement) downward hydraulic gradient for all of the monitoring events (Table 6).

Hydraulic conductivity at the site is very low. Because of this, slug tests performed were inconclusive, and empirical methods were used to determine the average linear flow velocity for the site. The release was identified in 1988, and the contaminants from this release were detected in a monitoring well (ETCMW-113) 50 ft away in 1994. Although it is possible that the release occurred prior to 1988, this suggests that the leading edge of the ground water plume traveled at most 50 ft in six years, or no faster than 8 ft/yr. This is higher than what would be anticipated for the clay soil at the site, and is likely a conservative estimate. Certainly, the stability of the contaminant concentrations in ground water since 1994 would suggest that the rate of migration is extremely slow. With the removal of the source in 1988, concentrations would be expected to attenuate rapidly if the flow velocity was high.

The highly irregular potentiometric surface, low hydraulic conductivity, and consequent low ground water flow velocity are indicative of a perched aquifer. Ground water volume and flow are highly restricted in a perched aquifer and such an aquifer is unlikely to be used for ground water production.

Two small ponds are located to the southwest and southeast of the Moultrie Facility (Figure 1). The damming of an ephemeral creek that originates near the Moultrie Facility formed the pond to the southeast. It is possible that ground water discharges to this creek and pond; however, given the northward flow direction and low hydraulic conductivity calculated for the site, as well as the limited ground water productivity observed, it is likely that precipitation is the predominant source of surface water in the creek and pond.

3.4. Chemical constituents in ground water

Ground water sampling and analyses have been performed during several investigations at the Moultrie Facility. VOC detections from ground water sampling events performed at the Moultrie Facility dating back to 1994 are presented in Table 4. Laboratory analytical reports for the sampling performed by O'Brien & Gere are presented in Appendix F. Laboratory reports for previous investigations are presented in their respective reports in Appendix H.

Comprehensive monitoring events were performed in December 1994, March 1995, May 1998, August and November 2000, January 2001, and April 2004. A limited monitoring event occurred in April 2002. Review of the data from these events indicates that the magnitude and extent of ground water contamination at the Moultrie Facility has remained relatively consistent since 1994. Chlorinated VOCs have been consistently detected in the monitoring wells in the immediate vicinity of the former waste solvent tank piping (Figure 15); VOC concentrations decline to low µg/L levels or non-detect within 100 to 150 ft downgradient of the former source area.

Historically, PCE, TCE, 1,1-DCE, 1,1-DCA, 1,2-DCE (cis- and total), 1,2-DCA, and chloroethane have been ubiquitous, and are likely the result of a release from the former waste solvent tank piping. Consistent with the historical findings, these same constituents were prevalent in the most recent sampling in April 2004.

Chloromethane, 2-butanone, 4-methyl-2-pentanone (MIBK), 1,1,2,2-tetrachloroethane, 1,2,3-trichloropropane, 1,2,4-trichlorobenzene, 1,2,3-trichlorobenzene, naphthalene, acetone, isobutyl alcohol, methylene chloride, carbon disulfide, vinyl chloride, benzene, toluene, ethylbenzene, vinyl acetate, xylenes and trichlorotrifluoromethane have been sporadically reported in the historical data and may represent laboratory contamination, or low residual concentrations from releases from the former waste solvent tank piping. The April 2004 sampling indicated a low level of benzene in ETCMW-114 and a trace concentration of carbon disulfide in OBGMW-124.

VOCs also appear to be limited in extent vertically (Figures 16 and 17). CH2MW-4D, screened 36 to 46 fbs and located down gradient of the former source area, continues to be free of chlorinated VOCs. Only low concentrations of acetone and methylene chloride, likely laboratory relicts, were reported in this monitoring well in August and November 2000.

The chlorinated VOCs PCE, TCE, cis-1,2-DCE, 1,1-DCE, and 1,1-DCA were detected in ground water samples collected from CH2MW-114D in June 1998 and April 2004. Of these, cis-1,2-DCE exceeds the Type 1 RRS and TCE and PCE exceed the Type 4 RRS. CH2MW-114D is located immediately downgradient of the former waste solvent pit, in an area with the highest concentrations of ground water contaminants, which likely accounts for the deeper extent of contamination in this area. It does not appear likely, however, that VOCs extend significantly deeper at this location as there is an order of magnitude decrease in the concentration of these constituents from CH2MW-114 to CH2MW-114D. The combination of the limited productivity of the clays at the site and the elimination of the former source material has likely limited the migration of contaminants to this deeper stratum.

Validation of the ground water analytical results was performed for the samples collected in 2000 and 2001. The ground water analytical results were found to be acceptable for both qualitative and quantitative purposes. A summary of specific data validation results has been included in Appendix F.

3.5. Ground water geochemistry

As part of the CSR investigation, ground water samples were analyzed for geochemical parameters to evaluate the natural attenuation processes occurring in site ground water. Field or laboratory geochemical

parameters were reported for samples taken in May 1998, August and November 2000, January 2001, April 2002, and April 2004. The natural attenuation parameters analyzed in the laboratory include: alkalinity, chloride, total iron, nitrate, nitrite, sulfate, sulfide, methane, ethane, ethene, and soluble organic carbon. The field-recorded parameters include manganese, pH, conductivity, dissolved oxygen, carbon dioxide, oxidation/reduction potential, and temperature. In addition, ferrous iron testing was performed in the laboratory for the 1998 sampling but has since been analyzed in the field. These data are presented in Table 8.

Appendix D of the January 2004 CAP presents the general concepts for assessing the geochemistry of ground water with a brief explanation of the role of each parameter in evaluating degradation processes that may be occurring in site ground water.

Several rounds of geochemical data indicate that natural attenuation processes are acting upon the ground water of the site, although some data are inconsistent. Discussion and interpretation of these data follow (Wilson, et.al. Environmental Chemistry and the Kinetics of Biotransformation of Chlorinated Organic Compounds in Ground Water, May 1997).

Dissolved Oxygen
DO readings have been highly variable across the site and from individual monitoring wells. Although DO levels from monitoring wells in the plume would suggest highly oxic conditions supporting aerobic processes, DO readings acquired *ex situ* are suspect due to sample disturbance. Other parameters point to anaerobic processes occurring.

Manganese (Mn^{4+})
Low levels of dissolved manganese across the site indicate that either manganese is not readily available, or that the site is not under manganese reducing conditions.

Nitrate (NO_3^-)
From 1998 to 2001, relatively high nitrate levels (4.47 to 45.8 mg/L) were reported in the plume from ETCMW-113, ETCMW-114, ETCMW-115, ETMW-116 and ETMW-117. The low levels of manganese and higher levels of nitrate suggest that the aquifer was between manganese and nitrate reducing conditions at that time. In April 2004, nitrate concentrations reported for ETCMW-114 and CH2MW-114D were significantly lower (0.46 to 1.2 mg/L), pointing to the depletion of nitrate that would be expected following an extended period of nitrate reduction.

Iron (Fe^{2+})
Ferrous iron concentrations have been consistently low (most less than 0.4 mg/L) at locations analyzed indicating that biodegradation via iron reduction has not been a significant process at the site. However, the ferrous iron concentration in ETCMW-114 for April 2004 (0.8 mg/L) was an order of magnitude greater than the previous sampling events in November 2000 and January 2001 (0.05 mg/L and 0.03 mg/L,

respectively). This and the presence of ferric iron (Fe^{3+}) support the presence of iron reducing conditions in some areas of the plume. Note that the total iron concentration includes both ferric and ferrous iron.

Sulfate (SO_4^{2-})
Sulfate concentrations are highly variable across the site and at each location. The highest concentrations were reported at ETCMW-114 (110 mg/L and 75.6 mg/L in November 2000 and January 2001, respectively). If sulfate reducing conditions were present at the site, the lowest concentrations of sulfate would be expected in the plume. Since this is not the case it does not appear that biodegradation via sulfate reduction is a significant process at the site.

Ethene and Ethane
The presence of ethene and ethane – the end products in sequential reductive dechlorination – in ground water since 1998 suggests that reductive dechlorination is occurring. The relatively high concentrations of ethene and ethane in the center of the plume (ETCMW-114) provide further evidence of reductive dechlorination. Concentrations of ethene and ethane have been decreasing since 1998. This may indicate that reductive dechlorination is being limited at the site by the unavailability of electron donors.

Methane
The methane data collected at the site indicate that biodegradation resulting from methanogenesis may also be occurring. In May 1998, methane concentrations at the source area were three orders of magnitude greater (129 μg/L at ETCMW-114) than at the surrounding monitoring wells sampled, where concentrations ranged from below the detection limit to 0.747 μg/L at CH2MW-2. Concentrations of methane have been decreasing in ETCMW-114 since 1998, indicative of variations in ground water chemistry as natural attenuation processes continue and the availability of electron donors becomes more limiting.

Alkalinity
Alkalinity was highest in the center of the plume at ETCMW-114 (125 mg/L) and decreased at the edges of the plume. Because elevated alkalinity points to an increased level of biological activity, these data support the methane data presented above and suggest that biodegradation via methanogenesis is occurring at the source area.

Chloride (Cl^-)
Chloride ion concentrations were slightly elevated across the site, suggesting that biodegradation via reductive dechlorination may be occurring at the site. At ETCMW-114, chloride concentrations have been decreasing. In sampling performed in 2000 and 2001, chloride levels ranged from 80 to 108 mg/L. The April 2004 result of 37 mg/L, points to the slowing of reductive dechlorination processes in the plume. This is confounded somewhat by the fact that the highest chloride concentrations were detected in monitoring well CH2MW-2, which is upgradient of the chlorinated solvent plume, allowing for the possibility

that chloride may be derived from another source. Chloride data, therefore, are inconclusive.

Oxidation/Reduction Potential (ORP)

From 1998 to 2002, ORP readings ranged from 98 millivolts (mV) to 261 mV from the wells within the plume. These numbers would suggest only slightly oxidizing conditions. These findings do not corroborate the DO data indicating highly oxic conditions. The April 2004 ORP values are elevated from nearly every monitoring well across the site. These elevated levels may indicate broad-scale changes in ground water chemistry although no other indicators point to a site-wide change in ground water conditions. It is also possible that there was a problem with the instrumentation. These data, therefore, are inconclusive.

Degradation Products of Reductive Dechlorination

Reductive dechlorination is particularly evident in the analytical data collected from ETCMW-114, where the degradation products of PCE (TCE, DCE, vinyl chloride, ethane, and ethene) have been detected. Concentrations of PCE and its daughter products (TCE, DCE, vinyl chloride, ethane, and ethene) have been present to varying degrees in monitoring wells located within the defined plume since 1994 (Table 4). These wells are ETCMW-114, ETCMW-113, ETMW-116, ETMW-117, and ETMW-118. In ETCMW-114, 1,1,1-TCA and its daughter products (1,1-DCE and 1,1-DCA) were detected. Daughter products, although not 1,1,1-TCA, were also observed in other wells in close proximity to the source area (ETCMW-113, ETMW-116, ETMW-117, and ETMW-118). Vinyl chloride was detected in relatively low concentrations, ranging from below detection limits to 0.02 mg/L (ETCMW-114 in May 1998). These low concentrations likely indicate that the vinyl chloride is readily biodegrading to either CO_2, ethane, or ethene. This is supported by the high concentrations of ethane and ethene (0.249 µg/L and 0.205 µg/L, respectively) that were detected in ETCMW-114 in the center of the contaminant plume.

Conclusions

Although the available data from the former Miller Brewing Company site in Moultrie, Georgia are somewhat inconsistent, there are several indicators that point to ongoing although slowing reductive dechlorination. Decreasing levels of nitrate and higher levels of ferrous and ferric iron suggest that the aquifer is between nitrate and iron reducing conditions. The presence of anaerobic decay products such as cis-1,2-DCE also point to the occurrence of reductive dechlorination. In addition, the presence of decreasing concentrations of ethane, ethene, and methane indicate that the reducing, methanogenic conditions have been present at the site but may be becoming limited by the availability of electron donors.

4. Evaluation of risk

To assess if exposure to the constituents present in site ground water and soil could potentially cause adverse effects to exposed human and ecological receptors, concentrations of site constituents were screened against the RRS for non-residential land use scenarios. The RRS methodology prescribed in HSRA 391-3-19-.07 was applied for this analysis. As outlined in the HSRA Rule, when the RRS are adequately carried out, they "assure adequate protection of human health and the environment from potential exposure to land-based releases of regulated substances."

This section presents a comparison of the detected ground water and soil constituents to the appropriate Type 3 and Type 4 RRS. The Type 3 and 4 RRS are applicable to non-residential properties. The Rule defines "non-residential property" as "any real property or portion of a property not currently being used for human habitation or for other purposes with a similar potential for human exposure," and that falls into certain Standard Industrial Classification (SIC) groups. As discussed previously in Section 1.4 of this report, the site was developed in 1980 and has been used for industrial purposes since manufacturing operations began in 1981. Land use is expected to continue to be for industrial purposes. The facility is located in a rural area so pressure to develop the property for other purposes would not be expected. Therefore, the non-residential criteria are applicable for current and potential future site conditions.

Determination of certain Type 3 and Type 4 RRS values require applying equations found in the Risk Assessment Guidance for Superfund (Part B) (USEPA 1991) [RAGS, Part B]. Table B-1 presents the default exposure parameters used for Type 3 RRS calculations and the site-specific exposure parameters used to calculate Type 4 RRS, as applicable. Appendix B further details the development of the risk calculations presented herein, the site-specific exposure assumptions, and the chemical-specific toxicity values used in the RAGS, Part B equations are provided in Table B-2.

4.1. Type 3 risk reduction standards

Type 3 standards are constituent- and medium-specific concentrations that pose no significant risk on the basis of standardized exposure assumptions and defined risk levels for the non-residential use scenario. To comply with Type 3 standards, all source materials must be removed or decontaminated to meet the Type 3 media criteria.

4.1.1. Type 3 assessment for constituents in soil

To meet the Type 3 criteria for soils, both of the following conditions must be met:

A. Constituent concentrations above the uppermost ground water zone in soil shall not exceed the higher of:
   (a) Concentrations which will not cause contamination of ground water at concentrations above Type 1 ground water criteria, determined as the highest of (i) soil concentrations in Appendix I, excluding any values given in square brackets; or (ii) multiplication of the Type 1 ground water concentration criteria by a factor of 100.
   (b) Concentrations listed in Table 2 of Appendix III.
   (c) For lead, 400 mg/kg.

B. Concentrations in surface soil (soil within 2 ft of the land surface) shall meet the criteria listed above and, in addition, shall not exceed the lower of the concentrations defined below.
   (a) Concentrations which are unlikely to result in any non-cancer toxic effects on human health due to ingestion of soil and inhalation of particulates and volatiles, determined using Equation 7 of RAGS, Part B, and standard nonresidential exposure assumptions in Table 3 of Appendix III.
   (b) Concentrations for which the upper bound on the estimated excess cancer risk is less than or equal to 10^{-5} (10^{-4} for Class C carcinogens) for human ingestion of soil and inhalation of particulates and volatiles, determined using Equation 6, RAGS, Part B, and standard nonresidential exposure assumptions in Table 3 of Appendix III.
   (c) For lead, 400 mg/kg.

Evaluation of each of the conditions with respect to the site is given below. The data presented in Table 1 was used to perform this assessment. The maximum detected concentration of each constituent was compared to the screening values. The use of the maximum detected concentration results in the most conservative comparison.

A. (a) Demonstration that Type 1 ground water criteria will not be exceeded.

Given the requirements outlined above, the first step is to assess if exposure to the constituents in site soil could leach to ground water and result in ground water concentrations above the Type 1 ground water criteria.

Table 9 presents the constituents detected in soil and their appropriate screening criteria. The screening criteria are determined as the higher of the following two values: the values presented in Appendix I of the Rule; and the Type 1 ground water criteria, multiplied by a factor of 100. Both of these values are listed on Table 9. The greater of these two values was then compared to the maximum detected concentration of each constituent.

As shown on Table 9, only one of the constituents detected in soils at the facility, vinyl acetate, was present at concentrations above the Type 3 RRS. Vinyl acetate exceeded the Type 3 criterion at two sample locations, ETCSB-113A from a depth of 3.3 to 3.8 fbs and ETCSB-114B from a depth of 6 to 7 fbs. Both of these samples appear to be taken from either the capillary zone or smear zone. Since the time these samples were taken and monitoring wells ETCMW-113 and ETCMW-114 were installed at these locations in January 1994, elevated VOC concentrations have consistently been reported in the underlying ground water. These wells are located in the plume identified in Figure 15.

(b) Comparison of site constituents to concentrations listed in Table 2 of Appendix III

The constituents presented in Table 2 ("Type 1 Soil Criteria") of Appendix III are inorganic constituents. Inorganic constituents have not been reported as exceeding HSRA Notification Concentrations and are not a concern at the facility. Therefore, inorganic constituents have not been evaluated as part of this risk evaluation.

(c) Lead in site soil can not be present at concentrations greater than 400 mg/kg.

Lead was not detected in site soil.

B. For surface soil, comparison to Type 3 RRS for soil as described above, and results from Equations 6 and 7 or RAGS, Part B, as applicable.

The next step is to assess if exposure to the constituents in site surface (0 to 2 ft) soil could cause adverse effects to exposed receptors by comparing site concentrations to the Type 3 RRS for surface soil. This assessment was performed by comparing the maximum detected concentrations of soil constituents to the lower of the following three values:

- The Type 3 RRS for subsurface soil, as described in A. above.
- Results from Equation 7 of RAGS, Part B, for non-cancer toxic endpoints, using non-residential exposure assumptions in Table 3 of Appendix III.
- Results from Equation 6, of RAGS, Part B, for carcinogens, using standard non-residential exposure assumptions in Table 3 of Appendix III.

Table 10 presents the results of the Type 3 RRS calculations for surface soil constituents. The values were calculated using the default Type 3 exposure parameters for non-residential use and toxicity values presented in Appendix B.

Based on the Type 3 comparisons, the following conclusions are drawn:

- Thirteen VOCs detected in site soil are present at concentrations that do not result in exceedance of the Type 3 soil criteria and therefore, do not pose an unacceptable adverse risk to human or ecological receptors.

- One constituent detected in site subsurface soil, vinyl acetate, exceeds Type 3 RRS and is carried forward for comparison to Type 4 RRS.

- Site surface soils meet Type 3 RRS for VOCs.

Therefore, site subsurface soil does not meet the Type 3 Non-Residential Property RRS. Vinyl acetate will be compared to Type 4 RRS.

4.1.2. Type 3 assessment for ground water

To meet the Type 3 RRS for ground water, the following conditions must be met:

A. At any point, concentrations of regulated substances in ground water samples shall not exceed concentrations given in Table 1 of Appendix III.

B. For those substances not listed in Table 1 of Appendix III, concentrations of regulated substances in ground water samples shall not exceed the background or detection limit concentration.

C. If two or more regulated organic compounds are present, their sum in a single sample shall not exceed 10 mg/L if the Table 1 value for each compound is less than 5 mg/L, or, where at least one compound has a Table 1 value greater than or equal to 5 mg/L, the sum of the concentrations shall not exceed the maximum Table 1 value for a detected compound plus 10 mg/L.

Data from the April 2004 sampling event presented on Table 4 were used to perform this assessment. The historical data from 1994 through 2002 are not indicative of current site conditions. The maximum detected concentration of each constituent was compared to the Georgia EPD Type 3 screening values.

A. Comparison to ground water concentrations given in Table 1 ("Ground Water Criteria") of Appendix III.

The site ground water concentrations were compared to the values presented in Table 1 ("Ground Water Criteria") of Appendix III of the Rule. Although the site is classified as an industrial area, the Type 3 standards for ground water require that the same standards are met as for residential scenarios. This results in a conservative assessment since the ground water at the site is not used as a source of potable or process water and, because of the low hydraulic conductivity of the soil, it is unlikely to be used as such in the future.

Table 12 presents the constituents detected in ground water from the April 2004 sampling event, the maximum detected concentration, location and date of the maximum detection, and comparison to the ground water criteria. Of the eleven volatile constituents detected in site ground water, six were consistently detected at concentrations below the values presented in Table 1 of Appendix III. (The constituents are: benzene; carbon disulfide; 1,1-dichloroethane; 1,2-dichloroethane; trans-1,2-dichloroethene (trans-1,2-DCE); and vinyl chloride.) Thus, these constituents are present at concentrations that would not be expected to result in adverse effects to exposed human receptors. Therefore they do not require further assessment.

The following three constituents were detected in ground water at concentrations greater than their respective criteria listed on Table 1 of Appendix III: 1,1-DCE; PCE; and TCE. Since these constituents exceeded their Type 3 standards, they were also evaluated using a Type 4 site-specific evaluation, as described in Section 4.2.

B. Evaluation of constituents not listed in Table 1 of Appendix III.

Two constituents detected in ground water did not have values listed on Table 1 of Appendix III. In these instances, the Rule requires that the detected concentrations of these constituents be compared to background concentrations or detection limits. These constituents are chloroethane; and cis-1,2-DCE.

As a conservative measure, the lowest reported detection limit for chloroethane was used as the Type 3 RRS. For cis-1,2-DCE the federal drinking water MCL was used. Both constituents had concentrations exceeding these criteria.

C. Evaluation of total organic compound concentrations per sample.

As shown on Table 4, there are no instances in the April 2004 sampling event when two or more regulated organic compounds were detected at concentrations that totaled 10 mg/L.

There are two instances in the April 2004 data where elevated detection limits exceed the Type 3 criteria. The detection limit for 1,2-dibromo-3-chloropropane (DBCP) of 0.001 mg/L exceeds the Type 3 RRS of 0.0002 mg/L. The constituent 1,1,2,2-

tetrachlorethane had a detection limit of 0.0005, exceeding the Type 3 RRS of 0.0002 mg/L.

Based on this assessment, the following conclusions are drawn:

Five volatile organic constituents detected in site ground water are present at concentrations greater than the Type 3 RRS including: chloroethane, 1,1-DCE; cis-1,2-DCE; tetrachloroethene; and trichloroethene. In addition, DBCP and 1,1,2,2-tetrachloroethane were not detected but had detection limits exceeding Type 3 RRS. Therefore, these seven constituents are retained for further assessment.

Therefore, site ground water does not meet the Type 3 Non-Residential Property RRS. These ground water constituents are compared to derived Type 4 RRS in Section 4.2.

4.2. Type 4 risk reduction standard

4.2.1. Soil

As presented in Section 4.1, site soil does not meet Type 3 RRS. One constituent exceeded the Type 3 standard at two locations and therefore, requires further assessment. Type 4 criteria are determined by the lesser of the following values:

- Concentrations which will not cause ground water to exceed Type 4 RRS as determined by a laboratory test or fate and transport model approved by USEPA.

- Concentrations which are unlikely to result in non-cancer toxic effects on human health via ingestion of, or inhalation of volatiles from ground water determined using Equation 7 from RAGS, Part B, and site-specific exposure factors for the non-residential use scenario.

- Concentrations for which the upper bound on the estimated excess cancer risk is less than 10^{-5} (10^{-4} for Class C carcinogens) via ingestion of, and inhalation of volatiles from, ground water, determined using Equation 6 from RAGS, Part B, and site-specific exposure factors for the non-residential use scenario.

Neither laboratory tests to assess leaching to ground water nor fate and transport modeling have be conducted on site soils. Table 11 presents the results of the calculation of Equations 6 and 7 of RAGS Part B. The resulting Type 4 RRS for site soil is three orders of magnitude greater than the maximum reported concentration for vinyl acetate. Therefore, site soils meet Type 4 RRS.

4.2.2. Ground water

In accordance with the Georgia EPD requirements, the lesser of the following values was applied as the Type 4 RRS:

- Concentrations which are unlikely to result in any non-cancer toxic effects on human health via ingestion of, or inhalation of volatiles from, ground water, determined using Equation 2 from RAGS, Part B, and site-specific exposure factors for the non-residential use scenario.

- Concentrations for which the upper bound on the estimated excess cancer risk is less than 10^{-5} (10^{-4} for Class C carcinogens) via ingestion of, and inhalation of volatiles from, ground water, determined using Equation 1 from RAGS, Part B, and site-specific exposure factors for the non-residential use scenario.

The exposure parameters and toxicity values presented in Appendix B were applied to these calculations. Table 13 presents the derived Type 4 ground water RRS. Two constituents, chloroethane and 1,1-DCE, were detected at concentrations below their respective Type 4 RRS. Three constituents in ground water were detected in at least one instance at concentrations greater than the Type 4 RRS. These constituents are cis-1,2-DCE, PCE, and TCE.

One constituent, DBCP, was not detected but the elevated detection limit (0.001 mg/L) is greater than the calculated Type 4 RRS (0.00058 mg/L). It should be noted that DBCP has had three historical detections (0.0006 mg/L from both CH2MW-113 and OBGMW-122 in November 2000, and 0.0007 mg/L from ETMW-116 in August 2000), both only slightly exceeding the Type 4 RRS.

Finally, 1,1,2,2-tetrachloroethane, although not detected, also had an elevated detection limit (0.0005 mg/L). This detection limit is less than the Type 4 RRS for this constituent (0.02 mg/L).

Based on this assessment, the following conclusions are drawn:

- As a result of sampling in April 2004, three VOCs were detected in site ground water at concentrations greater than the Type 4 RRS. These constituents are cis-1,2-DCE, PCE and TCE. Additionally, DBCP was not detected although its detection limit exceeded the Type 4 RRS. It should be noted that DBCP was detected only three times at isolated locations and does not appear to be a significant concern.

Therefore, site ground water does not meet the Type 4 Non-Residential Property RRS.

5. Conclusions

Analysis of the soil and ground water data collected for the former Miller Company Can Plant in Moultrie, Georgia has identified the presence of chlorinated VOCs in soil and ground water. Soil contamination is minimal, and appears to be restricted to the area immediately surrounding the former waste solvent tank piping (Figure 7). These data are consistent with this area being the source of the contamination. The low concentrations in the soil reflect residual contaminants not removed during excavation activities in 1988.

Ground water contaminants have been detected in a number of wells surrounding the former waste solvent tank piping, and extend approximately 80 ft downgradient of this suspected source (Figure 15). The migration of these contaminants has been limited because of the low hydraulic conductivity of the soil. It is likely that these contaminants are derived from the historic release from the waste solvent tank piping. Several rounds of geochemical data indicate that natural attenuation processes are acting upon the ground water contamination. With the removal of the contaminated soils surrounding the former waste solvent tank piping in 1988, the source of the ground water contamination was removed. The combination of source removal, low hydraulic conductivity, and active natural attenuation is controlling the migration of ground water contamination at the facility. Ground water contaminants at the site are therefore unlikely to reach potential receptors such as water wells or surface water bodies (such as the pond and ephemeral stream southeast of the facility).

The potential, theoretical human health risks associated with the analytes found in ground water and soil samples collected at the Moultrie Facility were evaluated under the provision of the RRS as presented in Chapter 391-3-19 of the Hazardous Site Response Act and the Rules of the Georgia EPD. Site soil samples meet the Type 4 non-residential property RRS. The conservative risk evaluation performed indicates that site ground water does not meet Type 1 through Type 4 RRS. The area of ground water contaminants that exceed Type 4 RRS is limited, and extends approximately 80 ft downgradient of the former source area (Figure 14).

Because ground water cannot be certified as meeting any of the Georgia RRS, corrective action will be required at this facility. The January 2004 Corrective Action Plan (CAP), as approved by Georgia EPD in March 2004, details the selected remedial measures and provides the basis for corrective action at the site.

As detailed in the January 2004 CAP, there are two components of corrective action at the site – Enhanced Bioremediation and Monitored Natural Attenuation (MNA). Enhanced Bioremediation of ground water will be implemented by injecting a lactate formulation ABC® targeting

the plume. The addition of the lactate formulation will enhance microbial activity that facilitates reductive dechlorination of site constituents. Injection will be performed with a Geoprobe® on a grid pattern. It is anticipated that two injection events approximately two years apart will be necessary to permanently decrease concentrations to below Type 4 RRS.

Natural attenuation of site ground water, evident to be already occurring, will be monitored once Type 4 RRS are met. MNA will continue until Type 1 RRS are achieved site-wide for two consecutive monitoring events, after which a petition for closure will be submitted.

6. References

Westinghouse Environmental Services. *Soil Sampling & Analysis Report for Miller Brewing Company, Red Label Pipe Area, Moultrie Can Plant, Moultrie, Georgia.* WES Job No. 4125-88-150. October 1988.

United States Environmental Protection Agency (USEPA). *Risk Assessment Guidance for Superfund: Volume 1. Human Health Evaluation Manual (Part A).* Interim Final. Office of Emergency and Remedial Response. EPA/540/I-89/002. December 1989.

USEPA. *Risk Assessment Guidance for Superfund: Volume 1. Human Health Evaluation Manual (Part B, Development of Risk-based Preliminary Remediation Goals) – Interim.* Office of Emergency and Remedial Response. EPA/540/R-92/003. Publication 9285.7-01B. December 1991.

CH2M Hill. *Field Investigation Report of the Miller Brewing Company Container Plant, Moultrie, Georgia.* Prepared for: Reynolds Metals Company. October 1993.

The Earth Technology Corporation. *Summary Report (Step 1) Moultrie Container Division Facility*. TETC Project No. 94-4124-01. December 10, 1993.

The Earth Technology Corporation. *Site Investigation Report for the Former Miller Brewing Company Moultrie Container Division Facility.* TETC Project No. 94-4130-04. March 22, 1994.

Earth Tech. *Supplemental Site Investigation Report of the Former Miller Brewing Company Container Plant in Moultrie, Georgia.* Prepared for: Miller Brewing Company. August 1995

USEPA. *Soil Screening Guidance: \Technical Background Document*. Office of Solid Waste and Emergency Response. EPA/540/R95/128. May 1996.

Wilson, John T., Kampbell, Donald H., Weaver, Jane W., *Environmental Chemistry and the Kinetics of Biotransformation of Chlorinated Organic Compounds in Ground Water*, Proceedings of the Symposium of Natural Attenuation of Chlorinated Organics in Ground Water, pp. 124-127, May 1997.

McLaren/Hart, Inc. *Phase II Subsurface Investigation. Reynolds Metals Company, Moultrie Can Plant, Moultrie, Georgia 31768.* Prepared for: Ball Corporation. May 21, 1998.

CH2M Hill. *Compliance Status Report. Former Miller Brewing Company Can Plant, Moultrie, Georgia.* Prepared for: Miller Brewing Company. September 1998.

USEPA. *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water*. Office of Research and Development. EPA/600/R-98/128. September 1998.

O'Brien & Gere Engineers, Inc., *Corrective Action Plan, Former Miller Brewing Company Can Plant, Moultrie, Georgia*, January 2004.

Table 1
Summary of VOCs Detected in Soil
Former Miller Brewing Company Can Plant
Moultrie, Georgia

					Corresponding Borings			Corresponding Borings												
		HSRA Notification Concentration	CH2SB-1	CH2SB-2	CH2SB-3	OBGSB-2	CH2SB-4	CH2SB-5	OBGSB-1	OBGSB-6		OBGSB-7		OBGSB-8		OBGSB-9			OBGSB-10	CH2MW-4D
			3-5'	0.5-2'	3-5'	3-5'	3-5'	6-8'	6-8'	2'-4'	5'-7'	6'-8'	6'-8' (DUP)	1'	5'	1'	7.0'	7.0' (DUP)	2.5'	4-6'
Parameters	Units	(1)	8/6/1998	8/6/1998	8/6/1998	8/17/2000	8/6/1998	8/6/1998	8/21/2000	8/17/2000	8/17/2000	8/17/2000	8/17/2000	4/21/2004	4/21/2004	5/21/2004	4/21/2004	4/21/2004	4/21/2004	8/4/1998
VOCs																				
Acetone	mg/Kg	2.74	**0.730**	< 0.005	**0.042**	< 0.010	**0.016**	**0.051**	< 0.009	< 0.009	< 0.009	< 0.012	< 0.015	< 0.0086	< 0.0095	< 0.011	< 0.011	< 0.0091	< 0.0098	< 0.010
2-Butanone (MEK)	mg/Kg	0.79	**0.180**	< 0.010	< 0.010	-	< 0.010	< 0.010	< 0.009	< 0.009	< 0.009	< 0.012	< 0.015	< 0.0086	< 0.0095	< 0.011	< 0.011	< 0.0091	< 0.0098	< 0.005
Chloroethane	mg/Kg	0.17	**0.032**	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.009	< 0.009	< 0.009	< 0.012	< 0.015	< 0.0043	< 0.0047	< 0.0054	< 0.0057	< 0.0046	< 0.0049	< 0.005
Dibromomethane	mg/Kg	[1000]	-	-	-	-	-	-	< 0.009	< 0.009	< 0.009	< 0.012	< 0.015	< 0.0021	< 0.0024	< 0.0027	< 0.0028	< 0.0023	< 0.0025	-
1,1-Dichloroethane	mg/Kg	0.03	**0.075**	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.009	< 0.009	< 0.009	< 0.012	< 0.015	< 0.0021	< 0.0024	< 0.0027	< 0.0028	< 0.0023	< 0.0025	< 0.005
cis-1,2-Dichloroethene	mg/Kg	0.53 (2)	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	-	-	-	-	< 0.0021	< 0.0024	< 0.0027	< 0.0028	< 0.0023	**0.0047**	< 0.005
1,2-Dichloroethene (Total)	mg/Kg	0.53 (2)	**-**	-	-	-	-	-	< 0.009	< 0.009	< 0.009	< 0.012	< 0.015	-	-	-	-	-	-	-
Ethylbenzene	mg/Kg	20	**0.006**	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.009	< 0.009	< 0.009	< 0.012	< 0.015	< 0.0021	< 0.0024	< 0.0027	< 0.0028	< 0.0023	< 0.0025	< 0.005
Isobutyl Alcohol	mg/Kg	0.07	-	-	-	-	-	-	-	-	-	-	-	< 0.086	< 0.095	< 0.11	< 0.11	< 0.091	< 0.098	-
Methlyene Chloride	mg/Kg	0.08	< 0.005	< 0.005	< 0.005	-	**0.01**	< 0.005	< 0.009	**0.014**	**0.011**	**0.019**	**0.021**	< 0.0043	< 0.0047	< 0.0054	< 0.0057	< 0.0046	< 0.0049	< 0.005
Tetrachloroethene (PCE)	mg/Kg	0.18	**0.330**	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.009	< 0.009	< 0.009	< 0.012	< 0.015	< 0.0021	< 0.0024	< 0.0027	< 0.0028	< 0.0023	< 0.0025	< 0.005
Toluene	mg/Kg	14.4	**0.016**	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.009	< 0.009	< 0.009	< 0.012	< 0.015	< 0.0021	< 0.0024	< 0.0027	< 0.0028	< 0.0023	< 0.0025	< 0.005
1,1,1-Trichloroethane	mg/Kg	5.44	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.009	< 0.009	< 0.009	< 0.012	< 0.015	< 0.0021	< 0.0024	< 0.0027	< 0.0028	< 0.0023	< 0.0025	< 0.005
Trichloroethene (TCE)	mg/Kg	0.13	< 0.005	**0.016**	< 0.005	-	< 0.005	< 0.005	< 0.009	< 0.009	< 0.009	< 0.012	< 0.015	< 0.0021	< 0.0024	< 0.0027	< 0.0028	< 0.0023	**0.0037**	< 0.005
Vinyl Acetate	mg/Kg	0.51	-	-	-	-	-	-	-	-	-	-	-	< 0.0043	< 0.0047	< 0.0054	< 0.0057	< 0.0046	< 0.0049	-
M,P-Xylenes	mg/Kg	20	**0.022**	< 0.010	< 0.010	-	< 0.010	< 0.010	-	-	-	-	-	-	-	-	-	-	-	< 0.010
O-Xylenes	mg/Kg	20	**0.008**	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-	-	-	-	-	-	-	-	-	-	< 0.005
Xylenes (total)	mg/Kg	20	**-**	**-**	**-**	-	**-**	**-**	< 0.009	< 0.009	< 0.009	< 0.012	< 0.015	< 0.0021	< 0.0024	< 0.0027	< 0.0028	< 0.0023	< 0.0025	-
Butyl Cellusolve	mg/Kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
Petroleum Hydrocarbons	mg/Kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
Oil & Grease	mg/Kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-

Notes:

(1) Appendix I of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Notification Concentration for Dichloroethene (N.O.S.) used

mg/Kg Milligrams per kilogram

- Not Analyzed

[ ] - Default value based on federal reportable quantities.

* Copies of laboratory data sheets not found for samples TW-3-S and TW-11-S

ND Laboratory data sheets not found for these samples; these compounds reported as non-detections on Table 5 of the Field Investigation Report (CH2M Hill 1993)

BOLD Detected concentration

Concentration exceeds HSRA notification concentration

Detection limit exceeds HSRA notification concentration

Sampling Events and Analytical Methods

October 1993, as reported in the Field Investigation Report (CH2M Hill, 1993)
- EPA Method 8240 (VOCs), EPA Method 418.1 (TPH), and EPA Method 413 (Oil & Grease)

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp., 1994)
- EPA Method 8240 (VOCs) and EPA Method 9071 (Oil & Grease)

November 1994, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May 1998, as reported in the Phase II Subsurface Investigation (McLaren/Hart, 1998)
- EPA Method 8260 (VOCs) and EPA Method 1664 (Oil & Grease)

August 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs)

August 2000, CSR investigation - EPA Method 8260 (VOCs)

April 2004, CSR investigation - EPA Method 8260 (VOCs)

Data Qualifiers:

B Compound Detected in Method Blank or Trip Blank

J Estimated Value

E Concentration exceeds upper level of the instrument calibration range for the analysis

< Less than detection limit listed

Table 1
Summary of VOCs Detected in Soil
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	HSRA Notification Concentration (1)	ETCMW-113		ETCMW-114			ETCMW-115		Corresponding Borings			Corresponding Borings			
			ETCSB-113A	ETCSB-113B	ETCSB-114A		ETCSB-114B	ETCSB-115A	ETCSB-115B	Trench 1	OBGSB-5		Trench 2		ETMW-116	
			3.3-3.8'	6-6.5'	2-4'	2-4'(DUP)	6-7'	1.5-2'	5-5.5'	6'	6'		6'		1-3'	3-5'
			1/17/1994	1/17/1994	1/17/1994	1/18/1994	1/18/1994	1/18/1994	1/18/1994	10/31/1994	8/21/2000	8/21/00 DUP	11/1/1994	11/1/94(DUP)	11/1/1994	11/1/1994
VOCs																
Acetone	mg/Kg	2.74	**0.130**	**0.120**	< 0.110	< 0.120	**0.570**	< 0.110	< 0.120	**0.053**	**0.035**	**0.018**	< 0.011	**0.068**	< 0.011	< 0.012
2-Butanone (MEK)	mg/Kg	0.79	**0.510**	< 0.120	< 0.110	< 0.120	**0.650**	< 0.110	< 0.120	< 0.011	-	-	< 0.011	< 0.011	< 0.011	< 0.012
Chloroethane	mg/Kg	0.17	< 0.011	< 0.012	< 0.011	< 0.012	< 0.012	< 0.011	< 0.012	< 0.006	-	-	< 0.006	< 0.006	< 0.006	< 0.006
Dibromomethane	mg/Kg	[1000]	**0.010**	< 0.058	<0.057	< 0.058	< 0.0061	< 0.0053	< 0.0062	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/Kg	0.03	< 0.0053	< 0.0058	<0.0057	< 0.0058	<0.0061	< 0.0053	< 0.0062	< 0.006	-	-	< 0.006	< 0.006	< 0.006	< 0.006
cis-1,2-Dichloroethene	mg/Kg	0.53 (2)	-	-	-	-	-	-	-	< 0.006			< 0.006	< 0.006	< 0.006	< 0.006
1,2-Dichloroethene (Total)	mg/Kg	0.53 (2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/Kg	20	< 0.0053	< 0.058	<0.057	< 0.058	< 0.0061	< 0.0053	< 0.0062	< 0.006	-	-	< 0.006	< 0.006	< 0.006	< 0.006
Isobutyl Alcohol	mg/Kg	0.07	**0.600**	< 0.120	< 0.110	< 0.120	< 0.120	< 0.110	< 0.120	-	-	-	-	-	-	-
Methlyene Chloride	mg/Kg	0.08	**0.011 B**	**0.017 B**	**0.016 B**	**0.019 B**	**0.010 B**	**0.014 B**	**0.022 B**	< 0.006	-	-	< 0.006	< 0.006	< 0.006	< 0.006
Tetrachloroethene (PCE)	mg/Kg	0.18	< 0.0053	< 0.0058	<0.0057	< 0.0058	< 0.0061	< 0.0053	< 0.0062	< 0.006	-	-	< 0.006	< 0.006	< 0.006	< 0.006
Toluene	mg/Kg	14.4	< 0.0053	< 0.0058	<0.057	< 0.058	< 0.0061	< 0.0053	< 0.0062	< 0.006	-	-	< 0.006	< 0.006	< 0.006	< 0.006
1,1,1-Trichloroethane	mg/Kg	5.44	< 0.0053	< 0.0058	<0.057	< 0.058	< 0.0061	< 0.0053	< 0.0062	< 0.006	-	-	< 0.006	< 0.006	< 0.006	< 0.006
Trichloroethene (TCE)	mg/Kg	0.13	**0.023**	< 0.0058	<0.0057	< 0.0058	< 0.0061	< 0.0053	< 0.0062	< 0.006	-	-	< 0.006	< 0.006	< 0.006	< 0.006
Vinyl Acetate	mg/Kg	0.51	**0.750**	< 0.120	< 0.110	< 0.120	**0.810**	< 0.110	< 0.120	< 0.011	-	-	< 0.011	< 0.011	< 0.011	< 0.012
M,P-Xylenes	mg/Kg	20	< 0.0053	< 0.058	<0.057	< 0.058	< 0.0061	< 0.0053	< 0.0062	-	-	-	-	-	-	-
O-Xylenes	mg/Kg	20	< 0.0053	< 0.058	<0.057	< 0.058	< 0.0061	< 0.0053	< 0.0062	-	-	-	-	-	-	-
Xylenes (total)	mg/Kg	20	-	-	-	-	-	-	-	< 0.006	-	-	< 0.006	< 0.006	< 0.006	< 0.006
Butyl Cellusolve	mg/Kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons	mg/Kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil & Grease	mg/Kg		-	-	-	-	-	-	-	-	-	-	-	-	-	

Table 1
Summary of VOCs Detected in Soil
Former Miller Brewing Company Can Plant
Moultrie, Georgia

		HSRA	Corresponding Borings				Corresponding Borings															
		Notification	ETMW-117		OBGSB-3		ETMW-118			OBGSB-4	ETMW-119		ETMW-120		ETMW-121		MHSB-01	MHSB-02	MHSB-03		MHSB-04
		Concentration	1-3'	5-7'	1-3'	5-7'	1-3'	5-7'		5-7'	0-2'	2-4'	4-6'	6-8'	0-2'	10-12'	0-2'	5-7'	6-8'	10-12'	0-2'
Parameters	Units	(1)	11/1/1994	11/1/1994	8/17/2000	8/17/2000	11/2/1994	11/2/1994	11/2/94 DUP	8/17/2000	11/2/1994	11/2/1994	11/2/1994	11/2/1994	11/2/1994	11/2/1994	5/4/1998	5/4/1998	5/4/1998	5/4/1998	5/4/1998
VOCs																					
Acetone	mg/Kg	2.74	**0.014**	**0.017**	< 0.010	< 0.011	< 0.011	< 0.012	**0.019**	< 0.012	< 0.011	< 0.011	< 0.011	**0.016**	< 0.011	< 0.011	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Butanone (MEK)	mg/Kg	0.79	< 0.012	< 0.012	-	-	< 0.011	< 0.012	< 0.012	-	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chloroethane	mg/Kg	0.17	< 0.012	< 0.012	-	-	< 0.011	< 0.012	< 0.006	-	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibromomethane	mg/Kg	[1000]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1-Dichloroethane	mg/Kg	0.03	< 0.006	< 0.006	-	-	< 0.006	< 0.006	< 0.006	-	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
cis-1,2-Dichloroethene	mg/Kg	0.53 (2)	< 0.006	< 0.006	-	-	< 0.006	< 0.006	< 0.006	-	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dichloroethene (Total)	mg/Kg	0.53 (2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/Kg	20	< 0.006	< 0.006	-	-	< 0.006	< 0.006	< 0.006	-	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Isobutyl Alcohol	mg/Kg	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methlyene Chloride	mg/Kg	0.08	< 0.006	< 0.006	-	-	< 0.006	< 0.006	< 0.006	-	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Tetrachloroethene (PCE)	mg/Kg	0.18	< 0.006	< 0.006	-	-	< 0.006	< 0.006	< 0.006	-	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Toluene	mg/Kg	14.4	< 0.006	< 0.006	-	-	< 0.006	< 0.006	< 0.006	-	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1,1-Trichloroethane	mg/Kg	5.44	< 0.006	< 0.006	-	-	< 0.006	< 0.006	< 0.006	-	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Trichloroethene (TCE)	mg/Kg	0.13	< 0.006	< 0.006	-	-	< 0.006	< 0.006	< 0.006	-	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vinyl Acetate	mg/Kg	0.51	< 0.012	< 0.012	-	-	< 0.011	< 0.012	< 0.012	-	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	-	-	-	-	-
M,P-Xylenes	mg/Kg	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O-Xylenes	mg/Kg	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/Kg	20	< 0.006	< 0.006			< 0.006	< 0.006	< 0.006	-	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Butyl Cellusolve	mg/Kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons	mg/Kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil & Grease	mg/Kg		-	-	-	-	-	-		-	-	-	-	-	-	-	<50	<50	<50	<50	<50

Table 1
Summary of VOCs Detected in Soil
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	HSRA Notification Concentration (1)	MHSB-05 0-2' 5/4/1998	MHSB-06 0-1' 5/4/1998	B1 10/4/1993	TW-1-S 6-8' 10/4/1993	TW-2-S 2-4' 10/4/1993	TW-3-S* 4-6' 10/4/1993	TW-4-S 4-6' 10/4/1993	TW-5-S 4-6' 10/4/1993	TW-6-S 8-10' 10/4/1993	TW-8-S 8-10' 10/4/1993	TW-9-S 8-12' 10/4/1993	TW-10-S 6-8' 10/4/1993	TW-11-S* 10-11' 10/4/1993	TW-12-S 2-4' 10/4/1993
VOCs																
Acetone	mg/Kg	2.74	< 0.1	< 0.1		**0.020JB**	< 0.023	**0.021J**	< 0.023	< 0.024	**0.027**	**0.023JB**	< 0.022	**0.430**	< 0.023	< 0.023
2-Butanone (MEK)	mg/Kg	0.79	< 0.1	< 0.1	**NOT**	< 0.022	< 0.023	ND	ND	< 0.024	< 0.023	< 0.024	< 0.022	< 0.023	ND	< 0.023
Chloroethane	mg/Kg	0.17	< 0.01	< 0.01		< 0.006	< 0.006	ND	ND	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	ND	< 0.006
Dibromomethane	mg/Kg	[1000]	< 0.005	< 0.005		-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/Kg	0.03	< 0.005	< 0.005	**ANALYZED**	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	**0.017**	< 0.006	< 0.006
cis-1,2-Dichloroethene	mg/Kg	0.53 (2)	< 0.005	< 0.005		-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (Total)	mg/Kg	0.53 (2)	-	-		< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	**0.022**	< 0.006	< 0.006
Ethylbenzene	mg/Kg	20	< 0.005	< 0.005		< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	**0.008**	< 0.006	< 0.006
Isobutyl Alcohol	mg/Kg	0.07	-	-		-	-	-	-	-	-	-	-	-	-	-
Methlyene Chloride	mg/Kg	0.08	< 0.005	< 0.005		**0.004JB**	**0.009**	**0.006**	< 0.006	**0.009**	**0.005J**	**0.005JB**	**0.008**	**0.009**	< 0.006	< 0.006
Tetrachloroethene (PCE)	mg/Kg	0.18	< 0.005	< 0.005		< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	**0.055**	< 0.006	< 0.006
Toluene	mg/Kg	14.4	< 0.005	< 0.005		< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	**0.016**	< 0.006	< 0.006
1,1,1-Trichloroethane	mg/Kg	5.44	< 0.005	< 0.005		< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	**0.029**	< 0.006	< 0.006
Trichloroethene (TCE)	mg/Kg	0.13	< 0.005	< 0.005		< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	**0.020**	< 0.006	< 0.006
Vinyl Acetate	mg/Kg	0.51	-	-		-	-	-	-	-	-	-	-	-	-	-
M,P-Xylenes	mg/Kg	20	-	-		-	-	-	-	-	-	-	-	-	-	-
O-Xylenes	mg/Kg	20	-	-		-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/Kg	20	< 0.01	< 0.01		< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	**0.048**	< 0.006	< 0.006
Butyl Cellusolve	mg/Kg		-	-	-	-	-	-	-	-	-	-	-	**2.2**	-	-
Petroleum Hydrocarbons	mg/Kg		-	-	-	**23**	< 21	**32**	**20**	< 26	**31**	**23**	**23**	**88**	**34**	**22**
Oil & Grease	mg/Kg		<50	<50	-	-	**69**	**110**	**48**	**62**	**86**	**54**	**79**	**200**	**76**	-

Table 2
Summary of Metals Detected in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	HSRA Notification Concentration (1)	MHSB-01 0-2' 5/4/1998	MHSB-02 5-7' 5/4/1998	MHSB-03 6-8' 5/4/1998	MHSB-03 10-12' 5/4/1998	MHSB-04 0-2' 5/4/1998	MHSB-05 0-2' 5/4/1998	MHSB-06 0-1' 5/4/1998
Metals									
Arsenic	mg/Kg	41	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	**7.1**	< 2.5
Barium	mg/Kg	500	**5.2**	**8.1**	**5.5**	**11**	**11**	< 25	**5.1**
Cadmium	mg/Kg	39	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0
Chromium	mg/Kg	1200	< 5.0	< 5.0	< 5.0	**8.4**	**8.4**	**160**	**9.4**
Lead	mg/Kg	400	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 5.0
Mercury	mg/Kg	17	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Selenium	mg/Kg	36	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Silver	mg/Kg	10/BG	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 13	< 2.5

Notes:

(1) Appendix I of Georgia EPD Rule 391-3-19 Hazardous Site Response

mg/Kg Milligrams per kilogram

< - Less than detection limit listed

BOLD Detected concentration

/BG HSRA Notification Concentration shall be the number before the slash unless background concentrations are greater.

Sampling Event and Analytical Methods

May 1998, as reported in the Phase II Subsurface Investigation (McLaren/Hart, 1998)

- EPA Methods 6010/7000 (RCRA Metals)

Table 3
Summary of Analytical Detections in Sediment
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	HSRA Notification Concentration	SD-1 10/6/1993	SD-2 10/4/1993	SD-3 10/4/1993	SD-4 10/4/1993	B2-SD 5-7' 10/4/1993	MH-SD-01 5/4/1998	MH-SD-02 5/4/1998	SS101A 0-0.5' 1/17/1994	SS101DUP 0.0.5' 1/17/1994	SS101B 0.5-1' 1/17/1994	SS102A 0-0.5' 1/17/1994	SS102B 0.5-1' 1/17/1994	SS103A 0-0.5' 1/17/1994	SS103B 0.5-1' 1/17/1994	SS104A 0-0.5' 1/17/1994	SS104B 0.5-1' 1/17/1994
VOCs																		
M,P, Xylenes	mg/Kg	20	< 0.007	< 0.006	< 0.005	< 0.005	< 0.006	< 0.01		< 0.0068	< 0.0073	< 0.0058	< 0.0067	< 0.0066	**0.012**	**0.0085**	< 0.0066	< 0.0065
Methlyene Chloride	mg/Kg	0.08	**0.007J**	**0.006JB**	< 0.005	**0.004JB**	**0.010**	< 0.005		**0.035B**	**0.034B**	**0.0093B**	**0.014B**	**0.016B**	**0.014B**	**0.0082B**	**0.013B**	**0.016B**
Tetrachloroethene (PCE)	mg/Kg	0.18	< 0.007	**0.008**	**0.01**	**0.007**	< 0.006	< 0.005		< 0.0068	< 0.0073	< 0.0058	< 0.0067	< 0.0066	< 0.0065	< 0.0063	< 0.0066	< 0.0065
1,1,1-Trichloroethane	mg/Kg	0.13	< 0.0007	**.004J**	**.005J**	**.002J**	< 0.006	< 0.005		< 0.0068	< 0.0073	< 0.0058	< 0.0067	< 0.0066	< 0.0065	< 0.0063	< 0.0066	< 0.0065
Oil & Grease	mg/Kg		**85**	**750**	**1600**	**110**	**63**	-		**0.0198**	**0.0206**	**0.0258**	**0.0214**	**0.0326**	**0.0205**	**0.0034**	**0.0189**	**0.0457**
Petroleum Hydrocarbons	mg/Kg		**36**	**350**	**1000**	**41**	**< 23**	-		-	-	-	-	-	-	-	-	-
Metals																		
Aluminum	mg/Kg	NA	**4620**	**8100**	**5330**	**1330**	NA	-		-	-	-	-	-	-	-	-	-
Arsenic	mg/Kg	41	**1.02**	**0.942**	**1.29**	< 0.214	**3.91**	-	Not Analyzed	-	-	-	-	-	-	-	-	-
Beryllium	mg/Kg	3	< 0.341	< 0.314	**0.322**	< 0.268	< 0.287	-		-	-	-	-	-	-	-	-	-
Cadmium	mg/Kg	39	**0.682**	< 0.314	< 0.268	< 0.268	< 0.287	-		-	-	-	-	-	-	-	-	-
Chromium	mg/Kg	1200	**7.43**	**10.4**	**16.3**	**3.91**	**6.38**	-		-	-	-	-	-	-	-	-	-
Copper	mg/Kg	1500	**4.02**	**14.5**	**15.0**	< 1.34	< 1.44	-		-	-	-	-	-	-	-	-	-
Lead	mg/Kg	400	**12.3**	**16.4**	**48.1**	< 2.68	**5.11**	-		-	-	-	-	-	-	-	-	-
Nickel	mg/Kg	420	**1.98**	**2.95**	**2.36**	< 1.34	< 1.44	-		-	-	-	-	-	-	-	-	-
Selenium	mg/Kg	36	< 0.273	**0.377**	< 0.215	< 0.214	< 0.230	-		-	-	-	-	-	-	-	-	-
Zinc	mg/Kg	2800	**132**	**463**	**77.8**	**5.83**	< 1.15	-		-	-	-	-	-	-	-	-	-

Notes:

(1) GA Hazardous Site Response Act (HSRA) Appendix 1

Data originally reported in units of micrograms per liter (µg/L)

mg/L Milligram per liter

NA Not Available

- Not analyzed

BOLD Detected concentration

Sampling Events and Analytical Methods:

October 1993, as reported in Field Investigation Report (CH2M Hill, 1993)

- EPA Method 624 (VOCs) and EPA Method 7000 series (metals)

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)

- EPA Method 8240 (VOCs)

May 1998, as reported in Phase II Subsurface Investigation (McLaren/Hart, 1998)

- EPA Method 8260 (VOCs)

Data Qualifiers

B - Compound detected in method blank or trip blank

J - Estimated value

Table 3
Summary of Analytical Detections in Sediment
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	HSRA Notification Concentration	SS105A 0-0.5' 1/17/1994	SS105B 0.5-1' 1/17/1994	SS106A 0-0.5' 1/17/1994	SS106B 0.5-1' 1/17/1994	SS107A 0-0.5' 1/17/1994	SS107B 0.5-1' 1/17/1994	SS108A 0-0.5' 1/17/1994	SS108B 0.5-1' 1/17/1994	SS108BDUP 0.5-1' 1/17/1994	SS109A 0-0.5' 1/17/1994	SS109B 0.5-1' 1/17/1994	SS110A 0-0.5' 1/17/1994	SS110B 0.5-1' 1/17/1994
VOCs															
M,P, Xylenes	mg/Kg	20	< 0.0066	< 0.0066	< 0.0071	< 0.0073	< 0.0067	< 0.0067	< 0.0096	< 0.0065	< 0.0065	< 0.0078	< 0.0063	< 0.011	< 0.0064
Methlyene Chloride	mg/Kg	0.08	**0.016B**	**0.020B**	**0.017B**	**0.017B**	**0.035B**	**0.044B**	**0.052B**	**0.026B**	**0.030B**	**0.040B**	**0.052B**	**0.100B**	**0.032B**
Tetrachloroethene (PCE)	mg/Kg	0.18	< 0.0066	< 0.0066	< 0.0071	< 0.0073	< 0.0067	< 0.0067	< 0.0096	< 0.0065	< 0.0065	< 0.0078	< 0.0063	< 0.011	< 0.0064
1,1,1-Trichloroethane	mg/Kg	0.13	< 0.0066	< 0.0066	< 0.0071	< 0.0073	< 0.0067	< 0.0067	< 0.0096	< 0.0065	< 0.0065	< 0.0078	< 0.0063	< 0.011	< 0.0064
Oil & Grease	mg/Kg		**0.0102**	**0.0094**	**0.0050**	**0.0051**	**0.0407**	**0.0602**	**0.0581**	**0.0047**	-	**0.0379**	**0.0666**	**0.0866**	**0.0378**
Petroleum Hydrocarbons	mg/Kg		-	-	-	-	-	-	-	-	-	-	-	-	-
Metals															
Aluminum	mg/Kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/Kg	41	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/Kg	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/Kg	39	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/Kg	1200	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/Kg	1500	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/Kg	400	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/Kg	420	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/Kg	36	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/Kg	2800	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4
Historical Summary of VOCs Detected in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

					Downgradient						Upgradient												
Parameters	**CAS No.**	**Units**	**Type 1/Type 3 RRS (1)**	**Type 4 RRS (5)**	**CH2MW-1**			**CH2MW-1A**			**CH2MW-2**						**CH2MW-3**						
					5/29/1998	**4/29/2002**	**4/7/2004**	**6/4/1998**	**4/29/2002**	**4/7/2004**	**5/29/1998**	**6/4/1998**	**8/23/2000**	**11/9/2000**	**1/24/2001**	**4/6/2004**	**5/29/1998**	**6/4/1998**	**8/23/2000**	**11/9/2000**	**11/9/2000 DUP**	**1/24/2001**	**4/6/2004**
Acetone	67-64-1	mg/L	4		-		< 0.01	-		< 0.01	-	-	**0.003**	< 0.003	< 0.003	< 0.01	-	-	< 0.003	< 0.003	**0.003**	**0.003**	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	< 0.003	< 0.01	-	< 0.003	< 0.01	-	-	< 0.003	< 0.003	< 0.003	< 0.01	-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01
Benzene	71-43-2	mg/L	0.005		-		< 0.0005	-		< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	-	< 0.0005	-	-	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	**0.0007**	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 (2)	1.23	-	-	< 0.001	-	-	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Chloromethane	74-87-3	mg/L	0.001 (2)		-	-	< 0.001	-	-	< 0.001	-	-	<0.0005	<0.0005	<0.0005	< 0.001	-	-	<0.0005	<0.0005	< 0.0005	<0.0005	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.001	-	-	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	**0.0006**	**0.0005**	< 0.0005	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 (2)		-	-	< 0.0005	-	-	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.001	-	**0.0015**	< 0.001	-	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1-,2-DCA)	107-06-2	mg/L	0.005		-	-	< 0.0005	-	-	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.00284**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07(3)	1.02	**0.00107**	**0.003**	**0.0013**	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	-	-	-	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	-	-	-	-	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 (4)	0.92	-	**0.003**	-	-	< 0.0005	-	-	-	<0.0005	<0.0005	<0.0005	-	-	-	<0.0005	<0.0005	< 0.0005	<0.0005	-
Ethylbenzene	100-41-4	mg/L	0.7		-	-	< 0.0005	-	-	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	< 0.050	-	-	< 0.050	-	-	-	-	-	< 0.050	-	-	-	-	-	-	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	-	< 0.002	-	-	< 0.002	-	-	**0.0007**	**0.0006**	< 0.0005	< 0.002	-	-	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 (2)		-	-	< 0.005	-	-	< 0.005	-	-	< 0.003	< 0.003	< 0.003	< 0.005	-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.005
Naphthalene	91-20-3	mg/L	0.02		-	< 0.0005	< 0.001	-	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	**0.002**	**0.0009**	< 0.0005	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	-	< 0.0005	-	-	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 (9)	< 0.001	-	< 0.0005	< 0.001	-	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		-	-	< 0.0005	-	-	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 (2)	0.01	-	-	< 0.001	-	-	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	**0.001**	**0.0006**	< 0.0005	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.001	-	-	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	**0.0007**	< 0.0005	< 0.0005	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	-	< 0.0005	< 0.001	-	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005(7)	< 0.001	**0.0012**	**0.0039**	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.001	-	-	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	-	-	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 (2)		-	-	< 0.002	-	-	< 0.002	-	-	-	-	-	< 0.002	-	-	-	-	-	-	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002		< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		-	-	< 0.0005	-	-	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS of 0.00081 mg/L

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

mg/L Milligram per liter

NA Not Available

- Not Analyzed

BOLD	Detected concentration
	Concentration exceeds Type 1 RRS.
	Detection limit exceeds Type 1 RRS.
	Concentration exceeds Type 4 RRS.

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

November 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000 and January 2001, CSR investigation
- EPA Method 8260 (VOCs)

Data Qualifiers:

B	Compound Detected in Method Blank or Trip Blank
J	Estimated Value
E	Concentration exceeds upper level of the instrument calibration range for the analysis
D	Dilution analysis result
<	Less than detection limit listed

Table 4
Historical Summary of VOCs Detected in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

					Cross Gradient							In Plume											
Parameters	**CAS No.**	**Units**	**Type 1/Type 3 RRS (1)**	**Type 4 RRS (5)**	**CH2MW-4D**					**CH2MW-5**		**ETCMW-113**								**ETCMW-114**			
					8/6/1998	**8/23/2000**	**11/9/2000**	**1/25/2001**	**4/8/2004**	**8/5/1998**	**4/7/2004**	**1/21/1994**	**11/3/1994**	**3/31/1995**	**5/27/1998**	**9/7/2000**	**11/9/2000**	**1/25/2001**	**4/6/2004**	**1/21/1994**	**1/21/94 DUP**	**11/3/1994**	**11/3/94 DUP**
Acetone	67-64-1	mg/L	4		-	**0.007**	**0.003 B**	< 0.003	< 0.01	-	< 0.01	< 0.100	< 0.001	< 0.050	-	**0.007**	**0.026**	< 0.003	< 0.01	**3.300**	**2.300**	**0.060**	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.003	< 0.003	< 0.003	< 0.01	< 0.010	< 0.01	< 0.100	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.01	**2.600**	**1.500**	**0.030**	**0.020**
Benzene	71-43-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.005	< 0.005	< 0.001	-	**0.0006**	< 0.005	**0.002**	< 0.0005	**0.0075**	**0.018**	**0.011**	**0.008**
Carbon Disulfide	75-15-0	mg/L	4		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.100	< 0.005	< 0.005	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.100	< 0.100	< 0.005	< 0.005
Chloroethane	75-00-3	mg/L	0.001 (2)	1.23	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.001	< 0.010	< 0.001	< 0.001	-	**0.001**	< 0.005	**0.002**	< 0.001	**0.410**	**1.300**	**1.2**	< 0.010
Chloromethane	74-87-3	mg/L	0.001 (2)		-	<0.0005	<0.0005	<0.0005	< 0.001	-	< 0.001	< 0.005	< 0.010	< 0.001	-	<0.0005	<0.005	<0.0005	< 0.001	< 0.005	< 0.005	< 0.010	**1.100**
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.001	< 0.010	-	-	-	<0.0005	< 0.005	<.0005 (6)	< 0.001	< 0.010	< 0.010	-	-
Dibromomethane	74-95-3	mg/L	0.0005 (2)		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.005	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	**0.063**	**0.035**	**0.026**	**0.01006**	**0.056 D**	**0.024**	**0.036 D**	**0.022**	**0.690**	**1.200**	**0.710**	**0.580**
1,2-Dichloroethane (1-,2-DCA)	107-06-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.005	< 0.005	< 0.001	-	**0.0008**	< 0.005	< 0.0005	< 0.0005	**0.011**	**0.015**	< 0.005	<0.005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	**0.017**	< 0.005	**0.003**	**0.00244**	**0.027 E**	< 0.005	**0.020 D**	**0.007**	**0.019**	**0.110**	**0.570**	**0.260**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07(3)	1.02	<0.005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	-	**0.017**	**0.022**	**0.02213**	-	-	**0.100 D**	**0.066 D**	-	-	**15**	**12**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	-	-	< 0.0005	< 0.0005	-	< 0.0005	< 0.005	< 0.005	< 0.001	-	-	-	0.0005	< 0.0005	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 (4)	0.92	-	<0.0005	<0.0005	<0.0005	-	-	-	-	-	-	-	<0.0005	<0.005	**0.110 D**	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0085**	**0.020**	**0.007**	**0.005**
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	< 0.050	-	< 0.050	< 0.100	-	-	-	-	-	-	< 0.050	**0.310**	**0.330**	-	-
Methylene Chloride	75-09-2	mg/L	0.005		-	**0.0008**	< 0.0005	< 0.0005	< 0.002	-	< 0.002	< 0.005	< 0.005	< 0.001	-	**0.002**	< 0.005	**0.0006**	< 0.002	**0.0088**	**0.0052**	< 0.005	< 0.005
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 (2)		-	< 0.003	< 0.003	< 0.003	< 0.005	-	< 0.005	< 0.050	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.005	**0.077**	**0.080**	**0.018**	**0.015**
Naphthalene	91-20-3	mg/L	0.02		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.001	-	-	-	-	< 0.0005	< 0.005	<.0005 (6)	< 0.001	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	<0.001	<0.001	<0.005	< 0.005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 (9)	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	**0.028**	**0.014**	**0.0084**	**0.00649**	**0.044 D**	**0.013**	**0.035 E**	**0.016**	**0.039**	**0.120**	**0.013**	**0.012**
Toluene	108-88-3	mg/L	1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.072**	**0.150**	**0.057**	**0.049**
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 (2)	0.01	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.001	-	-	< 0.002	-	< 0.0005	< 0.005	<.0005 (6)	< 0.001	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.001	-	-	< 0.003	-	< 0.0005	< 0.005	<.0005 (6)	< 0.001	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.004	< 0.001	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.041**	**0.170**	< 0.005	< 0.005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005(7)	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	**0.290**	**0.062**	< 0.005	**0.06938**	**0.530 D**	**0.150**	**0.240 D**	**0.16 D**	**0.420**	**0.670**	**0.14**	**0.120**
Trichlorofluoromethane	75-69-4	mg/L	2		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.001	-	-	< 0.006	-	**0.0009**	< 0.005	**0.001**	< 0.001	-	-	-	-
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	<0.005	-	< 0.007	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	<0.0057	< 0.0058	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 (2)		-	-	-	-	< 0.002	-	< 0.002	< 0.100	< 0.005	< 0.008	-	-	-	-	< 0.002	**3.800**	**3.600**	< 0.005	< 0.010
Vinyl Chloride	75-01-4	mg/L	0.002		<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.009	**0.00137**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.01	< 0.01
Xylenes (total)	1330-20-7	mg/L	0.01		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.005	< 0.005	< 0.010	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.045**	**0.095**	**0.024**	**0.020**

Table 4
Historical Summary of VOCs Detected in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	In Plume															
					ETCMW-114											CH2MW-114D		ETCMW-115		
					3/31/1995	3/31/95 DUP	5/27/1998	8/23/2000	11/10/2000	1/24/2001	1/24/01 DUP	4/29/2002	4/29/02 DUP	4/7/2004	4/7/2004 DUP	6/4/1998	4/7/2004	11/3/1994	3/31/1995	4/7/2004
Acetone	67-64-1	mg/L	4		< 5	< 5	-	**1.8**	< 0.089	< 0.003	< 0.003	-	-	< 0.001	< 0.01	-	< 0.01	< 0.01	< 0.05	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 5	< 5	-	**3.9**	< 0.089	< 0.003	< 0.003	< 0.003	< 0.003	< 0.001	< 0.01	-	< 0.01	< 0.01	< 0.05	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.10	< 0.10	-	< 0.042	< 0.018	**0.003**	**0.003**	-	-	**0.0016**	**0.0017**	-	< 0.0005	< 0.005	< 0.001	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.5	< 0.5	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	-	< 0.0005	< 0.005	< 0.001	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 (2)	1.23	**0.930**	**1.200**	-	< 0.042	**0.120**	**0.061 E**	**0.062 E**	-	-	**0.0053**	**0.0053**	-	< 0.001	< 0.01	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0.001 (2)		< 0.100	< 0.100	-	<0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	-	< 0.001	< 0.010	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	-	< 0.001	-	-	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 (2)		-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	-	< 0.0005	-	-	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.400**	**0.450**	**0.09321**	**0.230**	**0.200**	**0.120 D**	**0.120 D**	-	-	**0.11 D**	**0.11 D**	**0.0018**	**0.0077**	**0.042**	**0.025**	**0.0064**
1,2-Dichloroethane (1-,2-DCA)	107-06-2	mg/L	0.005		< 0.100	< 0.100	-	< 0.042	< 0.018	**0.004**	**0.004**	-	-	**0.0029**	**0.0029**	-	< 0.0005	< 0.005	< 0.001	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.310**	**0.330**	**0.20412**	**0.260**	**0.120**	**0.120 D**	**0.110 D**	**0.390D**	**0.330D**	**0.13 D**	**0.13 D**	**0.0046**	**0.0053**	< 0.005	< 0.001	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07(3)	1.02	**11**	**12**	**4.841**	-	-	**3.400 D**	**3.300 D**	**3.800D**	**3.700D**	**2.4 D**	**2.4 D**	**0.0161**	**0.088 D**	**0.210**	**0.120**	**0.086 D**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.1	< 0.1	-	-	-	**0.004**	**0.003**	**0.009**	**0.007**	**0.0025**	**0.0025**	-	< 0.0005	< 0.005	< 0.001	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 (4)	0.92	-	-	-	< 0.042	< 0.018	**3.100 D**	**3.100 D**	**3.900D**	**3.800D**	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	-	< 0.0005	< 0.005	< 0.001	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	-	-	-	-	< 0.050	< 0.050	-	< 0.050	-	-	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.100	< 0.100	-	< 0.042	< 0.018	**0.001**	**0.003**	-	-	< 0.002	< 0.002	-	< 0.002	< 0.005	< 0.001	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 (2)		< 5	< 5	-	< 0.210	< 0.089	< 0.003	< 0.003	-	-	< 0.005	< 0.005	-	< 0.005	< 0.01	< 0.50	< 0.005
Naphthalene	91-20-3	mg/L	0.02		-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.001	< 0.001	-	< 0.001	-	-	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	<0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	-	< 0.0005	< 0.005	< 0.001	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 (9)	< 0.100	< 0.100	**0.03293**	**0.140**	**0.036**	**0.039 E**	**0.039 E**	-	-	**0.11 D**	**0.12 D**	**0.011**	**0.01**	< 0.001	< 0.001	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.100	< 0.1 00	-	< 0.042	< 0.018	**0.008**	**0.008**	-	-	< 0.0005	< 0.0005	-	< 0.0005	< 0.005	< 0.001	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 (2)	0.01	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	-	< 0.001	-	-	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	-	< 0.001	-	-	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.100	< 0.100	< 0.001	< 0.042	< 0.018	**0.002**	**0.002**	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005(7)	**0.400**	**0.440**	**0.662**	**3.100 D**	**0.740**	**0.820 D**	**0.790 D**	**4.500D**	**4.000D**	**1.6 D**	**1.7 D**	**0.105**	**0.2 D**	**0.170**	**0.120**	**0.016**
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	-	< 0.001	-	-	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	-	< 0.0005	-	-	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 (2)		< 1.000	< 1.0	-	-	-	-	-	-	-	< 0.002	< 0.002	-	< 0.002	< 0.005	< 0.010	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002		< 0.100	< 0.100	**0.01956**	< 0.042	< 0.018	**0.001**	**0.001**	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.0015**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.300	< 0.300	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	-	< 0.0005	< 0.005	<0.003	< 0.0005

Table 4
Historical Summary of VOCs Detected in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	In Plume																	
					ETMW-116								ETMW-117						ETMW-118			
					12/20/1994	3/31/1995	5/26/1998	8/23/2000	8/23/2000 DUP	11/10/2000	1/24/2001	4/8/2004	12/21/1994	3/31/1995	8/23/2000	11/10/2000	1/24/2001	4/8/2004	12/20/1994	3/31/1995	5/26/1998	4/8/2004
Acetone	67-64-1	mg/L	4		< 0.010	< 0.25	-	**0.010**	**0.011**	**0.036 B**	< 0.003	< 0.01	< 0.010	< 0.1	< 0.018	< 0.003	**0.003**	< 0.01	< 0.005	< 0.05	-	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.25	-	< 0.003	< 0.003	< 0.025	< 0.003	< 0.01	< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.01	< 0.010	< 0.05	-	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.005	< 0.002	< 0.004	**0.0008**	**0.002**	< 0.0005	< 0.005	< 0.001	-	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.025	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.005	< 0.010	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.005	-	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 (2)	1.23	< 0.010	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.001	-	< 0.001
Chloromethane	74-87-3	mg/L	0.001 (2)		< 0.010	< 0.005	-	<0.0005	< 0.0005	<0.005	<0.0005	< 0.001	< 0.010	< 0.002	<0.004	< 0.0005	< 0.0005	< 0.001	< 0.010	< 0.001	-	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	**0.0007**	< 0.0005	< 0.005	< 0.0005	< 0.001	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	-	-	-	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 (2)		-	-	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	-	-	-	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.062**	**0.045**	**0.03585**	**0.045 D**	**0.039 D**	**0.012**	**0.012**	**0.018**	**0.012**	**0.025**	**0.017**	**0.017**	**0.008**	**0.0098**	**0.014**	**0.021**	**0.01884**	**0.0033**
1,2-Dichloroethane (1-,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.005	-	**0.0007**	**0.0007**	< 0.005	< 0.0005	< 0.0005	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	-	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.008**	**0.012**	**0.01349**	**0.016**	**0.018**	< 0.005	**0.004**	**0.0055**	< 0.005	**0.005**	< 0.004	**0.003**	**0.002**	**0.0022**	< 0.005	**0.0046**	**0.00292**	**0.00061**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07(3)	1.02	**0.085**	**0.074**	**0.05735**	-	-	-	**0.026 D**	**0.039**	**0.014**	**0.037**	-	-	**0.016**	**0.02**	**0.012**	**0.023**	**0.01722**	**0.0057**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	-	-	-	-	< 0.0005	< 0.0005	< 0.005	< 0.002	-	-	< 0.0005	< 0.0005	< 0.005	< 0.001	-	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 (4)	0.92	-	-	-	<0.0005	< 0.0005	< 0.005	**0.024**	-	-	-	<0.004	< 0.0005	**0.015**	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	-	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	-	-	< 0.050	-	-	-	-	-	< 0.050	-	-	-	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.005	-	**0.001**	**0.0009**	< 0.005	< 0.0005	< 0.002	< 0.005	< 0.002	< 0.004	**0.0006**	**0.002**	< 0.002	< 0.005	< 0.001	-	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 (2)		< 0.010	< 0.25	-	< 0.003	<0.003	<0.025	< 0.003	< 0.005	< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.005	< 0.010	< 0.05	-	< 0.005
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	-	-	-	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	-	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 (9)	**0.034**	**0.022**	**0.018**	**0.024**	**0.022 D**	**0.007**	**0.005**	**0.011**	< 0.005	**0.008**	**0.005**	**0.005**	**0.002**	**0.0032**	< 0.010	**0.009**	**0.008**	**0.0019**
Toluene	108-88-3	mg/L	1		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	-	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 (2)	0.01	-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	-	-	-	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	-	-	-	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.001	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005(7)	**0.560**	**0.420**	**0.26512**	**0.420 D**	**0.350 D**	**0.130**	**0.100 D**	**0.15 D**	**0.130**	**0.210**	**0.120**	**0.070**	**0.050 D**	**0.064 D**	**0.069**	**0.110**	**0.08682**	**0.021**
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	**0.001**	**0.001**	<0.0005	< 0.0005	< 0.001	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	-	-	-	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	-	-	-	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 (2)		< 0.010	< 0.050	-	-	-	-	-	< 0.002	< 0.010	< 0.020	-	-	-	< 0.002	< 0.010	< 0.010	-	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002		< 0.010	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.010	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.015	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.005	< 0.006	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.003	-	< 0.0005

Table 4
Historical Summary of VOCs Detected in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	Cross Gradient			Cross Gradient					Upgradient							Cross Gradient			
					ETMW-119			ETMW-120					ETMW-121							OBGMW-122			
					12/20/1994	3/31/1995	4/7/2004	12/20/1994	3/31/1995	5/26/1998	5/26/98 DUP	4/7/2004	12/20/1994	3/31/1995	5/27/1998	8/23/2000	11/10/2000	1/24/2001	4/7/2004	8/23/2000	11/9/2000	1/24/2001	4/6/2004
Acetone	67-64-1	mg/L	4		< 0.005	< 0.050	< 0.01	< 0.005	< 0.05	-	-	< 0.01	< 0.005	< 0.05	-	**0.009**	**0.003 B**	< 0.003	< 0.01	**0.016**	< 0.003	< 0.003	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.05	< 0.01	< 0.010	< 0.05	-	-	< 0.01	< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.003	< 0.003	< 0.003	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	< 0.0005	< 0.005	< 0.001	-	-	< 0.0005	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	< 0.0005	< 0.005	< 0.005	-	-	< 0.0005	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 (2)	1.23	< 0.005	< 0.001	< 0.001	< 0.005	< 0.001	-	-	< 0.001	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
Chloromethane	74-87-3	mg/L	0.001 (2)		< 0.010	< 0.001	< 0.001	< 0.010	< 0.001	-	-	< 0.001	< 0.010	< 0.001	-	<0.0005	< 0.0005	<0.0005	< 0.001	<0.0005	< 0.0005	<0.0005	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.001	-	-	-	-	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	**0.0006**	< 0.0005	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 (2)		-	-	< 0.0005	-	-	-	-	< 0.0005	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	<0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1-,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	< 0.0005	< 0.005	< 0.001	-	-	< 0.0005	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.001	< 0.0005	< 0.005	< 0.001	**0.00184**	**0.00166**	< 0.0005	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07(3)	1.02	< 0.05	**0.0016**	< 0.0005	< 0.05	**0.0048**	**0.00543**	**0.00525**	**0.0011**	< 0.05	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	< 0.0005	< 0.005	< 0.001	-	-	< 0.0005	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 (4)	0.92	-	-	-	-	-	-	-	-	-	-	-	<0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	<0.0005	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	< 0.0005	< 0.005	< 0.001	-	-	< 0.0005	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	< 0.050	-	-	-	-	< 0.050	-	-	-	-	-	-	< 0.050	-	-	-	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	< 0.002	< 0.005	< 0.001	-	-	< 0.002	< 0.005	< 0.001	-	**0.0009**	< 0.0005	< 0.0005	< 0.002	**0.001**	< 0.0005	< 0.0005	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 (2)		< 0.010	< 0.05	< 0.005	< 0.010	< 0.05	-	-	< 0.005	< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.003	< 0.003	< 0.003	< 0.005
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.001	-	-	-	-	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	**0.001**	< 0.0005	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	< 0.0005	< 0.005	< 0.001	-	-	< 0.0005	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0006**	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 (9)	< 0.010	< 0.001	< 0.0005	< 0.010	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.010	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	< 0.0005	< 0.005	< 0.001	-	-	< 0.0005	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 (2)	0.01	-	-	< 0.001	-	-	-	-	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	**0.002**	< 0.0005	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.001	-	-	-	-	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	**0.0009**	< 0.0005	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.001	< 0.0005	< 0.005	**0.0018**	< 0.001	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005(7)	<0.005	**0.0034**	< 0.0005	<0.005	**0.0017**	**0.00138**	**0.00128**	< 0.0005	< 0.005	< 0.001	< 0.001	**0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.001	-	-	-	-	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	-	-	-	-	< 0.0005	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0006**	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 (2)		< 0.010	< 0.010	< 0.002	< 0.010	< 0.010	-	-	< 0.002	< 0.010	< 0.010	-	-	-	-	< 0.002	-	-	-	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002		< 0.010	< 0.001	< 0.001	< 0.010	< 0.010	< 0.001	< 0.001	< 0.001	< 0.010	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	< 0.0005	< 0.005	< 0.003	-	-	< 0.0005	< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Table 4
Historical Summary of VOCs Detected in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	Cross Gradient							Downgradient		Upgradient		In Plume	
					OBGMW-123 (formerly MW-123A)						OBGMW-124	CH2PP-1		CH2PP-2	CH2PP-3(8)	Sump 1	Sump 2
					9/8/2000	11/9/2000	1/24/2001	4/29/2002	4/6/2004	4/6/2004 DUP	4/21/2004	6/30/1998	4/7/2004	5/29/1998	(not sampled)	11/3/1994	11/3/1994
Acetone	67-64-1	mg/L	4		< 0.003	< 0.003	< 0.003	-	< 0.01	< 0.01	< 0.01	-	< 0.01	-	-	**0.790**	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	-	< 0.01	-	-	**0.420**	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	-	-	< 0.005	< 0.005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	**0.003**	< 0.0005	-	< 0.0005	< 0.0005	**0.00063**	-	< 0.0005	-	-	< 0.005	< 0.005
Chloroethane	75-00-3	mg/L	0.001 (2)	1.23	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	-	< 0.001	-	-	< 0.010	< 0.010
Chloromethane	74-87-3	mg/L	0.001 (2)		<0.0005	<0.0005	<0.0005	-	< 0.001	< 0.001	< 0.001	-	< 0.001	-	-	**1.3**	< 0.010
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	<0.0005	<0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	-	< 0.001	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 (2)		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.005	**0.00057**	<0.001	-	**0.240**	< 0.005
1,2-Dichloroethane (1-,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	-	-	< 0.005	< 0.005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	-	**0.046**	< 0.005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07(3)	1.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.013**	< 0.0005	< 0.001	-	**1.5**	< 0.005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	-	-	< 0.005	< 0.005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 (4)	0.92	<0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	-	-	< 0.005	< 0.005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	< 0.050	< 0.050	< 0.050	-	< 0.050	-	-	-	-
Methylene Chloride	75-09-2	mg/L	0.005		**0.001**	< 0.0005	< 0.0005	-	< 0.002	< 0.002	< 0.002	-	< 0.002	-	-	< 0.005	< 0.005
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 (2)		< 0.003	< 0.003	< 0.003	-	< 0.005	< 0.005	< 0.005	-	< 0.005	-	-	< 0.010	< 0.010
Naphthalene	91-20-3	mg/L	0.02		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	-	< 0.001	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	-	-	< 0.005	< 0.005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 (9)	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	-	**0.077**	< 0.005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	-	-	**0.018**	< 0.005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 (2)	0.01	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	-	< 0.001	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	-	< 0.001	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	-	**0.140**	< 0.005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005(7)	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.001	-	**0.250**	**0.016**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	-	< 0.001	-	-	-	-
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 (2)		-	-	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	-	-	< 0.010	< 0.010
Vinyl Chloride	75-01-4	mg/L	0.002		< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	-	< 0.010	< 0.010
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	-	-	< 0.005	< 0.005

Table 5
Summary of Ground Water Analytical and Field Data
Field Investigation Report, October 1993
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	GA-TW-1-GW	GA-TW-2-GW	GA-TW-3-GW	GA-TW-4-GW	GA-TW-5-GW	GA-TW-6-GW	GA-TW-13-GW (dup of TW6)	GA-TW-7-GW	GA-TW-8-GW	GA-TW-9-GW[1]	GA-TW-10-GA	GA-TW-11-GA[2]	GA-TW-12-GA
VOC Method 624														
Chloroethane	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	**2.900**	-	<0.005
Methylene Chloride	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**.004 JB**	-	<0.005	<0.005	**0.019 B**	-	<0.005
Acetone	mg/L	<0.020	**0.040**	**0.023**	<0.020	<0.020	<0.020	<0.020	-	<0.020	**0.023 B**	**14.000**	-	<0.020
1,1-Dichloroethene	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	**0.600**	-	<0.005
1,1-Dichloroethane	mg/L	<0.005	<0.005	<0.005	**0.002 J**	<0.005	<0.005	<0.005	-	<0.005	<0.005	**14.000**	-	<0.005
1,2-Dichloroethene (total)	mg/L	<0.005	<0.005	<0.005	**0.003 J**	<0.005	<0.005	<0.005	-	<0.005	**0.003 J**	**14.000**	-	<0.005
1,2-Dichloroethane	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	**0.045**	-	<0.005
1,1,1-Trichloroethane	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	**4.300**	-	<0.005
Dibromochloromethane	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	-	<0.005
Bromoform	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	-	<0.005
Trichloroethene	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	**12.000**	-	<0.005
Benzene	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	**0.088**	-	<0.005
4-Methyl-2-pentanone	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	-	<0.020	<0.020	**0.160**	-	<0.020
2-Hexanone	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	-	<0.020	<0.020	**0.250**	-	<0.020
Tetrachloroethene	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	**2.100**	-	<0.005
1,1,2,2-Tetrachloroethane	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	**0.037**	-	<0.005
Toluene	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	**1.300**	-	<0.005
Ethylbenzene	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	**0.130**	-	<0.005
Total Xylenes	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	**0.630**	-	<0.005
Total Petroleum Hydrocarbons	mg/L	< 0.6	< 2.1	**1.2**	< 0.61	NR	< 0.66	< 0.67	-	< 0.57	NR	**1.2**	-	< 0.63
Oil & Grease	mg/L	< 5.0	NR	< 5.0	< 5.0	NR	< 5.0	< 5.0	-	< 5.0	-	**8.5**	-	< 5.0
Fluoride	mg/L	-	-	-	-	-	**0.28**	**0.25**	**1.15**	-	-	-	-	**0.72**
Butyl Cellusolve	mg/L	-	-	-	-	-	-	-	-	-	-	**1.7**	-	-
Temperature	C	**24.2**	**24.9**	**23.7**	**27.6**	**24.3**	**27.1**	-	**26.3**	**25.2**	-	**25**	-	**25.4**
Conductivity	umhos/cm	**210**	**130**	**210**	**230**	**210**	**510**	-	**318**	**840**	-	**700**	-	**395**
pH	S.U.	**4.2**	**6.0**	**5.8**	**5.5**	**5.3**	**6.9**	-	**4.5**	**6.7**	-	**4.9**	-	**4.5**

Notes:
NR - Analysis requested but results not reported.
- Not analyzed
U - Indicates a compound was analyzed for but not deteted. Number next to "U" is detection limit
J - Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit
B - Indicates that the analyte was found in the method blank as well as the sample. It indicates possible/probable blank contamination
[1]GA-TW-11-GW did not produce sufficient water to collect a sample for laboratory analysis.
[2]GA-TW-9-GW did not produce sufficient water to collect a sample for oil & grease.

Table 6
Target Analyte List for the April 2004 Sampling Event
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters
Acetone
2-Butanone (MEK)
Benzene
Carbon Disulfide
Chloroethane
Chloromethane
1,2-Dibromo-3-chloropropane (DBCP)
Dibromomethane
1,1-Dichloroethane
1,2-Dichloroethane
1,1-Dichloroethene
cis-1,2-dichloroethene
trans-1,2-dichloroethene
1,2-Dichloroethene (total)
Ethylbenzene
Isobutyl Alcohol
Methylene Chloride
4-methyl-2-pentanone (MIBK)
Naphthalene
1,1,2,2-Tetrachloroethane
Tetrachloroethene (PCE)
Toluene
1,2,3-Trichlorobenzene
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane (TCA)
Trichloroethene (TCE)
Trichlorofluoromethane
1,2,3-Trichloropropane
Vinyl Acetate
Vinyl Chloride
Xylenes (total)

Table 7
Summary of Well Construction Details and Ground Water Elevations
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Well	Ground Surface Elevation[a] (ft msl)	TOC Elevation[a] (ft msl)	Total Well Depth from Ground Surface (ft)	Screened Interval (ft bgs)	Well Diameter (in)	Water Level Elevation (ft msl)					
						6/30/98	9/8/2000	11/6/2000	1/19/2001	4/29/2002	4/6/2004
CH2MW-1	293.62	293.84	10	5 - 10	1	286.55	290.35	287.13	289.31	288.37	287.39
CH2MW-1A	292.87	293.01	15	5 - 15	2	282.11	288.70	281.30	285.33	284.05	281.80
CH2MW-2	295.34	295.43	13.5	3.5 - 13.5	2	288.51	291.01	288.92	291.55	291.32	290.57
CH2MW-3	295.45	295.53	13	3 -13	2	289.40	291.68	290.28	291.69	291.28	290.61
CH2MW-4D	293.65	293.54	45.93	36 - 46	2	286.57	277.92	277.19	278.40	275.93	277.49
CH2MW-5	295.28	295.44	15	5 - 15	2	282.94	293.34	287.74	290.07	288.93	288.01
ETCMW-113	296.32	296.32	12	2 - 12	2	289.24	290.76	290.14	290.71	290.38	290.07
ETCMW-114	294.02	297.66	11.7	1.7 - 11.7	4	288.84	291.21	289.85	290.42	290.32	289.88
CH2MW-114D	294.16	297.45	22.5	17.5 - 22.5	1	287.97	289.82	289.07	289.59	289.50	288.91
ETCMW-115	293.22	296.10	11.5	1.5 - 11.5	2	288.56	291.88	289.97	290.85	290.63	289.91
ETMW-116	292.29	292.29	11	1 - 11	4	287.74	291.61	290.04	291.15	290.53	290.31
ETMW-117	292.3	292.30	11	1 - 11	2	288.48	291.03	289.66	290.98	291.01	289.90
ETMW-118	292.34	292.34	11	1 - 11	2	287.65	289.14	289.19	289.67	289.44	289.44
ETMW-119	294.26	297.05	11	1 - 11	2	289.11	292.17	290.20	291.10	290.82	290.19
ETMW-120	293.76	296.84	11	1 - 11	2	287.44	292.49	289.99	291.41	291.19	290.15
ETMW-121	294.84	298.02	11	1 - 11	2	289.85	294.72	289.73	292.19	291.76	290.32
OBGMW-122		295.98	15	5-15	2	295.98	290.63	287.10	290.23	290.23	287.85
OBGMW-123		296.09	13	3-13	2	296.09	293.00	289.28	291.25	290.67	289.64
OBGMW-124			14	4-14	2	-	-	-	-	-	NA
CH2PP-1	293.56	293.72	12	7 - 12	1	282.79	291.79	285.87	288.56	287.60	286.05

Notes

a 1998 elevations based on a survey performed by H.J. Griffen and Associates in June 1998. Elevations reference a DOT benchmark.
Monitoring Wells OBGMW-122 and OBGMW-123 surveyed back to CH2WMW-4D and CH2MW-3, respectively.
No survey performed on OBGMW-124. Well was installed on 4/5/04.

Table 8
Summary of Geochemical Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

		Downgradient				Upgradient											Cross Gradient				
Parameters	**Units**	**CH2MW-1**		**CH2MW-1A**		**CH2MW-2**					**CH2MW-3**						**CH2MW-4D**				**CH2MW-5**
		4/29/2002	**4/7/2004**	**4/29/2002**	**4/7/2004**	**5/29/1998**	**8/23/2000**	**11/21/2000**	**1/24/2001**	**4/6/2004**	**5/29/1998**	**8/23/2000**	**11/21/2000**	**11/21/00 DUP**	**1/24/2001**	**4/6/2004**	**8/23/2000**	**11/21/2000**	**1/25/2001**	**4/8/2004**	**4/7/2004**
Alkalinity	mg/L	-	-	-	**22**	**2**	< 10	< 10	< 10	-	**4**	< 10	< 10	< 10	< 10	< 10	**40**	**62**	**32**	**-**	**60**
Chloride	mg/L	-	-	-	**15**	**38.5**	**37.6**	**33.7**	**39.3**	**-**	**14.0**	**18.6**	**19**	**18.8**	**13.2**	**14.0**	< 3	< 3	< 3	-	**5.6**
Ferrous Iron	mg/L	-	-	-	**0.30**	< 0.20	**0.70**	**0.40**	**0.01**	**-**	< 0.20	**0.23**	**0.02**	**-**	**0.02**	**0.1**	**0.40**	**0.38**	**0.01**	**-**	**0.20**
Iron	mg/L		-	-	**0.63**	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	**4.20**
Manganese	mg/L	-	-	-	< 0.05	-	**15.1**	**0.3**	**0.2**	**-**	**-**	**1.8**	**0.6**	**-**	**0.3**	<0.05	0.0	**1.5**	**0.2**	**-**	< 0.05
Nitrate (as N)	mg/L	-	-	-	**1.6**	**5.6**	**6.1**	**6.2**	**6.95**	**-**	**0.80**	**2.26**	**2.38**	**2.36**	**0.906**	**0.65**	**0.87**	**-**	**0.896**	**-**	**1.0**
Nitrite	mg/L	-	-	-	NA	< 0.07	< 0.05	< 0.05	< 0.05	-	< 0.07	< 0.05	< 0.05	< 0.05	< 0.05	-	< 0.05	-	< 0.05	-	NA
Nitrate-Nitrite	mg/L	-	-	-	NA	-	-	-	-	-	-	-	-	-	-	-	-	**0.89**	-	-	NA
Sulfate	mg/L	-	-	-	**1.3**	**14.0**	**19.7**	**27**	**20.2**	**-**	**5.8**	**6.71**	**5.4**	**6**	**49.8**	**41.0**	< 5	< 5	< 5	-	**4.5**
Sulfide	mg/L	-	-	-	< 0.8	< 1.0	< 0.2	< 0.5	< 0.5	-	< 1.0	< 0.2	**0.6**	**0.6**	< 0.5	< 1.6	< 0.2	< 0.5	< 0.5	-	< 0.8
Methane	ug/L	-	-	-	< 2.0	**0.747**	< 0.2	< 0.2	< 0.2	-	**0.559**	<0.2	< 0.2	< 0.2	< 0.2	< 2.0	< 0.2	< 0.2	< 0.2	-	< 0.002
Ethane	ug/L	-	-	-	< 4.0	**0.039**	< 0.01	< 0.01	< 0.01	-	**0.016**	< 0.01	< 0.01	< 0.01	**0.01**	< 4.0	**0.01**	< 0.01	**0.02**	**-**	< 0.004
Ethene	ug/L	-	-	-	< 4.0	**0.055**	**0.02**	< 0.01	< 0.01	-	**0.017**	< 0.01	< 0.01	< 0.01	**0.01**	< 4.0	**0.08**	**0.01**	**0.01**	**-**	< 0.004
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	**1.3**	**2.7**	**18.4**	**23.1**	**37**	**-**	< 2.00	**9.98**	**8.75**	**19.1**	**19.4**	**1.8**	**5.95**	**3.91**	**4.44**	**-**	**1.8**
Total Organic Carbon	mg/L	-	-	-	**1.3**	-	**37.4**	**29.1**	**47.4**	**-**	-	**22.9**	**26.1**	**20.7**	**22.3**	**2.1**	**5.71**	**7.8**	**6.78**	**-**	**1.7**
pH	S.U.	**4.6**	**4.54**	**5.5**	**5.47**	**4.36**	**4.5**	**4.4**	**3.8**	**4.11**	**4.56**	**4.35**	**4.61**	**-**	**4.35**	**5.06**	**6.5**	**4.87**	**6.0**	**8.59**	**6.10**
Conductivity	mS/cm	**0.09**	**0.139**	**0.08**	**0.102**	**0.220**	**0.27**	**0.317**	**0.215**	**0.232**	**0.086**	**0.13**	**0.146**	**-**	**0.17**	**0.15**	**0.10**	**0.122**	**0.09**	**0.071**	**0.126**
Dissolved Oxygen	mg/L	**5.5**	**4.53**	**5.3**	**4.07**	**4.39**	**8.7**	**9.6**	**4.7**	**2.20**	**4.23**	**4.8**	**6.85**	**-**	**6.0**	**5.5**	**9.5**	**9.18**	**5.1**	**4.70**	**5.10**
Carbon Dioxide	mg/L	**-**	**-**	**-**	**13.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**13.5**	**-**	**-**	**-**	**-**	**18.0**
Oxidation/Reduction Potential (ORP)	mV	**293**	**527**	**231**	**499**	**252.9**	**32.5**	**404**	**248**	**553**	**271.6**	**353**	**363**	**-**	**209**	**644**	**193**	**60**	**59**	**436**	**457**
Temperature	°C	-	**21.30**	-	**19.75**	-	**27.88**	-	**14.60**	**20.64**	-	**27.97**	-	-	**20.72**	**20.31**	**27.90**	-	**22.77**	**22.85**	**17.99**

Field Parameters:
Ferrous Iron (2000-2004)
Carbon Dioxide (2004)
pH
Conductivity
ORP
Manganese (2000-2004)
Temperature

Notes:
* Samples OBGHA-1,2,3,4 are identified as OBGSB-1,2,3,4 on the Field Sampling Chain of Custody.
mg/L Milligrams per liter
- Not Analyzed
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004)
Soluble Organic Carbon - EPA 415.1

Table 8
Summary of Geochemical Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

		In Plume																			
Parameters	**Units**	**ETCMW-113**					**ETCMW-114**									**CH2MW-114D**	**ETCMW-115**	**ETMW-116**				
		5/27/1998	**9/7/2000**	**11/21/2000**	**1/25/2001**	**4/6/2004**	**5/27/1998**	**8/23/2000**	**9/7/2000**	**11/21/2000**	**1/24/2001**	**1/24/2001 DUP**	**4/29/2002**	**4/7/2004**	**4/7/2004 (DUP-2)**	**4/7/2004**	**4/7/2004**	**5/26/1998**	**8/23/2000**	**11/21/2000**	**1/24/2001**	**4/8/2004**
Alkalinity	mg/L	**8**	< 10	< 10	< 10	-	**112**	**82.2**	-	**128**	**134**	**135**	-	**94**	**96**	< 10	-	**38**	**12.5**	< 10	**62**	**-**
Chloride	mg/L	**13.5**	**12.9**	**11.7**	**13.4**	**-**	**32.5**	**90.1**	-	**108**	**82.8**	**82.1**	-	**37**	**37**	**2.1**	-	**12.0**	**11.7**	**8.77**	**11.6**	**-**
Ferrous Iron	mg/L	< 0.20	**11**	**0.03**	**0.05**	**-**	< 0.20	**0.20**	-	**0.05**	**0.03**	-	-	**0.8**	**0.8**	**0.2**	**-**	< 0.20	0.00	**0.02**	0.00	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	**2.0**	**1.8**	**17.0**	-	-	-	-	-	-
Manganese	mg/L	**-**	**5.6**	**0.3**	**0.2**		**-**	**0.5**	-	**0.3**	**0.3**	-	-	< 0.05	< 0.05	< 0.05	-	-	**0.2**	**0.3**	**0.1**	**-**
Nitrate (as N)	mg/L	**10.2**	**7.05**	**10.7**	**11.8**	**-**	**7.6**	**18.15**	-	-	**44.8**	**45.8**	-	**1.2**	**1.1**	**0.46**	-	**6.2**	**8.25**	**-**	**7.70**	**-**
Nitrite	mg/L	< 0.07	< 0.05	< 0.05	< 0.05	-	< 0.07	**0.053**	-	-	< 0.05	< 0.05	-	NA	NA	NA	-	< 0.07	< 0.05	-	**0.405**	**-**
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	**-**	-	**58**	-	-	-	NA	NA	NA	-	-	-	**7.72**	**-**	**-**
Sulfate	mg/L	**10.1**	< 5	**5.8**	< 5	-	**12.8**	**54.1**	-	**110**	**75.6**	**75.6**	-	**33**	**33**	**3.6**	-	**14.8**	**5.12**	**5.2**	**42.8**	**-**
Sulfide	mg/L	< 1.0	< 0.2	**0.8**	< 0.5	-	< 1.0	-	< 0.2	**0.5**	< 0.5	< 0.5	-	< 0.8	< 0.8	< 0.8	-	< 1.0	< 0.2	-	< 0.5	-
Methane	ug/L	**0.149**	< 0.2	< 0.2	**0.3**	**-**	**129.2**	**43.9**	-	**0.5**	< 0.2	< 0.2	-	< 2.0	< 2.0	< 2.0	-	**0.247**	< 0.2	< 0.2	< 0.2	-
Ethane	ug/L	**0.029**	0.09	< 0.01	**0.13**	**-**	**0.249**	**0.16**	-	**0.03**	**0.03**	**0.02**	-	< 4.0	< 4.0	< 4.0	-	**0.093**	**0.07**	**0.01**	**0.01**	**-**
Ethene	ug/L	< 0.005	0.02	< 0.01	**0.03**	**-**	**0.205**	**0.51**	-	**0.03**	**0.01**	**0.01**	-	< 4.0	< 4.0	< 4.0	-	**0.023**	**0.04**	**0.03**	**0.02**	**-**
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	**4.42**	**6.65**	**8.51**	**-**	-	-	-	**32.9**	**40.6**	**27.3**	-	**2.30**	**2.20**	**1.10**	-	-	**9.14**	**7.7**	**25.4**	**-**
Total Organic Carbon	mg/L	-	**7.94**	**5.6**	**11.7**	**-**	-	**21.6**	-	**40.5**	**51.2**	**52.2**	-	**2.6**	**2.6**	**2.3**	-	-	**15.1**	**9.1**	**32**	**-**
pH	S.U.	**5.83**	**4.94**	**4.7**	**4.09**	**6.12**	**6.36**	-	**6.6**	**4.7**	**4.8**	-	**6.1**	**6.38**	**-**	**5.60**	**5.87**	**6.18**	**5.5**	**4.35**	**4.8**	**5.88**
Conductivity	mS/cm	**0.169**	**0.19**	**0.22**	**0.29**	**0.197**	**0.375**	-	**0.0012**	**1.26**	**0.7350**	-	**0.33**	**0.333**	**-**	**0.030**	**0.166**	**0.181**	**0.18**	**0.186**	**0.22**	**0.141**
Dissolved Oxygen	mg/L	**6.79**	**6.3**	**8.89**	**6.7**	**6.12**	**0.19**	-	**3.1**	**10.55**	**6.4**	-	**0.0**	**2.76**	**-**	**3.30**	**0.38**	**1.51**	**3.9**	**9.93**	**7.6**	**3.63**
Carbon Dioxide	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	-	**-**	**-**	**20.0**	**22.0**	**> 100**	**276.0**	**-**	**-**	**-**	**-**	**-**
Oxidation/Reduction Potential (ORP)	mV	**192.2**	**261**	**196**	**217**	**446**	**167.5**	-	**98**	**134**	**127**	-	**171**	**471**	**-**	**463**	**276**	**190.5**	**199**	**157**	**119**	**560**
Temperature	°C	-	**24.10**	-	**19.28**	**18.06**	-	**26.55**	-	-	**16.40**	-	-	**17.26**	-	**19.36**	**20.07**	-	-	**17.55**	-	**17.42**

Field Parameters:
Ferrous Iron (2000-2004)
Carbon Dioxide (2004)
pH
Conductivity
ORP
Manganese (2000-2004)
Temperature

Table 8
Summary of Geochemical Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

		In Plume						Cross Gradient		Upgradient					Cross Gradient								Up gradient
Parameters	**Units**	**ETMW-117**				**ETMW-118**		**ETMW-119**	**ETMW-120**	**ETMW-121**					**OBGMW-122**				**OBGMW-123**			**OBGMW-124**	**CH2PP-1**
		8/23/2000	**11/21/2000**	**1/24/2001**	**4/8/2004**	**5/26/1998**	**4/8/2004**	**4/7/2004**	**4/7/2004**	**5/27/1998**	**8/24/2000**	**11/21/2000**	**1/24/2001**	**4/7/2004**	**8/23/2000**	**11/9/2000**	**1/24/2001**	**4/6/2004**	**9/8/2000**	**1/24/2001**	**4/6/2004**	**4/20/2004**	**4/7/2004**
Alkalinity	mg/L	**13.9**	< 10	**58**	**-**	< 2.0	-	-	-	**28**	**30.7**	**32**	**57**	**38**	-	**-**	-	-	-	**-**	**-**	**300**	-
Chloride	mg/L	**10.7**	**12**	**6.73**	**-**	**11.5**	**-**	**-**	**-**	**15.5**	**10.5**	**10.8**	**3.34**	**7.8**	-	**-**	**-**	**-**	**-**	**-**	**-**	**410 D**	-
Ferrous Iron	mg/L	0.00	**0.03**	**0.01**	**-**	< 0.20	-	**-**	**-**	< 0.20	**0.25**	**0.05**	**0.03**	**0.1**	-	-	**-**	**-**	**-**	**-**	**-**	**0.0**	-
Iron	mg/L	-	-	-	-	-	-	**-**	**-**	-	-	-	-	**1.1**	-			**-**			**-**	**0.41**	-
Manganese	mg/L	**6.3**	**0.2**	**0.00**	-	-	-	-	-	-	-	**0.1**	0	< 0.05	-	-	**-**	**-**	**-**	**-**	**-**	**0.090**	-
Nitrate (as N)	mg/L	**6.72**	-	**4.47**	**-**	**9.4**	**-**	**-**	**-**	**1.8**	**1.94**	**-**	**1.19**	**0.65**	-	**-**	**-**	**-**	**-**	**-**	**-**	**0.14**	-
Nitrite	mg/L	< 0.05	-	< 0.05	-	< 0.07	-	**-**	**-**	< 0.07	< 0.05	-	< 0.05	NA	-	-	-	-	-	-	-	NA	-
Nitrate-Nitrite	mg/L	**6.72**	**7.64**	-	-	-	-	**-**	**-**	-	-	**1.86**	-	NA	-	-	-	-	-	-	-	NA	-
Sulfate	mg/L	**7.62**	**5.2**	**19.7**	**-**	**8.1**	**-**	**-**	**-**	**10.1**	**10.3**	**12.6**	**8.93**	**8.5**	-	**-**	**-**	**-**	**-**	**-**	**-**	**310 D**	-
Sulfide	mg/L	-	**0.6**	< 0.5	-	< 1.0	-	-	**-**	< 1.0	-	< 0.5	< 0.5	**< 0.8**	-	**-**	**-**	**-**	**-**	**-**	**-**	< 0.80	-
Methane	ug/L	< 0.2	< 0.2	< 0.2	-	**0.508**	**-**	**-**	**-**	**0.195**	< 0.2	< 0.2	< 0.2	< 2.0	-	**-**	**-**	**-**	**-**	**-**	**-**	< 2.0	-
Ethane	ug/L	**0.02**	**0.02**	**0.01**	**-**	**0.044**	**-**	**-**	**-**	< 0.005	< 0.01	< 0.01	**0.01**	< 4.0	-	**-**	**-**	**-**	**-**	**-**	**-**	< 4.0	-
Ethene	ug/L	**0.03**	**0.02**	**0.03**	**-**	**0.036**	**-**	**-**	**-**	**0.005**	**0.02**	**0.01**	**0.02**	< 4.0	-	**-**	**-**	**-**	**-**	**-**	**-**	< 4.0	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	**8.44**	**28.3**	**-**	-	-	-	**-**	-	**12.9**	**7.74**	**21.1**	**1.9**	-	**-**	**-**	**-**	**-**	**-**	**-**	**5.1**	-
Total Organic Carbon	mg/L	**7.9**	**17.3**	**38.7**	**-**	-	-	-	-	-	-	**15.6**	**25.7**	**1.9**	-	**-**	**-**	**-**	**-**	**-**	**-**	**4.9**	-
pH	S.U.	**5.74**	**3.46**	**4.68**	**5.57**	**4.30**	**5.91**	**6.21**	**5.93**	**5.32**	-	**4.5**	**5.11**	**6.20**	**6.31**	**4.8**	**4.65**	**6.27**	**4.6**	**6.1**	**5.94**	**6.82**	**5.22**
Conductivity	mS/cm	**0.17**	**0.189**	**0.181**	**0.152**	**0.150**	**0.067**	**0.295**	**0.136**	**0.112**	-	**0.214**	**0.13**	**0.134**	**0.64**	**0.81**	**0.39**	**0.272**	**0.16**	**0.12**	**0.122**	**2.13**	**0.117**
Dissolved Oxygen	mg/L	**7.4**	**10.58**	**7.52**	**2.38**	**0.07**	**4.23**	**3.47**	**2.66**	**5.12**	-	**10.86**	**8.1**	**4.88**	**6.4**	**7.81**	**6.2**	**0.98**	**7.0**	**7.7**	**0.51**	**1.34**	**4.11**
Carbon Dioxide	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**26.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**NA**	-
Oxidation/Reduction Potential (ORP)	mV	**212**	**157**	**108**	**555**	**218**	**519**	**486**	**485**	**146.4**	-	**134**	**123**	**482**	**109**	**1.0**	**164**	**392**	**231**	**201**	**280**	**125**	**466**
Temperature	°C	**27.14**	-	**18.20**	**20.91**	-	**19.68**	**19.07**	**19.41**	-	**25.91**	-	**17.40**	**19.17**	**25.53**	-	**20.00**	**20.16**	**19.10**	-	**20.18**	**19.80**	**20.05**

Field Parameters:
Ferrous Iron (2000-2004)
Carbon Dioxide (2004)
pH
Conductivity
ORP
Manganese (2000-2004)
Temperature

Table 9
VOCs Detected in Soil Compared to Type 3 RRS
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Constituent	CAS No	Maximum Detection				The higher of Appendix I Criteria (mg/Kg) (1)	Type 1 Groundwater RRS * 100 (mg/Kg) (2)	Soil Type 3 RRS (mg/Kg)	Note	Maximum Detection > Type 3 RRS?
		Location	Depth (ft)	Date	Concentration					
Acetone	67641	CH2SB-1	3-5	8/6/98	0.73	2.7	400	400		no
2-Butanone (MEK)	78933	ETCSB-114B	6-7	1/18/94	0.65	0.79	200	200		no
Chloroethane	75003	CH2SB-1	3-5	8/6/98	0.032	0.17	0.05	0.17	(3)	no
Dibromomethane	74953	ETCSB-113A	3.3-3.8	1/17/94	0.01	1000	40	1000		no
1,1-Dichloroethane	75343	CH2SB-1	3-5	8/6/98	0.075	0.030	400	400		no
cis-1,2-Dichloroethene	156592	OBGSB-10	2.5	4/21/04	0.0047	0.53	7	7	(3)	no
1,2-Dichloroethene(total)	540590	TW-10-S	6-8	10/4/1993	0.022	0.53	10	10	(4)	no
Ethylbenzene	100414	TW-10-S	6-8	10/4/1993	0.008	20	70	70		no
Isobutyl Alcohol	78831	ETCSB-113A	3.3-3.8	1/17/94	0.6	0.070	1000	1000		no
Methylene Chloride	75092	ETCSB-115B	5-5.5	1/18/94	0.022	0.080	0.50	0.50		no
Tetrachloroethene (PCE)	127184	CH2SB-1	3-5	8/6/98	0.33	0.18	0.50	0.50		no
Toluene	108883	CH2SB-1	3-5	8/6/98	0.016	14	100	100		no
		TW-10-S	6-8	10/4/1993	0.016					
1,1,1-Trichloroethane	71556	TW-10-S	6-8	10/4/1993	0.029	1.03	20	20		no
Trichloroethene (TCE)	79016	ETCSB-113A	3.3-3.8	1/17/94	0.023	0.13	0.50	0.50		no
Vinyl Acetate	108054	ETCSB-114B	6-7	1/18/94	0.81	0.51	0.5	0.51		YES
M,P Xylenes	108383	CH2SB-1	3-5	8/6/1998	0.022	20	1000	1000		no
O, Xylenes	95476	CH2SB-1	3-5	8/6/1998	0.008	20	1000	1000		no
Xylenes (total)	1330207	TW-10-S	6-9	10/5/1993	0.048	20	1000	1000		no

Notes: mg/kg = Milligrams per kilogram.
mg/L = Milligram per liter.
(1) Appendix I of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(3) Federal Drinking Water MCL used for Type 1 RRS
(4) Appendix I and Appendix III Table 1 values for trans-1,2-Dichloroethene used to determine criteria

Table 10
VOCs Detected in Surface Soil Compared to Type 3 RRS
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Constituent	CAS No	Maximum Detection				the lower of				
		Location	Depth (ft)	Date	Concentration (mg/Kg)	Soil Type 3 RRS (mg/Kg)	RAGS, Part B Equation 6 (1) (mg/Kg)	RAGS, Part B Equation 7 (2) (mg/Kg)	Surface Soil Type 3 RRS (mg/Kg)	Maximum Detection > Type 3 RRS?
Acetone	67641	ETMW-117	1-3	11/1/1994	0.014	400	NA	204400	400	no
Trichloroethene (TCE)	79016	CH2SB-2	0.5-2	8/6/1998	0.016	0.50	1.331	146	0.50	no

Notes: mg/Kg = Milligrams per kilogram
NA = Not applicable
RRS = Risk reduction standards
(1)Based on cancer end points
(2) Based on non-cancer end points
RAGS, Part B = Risk Assessment Guidance for Superfund: Volume I Human Health Evaluation Manual
(Part B, Development of Risk-based Preliminary Remediation Goals), Interim, December 1991)

Table 11
VOCs Detected in Soil Exceeding Type 3 RRS Compared to Type 4 RRS
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Constituent	CAS No	Units	Maximum Detection				the lower of RAGS, Part B Equation 6 (1) (mg/Kg)	the lower of RAGS, Part B Equation 7 (2) (mg/Kg)	Soil Type 4 RRS (mg/Kg)	Maximum Detection > Type4 RRS?
			Location	Depth (ft)	Date	Concentration (mg/Kg)				
Vinyl Acetate	108054	mg/kg	ETCSB-114B	6-7	1/18/94	0.81	NA	837	837	no

Notes: mg/Kg = Milligrams per kilogram.
NA = Not available.
RRS = Risk reduction standards
(1) Based on cancer end points
(2) Based on non-cancer end points

Table 12
Constituents Detected in Ground Water (April 2004) Compared to Type 1 and Type 3 Risk Reduction Standards
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Constituent	CAS No.	Maximum Detection (April 2004)			Type 1/Type 3 RRS (1) (mg/L)	Note	Maximum Detection > Type1/Type 3 RRS?
		Location	Date	Concentration (mg/L)			
Benzene	71-43-2	ETCMW-114	4/7/04	0.0017	0.005		no
Carbon Disulfide	75-15-0	OBGMW-124	4/21/04	0.00063	4		no
Chloroethane	75-00-3	ETCMW-114	4/7/04	0.0053	0.0005	(2)	YES
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	all	4/7/04 and 4/21/04	< 0.001	0.0002		YES
1,1-Dichloroethane	75-34-3	ETCMW-114	4/7/04	0.11	4	(4)	no
1,2-Dichloroethane	107-06-2	ETCMW-114	4/7/04	0.0029	0.005		no
1,1-Dichloroethene	75-35-4	ETCMW-114	4/7/04	0.13	0.007		YES
cis-1,2-Dichloroethene	156-59-2	ETCMW-114	4/7/04	2.4	0.07	(3)	YES
trans-1,2-Dichloroethene	156-60-5	ETCMW-114	4/7/04	0.0025	0.1		no
1,1,2,2-Tetrachloroethane	79-34-5	all	4/7/04 and 4/21/04	< 0.0005	0.0002	(4)	YES
Tetrachloroethene (PCE)	127-18-4	ETCMW-114	4/7/04	0.12	0.005		YES
Trichloroethene (TCE)	79-01-6	ETCMW-114	4/7/04	1.7	0.005		YES
Vinyl Chloride	75-01-4	ETMW-115	4/7/04	0.0015	0.002		no

Notes:
(1) GA Hazardous Site Response Act (HSRA) Appendix III, Table 1 maximum contaminant levels (MCLs)
(2) Lowest Detection Limit
(3) Federal Drinking Water MCL
(4) No detections reported, detection limit exceeds Type 1/Type 3 RRS

mg/L = Milligrams per liter.
RRS = Risk reduction standard.

Table 13
Constituents Detected in Ground Water (April 2004) Exceeding Type 3 RRS Compared to Type 4 RRS
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Constituent	CAS No.	Maximum Detection (April 2004)			The lower of RAGS, Part B Equation 1 (1) (mg/L)	The lower of RAGS, Part B Equation 2 (2) (mg/L)	Ground Water Type 4 RRS (mg/L)	Note	Maximum Detection > Type 4 RRS?
		Location	Date	Concentration (mg/L)					
Chloroethane	75-00-3	ETCMW-114	4/7/04	0.0053	1.23	17.2	1.23		no
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	all	4/7/04 and 4/21/04	< 0.001	0.0025	0.00058	0.00058	(5)	YES
1,1-Dichloroethene	75-35-4	ETCMW-114	4/7/04	0.13	NA	0.47	0.47		no
cis-1,2-Dichloroethene	156-59-2	ETCMW-114	4/7/04	2.4	NA	1.02	1.02		YES
1,1,2,2-Tetrachloroethane	79-34-5	all	4/7/04 and 4/21/04	< 0.0005	0.02	6.1	0.02		no
Tetrachloroethene (PCE)	127-18-4	ETCMW-114	4/7/04	0.12	0.024	0.60	0.005	(3)	YES
Trichloroethene (TCE)	79-01-6	ETCMW-114	4/7/04	1.7	0.0008	0.024	0.005	(4)	YES

Notes: mg/L = Milligrams per liter.
RRS = Risk reduction standards
NA = Not applicable
(1) Based on cancer end points.
(2) Based on non-cancer end points.
(3) Type 1 RRS used per direction of Geogia EPD.
(4) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS of 0.00081 mg/L.
(5) No detections reported, detection limit exceeds Type 4 RRS

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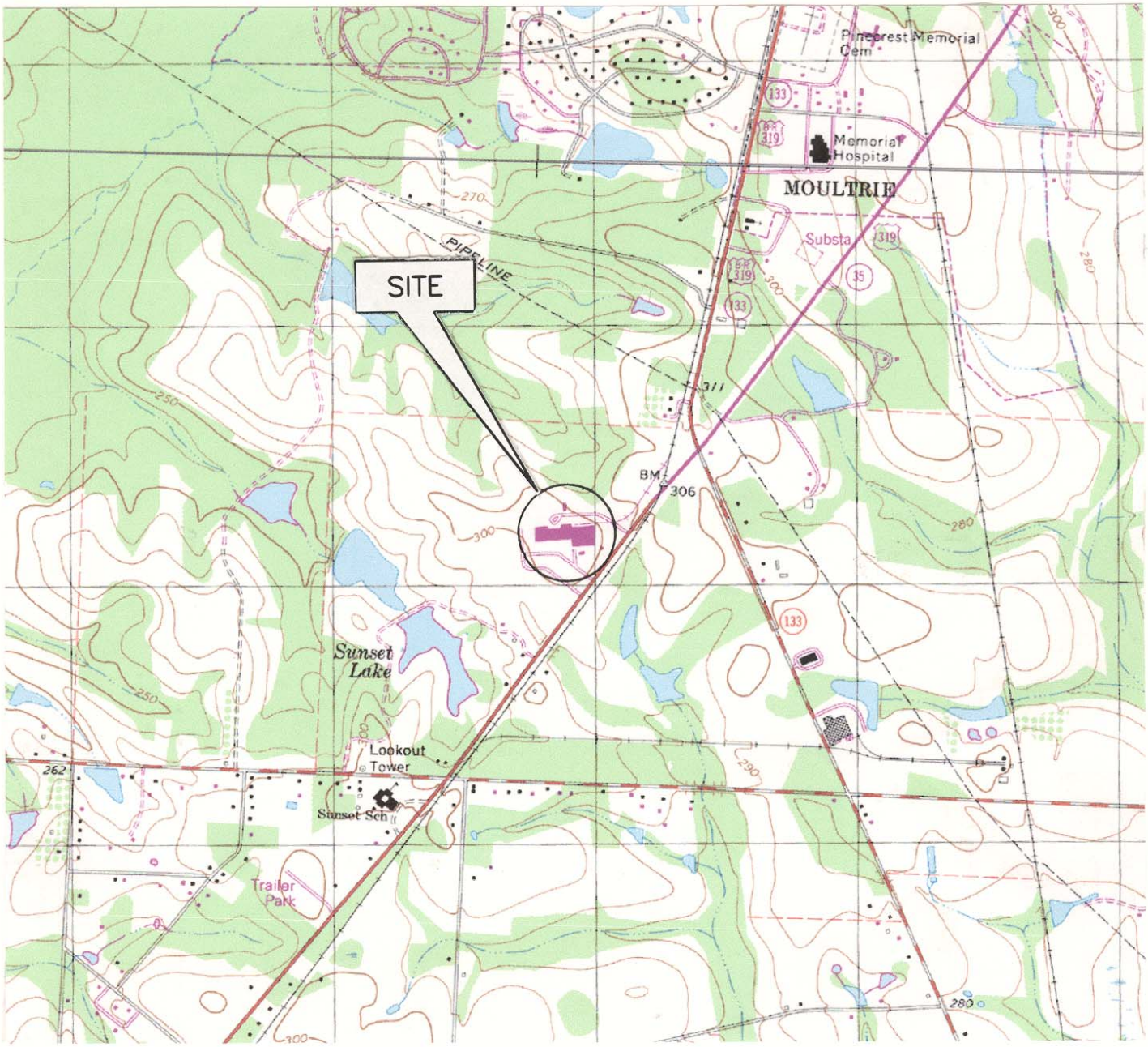
FIGURE 1



SITE LOCATION MAP

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GA.

MAP SOURCE: USGS 7.5–MIN. SERIES TOPOGRAPHIC QUADRANGLE "COOLIDGE, GA" AND "MOULTRIE, GA".

1 0 1/2 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

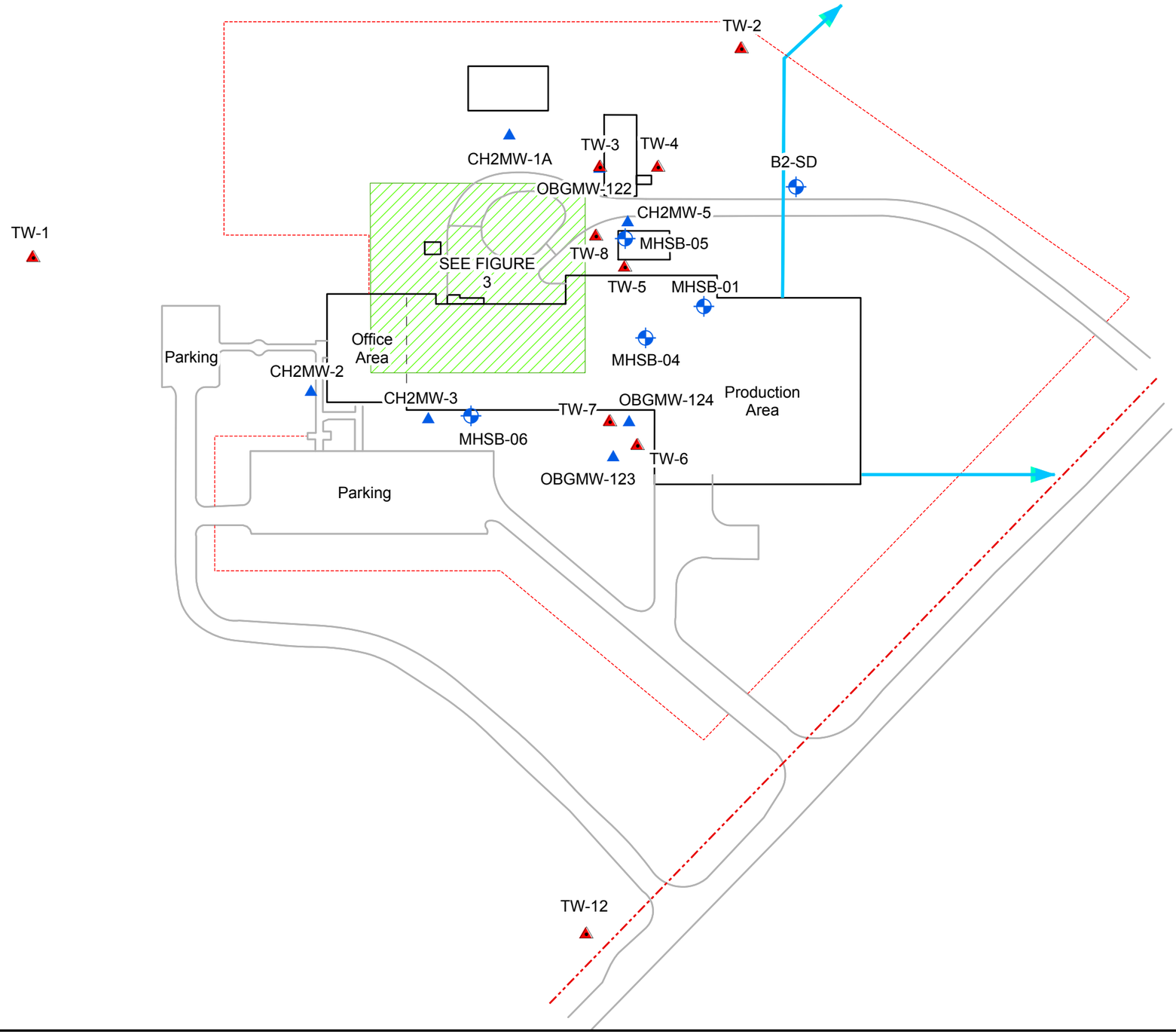
1 0 5 1 KILOMETER

SCALE: 1:24000

O'BRIEN & GERE ENGINEERS, INC.

FILE NO. 26765

FIGURE 2



Chain Link Fence

Property Boundary

Road

Storm Water Drainage

Monitoring Well

Soil Boring

Temporary Well Sampling Location

Area shown on Figure 3

N

Feet

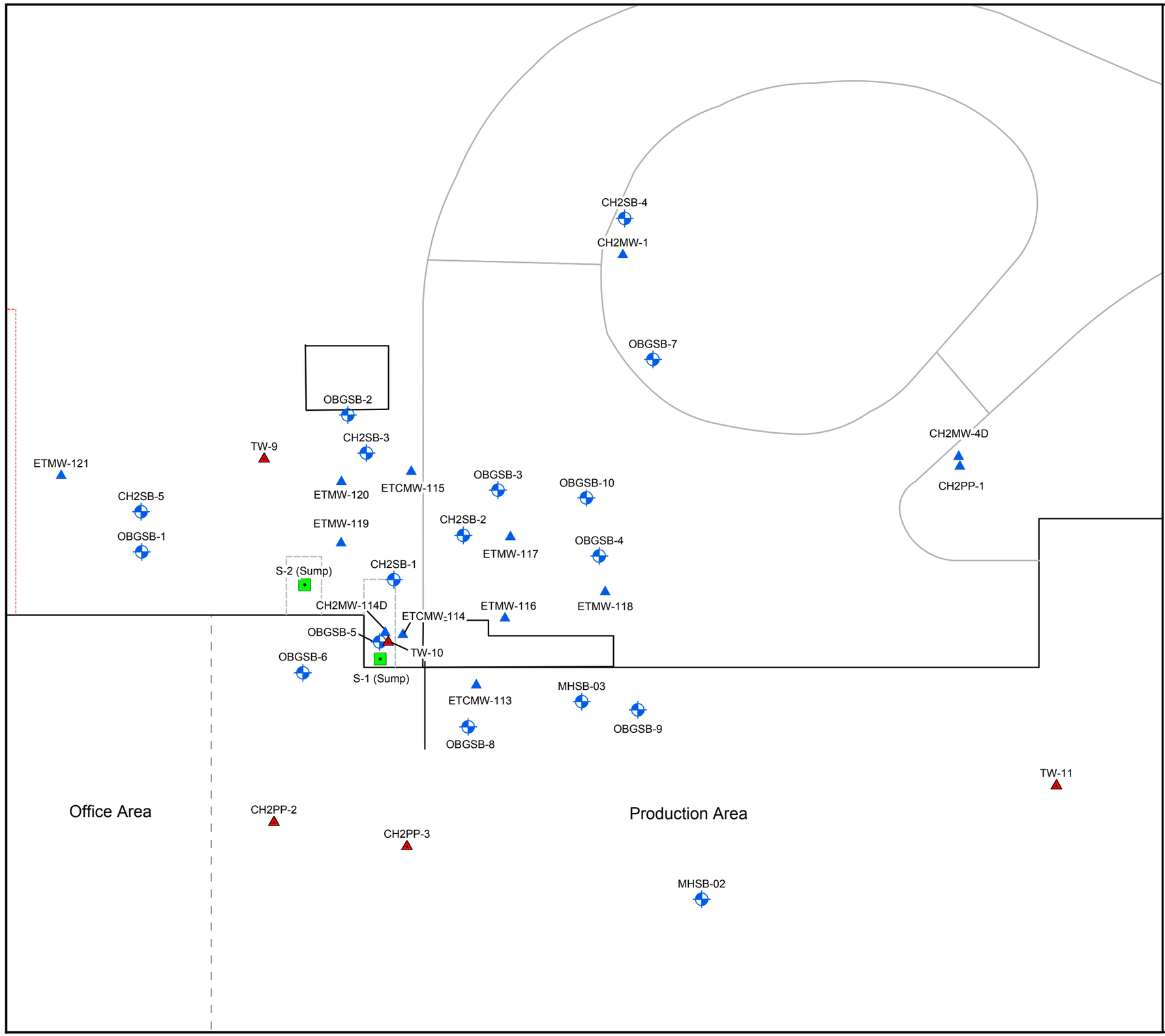
0 150 300

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

SITE PLAN I

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 3



- Monitoring Well
- Soil Boring
- Sump
- Temporary Well Sampling Location
- Chain Link Fence
- Road

N

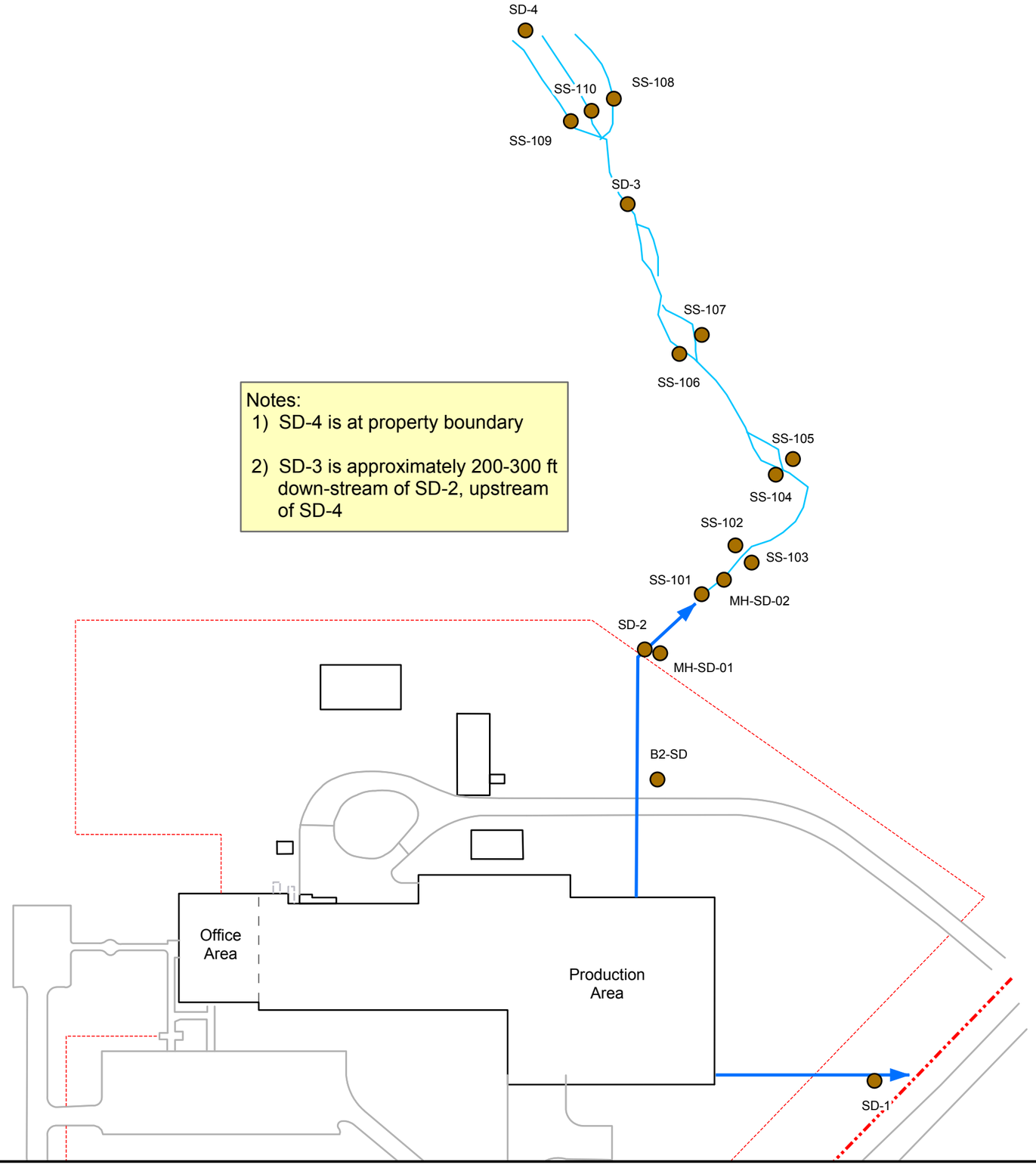
0 25 50 Feet

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

SITE PLAN II

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 4



Notes:
1) SD-4 is at property boundary

2) SD-3 is approximately 200-300 ft down-stream of SD-2, upstream of SD-4

Sediment Sample

Drainage Channel

Chain Link Fence

Road

Storm Water Drainage

Note: Sample locations are approximate

N

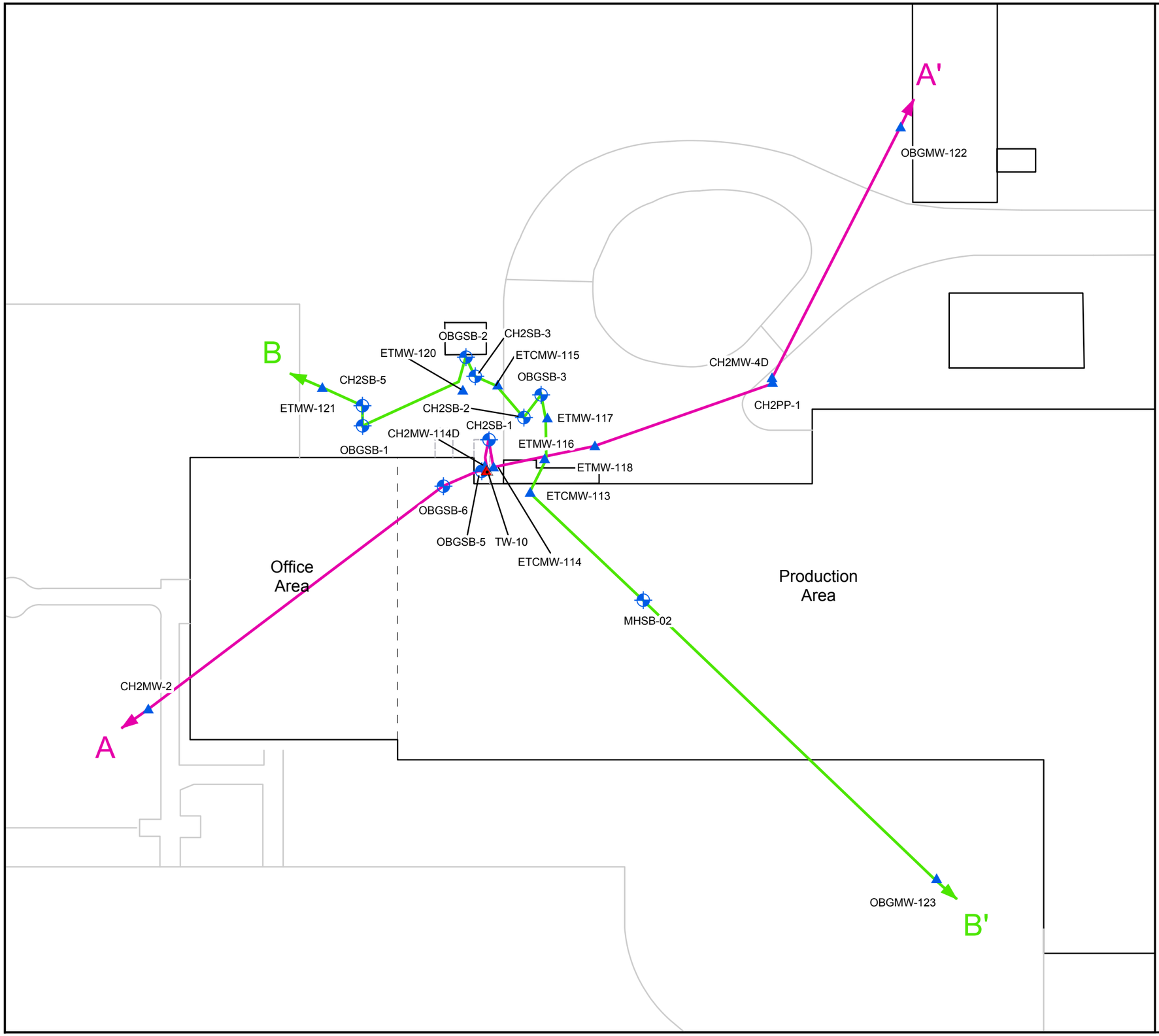
Feet
0 150 300

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

SEDIMENT SAMPLING LOCATION

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 5



A-A'

B-B'

Monitoring Well

Temporary Well

Soil Boring

N

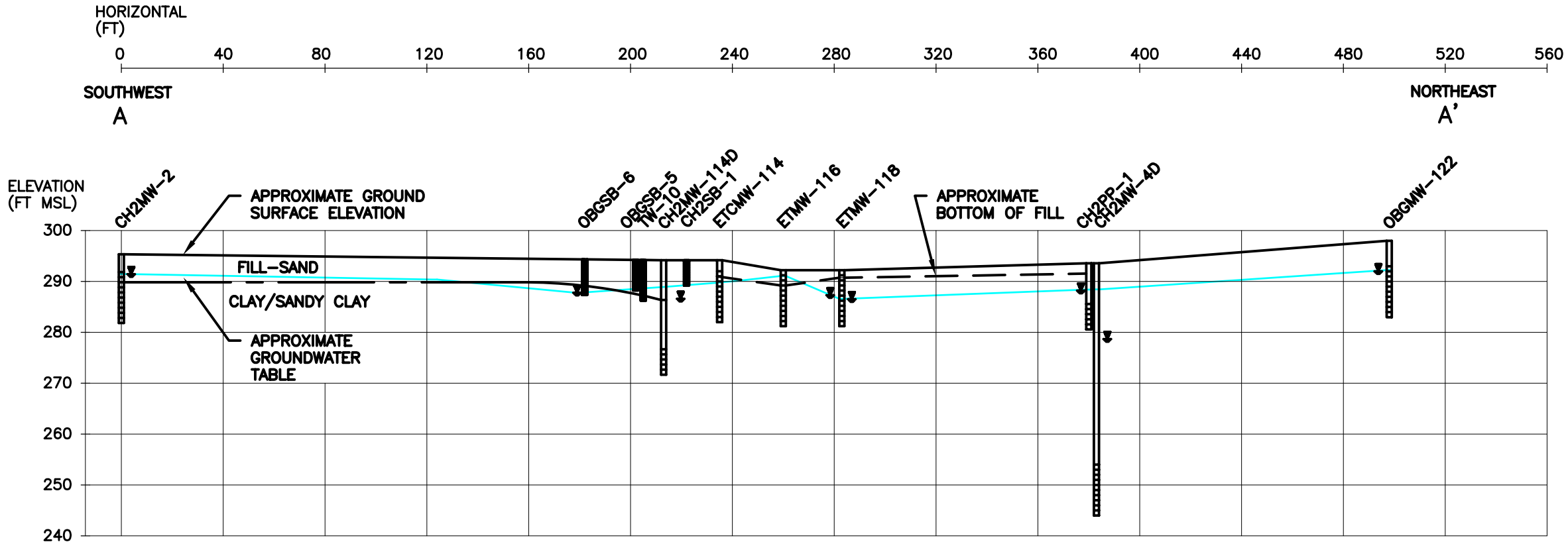
0 50 100 Feet

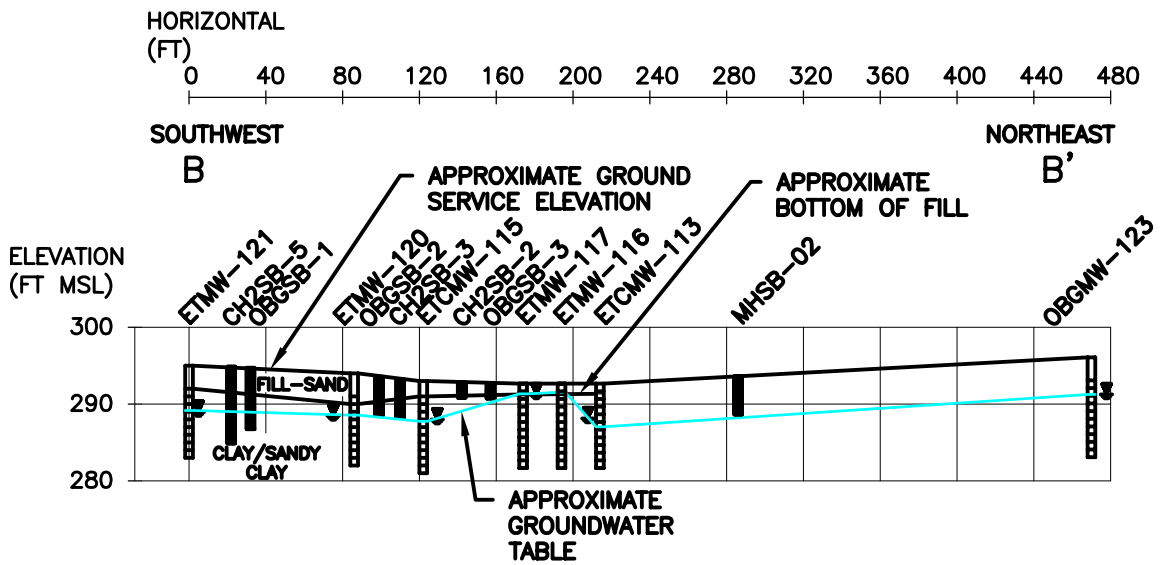
FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

LINES OF SECTION

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 6





LEGEND

- GROUNDWATER ELEVATION
- SCREENED INTERVAL
- SOIL BORING
- GROUNDWATER TABLE

NOTES

1. The depth and thickness of the subsurface strata and affected soil limits indicated on the sections were generalized from and interpolated between test locations. Information on actual subsurface conditions exist only at the specific locations and dates indicated. Subsurface conditions and water levels at other locations may differ from conditions occurring at the indicated locations.

2. Elevations based on a study performed by H.J. Griffin & Associates in June 1998. Elevations reference a DOT benchmark.

3. Soil descriptions were taken from boring wells completed by Earth Tech in 1994 and 1995 and CH2M HILL in 1998.

4. Ground water levels and other data were collected on Jan. 19 2001.

FORMER MILLER
BREWING COMPANY
CAN PLANT
MOULTRIE, GA.

GEOLOGIC CROSS SECTIONS A–A' AND B–B'

FILE NO. 1669.32883.004
MAY 2003

O'BRIEN & GERE
ENGINEERS INC.

I:\RALEIGH\PROJECTS\1669\32883\DWGS\FIG-4.DWG 1=1

PLOT DATE: 05/16/03 073 ASC

FIGURE 7

- No Detections
- No Detections above Type 3 RRS
- Detection Above Type 3 RRS

Note: Acetone and methylene chloride data presented on Figure 8. This figure does not consider acetone or methylene chloride, which are likely laboratory relicts.

Parameter	Type 3 RRS	Result (3-5') 8/6/98
Trichloroethene	0.5	0.016
Toluene	100	110
2-Butanone	200	<0.120

Less than detection limit

Concentration above Type 3 RRS

Feet

0 20 40

CH2SB-1

Parameter	Type 3 RRS	Result (3-5') 8/6/98
2-Butanone	200	0.18
Chloroethane	0.17	0.032
1,1-Dichloroethane	400	0.075
Ethylbenzene	70	0.006
Tetrachloroethene	0.50	0.33
Toluene	100	0.016
M,P-Xylenes	1000	0.022
O-Xylenes	1000	0.008

CH2SB-2

Parameter	Type 3 RRS	Result (3-5') 8/6/98
Trichloroethene	0.5	0.016

OBGSB-10

Parameter	Type 3 RRS	Result (2.5') 4/21/04
cis-1,2-Dichloroethene	7	0.0047
Trichloroethene	0.5	0.0037

ETCMW-114

Parameter	Type 3 RRS	Type 4 RRS	ETCSB-114A (2-4') 1/18/94	ETCSB-114B (6-7') 1/18/94
2-Butanone	200		<0.12	0.65
Vinyl Acetate	0.51	837	<0.12	0.81

TW-10-S

Parameter	Type 3 RRS	(6-8') 10/4/93
1,1-Dichloroethane	400	0.017
1,2-Dichloroethene (total)	7	0.022
Ethylbenzene	70	0.008
Tetrachloroethene	0.5	0.055
Toluene	100	0.016
1,1,1-Trichloroethane	20	0.029
Trichloroethene	0.5	0.02
Xylenes (total)	1000	0.048

ETCMW-113

Parameter	Type 3 RRS	Type 4 RRS	ETCSB-113A (3.3-3.8') 1/17/94	ETCSB-113B (6-6.5') 1/17/94
2-Butanone	200		0.51	< 0.120
Dibromomethane	1000		0.01	< 0.058
Isobutyl Alcohol	1000		0.6	< 0.120
Trichloroethene	0.5		0.023	< 0.0058
Vinyl Acetate	0.51	837	0.75	< 0.120

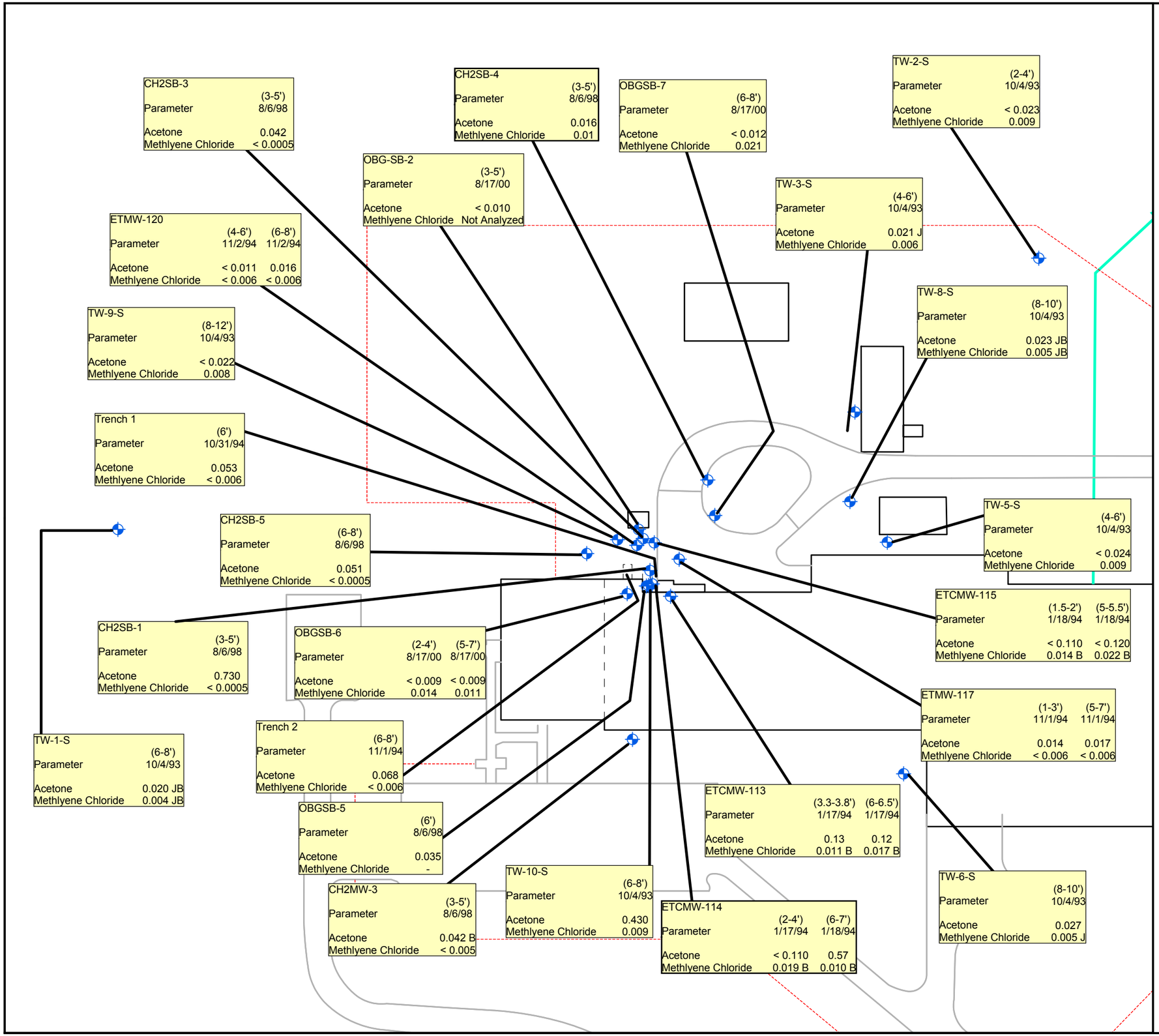
CH2SB-4, OBGSB-7, OBGSB-2, TW-9, CH2SB-3, ETMW-121, ETMW-120, ETCMW-115, OBGSB-3, CH2SB-5, OBGSB-10, CH2SB-2, OBGSB-1, ETMW-119, ETMW-117, CH2SB-1, Trench 2, Trench 1, OBGSB-4, ETMW-116, ETMW-118, ETCMW-114, OBGSB-5, TW-10, OBGSB-6, ETCMW-113, MHSB-03, OBGSB-9, OBGSB-8, MHSB-02

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

HORIZONTAL EXTENT OF VOCs in SOIL (mg/Kg)

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 8



Soil Boring

Aproximate Drainage Channel

Chain Linked Fence

Road

N

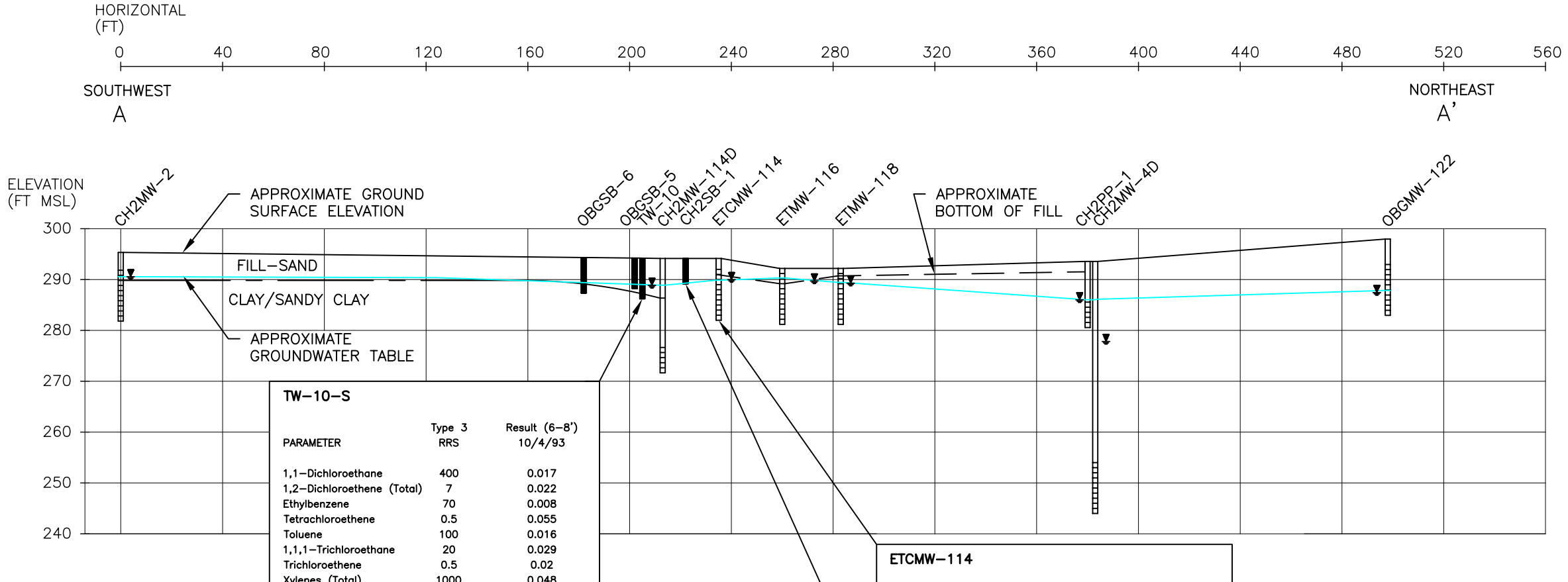
0 100 200 Feet

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

ACETONE AND METHYLENE CHLORIDE DETECTIONS IN SOIL (mg/Kg)

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 9



TW-10-S

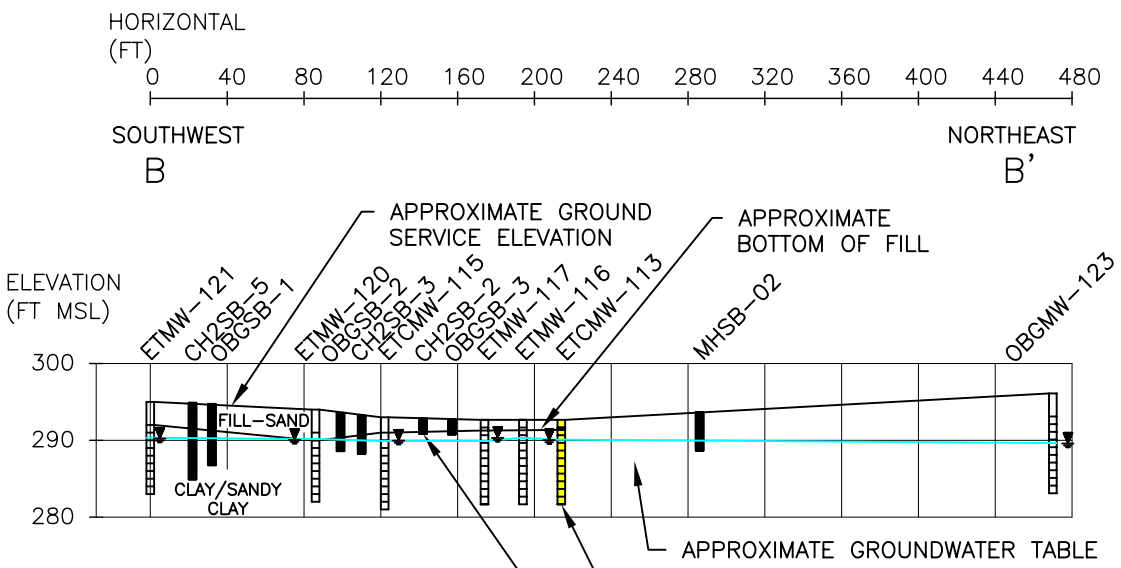
PARAMETER	Type 3 RRS	Result (6-8') 10/4/93
1,1-Dichloroethane	400	0.017
1,2-Dichloroethene (Total)	7	0.022
Ethylbenzene	70	0.008
Tetrachloroethene	0.5	0.055
Toluene	100	0.016
1,1,1-Trichloroethane	20	0.029
Trichloroethene	0.5	0.02
Xylenes (Total)	1000	0.048

ETCMW-114

PARAMETER	Type 3 RRS	ETCSB-114A (2-4') 1/18/94	ETCSB-114B (6-7') 1/18/94
2-Butanone	200	<0.12	0.65
Vinyl Acetate	0.51	<0.12	0.81

CH2SB-1

PARAMETER	Type 3 RRS	Result (3-5') 8/6/98
2-Butanone	200	0.18
Chloroethane	0.17	0.032
1,1-Dichloroethane	400	0.075
Ethylbenzene	70	0.006
Tetrachloroethene	0.50	0.33
Toluene	100	0.016
M,P-Xylenes	1000	0.022
O-Xylenes	1000	0.008



CH2SB-2

PARAMETER	Type 3 RRS	Result (3-5') 8/6/98
Trichloroethene	0.5	0.016

ETCMW-113

PARAMETER	Type 3 RRS	ETCSB-113A (3.3-3.8') 1/17/94	ETCSB-113B (6-6.5') 1/17/94
2-Butanone	200	0.51	<0.120
Dibromomethane	1000	0.01	<0.058
Isobutyl Alcohol	1000	0.6	<0.120
Trichloroethene	0.50	0.023	<0.0058
Vinyl Acetate	0.51	0.75	<0.120

The following locations reported low levels of acetone and/or methyl chloride. These common laboratory contaminants are not a concern at this site and are not provided on this figure for presentation purposes.

Location	Depth (ft)
ETCMW-113	6-6.5
ETCMW-114	2-4
ETCMW-115	1.5-2
ETCMW-115	5-5.2
CH2MW-3	3-5
CH2MW-4	3-5
CH2MW-5	6-8
Trench 1	6
OBGSB-5	6
OBGSB-6	2-4
OBGSB-6	5-7
OBGSB-7	6-8
TW-1-S	6-8
TW-2-S	2-4
TW-3-S	4-6
TW-5-S	4-6
TW-6-S	8-10
TW-8-S	8-10
TW-9-S	8-12

LEGEND

- GROUND WATER ELEVATION
- SCREENED INTERVAL
- SOIL BORING
- B DETECTED IN METHOD BLANK OR TRIP BLANK
- GROUNDWATER TABLE

VERTICAL EXAGGERATION 4X

PARAMETER	Type 3 RRS	Jan-2001
1,1-Dichloroethane	400	250
Toluene	100	135

Concentration above Type 3 RRS

FORMER MILLER BREWING COMPANY CAN PLANT MOULTRIE, GA.

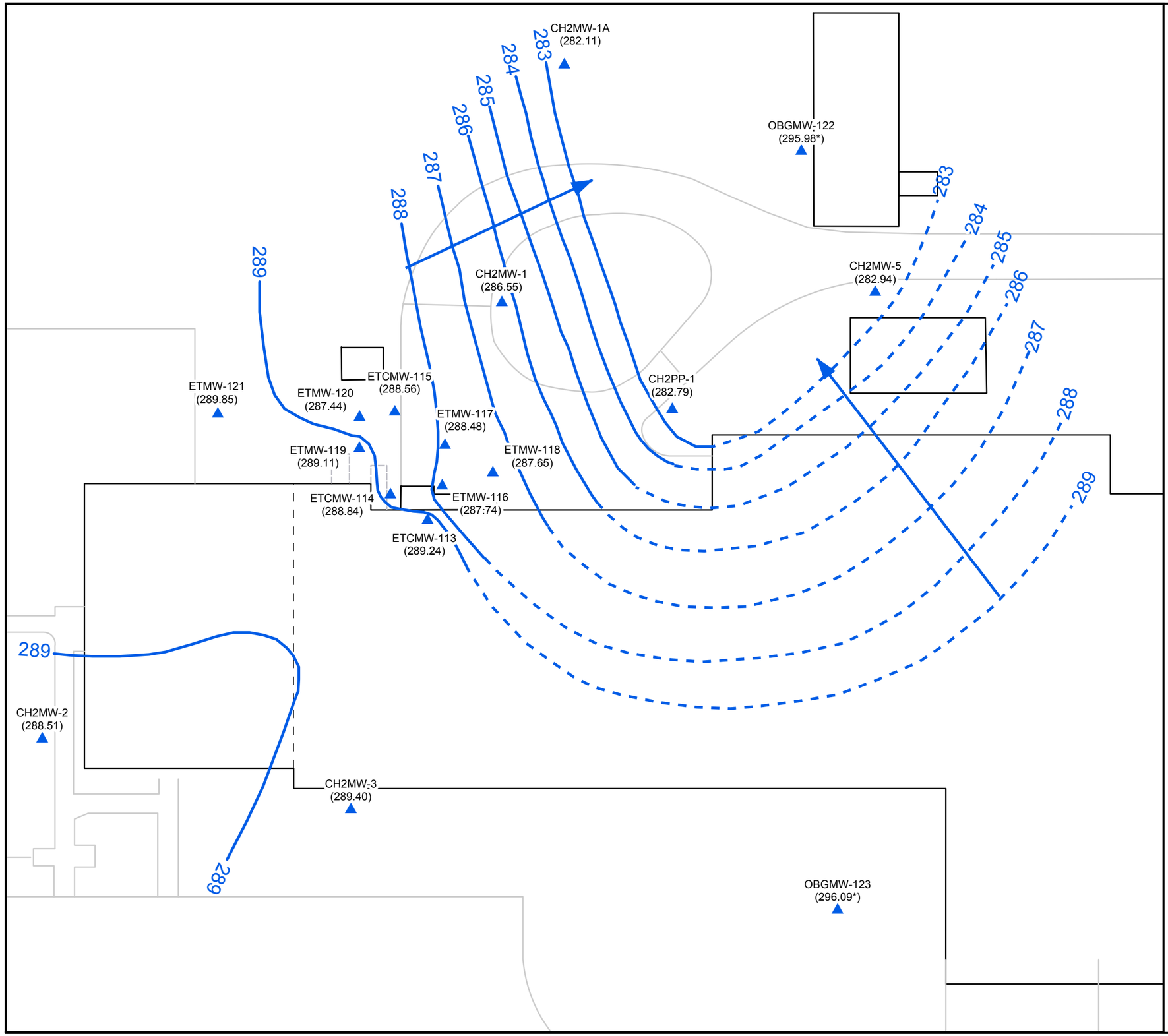
VERTICAL EXTENT OF VOCs IN SOIL (mg/kg)

FILE NO. 1669.34350
MAY 2004

O'BRIEN & GERE ENGINEERS INC.

Jun 09, 2004 - 2:32pm
I:\RALEIGH\PROJECTS\1669 - Miller Brewing Company\34350 - Corrective Action Investigation - Moultrie\5_RPTS\June 2004 CSR\Figures\Figure-9 (Vertical Extent of VOCs in Soil).DWG

FIGURE 10



- ▲ Monitoring Well
- Groundwater Potentiometric Surface (ft. msl)
- Inferred Groundwater Potentiometric Surface (ft. msl)
- Ground water flow direction

Note:
* - ANOMALOUS READING NOT INCLUDED IN CONTOUR

N

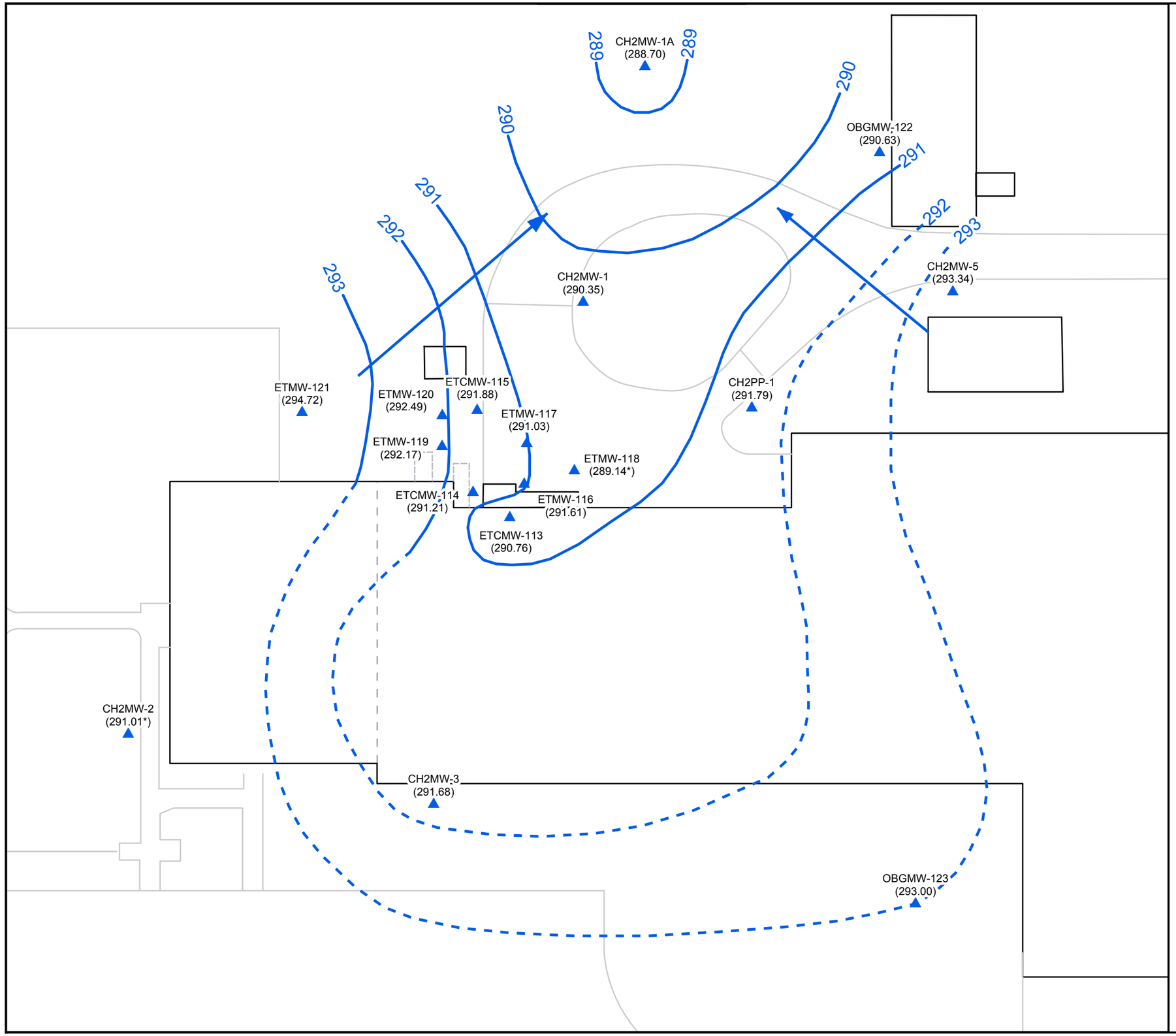
Feet
0 50 100

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

JUNE 1998
POTENTIOMETRIC SURFACE MAP

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 11



Groundwater Potentiometric Surface (ft. msl)

Inferred Groundwater Potentiometric Surface (ft. msl)

Monitoring Well

Ground water flow direction

Note:
* - ANOMALOUS READING NOT INCLUDED IN CONTOUR

N

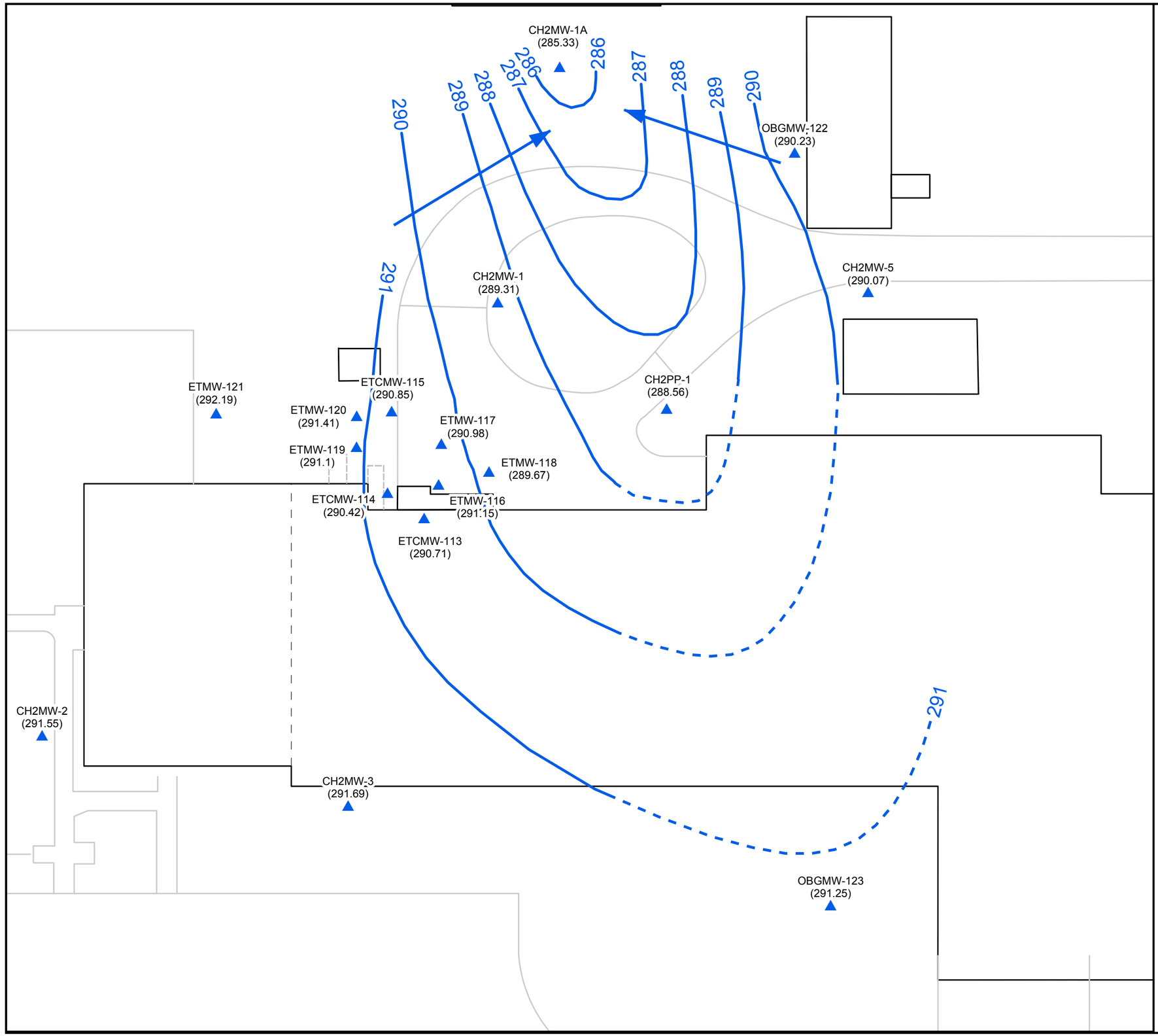
Feet
0 50 100

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

SEPTEMBER 2000
POTENTIOMETRIC
SURFACE MAP

O'BRIEN & GERE
ENGINEERS, INC.

FIGURE 12



- Monitoring Well
- Groundwater Potentiometric Surface (ft. msl)
- Inferred Groundwater Potentiometric Surface (ft. msl)
- Ground water flow direction

N

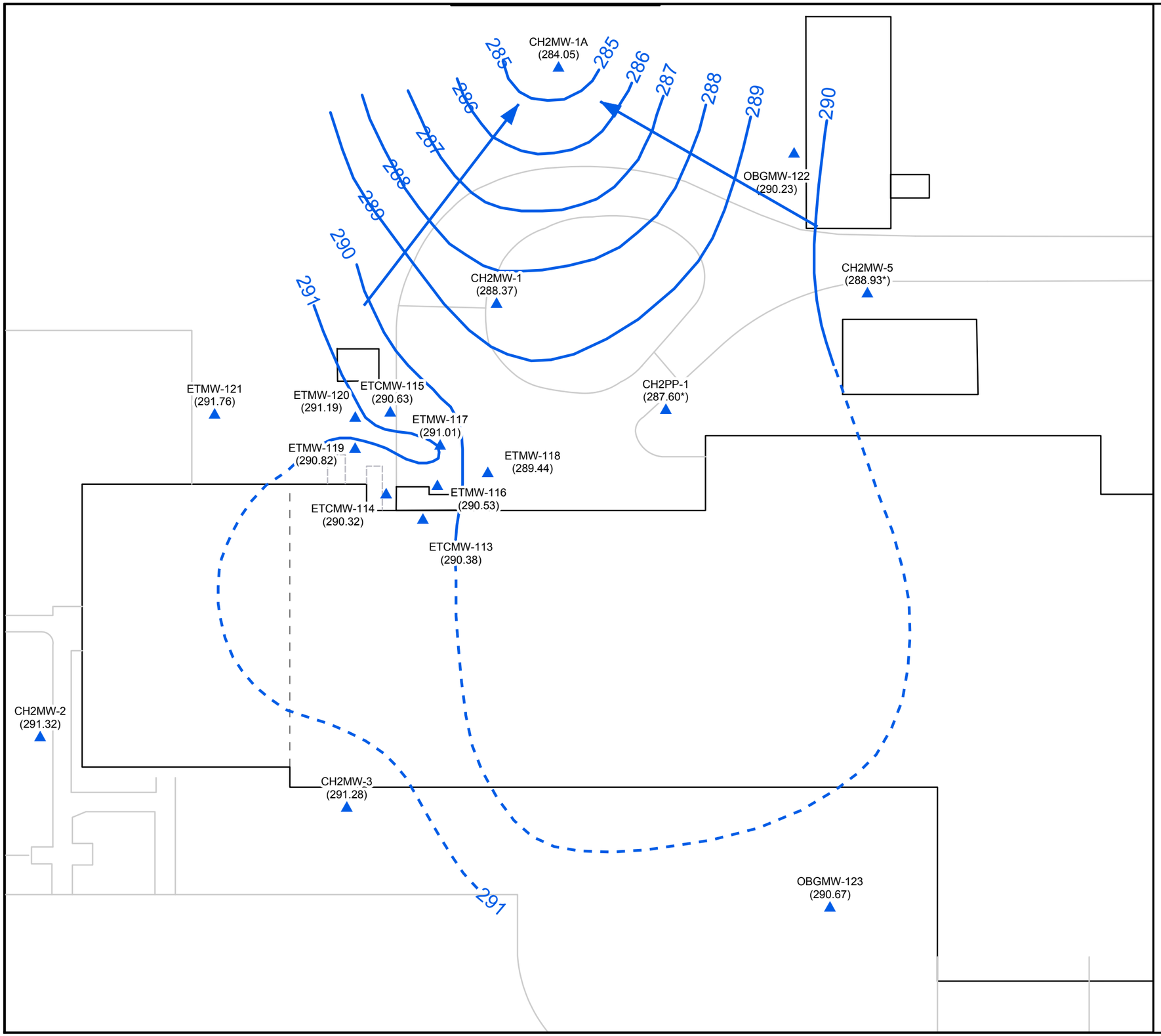
Feet
0 50 100

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

JANUARY 2001
POTENTIOMETRIC
SURFACE MAP

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 13



- Monitoring Well
- Groundwater Potentiometric Surface (ft. msl)
- Inferred Groundwater Potentiometric Surface (ft. msl)
- Ground water flow direction

Note:
* - ANOMALOUS READING NOT INCLUDED IN CONTOUR

N

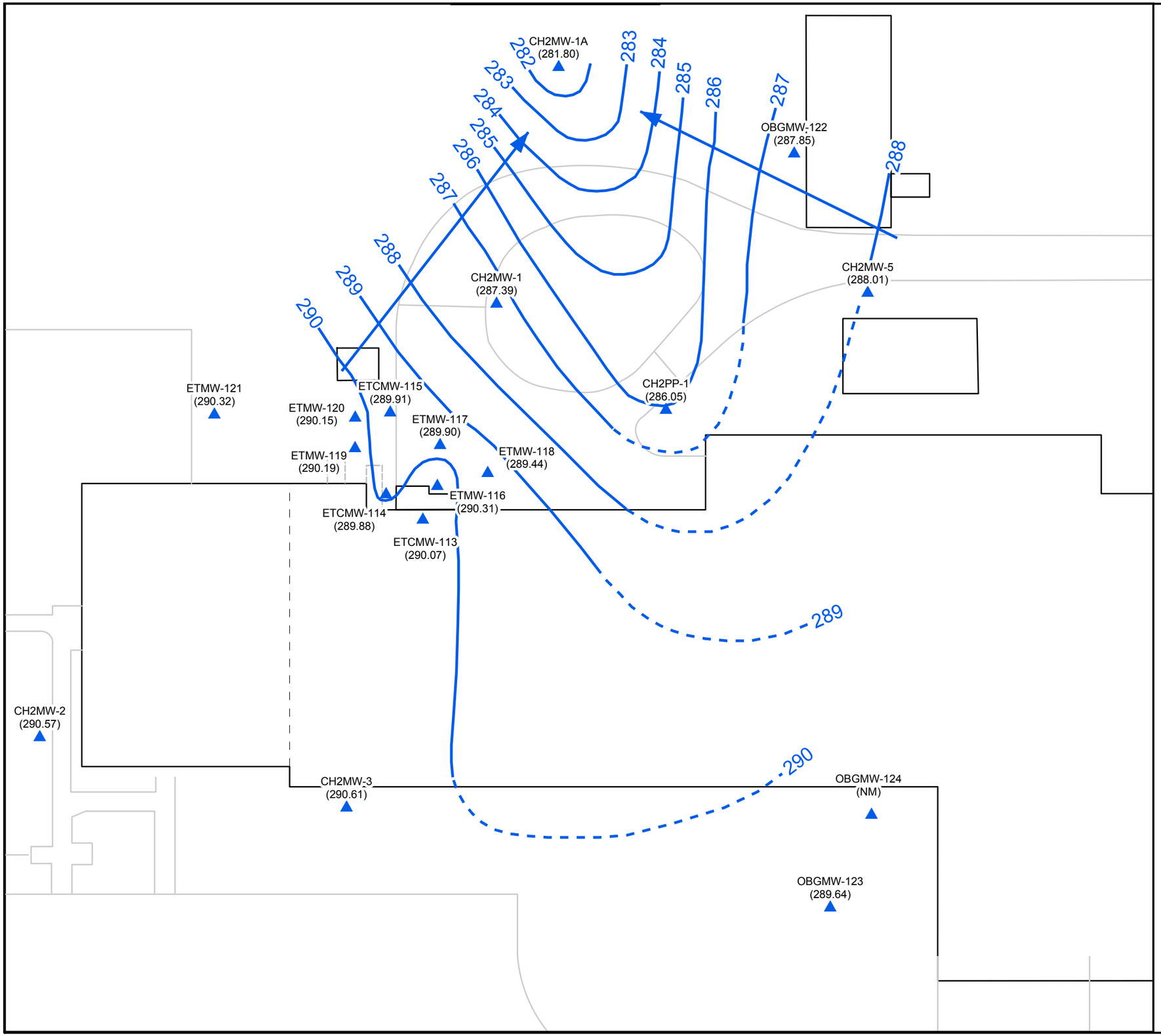
Feet
0 50 100

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

APRIL 2002
POTENTIOMETRIC SURFACE MAP

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 14



Monitoring Well

Groundwater Potentiometric Surface (ft. msl)

Inferred Groundwater Potentiometric Surface (ft. msl)

Ground water flow direction

Note: Due to slow recovery, the water level from the newly installed monitoring well (OBGMW-124) was not considered.

N

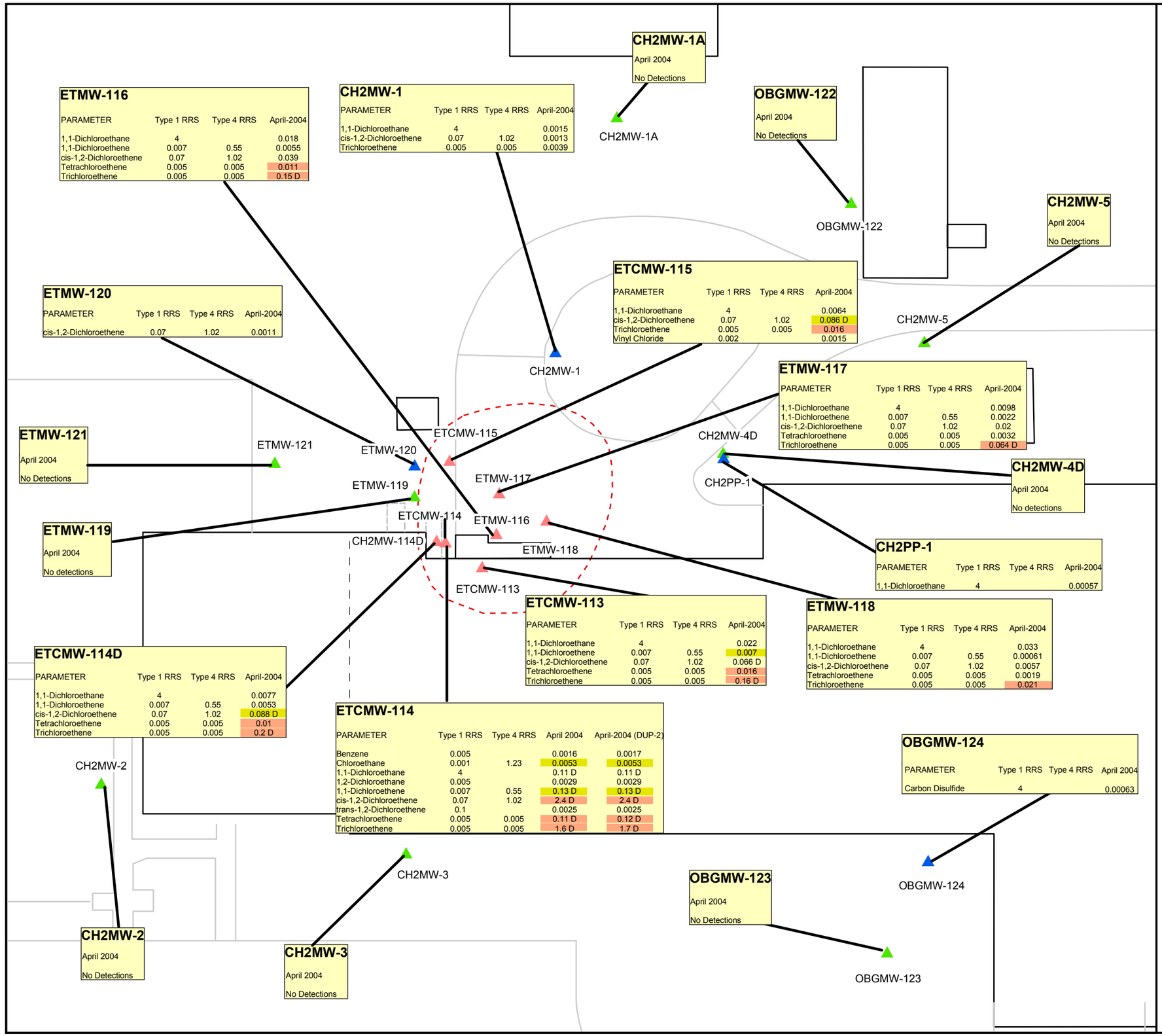
Feet
0 50 100

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

APRIL 2004
POTENTIOMETRIC
SURFACE MAP

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 15



- Monitoring Well with No Detections
- Monitoring Well with Concentrations Below Type 1 RRS
- Monitoring Well with Concentrations Above Type 4 RRS
- Interpreted limit of compounds above Type 4 RRS

Not calculated (blank)

Not analyzed (dash)

Parameter	Type 1 RRS	Type 4 RRS	Jan-2001
Acetone	4		-
2-Butanone	2	2.79	2.25
1,1-Dichloroethene	0.007	0.55	1.00
Trichloroethene	0.005	0.005	<0.0005

Concentration above Type 4 RRS

Concentration above Type 1 RRS

Less than detection limit

N

0 50 100 Feet

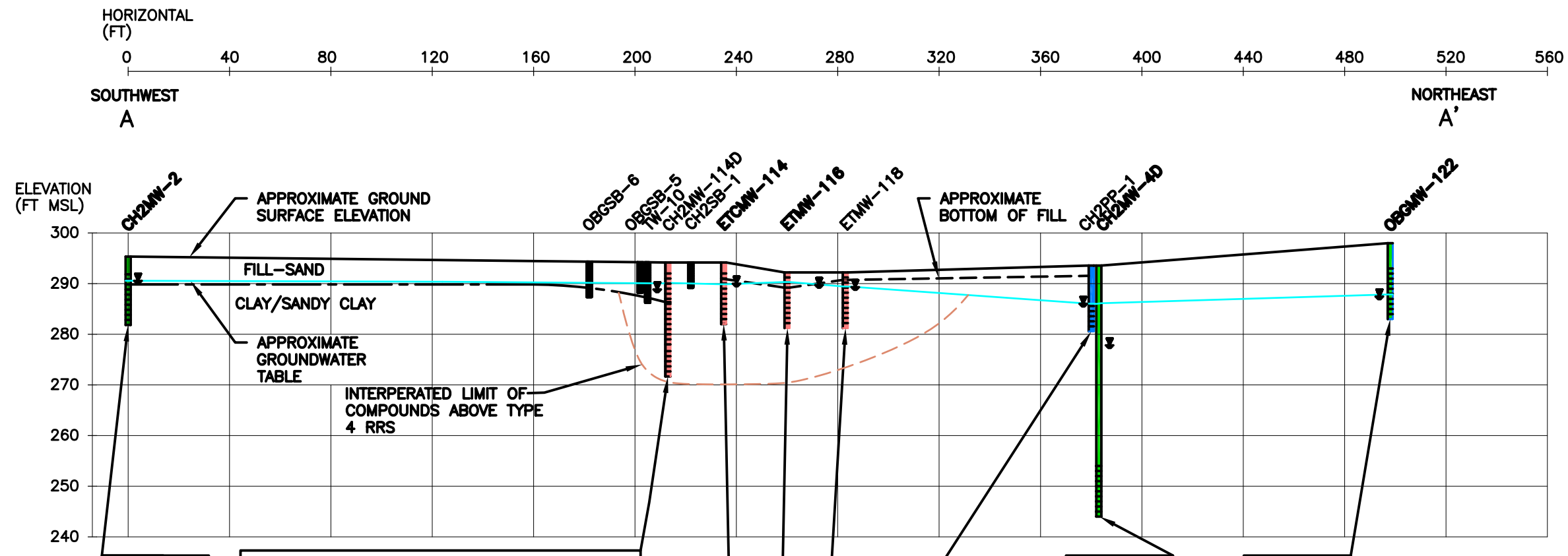
FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

HORIZONTAL EXTENT OF VOCs in GROUND WATER
APRIL 2004 (mg/L)

O'BRIEN & GERE ENGINEERS, INC.

Jul 01, 2004 - 8:47am
A:\RALEIGH\PROJECTS\1669 - Miller Brewing Company\34350 - Corrective Action Investigation - Moultrie\5 RPTS\June 2004 CSR\Figures\Figure-16 (Vertical Extent of VOCs in Ground Water, A-A').DWG

FIGURE 16



CH2MW-2

APRIL 2004

NO DETECTIONS

ETCMW-114D

PARAMETER	Type 1 RRS	Type 4 RRS	April-2004
1,1-Dichloroethane	4		0.0077
1,1-Dichloroethene	0.007	0.55	0.0053
cis-1,2-Dichloroethene	0.07	1.02	0.068D
Tetrachloroethene	0.005	0.005	0.01
Trichloroethene	0.005	0.005	0.02D

ETCMW-114

PARAMETER	Type 1 RRS	Type 4 RRS	April 2004	April 2004(DUP-2)
Benzene	0.005		0.0016	0.0017
Chloroethane	0.001	1.23	0.0053	0.0053
1,1-Dichloroethane	4		0.11D	0.11D
1,2-Dichloroethane	0.005		0.0029	0.0029
1,1-Dichloroethene	0.007	0.55	0.13D	0.13D
cis-1,2-Dichloroethene	0.07	1.02	2.4D	2.4D
trans-1,2-Dichloroethene	0.1		0.0025	0.0025
Tetrachloroethene	0.005	0.005	0.11D	0.12D
Trichloroethene	0.005	0.005	1.6D	1.7D

CH2MW-4D

APRIL 2004

NO DETECTIONS

OBGMW-122

APRIL 2004

NO DETECTIONS

CH2PP-1

PARAMETER	Type 1 RRS	Type 4 RRS	April-2004
1,1-Dichloroethane	4		0.00057

ETMW-118

PARAMETER	Type 1 RRS	Type 4 RRS	April-2004
1,1-Dichloroethane	4		0.033
1,1-Dichloroethene	0.007	0.55	0.00061
cis-1,2-Dichloroethene	0.07	1.02	0.0057
Tetrachloroethene	0.005	0.005	0.0019
Trichloroethene	0.005	0.005	0.021

ETMW-116

PARAMETER	Type 1 RRS	Type 4 RRS	April-2004
1,1-Dichloroethane	4		0.018
1,1-Dichloroethene	0.007	0.55	0.0055
cis-1,2-Dichloroethene	0.07	1.02	0.039
Tetrachloroethene	0.005	0.005	0.011
Trichloroethene	0.005	0.005	0.15D

LEGEND

- SCREENED INTERVAL
- SOIL BORING
- GROUNDWATER TABLE
- GROUNDWATER ELEVATION
- NO DETECTIONS
- NO DETECTIONS ABOVE TYPE 1 RRS
- DETECTED CONCENTRATION ABOVE TYPE 1 RRS
- CONCENTRATION ABOVE TYPE 4 RRS

VERTICAL EXAGGERATION 4X

(Blank) Not calculated — Not analyzed

PARAMETER	Type 1 RRS	Type 4 RRS	April-2004
Acetone	4		-
2-Butanone	2		2.25
1,1-Dichloroethene	0.007		1.00

Concentration above Type 4 RRS — Concentration above Type 1 RRS

FORMER MILLER BREWING COMPANY CAN PLANT MOULTRIE, GA.

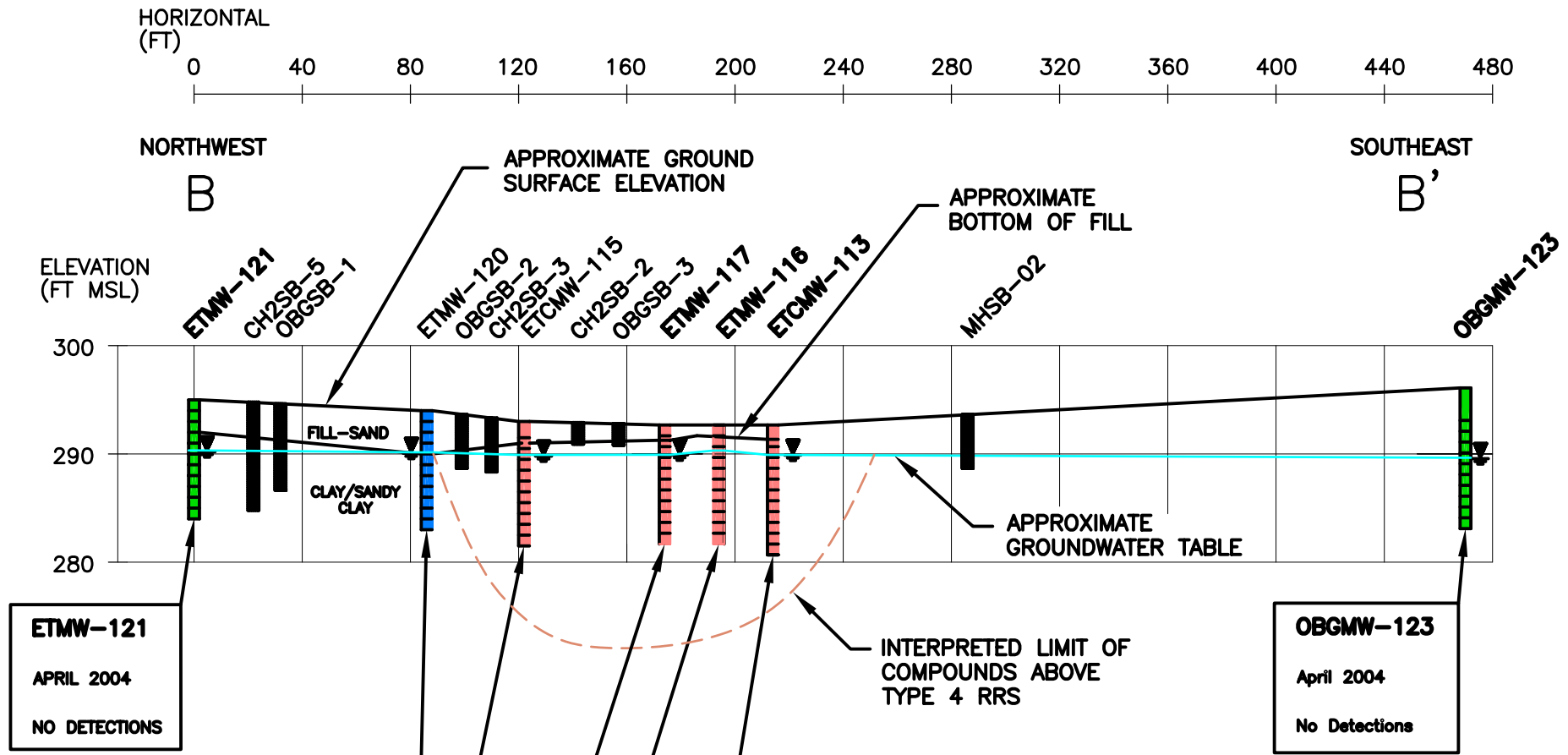
CROSS SECTION A-A' VERTICAL EXTENT OF VOCs IN GROUND WATER (mg/L) (APRIL 2004)

FILE NO. 1669.34350
MAY 2004

O'BRIEN & GERE ENGINEERS INC.

Jun 09, 2004 - 3:24pm
I:\RALEIGH\PROJECTS\1669 - Miller Brewing Company\34350 - Corrective Action Investigation - Moultrie\5_RPTS\June 2004 CSR\Figures\Figure-17 (Vertical Extent of VOCs in Ground Water, Section B-B').DWG

FIGURE 17



ETMW-121

APRIL 2004

NO DETECTIONS

OBGMW-123

April 2004

No Detections

ETMW-120

PARAMETER	Type 1 RRS	Type 4 RRS	April-2004
cis-1,2-Dichloroethene	0.07	1.02	0.0011

ETCMW-115

PARAMETER	Type 1 RRS	Type 4 RRS	April-2004
1,1-Dichloroethane	4		0.0064
cis-1,2-Dichloroethene	0.07	1.02	0.086D
Trichloroethene	0.005	0.005	0.016
Vinyl Chloride	0.002		0.0015

ETMW-117

PARAMETER	Type 1 RRS	Type 4 RRS	April-2004
1,1-Dichloroethane	4		0.0098
1,1-Dichloroethene	0.007	0.55	0.0022
cis-1,2-Dichloroethene	0.07	1.02	0.02
Tetrachloroethene	0.005	0.005	0.0032
Trichloroethene	0.005	0.005	0.064D

ETCMW-113

PARAMETER	Type 1 RRS	Type 4 RRS	April-2004
1,1-Dichloroethane	4		0.022
1,1-Dichloroethene	0.007	0.55	0.007
cis-1,2-Dichloroethene	0.07	1.02	0.066D
Tetrachloroethene	0.005	0.005	0.016
Trichloroethene	0.005	0.005	0.16D

ETMW-116

PARAMETER	Type 1 RRS	Type 4 RRS	April-2004
1,1-Dichloroethane	4		0.018
1,1-Dichloroethene	0.007	0.55	0.0055
cis-1,2-Dichloroethene	0.07	1.02	0.039
Tetrachloroethene	0.005	0.005	0.011
Trichloroethene	0.005	0.005	0.15D

LEGEND

- SCREENED INTERVAL
- SOIL BORING
- GROUNDWATER TABLE
- GROUNDWATER ELEVATION
- NO DETECTIONS
- NO DETECTIONS ABOVE TYPE 1 RRS
- DETECTED CONCENTRATION ABOVE TYPE 1 RRS
- CONCENTRATION ABOVE TYPE 4 RRS

VERTICAL EXAGGERATION 4X

(Blank) Not calculated — Not analyzed

PARAMETER	Type 1 RRS	Type 4 RRS	April-2004
Acetone	4		-
2-Butanone	2		2.25
1,1-Dichloroethene	0.007		1.00

Concentration above Type 4 RRS — Concentration above Type 1 RRS

FORMER MILLER BREWING COMPANY CAN PLANT MOULTRIE, GA.

CROSS SECTION B-B' VERTICAL EXTENT OF VOCs IN GROUND WATER (mg/L) (APRIL 2004)

FILE NO. 1669.34350
MAY 2004

O'BRIEN & GERE ENGINEERS INC.

2911/34350

REPORT
Volume I – Appendices A - E

Revised Compliance Status Report
Miller Brewing Company
Moultrie, Georgia

Miller Brewing Company
Moultrie, Georgia

June 2004



O'BRIEN & GERE
ENGINEERS, INC.

TABLE OF CONTENTS
VOLUME I – APPENDICES A - E

Revised Compliance Status Report
Miller Brewing Company
Moultrie, Georgia

A Regulatory Correspondence
- Georgia EPD Notice of Deficiency – January 18, 2000
- Georgia EPD Correspondence – March 15, 2000
- Miller Response to NOD and Comments – April 10, 2000
- Georgia EPD Notice of Deficiency – December 13, 2001
- Georgia EPD Correspondence – February 7, 2003
- Miller Response to Comments – March 31, 2003
- Comments from Georgia EPD regarding CSR/CAP submitted May 2003 –September 24, 2003

B Calculations for Risk Evaluation

C O'Brien & Gere Technical Policy and Procedures Instructions

D Field Forms
- Boring and Well Completion Diagrams
- Ground Water Sampling Log Forms for 2004

E Laboratory Analytical Data For Soil
- August – September 2000
- April 2004

Appendix A

Regulatory Correspondence

Georgia EPD Notice of Deficiency – January 18, 2000

Georgia Department of Natural Resources
205 Butler St. S.E., Floyd Towers, East, Suite 1462, Atlanta, Georgia 30334
Lonice C. Barrett, Commissioner
Environmental Protection Division
Harold F. Reheis, Director
Hazardous Waste Management Branch
404/657-8600

January 18, 2000

received 1/24/00
Fax'd to C. Counter 1/24/2
Fax'd to C. Herman 1/24/2

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Kathy M. Kinton
Miller Brewing Company
3939 West Highland Boulevard
Milwaukee, Wisconsin 53208

Re: Notice of Deficiency
Compliance Status Report
Reynolds Metals Company, Moultrie, Georgia
HSI Site No. 10425

Dear Ms. Kinton:

The Georgia Environmental Protection Division (EPD) has completed its review of the Compliance Status Report (CSR) submitted for the Reynolds Metals Company Site. The following comments discuss certain aspects that require further work and/or correction before this report can be considered complete with respect to Georgia's Rules for Hazardous Site Response Chapter 391-3-19 (Rules). A list of the deficiencies and the specific citation of the Rules follow:

Previous Investigations

1. All previous reports should be included as appendixes in the CSR, as required by Section 391-3-19-.06(3)(b) of the Rules. All boring logs, well construction diagrams, and detailed aquifer test data (e.g. slug test, etc.) should also be included.

Soil Contamination

2. The horizontal extent of soil contamination has not been delineated west of MW-113 and MW-114, near SB-4, and NNE of SB-2, as required by Section 391-3-19-.06(3)(b)(2) of the Rules.

3. EPD recommends to resample areas/borings where only acetone was detected in order to provide more evidence this contamination is the result of laboratory contamination as stated in the CSR. Strict QA/QC procedures should be followed.

4. The CSR does not describe exactly what QA/QC procedures were followed during the compliance status investigation, as required by Section 391-3-19-.06(3)(b)(2)(vii) of the Rules.

5. The CSR does not contain vertical cross sections that depict the extent of soil contamination, as required by Section 391-3-19-.06(3)(b)(2)(iii) of the Rules.

Groundwater Contamination

6. The horizontal and vertical extent of groundwater contamination at the site has not been determined, as required by Section 391-3-19-.06(3)(b)(3) of the Rules.

   A. The horizontal extent of contamination should be delineated to the southeast. A shallow monitoring well should be installed southeast of MW-113 to delineate the extent of contamination in groundwater and to help verify whether the groundwater flow direction in this area is towards a pond 1,000 southeast of the site as shown on the topographic map.

   B. An additional well should be installed between monitoring wells MW-1A and MW-5 since horizontal groundwater flow from the contamination source area will be directed between these wells as shown on Figure 5. This additional monitoring well will also assist in the future evaluation of corrective actions, especially since monitored natural attenuation (MNA) is being considered.

   C. A permanent well should be installed in the area of PP-1 to better define the edges of the plume. This well is also necessary in consideration of a MNA evaluation.

   D. The vertical extent of contamination was inadequately demonstrated with the bedrock well, MW-4D, at the boundary of the contamination plume. The vertical extent of contamination should be delineated at the highest contamination concentration of the plume, east of MW-114D to satisfy Section 391-3-19-.06(3)(b)(3) of the Rules, and to clarify the uncertainties regarding the mass of contaminants in the subsurface.

   E. Water samples should be collected and analyzed from the two storm water drainages, shown on Figure 2-2 in Appendix A, northeast and southwest of the property.

7. The following comments pertain to the methods used to characterize horizontal and vertical groundwater gradients, flow rates, and directions as discussed in the CSR, in accordance with Section 391-3-19-.06(3)(b)(3)(iii) of the Rules:

   A. The CSR does not provide enough understanding of the vertical groundwater flow at the site. Vertical groundwater flow should be determined in well clusters: PP-1/MW-4-D, and MW-114/MW-114D/and a newly installed deep monitoring well.

   B. Review the effective porosity value used in the groundwater velocity calculation with hydrogeologic literature. The effective porosity is smaller than total porosity used in the calculation.

   C. The calculation of the horizontal groundwater flow gradient presented in the CSR should be reviewed for an error. An approximate flow gradient between MW-118 and PP-1 is 0.044 instead of 0.0256 used in the flow velocity calculation. The groundwater flow velocity should be recalculated based on the corrected flow gradient.

8. In accordance with Section 391-3-19-.06(3)(b)(3)(iv) of the Rules, multiple slug tests must be performed at the site if slug tests are going to be relied upon to provide information on the three-dimensional distribution of hydraulic conductivity in an aquifer. The slug tests should

ideally be conducted in wells that are narrowly screened in the most transmissive zones in the aquifer. EPD recommends the slug test data provided in the CSR be reevaluated because the Site Investigation Report for the Former Miller Brewing Company Moultrie Container Division Facility, dated March 22, 1994, which includes the original slug test data, states that the hydraulic conductivity value may be underestimated. Also, the slug test calculations should be provided.

9. The methods used to seal wells from the surface and any other features designed to prevent or minimize downward migration of contaminants along the well annulus should be described for monitoring wells, as required by Section 391-3-19-.06(3)(b)(3)(v)(V) of the Rules. Additionally, the fact that bentonite seals were not placed in monitoring wells MW-116, MW-117, MW-118, MW-119, MW-120, and MW-121 and are very thin in monitoring wells MW-113, MW-114, and MW-115 should be explained in the revised CSR. Any additional monitoring wells should be installed according to the standard operating and field quality assurance procedures presented in the Environmental Investigation Standard Operating Procedures and Quality Assurance manual, U.S. Environmental Protection Agency, Region 4, 1991 and 1996 (SOP). The revised CSR should include an evaluation of how the data may be affected by the uncompleted or improperly installed wells.

10. The water quality sampling data from monitoring wells MW-115, MW-117, and MW-119 should be added to the CSR, as required by Section 391-3-19-.06(3)(b)(3)vi)(II) of the Rules. All monitoring wells should be developed/purged according to SOP prior to sampling. Monitoring well MW-4D might not have been properly developed prior to sampling. The high pH, turbidity, and specific conductivity values detected in groundwater from this well suggest that the well might have contained well construction materials and therefore should be resampled.

11. The following deficiencies were noted during review of the description of sampling and analysis procedures, required by 391-3-19-.06(3)(b)(3)(vi) of the Rules:

    A. The procedure discussed on page 2-5 of the CSR, in which groundwater samples from MW-1 and MW-1A were collected using a peristaltic pump, should be described in detail. EPD cannot tell from the provided description whether the proper procedure was followed.

    B. A description of sample preservation techniques should be included in the CSR, as required by Section 391-3-19-.06(3)(b)(3)(vi)(IV) of the Rules.

12. The procedures used to determine background groundwater concentrations should be included in the CSR, as required by Section 391-3-19-.06(3)(b)(3)(vii) of the Rules.

13. There were various problems noted in the chain of custody (COC) provided in the CSR, presented in accordance Section 391-3-19-.06(3)(b)(3)(vi)(VI) of the Rules. The COC is missing for samples collected from MW-116 and MW-118 for gases. There is no COC for sample MW-120 Dup. There is no time, type of sampling, and container type for MW-4D sample on the Microseeps COC for samples shipped August 6, 1998. Also, the date samples were received by Microseeps, Inc. is not legible on this COC. The COC provided in the CSR does not record the condition of the samples received by the laboratory.

14. Figure 7 which was provided in the CSR in accordance with Section 391-3-19-.06(3)(b)(3)(viii) of the Rules, requires revision. Figure 7 shows that PP-1 was non-detect for trichloroethene (TCE); however, the laboratory report does not report a result for TCE (table 2 should also be corrected for this reason).

15. The vertical cross-sections do not depict the concentrations for all regulated substances superimposed upon site stratigraphic features and monitoring wells, as required by Section 391-3-19-.06(3)(b)(3)(x) of the Rules..

16. There are several errors and omissions in the narrative and tabular summaries, provided in the CSR in accordance with Section 391-3-19-.06(3)(b)(3)(x) of the Rules, that need to be addressed. The deficiencies are as follows:

    A. There is no monitoring well MW-5D installed at the site. Correct the paragraphs referencing this well on page 2-7 in the CSR.

    B. Correct the screen intervals in Table 3, according to the well construction diagrams for monitoring wells: MW-1, MW-1A, MW-5, and PP-1.

    C. Correct the dissolved oxygen data for MW-113, MW-114, and MW-121 in Table 5 according to the groundwater sampling data sheets included in Appendix E of the CSR.

    D. The "ND" symbols should be replaced with detection limits in Table 2 of the CSR.

    E. Laboratory QA/QC procedures are missing for this report for the work done by Microseeps, Inc.

17. The revised CSR should provide an evaluation of the potential for the groundwater contamination plume to adversely impact the surface water (the pond) located southeast of the contamination plume using the new groundwater flow velocity and historical contamination trends.

<u>Risk Reduction Standards (RRS)</u>

18. The proposed RRS are deficient with respect to Section 391-3-19-.07 of the Rules for the following reasons:

    A. Table 4 incorrectly concludes there are "no applicable regulatory criteria" for acetone, isobutyl alcohol, vinyl acetate, and dibromomethane despite the fact that RRS can be calculated for these regulated substances.

    B. The results of leachate tests, discussed in Section 391-3-19-.07(6)(c)(1)(iii) of the Rules, were not included in the evaluation of Type 3 RRS, as required by Section 391-3-19-.07(8)(d)(1) of the Rules.

    C. The Type 3 RRS presented in the CSR do not provide values for soils within 2 feet of the land surface and for soils below 2 feet deep, in accordance with Section 391-3-19-.07(8)(d) of the Rules.

D. The calculations using equation 6 and 7 of the RAGS (Risk Assessment Guidance for Superfund), Part B, discussed in Section 391-3-19-.07(8)(d)(2) of the Rules, should be presented in the CSR. Concentrations of regulated substances using equations 6 and 7 of RAGS, Part B, should be calculated with the most recent values taken from the current version of USEPA's Integrated Risk Information System (IRIS) or, if not listed in IRIS, from the current version of USEPA's Health Effects Assessment Summary Tables (HEAST). The results of these calculations should be used to determine RRS, in accordance with Section 391-3-19-.07(8)(d) of the Rules, because the values presented in EPD's Guidance on Target Soil Concentrations for Type 1 and Type 3 Risk Reduction Standards may not be the most current of for all regulated substances.

19. EPD suggests the revised CSR provide an evaluation of compliance with Type 4 RRS for all regulated substances in groundwater at the site. This evaluation my be useful when designing corrective action for this site.

Certification of Compliance with Risk Reduction Standards

20. EPD cannot concur with the compliance certification on page IV of the CSR required by Section 391-3-19-.06(4) of the Rules, for the following reasons:

A. The proposed risk reduction standards discussed in Section 3 of the CSR, and presented in Tables 1, 2, and 4 of the CSR were not calculated properly in accordance with Section 391-3-19-.07 of the Rules.

B. The application of Type 5 RRS is not appropriate for this site because a demonstration that the application of Type 1-4 RRS is not appropriate for this site has not been provided, as required by Section 391-3-19-.07(10)(a) of the Rules. Also, it is not appropriate to substitute active remedial measures with institutional controls at this site.

C. The proposed remedial measures are not consistent with Section 391-3-19-.07(10)(a) of the Rules, and they do not meet the performance criteria for groundwater of Section 391-3-19-.08(d)(4) of the Rules, as required by Section 391-3-19-.07(10)(d) of the Rules.

Corrective Action Plan

21. The CAP is deficient because it does not include:

A. A discussion of alternative and active remedial measures for the site, including a comparison to monitored natural attenuation (MNA).

B. An evaluation of how MNA was chosen as the best remedial option.

C. A description of the criteria used to evaluate the effectiveness of the selected remedial action, and what will trigger the decision to perform additional corrective action or select a different method of corrective action.

D. A clear description the cleanup objectives and goals for the site in both narrative and tabular formats.

22. The CAP should be designed according to guidance from USEPA on the Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites, OSWER, April 1999.

23. At this time EPD cannot determine the appropriateness of the proposal to use MNA due to the lack of historical groundwater analysis data. Also, the CAP does not provide an estimate of the rate of natural attenuation for each regulated substance, including an estimate of time it would take for MNA to achieve compliance with appropriate RRS. A very detailed understanding of the aquifer hydraulics, recharge and discharge areas, and volume and chemical properties is necessary before the final decision to used MNA as the best remedial approach can be made. Despite these deficiencies, it may be appropriate to continue to collect data to evaluate the appropriateness of the use of MNA at this site. However, an evaluation of the potential for adverse impact to the pond southeast of the plume must be considered.

24. Simply monitoring for chemicals of concern at this site, as discussed on page 4-2 of the CSR, is not adequate for the proposed MNA approach.

25. The CAP should provide an explanation of how the future horizontal extent of the VOC plume will be estimated based on the proposed semi-annual sampling events discussed on page 4-3 of the CSR. EPD suggests that quarterly monitoring is more appropriate than semi-annual monitoring for this site.

26. The role of dissolved oxygen in the biodegradation of chlorinated regulated substances should be reevaluated, in accordance with item 16C above.

27. The CAP should be revised to reflect revisions to the CSR to address any deficiencies.

Please submit a schedule by March 3, 2000 for addressing these comments and submitting a revised CSR. Please contact Mr. David Reuland at (404) 657-8600 if you would like to meet to discuss these comments.

Sincerely,

Jim Brown
Unit Coordinator
Superfund Management Unit

File: HSI # 10425
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Georgia EPD Correspondence – March 15, 2000

Georgia Department of Natural Resources
205 Butler St. S.E., Floyd Towers, East, Suite 1462 Atlanta, Georgia 30334
Lonice C. Barrett, Commissioner
Environmental Protection Division
Harold F. Reheis, Director
Hazardous Waste Management Branch
404-657-8600

March 15, 2000

Mr. Tom Eplett
Miller Brewing Company
PO Box 482
Milwaukee, Wisconsin 53201-0482

Subject: Reynolds Metals Company Site
Moultrie, Colquitt County

Dear Mr. Eplett:

Thank you for meeting with the Dave Reuland, Irena Rybak, and myself yesterday, to discuss the January 18, 2000 Notice of Deficiency (NOD). In this meeting we committed to reconsider several comments in the NOD based on our discussions.

The first comment the Environmental Protection Division (EPD) was asked to reconsider was Item 6.A. in the NOD that requires the installation of an additional well southeast of MW-113. Specifically, the usefulness of an additional well to the southeast was questioned and it was suggested that MW-5 could be used to establish the horizontal extent of groundwater contamination. Based on EPDs review of the data presented in the CSR and put forth in our meeting yesterday, the location of MW-5 does not provide sufficient delineation of the groundwater contamination to the southeast of MW-113. Because of this an additional well is needed to accomplish delineation to the southeast. Attached is a map that shows a suggested location for this additional well.

EPD was asked to reconsider Item 6.B. of the NOD that requires the installation of an additional well between MW-1A and MW-5 due to the distance between these wells and the potential for groundwater contamination to migrate in this direction. It was suggested in our meeting that an additional well is not needed in this area. Based on EPDs review of the data in the CSR and our discussion yesterday, an additional between MW-5 and MW-1A is still needed to accomplish delineation in this area.

EPD was asked to reconsider Item 6.D. of the NOD that requires the installation of an additional deep well to complete vertical delineation. Based on our discussions and a review of the data in the CSR, EPD retracts Item 6.D., and that the installation of an additional deep well is not necessary.

Lastly, EPD was asked to clarify whether leachate tests are necessary to calculate Type 3 risk reduction standards (RRS) for soil. Item 18.B. of the NOD was provided to point out that a leachate test could be used could be used to establish a Type 3 RRS for soil. Since the Type 3 RRS is based on the higher of the items listed in Section 391-3-19-.07(8)(d)(1) of the Rules for Hazardous Site Response, use of a RRS based on a leachate test would potentially increase the Type 3 RRS. Because of this, item 18.B of the NOD does not require developing a Type 3 RRS based on a leachate test.

If you have any questions, please contact David Reuland at 404-657-8600.

Sincerely,

Jim Brown
Unit Coordinator
Superfund Management Unit

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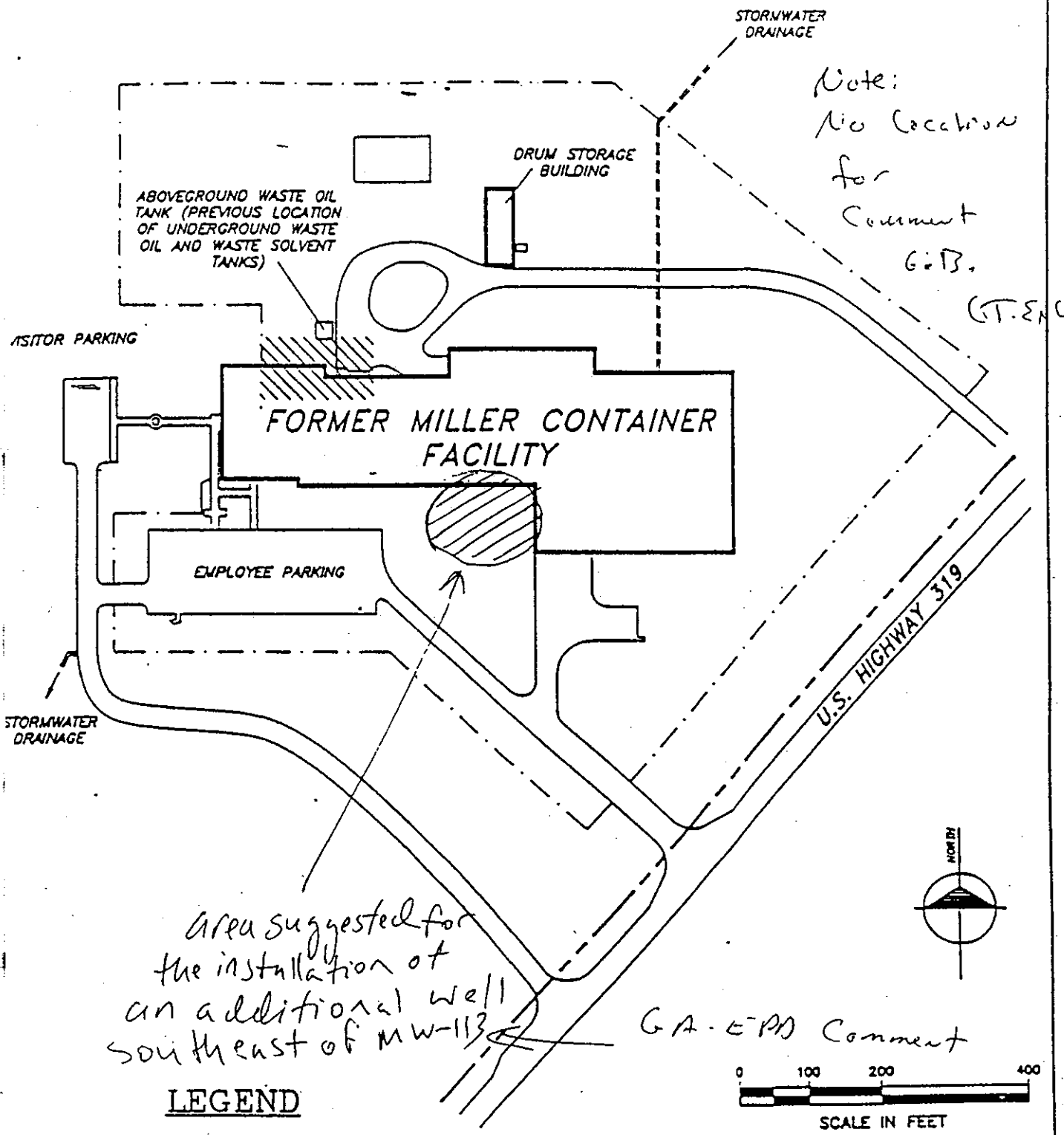

FIGURE 2-2

GENERAL SITE MAP

FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA

JUNE, 1995 23052

EARTH TECH

Miller Response to NOD and Comments – April 10, 2000

April 10, 2000

Mr. Jim Brown
Unit Coordinator
Superfund Management Unit
Georgia Department of Natural Resources
Environmental Protection Division
205 Butler Street, SE, Suite 1462

Atlanta, GA 30334

Subject: Compliance Status Report Notice of Deficiency
Reynolds Metals Company, Moultrie, Georgia
HSI Site No. 10425

Dear Mr. Brown:

Attached is the response to EPD's comments (letter dated January 18, 2000) on the Compliance Status Report (CSR) submitted for the Moultrie, Georgia in September 1998. Also included are a schedule for completing the submission of the revised CSR and a Corrective Action Plan (CAP), as well as a site map showing the proposed locations for the additional borings and monitoring wells requested. The proposed submittal dates for the two documents are:

Revised CSR submittal to GA EPD - 9/22/00

CAP submittal to GA EPD – 5/25/01

Should you have any questions or require additional information please feel free to give me a call (414-931-4356).

Sincerely,

Miller Brewing Company

Tom Eplett

Comments/Responses

Previous Investigations

Comment:

1. All previous reports should be included as appendixes in the CSR, as required by Section 391-3-10-.06(3)(b) of the Rules. All boring logs, well construction diagrams, and detailed aquifer test data (e.g., slug test, etc.) should also be included.

Response:

Concur. All previous reports will be included in the revised CSR as an appendix including boring logs, well construction diagrams, and detailed aquifer test data.

Soil Contamination

Comment:

2. The horizontal extent of soil contamination has not been delineated west of MW-113 and MW-114, near SB-4, and NNE of SB-2, as required by Section 391-3-19-.06(3)(b)(2) of the Rules.

Response:

- *It is proposed that horizontal extent be delineated with a new angle boring west of MW-113 and MW-114 which will be advanced from the north edge of the building (see attached map for proposed location).*
- *An additional soil boring is proposed south-southeast of MW-1 in order to gain horizontal extent in the areas mentioned nears SB-4 and north-northeast of SB-2 (see attached map for proposed location).*

Comment:

3. EPD recommends re-sampling areas/borings where only acetone was detected in order to provide more evidence this contamination is the result of laboratory contamination as stated in the CSR. Strict QA/QC procedures should be followed.

Response:

Data validation and QA/QC procedures for installation and sampling procedures in areas where only acetone was detected (Trench 1, SB-5, SB-3, MW-117, MW-118 [DUP], MW-120) will be reviewed to confirm adherence to HSRA rules. In locations where QA/QC was not adequate to negate acetone contamination, these areas will be re-sampled under strict EPA Region IV and EPD QA/QC procedures and in accordance with HSRA.

Comment:

4. The CSR does not describe exactly what QA/QC procedures were followed during the compliance status investigation, as required by Section 391-3-19-.06(3)(b)(2)(vii) of the Rules.

Response:
Concur: A section will be added describing the QA/QC procedures used during the compliance status investigation.

Comment:

5. The CSR does not contain vertical cross sections that depict the extent of soil contamination, as required by section 391-3-19-.06(3)(b)(2)(iii) of the Rules.

Response:
Concur. A vertical cross section depicting the extent of soil contamination will be included in the revised CSR.

Groundwater Contamination

Comment:

6. The horizontal and vertical extent of groundwater contamination at the site has not been determined, as required by Section 391-3-19-.06(3)(b)(3) of the Rules.

Response:
The responses to items A-D below address this comment.

Comment:

A. The horizontal extent of contamination should be delineated to the southeast. A shallow monitoring well should be installed southeast of MW-113 to delineate the extent of contamination in groundwater and to help verify whether the groundwater flow direction in this area is towards a pond 1,000 southeast of the site as shown on the topographic map.

Response:
As requested, an additional monitoring well will be installed southeast of MW-113 to establish horizontal extent of groundwater contamination in this area of the site. The location of the proposed monitoring well will be in the area requested in your letter dated March 15, 2000 (see attached map for proposed location)..

Comment:

B. An additional well should be installed between monitoring wells MW-1A and MW-5 since horizontal groundwater flow from the contamination source area will be directed between these wells as shown on Figure 5. This additional monitoring well will also assist in the future evaluation of corrective actions, especially since monitored natural attenuation (MNA) is being considered.

Response:
As requested, an additional monitoring well will be installed between MW-1A and MW-5 to further delineate the extent of contamination in this area (see attached map for proposed location).

Comment:

C. A permanent well should be installed in the area of PP-1 to better define the edges of the plume. This well is also necessary in consideration of a MNA evaluation.

Response:

PP-1 is a permanent well. Installation details can be found in Appendix C of the CSR. The identification for this monitoring well will be changed from PZ-1 to PP-1 in the revised CSR.

Comment:

D. The vertical extent of contamination was inadequately demonstrated with the bedrock well, MW-4D, at the boundary of the contamination plume. The vertical extent of contamination should be delineated at the highest contamination concentration of the plume, east of MW-114D to satisfy Section 391-3-19-.06(3)(b)(3) of the Rules, and to clarify the uncertainties regarding the mass of contaminants in the subsurface.

Response:

Monitoring well MW-4D delineates vertical extent of contamination directly downgradient from the source. This request was accepted in your letter dated March 15, 2000, therefore the installation of an additional deep monitoring well is not required.

Comment:

E. Water samples should be collected and analyzed from the two storm water drainages, shown on Figure 2-2 in Appendix A, northeast and southwest of the property.

Response:

The hydraulic connection (if any) between the plume and the storm water drainage system will be investigated. If a connection exists, remedial alternatives will include the storm drainage system. The past detection of chlorinated compounds will be addressed during future CS investigations by identifying possible sources and by collecting additional samples in the stormwater drainage locations.

TOM please note that the current owner should be advised of this commitment.

Comment:

7. The following comments pertain to the methods used to characterize horizontal and vertical groundwater gradients, flow rates, and directions as discussed in the CSR, in accordance with section 391-3-19-.06(3)(b)(3)(iii) of the Rules:

   A. The CSR does not provide enough understanding of the vertical groundwater flow at the site. Vertical groundwater flow should be determined in well clusters: PP-1/MW-4-D, and MW-114/MW-114D/and a newly installed deep monitoring well.

Response:
Well clusters PP-1/MW-4-D, and MW-114/MW-114D provide ample understanding of the vertical gradient at the site. The problems initially encountered with water level stability in MW-4D are not anticipated to recur during the next field effort. Data from both clusters will be used to determine vertical gradient in the revised CSR.

Comment:

B. Review the effective porosity value used in the groundwater velocity calculation with hydrogeologic literature. The effective porosity is smaller than total porosity used in the calculation.

Response:
The effective porosity should be smaller than the total porosity. Values and calculations used to determine porosity will be included in the revised CSR and sources used will be cited.

Comment:

C. The calculation of the horizontal groundwater flow gradient presented in the CSR should be reviewed for an error. An approximate flow gradient between MW-118 and PP-1 is 0.044 instead of 0.0256 used in the flow velocity calculation. The groundwater flow velocity should be recalculated based on the corrected flow gradient.

Response:
Concur. 0.044 is an accurate representation of the gradient between these two wells. Flow velocity will be recalculated using this value for gradient and calculations will be included in the revised CSR.

Comment:

8. In accordance with section 391-3-19-.06(3)(b)(3)(iv) of the Rules, multiple slug tests must be performed at the site if slug tests are going to be relied upon to provide information on the three-dimensional distribution of hydraulic conductivity in an aquifer. The slug tests should ideally be conducted in wells that are narrowly screened in the most transmissive zones in the aquifer. EPD recommends the slug test data provided in the CSR be reevaluated because the Site Investigation Report for the Former Miller Brewing Company Moultrie Container Division Facility, dated March 22, 1994, which includes the original slug test data, states that the hydraulic conductivity value may be underestimated. Also, the slug test calculations should be provided.

Response:
Slug test calculations for the previous slug test (1994 – Site Investigation) could not acquired for inclusion in the revised CSR. The previous contractor who performed the slug tests was contacted, but was unable to locate the slug test data. It is proposed that additional slug tests be performed on wells within the most permeable portion of the aquifer being characterized for groundwater contamination.

Comment:

9. The methods used to seal wells from the surface and any other features designed to prevent or minimize downward migration of contaminants along the well annulus should be described for monitoring wells, as required by Section 391-3-19-.06(3)(b)(3)(v)(V) of the Rules. Additionally, the fact that bentonite seals were not placed in monitoring wells MW-116, MW-117, MW-118, MW-119, MW-120, and MW-121 and are very thin in monitoring wells MW-113, MW-114, and MW-115 should be explained in the revised CSR. Any additional monitoring wells should be installed according to the standard operating and field quality assurance procedures presented in the Environmental Investigation Standard Operating Procedures and Quality Assurance manual, U.S. Environmental Protection Agency, Region 4, 1991 and 1996 (SOP). The revised CSR should include an evaluation of how the data may be affected by the uncompleted or improperly installed wells.

Response:

The depth to groundwater at the site precluded any significant thickness of grout. To provide wellhead stability in these shallow wells, the required concrete seal left little or no available depth for grout during well construction. Due to the fact that these wells do not breach confined aquifer zones, the onsite geologist(s) deemed this practice acceptable. Wells will be installed according to the standard operating and field quality assurance procedures presented in the EPA Region IV's Environmental Investigation Standard Operating Procedures and Quality Assurance Manual. Where site conditions prohibited strict adherence to these procedures, any variances will be thoroughly explained in the revised CSR.

Comment:

10. The water quality sampling data from monitoring wells MW-115, MW-117, and MW-119 should be added to the CSR, as required by Section 391-3-19-.06(3)(b)(3)(vi)(II) of the Rules. All monitoring wells should be developed/purged according to SOP prior to sampling. Monitoring well MW-4D might not have been properly developed prior to sampling. The high pH, turbidity, and specific conductivity values detected in groundwater from this well suggest that the well might have contained well construction materials and therefore should be resampled.

Response:

Table 2 contains the water quality sampling data for monitoring wells MW-115, MW-117, and MW119, for sampling dates conducted prior to the compliance status investigation (12/94 and 3/95 sampling events). These wells were not sampled in 1998 during the compliance status investigation, so no water quality data was available to include in the report. There is no additional data to be added to the revised CSR.

The monitoring well completion diagram for MW4-D in Appendix C of the CSR states that the well was developed but is a low producer. This may make it difficult to effectively develop MW-4D. It is proposed that the well be redeveloped and re-tested to determine if pH and conductivity values are still elevated. USEPA guidelines will be followed during the redevelopment and sampling of this monitoring well. If site conditions prohibits strict adherence to this guidelines, the variations will be thoroughly explained in the revised CSR. However, high values for pH and conductivity in this well will not effect the detection of the contaminants of concern.

Comment:

11. The following deficiencies were noted during review of the description of sampling and analysis procedures, required by 391-3-19-. 06(3)(b)(3)(vi)of the Rules:

    A. The procedure discussed on page 2-5 of the CSR, in which groundwater samples from MW-1 and MW-1A were collected using a peristaltic pump, should be described in detail. EPD cannot tell from the provided description whether the proper procedure was followed.

Response:

Concur. Information on the procedures used for collecting groundwater samples from MW-1 and MW-1A using a peristaltic pump will be included in the revised CSR.

Comment

    B. A description of sample preservation techniques should be included in the CSR, as required by Section 391-3-19-. 06(3)(b)(3)(vi)(IV) of the Rules.

Response:

Concur. Information on the procedures used for sample preservation techniques used will be included in the revised CSR.

Comment:

12. The procedures used to determine background groundwater concentrations should be included in the CSR, as required by Section 391-3-19-. 06(3)(b)(3)(vii) of the Rules.

Response:

Concur. A discussion of procedures used to determine background groundwater concentration will be included in the revised CSR.

Comment:

13. There were various problems noted in the chain of custody (COC) provided in the CSR, presented in accordance Section 391-3-19-. 06(3)(b)(3)(vi)(VI) of the Rules. The COC is missing for samples collected from MW-116 and MW-118 for gases. There is no COC for sample MW-120 Dup. There is no time, type of sampling, and container type for MW-4D sample on the Microseeps COC for samples shipped August 6, 1998. Also, the date samples were received by Microseeps, Inc. is not legible on this COC. The COC provided in the CSR does not record the condition of the samples received by the laboratory.

Response:

Concur. Every attempt will be made to obtain corrected and/or better copies of completed Chain of Custody forms from the laboratory. Any deficiency and discrepancies of those forms, which can not be remedied, will be discussed in the text of the CSR.

Comment:

14. Figure 7, which was provided in the CSR in accordance with Section 391-3-l 9-. 06(3)(b)(3)(viii) of the Rules requires revision. Figure 7 shows that PP-1 was non-detect for trichloroethene (TCE); however, the laboratory report does not report a result for TCE (Table 2 should also be corrected for this reason).

Response:

Concur. TCE will be noted as "not analyzed" for the monitoring well PP-1 in Figure 7 of the revised CSR.

Comment:

15. The vertical cross-sections do not depict the concentrations for all regulated substances superimposed upon site stratigraphic features and monitoring wells, as required by Section 391-3-l 9-. 06(3)(b)(3)(x) of the Rules.

Response: -

Concur. The vertical cross-sections will depict the concentrations for all regulated substances superimposed upon the site stratigraphic features and monitoring wells in the revised CSR.

Comment:

16. There are several errors and omissions in the narrative and tabular summaries, provided in the CSR in accordance with Section 391-3-19-. 06(3)(b)(3)(x) of the Rules, that need to be addressed. The deficiencies are as follows:

    A. There is no monitoring well MW-5D installed at the site. Correct the paragraphs referencing this well on page 2-7 in the CSR.

Response:

Concur. Paragraphs referencing monitoring well MW-5D will be corrected in the revised CSR.

Comment:

B. Correct the screen intervals in Table 3, according to the well construction diagrams for monitoring wells: MW-1, MW-1A, MW-5, and PP-1.

Response:

Concur. The screen intervals will be included in Table 3 of the revised CSR for monitoring wells MW-1, MW-1A, MW-5 and PP-1.

Comment:

C. Correct the dissolved oxygen data for MW-113, MW-114, and MW-121 in Table 5 according to the groundwater sampling data sheets included in Appendix E of the CSR.

Response:

Concur. The dissolved oxygen data for MW-113, MW114, and MW-121 in Table 5 will be corrected to reflect those values measured during the time of sample collection.

Comment:

D. The "ND" symbols should be replaced with detection limits in Table 2 of the CSR.

Response:

Concur. The "ND" symbols in Table 2 will be replaced with "< the detection limit" in the revised CSR.

Comment:

E. Laboratory QA/QC procedures are missing for this report for the work done by Microseeps, Inc.

Response:

Concur. A discussion of laboratory QA/QC procedures will be included in the revised CSR.

Comment:

17. The revised CSR should provide an evaluation of the potential for the groundwater contamination plume to adversely impact the surface water (the pond) located southeast of the contamination plume using the new groundwater flow velocity and historical contamination trends.

Response:

Concur. The recalculated groundwater flow velocity and historical contamination trends will be utilized to evaluate the impact of the contamination plume to proximal surface water bodies, including the pond to the southeast of the plume in the revised CSR.

Risk Reduction Standards (RRS)

Comment:

18. The proposed RRS are deficient with respect to Section 391-3-19-. 07 of the Rules for the following reasons:

A. Table 4 incorrectly concludes there are "no applicable regulatory criteria "for acetone, isobutyl alcohol, vinyl acetate, and dibromomethane despite the fact that RRS can be calculated for these regulated substances.

Response:

Concur. The risk reduction standards will be added for acetone, isobutyl alcohol, and dibromomethane if they are determined to be contaminants of concern at this site after further review of the analytical results and QA/QC data.

Comment:

B. The results of leachate tests, discussed in Section 391-3-l 9-.07(6)(c)(1)(iii) of the Rules, were not included in the evaluation of Type 3 RRS, as required by Section 391-3-19.07(8)(d)(l) of the Rules.

Response:

Concur. TCLP analysis was not performed on the soil samples collected. The evaluation of Type 3 RRS will be performed using Item (i) or (ii), which ever is the highest, for determining if the soils previously collected meet this criteria. Based on your letter dated March 15, 2000 it is not required that a Type 3 RRS be developed based on a leachate test for those samples collected. As requested above, either Item (i) or (ii) , which ever is highest, will be used to develop the Type 3 RRS. If necessary, soil samples collected in the future will have the leachate test performed on them.

Comment:

C. The Type 3 RRS presented in the CSR do not provide values for soils within 2 feet of the land surface and for soils below 2 feet deep, in accordance with Section 391-3-19-.07(8)(d) of the Rules.

Response:

The RRS for soil will differentiate between 0-2 ft bgs and deeper than 2 ft bgs.

Comment:

D. The calculations using equation 6 and 7 of the RAGS (Risk Assessment Guidance for Superfund), Part B, discussed in Section 391-3-19-. 07(8)(d)(2) of the Rules, should be presented in the CSR. Concentrations of regulated substances using equations 6 and 7 of RAGS, Part B, should be calculated with the most recent values taken from the current version of USEPA 's Integrated Risk Information System (IRIS) or, if not listed in IRIS, from the current version of USEPA 's Health Effects Assessment Summary Tables (HEAST). The results of these calculations should be used to determine RRS, in accordance with Section 391-3-19-.07(8)(d) of the Rules, because the values presented in EPD's Guidance on Target Soil Concentrations for Type 1 and Type 3 Risk Reduction Standards may not be the most current of for all regulated substances.

Response:

Concur. Proposed RRS will be calculated using equations 6 and 7 of the RAGS as per Section 391-3-19-. 07(8)(d)(2) of the rules. The most up to date IRIS/HEAST published values to satisfy the variables in equation 6 & 7 will be used.

Comment:

19. EPD suggests the revised CSR provide an evaluation of compliance with Type 4 RRS for all regulated substances in groundwater at the site. This evaluation may be useful when designing corrective action for this site.

Response:

Noted. An evaluation of compliance with Type 4 RRS for all regulated substances in the groundwater at the site will be performed and if applicable, will be used in designing corrective action for this site.

Certification of Compliance with Risk Reduction Standards

Comment:

20. EPD cannot concur with the compliance certification on page IV of the CSR required by Section 391-3-19-.06(4) of the Rules, for the following reasons:

A. The proposed risk reduction standards discussed in Section 3 of the CSR, and presented in Tables 1, 2, and 4 of the CSR were not calculated properly in accordance with Section 391-3-19-.07 of the Rules.

Response:
The RRS presented in Table 1, 2, and 4 will be evaluated and recalculated if necessary for the revised CSR.

Comment: -

B. The application of Type 5 RRS is not appropriate for this site because a demonstration that the application of Type 1-4 RRS is not appropriate for this site has not been provided, as required by Section 391-3-19-. 07(10)(a) of the Rules. Also, it is not appropriate to substitute active remedial measures with institutional controls at this site.

Response:
Risk reduction standards 1-5 may not currently apply to the MBC site. Additional site characterization will be performed and a remedial alternative implemented, to attain compliance with a RRS. The revised CSR will be submitted with a certification that the site does not comply with any RRS. A Corrective Action Plan will be prepared to address how a remedial action was chosen and what the monitoring program will be. After the chosen remedial action has effectively reduced the concentration of contamination at the site, a revised CSR should then be submitted with an application for a type 1-4 RRS.

Comment:

C. The proposed remedial measures are not consistent with Section 391-3-19-. 07(10)(a) of the Rules, and they do not meet the performance criteria for groundwater of Section 391-3-19-. 08(d)(4) of the Rules, as required by Section 391-3-19-. 07(10)(d) of the Rules.

Response:
The proposed remedial measure performance criteria for groundwater will be re-evaluated for consistency with the appropriate rules listed above and the appropriate remedial measure will be recommended in Corrective Action Plan

Comment:

21. The CAP is deficient because it does not include:

A. A discussion of alternative and active remedial measures for the site, including a comparison to monitored natural attenuation (MNA).

Response:
Concur. At least 3 remedial alternatives will be discussed and evaluated for effectiveness at this site in the revised CSR. The justification for selection of a remedial measure will also be discussed in the revised CSR. CERCLA's nine criteria for evaluating remedial alternatives will be used as a guideline.

Comment:

B. An evaluation of how MNA was chosen as the best remedial option.

Response:
Concur. The revised CSR will include a discussion of all remedial measures identified for the site. The remedial alternative chosen for the site will be evaluated to provide understanding of why it was chosen as the best remedial alternative.

Comment:

C. A description of the criteria used to evaluate the effectiveness of the selected remedial action, and what will trigger the decision to perform additional corrective action or select a different method of corrective action.

Response:

Concur. Performance criteria will be established for the chosen remedial action. Remedial plans and short/long term goals utilized for evaluation of remedial action effectiveness will be included. Specific trigger items will be noted.

Comment:

A clear description of the cleanup objectives and goals for the site in both narrative and tabular formats.

Response:

Concur. A clear description of the cleanup objectives and goals for the site in both narrative and tabular formats will be included in the Corrective Action Plan.

Comment:

22. The CAP should be designed according to guidance from USEPA on the Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites, OSWER, April 1999.

Response:

Concur. The CAP will follow guidance provided by USEPA (Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites).

Comment:

23. At this time EPD cannot determine the appropriateness of the proposal to use MNA due to the lack of historical groundwater analysis data. Also, the CAP does not provide an estimate of the rate of natural attenuation for each regulated substance, including an estimate of time it would take for MNA to achieve compliance with appropriate RRS. A very detailed understanding of the aquifer hydraulics, recharge and discharge areas, and volume and chemical properties is necessary before the final decision to used MNA as the best remedial approach can be made. Despite these deficiencies, it may be appropriate to continue to collect data to evaluate the appropriateness of the use of MNA at this site. However, an evaluation of the potential for adverse impact to the pond southeast of the plume must be considered.

Response:

Through multiple sampling events and physical hydrogeological data collection events (e.g. monitoring well installation, soil borings, slug tests, groundwater contour measurements), data will be gathered so that a determination can be made as to whether or not MNA is a viable remedial alternative. Through this process, an understanding of the aquifer hydraulics, recharge/discharge areas, and chemical properties of the site can be gained. If MNA is chosen, the rate of natural attenuation for each regulated substance, including an estimate of time it would take for MNA to achieve compliance with appropriate RRS, will be included in CAP. See attached schedule for proposed dates of seasonal sampling events.

Comment:

24. Simply monitoring for chemicals of concern at this site, as discussed on page 4-2 of the CSR, is not adequate for the proposed MNA approach.

Response:

Concur. An expanded list of (contaminants of potential concern) COPCs will be developed for the proposed MNA approach. This list will also include geochemical data for biodegredation analysis as defined in the new EPA guidance document for USTs. The revised CSR will identify monitoring to be conducted prior to submission of the CAP. The CAP will designate trigger points at which COPCs can be removed from the list. There will also be a trigger point at which the site can be deemed "clean."

Comment:

25. The CAP should provide an explanation of how the future horizontal extent of the VOC plume will be estimated based on the proposed semi-annual sampling events discussed on page 4-3 of the CSR. EPD suggests that quarterly monitoring is more appropriate than semi-annual monitoring for this site.

Response:

The CAP will be submitted after the seasonal baseline data are gathered and evaluated (see attached schedule for proposed submittal date). Through this process, a better understanding of the site geochemistry and physical hydrogeology will be gained.

Comment:

26. The role of dissolved oxygen in the biodegradation of chlorinated regulated substances should be reevaluated, in accordance with item 16C above.

Response:

Concur. The role of dissolved oxygen and redox potential will be reevaluated for the current data, and further evaluations will be made utilizing new dissolved oxygen and redox data collected for revised CSR.

Comment:

27. The CAP should be revised to reflect revisions to the CSR to address any deficiencies.

Response:

The CAP will be revised in accordance with any and all changes resulting from these comments and additional data collection efforts.

Georgia EPD Notice of Deficiency – December 13, 2001

Georgia Department of Natural Resources
205 Butler St. S.E., Floyd Towers, East, Suite 1462 Atlanta, Georgia 30334
Lonice C. Barrett, Commissioner
Environmental Protection Division
Harold F. Reheis, Director
Hazardous Waste Management Branch
404-657-8600

December 13, 2001

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

COPY

Ms. Kathy Kinton
Miller Brewing Company
PO Box 482
Milwaukee, Wisconsin 53201-0482

Subject: Compliance Status Report and Corrective Action Plan
Reynolds Metals Company Site
Moultrie, Colquitt County
Hazardous Site Inventory # 10425

Dear Ms. Kinton:

The Georgia Environmental Protection Division (EPD) has completed its review of the Compliance Status Report dated December 2000, and the Population Specific Risk Assessment and Corrective Action Plan dated March 2001, submitted for the Reynolds Metals Company Site in Moultrie, Colquitt County, Georgia. The following comments discuss certain aspects of the CSR and CAP that require further work and/or correction before those reports can be considered complete with respect to Georgia's Rules for Hazardous Site Response Chapter 391-3-19 (Rules). In addition, we are providing you with a copy of a letter from Mr. Gene Weeks of Moultrie, Georgia, that outlines his concerns regarding the CSR, so that you may respond accordingly.

COMPLIANCE STATUS REPORT

1. The data in Table 2 of the CSR for vinyl chloride for sample ETCMW-114 (11-3-94) does not match the laboratory report. This data transcription error can also be found on Figures 10 and 11 of the CSR, and in the CAP, in the table on page 30, on page 17, and in Tables 2 and 14A.
2. The data reported in Table 2 of the CSR and in Table 2 of the CAP for sample CH2MW-114D (6/4/98) does not match the laboratory report for that sample.
3. The data on Figure 5 of the CSR, and Figure 3 of the CAP for sample CH2SB-1 for 1,1,1-trichloroethane (8/98) does not match the laboratory report.
4. Section 3.4 of the CSR entitled "Chemical Constituents in Groundwater" does not mention detections of vinyl acetate and isobutyl alcohol in groundwater at the site. The detections of these regulated substances should be included in the tables and figures in the CSR.
5. Figures 5, 10, and 14 of the CSR should be revised to depict the extent of regulated substances in soil and groundwater using isoconcentration lines for background concentrations and risk reduction standards.

Population Specific Risk Assessment and Corrective Action Plan (CAP)

6. Please provide supporting data regarding the site-specific parameters, especially exposure duration and exposure frequency.
7. The site-specific exposure duration should represent the high end of the distribution. The mean is not acceptable to use for this value. Therefore, our evaluation will be based on the exposure scenario using 20 years as the exposure duration.

8. It is the Georgia Environmental Protection Division (EPD), Hazardous Waste Management Branch's policy that all groundwater is considered a resource that could potentially be used as drinking water in the future. Therefore, you must include drinking water in the Risk Reduction Standards calculations. Please revise all calculations to include this pathway of exposure.

9. The default inhalation rate (IR_a) for adults should be 20 m^3/day. Please make appropriate revisions.

10. When calculating Type 4 risk reduction standards (RRS) for groundwater, an averaging time (AT) of 30 years was used for noncarcinogens. However, as indicated in Appendix III, Table 3 of the Hazardous Site Response Rules, the AT equals the exposure duration (ED) for noncarcinogens. Please revise accordingly.

11. Please cite a reference for the physical-chemical data used for calculating volatilization factors.

12. Some toxicity data has been identified incorrectly. First, there is no oral slope factor for cis-1,2-dichloroethene. Also, the IRIS assessment has been updated for vinyl chloride. Lastly, the inhalation reference dose (RfD_i) for methylene chloride should be 0.86 mg/kg-day, and the RfD_i for xylenes should be 0.2 mg/kg-day. Please make appropriate revisions.

13. The cancer slope factors have been correctly identified at the top of Tables 4A – 14B (expect for those cited above in comment # 7). However, in the calculations, these values have been divided by a factor of ten. This results in an increased RRS. Please recalculate using the correct toxicity data.

14. Please recheck the calculations presented in Tables 15A – 16A. It appears that the equation for carcinogens was used, rather than the correct noncarcinogen equation.

15. It is inappropriate to calculate incremental lifetime cancer risks and hazard quotients under HSRA, so these calculations can be omitted since they will not be used in our decision-making process.

16. We do not concur with the certification in the CAP that the groundwater at the site is in compliance with the Type 4 RRS due to the errors in the calculation of the RRS noted above. Therefore, we cannot approve the implementation of Section 4 of the CAP that describes the procedures to be taken to maintain compliance with the Type 4 RRS. However, certain aspects of the CAP requires that we provide the following comments:

    A. The following regulated substances should be included in the target compound list for any future groundwater monitoring events: acetone, isobutyl alcohol, and vinyl acetate.

    B. Concerning the list of wells that have been proposed for additional monitoring, we recommend the inclusion of the deep monitoring wells, and additional monitoring wells in the source area regardless of the groundwater remedial technology that is ultimately selected.

Once the above comments are addressed, it is likely that you will not be able to certify compliance with the Types 1-4 RRS, and a CAP that proposes actions necessary to bring the site into compliance with the RRS will be required. Therefore, we are providing the following discussion to aid you in developing an acceptable CAP for this site.

How to Choose A Method of Corrective Action

In selecting an appropriate remedy for a site, there are several different aspects of that remedy that EPD evaluates. Of utmost importance when selecting an appropriate remedy is the

protection of human health and the environment for both the short term and long term. For the long term, a remedy that is permanent and that eliminates future risk is the optimum, but at a minimum, the remedy should reduce or control the risk posed by a site and ensure that controls are in place to monitor the long-term effectiveness. For the short term, a remedy must minimize the short-term exposure of workers, residents, and the environment to contamination, and have adequate controls in place to ensure that there will be no exposures above health-based levels. Another aspect of the remedy that is considered is the ability of the proposed remedy to achieve compliance with the appropriate RRS. The remedy must be technically practicable and implementable and provide a level of certainty that the RRS will be met. When evaluating different remedies, if there are remedies that are equally protective, EPD considers the relative costs of the remedies and the length of time until the remedy will achieve compliance. Finally, there must be community acceptance of the proposed remedy.

The CAP should discuss different remedial options and the criteria used to select the optimal remedial options proposed for this site. The comparison of different remedies should include the aspects described above. For example, if any options are technically impracticable or cannot be implemented at this site, the CAP should discuss why. Cost should only be considered when two or more remedies provide similar effectiveness, and if a potential remedy is cost prohibitive, the CAP should provide a cost estimate for the use of that particular method.

Once an optimal remedial option is selected, the CAP should describe the criteria that will be used to evaluate the effectiveness of that remedy, and what will trigger the decision to perform additional corrective action or select a different method of corrective action.

RRS Table

The CAP should clearly state in tabular format the corrective action goals for each regulated substance found in soil, groundwater, and surface water on site. The clean up goals shall be the applicable target concentrations that will comply with Types 1-4 RRS.

Cost Estimates/Financial Responsibility Instrument

The CAP shall include a financial responsibility instrument and cost estimate for the total estimated cost of performing the activities described in the CAP. Enclosed are model financial responsibility instruments.

Estimate of Remedial Timeframes

The review of corrective action alternatives should provide specific estimates of the length of time the various alternatives will require to achieve compliance with the applicable RRS.

CAP Schedule

The CAP must include a schedule for implementing the proposed corrective action. The CAP schedule should include milestones for all phases of the corrective action including all sampling and monitoring events, dates of mobilization/demobilization, and submitting reports. A time line format for the schedule (i.e., Gantt Chart) is preferred. The frequency of sampling and monitoring events in the schedule can be modified, if necessary, by modifying the CAP.

The above information has been provided to help you avoid the most common mistakes that we typically find when evaluating proposed CAPs. However, the above information may not cover all of the aspects of corrective action alternatives or remedy selection that you may find are necessary to evaluate to bring your site into compliance with RRS.

July 19, 2001 Letter from Mr. Gene Weeks

On July 26, 2001, EPD received a copy of a letter addressed to Ms. Teresa Harrison of the Occupational Safety and Health Administration (OSHA) from Mr. Gene Weeks of Moultrie,

Georgia, concerning conditions at the facility (enclosed). Mr. Weeks outlined 4 items of concern for OSHA to address. OSHA subsequently referred the first 3 items to EPD for follow-up.

Item 1 of Mr. Weeks' letter refers to a "massive acid spill" that occurred prior to 1993. Please respond with information concerning any acid spills that may have occurred at the facility during Miller Brewing Company's ownership of the plant.

Item 2 refers to a problematic leak of a waste solvent underground storage tank, which we understand was removed in 1988 and is the focus of the CSR investigation.

Item 3 refers to a foundation drainage system that was used during construction of the plant. Mr. Weeks is evidently concerned about the drainage system being a conduit for contaminant migration. Please respond by providing information about this foundation drainage system including its current status and whether it may be influencing groundwater flow or contaminant migration.

Please revise the CSR to correct the noted errors/omissions and submit the revised text, figures, and tables to EPD by January 31, 2002. In addition, please revise the CAP to address the comments above and resubmit it to EPD by February 28, 2002. If you have any questions, please contact David Reuland at 404-657-8600.

Sincerely,

Jim Brown
Unit Coordinator
Superfund Management Unit

Enclosure

cc. Peter Burger, O'Brien and Gere Engineers, Inc.
Gene A. Weeks
Teresa Harrison, OSHA
Mary Ferguson

File: HSI No. 10425

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Georgia EPD Correspondence – February 7, 2003

Georgia Department of Natural Resources
2 Martin Luther King, Jr. Drive, Floyd Towers, East, Suite 1462 Atlanta, Georgia 30334
Lonice C. Barrett, Commissioner
Environmental Protection Division
Harold F. Reheis, Director
Hazardous Waste Management Branch
404-657-8600

February 7, 2003

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. M. Quinton Hancock
Environmental Planning Engineer
Miller Brewing Company
PO Box 482
Milwaukee, Wisconsin 53201-0482

COPY

Subject: Compliance Status Report and Corrective Action Plan
Reynolds Metals Company Site
Moultrie, Colquitt County
Hazardous Site Inventory # 10425

Dear Mr. Hancock:

The Georgia Environmental Protection Division (EPD) has completed its review of the Compliance Status Report (CSR), dated February 2002, the Corrective Action Plan (CAP) and Population Specific Risk Assessment, dated March 2002, the Financial Responsibility Instrument, dated April 2002, and the 2002 Annual Groundwater Monitoring Report, dated June 2002, submitted for the Reynolds Metals Company Site in Moultrie, Colquitt County, Georgia. The following comments discuss certain aspects of the CSR, CAP, Financial Responsibility Instrument and Groundwater Monitoring Report that require further work and/or correction before those reports can be considered complete with respect to Georgia's Rules for Hazardous Site Response Chapter 391-3-19 (Rules).

COMPLIANCE STATUS REPORT

Soil Investigation:

1. Section 391-3-19-.06(3)(b)(2) of the Rules requires a complete definition of horizontal extent of contamination in soil to background. In order to complete the horizontal delineation of contamination in soil, analytical results of volatile organic compounds (VOCs) in the soil south of boring SB-114 should be provided. Based on a review of the Phase II Subsurface Investigation prepared by McLaren/Hart, Inc. on May 21, 1998, which was included in Appendix H, soil samples have been collected and analyzed for RCRA metals and VOCs from within the on-site main building, which is in the area described above, south of boring SB-114. Please evaluate these soil analytical results and include a map depicting the sampling locations, a narrative description, and tabulated results in the revised CSR, as is required by Section 391-3-19-.06(3)(b)(2)(iii) and Section 391-3-19-.06(3)(b)(2)(vii) of the Rules. In the event that the soil analytical results from the May 1998 report provide a complete definition of the horizontal extent of contamination in soil to background, additional soil samples are not required. If the May 1998 soil samples do not provide a complete definition of the horizontal extent of contamination in soil, please collect additional soil samples to meet this requirement.
2. Although the CSR contains a sampling location map as is required by Section 391-3-19-.06(3)(b)(2)(iii) of the Rules, these maps are very difficult to use. If possible, please develop sampling location, isoconcentration, and potentiometric maps that enlarge the area where the sampling locations are located, and if possible, devise another system of labeling the

individual sampling locations other than by arrows, which make the map more cluttered and make it difficult to discern individual objects.

3. As required by Section 391-3-19-.06(3)(b)(2)(vii) of the Rules, a narrative and tabular summary of all soil analytical results should be included in the CSR. Therefore, please include the soil samples collected from the storm sewer area shown in the October 1993 Field Investigation Report prepared by CH2M Hill and shown in the March 1994 Site Investigation Report prepared by Earth Technology Corporation, which are both included in Appendix H. In addition, please include the abovementioned sampling locations on a map as is required by Section 391-3-19-.06(3)(b)(2)(iii) of the Rules.

4. Figure 6 of the CSR, which depicts the vertical extent of soil constituents on vertical cross-section maps, only depicts borings with trace contamination of acetone and methylene chloride in soil (with the exception of boring SB-2). The purpose of providing these vertical cross-sections is to show the regulated substances in borings, particularly vinyl acetate since it exceeds Type 3 risk reduction standards (RRS) in soil, to show that the regulated substances have been vertically delineated in soil. For instance, an appropriate vertical cross-section would have depicted boring SB-1 and Trench 1 in the same cross-section, since the soil sample from SB-1 was impacted by VOCs, but the soil sample from Trench 1 (from a deeper depth than and in the vicinity of SB-1) was not impacted by those same VOCs. This shows that soil contamination found in boring SB-1 has been vertically delineated.

5. Two symbols indicating the locations of soil borings are depicted in several figures, including Figure 5. The unlabeled symbols are located south of MW/SB-113 and east of MW/SB-113, respectively. Please provide more information about these two sampling locations and analytical results obtained from these two sampling locations in the revised CSR. In addition, these locations should be properly labeled on the CSR figures.

Groundwater Investigation:

6. Based on a review of trip blanks and field blanks collected over several sampling events, acetone and methylene chloride appear to be laboratory contaminants. At this time, a release of acetone and methylene chloride does not appear to have occurred at the site. However, please take special precautions in the future to show that these regulated substances have not been released at the site. In the event that you show detections of acetone and/or methylene chloride in samples collected from the site during future sampling events, please resample those locations. Avoid handling the samples directly with your gloves and avoid using "Sharpie" pens for labeling. Field blanks and trip blanks should be collected during every sampling event in the future, and all future samples should be analyzed for all VOCs, not just perchloroethylene (PCE) and its degradation products.

7. Based on a review of groundwater flow direction in all of the reports prepared for this site, groundwater flow direction appears to oscillate between flowing towards the east-northeast and south-southwest. Therefore, since groundwater impacts were identified in the deep groundwater monitoring well MW-114D, please install a deep groundwater monitoring well southwest (down-gradient) of MW-114D in order to complete vertical delineation of contamination in groundwater, as is required by Section 391-3-19-.06(3)(b)(3) of the Rules.

8. A symbol indicating the presence of a temporary monitoring well and labeled as PP-3 is depicted in several figures, including Figure 10. Please provide more information about this sampling location and analytical results obtained from this sampling location in the revised CSR.

9. As required by Section 391-3-19-.06(3)(b)(3)(iii) of the Rules, please provide horizontal and vertical groundwater gradients, flow rates, and flow directions in the revised CSR. The flow

directions should be graphically shown on the potentiometric maps in the revised CSR in the form of an arrow.

10. Section 391-3-19-.06(3)(b)(3)(ix) of the Rules requires that a map depicting the potentiometric surface of groundwater be provided in the CSR. All groundwater elevations should be included on the potentiometric maps. Figures 7 and 8 should be reevaluated using all relevant groundwater elevations. In addition, please include arrows that show groundwater flow direction on each of the potentiometric maps.

11. As required by Section 391-3-19-.06(3)(b)(3)(x) of the Rules, figures that depict contaminant concentrations should be provided. Due to the large number of different regulated substances in groundwater, please provide a horizontal extent of groundwater constituents figure, similar to Figure 10, for each regulated substance, i.e. one figure for trichloroethylene in groundwater, one figure for vinyl chloride in groundwater, etc. Please provide a figure that shows the concentrations detected from the last sampling event for each well and please provide these same maps for every groundwater monitoring event in the future for each regulated substance. The maps should show isoconcentration lines to show the horizontal extent of contamination. The isoconcentration lines should be drawn between non-detect wells. This will meet the requirement of Section 391-3-19-.06(3)(b)(3)(viii) of the Rules. Providing these maps will also help you and EPD determine the extent of contamination currently and whether the extent and concentrations have increased, decreased or remained the same.

    Please also provide a vertical extent of groundwater constituents figure, similar to Figures 11 and 12, for each regulated substance. Please provide a figure that shows the concentrations detected from the last sampling event for each well and please provide these same maps for every groundwater monitoring event in the future for each regulated substance. These maps should show isoconcentration lines to show the vertical extent of contamination. The isoconcentration lines should be drawn between non-detect wells.

12. As required by Section 391-3-19-.06(3)(b)(3)(xi) of the Rules, a narrative and tabular summary of all pertinent field data should be included in the CSR. Please discuss and tabulate the sump water results (Sump-1 and Sump-2) shown in the report from November 1994. Please also explain and record the groundwater analytical results labeled as OBGDUP1 shown in the report from November 2000 and DUP shown in the report from August 2000 in Appendix H.

Risk Reduction Standards:

13. EPD does not agree with the Type 3 RRS for soil that were calculated for many of the ~~regulated substances,~~ shown in Table 7. Section 391-3-19-.07(8)(d)(1) of the Rules describes the calculations used to determine the Type 3 RRS for soil contamination above the uppermost groundwater zone. The Type 3 RRS shall not exceed the higher of:

    i. Concentrations described in Item 1 of Rule 391-3-19-.07(6)(c).

    ii. Concentrations listed in Table 2 of Appendix III.

    iii. For lead, 400 mg/kg.

    For example, based on the data in the CSR for this site, the Type 3 RRS for vinyl acetate is 0.51 mg/kg since vinyl acetate does not have a value listed in Table 1 of Appendix III of the Rules, a leachate test has not been performed, and because Items ii. and iii. do not apply. Note that vinyl acetate was detected in soil samples taken from below 2 feet, which excludes being able to apply Section 391-3-19-.07(8)(d)(2) of the Rules to calculate the Type 3 RRS for vinyl acetate in soil.

14. Based on a comparison of the concentrations of vinyl acetate in SB-113A and SB-114B to the Type 3 RRS, vinyl acetate in soil exceeds the Type 3 RRS. Table 6, Table 7, and Section 3.2 should, therefore, be revised. Please also calculate the Type 4 RRS for vinyl acetate in soil, compare the soil concentrations to the Type 4 RRS, and revise the compliance certification. Another option could be to resample those areas that contained vinyl acetate above the Type 3 RRS in 1994 to determine the concentrations in soil in 2003.

15. The Type 3 RRS shown in Table 8 as "NV" (no value) are incorrect. As is stated in Section 391-3-19-.07(8)(c) of the Rules, the Type 3 RRS for groundwater are the same as the Type 1 RRS. And Section 391-39-19.07(6)(b) of the Rules (describing the Type 1 RRS for groundwater) state that for those substances not listed in Table 1 of Appendix III, the background or detection limit should be used as the Type 1 RRS. Therefore, the Type 3 RRS shown as "NV" should be revised to show the detection limits of those regulated substances. As a result, the column of Table 8 labeled "Maximum Detect < Type 3 RRS" should be reevaluated for the regulated substances shown as "NAP" (not applicable).

16. The Type 4 RRS listed on Table 11 for PCE in groundwater cannot be duplicated. The value that EPD has calculated is above the maximum detected concentration for this constituent. Please recalculate and compare with the maximum detected concentration in groundwater.

17. The toxicity values for 1,1,2,2-Tetrachloroethane could not be replicated. For example, the Integrated Risk Information System (IRIS) hasn't had an oral reference dose for this regulated substance in over 15 years. Therefore, the calculated RRS cannot be replicated. Please check the toxicity values and recalculate.

18. On August 13, 2002, EPA updated the IRIS database for 1,1-Dichloroethene. The reference doses have changed and there are no cancer slope factors (CSF) reported for this regulated substance. It appears that the oral CSF for 1,2-Dichloroethene may have been used by mistake for this calculation. Please recalculate the Type 4 RRS for 1,1-Dichloroethene in groundwater and revise the appropriate tables/text. A recalculation should result in a higher RRS value thus taking this regulated substance off of the list of exceedances.

Miscellaneous:

19. In Figures 5, 6, 10, 11 and 12, please change the word "ALL" under constituent to a more descriptive term, such as "VOCs" or "acetone" or "PCE and its degradation products" depending on what substances were analyzed for. In addition, please avoid using a "-" because it does not give much information about the quantity detected. We prefer that when listing the concentrations for an individual regulated substance in a table or figure, the actual numerical detection limit be used, such as "<10". When listing the concentrations for several regulated substances lumped into one descriptive term, such as "VOCs", use non detect or "ND." When sampling for individual substances did not occur during a particular sampling event or in a particular boring or monitoring well, use not sampled or "NS."

20. The "notes" in Table 2 should include a description of the "E" qualifier.

21. The "Dissolved Oxygen" subheading of Section 3.5 refers to a Figure 13; however, there is no Figure 13 in the CSR, nor is a Figure 13 referred to in the Table of Contents. Please explain.

Typographical Errors:

22. Please revise the concentrations for SB-113B on Figure 5.

23. Please include the concentrations for acetone for MW-117 on Figure 5.

24. To avoid confusion, please revise the heading "regulatory limit" in Table 1 to be "HSRA Notification Concentration." The HSRA Notification Concentration is not the same thing as

the Type 1 and Type 3 RRS as implied in the notes section on Table 1. In addition, please revise the heading "regulatory limit" in Table 2 to be "maximum contaminant level."

25. There are a few typographical errors that were identified on Figures 10, 11 and 12, which include transcription errors for MW-114, MW-113, MW-117, and MW-121. Please compare the concentrations shown on Figures 10, 11 and 12 with the laboratory data sheets. In addition, please show either the higher of the two concentrations detected in MW-114 in March 1995 (the original sample and its duplicate) or include both concentrations in the table on Figure 10. The isobutyl alcohol concentrations should be added to the table associated with MW-114 and the 1,2-dibromo-3-chloropropane concentrations should be added to the table associated with MW-113 in Figure 10.

26. There are a few typographical errors in Table 2. In particular, please review the analytical results shown for MW-113 in January 2001; however, other typographical errors were identified in other locations within the Table. Please compare the values in Table 2 to the laboratory analytical sheets.

27. Table 5 should be revised to show all of the chemical parameter results, including the chloride and sulfate results for MW-2 in August 2000 and the methane, ethane, and ethylene results for MW-2, MW-3, MW-4D, MW-113, etc. in August 2000. In addition, based on a review of previous reports, the dissolved oxygen in May 1998 was 6.79 in MW-113, 0.19 in MW-114, and 5.12 in MW-121. Please explain why these values in Table 5 were changed from previous reports.

28. Section 3.5 of the CSR makes a statement on the range of vinyl chloride detected at the site. The statement indicates that vinyl chloride was detected at a concentration of 1200 µg/L in MW-114. Since there is no evidence that vinyl chloride was detected at 1200 µg/L in MW-114, please correct the transcription error.

29. The geometric mean for the hydraulic conductivity tests shown in Table 4 should be 2.42E-05, and not 2.25E-05.

Corrective Action Plan (CAP) and Population Specific Risk Assessment

30. We have reviewed your proposed CAP, dated March 22, 2002; however, we cannot agree with monitored natural attenuation as the proposed corrective action technology at this time. Based on a review of the trends of concentrations of some of the parent compounds, such as PCE and TCE, at the site over time, biodegradation appears to be occurring extremely slowly, if at all. Furthermore, the CAP fails to demonstrate the rate at which natural attenuation might be occurring and whether this rate is sufficient to bring the site into compliance with the RRS in a reasonable time frame and reasonable cost when compared to other technologies. Note that in January 1994 the concentrations of PCE and TCE in MW-114 were 39 parts per billion (ppb) and 420 ppb, respectively, and in January 2001 the concentrations of PCE and TCE were 39 ppb and 790 ppb, respectively. Over the course of seven years, PCE has not degraded in MW-114 at all. Usually, this is a result of an on-going source at the site. However, in this case, it may just be that biodegradation is occurring at a very slow rate. Furthermore, based on a review of the geochemical parameters in Table A-3, the dissolved oxygen (DO) readings in the plume are well above 1.0 mg/L and the oxygen reduction potential (ORP) readings in the plume are well above 0 mV. These types of values for DO and ORP do not typically indicate a conducive environment for reductive dechlorination, as you indicate in Section 3.5 of the CSR (please include discussions of groundwater geochemistry in the revised CAP, rather than in the CSR).

    Based on the lack of evidence presented thus far supporting monitored natural attenuation as a corrective action measure at the site, we are requesting that you provide more

evidence that monitored natural attenuation is an effective corrective action measure at the site, in addition to evaluating other corrective action measures. In the revised CAP, we suggest evaluating the effectiveness of in-situ chemical oxidation, enhanced monitored natural attenuation, and in-situ bioremediation as corrective action measures at the site. Please compare these three remediation methods to monitored natural attenuation and any other methods that you think may be appropriate for the site conditions.

When reevaluating the effectiveness of monitored natural attenuation at the site, the following items should be addressed:

a. Biodecay rate and biodecay rate calculations

b. Specific estimates of the length of time, including calculations, required to achieve compliance with the applicable RRS (this is required for all of the remediation technologies)

c. An accurate comparison of the geochemistry parameters measured at the site to ideal natural attenuation geochemistry parameters

d. Parent/daughter molar ratio trends

e. Temperature measurements from groundwater samples measured for geochemistry parameters

Groundwater modeling programs, such as BIOSCREEN or BIOCHLOR, may be helpful in modeling the length of time required to achieve compliance; however, the use of these programs is not mandatory.

As far as the monitored natural attenuation program is concerned, the program should at a minimum include monitoring at least three impacted wells within the plume (such as MW-114, MW-113, and MW-1), two cross-gradient wells, one down-gradient/point of compliance well, and one up-gradient/background well. The cross-gradient, down-gradient, and up-gradient wells must be wells that have not shown any impacts. In addition, the two existing deep groundwater monitoring wells (MW-114D and MW-4D) and the recommended third deep groundwater monitoring well (Comment 7 above) should be monitored. The monitoring program should be on a semi-annual basis, instead of on an annual basis as suggested in your CAP. The wells should be sampled for all VOCs under EPA Method 8260, not just selected VOCs, in each semi-annual monitoring event. In addition, the groundwater wells should be sampled for natural attenuation parameters at least once a year. A groundwater monitoring report should be submitted to EPD semi-annually. Every five years, all groundwater monitoring wells should be sampled for VOCs and the effectiveness of the monitored natural attenuation program should be reevaluated. In order to complete the corrective action program, the groundwater monitoring program should continue until at least two consecutive monitoring events show the site meets Type 1 or Type 2 RRS. Please revise the corrective action scope in Section 3.1 of the CAP to include the above requirements. These requirements should be described in detail.

31. The cost estimate in Section 3.5 of the CAP needs revising based on the comments in this Notice of Deficiency.

Financial Assurance

32. EPD received a copy of your financial responsibility instrument on April 25, 2002. A copy of a corporation's annual report does not provide adequate financial assurance. In order to provide adequate financial assurance, a bond in the amount of the anticipated cost of clean

up must be obtained. Proof of adequate financial assurance should be submitted to EPD within 30 days of EPD's approval of the CAP.

2002 Annual Groundwater Monitoring Report

EPD received a copy of your 2002 Annual Groundwater Monitoring Report on June 7, 2002. The only comments related to the Annual Groundwater Monitoring Report have already been discussed in the comments on the CSR and the CAP above.

33. The groundwater flow direction should be indicated with an arrow in Figure 4.
34. The isoconcentration line shown in Figure 3 should be drawn between wells that have shown groundwater concentrations to be below the Type 4 RRS.
35. The geochemical parameters should be shown for all of the wells that are part of the monitored natural attenuation program, not just MW-114. In addition to pH, conductivity, dissolved oxygen, and ORP, please monitor for temperature, ferrous iron, nitrate, and sulfate.
36. Groundwater collected from the wells that are part of the monitored natural attenuation program should be analyzed for all VOCs using EPA Method 8260.

Please revise the CSR to correct the noted errors/omissions and submit two (2) copies of a revised CSR to EPD by May 7, 2003. In addition, please revise the CAP to address the comments above and resubmit two (2) copies of the CAP to EPD by May 7, 2003. Prior to revising the CSR and CAP for the site, we feel that it would be appropriate to meet to discuss this NOD. Therefore, please contact us to arrange for a meeting. If you have any questions, I may be contacted at 404-657-8600.

Sincerely,

David Reuland
Acting Unit Coordinator
Superfund Management Unit

cc Michael Hall, O'Brien and Gere Engineers, Inc.
K.S. Bickell, Ball Corporation

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Miller Response to Comments – March 31, 2003

MILLER BREWING COMPANY

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March 31, 2003

Mr. David K. Reuland
Georgia Environmental Protection Division
Hazardous Waste Management Division
Unit Coordinator, Superfund Management Unit
2 Martin Luther King, Jr. Drive SE, Suite 1462
Atlanta, GA 30334

RE: Response to Comment Letter Dated February 7, 2003
Compliance Status Report and Corrective Action Plan
Reynolds Metals Company Site
Moultrie, Colquitt County
Hazardous Site Inventory #10425

GENERAL

The Miller Brewing Company submitted their initial Compliance Status Report (CSR) for this facility in September 1998. The Georgia Department of Natural Resources (GADNR) provided detailed and explicit comments on this CSR in a letter dated January 18, 2000. The Miller Brewing Company specifically addressed these comments with a revised CSR submitted to the GADNR in December 2000 and, subsequently with a Corrective Action Plan that was submitted in March 2001. The GADNR provided additional detailed and explicit comments on the CSR and CAP in a letter dated December 13, 2001. Once again, The Miller Brewing Company specifically addressed these comments, and provided a revised CSR in February 2002, and a revised CAP in March 2002. In a letter dated February 7, 2003, the GADNR has provided a new set of detailed and specific comments on the CSR and CAP. In large part, these issues are unrelated to issues addressed for previous revisions to the CSR and CAP.

The GADNR comments were discussed during a meeting in Atlanta on March 17, 2003. This meeting included David Reuland and Justine Harrison of the GADNR, Quinton Hancock of the Miller Brewing Company, Kent Bickell of the Ball Corporation (the current owner of the property), and Michael Hall of O'Brien & Gere Engineers (consultant to the Miller Brewing Company). Discussions at this meeting focused on how to bring the CSR and CAP to completion, and how to address specific GADNR comments. During the meeting it was agreed that additional characterization was not needed to complete the CSR. Some additional data collection may be required to evaluate potential corrective measures. The Miller Brewing Company is revising the CSR and CAP with the understanding that if the comments in the letter from the GADNR (dated February 7, 2003) are adequately addressed, no further revision of the CSR and CAP will be required.

The following sections contain the Miller Brewing Company's responses to the GADNR comments. The headings and numbering matches that in the original GADNR letter. The original GADNR comment is provided in italics, and the response is provided in standard font.

Compliance Status Report

Soil Investigation

1. Comment:
Section 391-3-19-.06(3)(b)(2) of the Rules requires a complete definition of horizontal extent of contamination in soil to background. In order to complete the horizontal delineation of contamination in soil, analytical results of volatile organic compounds (VOCs) in the soil south of boring SB-114 should be provided. Based on a review of the Phase II Subsurface Investigation prepared by McLaren/Hart, Inc. on May 21, 1998, which was included in Appendix H, soil samples have been collected and analyzed for RCRA metals and VOCs from within the on-site main building, which is in the area described above, south of boring SB-114. Please evaluate these soil analytical results and include a map depicting the sampling locations, a narrative description, and tabulated results in the revised CSR, as is required by Section 391-3-19-.06(3)(b)(2)(iii) and Section 391-3-19-.06(3)(b)(2)(vii) of the Rules. In the event that the soil analytical results from the May 1998 report provide a complete definition of the horizontal extent of contamination in soil to background, additional soil samples are not required. If the May 1998 soil samples do not provide a complete definition of the horizontal extent of contamination in soil, please collect soil samples to meet this requirement.

Response: The data from the McLaren/Hart Phase II Subsurface Investigation will be incorporated into the tables and figures in the final CSR.

2. Comment:
Although the CSR contains a sampling location map as is required by Section 391-3-19-.06(3)(b)(2)(iii) of the Rules, these maps are very difficult to use. If possible, please develop sampling location, isoconcentration, and potentiometric maps that enlarge the area where the sampling locations are located, and if possible, devise another system of labeling the individual sampling locations other than by arrows, which make the map more cluttered and make it difficult to discern individual objects.

Response: A revised map, or maps, will be prepared, depicting the data in a simpler format. As discussed during the meeting on March 17, 2003, the revised figure, or figures will be submitted to the GADNR for review prior to incorporation into the final CSR.

3. Comment:
As required by Section 391-3-19-.06(3)(b)(2)(vii) of the Rules, a narrative and tabular summary of all soil analytical results should be included in the CSR. Therefore, please include the soil samples collected from the storm sewer area shown in the October 1993 Field Investigation Report prepared by CH2M Hill and shown in the March 1994 Site Investigation Report prepared by Earth Technology Corporation, which are both included in Appendix H. IN addition, please include the abovementioned sampling locations on a map, as is required by Section 391-3-19-.06(3)(b)(2)(iii) of the Rules.

Response: The sediment data from the October 1993 Field Investigation Report will be incorporated into the tables and figures in the final CSR. The text will also be modified to include a discussion of these data, separate from the discussion of data associated with the CSR.

4. Comment:

Figure 6 of the CSR, which depicts the vertical extent of soil constituents on vertical cross-section maps, only depicts borings with trace contamination of acetone and methylene chloride in soil (with the exception of boring SB-2). The purpose of providing these vertical cross-sections is to show the regulated substances in borings, particularly vinyl acetate since it exceeds Type 3 risk reduction standards (RRS) in soil, to show that the regulated substances have been vertically delineated in soil. For instance, an appropriate vertical cross-section would have depicted boring SB-1 and Trench 1 in the same cross-section, since the soil sample from SB-1 was impacted by VOCs, but the soil sample from Trench 1 (from a deeper depth than and in the vicinity of SB-1) was not impacted by those same VOCs. This shows that soil contamination found in boring SB-1 has been vertically delineated.

Response: The cross section will be revised, as indicated, for the final CSR. As discussed during the meeting on March 17, 2003, the revised cross section will be submitted to the GADNR for review prior to incorporation into the final CSR.

5. *Comment:*
Two symbols indicating the locations of soil borings are depicted in several figures, including Figure 5. The unlabeled symbols are located south of MW/SB-113 and east of MW/SB-113, respectively. Please provide more information about these two sampling locations and analytical results obtained from these two sampling locations in the revised CSR. In addition, these locations should be properly labeled on the CSR figures.

Response: The unlabeled symbols for several temporary or abandoned monitoring wells were inadvertently included on several figures and there are no unreported data associated with these errant symbols. These symbols will be removed from the figures provided in the final CSR.

Groundwater Investigation

6. *Comment:*
Based on a review of trip blanks and field blanks collected over several sampling events, acetone and methylene chloride appear to be laboratory contaminants. At this time, a release of acetone and methylene chloride does not appear to have occurred at the site. However please take special precautions in the future to show that these regulated substances have not been released at the site. In the event that you show detections of acetone and/or methylene chloride in samples collected from the site during future sampling events, please resample those locations. Avoid handling the samples directly with your gloves and avoid using "Sharpie" pens for labeling. Field blanks and trip blanks should be collected during every sampling event in the future, and all future samples should be analyzed for all VOCs, not just perchloroethylene (PCE) and its degradation products.

Response: The Miller Brewing Company concurs that the concentrations of acetone and methylene chloride detected in ground water do not appear to be indicative of a release. Ground water samples have been handled appropriately during all sampling events. Samples have not been handled with gloves nor have "Sharpie" pens been used for sample labeling. Trip blanks were collected for ground water samples collected since 2000. The complete VOC list will be included for future monitoring events.

7. *Comment:*
Based on a review of groundwater flow direction in all of the reports prepared for this site, groundwater flow direction appears to oscillate between flowing towards the east-northeast and south-southwest. Therefore, since groundwater impacts were identified in the deep groundwater monitoring well MW-

114D, please install a deep groundwater monitoring well southwest (down-gradient) of MW-114D in order to complete vertical delineation of contamination in groundwater, as is required by Section 391-3-19-.06(3)(b)(3) of the Rules.

Response: Ground water flow is, most-consistently, to the east and northeast, as would be expected given the topography in the area. Potentiometric surface maps showing other gradients are anomalous and probably reflect transient fluctuations in water levels as a result of the extremely low hydraulic conductivity. There is often a pressure differential between the air in the well casing and the atmosphere. When the wells are opened, this pressure equilibrates, and results in a rise or drop in ground water levels. Given the extremely low hydraulic conductivity at the site, it can take more than an hour for the water level to reach its static level. It is likely that the anomalous water levels are associated with not allowing a sufficient amount of time for ground water levels to recover before measurement. For recent monitoring events, where this problem has been taken into account, the gradient has consistently been to the east and northeast. Therefore, as agreed to during our meeting on March 17, no additional monitoring wells are warranted at this site. The final CSR will include more detailed discussion of these anomalous measurements.

8. Comment:
A symbol indicating the presence of a temporary monitoring well and labeled as PP-3 is depicted in several figures, including Figure 10. Please provide more information about this sampling location and analytical results obtained from this sampling location in the revised CSR.

Response: As indicated in the initial CSR Report (which is included as an Appendix to the most recent CSR), PP-3 was a temporary monitoring well that never produced ground water and, therefore, could not be sampled. The symbol for this temporary monitoring well will be removed from the figures in the final CSR.

9. Comment:
As required by Section 391-3-19-.06(3)(b)(3)(iii) of the Rules, please provide horizontal and vertical groundwater gradients, flow rates, and flow directions in the revised CSR. The flow directions should be graphically shown on the potentiometric maps in the revised CSR in the form of an arrow.

Response: Section 3.3 of the CSR identifies a downward vertical hydraulic gradient at the site, as do the tables with ground water elevations. The ground water flow direction will be shown, with arrows, on the potentiometric maps in the final CSR.

10. Comment:
Section 391-3-19-.06(3)(b)(3)(ix) of the Rules requires that a map depicting the potentiometric surface of groundwater be provided in the CSR. All groundwater elevations should be included on the potentiometric maps. Figures 7 and 8 should be reevaluated using all relevant groundwater elevations. In addition, please include arrows that show groundwater flow direction on each of the potentiometric maps.

Response: All relevant ground water level data are used on these figures. The ground water flow direction will be shown, with arrows, on the potentiometric maps in the final CSR.

11. Comment:
As required by Section 391-3-19-.06(3)(b)(3)(x) of the Rules, figures that depict contaminant concentrations should be provided. Due to the large number of different regulated substances in groundwater, please provide a horizontal extent of groundwater constituents figure, similar to Figure 10, for each regulated substance, i.e., one figure for trichloroethylene in groundwater, one figure for vinyl

chloride in groundwater, etc. Please provide a figure that shows the concentrations detected from the last sampling event for each well and please provide these same maps for every groundwater monitoring event in the future for each regulated substance. The maps should show isoconcentration lines to show the horizontal extent of contamination. The isoconcentration lines should be drawn between on-detect wells. This will meet the requirement of Section 391-3-19-.06(3)(b)(3)(viii) of the Rules. Providing these maps will also help you and EPD determine the extent of contamination currently and whether the extent and concentrations have increased, decreased or remained the same.

Please also provide a vertical extent of groundwater constituents figure, similar to Figures 11 and 12, for each regulated substance. Please provide a figure that shows the concentrations detected from the last sampling event for each well and please provide these same maps for every groundwater monitoring event in the future for each regulated substance. These maps should show isoconcentration lines to show the vertical extent of contamination. The isoconcentration lines should be drawn between non-detect wells.

Response: As discussed during the meeting on March 17, 2003, a revised map, or maps, will be prepared, depicting the data in a simpler format. The revised figure, or figures will be submitted to the GADNR for review prior to incorporation into the final CSR.

12. Comment:
As required by Section 391-3-19-.06(3)(b)(3)(xi) of the Rules, a narrative and tabular summary of all pertinent field data should be included in the CSR. Please discuss and tabulate the sump water results (Sump-1 and Sump-2) shown in the report from November 1994. Please also explain and record the groundwater analytical results labeled as OBGDUP1 shown in the report from November 2000 and DUP shown in the report from August 2000 in Appendix H.

Response: The sump samples indicated were collected from PVC pipe placed in the backfill of test pits dug in the former source area. As indicated in the report associated with the data from these sumps, there is the potential for surface water to enter these sumps and potentially cause cross contamination. Data from these sumps are, therefore, considered suspect. Both of these sumps are adjacent to monitoring wells (ETMW119 is adjacent to Sump 1, and ETCMW-114 is adjacent to Sump-2) that provide more reliable data. Despite the concerns, the analytical data for the samples collected from the sumps are consistent with those from the adjacent monitoring wells. The data from the sumps will be incorporated into the tables and figures in the final CSR.

With regard to the Samples labeled OBGDUP1 and DUP1, these are duplicates that were collected during ground water sampling events in November and August 2000. The results of these duplicate analyses are included on Table 2 of the CSR. The text of the final CSR will be revised to include more explanation of these results.

Risk Reduction Standards

13. Comment:
EPD does not agree with the Type 3 RRS for soil that were calculated for many of the regulated substances, shown in Table 7. Section 391-3-19-.07(8)(d)(1) of the Rules describes the calculations used to determine the Type 3 RRS for soil contamination above the uppermost groundwater zone. The Type 3 RRS shall not exceed the higher of:

i. Concentrations described in Item 1 of Rule 391-3-19-.07(6)(c).
ii. Concentrations listed in Table 2 of Appendix III.

iii. For lead, 400 mg/kg.

For example, based on the data in the CSR for this site, the Type 3 RRS for vinyl acetate is 0.51 mg/kg since vinyl acetate does not have a value listed in Table 1 of Appendix III of the Rules, a leachate test has not been performed, and because Items ii. and iii. above do not apply. Note that vinyl acetate was detected in soil samples taken from below 2 feet, which excludes being able to apply Section 391-3-19-.07(8)(d)(2) of the Rules to calculate the Type 3 RRS for vinyl acetate in soil.

Response: The RRS for soil will be recalculated as indicated. As discussed during the meeting on March 17, 2003, the revised RRS calculations will be submitted to the GADNR for review prior to incorporation into the final CSR.

14. Comment:

Based on a comparison of the concentrations of vinyl acetate in SB-113A and SB-114B to the Type 3 RRS, vinyl acetate is soil exceeds the Type 3 RRS. Table 6, Table 7, and Section 3.2 should, therefore, be revised. Please also calculate the Type 4 RRS for vinyl acetate in soil, compare the soil concentrations to the Type 4 RRS, and revise the compliance certification. Another options could be to resample those areas that contained vinyl acetate above the Type 3 RRS in 1994 to determine the concentrations in soil in 2003.

Response: The RRS for soil will be recalculated as indicated. As discussed during the meeting on March 17, 2003, the revised RRS calculations will be submitted to the GADNR for review prior to incorporation into the final CSR. If necessary, the compliance certification will be revised for the final CSR.

15. Comment:

The Type 3 RRS shown in Table 8 as "NV" (no value) are incorrect. As is stated in Section 391-3-19-.07(8)(c) of the Rules, the Type 3 RRS for groundwater are the same as the Type 1 RRS. And Section 391-39-19.07(6)(b) of the Rules (describing the Type 1 RRS for groundwater) state that for those substances not listed in Table 1 of Appendix III, the background or detection limit should be used as the Type 1 RRS. Therefore, the Type 3 RRS shown as "NV" should be revised to show the detection limits of those regulated substances. As a result, the column in Table 8 labeled "Maximum Detect < Type 3 RRS" should be re-evaluated for the regulated substances shown as "NAP" (not applicable).

Response: The RRS for soil will be recalculated as indicated. As discussed during the meeting on March 17, 2003, the revised RRS calculations will be submitted to the GADNR for review prior to incorporation into the final CSR.

16. Comment:

The Type 4 RRS listed on Table 11 for PCE in groundwater cannot be duplicated. The value that EPD has calculated is above the maximum detected concentration for this constituent. Please recalculate and compare with the maximum detected concentration in groundwater.

Response: There are two possible reasons why the Type 4 RRS for PCE presented on Table 11 could not be duplicated. First, an exposure frequency of 180 days per year was used in the calculation rather than the exposure frequency reported on Table 9 of 250 days per year. Applying the updated exposure frequency will result in an exceedence of the Type 4 RRS for PCE. Second, the USEPA has not listed slope factors or an inhalation reference dose in IRIS for PCE. When the CSR was performed, a provisional inhalation slope factor of 0.002 (mg/kg-day)^-1 was suggested by NCEA. The RRS for ground water will be recalculated as indicated. As discussed during the meeting on March 17, 2003, the revised RRS calculations will be submitted to the GADNR for review prior to incorporation into the final CSR.

17. Comment:
The toxicity values for 1,1,2,2-Tetrachloroethane could not be replicated. For example, the Integrated Risk Information System (IRIS) hasn't had an oral reference dose for this regulated substance in over 15 years. Therefore, the calculated RRS cannot be replicated. Please check the toxicity values and recalculate.

Response: The toxicity value reported on Table 10 for 1,1,2,2-tetrachloroethane is incorrect. The value that should be applied in the RRS calculation is 0.06 mg/kg-day. This oral reference dose is a provisional value from the USEPA National Center for Environmental Assessment (NCEA) as reported in the October 2002 USEPA Region 3 Risk-Based Concentration table. It is recommended that the provisional value be used in the RRS calculations since the USEPA's Integrated Risk Information System (IRIS) program has not approved an oral reference dose for 1,1,2,2-tetrachloroethane. The RRS calculation will be revised as indicated. As discussed during the meeting on March 17, 2003, the revised RRS calculations will be submitted to the GADNR for review prior to incorporation into the final CSR.

18. Comment:
On August 13, 2002, EPA updated the IRIS database for 1,1-Dichloroethene. The reference doses have changed and there are not cancer slope factors (CSF) reported for this regulated substance. It appears that the oral CSF for 1,2-Dichloroethene may have been used by mistake for this calculation. Please recalculate the Type 4 RRS for 1,1-Dichloroethene in groundwater and revise the appropriate tables/text. A recalculation should result in a higher RRS value thus taking this regulated substance off of the list of exceedances.

Response: The IRIS profile for 1,1-dichoroethene was updated after the Revised CSR was submitted. Applying the updated cancer and non-cancer information to the RRS calculation results in a higher RRS, which is greater than the maximum detected concentration of 1,1-dichoroethene. Therefore, 1,1-dichloroethane can be dropped from the list of contaminants of concern for ground water. The RRS calculation will be revised as indicated. As discussed during the meeting on March 17, 2003, the revised RRS calculations will be submitted to the GADNR for review prior to incorporation into the final CSR.

<u>Miscellaneous</u>

19. Comment:
In Figures 5, 6, 10, 11, and 12, please change the work "ALL" under constituent to a more descriptive term, such as "VOCs" or "acetone" or "PCE and its degradation products" depending on what substances were analyzed for. In addition, please avoid using a "-" because it does not give much information about the quantity detected. We prefer that when listing the concentrations for an individual regulated substance in a table or figure, the actual numerical detection limit be used, such as "<10". When listing the concentrations for several regulated substances lumped into one descriptive term, such as "VOCs", use non-detect or "ND". When sampling for individual substances did not occur during a particular sampling event or in a particular boring or monitoring well, use not sampled or "NS".

Response: The figures will be revised as indicated. As discussed during the meeting on March 17, 2003, the revised figures will be submitted to the GADNR for review prior to incorporation into the final CSR.

20. Comment:

The "notes" in Table 2 should include a description of the "E" qualifier.

Response: Table 2 will be revised as indicated for the final CSR.

21. Comment:
The "Dissolved Oxygen" subheading of Section 3.5 refers to a Figure 13; however, there is no Figure 13 in the CSR, nor is a Figure 13 referred to in the Table of Contents. Please explain.

Response: Previous versions of the CSR had a Figure 13. This figure was removed, as it was unnecessary for the most recent revision. The reference to this figure was inadvertently left in the text. This reference will be removed from the final CSR.

Typographical Errors

22. Comment:
Please revise the concentrations for SB-113B on Figure 5.

Response: The indicated revision will be incorporated in the final CSR.

23. Comment:
Please include the concentrations for acetone for MW-117 on Figure 5.

Response: The acetone concentrations for MW-117 will be included on the revised figure for thefinal CSR.

24. Comment:
To avoid confusion, please revise the heading "regulatory limit" in Table 1 to be "HSRA Notification Concentration." The HSRA Notification Concentration is not the same thing as the Type 1 and Type 3 RRS as implied in the notes section on Table 1. In addition, please revise the heading "regulatory limit" in Table 2 to be "maximum contaminant levels."

Response: While the heading "HSRA Notification Concentration" is more accurate for Table 1, the current heading is properly referenced in the footnotes. With regard to table 2, the values provided include not only MCLs. The more general "regulatory limit" with footnoted references appears to be warranted on Table 2. Table 1 will be revised as indicated for the final CSR. Additional footnotes will be added to clarify the heading for Table 2.

25. Comment:
There are a few typographical errors that were identified on Figures 10, 11, and 12, which include transcription errors for MW-114, MW-113, MW-117, and MW-121. Please compare the concentrations shown on Figures 10, 11, and 12 with the laboratory data sheets. In addition, please show either the higher of the two concentrations detected in MW-114 in March 1995 (the original sample and its duplicate) or include both concentrations in the table on Figure 10. The isobutyl alcohol concentrations should be added to the table associated with MW-114 and the 1,2-dibromo-3-chloropropane concentrations should be added to the table associated with MW-113 in Figure 10.

Response: These errors will be corrected in the final CSR.

26. Comment:

There are a few typographical errors in Table 2. In particular, please review the analytical results shown for MW-113 in January 2001; however, other typographical errors were identified in other locations within the Table. Please compare the values in Table 2 to the laboratory analytical sheets.

Response: These errors will be corrected in the final CSR.

27. Comment:
Table 5 should be revised to show all of the chemical parameter results, including the chloride and sulfate results for MW-2 in August 2000 and the methane, ethane, and ethylene results for MW-2, MW-3, MW-4D, MW-113, etc. in August 2000. In addition, based on a review of previous reports, the dissolved oxygen in May 1998 was 6.79 in MW-113, 0.19 in MW-114, and 5.12 in MW-121. Please explain why these values in Table 5 were changed from previous reports.

Response: These errors will be corrected in the final CSR.

28. Comment:
Section 3.5 of the CSR makes a statement on the range of vinyl chloride detected at the site. The statement indicates that vinyl chloride was detected at a concentration of 1200 µg/l in MW-114. Since there is no evidence that vinyl chloride was detected at 1200 µg/l in MW-114, please correct the transcription error.

Response: These errors will be corrected in the final CSR.

29. Comment:
The geometric mean for the hydraulic conductivity tests shown in Table 4 should be 2.42E-05, and not 2.25E-05.

Response: The geometric mean calculation will vary somewhat based on the rounding of the input data, and the rounding in the calculation performed. The minor difference noted in your value for the geometric mean could result from this and, in any case, does not result in a significant change in the result. This calculation will be checked, and revised if required for the final CSR.

Corrective Action Plan (CAP) and Population Specific Risk Assessment

30. Comment:
We have reviewed your proposed CAP, dated March 22, 2002; however, we cannot agree with monitored natural attenuation as the proposed corrective action technology at this time. Based on a review of the trends of concentrations of some of the parent compounds, such as PCE and TCE, at the site over time, biodegradation appears to be occurring extremely slowly, if at all. Furthermore, the CAP fails to demonstrate the rate at which natural attenuation might be occurring and whether this rate is sufficient to bring the site into compliance with the RRS in a reasonable time frame and reasonable cost when compared to other technologies. Note that in January 1994 the concentrations of PCE and TCE in MW-114 were 39 parts per billion (ppb) and 420 ppb, respectively, and in January 2001 the concentrations of PCE and TCE were 39 ppb and 790 ppb, respectively. Over the course of seven years, PCE has not degraded in MW-114 at all. Usually, this is a result of an on-going source at the site. However, in this case, it may just be that biodegradation is occurring at a very slow rate. Furthermore, based on a review of the geochemical parameters in Table A-3, the dissolved oxygen (DO) readings in the plume are well above 1.0 mg/L and the oxygen reduction potential (ORP) readings in the plume are well above 0 mV. These types of values for DO and ORP do not typically indicate a conducive environment for reductive dechlorination, as you indicate in Section 3.5 of the CSR (please include discussions of groundwater geochemistry in the revised CAP, rather than in the CSR).

Based on the lack of evidence presented thus far supporting monitored natural attenuation as a corrective action measure at the site, we are requesting that you provide more evidence that monitored natural attenuation is an effective corrective action measure at the site, in addition to evaluating other corrective action measures. In the revised CAP, we suggest evaluating the effectiveness of in-situ chemical oxidation, enhanced monitored natural attenuation, and in-situ bioremediation as corrective action measures at the site. Please compare these three remediation methods to monitored natural attenuation and any other methods that you think may be appropriate for the site conditions.

When re-evaluating the effectiveness of monitored natural attenuation at the site, the following items should be addressed:

a. *Biodecay rate and biodecay rate calculations*
b. *Specific estimates of the length of time, including calculations, required to achieve compliance with the applicable RRS (this is required for all of the remediation technologies)*
c. *An accurate comparison of the geochemistry parameters measured at the site to ideal natural attenuation geochemistry parameters*
d. *Parent/daughter molar ratio trends*
e. *Temperature measurements from groundwater samples measured for geochemistry parameters.*

Groundwater modeling programs, such as BIOSCREEN or BIOCHLOR, may be helpful in modeling the length of time required to achieve compliance; however, the use of these programs is not mandatory.

As far as the monitored natural attenuation program is concerned, the program should at a minimum include monitoring at least three wells within the plume (such as MW-114, MW-113 and MW-1), two cross-gradient wells, one down-gradient/point of compliance well, and one up-gradient/background well. The cross-gradient, down-gradient, and up-gradient wells must be wells that have not shown any impacts. In addition, the two existing deep groundwater monitoring wells (MW-114D and MW-4D) and the recommended third deep groundwater monitoring well (Comment 7 above) should be monitored. The monitoring program should be on a semi-annual basis, instead of on an annual basis as suggested in your CAP. The wells should be sampled for all VOCs under EPA Method 8260, not just selected VOCs, in each semi-annual monitoring event. In addition, the groundwater wells should be sampled for natural attenuation parameters at least once a year. A groundwater monitoring report should be submitted to EPD semi-annually. Every five years, all groundwater monitoring wells should be sampled for VOCs and the effectiveness of the monitored natural attenuation program should be re-evaluated. In order to complete the corrective action program, the groundwater monitoring program should continue until at least two consecutive monitoring events show the site meets Type 1 or Type 2 RRS. Please revise the corrective action scope in Section 3.1 of the CAP to include the above requirements. These requirements should be described in detail.

Response: As discussed during the meeting on March 17, 2003, the CAP will be revised to include discussion of additional remedial alternatives that might be applied. More detailed discussion of the support for monitored natural attenuation will be provided. If warranted, the CAP will recommend additional monitoring to collect data to evaluate the effectiveness of monitored natural attenuation and provide a more accurate estimate of the treatment timeframe and costs for implementation of this corrective measure. Any recommended monitoring program in the revised CAP will include the indicated changes with regard to the number of monitoring points, the monitoring frequency, and the analytical parameters to be included for the monitoring.

31. Comment:

The cost estimate in Section 3.5 of the CAP needs revising based on the comments in this Notice of Deficiency.

Response: The cost estimate will be revised as appropriate for the final CAP, based on the changes indicated in comment 30.

Financial Assurance

32. Comment:
EPD received a copy of your financial responsibility instrument on April 25, 2002. A copy of a corporation's annual report does not provide adequate financial assurance. In order to provide adequate financial assurance, a bond in the amount of the anticipated cost of clean up must be obtained. Proof of adequate financial assurance should be submitted to EPD within 30 days of EPD's approval of the CAP.

Response: Miller Brewing Company will submit the required Financial Assurance documentation once the CAP has been approved.

2002 Annual Groundwater Monitoring Report

33. Comment:
The groundwater flow direction should be indicated with an arrow in Figure 4.

Response: An arrow indicating the flow direction will be included in future reports.

34. Comment:
The isoconcentration line shown in Figure 3 should be drawn between wells that have shown groundwater concentrations to be below the Type 4 RRS.

Response: The isoconcentration line is drawn between those wells that exceed the Type 4 criteria, and those that do not. The concern regarding this figure is not clear. If necessary, this line will be corrected in future monitoring reports.

35. Comment:
The geochemical parameters should be shown for all of the wells that are part of the monitored natural attenuation program, not just MW-114. In addition to pH, conductivity, dissolved oxygen, and ORP, please monitor for temperature, ferrous iron, nitrate, and sulfate.

Response: The geochemical parameters listed will be collected and reported, as appropriate based on the revised CAP, during subsequent groundwater monitoring events.

36. Comment:
Groundwater collected from the wells that are part of the monitored natural attenuation program should be analyzed for all VOCs using EPA Method 8260.

Response: Groundwater samples will be analyzed for the full VOC list during subsequent groundwater monitoring events.

Comments from Georgia EPD regarding CSR/CAP submitted May 2003 – September 24, 2003

Georgia Department of Natural Resources
2 Martin Luther King, Jr. Drive, Floyd Towers, East, Suite 1462 Atlanta, Georgia 30334
Lonice C. Barrett, Commissioner
Environmental Protection Division
Harold F. Reheis, Director
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404-657-8600

September 24, 2003

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. M. Quinton Hancock
Environmental Planning Engineer
Miller Brewing Company
PO Box 482
Milwaukee, Wisconsin 53201-0482

COPY

Subject: Compliance Status Report and Corrective Action Plan
Reynolds Metals Company Site
Moultrie, Colquitt County
Hazardous Site Inventory # 10425

Dear Mr. Hancock:

The Georgia Environmental Protection Division (EPD) has completed its review of the Compliance Status Report (CSR) and the Corrective Action Plan (CAP), dated May 2003, submitted for the Reynolds Metals Company Site in Moultrie, Colquitt County, Georgia. The following comments discuss certain aspects of the CSR and CAP that require further work and/or correction before those reports can be considered complete with respect to Georgia's Rules for Hazardous Site Response Chapter 391-3-19 (Rules).

COMPLIANCE STATUS REPORT

Soil Investigation:

1. Section 391-3-19-.06(3)(b)(2) of the Rules requires a complete definition of the horizontal extent of contamination in soil to background. Comment 1 of the February 7, 2003 Notice of Deficiency (NOD) requested that analytical results of volatile organic compounds (VOCs) in the soil south of boring SB-114 be provided in order to complete the horizontal delineation of soil. Although the analytical results from soil samples MHSB-2 and MHSB-3, collected during the May 21, 1998 McLaren/Hart investigation, were shown on applicable figures and tables to show horizontal delineation of soil, these soil samples do not serve to delineate the horizontal extent of contamination. First, MHSB-2 and MHSB-3 are located too far southeast of ETCMW-114 to provide horizontal delineation south of ETCMW-114. This is evident by drawing a map showing the extent of contamination. Secondly, soil samples collected from MHSB-2 and MHSB-3 were not sampled for the presence of vinyl acetate, 1,2-dichloroethylene, dibromomethane, and isobutyl alcohol. Therefore, these samples do not provide any information on the horizontal extent of contamination of those substances. As a result, a soil sample should be collected from within the building footprint south of ETCMW-114 and southwest of ETCMW-113 and sampled for the presence of VOCs including vinyl acetate, cis-1,2-dichloroethene, trans-1,2-dichloroethene, dibromomethane, and isobutyl alcohol. Additionally, in an effort to delineate the horizontal extent of vinyl acetate and isobutyl alcohol in soil, a soil sample should be collected from the area southeast of ETCMS-113, in the vicinity of MHSB-3, and analyzed for the presence of VOCs. And in an effort to delineate the horizontal extent of dibromomethane and isobutyl alcohol in soil, a soil sample should be collected in the vicinity of OBGSB-4, and analyzed for the presence of VOCs. In the event that these three soil samples are non-detect, the delineation of VOCs in soil should be complete. However, in the event that VOCs are detected in these soil samples, additional horizontal delineation will be required.

Maps depicting the horizontal extent of each regulated substance in soil have been attached for your review. Proposed locations of the three abovementioned proposed borings needed to delineate the extent of horizontal contamination have also been shown on a separate map.

All the requirements of Section 391-3-.06(3)(b)(2) of the Rules must be met by any new information collected at the site, including narrative and tabular summaries of all the data, figure revisions, and copies of all final laboratory analyses. Please follow strict QA/QC procedures to prevent false positives for of acetone and/or methylene chloride.

2. As required by Section 391-3-19-.06(3)(b)(2)(iii) of the Rules, a figure showing sampling points should be included in the CSR. As a result, please revise the following:
   a. Figure 8 should be revised to show the acetone and methylene chloride concentrations for CH2SB-1, CH2SB-3, CH2SB-4, CH2SB-5, ETMW-117 (requested in Comment 23 of the February 7, 2003 NOD), and TW-10-S.
   b. The concentrations of 1,2-dichloroethene (total) and ethylbenzene for TW-10 in Figure 7 have been incorrectly transcribed from Table 1.
   c. Sediment sampling locations B2-SD and MH-SD-01 should be shown in Figure 4.
   d. Figure 7 should be revised by relabeling the sampling location labeled as CH2MW-5 to CH2SB-5. In addition, the acetone and methylene chloride detections depicted in Figure 8 at CH2MW-5 were not detected at the location, but were rather detected at the location of CH2SB-5. Please revise Figure 8 as well.
3. As required by Section 391-3-19-.06(3)(b)(2)(vii) of the Rules, a narrative and tabular summary of all pertinent field data and the results of all final laboratory analyses should be included in the CSR. As a result, please revise the following:
   a. The analytical results for metals in sediment sample MH-SB-01 should be included in Table 3.
   b. Table 1 should be revised to show boring B-1. Please indicate in the table that no sample was collected from B-1.
   c. The laboratory analytical sheets from soil samples collected at TW-3-S and TW-11-S on October 4, 1993 should be provided.

Groundwater Investigation:

4. As required by Section 391-3-19-.06(3)(b)(3) of the Rules, the horizontal extent of groundwater contamination has not been determined at this time. This is in part due to an unclear potentiometric flow direction at the site and in part due to the fact that several wells at the site have not been sampled since at least 1998, and those results cannot be adequately compared to more recent analytical results. Therefore, in order to complete the horizontal delineation of VOCs in groundwater, please collect groundwater samples from the following locations and analyze for the presence of all VOCs, ensuring that all VOCs ever detected at the site are included in the analyte list:
   a. One permanent monitoring well south of CH2MW-3;
   b. One permanent monitoring well east of CH2MW-3 and north of OBGMW-123;
   c. One permanent monitoring well northeast of OBGMW-122;
   d. One permanent monitoring well northwest of ETMW-121;
   e. Resample CH2MW-1A; and
   f. Resample CH2MW-5.

It should be noted that isobutyl alcohol concentrations were detected in ETCMW-114 in 1994. Subsequent groundwater samples collected from ETCMW-114 and all other groundwater monitoring wells at the site have not been analyzed for isobutyl alcohol; therefore it is unknown what the horizontal extent of this regulated substance at the site is. All future groundwater samples collected from the site during the CSR and CAP sampling activities should be analyzed for the presence of isobutyl alcohol.

Several figures have been attached to this letter showing the horizontal extent of contamination in groundwater to depict why additional sampling is required to complete delineation. In addition, a figure showing proposed groundwater sampling locations has been attached.

All the requirements of Section 391-3-.06(3)(b)(3) of the Rules must be met by any new information collected at the site, including narrative and tabular summaries of all the data, figure revisions, copies of all final laboratory analyses, and updated groundwater elevations and potentiometric maps. The updated potentiometric map should include the proper collection of groundwater elevations from each of the on-site groundwater monitoring wells. Again, strict QA/QC procedures should be followed to prevent false positives of acetone and/or methylene chloride in groundwater.

5. EPD concurs that the groundwater at the site is moving at an extremely slow rate. According to the analytical data and Figure 13, monitoring well CH2MW-4D is outside the source area of the groundwater contamination and it may take several years for a potential deep groundwater plume to flow into this well. Additionally, there is evidence that portions of the groundwater at the site are flowing in a direction up-gradient of CH2MW-4D. EPD understands that previously CH2MW-4D was accepted as vertical delineation for the site; however, in light of this new information, EPD is requiring additional vertical delineation at the site. Please install a new deep well(s) located centrally within the plume of highest concentration at the site for completion of vertical delineation to background. In the event that groundwater impacts are deeper than CH2MW-114D, as will be determined with the installation of this new deep well(s), please measure the hydraulic conductivity in this new deep well(s).

6. Your value for groundwater gradient for the calculation of groundwater velocity does not appear to be conservative of accurate groundwater gradient conditions at the site. Monitoring wells ETCMW-114 and ETCMW-117 are not far enough apart across the site to get an accurate calculation of groundwater gradient. EPD has measured perpendicular distances between conservative contours on potentiometric surface maps and the calculations show the gradient is between 0.012 and 0.02. Furthermore, previous measurements mentioned in your letter dated April 10, 2000, calculated a value of 0.044, which you agreed to use for the groundwater velocity calculations. Please re-calculate the value for groundwater gradient using an acceptable method, use the previously agreed value of 0.044, or use an average of the current EPD calculated values.

7. As required by Section 391-3-19-.06(3)(b)(3)(iv) of the Rules, your value for hydraulic conductivity used for the calculation of the groundwater velocity is not the true mean of the values calculated for hydraulic conductivity at the site. EPD has re-calculated and found that the average hydraulic conductivity at the site is 2.419×10^{-5} ft/day. Please use this value to re-calculate the groundwater velocity.

8. EPD understands you used Aqtesolv computer program for calculating hydraulic conductivity. Please provide a list of times vs. drawdown values, copies of all program input pages, and copies of all output pages. Also provide a discussion of the program, input values (including references, calculations, site measurements, or lab data), and a discussion

of output interpretations of the program including slope selection on the time vs. drawdown chart.

9. As required by Section 391-3-19-.06(3)(b)(3)(v)(I) of the Rules, the symbol for monitoring well CH2PP-1 in Figure 3 should be revised from a temporary well symbol to a permanent well symbol. (Figure 3 of the CAP should also be revised accordingly).

10. Section 2.4 of the May 2003 CSR states, "Due to the low productivity of the shallow aquifer, a minimum of one well volume of groundwater was purged from each well," and, "Most wells were pumped dry and allowed to recover....". Please provide a table showing how many well volumes were recovered, purge time, and sample time for each well sampled, as is required by Section 391-3-19-.06(3)(b)(3)(vi)(II) of the Rules.

11. Several typographical errors were noted in Figure 13, and as a result in Figures 14 and 15. For example, many of the concentration shown for ETMW-117 in January 2001 have been denoted with a "D" qualifier. However, based on a review of the analytical result sheets these concentrations were not denoted with a "D" qualifier. Furthermore, the trans-1,2-dichloroethene concentrations and the naphthalene concentrations detected in ETCMW-114 and CH2MW-3, respectively, have been omitted from Figure 13. There are several other typographical errors not mentioned that need to be revised, as well. Please revise Figure 13, 14 & 15, as is required by Section 391-3-19-.06(3)(b)(3)(viii) of the Rules.

12. As required by Section 391-3-19-.06(3)(b)(3)(viii) of the Rules, analytical results for all wells sampled at the site should be shown in Figure 13. Analytical data collected from ETCMW-118, ETCMW-115, ETCMW-120, ETCMW-119, and ETCMW-114D should be depicted in Figure 13, regardless of the fact that it was collected prior to 2000-2001. Since these abovementioned wells were not sampled during more recent sampling events, the older data collected from these wells has not been replaced with more recent data, and, therefore, it is assumed that the older data collected from these wells is still current. Figure 13 is incomplete without analytical data from all of the wells sampled at the site. (Figure 6 of the CAP should also be revised accordingly).

13. In the February 7, 2003 NOD, EPD requested that the potentiometric maps be revised to show all groundwater elevations, as required by Section 391-3-19-.06(3)(b)(3)(ix) of the Rules. Based on a review of figures 10, 11, and 12, all groundwater elevations have not been shown on the maps. Please revise Figure 10 to show the groundwater elevation for CH2PP-1, Figure 11 to show the groundwater elevations for CH2MW-1, CH2MW-1A, CH2MW-4D, ETCMW-114, ETCMW-114D, ETCM-115, and CH2PP-1, and Figure 12 to show groundwater elevations for CH2MW-1A, CH2MW-4D, and CH2PP-1.

14. Figure 6 of your May 2003 Revised CSR shows the depicted groundwater table includes measured water level values from the deep wells, CH2MW-114D and CH2MW-4D. Only shallow well data should be used to show the accurate location of the groundwater table. Please re-draw this figure omitting water level data from these wells, and re-submit this map.

    On Figure 10, June 1998 Potentiometric Surface Map, the surface water contour lines extend well beyond the known groundwater level measurements (at the wells) to the southeast of the map. Please revise this map showing only known data.

    On Figure 11, September 2000 Potentiometric Surface Map, the surface water contour lines extend well beyond the known groundwater level measurements (at the well) to the northeast of the map. Please revise this map showing only known data. Additionally, arrows showing groundwater flow direction at the site show flow direction at the site going up-gradient. Please revise the direction of these arrows.

On Figure 12, January 2001 Potentiometric Surface Map, the groundwater contours does not show a best fit for the available groundwater data. Please revise, or if data is suspect, omit this map from the CSR.

15. According to water level data in the surface water wells at the site, the site groundwater appears to flow into the site from the northwest and southeast, and most of the groundwater flows off the site to the northeast. However, there is evidence suggesting that the southwestern portion of the site may be draining groundwater toward the southwest at CH2MW-2. Due to the abnormal groundwater flow across the southern portion of the site, further investigation of the surfacial water table is warranted. Please install piezometers near each of these former temporary wells: CH2PP-2 and TW-11; and one of the former soil sample locations: MHSB-02. Following installation, please re-measure all water levels in each of the monitoring wells and in the new piezometers, and provide a new potentiometric surface map. It may be advisable to install groundwater monitoring wells instead of piezometers, since groundwater analytical data is requested from a well installed near TW-11 in NOD Comment 4b and soil analytical data is requested from borings installed in the vicinity of CH2PP-2 and MHSB-02 in NOD Comment 1. Information collected from monitoring wells may be useful during the completion of the CSR and the implementation of the CAP.

16. As required by Section 391-3-19-.06(3)(b)(3)(x) of the Rules, Figure 14 should be revised to show that the interpreted limit of compounds above Type 4 RRS extends below CH2MW-114D. (Figure 7 of the CAP should also be revised accordingly).

17. As required by Section 391-3-19-.06(3)(b)(3)(xi) of the Rules, a narrative and tabular summary of all pertinent field data and the results of all final laboratory analyses should be included in the CSR. As a result, please include the following:

    - The groundwater analytical results from the temporary wells sampled in 1993 should be included in Table 4. However, it should be noted that the analytical results from groundwater samples collected from temporary wells cannot be used to delineate the extent of contamination in groundwater at the site.
    - Please include the analytical results from the DUP sample collected from ETMW-120 in May 1998 to Table 4.
    - All new data collected since the last CSR revision should be included in the CSR. Therefore, please include the April 2002 groundwater monitoring results in tables and figures, include a discussion of the results in the CSR text, include all laboratory analytical data sheets, and include groundwater elevation data and updated potentiometric maps. In the event that additional groundwater/soil sampling events have occurred since April 2002, please include the abovementioned data in the CSR Addendum.
    - The 4-methyl-2-pentanone concentration in DUP sample from November 2000 in CH2MW-3 has been incorrectly transcribed in Table 4. Please revise to a below detection concentration of <0.003 mg/L.
    - The trans-1,2-dichloroethene concentration in DUP sample from January 2001 in ETCMW-114 has been incorrectly transcribed in Table 4. Please revise to a concentration of 0.003 mg/L.
    - The 1,2,3-trichloropropane concentrations should be included in Table 4 for ETCMW-113 (1/21/94), and ETCMW-114 (1/21/94 and 1/21/94 DUP).
    - The trichlorofluoromethane concentration in DUP sample from August 2000 in ETMW-116 has been incorrectly transcribed in Table 4. Please revise to a concentration of

0.001 mg/L. In addition, please add the "D" notation to the tetrachloroethene and trichloroethene concentrations for DUP sample from August 2000 in ETMW-116.

18. In Comment 8 of the February 7, 2003 NOD, more information regarding PP-3 was requested. In your March 31, 2003 letter in response to the NOD, you indicated that PP-3 was a temporary monitoring well that never produced groundwater, and was, therefore, never sampled. You indicated in your March 31, 2003 letter that you would remove the temporary well location labeled as PP-3 from all figures. Instead of removing PP-3 from the figures, please leave PP-3 in the figures, as was done in the May 2003 revised CSR, and instead add a column to Table 4 labeled as PP-3 and indicate in that column that PP-3 was a temporary monitoring well that was dry at the time of installation, as was indicated in the CH2M Hill September 1998 CSR.

Miscellaneous:

19. According to Georgia State Law, O.C.G.A. § 12-2-9, it is required that all commercial environmental laboratories submitting data to EPD for regulatory purposes be approved or accredited as specified in EPD's rules and regulations. Chapter 391-3-26 of EPD Rules requires that any person submitting data prepared by a commercial analytical laboratory to the Division for regulatory purposes shall stipulate that the laboratory is approved or accredited.

20. The analytical results for ferrous iron and manganese for samples collected in November 2000 shown in Table 7 were not identified in the CSR. In addition, please revise the ethene concentrations shown in Table 7 for CH2MW-2 (8/23/00) and ETMW-121 (11/21/00) to show the detections indicated on the analytical data sheets.

21. As was requested in Comment 27 of the February 7, 2003 NOD, please include the chloride and sulfate analytical results in the groundwater sample collected from CH2MW-2 in August 2000 in Table 7. Furthermore, based on a review of the CH2M Hill Report, dated September 1998, the dissolved oxygen measurements in May 1998 for MW-113, MW-114, and MW-121, respectively, are 6.79 mg/L, 0.19 mg/L, and 5.12 mg/L, respectively. These values should be revised in Table 7 to be consistent with the values shown in the original CH2M Hill Report.

22. Figures 7, 8, 9, 13, 14, and 15 should be revised, if needed, to either show the results of duplicate samples or show the highest detections between the original sample and its duplicate. For example, the chloroethane concentration in ETCMW-114 on January 2001 was 0.061 mg/L. That sample's duplicate concentration of chloroethane was 0.062 mg/L. Therefore, 0.062 mg/L should be shown on Figure 13 as the chloroethane concentration at ETCMW-114 in January 2001.

Risk Reduction Standards

23. In Table 11, the Type 3 risk reduction standard (RRS) has been calculated for 1,1-dichloroethane in shallow surface soils in boring location ETMW-117. Based on a review of Table 1, acetone was detected at a concentration of 0.014 mg/kg between 1 and 3 feet deep in soil collected from ETMW-117, not 1,1-dichlorethane. Please revise Table 11 accordingly.

24. The site-specific values in Table 8 for the averaging time for non-cancer effects and the exposure duration should be explained.

25. In Table 10, the notation "(3)" is shown under the constituent heading for 1,2-dichloroethene (total); however, this notation is not described in the Notes below the table. Please explain the meaning of this notation in the Notes section.

26. Table 10 should be revised to contain the 1,1,1-trichloroethane concentration detected in TW-10-S on October 4, 1993.

27. An elevated chloromethane concentration was detected in Sump 1 in November 1994. The chloromethane concentration exceeds the Type 1 RRS. Please evaluate this chloromethane concentration with respect to other RRS.

28. Table 13 should be revised to show a comparison of isobutyl alcohol detections in groundwater (ETCMW-114) to Type 1/Type 3 RRS.

CORRECTIVE ACTION PLAN

At this time, EPD agrees with the remediation technologies recommended for the site in the CAP.

29. It should be noted that a clear definition of the horizontal groundwater flow direction has not been provided to date. As a result, Comments 4 & 16 of this NOD request that an additional groundwater elevation measurement event be conducted and an updated potentiometric map be drafted to complete the CSR. We also request that Section 2.1 of Appendix B of the CAP be revised to include the collection of groundwater elevation measurements at all wells during all of the pre- and post-injection monitoring events and the drafting of updated potentiometric maps for all measurement events. An accurate depiction of the horizontal groundwater flow direction is important when designing the proposed corrective action program.

30. Section 3.2 of the CAP should be revised to include more of a technical description of the enhanced bioremediation activities, including, but not limited to, the following:

    - Which bioenhancing agent/amendment will be injected and why;
    - How the specific amendment was chosen and why that was the best amendment to choose for the site chemistry;
    - Which amendment delivery mechanism will be used and why;
    - Whether a pilot test will be conducted. If so, please provide describe the scope and goal of the pilot test. If not, please explain why not; and
    - Whether biofouling of the wells will pose a problem at this site. If so, what will be done to prevent biofouling. If not, please explain why not.

31. Please address obtaining an underground injection control (UIC) permit to conduct corrective action at the site. The task of obtaining the UIC permit should be included in the CAP schedule shown in Table 3.

32. Please address the low hydraulic conductivity at the site as it relates to enhanced bioremediation technology. As a result of the low hydraulic conductivity, please explore the use of recirculation systems to deliver the chosen amendment as a possible way to increase the hydraulic conductivity at the site. Regardless of whether a recirculation system is determined to be appropriate at the site, a very aggressive enhanced bioremediation plan will be needed, perhaps requiring a series of injection rows all along the contaminated areas. As a result, the revised CAP should clearly outline the exact plan for distributing the amendment across the site to ensure that the plan will be aggressive enough.

33. The remediation technology should be evaluated with respect to the geochemical constituents in groundwater at the site that have been measured thus far. For example, anaerobic biodegradation is typically not suitable in sites with very high oxidation reduction potential (ORP); therefore, please evaluate the conditions at the site with respect to the specifics of the chosen technology. It may be useful to plot geochemical data, such as pH, temperature, ORP, sulfate, dissolved oxygen, total organic carbon, etc. on maps.

34. Section 3.2 states that six monitoring wells will be sampled for natural attenuation parameters, while Appendix B shows that five monitoring wells will be sampled for natural attenuation parameters during pre- and post-injection sampling events. Please correct this inconsistency.

35. Due to the lack of consistency in the CSR pertaining to the VOC analyte list, the CAP should be revised to show each individual regulated substance on the analyte list.

36. In addition to cross-gradient, down-gradient, and in plume wells shown in the list of monitoring wells in Section 3.2.2 of the CAP, the following locations should be added to your long-term monitoring plan:

    - ETMW-121, located up-gradient of the contaminant plume to monitor horizontal contaminant spread;
    - CH2PP-1, located down-gradient of the contaminant plume to monitor horizontal contaminant spread;
    - CH2MW-2, since it may be a down-gradient well for the southwestern portion of the site;
    - CH2MW-3, since it had previously detected chlorinated solvents;
    - CH2MW-114D, since it had previously detected chlorinated solvents; and
    - CH2MW-4D, to show that deep groundwater impacts are not migrating.

    Please revise the table in Section 3.2.2 of the CAP to include sampling the abovementioned wells in the long-term monitoring plan.

37. The CAP should be revised to show the specific contents of the groundwater monitoring reports that will be submitted to EPD during the pre- and post-injection monitoring events and during the long-term monitoring events. Useful information that should be included in these reports may include revised extent of contamination figures, analytical result and natural attenuation parameter tables, analytical data sheets, updated potentiometric maps, and a narrative section discussing the results of the monitoring events and the effectiveness of the corrective action program.

38. A more detailed discussion of the anticipated corrective action completion date at the site should be included in the CAP. The corrective action time frame may be estimated using groundwater models; however, whatever method is used to estimate the corrective action duration, please include calculations or model results to document how the time frame was determined in the revised CAP.

39. The Type 1 RRS for cis-1,2-dichloroethene in Table 1 of the CAP should be revised so that the value is consistent with the approved value in Table 13 of the CSR.

40. All tables and figures of the CAP should be revised in accordance with the CSR deficiencies listed above.

41. In accordance with the Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM) for the USEPA, Region 4, which was revised in November 2001, the sampling and analysis plan (Appendix B) should be revised to show that groundwater collected at the site will also be measured for turbidity, as well as pH, conductivity, and temperature. In addition, water quality readings should be collected between every well volume collected during purging and before sampling, and not after sampling (Section 3.2 of Appendix B). By collecting the water quality readings prior to sampling, you will be able to determine whether the pH, conductivity, turbidity and temperature are at adequate levels to proceed with sampling.

42. According to Section 3.2 of Appendix B, you intend to purge each well dry at a moderate rate until the well is dry, and plan to sample the wells three to five days after purging. This method is inappropriate for sampling VOCs. Wells should be purged using low-flow techniques until three well volumes are removed and field analysis shows that the groundwater has stabilized (temperature, pH, conductivity, etc. within five percent of the last well volume reading). Where wells do not recover quickly enough to produce three well volumes, the wells should be purged dry using low flow techniques, and sampled upon first recovery. Since VOC analysis does not involve a high volume of sample water, this should be plausible within 24 hours of purging each well despite slow recovery times.

Please submit two (2) copies of a revised CSR to EPD by January 9, 2004. In addition, please revise the CAP to address the comments above and resubmit two (2) copies of the CAP to EPD by January 9, 2004. If you have any questions, please contact me at 404-657-8600.

Sincerely,

David Reuland
Unit Coordinator
Superfund Management Unit

cc: Michael Hall, O'Brien and Gere Engineers, Inc.
K.S. Bickell, Ball Corporation

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Appendix B

Calculations for Risk Evaluation

Appendix B

Calculations for Risk Evaluation

RAGS Part B equations are used to calculate Type 3 Risk Reduction Standards (RRS) for surface soil and Type 4 RRS for soil and groundwater soil and ground water. Factors used in the RAGS equations include exposure parameters, toxicity values, and physical/chemical parameters. Descriptions of these parameters/values and the calculation methods are presented in this section.

Exposure Parameters

With the exception of *exposure duration, ED*, the default exposure factors listed on Table 3 of Georgia EPD Rule 391-3-19 Hazardous Site Response were applied to the RAGS equations. A site-specific ED of 20 years was used. This value is reflects the maximum possible plant employee tenure. The plant was operational from 1981 to 2001. Although a 20-year exposure duration is used, it should be noted that the contamination release most likely occurred well after commencement of facility operations in1981 and was not discovered until 1988. Exposure parameters are presented on Table B-1.

Toxicity Values

Carcinogenic Effects

Table B-2 includes the weight of evidence classification (WE) for carcinogens as assigned by the USEPA according to their potential to induce cancer in humans. A constituent may be classified into one of five groups with respect to the weight of evidence for human carcinogenicity. In addition, Georgia EPD establishes the target cancer risk (TR) based on the WE classification. The WE classes and the corresponding TR are the following:

- Group A - Known Human Carcinogen. A constituent is classified in group A if there is sufficient evidence from human observations (epidemiological studies) to support an association between exposure to a chemical agent and cancer in humans. ($TR=10^{-5}$)

- Group B1 - Probable Human Carcinogen. A constituent is classified as a B1 carcinogen if there is sufficient evidence for carcinogenicity based on animal studies, and limited (suggestive but not conclusive) evidence based on human observations. ($TR=10^{-5}$)

- Group B2 - Probable Human Carcinogen. A B2 carcinogen is a constituent for which there is sufficient evidence for carcinogenicity in animals, and inadequate evidence for carcinogenicity in humans. ($TR=10^{-5}$)

- Group C - Possible Human Carcinogen. A constituent is classified as a group C carcinogen if there is limited evidence for carcinogenicity in animals and inadequate evidence for carcinogenicity in humans.
- ($TR=10^{-4}$)

- Group D – Not classifiable as to human carcinogenicity. A constituent is classified as a group D agent if there is insufficient data available with which to evaluate the carcinogenicity of the chemical.

Slope Factors - For group A, B, and C constituents, USEPA derives chemical-specific *cancer slope factors (SF)*. A cancer slope factor is a number which, when multiplied by the estimated chemical-specific CDI, provides an estimate of the "excess cancer risk" associated with that exposure. Slope factors associated with inhalation and oral injestion, SFi and SF_o, respectively, for Site constituents are listed on Table B-2.

Non-Carcinogenic Effects

The non-cancer toxicity values applied to the RRS calculations are presented in Table B-2. A non-cancer health effect occurs as a result of damage to cells in one or more human organs, which causes the organ(s) to function less efficiently. Due to the body's ability to cope with small doses of most substances, a non-cancer health effect will not occur if intake of a chemical is less than a certain threshold dose. This threshold dose is referred to as a "no observed adverse effect level" (NOAEL) for a substance. From NOAELs, *reference doses, (RfD)*, are calculated and are used to determine if the calculated intake of a constituent is less than the RfD for that chemical, then no adverse non-cancer health effects are expected as a result of that exposure. RfDs for oral and inhalation exposure, RfD_o and RfD_i, respectively, are presented on Table B-2.

Physical/Chemical Parameters

To derive Type 3 RRS for constituents in soil, a constituent-specific *soil-to-air volatilization factor (VF)* must be calculated. To perform this calculation several constituent-specific physical/chemical parameters are required to account for each substance's movement through soil to the air. The parameters required are the *Henry's law constant (H), organic carbon partition coefficient (Koc), soil-water partition coefficient (Kd)*, and *molecular diffusivity (Di)*. Table B-3 presents the values applied for soil constituents in the VF equation.

Algorithms

To determine the Type 3 and Type 4 RRSs, the following equations from RAGS were applied (USEPA 1991). Information on specific exposure parameters used in the risk calculations are listed in Table B-3. The soil-to-air VF was calculated using the equations provided by the Georgia EPD in HSRA Rules, Appendix III, Table 3.

Residential Water – Carcinogenic Effects (RAGS Equation 1)

$$C\,(\text{mg/L; risk - based}) = \left(\frac{TR \times BW \times AT \times 365 \frac{\text{days}}{\text{year}}}{EF \times ED \times \left[\left(SF_o \times IR_{water} \right) + \left(SF_i \times K \times IR_{air} \right) \right]} \right)$$

Residential Water – Noncarcinogenic Effects (RAGS Equation 2)

$$C\,(\text{mg/L; risk - based}) = \left(\frac{THI \times BW \times AT \times 365 \frac{\text{days}}{\text{year}}}{EF \times ED \times \left[\left(\left(\frac{1}{RfD_o} \right) \times IR_{water} \right) + \left(\left(\frac{1}{RfD_i} \right) \times K \times IR_{air} \right) \right]} \right)$$

Commercial/Industrial Soil – Carcinogenic Effects (RAGS Equation 6)

$$C\,(\text{mg/kg; risk - based}) = \left(\frac{TR \times BW \times AT \times 365 \frac{\text{days}}{\text{year}}}{EF \times ED \times \left[\left(SF_o \times 10^{-6}\,\text{kg/mg} \times IR_{soil} \right) + \left(SF_i \times IR_{air} \times \left[\frac{1}{VF} + \frac{1}{PEF} \right] \right) \right]} \right)$$

Commercial/Industrial Soil – Noncarcinogenic Effects (RAGS Equation 7)

$$C\,(\text{mg/kg; risk - based}) = \left(\frac{THI \times BW \times AT \times 365 \frac{\text{days}}{\text{year}}}{EF \times ED \times \left[\left(\left(\frac{1}{RfD_o} \right) \times 10^{-6}\,\text{kg/mg} \times IR_{soil} \right) + \left(\left(\frac{1}{RfD_i} \right) \times IR_{air} \times \left[\frac{1}{VF} + \frac{1}{PEF} \right] \right) \right]} \right)$$

Volatilization Factor (RAGS Equation 6)

$$VF\,(m^3/kg) = \frac{(LS \times V \times DH)}{A} \times \frac{(\pi \times \alpha \times T)^{1/2}}{(2 \times D_{ei} \times E \times K_{as} \times 10^{-3}\,kg/g)}$$

Where:

$$\alpha\,(cm^2/sec) = \frac{D_{ei} \times E}{E + (\rho_s)(1-E)/K_{as}}$$

$$D_{ei}\,(cm^2/sec) = D_i \times E^{0.33}$$

$$K_{as}\,(g\ soil/cm^3\ air) = \left(\frac{H}{K_d}\right) \times 41$$

$$K_d\,(cm^3/g) = K_{oc} \times OC$$

Where:

LS	length of side of contaminated area (m)
V	wind speed in mixing zone (m/s)
DH	diffusion height (m)
A	area of contamination (cm^2)
π	3.14
T	exposure interval (sec)
ρ_s	density of soil solids (g/cm^3)
OC	soil organic carbon content fraction (unitless)
D_{ei}	effective diffusivity (cm^2/s) (derived above)
D_i	molecular diffusivity (cm^2/s)
E	total soil porosity (unitless)
K_{as}	soil/air partition coefficient (g soil/cm^3 air) (derived above)
H	Henry's law constant (atm-m^3/mol) (chemical specific)
K_d	soil-water partition coefficient (cm^3/g) (derived above)
K_{oc}	organic carbon partition coefficient (cm^3/g) (chemical specific)

Table B-1
Receptor-Specific Exposure Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameter	Parameter Description	(units)	Type 3 Non-Residential	Type 4 Non-Residential
ATc	Averaging time for carcinogenic effects	(years)	70	70
ATnc	Averaging time for non-cancer effects	(years)	25	20
BW	Body weight	(kg)	70	70
EF	Exposure frequency	(days/year)	250	250
ED	Exposure duration	(years)	25	20
IRair	Inhalation rate	(m3/day)	20	20
IRsoil	Soil ingestion rate	(mg/day)	50	50
IR water	Water ingestion rate	(L/day)	1	1
K	Water-to-air volatilization factor	(L/m3)	0.5	0.5
PEF	Particulate emission factor	(m3/kg)	4.63E+09	4.63E+09

Site specific data

Table B-2
Reference Doses and Cancer Slope Factors Used to Calculate Risk Reduction Standards
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Constituent	CAS No.	Weight of Evidence Cancer Category	Target Cancer Risk	Target Hazard Index	Inhalation Slope Factor, SF_i (1/mg/kg-day)	ref	Oral Slope Factor, SF_o (1/mg/kg-day)	ref	Inhalation Reference Dose, RfD_i (mg/kg-day)	ref	Oral Reference Dose, RfDo (mg/kg-day)	ref
1,1,1-Trichloroethane	71556	D		1	NA	NA	NA	NA	0.63	E	0.28	E
1,1,2,2-Tetrachloroethane	79345	C	0.0001	1	0.2	I	0.2	I	NA	NA	0.06	E
1,1-Dichloroethane	75343	NA		1	NA	NA	NA	NA	0.14	A	0.1	H
1,1-Dichloroethene	75354	C	0.0001	1	NA	NA	NA	NA	0.06	I	0.05	I
1,2,3-Trichlorobenzene (1)	87616	D		1	NA	NA	NA	NA	0.057	H	0.01	I
1,2,3-Trichloropropane	96184	NA		1	NA	NA	2	E	0.0014	E	0.006	I
1,2,4-Trichlorobenzene	120821	D		1	NA	NA	NA	NA	0.057	H	0.01	I
1,2-Dibromo-3-chloropropane (DBCP)	96128	*	0.00001	1	0.0024	H	1.4	H	0.000057	I	NA	NA
1,2-Dichloroethane	107062	B2	0.00001	1	0.091	I	0.091	I	0.0014	E	0.03	E
1,2-Dichloroethene	540590	NA		1	NA	NA	NA	NA	NA	NA	0.009	H
2-Butanone (MEK)	78933	D		1	NA	NA	NA	NA	0.286	I	0.6	I
Acetone	67641	D		1	NA	NA	NA	NA	NA	NA	0.1	I
Benzene	71432	A	0.00001	1	0.029	I	0.055	I	0.0017	E	0.003	E
Carbon Disulfide	75150	NA		1	NA	NA	NA	NA	0.2	I	0.1	I
Chloroethane	75003	*	0.00001	1	NA	NA	0.0029	E	2.9	I	0.4	E
Chloromethane	74873	*	0.00001	1	0.0035	E	0.013	H	0.026	I	NA	NA
cis-1,2-Dichloroethene	156592	D		1	NA	NA	NA	NA	NA	NA	0.01	H
Dibromomethane	74953	NA		1	NA	NA	NA	NA	NA	NA	0.01	A
Ethylbenzene	100414	D		1	0.00385	E	NA	NA	0.29	I	0.1	I
Isobutyl Alcohol	78831	NA		1	NA	NA	NA	NA	NA	NA	0.3	I
M,P Xylenes	108383	D		1	NA	NA	NA	NA	NA	NA	2	H
Methylene Chloride	75092	B2	0.00001	1	0.00165	I	0.0075	I	0.86	H	0.06	I
Naphthalene	91203	C	0.0001	1	NA	NA	NA	NA	0.0009	I	0.02	I
O, Xylenes	95476	D		1	NA	NA	NA	NA	NA	NA	2	H
Tetrachloroethene (PCE)	127184	*	0.00001	1	0.01	E	0.052	E	0.14	E	0.01	I
Trichlorofluoromethane	75694	NA		1	NA	NA	NA	NA	0.2	A	0.3	I
Trichloroethene (TCE)	79016	*	0.00001	1	0.4	E	0.4	E	0.01	E	0.0003	E
Toluene	108883	D		1	NA	NA	NA	NA	0.114	I	0.2	I
Vinyl Chloride	75014	A	0.00001	1	0.015	I	0.72	I	0.028	I	0.003	I
Vinyl Acetate	108054	D		1	NA	NA	NA	NA	0.0571	I	1	H

Notes:

Toxicity data updated as of October 2002

(1) Toxicity values for 1,2,4-trichlorobenzene used as a surrogate since data not availble for 1,2,3-trichlorobenzene

W = Value has been withdrawn.

A - known human carcinogen, Target Cancer Risk = 10^{-5}

B2 - probable human carcinogen, Target Cancer Risk = 10^{-5}

B1 - probable human carcinogen, Target Cancer Risk = 10^{-5}

C - possible human carcinogen, Target Cancer Risk = 10^{-4}

D - not classifiable as to human carcinogenicity, cancer risk not evaluated

* Target Cancer Risk = 10^{-5}, assumed

NA = Not available.

References:

I = IRIS (USEPA)

H = HEAST (USEPA)

A = HEAST Alternate (USEPA)

E = EPA-NCEA provisional value (USEPA)

Table B-3
Physical and Chemical Parameters Used to Calculate RRS for Constituents for Soil
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Constituent	CAS No	Di (cm^2/sec)	ref	H (atm-m^3/mol)	ref	Kd (cm^3/g)	ref	Koc (L/kg)	ref	Kas (g soil/cm^3 air)	alpha	Dei (cm^2/sec)	VF (m^3/kg)
1,1-Dichloroethane	75343	7.42E-02	R	5.63E-03	S	6.32E-01	C	3.16E+01	S	4.45E-01	4.10E-02	4.95E-01	6.55E+02
2-Butanone (MEK)	78933	8.08E-02	R	5.69E-05	DB	2.46E-02	C	1.23E+00	R	9.48E-02	1.08E-03	5.71E-02	4.32E+03
Acetone	67641	1.24E-01	S	3.88E-05	S	1.15E-02	C	5.75E-01	S	2.68E-01	2.44E-02	4.74E-01	8.77E+02
Chloroethane	75003	2.71E-01	R	1.11E-02	DB	6.48E-02	C	3.24E+00	R	7.02E+00	1.13E-01	1.92E-01	1.77E+02
Dibromomethane	74953	3.18E-02	R	8.22E-04	DB	8.52E-02	C	4.26E+00	R	2.68E-01	2.44E-02	4.74E-01	8.77E+02
Ethylbenzene	100414	7.50E-02	S	7.88E-03	S	7.26E+00	C	3.63E+02	S	4.45E-02	4.75E-04	5.30E-02	6.57E+03
Isobutyl Alcohol	78831	8.60E-02	R	9.78E-06	DB	9.41E-02	C	4.70E+00	R	2.68E-01	2.44E-02	4.74E-01	8.77E+02
M,P Xylenes	108383	7.00E-02	S	7.34E-03	S	8.14E+00	C	4.07E+02	S	3.70E-02	3.69E-04	4.95E-02	7.47E+03
Methylene Chloride	75092	1.01E-01	S	2.19E-03	S	2.34E-01	C	1.17E+01	S	2.68E-01	2.44E-02	4.74E-01	8.77E+02
O, Xylenes	95476	8.70E-02	S	5.19E-03	S	7.26E+00	C	3.63E+02	S	2.93E-02	3.64E-04	6.15E-02	7.53E+03
Tetrachloroethene (PCE)	127184	7.20E-02	S	1.84E-02	S	3.10E+00	C	1.55E+02	S	2.68E-01	2.44E-02	4.74E-01	8.77E+02
Toluene	108883	8.70E-02	S	6.64E-03	S	3.64E+00	C	1.82E+02	S	7.48E-02	9.21E-04	6.15E-02	4.69E+03
Trichloroethene (TCE)	79016	7.90E-02	S	1.03E-02	S	3.32E+00	C	1.66E+02	S	2.68E-01	2.44E-02	4.74E-01	8.77E+02
Vinyl Acetate	108054	8.50E-02	S	5.11E-04	S	1.05E-01	C	5.25E+00	S	4.54E-01	3.28E-02	3.89E-01	7.31E+02

Data Sources: C = Calculated as Koc*OC, where OC = 0.02 per Table 3, Appendix III in GA Rules 391-3-19.
DB = Interactive PhysProp Database Demo, online at <http://esc.syrres.com/interkow/physdemo.htm>.
R = Risk Assessment Information System (RAIS) database (ORNL 2002)
S = Soil Screening Guidance (USEPA 1996)

Notes: A = Area of contamination (Default: 0.5 acre = $2.03*10^7$ centimeters squared).
alpha = Intermediate value in the VF equation; calculation presented below.
Dei = Effective diffusivity (calculated value; formula presented below).
DH = Diffusion height (Default: 2 meters).
Di = Diffusivity in air (constituent-specific).
E = Total soil porosity (Default: 0.35) (unitless)
H = Henry's Law Constant (constituent-specific).
Kas = Soil/Air partition coefficient (calculated value; formula presented below).
Kd = Soil-water partition coefficient (chemical specific).
Koc = Soil organic carbon-water partition coefficient (constituent-specific).
LS = Length of side of contaminated area (meters).
rho = Density of soil solids (Default: 2.65 grams/ cubic centimeter)
T = Exposure interval (Default: 25 years = $7.9*10^9$ seconds).
V = Wind speed in mixing zone (Default: 2.25 meters/second)
VF = Soil to air volitilization factor (calculated value).

Table B-3
Physical and Chemical Parameters Used to Calculate RRS for Constituents for Soil
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Where:

$$D_{ei}\ (cm^2/sec) = D_i \times E^{0.33}$$

$$\alpha = \left(\frac{D_{ei} \times E}{E + (\rho_s)(1 - E/K_{as})} \right)$$

$$K_{as}\ (g\ soil/cm^3\ air) = \left(\frac{H}{K_d} \right) \times 41$$

$$VF\ (m^3/kg) = \left(\frac{LS \times V \times DH}{A} \right) \times \left(\frac{(\pi \times \alpha \times T)^{1/2}}{(2 \times D_{ei} \times K_{as} \times 10^{-3}\ kg/g)} \right)$$

Appendix C

O'Brien & Gere Technical Policy and Procedures Instructions

Technical Policy and Procedures Instructions
O'Brien & Gere Engineers, Inc.

Title: ***011. Geotechnical Soil Borings and Investigations***
Revision: 0

Effective Date: 2-15-96 Date of last revision: 2-15-96
Number of Pages: 4 with attachments

Issued by:

William A. Lester, P.E.
Quality Committee

Contents

011. Geotechnical soil borings and investigations 011-1

011.1. Guidelines for using this TPPI 011-1
011.2. Method 011-2
011.3. Policy 011-4

Attachment

Soil Sample Disposition Form

011. Geotechnical soil borings and investigations

A reasonable knowledge of the subsurface conditions at our projects is essential if we are to provide our clients with sound, economical designs and sufficient information for prospective contractors to prepare realistic bids. Consideration of geotechnical issues should be routine on all projects involving design of structures, underground utilities or earth works. This TPPI documents the policy of O'Brien & Gere Engineers, Inc. (O'Brien & Gere) relative to such geotechnical work.

011.1. Guidelines for using this TPPI

The firm has considerable in-house capabilities in geotechnical (soils) engineering. These individuals should be contacted to provide consultation and assistance varying from response to questions to development of budget estimates for geotechnical reports and foundation designs. Alternatively, you may elect to obtain the services of an external consultant for your project. Early involvement by a geotechnical engineer will help to identify potentially adverse conditions affecting design, cost and constructability of a project.

It is not our intent to embark upon costly or unnecessary investigations programs on projects. However, it is imperative that appropriate consideration be given to foundations and earthworks as they relate to the project design.

It is preferable to establish the need for geotechnical consultation at the proposal stage, where the work can be billed to our client, separately, as a special service.

Since the purpose of investigatory geotechnical engineering assignments is to explore and evaluate conditions which are to some degree unknown, it is advisable that allowances for such studies be made with sufficient flexibility so that modifications can be made in the program.

On larger projects, is it in both O'Brien & Gere's and our client's best interest that we approach geotechnical investigations in a phased manner whereby the client's resources are managed efficiently to produce a cost effective design. Our proposals should make it clear (and our clients should understand) that the initial proposed scope of investigations represents:

- Our best judgement of an adequate initial program and that additional efforts may be necessary, or
- A first stage investigation program to provide general characterization of site conditions, with the findings of the initial phase used to establish the need for and extent of a second stage program.

011.2. Method

This instruction defines the steps and procedures to be followed in the acquisition of geotechnical information and consultation.

Responsibility	Action
Managing Engineer or Project Engineer	1. Contact a geotechnical engineer to discuss project and establish need for, and scope of subsurface exploration and geotechnical services. Where geotechnical services are undertaken in conjunction with foundation support for a structure (building, tank, bridge, etc.), a geotechnical engineer will develop the necessary scope of work in concert with the structure engineer and applicable codes.
Geotechnical Engineer	2. Develop scope of work which may include field investigation, drilling inspection, laboratory testing, consultation with speciality soil consultant, a geotechnical report and/or foundation design.
Project Responsible Officer	3. Reviews and approves scope of geotechnical services including proper contractual and budget arrangements with the Client. This may be proposed as a one step or two step process (preliminary phase and final investigation phase). Scope considerations should include: responsibility for location of underground utilities, structures, etc.; number and approximate depth of borings; procedures to follow upon refusal, sample frequency, details and disposition of samples.

Responsibility	Action
Geotechnical Engineer	4. Oversees execution of field exploration including the following: a. Boring and laboratory subcontract administration. b. Should unusual or unforeseen conditions be encountered, the Managing or Project Engineer should be notified immediately.
Geotechnical Engineer	5. Reconciles any differences between field logs and typed final logs by boring subcontractor. Analyzes data and provide recommendations and criteria for design and construction of foundations and earthworks. Prepares a geotechnical report. May make recommendations for further evaluation.
Project responsible officer	6. Reviews report. If report suggests additional geotechnical work, obtains justification, scope, and cost from geotechnical engineer. this second phase may not have been budgeted in original proposal to Client. Therefore, justification must be provided to Client for approval of expanded scope.
Geotechnical Engineer	7. Implements second phase (if needed).
Project Responsible Officer	8. Reviews final geotechnical report.
Managing Engineer or Project Engineer	9. Arranges for: • All boring and test pits to be located by ties or other surveying procedures and accurately plotted on the drawings. Ground elevations at boring locations to be taken to the nearest tenth of a foot and so labeled on the boring logs. • Incorporates all geotechnical information including report(s) in a non-contract booklet for information to bidders.
Geotechnical Engineer	10. Reviews completed plans and specifications pertinent to geotechnical recommendations. May provide or arrange for monitoring of foundations and earthwork construction.

Responsibility		Action
Project Responsible Officer	11.	When the project has been completed, (as evidenced by a final payment, final release, or other appropriate documentation), or at some other appropriate time prior to project completion, the client should be asked by the Project Responsible Officer whether the samples are to be retained longer or discarded, utilizing the attached form letter on original OBG letterhead. The Project Responsible Officer should arrange for proper reimbursement for the applicable storage or disposal costs, if any. If they are to be returned to the client, the Project Responsible Officer will arrange for their return. If the samples are to be retained, the Resource Center staff should be notified for the appropriate "Hazardous" or Non-Hazardous" labels and to arrange for storage of the samples. The retention period of the samples should be determined by the Client.

011.3. Policy

Consideration of geotechnical issues for design projects shall be in accordance with the procedures identified above.

Date: _____

To: _____
(Responsible Client Representative)

From: _____
(OBG Project Responsible Officer)

Re: Soil Sample Disposition

Soil samples have been collected for your Firm for the following completed project(s):

OBG Project Number(s)	Project Description(s)
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Please advise below regarding the desired disposition of these samples. Soil sample retention periods and related payment are required for long-term storage by O'Brien & Gere. Current storage fees are available upon request.

If no disposition information has been received from you within 60 days of this notice, the samples will be disposed of properly or returned to you at our option.

_____ Please return the above soil samples to my attention.
_____ Please properly dispose of the above soil samples or return to me at your option.
_____ Please continue to store the above soil samples, forwarding the storage invoice to my attention, for _____(length of time). At the end of this retention period, please:

_____ return the above soil samples to my attention.
_____ properly dispose of the above soil samples or return to me at your option.

_____Responsible Client Representative
(Signature/Date)

Technical Policy and Procedure Instructions
O'Brien & Gere Engineers, Inc.

Title: ***101. Chain of Custody***
Revision: 0

Effective Date: 3-6-96 Date of last revision: 3-6-96
Number of Pages: 3

Issued by:

Swiatoslav W. Kaczmar, Ph.D., C.I.H.
Quality Committee

Contents

101. Chain of custody 101-1

101.1. Guidelines for using this TPPI 101-1
101.2. Method 101-1
101.3. Policy 101-2
Appendix: Sample chain-of-custody form 101-3

101. Chain of custody

This TPPI documents the policy of O'Brien & Gere Engineers, Inc. (O'Brien & Gere) for the chain of custody of environmental samples. This chain-of-custody procedure will create an accurate and legally defensible document trail that can be used to trace possession of a sample from collection to delivery to the laboratory.

101.1. Guidelines for using this TPPI

Most projects require diligent control of environmental samples. To accommodate that requirement, O'Brien & Gere has developed and implemented a document that records the chain of custody of environmental samples.

Where the level of custody required for environmental samples calls for documentation of possession of the samples, O'Brien & Gere personnel must follow this TPPI. The level of detail presented should be considered the minimum amount necessary. Some projects in certain states may require additional detail beyond that specified here.

101.2. Method

An individual has a sample in custody if the sample meets the following conditions:

- In possession
- In view after being in possession.
- In possession and placed in a locked secure location.
- In a designated secure area.

A chain-of-custody procedure should be implemented for projects that involve the collection and analysis of environmental samples. Since data from the analysis of environmental samples may be used in enforcement or court proceedings, samples must be handled as evidence. Formal custody procedures, therefore, must begin in

the field as samples are being collected. A missing or incomplete chain-of-custody form can be sufficient reason to disallow analytical results - a costly mistake.

The field sampler is responsible to complete the sample chain-of-custody form properly and completely. Proper completion of the chain-of-custody form is vital to the data acquisition process. Each of the fields on the form should be completely and correctly filled out. The O'Brien & Gere form has the following fields:

- Client and project number
- Location
- Name of sampler and signature of sampler
- Sample designation
- Date of sample collection
- Time of sample collection
- Sample matrix
- Sample type (grab or composite)
- Number of containers
- Analyses required.

Seal the completed chain-of-custody forms in plastic bags, and pack them inside the sample shipping container. Every person involved in the transportation process must sign the form. There must be no gaps in time. Shipment may be made by a common carrier such as an express service. (Samplers are cautioned to follow applicable O'Brien & Gere and regulatory procedures with regard to shipping samples).

Upon arrival at the laboratory, the sample custodian signs the chain-of-custody form and the carrier's air bill or bill of lading. This action marks the transfer of custody to the laboratory.

101.3. Policy

Refer to the project's Quality Assurance Project Plan (QAPP) for the specific chain-of-custody form to be used as these forms may differ from project to project. If no chain-of-custody form is specified, use O'Brien & Gere's standard form. An example of this form is in an appendix.

Each individual who gains custody of the samples must record the transfer of possession on the chain-of-custody form.

Appendix: Sample chain-of-custody form

O'BRIEN & GERE
ENGINEERS, INC.

Job No. _____

Sheet ___ of ___

Office: _____

Address: _____

Phone: _____

CHAIN OF CUSTODY

CLIENT: LOCATION:	COLLECTED BY: (Signature)

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

Relinquished by: _____ of: _____	Date	Time	Received by: _____ of: _____	Date	Time
Relinquished by: _____ of: _____	Date	Time	Received by: _____ of: _____	Date	Time
Relinquished by: _____ of: _____	Date	Time	Received by: _____ of: _____	Date	Time
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by: _____	Date	Time	Courier Name: _____ *Attach delivery/courier receipt to Chain of Custody	Date	Time
Relinquished by: _____ of: _____	Date	Time	Received by: _____ of: _____	Date	Time

djb/wpC

September 17, 1

Technical Policy and Procedure Instructions
O'Brien & Gere Engineers, Inc.

Title: ***102. Data validation***
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Contents

102. Data validation 102-1
102.1. Guidelines for using this TPPI 102-1
102.2. Method 102-1
102.3. Output 102-2
102.4. References 102-3

Appendix A: identifiers used to qualify data 102-7

Appendix B: format for data validation report 102-9

Executive summary 102-11

1. Introduction 102-1
1.1. General considerations 102-2
1.2. Analytical methods 102-2

2. Data validation protocols 102-5
2.1. Sample analyses parameters 102-5
2.2. Data validation qualifiers 102-6

3. Data quality evaluation 102-7

3.1. VOC analyses 102-7
3.2. Holding times, sample preservation, and percent solids 102-8
3.2.1. Blank analysis 102-8
3.3. Surrogate recovery 102-8
3.4. MS/MSD analysis 102-9
3.5. SVOC analyses 102-9
3.5.1. Blank analysis 102-10
3.5.2. Surrogate recovery 102-10
3.6. MS/MSD analysis 102-11
3.6.1. LCS analysis 102-11
3.6.2. Internal standards performance 102-12
3.6.3. Reported detection limits 102-12

4. Summary and data usability 102-15

References 102-17

102. Data validation

This TPPI documents the procedure O'Brien & Gere Engineers, Inc. (O'Brien & Gere) uses to validate data from the analysis of environmental samples. Clients request or expect that the data reported to them have a specific level of validity or reliability. Data validation is the systematic and comprehensive evaluation of laboratory data against a set of established criteria to provide a specified level of assurance of its validity prior to its intended use. The data packages are evaluated using various USEPA guidelines. See "References" below for listing of the guidelines that may apply.

102.1. Guidelines for using this TPPI

Each project requires a level of data validation for environmental samples. The validation method applied to a project may range from an internal laboratory procedure to an independent procedure conducted according to specific guidelines. For individuals to qualify to validate data or to check a data validation effort, they must have sufficient education and laboratory experience. Moreover, they must have received and satisfactorily comprehended acceptable training in data validation. This training may consist of a third party instructional course or internal training by a qualified individual.

102.2. Method

Data validation begins with a review of the data for each of the parameters required by pertinent sampling and analytical guidelines. These parameters typically include:

- Holding Times and Sample Preservation
- Percent Solids
- Gas chromatography/mass spectrometry (GC/MS) Tuning Criteria

- Initial and Continuing Calibration
- Retention time window evaluation
- Blank Analysis
- Surrogate Recovery
- Matrix spike/matrix spike duplicate (MS/MSD) Analysis
- Field Duplicate Analysis
- Laboratory control sample (LCS) Analysis
- Internal Standards Performance
- Analyte Identification and Quantitation
- Tentatively Identified Compounds (TICs)
- Furnace Duplicate Injection and Post Spike Recovery Criteria
- Post Verification Spike Analysis
- Inductively coupled plasma (ICP) Interference Check Sample Analysis
- ICP Serial Dilution Analysis
- Confirmational Analysis
- Reported Detection Limits
- System Performance
- Documentation Completeness

Once the data have been reviewed for excursions from each of these parameters, as appropriate for the analytical method which has been utilized, the data are qualified accordingly. Different qualifiers are assigned depending upon the severity of the excursion from the control limits established in the guidelines. The qualifiers that are used are listed in Appendix A.

Reports summarize validation and data qualification and document the procedure. These data validation reports include a data usability section that provide an assessment of the degree to which the data conform to the data quality objectives established for the project. These reports should be reviewed by an individual other than the one performing the data validation as a quality control check.

102.3. Output

Data validation reports are developed in a standard manner. An example is included in Appendix B.

102.4. References

United States Environmental Protection Agency (USEPA). 1989. *Region I. Laboratory Data Validation Functional Guidelines For Evaluating Inorganic Analyses, USEPA Data Review Workgroup.*

United States Environmental Protection Agency (USEPA). 1992a. *Evaluation of Metals Data for the Contract Laboratory Program (CLP) based on SOW. 3/90*, HW-2, Revision 11.

United States Environmental Protection Agency (USEPA). 1992b. *Region II. TCLP Data Validation*, SOP No. HW-7, Revision #1.

United States Environmental Protection Agency (USEPA). 1993a. *Region III Modifications to the Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses.*

United States Environmental Protection Agency (USEPA). 1993b. *Region 5 Standard Operating Procedure For Validation Of CLP Inorganic Data, Central Regional Laboratory.*

United States Environmental Protection Agency (USEPA). 1994a. *Contract Laboratory Program National Functional Guidelines For Organic Data Review*, EPA540/R-94/012.

United States Environmental Protection Agency (USEPA). 1994b. *Contract Laboratory Program National Functional Guidelines For Inorganic Data Review*, EPA540/R-94/013.

United States Environmental Protection Agency (USEPA). 1994c. *Region III Modifications To National Functional Guidelines For Organic Data Review Multi-Media, Multi-Concentration* (OLMO1.0-OLMO1.9).

United States Environmental Protection Agency (USEPA). 1994d. *Region II Data Validation SOP For SW-846 Method 8290 Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) By High-Resolution Gas Chromatography/High-Resolution Mass Spectrometry (HRGC/HRMS).*

United States Environmental Protection Agency (USEPA). 1995a. *Region II Method: CLP/SOW OLMO3.1*, SOP HW-6, Revision 10.

United States Environmental Protection Agency (USEPA). 1995b. *Innovative Approaches To Data Validation, Region III.*

United States Environmental Protection Agency (USEPA). 1996. *Region I, EPA-New England Data Validation Functional Guidelines For Evaluating Environmental Analyses,* Quality Assurance Unit Staff Office of Environmental Measurement and Evaluation.

United States Environmental Protection Agency (USEPA). 1997. *Region 5 Standard Operating Procedure For Validation Of CLP Organic Data, Superfund Technical Support Section.*

Other references that assist with data validation include the individual quality assurance project plans (QAPPs) for specific projects and the following:

American Public Health Association (APHA), American Water Works Association (AWWA), Water Pollution Control Federation (WPCF), 1992a. *Standard Methods for the Examination of Water and Wastewater,* 18th Edition, Washington, D.C.

New York State Department of Conservation 1995. *Analytical Services Protocol (ASP),* October 1995 Revisions. Albany, NY.

United States Environmental Protection Agency (USEPA). 1983. *Methods For Chemical Analysis of Water and Wastes*, USEPA-600/4-79-020, Cincinnati, Ohio.

United States Environmental Protection Agency (USEPA). 1984. *40 CFR Part 136*, Washington, D.C.

United States Environmental Protection Agency (USEPA). 1992. *USEPA Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part A),* 540/1-891002. Washington D.C.

United States Environmental Protection Agency (USEPA). 1996. *Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW-846)*, 3rd Edition. Washington DC.

State agencies with regulatory jurisdiction over analytical programs may have pertinent guidance which may apply to programs conducted in those states.

In addition, federal agencies may develop new guidance with respect to performing data evaluations or data validation. It is the responsibility of quality assurance and data validation staff to maintain awareness of the potential applicability of these documents to a specific project.

Appendix A: identifiers used to qualify data

Qualifiers are generally used to label data that have exceeded data quality parameters. The following qualifiers are consistent with the various data validation guidelines:

U The compound was analyzed for a specific parameter, but the parameter was not detected. The sample quantitation limit is presented and adjusted for dilution. This qualifier is also used to signify that the detection limit of an analyte was raised as a result of analytes detected in laboratory or field blank samples or both.

J The detected sample result should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process. Additionally, this qualifier is used when the sample result is greater than the Instrument Detection Limit (IDL) or Method Detection Limit (MDL), but less than the Reporting Limit (RL).

UJ The detection limit for the analyte in this sample should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process.

K The analyte was present but the result may be biased high.

L The analyte was present but the result may be biased low.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".

B Indicates that the analyte was not detected substantially above the level reported in laboratory or field blanks.

R The previously reported detection limit or sample result has been determined to be unusable due to a major deficiency in the data generation process. The data should not be used for any qualitative or quantitative purposes.

Appendix B: format for data validation report

102. Data validation 102-1
102.1. Guidelines for using this TPPI 102-1
102.2. Method 102-1
102.3. Output 102-2
102.4. References 102-3

Appendix A: identifiers used to qualify data 102-7

Appendix B: format for data validation report 102-9

Executive summary 102-11

1. Introduction 102-1
1.1. General considerations 102-2
1.2. Analytical methods 102-2

2. Data validation protocols 102-5
2.1. Sample analyses parameters 102-5
2.2. Data validation qualifiers 102-6

3. Data quality evaluation 102-7
3.1. VOC analyses 102-7
3.2. Holding times, sample preservation, and percent solids 102-8
3.2.1. Blank analysis 102-8
3.3. Surrogate recovery 102-8
3.4. MS/MSD analysis 102-9
3.5. SVOC analyses 102-9
3.5.1. Blank analysis 102-10
3.5.2. Surrogate recovery 102-10
3.6. MS/MSD analysis 102-11
3.6.1. LCS analysis 102-11
3.6.2. Internal standards performance 102-12
3.6.3. Reported detection limits 102-12

4. Summary and data usability 102-15

References 102-17

List of appendices

Appendix A - USEPA SW-846 method sample results for: Volatile Organics and Semivolatile Organics.

Executive summary

This data validation report addresses data quality for ground water, soil boring, and sediment samples; trip blanks; equipment blanks; and associated quality control samples collected from the ABC Site within the ABC property in Hometown, Pennsylvania. Sample collection activities were conducted by O'Brien & Gere Engineers, Inc. (O'Brien & Gere) on January 8, 9, and 28, 1998.

The environmental samples, trip blanks, equipment blanks, and associated quality control samples collected for this investigation were submitted to O'Brien & Gere Laboratories, Inc. of Syracuse, New York for analysis of volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) using United States Environmental Protection Agency (USEPA) Methods (USEPA 1996) and percent solids (APHA, AWWA, WPCF 1992). The analytical data generated for this investigation were evaluated by O'Brien & Gere using the quality assurance/quality control (QA/QC) criteria established in the USEPA Methods, and the *ABC Site Investigation Project Quality Assurance Project Plan* (O'Brien & Gere 1998) as guidance. Excursions from the QA/QC criteria were qualified based on guidance provided in the *United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) National Functional Guidelines For Organic Data Review* (USEPA 1994a) and the *USEPA Region III Modifications to National Functional Guidelines For Organic Data Review* (USEPA 1994b).

As a result of the data validation process, SVOC data in various matrices were rejected as a result of major deficiencies which were detected in the data generation process. The rejected data is considered unusable for either quantitative or qualitative purposes. The semivolatile organic data for the ground water samples were determined to be greater than 99% usable, the sediment samples were determined to be 98% usable, and the soil boring samples were determined to be 100% usable. The volatile organic data for each matrix analyzed were determined to be 100% usable for qualitative and quantitative purposes. Therefore, the 90% usability objective for this project was met.

The following table summarizes the SVOC data that were rejected as a result of the data validation process, the reason for the rejection, and the percent usability for that parameter for the affected matrix:

Table 1. Rejected Data for SVOC analyses

Parameter and Sample Matrix	Rejected Target Analytes in the Affected Samples	Reason for Data Rejection	Percent Usability
SVOCs in Ground water	3,3'-dichlorobenzidine in sample 19-MW-7	MS/MSD recovery was less than 10%	Greater than 99
SVOCs in Sediment	hexachlorocyclopentadiene in samples SED1 and SED2	LCS recoveries were less than 10%	98

Note:
MS/MSD indicates matrix spike/matrix spike duplicate.
LCS indicates laboratory control sample.
Percent usability is calculated using the number of usable sample results divided by the total number of sample results for each matrix.

1. Introduction

This data validation report addresses the results of a data quality evaluation for ground water, soil boring and sediment samples; trip blanks; equipment blanks; and associated quality control samples collected from the ABC Site within the ABC property in Hometown, Pennsylvania. Sample collection activities were conducted by O'Brien & Gere Engineers, Inc. (O'Brien & Gere) on January 8, 9, and 28, 1998. The quantity and types of samples that were submitted for data validation are presented in Table 1-1 below.

Table 1-1. ***Sample cross reference list***

Laboratory Package Identification	Date Collected	Sample Identification		Analysis Requested
		Client ID	Laboratory ID	
6411	1/8/98	SED1	G7241, MS/MSD	SVOCs, Percent Solids
6411	1/8/98	SED2	G7242	SVOCs, Percent Solids
6411	1/8/98	SED-DUP-1 (SED1)	G7251	SVOCs, Percent Solids
6411	1/8/98	SED-EB1	G7252	SVOCs, Percent Solids
6425	1/9/98	K1-B3 (4.5-5')	G7374, MS/MSD	VOCs, SVOCs, Percent Solids
6425	1/9/98	K1-B5 (4.5-5')	G7378	VOCs, SVOCs, Percent Solids
6425	1/9/98	SB-EB1	G7384	VOCs, SVOCs, Percent Solids
6425	1/9/98	Trip Blank1	G7385	VOCs, SVOCs, Percent Solids
6592	1/28/98	19-MW-7	G8615, MS/MSD	VOCs, SVOCs
6592	1/28/98	19-MW-8	G8615	VOCs, SVOCs
6592	1/28/98	19-MW-9	G8616	VOCs, SVOCs
6592	1/28/98	DUP1 (19-MW-3)	G8617	VOCs, SVOCs
6592	1/28/98	Trip Blank2	G8618	VOCs, SVOCs

Note:
VOCs indicates volatile organic compounds;
SVOCs indicates semivolatile organic compounds;
MS indicates matrix spike analysis;
MSD indicates matrix spike duplicate analysis;
DUP indicates field duplicate; the sample identification in parenthesis identifies the sample location which was collected in duplicate.

1.1. General considerations

Validation is a process of determining the suitability of a measurement system for providing useful analytical data. Although the term is frequently used in discussing methodologies, it applies to all aspects of the system and especially to samples, their measurement, and the actual data output. Accordingly, this report outlines deviations from the applicable quality control (QC) criteria outlined in the following documents:

- O'Brien & Gere Engineers, Inc. 1998. *ABC Site Investigation Project Quality Assurance Project Plan*, Syracuse, New York. (1998 QAPP).
- USEPA. 1996 *Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW-846)*, 3rd Edition. Washington DC.
- APHA, AWWA, WPCF, 1992. *Standard Methods for the Examination of Water and Wastewater*, 18th Edition, Washington, D.C.

Excursions from the QA/QC criteria were qualified based on guidance provided in the following documents:

- USEPA. 1994a. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, EPA-540/R-94/012. Washington D.C.
- USEPA. 1994c. *USEPA Region III Modifications to the National Functional Guidelines For Organic Data Review*, Annapolis, Maryland.

1.2. Analytical methods

The environmental samples, trip blanks, equipment blanks, and associated quality control samples collected for this investigation were submitted to O'Brien & Gere Laboratories, Inc. of Syracuse, New York for analysis of volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) using United States Environmental Protection Agency (USEPA) Methods (USEPA 1996) and percent solids (APHA, AWWA, WPCF 1992). The methods utilized in this investigation are presented in Table 1-2.

Table 1-2. *Analytical methods*

Sample Type	Parameter	Analytical method	Reference
Soil Borings	VOCs	USEPA Method 5035/5030B/8260B	1
Ground Water Samples	VOCs	USEPA Method 5030B/8260B	1
Soil Borings	SVOCs	USEPA Method 3550B/8270C	1
Sediments Samples	SVOCs	USEPA Method 3550B/8270C	1
Ground Water Samples	SVOCs	USEPA Method 3520C/8270C	1
Sediment Samples, Soil Borings	Percent Solids	SM 2540G	2

Note:
VOCs indicates volatile organic compounds;
SVOCs indicates semivolatile organic compounds;
Reference 1-*Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW-846), Third Edition*. Washington, D.C. USEPA, 1996.
Reference 2 - *Standard Methods for the Examination of Water and Wastewater*, 18th Edition, Washington, D.C., APHA, AWWA, WPCF, 1992.

The following chapters of this document address distinct aspects of the validation process. Chapter 2 lists the data QA/QC protocols used to validate the sample data. Specific QA/QC deviations and qualifications performed on the sample data are discussed in Chapter 3. Finally, data completeness and usability are discussed in Chapter 4.

The annotated analytical results generated by this validation are presented in Appendix A.

2. Data validation protocols

2.1. Sample analyses parameters

The validation of USEPA Method analyses for this project utilized guidance presented in the QAPPs (O'Brien & Gere 1998), the analytical methodology, and the data validation guidelines referenced in Chapter 1 herein. The following QA/QC parameters were evaluated for the VOC and SVOC analyses:

- Holding times, sample preservation, and percent solids,
- Gas chromatography/mass spectrometry (GC/MS) tuning criteria,
- Initial and continuing calibration,
- Blank analysis,
- Surrogate recovery,
- Matrix spike/matrix spike duplicate (MS/MSD) analysis,
- Laboratory control sample (LCS) analysis,
- Field duplicate analysis,
- Internal standards performance,
- Analyte identification, quantitation, and reported detection limits,
- Tentatively identified compounds (TICs) identification and quantitation,
- System performance, and
- Documentation completeness.

2.2. Data validation qualifiers

The following qualifiers apply to this data validation.

"R" Indicates that the reporting limit or sample result has been determined to be unusable due to a major deficiency in the data generation process. The data should not be used for any qualitative or quantitative purposes.

"B" Indicates that the analyte was not detected substantially above the level reported in laboratory or field blanks.

"U" Indicates that the analyte was analyzed for, but was not detected. The sample quantitation limit is presented. This qualifier is also used to signify that the detection limit of an analyte was raised due to blank contamination.

"J" Indicates that the result should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process. This qualifier is also applied when the analyte concentration was greater than the method detection limit (MDL) but less than the reporting limit (RL).

"K" Indicates that the analyte was present but the result may be biased high.

"L" Indicates that the analyte was present but the result may be biased low.

"N" Indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".

3. Data quality evaluation

This chapter summarizes the quality assurance/quality control (QA/QC) parameters, validation criteria, and qualifications performed on the sample data when the QA/QC parameters specified in Chapter 2 did not meet criteria. Samples that required qualification are described in the following sections, and are identified by the description documented on the sample chain-of-custody records as listed in Table 1-1. The data quality evaluation resulted in only one qualifier for an individual sample result. QA/QC excursions which did not result in the qualification of a target analyte result or additional qualification if the target analyte result previously qualified are not discussed. In a case when several qualifiers are applied to one target analyte result, the cumulative effect of the various excursions were employed in assigning the final data qualifier. In a case when a biased low (L) or biased high (K) qualifier was applied to a target analyte result, and a second qualifier with the opposite bias is applied to the same target analyte result due to a second excursion, the "J" qualifier was applied to the target analyte result. Where possible, bias was applied to target analyte result qualifiers.

3.1. VOC analyses

The QA/QC parameters presented in Section 2.1 for VOAs were applied to samples listed in Table 1-1. The following QA/QC parameters were found to meet validation criteria:

- GC/MS tuning criteria,
- Initial and continuing calibration,
- Internal standards performance,
- LCS analysis,
- Field duplicate analysis,
- Internal standards performance,
- Analyte identification, quantitation, and reported detection limits,
- TICs identification and quantitation,
- System performance, and
- Documentation completeness.

Deviations from QA/QC criteria presented in Section 2.1 are summarized below.

3.2. Holding times, sample preservation, and percent solids

The technical holding time of 14 days from collection for VOCs was exceeded for one sample. As a result of the holding time excursion, the target analytes in this sample were qualified as biased low (UL). The following table presents the sample qualified as a result of the holding time excursion:

Table 3-1. ***Samples qualified for holding time excursion for VOC analyses.***

Sample ID	Date of collection	Date of analysis	Affected analytes	Action
19-MW-7	1/28/98	2/12/98	target VOC analytes	UL

3.2.1. Blank analysis

Target analytes were detected in blanks analyzed for VOCs. Samples which contained the common laboratory contaminant (acetone) at less than ten times the associated blank concentration, and other target analytes at less than five times the associated blank concentration, were qualified with a "B" as required by the USEPA Region III data validation guidelines. The blank excursions are summarized in the following table:

Table 3-2. ***Blank excursions for VOC analyses***

Blank ID	Analyte	Detected Concentration	Affected Sample Results	Action
PB012898W2	acetone	4.5μg/L	19-MW-8	B
PB012998W2	xylene	0.54μg/L	19-MW-9	B

Note:
PB indicates method (preparation) blank.

3.3. Surrogate recovery

The surrogate recoveries, measured as percent recovery, (%R) for several samples were less than the laboratory control limits. Low surrogate recoveries were confirmed through reanalysis of the samples either at the same or at a higher dilution. As a result of the low surrogate recoveries, the target analytes

in the samples were qualified as biased low (UL,L) if two surrogate recoveries were low and approximate if one surrogate recovery was low (UJ,J), in accordance with USEPA Region III data validation guidelines. The following table presents the target analytes qualified as a result of surrogate excursions:

Table 3-3. *Surrogate excursions for VOC analyses*

Sample ID	Surrogate	Excursion	Affected analytes	Action
K1-B(4.5-5')	dibromofluoromethane toluene-d8	79%R 73%R	target analytes	UL

Note: %R indicates percent recovery.

3.4. MS/MSD analysis

The %R for one MS/MSD sample was outside of the laboratory control limits for VOCs. The target analytes in the sample used for the MS/MSD analysis which exhibited excursions were qualified in that sample. The following table presents the target analytes qualified as a result of MS/MSD excursions:

Table 3-4. *MS/MSD excursions for VOC analyses*

MS/MSD ID	Analyte	Excursion	Affected Sample	Action
K1-B3(4.5-5')	chloromethane	66%R, 63%R	K1-B3(4.5-5')	UL
	vinyl chloride	63%R, 58%R		UL
	bromomethane	36%R, 36%R		UL
	chloroethane	55%R, 55%R		UL
	carbon disulfide	72%R, 69%R		UL
	trans-1,2-dichloroethene	84%R, 82%R		UL
	cis-1,2-dichloroethene	81%R, 82%R		UL
	benzene	85%R, 85%R		UL

Note: %R indicates percent recovery.

3.5. SVOC analyses

The QA/QC parameters presented in Section 2.1 for SVOCs were applied to samples listed in Table 1-1. The following QA/QC parameters were found to meet validation criteria:

- Holding time and sample preservation,
- GC/MS tuning criteria,
- Initial and continuing calibration,
- Field duplicate analysis,
- Analyte identification and quantitation,
- TICs identification and quantitation,
- System performance, and
- Documentation completeness.

Deviations from QA/QC criteria presented in Section 2.1 are summarized below.

3.5.1. Blank analysis

Analytes were detected in the blanks associated with samples collected for SVOC analysis in this investigation. Samples which contained common laboratory contaminants at less than ten times the concentration found in the blank were qualified as "B" due to the blank contamination, as required by the USEPA Region III data validation guidelines. The blank excursions are summarized in the following table:

Table 3-5. *Blank excursions for SVOC analyses*

Blank ID	Analyte	Detected Amount	Affected Sample Results	Action
PB11898S1	di-n-butyl phthalate	82μg/Kg	SED1	B
PB11998S1	bis(2-ethylhexyl)phthalate	70μg/Kg	SED2	B

Note:
PB indicates method (preparation) blank

3.5.2. Surrogate recovery

The surrogate recoveries for several samples were outside of the laboratory control limits. Low surrogate recoveries were confirmed through reanalysis of the samples either at the same or at a higher dilution. For surrogates with recoveries that were greater than the control limit, the detected target analytes from the associated semivolatile fraction were qualified as biased high (K) in accordance with the USEPA Region III data validation guidance. The following table presents the target analytes qualified as a result of surrogate excursions:

Table 3-6. *Surrogate excursions for SVOC analyses*

Sample ID	Surrogate	Excursion	Affected analytes	Action
SED-1	2-fluorophenol 2,4,6-tribromophenol	124%R 127%R	1 acid fraction target analyte	K

Note: %R indicates percent recovery.

3.6. MS/MSD analysis

The %R for several MS/MSD samples were outside of the laboratory control limits for SVOCs. The target analytes in the MS/MSD samples which exhibited excursions were qualified in the associated sample. If both MS and MSD recoveries were outside of the control limits, the associated target analyte was qualified as biased low or high (UL,L or K); if the recoveries were less than 10%, the target analyte results in the associated samples were rejected. The following table presents the target analytes qualified as a result of MS/MSD excursions:

Table 3-7. *MS/MSD excursions for SVOC analyses*

MS/MSD ID	Analyte	Excursion	Affected Sample	Action
19-MW-7	3,3'-dichlorobenzidine hexachlorocyclopentadiene 4-nitroaniline	6%R, 6%R 33%R, 43%R 17%R, 17%R	19-MW-7	R UL UL

Note: %R indicates percent recovery.
RSD indicates relative standard deviation

3.6.1. LCS analysis

The recovery for several analytes in the LCS analyzed for SVOCs were outside of the laboratory control limits. The analyses was repeated with similar results. For LCS analyses with recoveries that were greater than 10% recovery but less than the lower control limit, the target analytes in the associated SVOC samples were qualified as biased low (UL,L). For LCS analyses with recoveries that were greater than the control limit, the detected target analytes in the associated semivolatile samples were qualified as biased high (K). For LCS analyses with recoveries that were less than 10%, the target analytes in the associated samples were rejected (R). The LCS excursions are summarized in the following table:

Table 3-8. *LCS excursions for SVOC analyses*

LCS ID	Analyte	Excursion	Affected Sample	Action
L11898S4	hexachlorocyclopentadiene	52%R	SED-1 SED-2 K1-B3(4.5-5')	R R L

Note: %R indicates percent recovery.

3.6.2. Internal standards performance

The recoveries for several internal standards in samples analyzed for semivolatile organics were lower than the control limits. Repeated analyses at either the same or at higher dilutions confirmed the internal standard excursions for many of the samples. In accordance with USEPA Region III data validation guidelines, the results for target analytes associated with internal standard area recoveries greater than 10% but less than the lower control limit were qualified as approximate. The internal standard areas excursions are summarized in the following table:

Table 3-9. *Internal standard area excursions for SVOC analyses*

Sample ID	Internal standard	Affected analytes	Internal standard area (control limits)	Action
K1-B5(4.5-5')	perylene-d12	For affected analytes see below	182694 (199254-797016)	UJ
SED1	chrysene-d12	For affected analytes see below	43740(109445-437780)	UJ.J

Note: The following applies unless otherwise stated:

The analytes affected by internal standard chrysene-d12 include the following: pyrene, butyl benzyl phthalate, 3,3'-dichlorobenzidine, benzo(a)anthracene, chrysene, bis(2-ethylhexyl)phthalate.

The analytes affected by internal standard perylene-d12 include the following: di-n-octyl phthalate, benzo(b)fluoranthene, benzo(k)fluoranthen benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene, benzo(g,h,i)perylene.

3.6.3. Reported detection limits

Dilutions were performed during the analysis of several samples due to high concentrations of target analytes. For some samples, both the concentration from the diluted analysis (for those target analytes that exceeded calibration range) and the detection limits from the lowest dilution analysis were combined in the sample report. The analytes which were analyzed using one or more dilutions are summarized in the following table:

Table 3-10. *Analytes reported from diluted SVOC analyses*

Sample ID	Dilution performed	Reason for dilution
K1-B3(4.5-5')	1:10, 1:50 (combined)	High concentration of target analytes
K1-B5(4.5-5')	1:2	High concentration of target analytes

Note:
"Combined" indicates that the results for two dilutions were combined together and reported for that sample.

4. Summary and data usability

This chapter summarizes the analytical data in terms of its completeness and usability. Data completeness is defined as the percentage of sample results that have been determined to be usable during the data validation process.

The ground water, soil boring, and sediment samples, trip blanks, and equipment blanks collected from the ABC Site within the ABC property in Hometown, Pennsylvania, were evaluated based on QA/QC criteria established by USEPA Methods as listed in Section 1.2, by the USEPA Region III guidelines, the USEPA National Functional Guidelines, and by the QAPP (O'Brien & Gere 1998) established for this project. Major deficiencies in the data generation process resulted in data being rejected, indicating that the data is considered unusable for either quantitative or qualitative purposes. Minor deficiencies in the data generation process resulted in some sample data being characterized as approximate. Identification of a data point as approximate indicates uncertainty in the reported concentration of the chemical, but not its assigned identity. The use of approximated analytical data for quantitative uses is consistent with the guidance presented in the *USEPA Risk Assessment Guidance for Superfund* (USEPA 1992).

The following paragraphs present the precision, sensitivity, accuracy, representativeness, comparability, and completeness (PSARCC) parameters used in the evaluation of the sample data.

Precision is measured through the evaluation of field duplicate samples and MS/MSD samples.

Sensitivity is established by reported detection limits which represent measurable concentrations of analytes which can be determined with a designated level of confidence. Sensitivity requirements were met for the sample data in this project.

Matrix spike samples, internal standard recoveries, surrogate recoveries, LCS recoveries, and initial and continuing calibration criteria indicate the accuracy of the data.

Holding times, sample preservation, blank analysis, and compound identification and quantification are indicators of the representativeness of the analytical data.

Comparability is not compromised provided that the analytical methods did not change over time. A major component of comparability is the use of standard reference materials for calibration and QC. These standards are compared to other unknowns to verify their concentrations. Since standard analytical methods and reporting procedures were consistently used by the laboratory, the comparability criteria for the analytical data were met.

As a result of the data validation process, SVOC data in various matrices were rejected as a result of major accuracy deficiencies which were detected in the data generation process. The rejected data is considered unusable for either quantitative or qualitative purposes. The semivolatile organic data for the ground water samples were determined to be greater than 99% usable, the sediment samples were determined to be 98% usable, and the soil boring samples were determined to be 100% usable. The volatile organic data for each matrix analyzed were determined to be 100% usable for qualitative and quantitative purposes. Therefore, the 90% usability objective for this project was met.

The following table summarizes the SVOC data that were rejected as a result of the data validation process, the reason for the rejection, and the percent usability for that parameter for the affected matrix:

Table 4-1. Rejected Data for SVOC analyses

Parameter and Sample Matrix	Rejected Target Analytes in the Affected Samples	Reason for Data Rejection	Percent Usability
SVOCs in Ground water	3,3'-dichlorobenzidine in sample 19-MW-7	MS/MSD recovery was less than 10%	Greater than 99
SVOCs in Sediment	hexachlorocyclopentadiene in samples SED1 and SED-2	LCS recoveries was less than 10%	98

Note:
MS/MSD indicates matrix spike/matrix spike duplicate.
LCS indicates laboratory control sample.
Percent usability is calculated using the number of usable sample results divided by the total number of sample results for each matrix.

References

American Public Health Association (APHA), American Water Works Association (AWWA), Water Pollution Control Federation (WPCF), 1992. *Standard Methods for the Examination of Water and Wastewater.* 18th Edition, Washington, D.C.

O'Brien & Gere Engineers, Inc. 1998. *ABC Site Investigation Project Quality Assurance Project Plan*, Syracuse, New York.

U.S. Environmental Protection Agency (USEPA). 1992. *USEPA Risk Assessment Guidance for Superfund, Volume I. Human Health Evaluation Manual (Part A)*, 540/1-891002. Washington D.C.

U.S. Environmental Protection Agency (USEPA). 1994a. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, EPA-540/R-94/012. Washington D.C.

U.S. Environmental Protection Agency (USEPA) 1994b. *USEPA Region III Modifications to National Functional Guidelines For Organic Data Review.* Annapolis, Maryland.

U.S. Environmental Protection Agency (USEPA). 1996. *Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW-846)*, 3rd Edition. Washington DC.

Technical Policy and Procedure Instructions
O'Brien & Gere Engineers, Inc.

Title: ***301. Logging Unconsolidated Samples***
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Contents

301. Logging unconsolidated samples 301-1

301.1. Guidelines for using this TPPI 301-1
301.2. Objective 301-1
301.3. Method 301-2
301.4. Drilling information 301-3
301.5. References 301-4
Appendix A: Test boring log and instructions 301-5
Appendix B: Types of samplers 301-13

301. Logging unconsolidated samples

This TPPI documents the procedure O'Brien & Gere Engineers, Inc. (O'Brien & Gere) uses to log samples in the field and in the office. It establishes how to describe and classify unconsolidated soils based on field observations. These observations may be validated by laboratory testing at the discretion of the geologist or geotechnical engineer. This TPPI is also an aid to field work because it promotes agreement on interpretations, explanations, and observations among the geologists and geotechnical engineers of O'Brien & Gere.

This TPPI was prepared according to practices used by geologists and geotechnical engineers and other professionals trained in logging unconsolidated soils and the guidance documents listed as references below.

301.1. Guidelines for using this TPPI

The individual who logs samples are responsible to interpret them following standard and acceptable methods. The individuals who implement this TPPI must have training and experience logging unconsolidated soils.

301.2. Objective

This TPPI serves as a guide for the geologist and geotechnical engineer in the field or office to communicate observations and interpretations that are representative and consistent.

301.3. Method

At the outset of sample logging, follow these instructions. Record field notes with waterproof ink in a bound and sequentially numbered field notebook. Dedicate a single field notebook to each project. Include the following in the daily field notes at a minimum:

- project name and number
- client name
- date and time
- weather conditions
- sampler's name
- project objective(s)

Throughout the sampling round, record the following items as appropriate:

- sample locations(s)
- well designations
- limiting field conditions
- problems encountered

For activities that take place in the field, O'Brien & Gere personnel must follow the appropriate procedures for health and safety.

A test boring log is presented in Appendix A together with the instructions for filling in the data. That log presents the following spaces for the geologist and geotechnical engineer to complete:

Describe the unconsolidated samples in the following order.

1. Descriptive information: color, mottling
2. Degree of saturation (dry, moist, %, etc.)
3. Description of density (from blow count)
4. Soil description
   Grain size [Wentworth (for environmental and hydrogeological purposes) or Burmister (for geotechnical purposes) and USC]
   Layering
   Grain shape
   Sorting
   Plasticity

5. Other
   Fossils
   Weathering
   Mineralogy and rock types
   Observed odor
   Stains/discoloration
   Organic content
   Depositional information

301.4. Drilling information

Several items of information relate to drilling and are included on the log. This information is the following:

Drill rig manufacturer, model, and driller (if applicable)

Geologist or geotechnical engineer

Client, project location, sample point identification, and location

Date samples obtained (and times if required)

Type of sampler (for example split spoon, Shelby, California), measurements or method of advancing boring or equipment, method of driving sampler, and weight of hammer. Appendix B presents examples of the types of samplers.

Drill fluids (if applicable).

Ground surface or grade elevation (if known)

Depth penetrated and blow counts/6-inch interval of penetration for ASTM 1586-84 and sample number (if applicable)

Shelby tubes or California samplers or split spoons

Closed hole intervals and advancement (if applicable)

Recovery

Strata changes and changes within samples

Sampling tool behavior

Drill string behavior

Use(s) of sample point or borehole

Disposition(s) of residual soil or cuttings

Signature or stamping of log (as required).

301.5. References

American Geological Institute (Dutro, J.T., Jr., R.V. Dietrich, and R.M. Foose). 1989. AGI data sheets for geology in the field, laboratory, and office. 3d ed.

ASTM. 1992. Standard for classification of soils for engineering purposes (USC System). 2487-92.

ASTM. 1987. Standard guide for investigating and sampling soil and rock. D420-87.

Compton, Robert R. 1962. *Manual of field geology.* New York: John Wiley & Sons, Inc.

Ingram, Roy L. *Grain-size scale used by American geologists.* Modified Wentworth Scale. After Lane and others. 1947. *Trans. American Geophysical Union.* 28:936-938.

Lahee, Fredriz H. 1961. *Field geology 6th ed.* New York: McGraw-Hill.

USEPA. 1992a. *Guide to site and soil description for hazardous waste site characterization,* vol. 1 "Metals, project summary." EPA/600/54-91/029.

USEPA. 1992b. *Preparation of soil sampling protocol: sampling techniques and strategies, project summary.* EPA/600/SR-92/128.

USEPA (Boulding, J.R.). 1991. *Description and sampling of contaminated soils, a field pocket guide* EPA/625/12-91/002.

Appendix A: Test boring log and instructions

See following page for the form.

Follow these instructions to complete this form:

1. Descriptive information:

   - Color name, Munsell Color Chart, of the logged interval or sample
   - Color notation including chroma, hue, value, and qualifiers
   - Mottling with abbreviations, descriptors, and criteria for descriptions of mottles. Table 301-1 lists these terms.

Table 301-1. ***Descriptors for mottling.***

Abundance	Size	Contrast
f: few (<2%)	fine (<5 mm)	faint
c: common (2%-20%)	medium (5-5 mm)	distinct
m: many (>20%)	coarse (>15 mm)	prominent

2. Degree of saturation (dry, damp, moist, wet, saturated or combinations). Note depth to ground water table, if observed.

3. Description of density. Count the blows of each 12-inch increment of the split spoon (ASTM-1586-84). Use the values in Table 301-2 to describe the density.

Table 301-2. ***Terms to describe density.***

Cohesive clays		Non-cohesive granular soils	
0-2	very soft	0-3	very loose
2-4	soft	4-9	loose
5-7	firm	10-29	medium dense
8-15	stiff	30-49	dense
16-29	hard	50-80	very dense
30-49	very hard	80+	extremely dense
50-80	extremely hard		

4. Soil description according to Modified Wentworth Scale, Burmister System, ASTM's Unified Soil Classification System (USC), and by structure. These descriptions are listed below.

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING:

CLIENT:

SAMPLER:

PAGE 1 OF 1
LOCATION:

PROJECT LOCATION:

HAMMER: 140 lbs

START DATE:
END DATE:

FILE NO.:

FALL: 30"

BORING COMPANY:
FOREMAN:
OBG GEOLOGIST:

LEGEND: \ Grout; ▒ Sand Pack; ■ Bentonite; = Screen; ▯ Riser

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING	

Modified Wentworth Scale

Geologists typically use the values listed in Table 301-3 to reckon grain sizes.

Table 301-3. *Grain size scales - Modified Wentworth Scale.*

Grade limits mm	Grade limits mm	Grade names		
4096		very large		
2048		large		
1024		medium	boulders	
512		small		
256		large		
128		small	cobbles	*gravel*
64		very coarse		
32		coarse		
16		medium	pebbles	
8		fine		
4		very fine		
2				

Table 301-3. *Grain size scales - Modified Wentworth Scale (Continued).*

Grade limits		Grade names		
mm	mm			
		very coarse		
1				
		coarse		
½	0.5			
		medium	sand	*sand*
1/4	0.250			
		fine		
1/8	0.125			
		very fine		
1/16	0.062			
		coarse		
1/32	0.031			
		medium		
1/64	0.016		silt	
		fine		
1/128	0.008			
		very fine		
1/256	0.004			*mud*
		coarse		
1/512	0.002			
		medium		
1/1024	0.001		clay size	
		fine		
1/2048	0.005			
		very fine		
1/4096	0.00025			

Source: Ingram. Cited by AGI data sheet 29.1.

Burmister System

When using the Burmister System, the soil components are described with the terms in Table 301-4.

Table 301-4. *Grain size scales - Burmister System.*

Soil component	Sieve limit Upper	Lower
Gravel		
coarse	3 inch	1 inch
medium	1 inch	3/8 inch
fine	3/8 inch	No. 10 (2.0 mm)
Sand		
coarse	No. 10 (2.0 mm)	No. 30 (0.590 mm)
medium	No. 30 (0.590 mm)	No. 60 (0.250 mm)
fine	No. 60 (0.250 mm)	No. 200 (0.074 mm)
Silt	No. 200	0.005 mm
Clay	0.005 mm to	0.001 mm
Colloids	finer than 0.001 mm	

Descriptive Terminology

The soils are to be described in the logs according to the criteria listed here. The principal constituents are to be written in capital letters. Other constituents are to be preceded by the descriptive terminology presented in Table 301-5 to denote the percentage by weight of each component.

Table 301-5. *Descriptive terminology.*

Descriptive terms	Range of proportion
Trace	1-10%
Little	10-20%
Some	20-35%
And	35-50%

ASTM Unified Soil Classification

Coarse grained soils include clean gravels and sands and silty or clayey gravels and sands with more than 50% retained on the No. 200 sieve. Table 301-6 presents the grade limits and grade names used by engineers according to ASTM standards D422-63 and D643-78.

Table 301-6. *Grain size scale used by engineers.*

Grade limits		Grade names		
mm	inch	U.S. standard sieve series		
				boulders
305	12.0			
				cobbles
76.2	3.0	3.0 inch		
				gravel
4.75	0.19	No. 4		
2.00	0.08	No. 10		
			medium	sand
0.425		No. 40		
0.074		No. 200		
				silt
0.005				
				clay size

Source: AGI data sheet 29.2

Table 301-7 shoes the USC symbols and typical names of coarse grained soils.

Table 301-7. *Coarse grained soils: USCS symbols and typical names.*

GW	Well graded gravels, gravel-sand mixtures, little or no fines
GP	Poorly graded gravels, gravel-sand mixtures, little or no fines
GM	Silty gravels, gravel-sand-silt mixtures
GC	Clayey gravels, gravel-sand-clay mixtures
SW	Well graded sands, gravelly sands, little or no fines
SP	Poorly graded sands, gravelly sands, little of no fines
SM	Silty sand, sand-silt mixtures
SC	Clayey sands, sand-clay mixtures

Fine grained soils include inorganic and organic silts and clays, gravelly, sandy, or silty clays and clayey silts with more than 50% passing the No. 200 sieve. Table 301-8 shows the USC symbols and typical names of fine grained soils.

Table 301-8. *Fine grained soils: USCS symbols and typical names.*

ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
OL	Organic silts and organic silty clays of low plasticity
MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
CH	Inorganic clays of high plasticity (residual clays), fat clays
OH	Organic clays of medium to high plasticity, organic silts
Pt	Peat and other highly organic soils

5. Table 301-9 presents soil descriptors.

Table 301-9. *Soil descriptors.*

- **Calcareous** containing appreciable quantities of calcium carbonate
- **Fissured** containing shrinkage cracks, often filled with fine sand or silt, usually more or less vertical
- **Interbedded** containing alternating layers of different soil types
- **Intermixed** containing appreciable, random and disoriented quantities of varying color, texture of constituency
- **Laminated** containing thin layers of varying color, texture or constituency
- **Layer** thickness greater than 3 inches
- **Mottled** containing appreciable random speckles or pockets of varying color, texture or constituency
- **Parting** paper thin
- **Poorly graded (well sorted)** primarily one grain size, or having a range of sizes with some intermediate size missing
- **Slickensided** having inclined planes of weakness that are slick and glossy in appearance and often result in lower unconfined compression cohesion
- **Split graded** containing primarily two predominant grain sizes with intermediate sizes missing
- **Varved** sanded or layered with silt or very fine sand (cyclic sedimentary couplet)
- **Well graded (poorly sorted)** containing wide range of grain sizes and substantial amounts of all intermediate particle sizes.
- **Modifiers** predominant type, 50% to 100%
  - Modifying type, 12% to 50%
  - With, 5% to 12%
  - Trace, 1% to 5%

6. Table 301-10 presents the terms used to denote the various degrees of plasticity of soil that passes the No. 200 sieve.

Table 301-10. *Plasticity.*

Descriptive term	Degree of plasticity	Plasticity index range
SILT	none	non-plastic
Clayey SILT	slight	1-5
SILT & CLAY	low	5-10
CLAY & SILT	medium	10-20
Silty CLAY	high	20-40
CLAY	very high	over 40

Appendix B: Types of samplers

Manual

Hydraulic push/hammer

Augering and type
- Hollow stem
- Continuous flight
- Multiple flight

Cable Tool

Rotary
- Air
- Fluid

Dual wall

Percussion

Vibratory

Technical Policy and Procedure Instructions
O'Brien & Gere Engineers, Inc.

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Contents

303. Overburden and bedrock screened monitoring well installation 303-1

303.1. Guidelines for using this TPPI 303-1
303.2. Objective 303-1
303.3. Method 303-2
303.3.1. Technical basis 303-3
303.3.2. Limitations 303-4
303.3.3. Considerations 303-4

303. Overburden and bedrock screened monitoring well installation

This TPPI documents the procedure O'Brien & Gere Engineers, Inc. (O'Brien & Gere) uses to install screened monitoring wells, observation wells, and piezometers in overburden and bedrock. By using this TPPI, hydrogeologists and other professionals trained to install screened monitoring wells, observation wells, and piezometers at O'Brien & Gere will foster consistency in the installation of monitoring wells.

This TPPI was prepared according to practices used by hydrogeologists at O'Brien & Gere and ASTM Method D 5092-90.

303.1. Guidelines for using this TPPI

This TPPI provides guidance on the way to install screened monitoring wells, observation wells, and piezometers. Individuals who implement this TPPI must be trained in the installation of screened monitoring wells.

303.2. Objective

This TPPI has the following objectives:

- Provide a means to collect representative ground water quality samples
- Provide a method to evaluate the hydrogeological conditions of a site
- Provide a standard for durable and reliable construction of monitoring wells

303.3. Method

The typical steps to install screened monitoring wells, observation wells, and piezometers are the following:

1. Identify project objectives.

2. Identify well location (clear of all subsurface utilities).

3. Identify well drilling method and drill borehole. See the appropriate TPPI.

4. If the well is to be used to monitor ground water quality, the well screen, plug, and riser should be certified clean from the manufacturer. If they are not, clean them with a high pressure steam cleaner.

5. Inspect the well construction materials for proper specifications and integrity.

6. Measure and record depth of borehole and the lengths and quantities of all materials placed in the hole. This includes, but is not limited to, screen interval, blank casing or riser length, and pack, bentonite seal, grout, and protective casing.

7. Install the screen and riser assembly to the predetermined depth. See that the well is straight. Use centralizers if necessary.

8. Compute and measure the volume of filter pack required to fill the annular space; record these data on the well completion diagram during installation. Emplace the filter pack in increments; this procedure enables you to monitor progress carefully and to prevent bridging. If bridging occurs, break the bridge before proceeding with installation. The filter pack should extend a minimum of 2 ft above the top of the screen.

9. Withdraw the augers or temporary casing in the stipulated increments. To limit borehold collapse the lowest point of casing or auger should not be more than 2 ft higher than the top of filter material.

10. Tremie a bentonite pellet or slurry seal above the filter pack. If bridging in the tremie pipe occurs, the pellets may be allowed to free

fall. Tamp the pellets into place with a weighted tape. If the seal is installed above the water table take care to see that the sealant is hydrated. The minimum thickness of the bentonite seal should be 2 ft.

11. Once the grout is prepared, tremie it to the top of the bentonite seal. It should be installed from the bottom of the hole upward. This reduces the opportunity for void spaces to develop in the grout.

12. Install a protective casing, which extends below the frost line, to slightly above the top of the well casing. Drill a weep hole into the protective casing so that accumulated water can drain. See that the well identification is clearly visible on the inside and outside of the lid of the protective casing.

303.3.1. Technical basis

The following items are important considerations when the hydrogeologists install screened monitoring wells, observation wells, and piezometers:

- Select inert well construction materials such as PVC or stainless steel to produce representative ground water samples.
- The well screen should be new, machine slotted or continuous wrapped-wire wound. The screen should be plugged at the bottom. The screen slot size should be selected based on the grain size of the stratum to be monitored. In addition, the screen lot size should retain at least 90% of the filter.
- The use of a stabilizer or centralizer to maintain plumbness, particularly for deep wells (greater than 50 ft).
- Filter pack should be compatible with screen slot size.
- Bentonite pellets provide a relatively low permeable plug to prevent vertical migration or cross contamination.
- If the well is to be used to monitor ground water quality, the grout mixture must be pH neutral so as not to modify the pH of the ground water.

- A stable borehole must be constructed before installing the well. Boreholes that are not straight or are partially obstructed should be corrected before installation.

- The primary well screen filter pack should consist of material of known chemistry, usually siliceous. The thirtieth percentile grain size value of the filter (the size greater than 30% of the filter pack particles) must be four to ten times the equivalent thirtieth percentile grain size value of the stratum being monitored. The filter material should have a uniformity coefficient less than or equal to 2.5.

- Cement should be one of the five Portland types specified in ASTM C 150. Quick setting cement containing additives should not be used because the additives may leach from the cement and affect the chemistry of the ground water.

- Threaded joints are recommended. If the stainless steel casing is not threaded, the joints should be beveled for welding. If the well installation technique requires hammering, the casing should be both threaded and welded to maintain integrity.

303.3.2. Limitations

When a monitoring well is installed, the following factors should be watched:

- The grain size in the aquifer may be such that the ground water quality sample cannot be free of turbidity.

- Instability of the aquifer may cause voids to develop in the filter pack, bent, seal, and grout installation.

303.3.3. Considerations

The following are important factors that the individual responsible to install screened monitoring wells, observation wells, and piezometers should consider:

- If the well is to be used to monitor ground water quality, water used in the installation of the well should be obtained from a source with known

chemistry and should not contain constituents that could compromise the integrity of the well.

- The riser should be new and constructed with a material that is compatible with the screen construction material.

- The mixing of a grout backfill should be performed in accordance with the manufacturer's specification. The grout should be mixed with a paddle-type mixer or be recirculated through a pump until lumps have disintegrated.

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Contents

304. Ground water sampling 304-1

304.1. Guidelines for using this TPPI 304-1
304.2. Objective 304-1
304.3. Technical basis 304-1
304.4. Method 304-3
304.4.1. Sampling for metals 304-4
304.4.2. Collection of descriptive data 304-5
304.4.3. Bailing 304-8
304.4.4. Pumping 304-9
304.4.5. Procedure after collecting sample 304-11
304.5. References 304-12

Informative appendix A: Sampling systems 304-13

Normative appendix B: Ground water field sampling log 304-17

304. Ground water sampling

304.1. Guidelines for using this TPPI

This TPPI provides methods and procedures for the collection of representative ground water samples using a bailer or pump. The type of analysis for which a sample is collected determines the type of container, preservative, holding time, and filtering requirement. Individuals who implement this TPPI must have been trained in ground water sampling.

304.2. Objective

This TPPI is designed to reduce variability and to encourage continuity in sample collection among samplers who collect ground water samples for O'Brien & Gere. The objectives of this TPPI are the following:

- To enable personnel to collect representative samples of ground water for laboratory analysis.
- To assess the horizontal and vertical distribution of pollutants in a water-bearing unit.

304.3. Technical basis

The sampler must follow correct procedures in order to collect samples that are representative of the ground water. It is the responsibility of the sampler to see that the sample is neither altered nor contaminated by the sampling and handling procedures.

The existing ground water in the casing of the well and near the well may not be representative because of the influence of the well installation. Therefore, well is purged to remove the water within the well casing and to draw ground water that is representative of the formation.

The hydrogeological environment in the subsurface is different from that at the surface. The water's temperature, gas content, reduction-oxidation potential, and other physical, biological, and chemical conditions usually vary between the subsurface and the surface. When the sampler follows appropriate procedures, the sample will typify subsurface ground water conditions.

Before collecting the sample, the common practice is to purge the well (with pump or bailer) until three or more well-volumes have been removed. The pump should not be lowered to the bottom of the well before the well is purged because it will inhibit the complete purging of the well.

The following methods may be used to evaluate the purging of a well:

- Monitor the water level in the well while pumping it. When the level has stabilized, most of the water being pumped will be coming from the aquifer.

- Monitor the temperature, specific conductivity, and pH of the water while pumping it. When they are stable, little or no water should be coming from the casing's storage.

Effective purging is also possible by initially pumping or removing water from the top of the water column and then slowly moving the pump through the water column.

Sampling systems can alter the physical, chemical, and biological conditions of the ground water. Equipment that constricts the flow of the water can change the pH of the sample simply because it changes the partial pressure of the sample's dissolved gases. Equipment that introduces dissolved oxygen in the sample can alter organic and inorganic constituents. Turbulence and reduction of pressure can change the levels of dissolved oxygen, carbon dioxide, and volatile organic compounds.

The sampling equipment should not be allowed to affect the sample. The sampling system used depends on several factors, including the type and size of the well, pumping level, type of contaminant, analytical procedures, and the presence or absence of permanent pumping fixtures. Appendix A discusses various sampling systems.

304.4. Method

At the outset of ground water sampling, follow these instructions. Record field notes with waterproof ink in a bound and sequentially numbered field notebook. Dedicate a single field notebook to each project. Include the following in the daily field notes at a minimum:

- project name and number
- client name
- date and time
- weather conditions
- sampler's name
- project objective(s)

Throughout the sampling round, record the following items as appropriate:

- sample location(s)
- well designations
- limiting field conditions
- problems encountered

For activities that take place in the field, O'Brien & Gere personnel must follow the appropriate procedures for health and safety.

The procedure a sampler should use to sample ground water observation wells depends on the size and depth of the well to be sampled and the volume of ground water in the well. Samplers document their procedures on a Ground Water Field Sampling Log. Appendix B presents an example of that form.

To obtain representative samples from wells containing only a few gallons of ground water, the bailing procedure is preferred. To obtain representative samples from wells containing more than a few gallons of ground water, evacuation by pumping is generally more efficient. The procedures below are divided into four subsections:

1. Collection of descriptive data
2. Bailing
3. Pumping
4. Procedure after collecting sample.

When sampling, determine the objectives of the project, the extent of the sampling effort, the sampling methods to be used, and the equipment and supplies that are needed. Obtain the appropriate sampling, filtering, and monitoring equipment. Decontaminate or pre-clean the equipment. Check to see that it is in working order. Prepare the sampling schedule and check the schedule with staff, clients, and regulatory agencies as required.

304.4.1. Sampling for metals

In ground water systems, naturally occurring metals tend to adsorb to the surfaces of solids. The level of adsorbance depends on the pH of the soil and water. The concentration of metals in dissolved form, therefore, is limited by this adsorption and by their low solubility. Sediment in water is likely to have metal ions adsorbed to its particles, which analytical methods may not be able to differentiate from metal ions dissolved in the water. Ground water samples that contain sediment, therefore, may yield analytical results that do not represent the concentration of metals in the ground water itself.

Moreover, the transport of sediment is generally not due to the natural flow of ground water but is induced by the sampling. Samples that are collected to be analyzed for metals should exhibit low turbidity, and they are generally filtered, therefore, to remove sediment. When possible, low turbidity samples should be obtained without filtering.

An important concern associated with filtering a ground water sample is the precipitation of dissolved iron. Iron may precipitate when the sample is exposed to carbon dioxide in the atmosphere or when it encounters a change in pH, as may occur when the sample is filtered. The precipitate is ferric hydroxide, $Fe(OH)_3$. This compound can react with water and reduce the concentration of other ions in solution. It does so by cation-anion exchange, adsorption, or reactions after precipitation.

Precipitation of metals is more likely in solutions with high pH and low temperature. Sudden changes in the temperature and pressure of the ground water, such as occur when the sample is brought to the surface, may alter the ground water's chemistry. Samples with high iron content, therefore, should be filtered quickly to reduce the opportunity for such reactions.

The minimum size of the filter is 0.45 μ. Filters function by two methods:

- A barrel filter such as the Geotech filter works with a pump that builds up positive pressure in the chamber that contains the sample. The sample is then forced through the in-line filter and into the sample container placed beneath it. The barrel itself is filled directly from the hose of the sampling pump.

- A vacuum-type filter has two chambers with the filter dividing the chambers. The upper chamber retains the sample. Using a hand pump for a Gilian-type pump, air is drawn from the lower chamber to create a vacuum and force the sample through the filter into the lower chamber. The sample is drained from the lower chamber and placed in the sample container. Repeated pumping may be necessary to draw the entire sample into the lower chamber. If a preservative must be added to the sample, add it after the sample is filtered.

304.4.2. Collection of descriptive data

Before collecting a sample with either a bailer or pump, data are compiled about the well and the ground water in the well. Before collecting the sample, measure the water level to ascertain the volume of ground water to be removed from the well. This datum also is used for other hydrogeological evaluations. Where appropriate, measure the thickness of NAPL. Follow these steps to measure the water level:

1. Survey the site to locate wells.

2. Check that the water level measuring equipment is operating correctly.

3. As feasible, begin measuring at wells with the least amount of contamination and proceed to those that are more contaminated.

4. Record in field book changes in the well such as erosion or cracks in protective concrete pad or the integrity of the well.

5. Don a new pair of disposable gloves.

6. Slit the center of a plastic sheet, and slip sheet over the well. This creates a clean surface on which the sampling equipment can be positioned.

7. Clean meters, tools, and sampling equipment before placing them on the plastic sheet.

8. Using a pre-cleaned electric water level probe, measure the depth to the ground water and the depth to the bottom of the well twice. Note the measuring points on the well's casing. If Non-aqueous Phase Liquid (NAPL) is present, use an oil-water interface probe to estimate its thickness. Record this information in the Ground Water Sampling Field Log.

9. Decontaminate the well probe. Rinse it with distilled water after use.

10. Compute the volume of water in the well. Use the following equation for the calculation:

well volume = $\pi r^2 h$ (7.48)

r = radius of well
h = height of water column

The measures for *r* and *h* are in feet; the well volume is in gallons. Table 304-1 shows the volume of water found in wells of typical sizes.

Table 304-1. *Examples: volume* of wells per length

diameter (inch)	volume (gal/ft)
2	0.1632
3	0.3672
4	0.6528
6	1.4688

To find the total volume of water, multiply the values in the second column of Table 304-1 by the total length of the water column in the well. Record this volume on the Ground Water Field Sampling Log. For low permeable formations, the water in the sand pack must also be purged. Calculate the purge volume based on the borehole's radius.

Having completed those steps, you proceed to collect the sample. Follow these steps to collect the sample:

a. Attach a bailer to a length of clean polypropylene rope to reach the bottom of the well. Lower the bailer slowly into the well. Submerge it only far enough to fill it one-half full. The purpose of this initial bail is to ascertain the presence of Light Non-aqueous Phase Liquid (LNAPL).

b. Collect a sample to assess appearance:

   i. Remove the bailer from the well. Keep the polypropylene rope on the plastic sheet.

   ii. Transfer the recovered ground water from the bailer to a clean glass container.

   iii. On the Ground Water Sampling Field Log, record the appearance of the sample, including the presence of a sheen, odor, and turbidity.

Note: This sample will not undergo laboratory analysis. It is collected to observe the appearance of the ground water only.

c. Collect a sample to assess the presence of a Dense Non-aqueous Phase Liquid (DNAPL):

   i. Lower the bailer slowly to the bottom of the well.

   ii. Retrieve a sample of water at the base of the well.

   iii. Transfer the recovered ground water from the bailer into a clean glass container.

   iv. On the Ground Water Sampling Field Log, record the appearance, including the presence of a separate-phase liquid, odor, and turbidity.

Note: This sample will not undergo laboratory analysis and is collected to ascertain the presence of NAPL.

The subsequent steps of the sampling depend on whether you are using a bailer or pump to collect the sample. Follow the instructions in the appropriate subsection below.

304.4.3. Bailing

Use the following steps to withdraw ground water from a well with a bailer:

a. To bail the well, follow these steps:

   i. Lower the bailer to the bottom of the well. Move the bailer up and down to resuspend any material that may have settled to the bottom of the well.

   ii. Initiate bailing of the well from the bottom. Keep the polypropylene rope on the plastic sheet. Pour the ground water from the bailer into a container of known volume to measure the volume withdrawn from the well.

   iii. Continue bailing the well through the water column and from the bottom until a sufficient volume (at least three well volumes) has been removed or until the well is dry. If the well is dry, allow sufficient time for the well to recover before proceeding.

During the removal of successive well volumes, measure the water temperature, pH, and conductivity with calibrated meters. Record the data on the Ground Water Sampling Field Log.

b. Keep sample bottles cool and with their caps on until they are ready to receive samples. The type of analysis for which a sample is collected determines the type of container, preservative, holding time, and filtering requirement. Samples are transferred directly from the sampler to the container. The container should hold any necessary preservative and should be correctly labeled before the sample is transferred to it.

   When you are ready to fill the bottles, remove them from their transport containers. Prepare them to receive the samples:

   i. Inspect labels to see that the samples are properly identified.

   ii. Arrange the sampling containers to allow for convenient filling:

      - Fill the containers that will undergo analysis for volatile organic compounds (VOC) first.

      - If necessary, collect both a filtered and unfiltered sample for ground water that will be analyzed for metals.

c. Examine the sample containers and verify they are labeled. Collect the samples in the following way:

   i. Minimize agitation of the water in the well; begin sampling by lowering the bailer slowly into the well. Lower it only far enough to fill it completely.

   ii. Fill each sample container in accordance with the QAPP or other sampling outline.

   iii. Return each sample bottle to its proper transport container.

   iv. Record the appearance of the ground water on the Ground Water Sampling Field Log.

Keep these considerations in mind:

- If the sample bottle cannot be filled quickly, keep them cool with the caps on until they are filled.
- The VOC containers should be filled first, from one bailer, then securely capped.
- **Samples must not be allowed to freeze.**

d. Take these actions after the last sample has been collected:

   i. Record the date and time.

   ii. Place a sample of well water in a beaker. Measure and record the pH, specific conductivity, turbidity, and temperature on the Ground Water Sampling Field Log.

   iii. Rinse the beaker with distilled water before reuse.

Continue with the procedures described below in subsection 304.4.5., "Procedure after collecting sample."

304.4.4. Pumping

Use the following steps to withdraw ground water from a well with a pump:

a. Prepare the pump for operation. Follow the manufacturer's directions.

b. To withdraw water from the well, follow these steps:

   i. Lower the pump to just below the top of the water column.

   ii. Pump the ground water into a graduated pail. Continue pumping until sufficient well volumes (at least three) have been removed or the well is pumped dry. Lower the pump's intake as necessary.

   iii. If the well is pumped dry, allow sufficient time for the well to recover before proceeding. Record this information on the Ground Water Field Sampling Log.

c. Arrange the sampling containers to allow for convenient filling:

   The type of analysis for which a sample is collected determines the type of container, preservative, holding time, and filtering requirement. Samples are transferred directly from the sampler to the container. The container should hold any necessary preservative and should be correctly labeled before the sample is transferred to it.

   - Fill the containers that will undergo analysis for volatile organic compounds (VOC) first.

   - If necessary, collect both a filtered and unfiltered sample for ground water that will be analyzed for metals.

d. Collect the samples that will be analyzed in the following way:

   i. With the pump raised to a level just below the surface of the water in the well, fill each sample container in accordance with requirements of the QAPP or other sampling outline.

   ii. Return each sample bottle to its proper transport container.

   iii. Record the appearance of the ground water on the Ground Water Sampling Field Log.

e. Perform the following tasks after the last sample has been collected:

   i. Record the date and time.

   ii. Place a sample of well water in a beaker. Measure and record the pH, specific conductivity, turbidity, and temperature on the Ground Water Sampling Field Log.

   iii. Rinse the beaker with distilled water before reuse.

Keep these considerations in mind:

- If the sample bottle cannot be filled quickly, keep them cool with the caps on until they are filled.
- The containers labeled VOCs should be filled first from one bailer then securely capped.
- **Samples must not be allowed to freeze.**

f. Remove the pump from the well.

304.4.5. Procedure after collecting sample

After you have collected the sample, follow these practices to complete the documentation and leave the well intact and secure:

a. Pack and log the sample. Put the samples in a cooler containing ice or coolant pack. Ship samples within 24 hrs or as specified in the work plan or QAPP, whichever is shorter. Include adequate packing and coolant with the samples so that the samples arrive unimpaired.

b. Begin the chain of custody. If necessary, refer to TPPI 101.

c. Replace the well cap, and lock the well protection assembly before leaving the well location.

d. Put the polypropylene rope, gloves, and plastic sheet in a plastic bag for disposal.

e. Decontaminate the equipment:

Bailer. Follow decontamination procedures discussed in the QAPP, another sampling outline, or TPPI 105. Wrap the decontaminated bailer in aluminum foil.

Pump. Clean the pump and associated tubing both internally and externally:

i. Rinse with wash water (and acetone or methanol mixture as necessary) and distilled water using disposable towels and separate wash basins.

ii. Return the pump to its covered storage box.

f. Place the polypropylene rope, gloves, and plastic sheet into a plastic bag for disposal.

304.5. References

ASTM. 1993. "Standard guide to the selection of purging and sampling devices for ground water monitoring wells." Committee D-18.

Driscoll, F. G. 1986. *Groundwater and wells* 2d ed. St. Paul, Minn.: Johnson Division, VOP Inc.

Freeze, R. Allen and John A. Cherry. 1979. *Groundwater.* Englewood Cliffs, N.J.: Prentice-Hall, Inc.

Fetter, Jr., Charles W. 1980. *Applied hydrogeology.* Columbus, Ohio: merrill.

USEPA. In press 1994. (J.R. Gibb, R.M. Schuller, and R.A. Griffin) *Monitoring well sampling and sample preservation techniques.*

USEPA. 1991. *Compendium of ERT groundwater sampling procedures.*

USEPA. 1980. (M.J. Scalf and others.) *Manual for groundwater sampling procedures.* Ada, Okla.: R.S. Kerr Environmental Research Laboratory.

Informative appendix A: Sampling systems

Bailer. A bailer is a simple device for sampling well water. A bailer may be a weighted bottle or a capped pipe or an alternative. The bailer is lowered and raised on a length of rope by hand. When a bailer enters the water, a check valve opens and permits the water to enter. When the bailer is retrieved, the weight of the water in the bailer closes the check valve. The water that enters the bailer is that from the lowest level it reached when lowered.

The sample is decanted to a container. The best bailers have a discharge port on the bottom from which the water is decanted to the sample container. If the water is poured from the top of the bailer, the sample may be agitated and aerated and its chemistry changed.

Advantages.

- May be constructed from a variety of material. The material should not be incompatible with the parameters to be sampled.
- Economical and convenient such that a separate bailer may be dedicated to each well. This practice can obviate cross-contamination.
- No power required.
- Low ratio of surface to volume reduces off-gassing of VOCs.
- Usually easy to clean.

Disadvantages.

- It is sometimes impractical to evacuate stagnant water in a well depending on the size and depth of the well.
- Transfer of samples from the bailer to sample containers can result in agitation or aeration.
- Wells can be cross-contaminated if the equipment is not adequately cleaned after each use or if dedicated equipment is not used.

- The bailer moving through the water column can increase turbidity and mixing in the well.

Suction lift pumps. Centrifugal and peristaltic pumps are common suction-lift pumps. They use externally powered impellers or rotors to draw water from a well to the surface through an intake line.

Centrifugal pumps are the most common. They are portable and have pumping rates of 5 to 40 gal/min. Most centrifugal pumps require a foot-valve on the end of the suction line to help to maintain the pump's pressure differential for suction. Centrifugal pumps may introduce gas into the sample through cavitation if the sample contacts the pump itself. They, therefore, are unsuitable for samples to be analyzed for VOCs or trace metals.

Peristaltic pumps are generally low volume suction pumps. They are suitable to sample shallow wells of small diameter. Pumping rates are generally low; they can be accurately controlled, however.

These pumps can mix air from small leaks in the suction circuit into the sample. This modifies the sample.

Constituents in the well water can sorb to the pumps, tubes, flexible PVC, or silicone rubber, or materials from the tubes can desorb to the water. The samples are thus modified.

A procedure has been developed to obviate some of the effects the pumping can have to modify the samples. Samples may be collected by inserting one end of a tube into the well and connecting the opposite end of the tube to an intermediate container. The pump applies suction to the intermediate container and causes the sample to be deposited into it without contacting the pump.

Submersible pumps. When samples must be collected from depths greater than the capacity of suction lift pumps, submersible pumps can be used. Submersible pumps are lowered and raised in a well by an attached hose or support line. The hose transports the water from the well and houses the electrical cable that controls the pump.

Submersible pumps can modify the physical and chemical character of a sample. The high speed of the pump can cause off-gassing and the loss of VOCs and trace metals. The pump itself also puts the sample under more

pressure than is present in the ground. It can, then, cause gases to dissolve into the sample and thus modify the sample. The sample also absorbs heat from the pump motor and is thus further modified from its conditions in the original location.

Submersible pumps provide high flow rates and are efficient for purging a well. To reduce the flow, a restricting device such as a gate valve or reducing orifice in the discharge line is necessary. Such devices can affect the sample and also reduce the motor's life. A more efficient way to reduce the discharge rate of the pump is to control the motor's speed by reducing power.

Water containing silt or sand can damage submersible pumps. They are prone to overheating. The interior and exterior of the portable submersible pumps and discharge lines are cleaned according to TPPI 105.

Bladder pumps. Bladder pumps, gas-operated squeeze pumps, and diaphragm pumps have a flexible membrane tube in a rigid housing, a supply of compressed gas, and appropriate control valves. When the pump is submerged, water enters the membrane tube through the bottom check valve. Gas under pressure is applied to the space between the housing and the membrane to force the water through the sampling tube. When the pressure is released, a check valve stops the sample from flowing down the discharge line, and water from the well again enters the pump through the bottom check valve. The lift capacity of the pump is directly related to the pressure of the compressed gas.

Bladder pumps provide representative samples under a wide range of field conditions. The sample does not contact the compressed gas, thus reducing the potential for stripping of dissolved gases or VOCs. The pressure that drives the pump can be controlled by modifying the force of the compressed gas. The bladder material, however, may affect the chemistry of the sample.

Bladder pumps are not the most efficient for purging wells. They are susceptible to damage from sediment. Inlet screens can reduce the potential for such damage. They can also run dry without damage. They may be difficult to disassemble and clean in the field.

Piston pumps. The two common piston pump designs are the single-acting and dual-acting pumps. The single-action pump is more common. It is a mechanical piston pump referred to as a stationary barrel-type pump. It has a plunger or set of plungers (pistons) that move inside a cylinder (stationary

submerged barrel). As the piston moves back and forth in the cylinder under suction, it displaces water from the cylinder.

Piston pumps can provide representative samples for most parameters. Samples may be altered by degassing or stripping volatile constituents by the suction produced during refill of the pump. This effect can be reduced if the pump's cycling rate is reduced. A flow restriction or valve, however, can induce pressure changes that can alter the sample's chemistry. The pump's rate of flow can be controlled if the stroke rate can be controlled.

Sediment can damage piston pumps. Screens on the inlet can reduce the damage. The pumps are also damaged if they run dry. Piston pumps are not easily portable. Pneumatically actuated piston pumps are difficult to disassemble for cleaning.

Appendix B: Ground water field sampling log

O'BRIEN & GERE ENGINEERS, INC. — Ground Water Sampling Log

Date _____ Weather _____
Site Name _____ Well # _____
Site Location _____ Project # _____
Personnel _____ Excavation Method _____

Depth of Well * _____ ft.
Depth of Water * _____ ft.
Length of Water Column _____ ft.
Volume of Water in Well _____ gal.(s)
3X Volume of Water in Well _____ gal.(s)

Water Volume /ft. for:
2" Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling _____ gal.(s)
Did well go dry? _____

* Measurements taken from ☐ Top of Well Casing ☐ Top of Protective Casing ☐ (Other, Specify) _____

Water parameters:

Temperature Readings		pH Readings		Conductivity Readings	
		4.0 Standard		84 S Standard	
		7.0 Standard		1413 S Standard	
		10.0 Standard			
initial		initial		initial	
after _____ (gal.)		after _____ (gal.)		after _____ (gal.)	
after _____ (gal.)		after _____ (gal.)		after _____ (gal.)	
after _____ (gal.)		after _____ (gal.)		after _____ (gal.)	
after _____ (gal.)		after _____ (gal.)		after _____ (gal.)	
after _____ (gal.)		after _____ (gal.)		after _____ (gal.)	

Water Sample:
Time Collected _____

Physical Appearance

Color _____
Odor _____
Turbidity (> 100 NTUs) _____
Sheen/Free Product _____

Parameters of Samples:

Container Size	Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductuctivity

NOTES:

Appendix D

Field Forms

Boring and Well Completion Diagrams

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING OBGMW122
Client: Miller Brewing	Drill Method: Hollow Stem Auger	Page 1 of 1
Proj. Loc: Ball Corporation Site	Sampler: 2" split barrel	Location: Rear of facility, adj./west of haz. Stor. Bldg.
Hwy 319 South	Hammer: 140lb	
Moultrie, GA		Start Date: 08/17/00
File No.: 27675	Fall: +/- 30 in.	End Date: 08/17/00

Drilling Company: American Environmental Drilling Service
Foreman: Marty Shaver
Drill Rig: IR A-300
OBG Geologist: C.Rook Technician:

Screen = \ Grout
Riser Sand Pack
Steel // Bentonite

Depth Below Grade (ft.)	No.	Depth (feet)	Blows /6"	Penetration/ Recovery (inches)	"N" Value	Sample Description
0						Thin (~2") topsoil into reddish-yellow sandy clay.
1						
2						
3	1	3-5		2'/1.3'		Stiff, moist, white/brown/tan mottled clay; little sand.
4						
5						
6						
7						
8	2	8-10		2'/1.7'		Generally same as above: stiff, moist-damp, white/brown/tan/purple mottled clay, little sand.
9						
10						
11						
12						
13	3	13-15'		na		Hammer rod snaps-no recovery: cuttings indicate generally same as above.
14						
15						Water not readily apparent, will set well similar to other site wells.

Monitoring Well Installation Specifications:
(depth below grade [ft.])

Total Drilled Depth: 15
2" PVC Screened Interval: 15-5
Sand Pack: 15-3
Bentonite Pellet Seal: 3-1
Grout to grade
Completed with a flush-mounted casing.

Stratum Change General Descript	Equipment Installed	Field Testing PID (ppm)
	\ \	

Notes:

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING OBGMW123A
Client: Miller Brewing Proj. Loc: Ball Corporation Site Hwy 319 South Moultrie, GA File No.: 27675	Drill Method: Hollow Stem Auger Sampler: Hand auger to 6'. Drill cuttings later. Hammer: N/A Fall: N/A	Page 1 of 1 Location: Front of bldg., near former holding tanks Start Date: 08/31/00 End Date: 08/31/00

Drilling Company: American Environmental Drilling Service
Foreman: Marty Shaver
Drill Rig: IR A-300
OBG Geologist: C.Rook Technician:

Screen = \ Grout
Riser Sand Pack
Steel // Bentonite

Depth Below Grade (ft.)	No.	Depth (feet)	Blows /6"	Penetration/ Recovery (inches)	"N" Value	Sample Description	Stratum Change General Descript	Equipment Installed	Field Testing PID (ppm)
0						Topsoil into orange-brown silt and sand.			
1									
2						Orange-brown silt, some sand.			
3						Orange-brown silt, some sand; tr. tan/lt. Brown mottling.			
4						Lt. Tan silt, little sand.			
5						Moist, lt. Tan sand, little silt.			
6						Moist, Lt. Tan-gray silt, little clay.			
7									
8						Lt. Tan silt, little clay.			
9									
10						Moist, lt. Gray clay.			
11									
12									
13									

Monitoring Well Installation Specifications:
(depth below grade [ft.])

Total Drilled Depth: 13
2" PVC Screened Interval: 13-3
Sand Pack: 13-2
Bentonite Pellet Seal: 2-0.5
Grout to grade
Completed with a flush-mounted casing.

Notes:

Ground Water Sampling Log Forms for 2004

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-1
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/7/04		PURGE END DATE/TIME:	4/7/04	15:09
WEATHER CONDITIONS:	overcast, warm		WELL CONDITION:	good	
WELL DEPTH:	10'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	0.25	gal.
SWL:	6.51	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	1"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	0.14	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
15:00	150		22.19	0.139	6.60	5.23	417	4.8
15:01	"		21.51	0.140	5.89	5.00	445	2.8
15:02	"		21.39	0.140	5.55	4.93	459	2.5
15:03	"		21.31	0.140	5.39	4.90	465	2.6
15:04	7.17 "		21.25	0.140	5.76	4.84	480	2.5
15:05	"		21.32	0.140	5.03	4.74	494	2.2
15:06	"		21.35	0.140	5.26	4.71	503	2.1
15:07	"		21.27	0.140	5.11	4.63	512	2.1
15:08	100		21.18	0.140	4.72	4.61	517	1.7
15:09	7.61 "		21.30	0.139	4.53	4.54	527	1.6

SAMPLING DATA

SAMPLE DATE/TIME:	4/7/04 15:09
DEPTH TO WATER AFTER PURGING:	7.61 ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Purge water is clear

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-1A
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/7/04		PURGE END DATE/TIME:	4/7/04 11:07	
WEATHER CONDITIONS:	slightly overcast.		WELL CONDITION:	Good	
WELL DEPTH:	15'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	0.70	gal.
SWL:	11.29	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	0.60	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
10:46	150		19.11	0.109	6.51	5.90	375	1510
10:47	"		19.30	0.109	6.49	5.58	412	423
10:49	12.06 "		19.31	0.109	6.27	5.62	424	261
10:51	"		19.37	0.108	5.00	5.62	440	187
10:53	"	~0.25	19.40	0.107	4.86	5.62	452	157
10:55	12.53 "		19.46	0.107	4.73	5.60	458	152
10:57	"		19.49	0.104	4.34	5.55	470	111
10:59	~~12.97~~ "		19.52	0.104	4.34	5.53	476	93.7
11:01	12.97 "	0.50	19.60	0.104	4.27	5.52	483	83.0
11:03			19.58	0.102	4.20	5.50	491	84.2
11:05	13.30		19.65	0.103	4.22	5.49	494	78.9
11:07			19.75	0.102	4.07	5.47	499	75.6

SAMPLING DATA

SAMPLE DATE/TIME:	4/7/04 11:07
DEPTH TO WATER AFTER PURGING:	13.62 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☑	OTHER	☐	PCBs

NOTES: Initial purge water is highly turbid. Cleared quickly
-Drawing down somewhat quick but shows signs of recovery.
-COLLECTING MNA SAMPLES. 15:30 COLLECTED DOC, NO3, chloride + SO4

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2 MW-2
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/6/04 14:20		PURGE END DATE/TIME:	04/06/04	14:50
WEATHER CONDITIONS:	clear, sunny		WELL CONDITION:	Good	
WELL DEPTH:	13.5'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	1.50	gal.
SWL:	4.83	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	1.41	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
~~14:20~~	~~11.16~~		~~0.231~~	~~3.16~~				
14:20	200		22.16	0.231	3.87	4.32	453	107
14:22	200		21.46	0.232	3.23	4.18	475	80.2
14:26	5.25 200		21.13	0.232	2.62	4.12	497	48.8
14:28	"		20.86	0.233	2.45	4.11	510	50.2
14:30	"		20.80	0.232	2.32	4.09	519	49.3
14:32	"		20.94	0.232	2.22	4.10	525	43.5
14:34	5.50 "	0.75	20.71	0.232	2.27	4.11	529	42.6
14:36	"		20.62	0.232	2.28	4.10	534	41.1
14:38	"		20.67	0.232	2.27	4.10	536	40.9
14:40	"		20.64	0.233	2.46	4.10	541	39.2
14:40	"		20.69	0.233	2.38	4.11	544	39.0
14:42	"		20.75	0.232	2.16	4.11	546	38.5
14:44	"		20.66	0.232	2.23	4.11	549	38.4
14:46	"		20.69	0.232	2.23	4.11	550	38.1
14:48	5.70 "		20.61	0.231	2.21	4.11	553	37.5
14:50			20.64	0.232	2.20	4.11	553	37.4

SAMPLING DATA

SAMPLE DATE/TIME:	4/6/04
DEPTH TO WATER AFTER PURGING:	5.70 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CHZ MW-3
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/6/04 12:08	PURGE END DATE/TIME:	4/6/04 12:34
WEATHER CONDITIONS:		WELL CONDITION:	Good
WELL DEPTH:	13'	TOTAL PURGE VOLUME:	1.5 gal.
SWL:	4.93	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	2"	PUMP SETTING:	ft.
WELL VOLUME:	1.32	PURGING DEVICE:	Peristaltic

CONVERSION FACTORS

1 in. Dia.	0.041 gal./ft.
2 in. Dia.	0.163 gal./ft.
4 in. Dia.	0.653 gal./ft.

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
12:08	200		21.87	0.217	5.82	4.90	593	1.6
12:10	200		20.75	0.203	5.98	4.97	601	2.2
12:12	5.64 200		20.78	0.172	5.87	4.98	611	2.3
12:14	200		20.67	0.242	6.60	4.98	607	3.5
12:16	"		20.52	0.183	5.61	4.99	633	3.1
12:18	5.91 "		20.44	0.163	5.64	5.00	633	3.5
12:20	"		20.37	0.163	5.67	5.02	635	4.3
12:22	6.05 "		20.36	0.159	5.67	5.02	637	3.4
12:24	"	1.0	20.40	0.157	5.68	5.02	639	5.1
12:26	"	~~1.0~~ AB	20.42	0.160	5.67	5.04	638	7.5
12:28	6.20 "		20.30	0.155	5.61	5.05	641	8.9
12:30			20.35	0.156	5.51	5.05	643	8.6
12:32			20.37	0.151	5.48	5.05	644	8.1
12:34			20.31	0.150	5.50	5.06	644	8.0

SAMPLING DATA

SAMPLE DATE/TIME:	4/6/04 12:34
DEPTH TO WATER AFTER PURGING:	6.39 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☑	OTHER	☐	PCBs

NOTES: MNA
- Purge water is clear

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-4D
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/8/04		PURGE END DATE/TIME:	4/8/04	10:00
WEATHER CONDITIONS:	overcast w sunny breaks		WELL CONDITION:	Good	
WELL DEPTH:	45.93	CONVERSION FACTORS	TOTAL PURGE VOLUME:	5.0	gal.
SWL:	16.14	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	4.8L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
8:42	275		21.23	0.091	5.98	5.64	340	17.3
8:44	"		21.97	0.085	5.27	6.46	351	37.2
8:46	17.92 "		22.09	0.090	5.23	7.01	364	25.5
8:50	"		22.27	0.075	5.01	7.52	388	4.6
8:55	300	1.0	22.49	0.074	4.85	8.35	405	3.9
9:00	21.40 "		22.53	0.075	4.88	8.61	413	3.0
9:05	"		22.64	0.075	4.80	8.68	419	3.0
9:10	23.10 "	2.0	22.67	0.075	4.75	8.68	423	2.7
9:15	23.86 250		22.68	0.075	4.84	8.69	424	2.3
9:20	"		22.82	0.074	4.83	8.66	428	2.3
9:25	24.90 "		22.78	0.074	4.65	8.67	430	2.7
9:30	"	3.25	22.68	0.074	4.80	8.64	432	2.3
9:35	"		22.57	0.073	4.76	8.63	432	2.3
9:40	"		22.79	0.074	4.80	8.64	433	2.3
9:45	"		22.73	0.073	4.73	8.59	436	2.6
9:50	26.10 "	4.50	22.75	0.071	4.73	8.59	436	2.4
9:55	"		22.75	0.071	4.72	8.59	436	2.3
10:00	26.52		22.85	0.071	4.70	8.59	436	2.7

SAMPLING DATA

SAMPLE DATE/TIME:	4/8/04 10:00
DEPTH TO WATER AFTER PURGING:	26.52 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	

PARAMETERS			
☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Appears to be little recovery, Purge water is clear. pH is oddly rising as more water is purged from well. Re-checked for recovery @ 9:01 and well is recovering.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-5
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/7/04 9:06		PURGE END DATE/TIME:	4/7/04	9:32
WEATHER CONDITIONS:			WELL CONDITION:	Good	
WELL DEPTH:	15'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	125	gal.
SWL:	7.51	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	1.22	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
9:06	200		17.06	0.152	10.30	7.27	307	2000
9:08	175		17.57	0.140	7.10	6.76	337	1722
9:10	7.80 "		17.85	0.136	6.77	6.38	375	1629
9:12	"		17.86	0.135	6.16	6.34	387	1000
9:14	8.00 "	0.5	18.00	0.135	6.04	6.26	403	412
9:16	"		18.02	0.133	6.03	6.22	412	358
9:18	"		17.97	0.133	6.05	6.20	417	556
9:20	8.20 "		17.98	0.133	6.02	6.20	425	480
9:22	"		17.95	0.131	5.84	6.17	433	599
9:24	"		17.94	0.133	5.77	6.18	437	455
9:26	8.43 "		18.00	0.129	5.51	6.14	445	328
9:28			17.94	0.127	5.15	6.10	453	295
9:30			17.95	0.127	5.16	6.09	453	293
9:32	8.51		17.99	0.126	5.10	6.10	457	276

SAMPLING DATA

SAMPLE DATE/TIME:	4/7/04 9:32
DEPTH TO WATER AFTER PURGING:	8.60 ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☑	OTHER	☐	PCBs

NOTES: Purge water initially highly turbid, but cleared quickly - Collecting MW4 samples at this well.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-113
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/6/04 17:38	PURGE END DATE/TIME:	4/6/04 18:06
WEATHER CONDITIONS:	Sunny, clear, warm	WELL CONDITION:	Good
WELL DEPTH:	12'	TOTAL PURGE VOLUME:	1.0 gal.
SWL:	6.25	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	2"	PUMP SETTING:	ft.
WELL VOLUME:	0.94	PURGING DEVICE:	Peristaltic

CONVERSION FACTORS

1 in. Dia.	0.041 gal./ft.
2 in. Dia.	0.163 gal./ft.
4 in. Dia.	0.653 gal./ft.

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
17:38	200		18.50	0.219	7.66	7.01	362	2000
17:40	"		18.48	0.216	8.73	6.56	385	382
17:42	7.12 150		18.32	0.215	6.90	6.54	387	310
17:44	"		18.21	0.215	6.58	6.45	396	208
17:46	"		18.15	0.216	6.38	6.41	403	125
17:48	7.52 "		18.09	6.213	6.50	6.37	408	98.2
17:50	"		17.99	6.210	6.23	6.32	414	90.0
17:52	"	0.5	18.04	0.207	6.45	6.27	421	101
17:54	"		18.05	0.206	6.38	6.25	424	107
17:56	8.10 "		18.08	0.204	6.24	6.22	428	161
17:58	"		18.11	0.202	6.19	6.18	433	215
18:00	"		18.12	0.201	6.23	6.15	438	261
18:02	"		18.05	0.200	6.09	6.16	441	287
18:04	"		18.04	0.198	6.03	6.12	445	319
18:06	8.72 "		18.06	0.197	6.12	6.12	446	331

SAMPLING DATA

SAMPLE DATE/TIME:	4/6/04 18:06
DEPTH TO WATER AFTER PURGING:	8.72 ft.
APPEARANCE:	Yellow / turbid
SAMPLING DEVICE:	

PARAMETERS			
☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: INITIAL PURGE WATER HIGHLY TURBID, CLEAR

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-114
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/7/04 17:18		PURGE END DATE/TIME:	4/7/04	
WEATHER CONDITIONS:	overcast, warm		WELL CONDITION:	Good	
WELL DEPTH:	11.7'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	2.75	gal.
SWL:	7.85	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	4"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	2.51	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
~~17:20~~	~~200~~		~~18.91~~	~~0.331~~	~~6.00~~	~~6.09~~	~~429~~	~~28.6~~ AB
17:18	"		18.91	0.331	6.00	6.09	429	28.6
17:20	8.04 "		17.63	6.351	2.29	6.23	444	25.5
17:22	200		17.50	0.331	3.07	6.26	448	27.1
17:24	"		17.47	6.332	2.93	6.28	451	25.0
17:26	812 "		17.52	0.331	2.87	6.30	453	36.0
17:28	"	1.0	17.42	6.832	2.81	6.33	456	148
17:30	"		17.43	6.332	2.77	6.33	459	106
17:32	"		17.35	6.332	2.73	6.32	462	100
17:34	8.65 "	1.75	17.31	6.832	2.72	6.35	464	94.2
17:36	"		17.36	6.332	2.73	6.33	466	89.3
17:38	"		17.25	0.332	2.77	6.38	468	85.6
17:40	8.88 "	2.5	17.21	6.332	2.77	6.38	469	85.1
17:42	"		17.28	0.333	2.77	6.39	471	85.8
17:43			17.26	6.333	2.76	6.38	471	85.1

SAMPLING DATA

SAMPLE DATE/TIME:	4/7/04
DEPTH TO WATER AFTER PURGING:	8.98 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☑	OTHER	☐	PCBs

NOTES: Purge water is clear

COLLECTED DUP-2

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-11D
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/7/04		PURGE END DATE/TIME:	4/7/04	18:46
WEATHER CONDITIONS:	Overcast, spittingrain		WELL CONDITION:	good	
WELL DEPTH:	22.5'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	~0.65	gal.
SWL:	8.53	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	1"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	0.57	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
18:28	150		19.83	0.037	5.18	6.82	342	720
18:30	"		19.32	0.029	3.94	6.11	389	412
18:32	12.50		19.28	0.028	3.70	5.87	407	341
18:34			19.31	0.028	3.66	5.75	420	286
18:36	152		19.30	6.029	3.55	5.66	433	229
18:38			19.25	6.029	3.52	5.65	440	201
18:40	17.74		19.29	6.029	3.35	5.61	450	170
18:42		0.5	19.32	0.029	3.37	5.60	457	158
18:44			19.35	0.030	3.29	5.59	461	144
18:46	19.70		19.36	6.030	3.30	5.60	463	143

SAMPLING DATA

SAMPLE DATE/TIME:	4/7/04 18:46
DEPTH TO WATER AFTER PURGING:	19.70 ft.
APPEARANCE:	clear with orange tint.
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☑	OTHER	☐	PCBs

NOTES:
- Purge water is clear
- SWL dropping quickly

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-115
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/7/04 14:20		PURGE END DATE/TIME:	4/7/04	
WEATHER CONDITIONS:	Overcast, warm		WELL CONDITION:	Good	
WELL DEPTH:	11.5	CONVERSION FACTORS	TOTAL PURGE VOLUME:	1.0	gal.
SWL:	6.21	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	0.86	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
14:26	175		20.72	0.170	1.20	5.99	261	2000
14:26	6.54 "		20.52	0.167	0.76	5.83	293	783
14:28	"		20.25	0.167	0.69	5.83	286	380
14:30	"		20.18	0.167	0.66	5.84	286	235
14:32	6.78 "	0.5	20.14	0.166	0.48	5.85	283	124
14:34	"		26.07	0.166	0.44	5.85	281	88.6
14:36	"		20.03	0.166	0.43	5.86	281	88.1
14:38	"		20.07	0.166	0.42	5.87	279	86.4
14:40	"		19.99	0.166	0.40	5.87	277	93.0
14:42	"		20.02	0.165	0.39	5.87	277	89.7
14:44	7.25 "		20.07	0.166	0.38	5.87	276	93.5

SAMPLING DATA

SAMPLE DATE/TIME:	4/7/04 14:44
DEPTH TO WATER AFTER PURGING:	7.25 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Initial purge water highly turbid. Pumped out before coupling to water quality instrument. Reddish rust color. Heavy floc. Cleared after about 6 minutes.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-116
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/8/04 11:50		PURGE END DATE/TIME:	4/8/04	12:55
WEATHER CONDITIONS:	Partly cloudy		WELL CONDITION:	Good	
WELL DEPTH:	11'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	6.0	gal.
SWL:	2.08	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	4"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	5.82	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
11:50	350		18.57	0.145	6.09	6.10	442	8.6
11:52	2.37 "		18.02	0.144	4.64	6.01	477	2.9
11:55	2.57 "		17.84	0.143	4.80	6.00	495	3.8
12:00	"		17.85	0.143	4.91	6.07	517	4.2
12:05	3.28 "	1.5	17.74	0.143	4.75	6.11	524	5.6
12:10	"		17.65	0.144	4.62	6.11	531	6.1
12:15	"		17.61	0.144	4.62	6.10	536	6.6
12:25	"	3.5	17.70	0.145	4.47	6.11	546	7.2
12:35	5.28 "		17.60	0.144	4.40	6.06	553	16.2
12:40	"		17.54	0.143	4.27	6.00	558	10.3
12:45	"	5.5	17.40	0.142	4.00	5.93	564	10.8
12:50	"		17.47	0.141	3.85	5.98	567	8.0
12:55	"		17.42	0.141	3.63	5.88	560	6.1

SAMPLING DATA

SAMPLE DATE/TIME:	4/8/04 12:55		PARAMETERS	
DEPTH TO WATER AFTER PURGING:	6.56 ft.	☑ VOCs	☐ Metals (U)	
APPEARANCE:	clear	☐ SVOCs	☐ Metals (F)	
SAMPLING DEVICE:		☐ OTHER	☐ PCBs	

NOTES: Purge water is clear. Well is recovering fairly well.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-117
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/8/04 11:06		PURGE END DATE/TIME:	4/8/04 11:38	
WEATHER CONDITIONS:	overcast w sunny breaks		WELL CONDITION:	Good	
WELL DEPTH:	11'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	1.50	gal.
SWL:	2.50	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	1.39	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
11:06	200		21.43	6.146	4.57	5.78	460	0.8
11:08	"		20.87	0.147	3.43	5.58	483	0.0
11:10	2.95 "		20.69	6.147	3.15	5.53	500	0.0
11:12	"		20.76	0.147	2.65	5.51	512	0.0
11:14	"		20.67	0.148	2.59	5.52	518	0.0
11:16	"	0.5	20.68	0.148	2.51	5.53	524	0.0
11:18	"		20.70	0.148	2.49	5.52	528	0.0
11:20	3.75 "		20.73	0.148	2.47	5.50	532	0.1
11:22	175		20.72	0.148	2.34	5.52	537	0.0
11:24	"		20.79	0.148	2.37	5.52	540	0.0
11:26	"	1.0	20.86	0.147	2.33	5.52	544	0.0
11:28	"		20.84	0.148	2.31	5.51	548	0.0
11:30	"		20.83	0.148	2.29	5.51	549	0.0
11:32	4.64 "		20.83	0.148	2.34	5.50	551	0.0
11:34	"		20.86	0.149	2.34	5.52	553	0.3
11:36	"		20.89	0.152	2.30	5.53	555	0.4
11:38	5.00		20.91	6.152	2.38	5.57	555	0.2

SAMPLING DATA

SAMPLE DATE/TIME:	4/8/04 11:38
DEPTH TO WATER AFTER PURGING:	5.00 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	

PARAMETERS			
☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Initial purge water is clear. Recovery at well is good.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-118
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/8/04 10:18		PURGE END DATE/TIME:	4/8/04	10:50
WEATHER CONDITIONS:	overcast & sunny breaks		WELL CONDITION:	Good	
WELL DEPTH:	11'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	1.75	gal.
SWL:	6.89	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	1.15	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
10:18	200		20.78	0.117	5.37	7.73	383	104
10:20	1.71 "		19.81	6.124	4.55	6.75	416	46.9
10:22	"		19.58	6.124	4.26	6.30	440	47.4
10:24	"		19.53	0.125	4.04	6.01	457	42.7
10:26	1.97 "	0.5	19.55	0.125	3.94	5.75	476	37.3
10:28	"		19.56	0.125	3.89	5.54	490	35.6
10:30	"		19.63	0.125	3.86	5.41	503	35.6
10:32	"		19.62	0.125	3.79	5.22	509	35.6
10:34	2.24 "	1.0	19.62	0.125	3.73	5.19	520	35.7
10:36	"		19.59	0.125	3.70	5.17	525	37.2
10:38	"		19.56	0.125	3.69	5.16	532	37.3
10:40	"		19.59	0.123	3.66	5.17	535	37.1
10:42	"		19.61	0.120	3.65	5.21	536	37.6
10:44	3.52 "	1.5	19.61	0.113	3.68	5.34	531	40.4
10:46	"		19.63	0.084	3.96	5.65	523	41.5
10:48	"		19.66	0.071	4.15	5.85	519	41.5
10:50	4.11 "		19.68	0.067	4.23	5.91	519	43.7

SAMPLING DATA

SAMPLE DATE/TIME:	4/8/04 10:50
DEPTH TO WATER AFTER PURGING:	4.11 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: SWL is high. ~~Appears~~ Purge water is clear. Plenty of recovery.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-119
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/7/04 13:44		PURGE END DATE/TIME:	4/7/04	14:04
WEATHER CONDITIONS:	Overcast, warm		WELL CONDITION:	Good	
WELL DEPTH:	11'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	0.75	gal.
SWL:	6.88	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	0.67	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
13:44	225		19.33	0.292	4.73	6.24	428	39.5
13:46	"		18.78	6.296	4.42	6.19	442	37.7
13:48	7.39 175		18.55	0.297	4.13	6.19	453	37.8
13:50	150		18.57	0.298	4.04	6.17	459	45.0
13:52	150		18.73	6.297	3.73	6.20	464	60.4
13:54	7.85 "		18.59	0.297	3.63	6.23	469	32.5
13:56	"	~~70~~ 70.5	18.65	0.297	3.53	6.21	474	28.5
13:58	"		18.87	6.297	3.53	6.22	478	28.3
14:00	"		18.94	0.296	3.53	6.21	480	30.7
14:02	"		19.05	6.296	3.53	6.21	483	28.3
14:04	8.40 "		19.07	0.295	3.47	6.21	486	27.2

SAMPLING DATA

SAMPLE DATE/TIME:	4/7/04 14:04
DEPTH TO WATER AFTER PURGING:	8.40 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Purge water is clear, collecting VOCs only

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-12D
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/7/04 13:01		PURGE END DATE/TIME:	4/7/04 13:26	
WEATHER CONDITIONS:	80% cloud cover, warm		WELL CONDITION:	Good	
WELL DEPTH:	11'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	0.75	gal.
SWL:	6.74	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	0.69	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
13:01	200		17.70	0.134	4.04	6.32	396	346
13:02	7.29 "		19.48	0.134	3.50	6.01	419	243
13:04	"		19.45	0.133	3.48	5.87	442	353
13:06	100		19.64	0.133	3.47	5.84	446	303
13:08	7.47 "		19.91	0.133	3.02	5.90	451	206
13:10	"		19.87	0.133	2.89	5.91	461	128
13:12	"		19.90	0.133	2.85	5.92	462	125
13:14	150		19.94	0.133	2.97	5.89	467	135
13:16	"	0.5	19.59	0.133	2.88	5.90	471	142
13:18	7.93 "		19.51	0.133	2.87	5.90	474	148
13:20			19.45	0.134	2.70	5.88	479	154
13:22			19.45	0.135	2.63	5.91	481	163
13:24			19.43	0.136	2.67	5.93	483	162
13:26			19.41	0.136	2.66	5.93	485	159

SAMPLING DATA

SAMPLE DATE/TIME:	4/7/04 13:26
DEPTH TO WATER AFTER PURGING:	8.56 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Purge water slightly turbid. Cleared quickly.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-12
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/7/04		PURGE END DATE/TIME:	4/7/04	
WEATHER CONDITIONS:	sunny, light overcast		WELL CONDITION:	Good	
WELL DEPTH:	11'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	0.60	gal.
SWL:	7.80	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	0.52	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
11:52	125		21.40	0.135	6.25	6.10	438	2000
11:54	"		20.93	6.186	5.96	6.09	449	2000
11:56	8.15 "		20.47	0.136	5.74	6.11	460	850
11:58	"		26.07	0.137	5.58	6.13	462	377
12:00	175		19.41	0.136	5.43	6.14	468	145
12:02	"		19.22	0.136	4.94	6.17	470	85.6
12:04	8.72 "		19.16	0.136	4.96	6.16	475	66.3
12:06		0.5	19.16	6.136	4.91	6.18	478	64.7
12:08			19.16	0.135	4.86	6.18	481	62.1
12:09	9.30		19.17	0.134	4.88	6.20	482	61.3

SAMPLING DATA

SAMPLE DATE/TIME:	4/7/04
DEPTH TO WATER AFTER PURGING:	9.30 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☑	OTHER	☐	PCBs

NOTES: Initial purge water highly turbid.
Fe 0.1 mg/L
CO_2 - 26 mg/L

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	086MW-122
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/6/04 16:56	PURGE END DATE/TIME:	4/6/04 17:16
WEATHER CONDITIONS:	Sunny, warm	WELL CONDITION:	Good
WELL DEPTH:	15'	TOTAL PURGE VOLUME:	1.25 gal.
SWL:	8.22	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	2"	PUMP SETTING:	ft.
WELL VOLUME:	1.16	PURGING DEVICE:	Peristaltic

CONVERSION FACTORS

1 in. Dia.	0.041 gal./ft.
2 in. Dia.	0.163 gal./ft.
4 in. Dia.	0.653 gal./ft.

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
16:56	8.49 250		20.05	0.324	2.90	6.48	327	1.6
16:58	225		19.91	0.319	1.91	6.36	345	1.5
17:00	..		20.06	0.315	1.53	6.36	356	1.5
17:02	8.77 175		20.12	0.311	1.42	6.38	359	1.6
17:04	..		20.15	0.313	1.40	6.40	366	2.0
17:06	..	0.75	20.22	0.309	1.33	6.40	372	2.4
17:08	..		20.21	0.301	1.24	6.38	378	2.7
17:10	..		20.18	0.296	1.17	6.35	380	2.9
17:12	..		20.14	0.277	1.06	6.28	387	3.0
17:14	9.28 ..		20.12	0.274	1.01	6.27	391	3.1
17:16	..		20.16	0.272	0.98	6.27	392	3.3

SAMPLING DATA

SAMPLE DATE/TIME:	4/6/04 17:16
DEPTH TO WATER AFTER PURGING:	9.51 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: - Purge water is clear
- okay recovery

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	OB6 MW-123
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	04/06/04 13:26	PURGE END DATE/TIME:	64/06/04 13:52
WEATHER CONDITIONS:	clear, sunny, warm	WELL CONDITION:	
WELL DEPTH:	13'	TOTAL PURGE VOLUME:	1.25 gal.
SWL:	6.45	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	2"	PUMP SETTING:	ft.
WELL VOLUME:	1.07	PURGING DEVICE:	Peristaltic

CONVERSION FACTORS

1 in. Dia.	0.041 gal./ft.
2 in. Dia.	0.163 gal./ft.
4 in. Dia.	0.653 gal./ft.

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
13:24	175		21.39	0.183	1.44	5.84	426	55.6
13:28	6.70 "		20.61	0.127	~~5.85~~ 0.98	5.85	400	53.6
13:30	"		21.04	0.126	0.91	5.91	380	50.7
13:32	"		22.08	0.125	0.17	5.87	370	52.0
13:34	"		20.68	0.125	0.97	5.92	352	55.6
13:36	"		20.20	0.123	0.84	5.91	341	60.0
13:38	"		20.22	0.123	0.73	5.91	331	63.5
13:40	6.98 "		20.14	0.123	0.67	5.92	319	64.5
13:42	"		20.12	0.123	0.62	5.92	309	65.7
13:44	"		20.14	0.124	0.57	5.93	300	65.3
13:46	"	1.0	20.09	0.123	0.55	5.94	294	66.7
13:48	"		20.11	0.124	0.52	5.94	289	67.1
13:50	7.52 "		20.07	0.122	0.52	5.94	283	66.7
13:52	"		20.18	0.122	0.51	5.94	280	64.5

SAMPLING DATA

SAMPLE DATE/TIME:	4/6/04 13:52
DEPTH TO WATER AFTER PURGING:	7.60 ft.
APPEARANCE:	Clear
SAMPLING DEVICE:	

PARAMETERS			
☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: COLLECTING DUP-1
PURGE WATER IS CLEAR WITH SMALL AMOUNT OF TURBIDITY

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: OBGMW-124
SITE NAME: Miller Moultrie
LOCATION: Moultrie, Georgia
PROJECT NO.: 34350

PURGE START DATE/TIME: 4/20/04 1011 pm
PURGE END DATE/TIME:
WEATHER CONDITIONS: CLEAR 74°F
WELL CONDITION:
WELL DEPTH: 13.67
SWL: 8.26
WELL DIAMETER: 2"
WELL VOLUME: 0.88 GALS
LWC 5.41 × 617 ml/ft = 3338 ml

CONVERSION FACTORS	
1 in. Dia.	0.041 gal./ft.
2 in. Dia.	0.163 gal./ft.
4 in. Dia.	0.653 gal./ft.

TOTAL PURGE VOLUME: gal.
DEPTH TO TOP OF SCREEN: ft.
PUMP SETTING: ft.
PURGING DEVICE: Peristaltic

2 IN = 617 ml/FT

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
TO 11 pm	8.26 / 150	0	19.9	2.24	1.79	6.35	152	14.3
	8.86 / 150	150 ml	19.9	2.24	1.55	6.39	130	14.1
	150	300 ml	19.9	2.23	1.47	6.43	126	17.1
	9.12 / 150	450 ml	19.9	2.22	1.37	6.45	117	11.2
	9.47 / 150	600 ml						
	100	ADJUSTING FLOW RATE 100 ml/min						
10 min →	9.95 / 100	1000 ml	19.9	2.32	1.14	6.51	101	10.1
	10.04 / 100	1700 ml	19.9	2.33	1.22	6.52	100	12.8
	10.21 / 100	1900 ml	19.9	2.34	1.26	6.54	96	16.4
	ADJUSTING FLOW RATE TO 50 ml/min							
14 min →	10.70 / 50	1300 ml	19.9	2.31	1.11	6.55		18.4
10:32	10.70 / 50	1350 ml	19.9	2.27	1.01	6.57	96	8.2
11.02	~~11.02~~ / 50	1400 ml	19.8	2.25	1.4	6.57	95	12.2
	50	QTW WILL NOT STABILIZE PURGING WELL DRY AT						
	50 / 1500 ml	600 ml/min						
11.11	AFTER 19 MINUTES INCREASING RATE TO 600 ml/min							
20 min	12.87 / 600	2100 ml	19.8	2.18	1.03	6.64	98	88.8
	13.22 / 600	2700 ml	19.8	2.13	1.34	6.82	125	166
	3300 ml	WLR PUL NO LONGER DETECT WATER IN THE WELL WELL IS DRY. WILL ALLOW WELL TO RECOVERY PRIOR TO SAMPLE COLLECTION.						
10:52 PUMP	OFF							

SAMPLING DATA

SAMPLE DATE/TIME:
DEPTH TO WATER AFTER PURGING: ft.
APPEARANCE:
SAMPLING DEVICE:

PARAMETERS

☐	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2PP-1
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, Georgia
PROJECT NO.:	34350

PURGE START DATE/TIME:	4/6/04 18:53	PURGE END DATE/TIME:	4/6/04 19:04
WEATHER CONDITIONS:	Sunny, clear, warm	WELL CONDITION:	Poor, Well+concrete is 6" aboveground.
WELL DEPTH:	12'	TOTAL PURGE VOLUME:	~0.35 gal.
SWL:	7.68	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	1"	PUMP SETTING:	ft.
WELL VOLUME:	0.29	PURGING DEVICE:	Peristaltic

CONVERSION FACTORS

1 in. Dia.	0.041 gal./ft.
2 in. Dia.	0.163 gal./ft.
4 in. Dia.	0.653 gal./ft.

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
18:53	175	~~22.04~~	22.04	0.135	5.52	6.12	379	308
18:55	"		20.47	0.132	4.87	5.72	406	271
18:57	9.92 100		20.61	0.136	4.20	5.66	428	266
18:58	100		20.71	0.136	4.22	5.65	431	316
18:59	"		21.07	0.132	4.16	5.63	439	347
19:00	11.17 "		21.00	0.131	4.18	5.63	440	357
19:01	"		20.51	0.128	4.20	5.57	447	369
19:02	"		20.36	0.125	4.18	5.46	453	392
19:03	"		20.02	0.118	4.13	5.26	463	470
19:04	12.34 "		20.05	0.117	4.11	5.22	466	470

SAMPLING DATA

SAMPLE DATE/TIME:	4/7/04 8:40
DEPTH TO WATER AFTER PURGING:	12.34 ft.
APPEARANCE:	~~Clear~~ Turbid during sampling
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Drawing down quickly. Well went dry when attempting to collect sample. Letting it recovery 4/7/04 SWL: 11.72 -Sampled @ 8:40

PURGING/SAMPLING PERSONNEL: Andrew Brunton

Appendix E

Laboratory Analytical Data for Soil

August – September 2000



COMPUCHEM
a division of Liberty Analytical Corp.

August 31, 2000

Chris Rook
O'BRIEN & GERE
1015 Aviation PKWY
STE 700
Morrisville, NC 27560

Subject:
Report of Data – Project: MILLER- MOULTRIE Quote #: Q1536, SDG #: R1536

Attn.: Chris Rook

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097.

Sincerely,

CompuChem Environmental
A Division of Liberty Analytical

Attachment

501 Madison Avenue ■ Cary, N.C. 27513 ■ Tel: 919-379-4100 ■ Fax: 919-379-4050

SAMPLENUM	CLIENTID	CASE	SDG	MATRIX	ACCTNUM	PROJECTNUM	RECEIVEDATE
R1536-1	OBGSB6 2-4	Q1536	R1536	SO	O'BRIEN & GERE	MILLER- MOULTRIE	8/18/00
R1536-2	OBGSB6 5-7	Q1536	R1536	SO	O'BRIEN & GERE	MILLER- MOULTRIE	8/18/00
R1536-3	OBGSB7 6-8	Q1536	R1536	SO	O'BRIEN & GERE	MILLER- MOULTRIE	8/18/00
R1536-4	OBGSB7 DUP	Q1536	R1536	SO	O'BRIEN & GERE	MILLER- MOULTRIE	8/18/00

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE

SDG # R1536
PROTOCOL: SW-846

SAMPLE IDENTIFICATIONS: OBGSB6 2-4, OBGSB6 5-7, OBGSB7 6-8, OBGSB7 DUP

The four soil samples listed above were received intact, properly refrigerated at a temperatures of 4°C, with proper documentation, in a sealed shipping container, on August 18, 2000. The samples were scheduled for the requested analyses of the volatile fractions only. SW-846, 3rd Edition, Update 3, Method 8260B was used to prepare and analyze these samples, with the exceptions and/or additions requested by the client. The percent moisture values of these soil samples ranged from 8 to 19. A percent moisture value was not directly determined for OBGSB6 DUP, but the sample was identified as being the same as OBGSB7 6-8, and the value for that sample was therefore used.

Volatiles

Analysis holding time requirements were met for all of these samples.

The common laboratory solvent methylene chloride was identified above the reporting limit in all these samples. This solvent was also found in the associated method blank, but at a concentration below that which the client desired reporting of. No Tentatively Identified Compounds (TICs) were searched in these samples, per the client.

All bromofluorobenzene (BFB) abundance criteria were met for tunes associated to this SDG. Overall QC criteria were met for all initial and continuing calibration standards associated to this SDG.

All of the system monitoring compounds met recovery criteria in the analyses of these samples. All of the internal standards met response and retention time criteria in the analyses of these samples.

The associated method blank met all quality control criteria. The method blank did not contain any target analytes above the reporting limits.

OBGSB6 2-4 was used as the original to prepare the duplicate matrix spikes. The associated duplicate matrix spikes met all advisory accuracy and precision criteria.

The associated Laboratory Control Sample (LCS) met all accuracy criteria.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Michael Steven Schapira 8/31/00

Michael Steven Schapira
Data Reviewer II
August 31, 2000

EnCore™ Preparation Worksheet

SDG _____ Prepared By: VRespuss Date: 8/23/00

	LoginNum	Date	Time	Weight of Jar (g)	Weight of Jar + Sample (g)	Weight of Sample (g)
1	R1536-2	8/23/00	1910	24.37	30.58	6.21
2	4	↓	↓	26.25	30.43	4.18
3	3	↓	↓	26.07	31.13	5.06
4	1	↓	↓	26.26	32.24	5.98
5	R1536-2(MS)	8/23/00	2025	22.77	28.99	6.22
6	R1536-2(MSD)	↓	↓	23.91	29.92	6.01
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						

MAP 8/23/00

Volume of Methanol Added: N/A

Lot Numbers of Preservatives: Sodium Bisulfate: N/A Methanol: N/A

Reviewed By: Mitchell Pruss

GC and GC/MS Column and Trap Specifications Table

COLUMNS

Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
GC Laboratory				
Restek	RTX-1701	0.53	0.5	30
J & W	DB-608	0.53	0.83	30
Restek	CLPesticides	0.53	0.5	30
Restek	CLPesticides II	0.53	0.42	30
GC Volatiles Laboratory				
Restek	RTX-1	0.53	0.5	105
Restek	RTX-502.2	0.53	0.5	105
GC/MS Volatiles Laboratory				
J & W	DB-624	0.53	3.0	30/75
Supelco	Equity™-624	0.53	3.0	75
GC/MS Semivolatiles Laboratory				
J & W	DB-5.625	0.32	1.0	30
J & W	DB5-MS	0.25	0.25	30
Hewlett Packard	HP5-MS	0.25	0.25	30
Optima	5-MS	0.25	0.25	30
Restek	RTX-5MS	0.25	0.25	30

TRAPS

GC and GC/MS Volatiles Laboratory	
Tekmar 3	* 8 cm of 2,6-diphenylene oxide polymer (Tenax) * 8 cm of silica gel * 7 cm of coconut charcoal * 0.5 cm of silanized glass wool at each end
Tekmar 5	* 1 cm of methyl silicone packing (OV-1 coating) * 8 cm of 2,6-diphenylene oxide polymer (Tenax) * 8 cm of silica gel * 7 cm of coconut charcoal * 0.5 cm of silanized glass wool at each end
Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons) * 6 cm of Carboxen 1000 (Carbon molecular sieves) * 1 cm of Carboxen 1001 (Carbon molecular sieves)

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U: This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J: This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria, and the result is less than the CRQL but greater than zero. For example, if the sample quantitation limit is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N: This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.

P: This flag is used for a pesticide/Aroclor target analyte, and other GC or HPLC analytes, when there is greater than 25% difference for detected concentrations between the two GC or HPLC columns. The lower of the two values is reported on Form I and flagged with a P.

C: This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL and the U flag.

NOTE 2: Separate Form Is are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form I.

A : This flag indicates that a TIC is a suspected aldol-condensation product.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

CompuChem
a division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513
1-800-833-5097

CHAIN-OF-CUSTODY RECORD

No. 051273

Project Name: [illegible] 2 GW2 MILLER - MOULTRIE, GA	Client Address: [illegible] & ROE 1005 ALTA FALLS CROSSING SUITE 700 MORRISVILLE NC 27560	Point-of-Contact: [illegible] CROCK
Carrier: HAND		Telephone No.: 919 467 0099
Airbill No.:		Sampling complete? Y or N (see Note 1)
Sampler Name: CHRISTOPHER ROCK	Sampler Signature: [signature]	Project-specific (PS) or Batch (B) QC ?

BOX #1: 1. Surface Water; 2. Ground Water; 3. Leachate; 4. Rinsate; (5. Soil / Sediment / Sludge); 6. Trip Blank; 7. Oil; 8. Waste; 9. Other_____

BOX #2: A. HCl + Ice; B. HNO3 + Ice; C. NaOH + Ice; D. H2SO4 + Ice; E. Unpreserved; F. Ice Only; G. Other_____; H. NaHSO4 + Ice; I. ZnAc+NaOH + Ice

BOX #3: F. Filtered; U. Unfiltered

Box #4: H. High; M. Medium; L. Low

Box #5: C. CLP 3/90; S. SW-846; W. CWA 600-series; O. Other_____; T. TCLP

Sample ID (9 characters maximum)	Date: Year: 2000	Time	Box #1 Matrix	Box #2 Preservative	Box #3 Filtered / Unfiltered	Box #4 Expected Conc.	Box #5 Method	No. of Bottles	Use for Lab QC (MS or DUP)	VOA 8260B	SVOC	Pesticide	PCB	Herbicide	Metals / Mercury	Cyanide	TOC / TOX	O&G / TPH	DRY CHEMISTRY				Remarks / Comments (see Notes 2 & 3)
[illegible]	8/17	:	1	A		L	S	4		(X)									X				
[illegible]	8/17	11:50	1	A		L	S	4		(X)									X				
[illegible]	8/17	11:20	1	A		L	S	4		(X)									X				
[illegible]	8/17	11:45	1	A		L	S	4		X									X				
[illegible]	8/17	13:30	1	A		L	S	4		X									X				
[illegible]	8/17	17:15	1	A		L	S	4		X									X				
[illegible]	8/17	12:10	1	A		L	S	4		X									X				
[illegible]	8/17	17:15	1	A		L	S	10		X									X				USE QA/QC 6 & SAMPLES
[illegible]	1	:	6	A				2		X													HOLD (X)
[illegible]	1	:	4	A				2		X													HOLD (X)

Clients Special Instructions: Temperature _____ °C

Lab: Received in Good Condition? Y or N Describe Problems, If any:

#1 Relinquished By: (Sig) [signature] Date:	#2 Relinquished By: (Sig) Date:	#3 Relinquished By: (Sig) Date:
Company Name: [illegible] & ROE Time:	Company Name: Time:	Company Name: Time:
#1 Received By: (Sig) [signature] Date: 8/18/00	#2 Received By: (Sig) Date:	#3 Received By: (Sig) Date:
Company Name: CompuChem Time: 315	Company Name: Time:	Company Name: Time:

Note (1): If "N" lab will hold samples to await remainder of project-maximizing batch size and minimizing QC ratio; if "Y" lab will begin processing batches now.
Note (2): Samples stored 60 days after date report mailed at no extra charge. Note (3): All lab copies of data destroyed after three years.

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB6 2-4

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix: (soil/water) SOIL Lab Sample ID: R1536-1

Sample wt/vol: 6.0 (g/mL) G Lab File ID: R1536-1B52

Level: (low/med) LOW Date Received: 08/18/00

% Moisture: not dec. 10 Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9	U
74-87-3	Chloromethane	9	U
75-01-4	Vinyl Chloride	9	U
74-83-9	Bromomethane	9	U
75-00-3	Chloroethane	9	U
75-69-4	Trichlorofluoromethane	9	U
75-35-4	1,1-Dichloroethene	9	U
75-15-0	Carbon disulfide	9	U
67-64-1	Acetone	9	U
75-09-2	Methylene Chloride	14	
1634-04-4	Methyl-tert-butyl ether	9	U
75-34-3	1,1-Dichloroethane	9	U
108-20-3	Isopropyl ether	9	U
594-20-7	2,2-Dichloropropane	9	U
78-93-3	2-butanone	9	U
74-97-5	Bromochloromethane	9	U
67-66-3	Chloroform	9	U
71-55-6	1,1,1-Trichloroethane	9	U
56-23-5	Carbon Tetrachloride	9	U
563-58-6	1,1-dichloropropene	9	U
71-43-2	Benzene	9	U
107-06-2	1,2-Dichloroethane	9	U
79-01-6	Trichloroethene	9	U
78-87-5	1,2-Dichloropropane	9	U
74-95-3	Dibromomethane	9	U
75-27-4	Bromodichloromethane	9	U
10061-01-5	cis-1,3-Dichloropropene	9	U
108-10-1	4-Methyl-2-pentanone	9	U
108-88-3	Toluene	9	U
10061-02-6	trans-1,3-Dichloropropene	9	U
79-00-5	1,1,2-Trichloroethane	9	U
127-18-4	Tetrachloroethene	9	U
142-28-9	1,3-Dichloropropane	9	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB6 2-4

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix: (soil/water) SOIL Lab Sample ID: R1536-1

Sample wt/vol: 6.0 (g/mL) G Lab File ID: R1536-1B52

Level: (low/med) LOW Date Received: 08/18/00

% Moisture: not dec. 10 Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
591-78-6	2-hexanone	9	U
124-48-1	Dibromochloromethane	9	U
106-93-4	1,2-Dibromoethane	9	U
108-90-7	Chlorobenzene	9	U
630-20-6	1,1,1,2-Tetrachloroethane	9	U
100-41-4	Ethylbenzene	9	U
100-42-5	Styrene	9	U
75-25-2	Bromoform	9	U
98-82-8	Isopropyl Benzene	9	U
108-86-1	Bromobenzene	9	U
96-18-4	1,2,3-Trichloropropane	9	U
79-34-5	1,1,2,2-Tetrachloroethane	9	U
103-65-1	n-Propyl Benzene	9	U
95-49-8	2-Chlorotoluene	9	U
106-43-4	4-Chlorotoluene	9	U
108-67-8	1,3,5-Trimethyl Benzene	9	U
98-06-6	tert-Butyl Benzene	9	U
95-63-6	1,2,4-Trimethyl Benzene	9	U
135-98-8	sec-Butyl Benzene	9	U
541-73-1	1,3-Dichlorobenzene	9	U
106-46-7	1,4-Dichlorobenzene	9	U
99-87-6	p-Isopropyl Toluene	9	U
95-50-1	1,2-Dichlorobenzene	9	U
104-51-8	n-Butyl Benzene	9	U
96-12-8	1,2-Dibromo-3-Chloropropane	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
87-68-3	Hexachlorobutadiene	9	U
91-20-3	Naphthalene	9	U
87-61-6	1,2,3-Trichlorobenzene	9	U
540-59-0	1,2-Dichloroethene (total)	9	U
1330-20-7	Xylene (total)	9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB6 5-7

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix: (soil/water) SOIL Lab Sample ID: R1536-2

Sample wt/vol: 6.2 (g/mL) G Lab File ID: R1536-2B52

Level: (low/med) LOW Date Received: 08/18/00

% Moisture: not dec. 8 Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9	U
74-87-3	Chloromethane	9	U
75-01-4	Vinyl Chloride	9	U
74-83-9	Bromomethane	9	U
75-00-3	Chloroethane	9	U
75-69-4	Trichlorofluoromethane	9	U
75-35-4	1,1-Dichloroethene	9	U
75-15-0	Carbon disulfide	9	U
67-64-1	Acetone	9	U
75-09-2	Methylene Chloride	11	
1634-04-4	Methyl-tert-butyl ether	9	U
75-34-3	1,1-Dichloroethane	9	U
108-20-3	Isopropyl ether	9	U
594-20-7	2,2-Dichloropropane	9	U
78-93-3	2-butanone	9	U
74-97-5	Bromochloromethane	9	U
67-66-3	Chloroform	9	U
71-55-6	1,1,1-Trichloroethane	9	U
56-23-5	Carbon Tetrachloride	9	U
563-58-6	1,1-dichloropropene	9	U
71-43-2	Benzene	9	U
107-06-2	1,2-Dichloroethane	9	U
79-01-6	Trichloroethene	9	U
78-87-5	1,2-Dichloropropane	9	U
74-95-3	Dibromomethane	9	U
75-27-4	Bromodichloromethane	9	U
10061-01-5	cis-1,3-Dichloropropene	9	U
108-10-1	4-Methyl-2-pentanone	9	U
108-88-3	Toluene	9	U
10061-02-6	trans-1,3-Dichloropropene	9	U
79-00-5	1,1,2-Trichloroethane	9	U
127-18-4	Tetrachloroethene	9	U
142-28-9	1,3-Dichloropropane	9	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB6 5-7

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix: (soil/water) SOIL Lab Sample ID: R1536-2

Sample wt/vol: 6.2 (g/mL) G Lab File ID: R1536-2B52

Level: (low/med) LOW Date Received: 08/18/00

% Moisture: not dec. 8 Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
591-78-6	2-hexanone	9	U
124-48-1	Dibromochloromethane	9	U
106-93-4	1,2-Dibromoethane	9	U
108-90-7	Chlorobenzene	9	U
630-20-6	1,1,1,2-Tetrachloroethane	9	U
100-41-4	Ethylbenzene	9	U
100-42-5	Styrene	9	U
75-25-2	Bromoform	9	U
98-82-8	Isopropyl Benzene	9	U
108-86-1	Bromobenzene	9	U
96-18-4	1,2,3-Trichloropropane	9	U
79-34-5	1,1,2,2-Tetrachloroethane	9	U
103-65-1	n-Propyl Benzene	9	U
95-49-8	2-Chlorotoluene	9	U
106-43-4	4-Chlorotoluene	9	U
108-67-8	1,3,5-Trimethyl Benzene	9	U
98-06-6	tert-Butyl Benzene	9	U
95-63-6	1,2,4-Trimethyl Benzene	9	U
135-98-8	sec-Butyl Benzene	9	U
541-73-1	1,3-Dichlorobenzene	9	U
106-46-7	1,4-Dichlorobenzene	9	U
99-87-6	p-Isopropyl Toluene	9	U
95-50-1	1,2-Dichlorobenzene	9	U
104-51-8	n-Butyl Benzene	9	U
96-12-8	1,2-Dibromo-3-Chloropropane	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
87-68-3	Hexachlorobutadiene	9	U
91-20-3	Naphthalene	9	U
87-61-6	1,2,3-Trichlorobenzene	9	U
540-59-0	1,2-Dichloroethene (total)	9	U
1330-20-7	Xylene (total)	9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB7 6-8

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix: (soil/water) SOIL Lab Sample ID: R1536-3

Sample wt/vol: 5.1 (g/mL) G Lab File ID: R1536-3B52

Level: (low/med) LOW Date Received: 08/18/00

% Moisture: not dec. 19 Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	12	U
74-87-3	Chloromethane	12	U
75-01-4	Vinyl Chloride	12	U
74-83-9	Bromomethane	12	U
75-00-3	Chloroethane	12	U
75-69-4	Trichlorofluoromethane	12	U
75-35-4	1,1-Dichloroethene	12	U
75-15-0	Carbon disulfide	12	U
67-64-1	Acetone	12	U
75-09-2	Methylene Chloride	19	
1634-04-4	Methyl-tert-butyl ether	12	U
75-34-3	1,1-Dichloroethane	12	U
108-20-3	Isopropyl ether	12	U
594-20-7	2,2-Dichloropropane	12	U
78-93-3	2-butanone	12	U
74-97-5	Bromochloromethane	12	U
67-66-3	Chloroform	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
563-58-6	1,1-dichloropropene	12	U
71-43-2	Benzene	12	U
107-06-2	1,2-Dichloroethane	12	U
79-01-6	Trichloroethene	12	U
78-87-5	1,2-Dichloropropane	12	U
74-95-3	Dibromomethane	12	U
75-27-4	Bromodichloromethane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
108-10-1	4-Methyl-2-pentanone	12	U
108-88-3	Toluene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
79-00-5	1,1,2-Trichloroethane	12	U
127-18-4	Tetrachloroethene	12	U
142-28-9	1,3-Dichloropropane	12	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB7 6-8

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix: (soil/water) SOIL Lab Sample ID: R1536-3

Sample wt/vol: 5.1 (g/mL) G Lab File ID: R1536-3B52

Level: (low/med) LOW Date Received: 08/18/00

% Moisture: not dec. 19 Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
591-78-6	2-hexanone	12	U
124-48-1	Dibromochloromethane	12	U
106-93-4	1,2-Dibromoethane	12	U
108-90-7	Chlorobenzene	12	U
630-20-6	1,1,1,2-Tetrachloroethane	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
75-25-2	Bromoform	12	U
98-82-8	Isopropyl Benzene	12	U
108-86-1	Bromobenzene	12	U
96-18-4	1,2,3-Trichloropropane	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
103-65-1	n-Propyl Benzene	12	U
95-49-8	2-Chlorotoluene	12	U
106-43-4	4-Chlorotoluene	12	U
108-67-8	1,3,5-Trimethyl Benzene	12	U
98-06-6	tert-Butyl Benzene	12	U
95-63-6	1,2,4-Trimethyl Benzene	12	U
135-98-8	sec-Butyl Benzene	12	U
541-73-1	1,3-Dichlorobenzene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
99-87-6	p-Isopropyl Toluene	12	U
95-50-1	1,2-Dichlorobenzene	12	U
104-51-8	n-Butyl Benzene	12	U
96-12-8	1,2-Dibromo-3-Chloropropane	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
87-68-3	Hexachlorobutadiene	12	U
91-20-3	Naphthalene	12	U
87-61-6	1,2,3-Trichlorobenzene	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
1330-20-7	Xylene (total)	12	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB7 DUP

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix: (soil/water) SOIL Lab Sample ID: R1536-4

Sample wt/vol: 4.2 (g/mL) G Lab File ID: R1536-4B52

Level: (low/med) LOW Date Received: 08/18/00

% Moisture: not dec. 19 Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	15	U
74-87-3	Chloromethane	15	U
75-01-4	Vinyl Chloride	15	U
74-83-9	Bromomethane	15	U
75-00-3	Chloroethane	15	U
75-69-4	Trichlorofluoromethane	15	U
75-35-4	1,1-Dichloroethene	15	U
75-15-0	Carbon disulfide	15	U
67-64-1	Acetone	15	U
75-09-2	Methylene Chloride	21	
1634-04-4	Methyl-tert-butyl ether	15	U
75-34-3	1,1-Dichloroethane	15	U
108-20-3	Isopropyl ether	15	U
594-20-7	2,2-Dichloropropane	15	U
78-93-3	2-butanone	15	U
74-97-5	Bromochloromethane	15	U
67-66-3	Chloroform	15	U
71-55-6	1,1,1-Trichloroethane	15	U
56-23-5	Carbon Tetrachloride	15	U
563-58-6	1,1-dichloropropene	15	U
71-43-2	Benzene	15	U
107-06-2	1,2-Dichloroethane	15	U
79-01-6	Trichloroethene	15	U
78-87-5	1,2-Dichloropropane	15	U
74-95-3	Dibromomethane	15	U
75-27-4	Bromodichloromethane	15	U
10061-01-5	cis-1,3-Dichloropropene	15	U
108-10-1	4-Methyl-2-pentanone	15	U
108-88-3	Toluene	15	U
10061-02-6	trans-1,3-Dichloropropene	15	U
79-00-5	1,1,2-Trichloroethane	15	U
127-18-4	Tetrachloroethene	15	U
142-28-9	1,3-Dichloropropane	15	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB7 DUP

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix: (soil/water) SOIL Lab Sample ID: R1536-4

Sample wt/vol: 4.2 (g/mL) G Lab File ID: R1536-4B52

Level: (low/med) LOW Date Received: 08/18/00

% Moisture: not dec. 19 Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
591-78-6	2-hexanone	15	U
124-48-1	Dibromochloromethane	15	U
106-93-4	1,2-Dibromoethane	15	U
108-90-7	Chlorobenzene	15	U
630-20-6	1,1,1,2-Tetrachloroethane	15	U
100-41-4	Ethylbenzene	15	U
100-42-5	Styrene	15	U
75-25-2	Bromoform	15	U
98-82-8	Isopropyl Benzene	15	U
108-86-1	Bromobenzene	15	U
96-18-4	1,2,3-Trichloropropane	15	U
79-34-5	1,1,2,2-Tetrachloroethane	15	U
103-65-1	n-Propyl Benzene	15	U
95-49-8	2-Chlorotoluene	15	U
106-43-4	4-Chlorotoluene	15	U
108-67-8	1,3,5-Trimethyl Benzene	15	U
98-06-6	tert-Butyl Benzene	15	U
95-63-6	1,2,4-Trimethyl Benzene	15	U
135-98-8	sec-Butyl Benzene	15	U
541-73-1	1,3-Dichlorobenzene	15	U
106-46-7	1,4-Dichlorobenzene	15	U
99-87-6	p-Isopropyl Toluene	15	U
95-50-1	1,2-Dichlorobenzene	15	U
104-51-8	n-Butyl Benzene	15	U
96-12-8	1,2-Dibromo-3-Chloropropane	15	U
120-82-1	1,2,4-Trichlorobenzene	15	U
87-68-3	Hexachlorobutadiene	15	U
91-20-3	Naphthalene	15	U
87-61-6	1,2,3-Trichlorobenzene	15	U
540-59-0	1,2-Dichloroethene (total)	15	U
1330-20-7	Xylene (total)	15	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB6 2-4MS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5040-6

Sample wt/vol: 6.2 (g/mL) G Lab File ID: WG5040-6B52

Level: (low/med) LOW Date Received: 08/18/00

% Moisture: not dec. 10 Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9	U
74-87-3	Chloromethane	9	U
75-01-4	Vinyl Chloride	9	U
74-83-9	Bromomethane	9	U
75-00-3	Chloroethane	9	U
75-69-4	Trichlorofluoromethane	9	U
75-35-4	1,1-Dichloroethene	37	
75-15-0	Carbon disulfide	9	U
67-64-1	Acetone	15	
75-09-2	Methylene Chloride	18	
1634-04-4	Methyl-tert-butyl ether	9	U
75-34-3	1,1-Dichloroethane	9	U
108-20-3	Isopropyl ether	9	U
594-20-7	2,2-Dichloropropane	9	U
78-93-3	2-butanone	9	U
74-97-5	Bromochloromethane	9	U
67-66-3	Chloroform	9	U
71-55-6	1,1,1-Trichloroethane	9	U
56-23-5	Carbon Tetrachloride	9	U
563-58-6	1,1-dichloropropene	9	U
71-43-2	Benzene	41	
107-06-2	1,2-Dichloroethane	9	U
79-01-6	Trichloroethene	40	
78-87-5	1,2-Dichloropropane	9	U
74-95-3	Dibromomethane	9	U
75-27-4	Bromodichloromethane	9	U
10061-01-5	cis-1,3-Dichloropropene	9	U
108-10-1	4-Methyl-2-pentanone	9	U
108-88-3	Toluene	37	
10061-02-6	trans-1,3-Dichloropropene	9	U
79-00-5	1,1,2-Trichloroethane	9	U
127-18-4	Tetrachloroethene	9	U
142-28-9	1,3-Dichloropropane	9	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB6 2-4MS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5040-6

Sample wt/vol: 6.2 (g/mL) G Lab File ID: WG5040-6B52

Level: (low/med) LOW Date Received: 08/18/00

% Moisture: not dec. 10 Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
591-78-6	2-hexanone	9	U
124-48-1	Dibromochloromethane	9	U
106-93-4	1,2-Dibromoethane	9	U
108-90-7	Chlorobenzene	38	
630-20-6	1,1,1,2-Tetrachloroethane	9	U
100-41-4	Ethylbenzene	9	U
100-42-5	Styrene	9	U
75-25-2	Bromoform	9	U
98-82-8	Isopropyl Benzene	9	U
108-86-1	Bromobenzene	9	U
96-18-4	1,2,3-Trichloropropane	9	U
79-34-5	1,1,2,2-Tetrachloroethane	9	U
103-65-1	n-Propyl Benzene	9	U
95-49-8	2-Chlorotoluene	9	U
106-43-4	4-Chlorotoluene	9	U
108-67-8	1,3,5-Trimethyl Benzene	9	U
98-06-6	tert-Butyl Benzene	9	U
95-63-6	1,2,4-Trimethyl Benzene	9	U
135-98-8	sec-Butyl Benzene	9	U
541-73-1	1,3-Dichlorobenzene	9	U
106-46-7	1,4-Dichlorobenzene	9	U
99-87-6	p-Isopropyl Toluene	9	U
95-50-1	1,2-Dichlorobenzene	9	U
104-51-8	n-Butyl Benzene	9	U
96-12-8	1,2-Dibromo-3-Chloropropane	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
87-68-3	Hexachlorobutadiene	9	U
91-20-3	Naphthalene	9	U
87-61-6	1,2,3-Trichlorobenzene	9	U
540-59-0	1,2-Dichloroethene (total)	9	U
1330-20-7	Xylene (total)	9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB6 2-4MSD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5040-7

Sample wt/vol: 6.0 (g/mL) G Lab File ID: WG5040-7B52

Level: (low/med) LOW Date Received: 08/18/00

% Moisture: not dec. 10 Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9	U
74-87-3	Chloromethane	9	U
75-01-4	Vinyl Chloride	9	U
74-83-9	Bromomethane	9	U
75-00-3	Chloroethane	9	U
75-69-4	Trichlorofluoromethane	9	U
75-35-4	1,1-Dichloroethene	39	
75-15-0	Carbon disulfide	9	U
67-64-1	Acetone	9	U
75-09-2	Methylene Chloride	13	
1634-04-4	Methyl-tert-butyl ether	9	U
75-34-3	1,1-Dichloroethane	9	U
108-20-3	Isopropyl ether	9	U
594-20-7	2,2-Dichloropropane	9	U
78-93-3	2-butanone	9	U
74-97-5	Bromochloromethane	9	U
67-66-3	Chloroform	9	U
71-55-6	1,1,1-Trichloroethane	9	U
56-23-5	Carbon Tetrachloride	9	U
563-58-6	1,1-dichloropropene	9	U
71-43-2	Benzene	43	
107-06-2	1,2-Dichloroethane	9	U
79-01-6	Trichloroethene	42	
78-87-5	1,2-Dichloropropane	9	U
74-95-3	Dibromomethane	9	U
75-27-4	Bromodichloromethane	9	U
10061-01-5	cis-1,3-Dichloropropene	9	U
108-10-1	4-Methyl-2-pentanone	9	U
108-88-3	Toluene	39	
10061-02-6	trans-1,3-Dichloropropene	9	U
79-00-5	1,1,2-Trichloroethane	9	U
127-18-4	Tetrachloroethene	9	U
142-28-9	1,3-Dichloropropane	9	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB6 2-4MSD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5040-7

Sample wt/vol: 6.0 (g/mL) G Lab File ID: WG5040-7B52

Level: (low/med) LOW Date Received: 08/18/00

% Moisture: not dec. 10 Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(ul

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
591-78-6	2-hexanone	9	U
124-48-1	Dibromochloromethane	9	U
106-93-4	1,2-Dibromoethane	9	U
108-90-7	Chlorobenzene	41	
630-20-6	1,1,1,2-Tetrachloroethane	9	U
100-41-4	Ethylbenzene	9	U
100-42-5	Styrene	9	U
75-25-2	Bromoform	9	U
98-82-8	Isopropyl Benzene	9	U
108-86-1	Bromobenzene	9	U
96-18-4	1,2,3-Trichloropropane	9	U
79-34-5	1,1,2,2-Tetrachloroethane	9	U
103-65-1	n-Propyl Benzene	9	U
95-49-8	2-Chlorotoluene	9	U
106-43-4	4-Chlorotoluene	9	U
108-67-8	1,3,5-Trimethyl Benzene	9	U
98-06-6	tert-Butyl Benzene	9	U
95-63-6	1,2,4-Trimethyl Benzene	9	U
135-98-8	sec-Butyl Benzene	9	U
541-73-1	1,3-Dichlorobenzene	9	U
106-46-7	1,4-Dichlorobenzene	9	U
99-87-6	p-Isopropyl Toluene	9	U
95-50-1	1,2-Dichlorobenzene	9	U
104-51-8	n-Butyl Benzene	9	U
96-12-8	1,2-Dibromo-3-Chloropropane	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
87-68-3	Hexachlorobutadiene	9	U
91-20-3	Naphthalene	9	U
87-61-6	1,2,3-Trichlorobenzene	9	U
540-59-0	1,2-Dichloroethene (total)	9	U
1330-20-7	Xylene (total)	9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VSALCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5040-4

Sample wt/vol: 5.0 (g/mL) G Lab File ID: WG5040-4RB52_NOJ

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	43	
75-15-0	Carbon disulfide	10	U
67-64-1	Acetone	10	U
75-09-2	Methylene Chloride	10	U
1634-04-4	Methyl-tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
108-20-3	Isopropyl ether	10	U
594-20-7	2,2-Dichloropropane	10	U
78-93-3	2-butanone	10	U
74-97-5	Bromochloromethane	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-dichloropropene	10	U
71-43-2	Benzene	47	
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	47	
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	43	
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VSALCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5040-4

Sample wt/vol: 5.0 (g/mL) G Lab File ID: WG5040-4RB52_NOJ

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
591-78-6	2-hexanone	10	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	45	
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropyl Benzene	10	U
108-86-1	Bromobenzene	10	U
96-18-4	1,2,3-Trichloropropane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
103-65-1	n-Propyl Benzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethyl Benzene	10	U
98-06-6	tert-Butyl Benzene	10	U
95-63-6	1,2,4-Trimethyl Benzene	10	U
135-98-8	sec-Butyl Benzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
99-87-6	p-Isopropyl Toluene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butyl Benzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
1330-20-7	Xylene (total)	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKSA

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5040-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: WG5040-1B52_NOJ

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon disulfide	10	U
67-64-1	Acetone	10	U
75-09-2	Methylene Chloride	10	U
1634-04-4	Methyl-tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
108-20-3	Isopropyl ether	10	U
594-20-7	2,2-Dichloropropane	10	U
78-93-3	2-butanone	10	U
74-97-5	Bromochloromethane	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-dichloropropene	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKSA

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5040-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: WG5040-1B52_NOJ

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(ul

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
591-78-6	2-hexanone	10	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropyl Benzene	10	U
108-86-1	Bromobenzene	10	U
96-18-4	1,2,3-Trichloropropane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
103-65-1	n-Propyl Benzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethyl Benzene	10	U
98-06-6	tert-Butyl Benzene	10	U
95-63-6	1,2,4-Trimethyl Benzene	10	U
135-98-8	sec-Butyl Benzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
99-87-6	p-Isopropyl Toluene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butyl Benzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
1330-20-7	Xylene (total)	10	U

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Level: (low/med) LOW

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	VBLKSA	95	95	94	102	0
02	VSALCS	103	96	95	103	0
03	OBGSB6 2-4	100	100	88	98	0
04	OBGSB6 5-7	99	95	91	94	0
05	OBGSB6 2-4MS	100	97	87	92	0
06	OBGSB6 2-4MSD	101	100	89	94	0
07	OBGSB7 6-8	100	95	90	101	0
08	OBGSB7 DUP	101	91	94	101	0
09						
10						
11						
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27						
28						

		QC LIMITS
SMC1	= Dibromofluoromethane	(71-141)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(70-139)
SMC3 (TOL)	= Toluene-d8	(72-123)
OTHER (BFB)	= Bromofluorobenzene	(65-131)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 3
SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Matrix Spike - Sample No.: OBGSB6 2-4 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	44.66	0.00	36.61	82	76-129
Benzene	44.66	0.00	40.59	91	67-124
Trichloroethene	44.66	0.00	40.11	90	72-136
Toluene	44.66	0.00	37.38	84	64-117
Chlorobenzene	44.66	0.00	37.96	85	72-116

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	46.22	38.59	83	5	22	76-129
Benzene	46.22	42.65	92	5	21	67-124
Trichloroethene	46.22	41.51	90	3	24	72-136
Toluene	46.22	38.52	83	3	21	64-117
Chlorobenzene	46.22	40.77	88	7	21	72-116

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

3B
SOIL VOLATILE LAB CONTROL SAMPLE

VSALCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50.00	43.17	86	76-129
Benzene	50.00	46.81	94	67-124
Trichloroethene	50.00	46.81	94	72-136
Toluene	50.00	42.54	85	64-117
Chlorobenzene	50.00	44.97	90	72-116

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

FORM III VOA-2

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

VBLKSA

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: R1536

Lab File ID: WG5040-1B52_NOJ Lab Sample ID: WG5040-1

Date Analyzed: 08/23/00 Time Analyzed: 1747

GC Column: EQUITY624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: F50052

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VSALCS	WG5040-4	WG5040-4RB52	1943
02	OBGSB6 2-4	R1536-1	R1536-1B52	2044
03	OBGSB6 5-7	R1536-2	R1536-2B52	2115
04	OBGSB6 2-4MS	WG5040-6	WG5040-6B52	2146
05	OBGSB6 2-4MSD	WG5040-7	WG5040-7B52	2216
06	OBGSB7 6-8	R1536-3	R1536-3B52	2247
07	OBGSB7 DUP	R1536-4	R1536-4B52	2318
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
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19				
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30				

COMMENTS:

COMPUCHEM
a division of Liberty Analytical Corp.

August 31, 2000

Chris Rook
O'BRIEN & GERE
1015 Aviation PKWY
STE 700
Morrisville, NC 27560

Subject:
Report of Data – Project: MILLER- MOULTRIE Quote #: Q1536, SDG #: S1536

Attn.: Chris Rook

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097.

Sincerely,

CompuChem Environmental
A Division of Liberty Analytical

Attachment

SAMPLENUM	CLIENTID	CASE	SDG	MATRIX	ACCTNUM	PROJECTNUM	RECEIVEDATE
S1536-1	OBGSB2 3-5	Q1536	S1536	SO	O'BRIEN & GERE	MILLER- MOULTRIE	8/18/00
S1536-2	OBGSB3 1-3	Q1536	S1536	SO	O'BRIEN & GERE	MILLER- MOULTRIE	8/18/00
S1536-4	OBGSB3 5-7	Q1536	S1536	SO	O'BRIEN & GERE	MILLER- MOULTRIE	8/18/00
S1536-3	OBGSB4 5-7	Q1536	S1536	SO	O'BRIEN & GERE	MILLER- MOULTRIE	8/18/00

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513

Unless otherwise noted on enclosed Laboratory Notices or Quality Assurance Notices, all quality control criteria were met in the analyses of these samples.

Release of the data contained in the hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the signature below.

Roy Sutton
Case Reviewer
DATE: August 31, 2000

CompuChem
a Division of Liberty Analytical Corp.

Method: S8260B ENCORE

Batch #: _____

2

SAMPLENUM	CLIENTID	LOGINNUM	Wt	Time	Date	INST #	Operator	H/T	Volume	Report	Comments
S1536-1	OBGSB2 3-5	S1536	6.17	2348	8/23	52	2311			✓	
S1536-2	OBGSB3 1-3	S1536	5.16	0019	8/24	↓	↓			✓	
S1536-3	OBGSB4 5-7	S1536	5.08	0049	↓					✓	
S1536-4	OBGSB3 5-7	S1536	5.31	0120	↓					✓	
WG5041-1	VBLKSD										
WG5041-2	VBLKSE										
WG5041-3	VBLKSF										
WG5041-4	VSDLCS										
WG5041-5	VSELCS										
WG5041-6	VSFLCS										
WG5040-1	VBLKSA										
WG5040-4	RBNLCS										

HOLD 8.24

DUE 8.31

GC and GC/MS Column and Trap Specifications Table

COLUMNS

Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
GC Laboratory				
Restek	RTX-1701	0.53	0.5	30
J & W	DB-608	0.53	0.83	30
Restek	CLPesticides	0.53	0.5	30
Restek	CLPesticides II	0.53	0.42	30
GC Volatiles Laboratory				
Restek	RTX-1	0.53	0.5	105
Restek	RTX-502.2	0.53	0.5	105
GC/MS Volatiles Laboratory				
J & W	DB-624	0.53	3.0	30/75
Supelco	Equity™-624	0.53	3.0	75
GC/MS Semivolatiles Laboratory				
J & W	DB-5.625	0.32	1.0	30
J & W	DB5-MS	0.25	0.25	30
Hewlett Packard	HP5-MS	0.25	0.25	30
Optima	5-MS	0.25	0.25	30
Restek	RTX-5MS	0.25	0.25	30

TRAPS

GC and GC/MS Volatiles Laboratory	
Tekmar 3	* 8 cm of 2,6-diphenylene oxide polymer (Tenax) * 8 cm of silica gel * 7 cm of coconut charcoal * 0.5 cm of silanized glass wool at each end
Tekmar 5	* 1 cm of methyl silicone packing (OV-1 coating) * 8 cm of 2,6-diphenylene oxide polymer (Tenax) * 8 cm of silica gel * 7 cm of coconut charcoal * 0.5 cm of silanized glass wool at each end
Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons) * 6 cm of Carboxen 1000 (Carbon molecular sieves) * 1 cm of Carboxen 1001 (Carbon molecular sieves)

Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These adjustments are performed by the data reviewer, GC/MS operator, or GC chemist. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration of each compound to demonstrate the accuracy of that process. Adjustments are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count as possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that the data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

With the introduction of the current EPA CLP SOW (Document Number OLM03.0, plus revisions) additional explanations for manual editing/integration are required. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC data packages.

Robert E. Meierer
Vice President

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL) (or Reporting Limit) will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicates the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and all reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Form Is are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form I.

A : This flag indicates that a TIC is a suspected aldol-condensation product.

S : This flag indicates that an analyte was detected by a single column GC analysis but the result was below the Reporting Limit. This flag is only used when clients request a second (confirmation) column analysis after detecting an analyte above the Reporting Limit in the initial, single column analysis. This flag alerts the data user that only an analyte was detected below the Reporting Limit and a second (confirmation) analysis was not performed.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

CompuChem

a division of Liberty Analytical Corp.

501 Madison Avenue
Cary, NC 27513
1-800-833-5097

CHAIN-OF-CUSTODY RECORD

No. 051273

Project Name: [illegible] 2 Q.C. MILLER - MOULTRIE, GA	Client Address: OXFORD ENGR. 1075 MITCHELL CROSSING SUITE 700 MORRISVILLE NC 27560	Point-of-Contact: C. ROOK
Carrier: HAND		Telephone No.: 919 467 0099
Airbill No.:		Sampling complete? Y or N (see Note 1)
Sampler Name: CHRISTOPHER ROOK	Sampler Signature: C. Rook	Project-specific (PS) or Batch (B) QC? B

BOX #1: 1. Surface Water; 2. Ground Water; 3. Leachate; 4. Rinsate; (5.) Soil / Sediment / Sludge; 6. Trip Blank; 7. Oil; 8. Waste; 9. Other_____

BOX #2: A. HCl + Ice; B. HNO3 + Ice; C. NaOH + Ice; D. H2SO4 + Ice; E. Unpreserved; F. Ice Only; G. Other_____; H. NaHSO4 + Ice; I. ZnAc+NaOH + Ice

BOX #3: F. Filtered; U. Unfiltered

Box #4: H. High; M. Medium; L. Low

Box #5: C. CLP 3/90; S. SW-846; W. CWA 600-series; O. Other_____; T. TCLP

Sample ID (9 characters maximum)	Date: Year: 2000	Time	Box #1 Matrix	Box #2 Preservative	Box #3 Filtered / Unfiltered	Box #4 Expected Conc.	Box #5 Method	No. of Bottles	Use for Lab QC (MS or DUP)	VOA (5/624)	SVOC	Pesticide	PCB	Herbicide	Metals / Mercury	Cyanide	TOC / TOX	O&G / TPH	DRY WEIGHT				Remarks / Comments (see Notes 2 & 3)
[illegible]	8/17	:	1	A		L	S	4		(X)									X				
[illegible]	8/17	11:50	1	A		L	S	4		(X)									X				
[illegible]	8/17	11:20	1	A		L	S	4		(X)									X				
[illegible]	8/17	11:45	1	A		L	S	4		X									X				
[illegible]	8/17	13:30	1	A		L	S	4		X									X				
[illegible]	8/17	17:15	1	A		L	S	4		X									X				
[illegible]	8/17	12:10	1	A		L	S	4		X									X				
[illegible]	8/17	17:15	1	A		L	S	0		X									X				CSL 082607 & 08 Samples
[illegible]	1	:	6	A				2		X													HOLD REMARK (2)
[illegible]	1	:	4	A				2		X													HOLD REMARK (2)

Clients Special Instructions: Temperature _____ °C

Lab: Received in Good Condition? Y or N Describe Problems, If any:

#1 Relinquished By: (Sig) C. Rook	#2 Relinquished By: (Sig)	#3 Relinquished By: (Sig)
Company Name: OXF. & GEE	Company Name:	Company Name:
Date:	Date:	Date:
Time:	Time:	Time:
#1 Received By: (Sig) Kim Kram	#2 Received By: (Sig)	#3 Received By: (Sig)
Company Name: CompuChem	Company Name:	Company Name:
Date: 8/18/00	Date:	Date:
Time: 315	Time:	Time:

Note (1): If "N" lab will hold samples to await remainder of project-maximizing batch size and minimizing QC ratio; if "Y" lab will begin processing batches now.

Note (2): Samples stored 60 days after date report mailed at no extra charge. Note (3): All lab copies of data destroyed after three years.

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB2 3-5

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: S1536

Matrix: (soil/water) SOIL Lab Sample ID: S1536-1

Sample wt/vol: 6.2 (g/mL) G Lab File ID: S1536-1B52

Level: (low/med) LOW Date Received: 08/18/00

% Moisture: not dec. 18 Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
67-64-1	Acetone	10	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB3 5-7

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: S1536

Matrix: (soil/water) SOIL Lab Sample ID: S1536-4

Sample wt/vol: 5.3 (g/mL) G Lab File ID: S1536-4B52

Level: (low/med) LOW Date Received: 08/18/00

% Moisture: not dec. 13 Date Analyzed: 08/24/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
67-64-1	Acetone	11	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB3 1-3

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: S1536

Matrix: (soil/water) SOIL Lab Sample ID: S1536-2

Sample wt/vol: 5.6 (g/mL) G Lab File ID: S1536-2B52

Level: (low/med) LOW Date Received: 08/18/00

% Moisture: not dec. 11 Date Analyzed: 08/24/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
67-64-1	Acetone	10	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB4 5-7

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: S1536

Matrix: (soil/water) SOIL Lab Sample ID: S1536-3

Sample wt/vol: 5.1 (g/mL) G Lab File ID: S1536-3B52

Level: (low/med) LOW Date Received: 08/18/00

% Moisture: not dec. 15 Date Analyzed: 08/24/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
67-64-1	Acetone	12	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKSA

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: S1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5040-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: WG5040-1B52

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
67-64-1	Acetone	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VSALCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: S1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5040-4

Sample wt/vol: 5.0 (g/mL) G Lab File ID: WG5040-4RB52

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 08/23/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	43	
75-15-0	Carbon disulfide	10	U
67-64-1	Acetone	10	U
75-09-2	Methylene Chloride	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	47	
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	47	
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	43	
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	45	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
1330-20-7	Xylene (total)	10	U

COMPUCHEM
a division of Liberty Analytical Corp.

September 5, 2000

Chris Rook
O'BRIEN & GERE
1015 Aviation PKWY
STE 700
Morrisville, NC 27560

Subject:
Report of Data – Project: MILLER- MOULTRIE Quote #: Q1536 SDG #: U1536

Attn.: Chris Rook

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097.

Sincerely,

CompuChem Environmental
A Division of Liberty Analytical

Attachment

SAMPLENUM	CLIENTID	CASE	SDG	MATRIX	ACCTNUM	PROJECTNUM	RECEIVEDATE
U1536-1	OBGSB5 6	Q1536	U1536	SO	O'BRIEN & GERE	MILLER- MOULTRIE	8/23/00
U1536-2	OBGSBDUP	Q1536	U1536	SO	O'BRIEN & GERE	MILLER- MOULTRIE	8/23/00

CompuChem
a Division of Liberty Analytical Corp.

Method: 8260B ENCORE

Batch #: _____

SAMPLENUM	CLIENTID	LOGINNUM	Wt	Time	Date	INST #	Operator	H/T	Volume	Report	Comments
U1536-1	OBGSB5 6	U1536	5.82	1446	9-2-09	52	2331			IH	
U1536-2	OBGSBDUP	U1536	6.45	1548	9-3-09	52	2331			/	
WG5224-1	VBLKWD			1252	9-3-09	52	2331			/	
WG5224-2	VBLKWE										
WG5224-3	VBLKWF										
WG5224-4	VWDLCS			1334	9-3-09	52	2331			/	
WG5224-5	VWELCS										
WG5224-6	VWFLCS										
U1536-1R			5.52	1517	9-3-09	52	2331			/	

HOLD 9.4
DUE 9.5

EnCore™ Preparation Worksheet

SDG _____ Prepared By Mitch Zimmerman Date: 8-23-00

	LoginNum	Date	Time	Weight of Jar (g)	Weight of Jar + Sample (g)	Weight of Sample (g)
1	U1536-2	8-23-00	1635	29.92	36.37	6.45
2	R1		1636	29.89	35.85	5.96
3	MEOH		1637	28.19	34.05	5.86
4	U1536-1		1638	29.80	35.62	5.82
5	R1		1639	28.69	34.51	5.82
6	MEOH		1640	26.65	32.55	5.90
7	T1536-1		1641	30.06	35.42	5.36
8	R1		16.42	~~35.98~~	36.85	6.45
9	MEOH		16:43	26.64	35.58	8.94
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						MEZ 8-23-00
21						

Volume of Methanol Added: _____

Lot Numbers of Preservatives: Sodium Bisulfate: N05646 Methanol: VX ~~526~~ 256

Reviewed By _____ 8-23-00

COMPUCHEM

Work Group Report (wk02)

28-AUG-00 05:20 PM

Work Group: WG5224
Department: 435 MS/VOA ANALYSIS **Created:** 28-AUG-00

Sample	Client ID	Product	Matrix	RecvDate	Bottle#	Lab Information
U1536-1	OBGSB5 6	VOA-LL-8260B-ENCORE	Soil	23-AUG-00		
U1536-2	OBGSBDUP	VOA-LL-8260B-ENCORE	Soil	23-AUG-00		
WG5224-1	VBLKWD	VOA-LL-8260B-ENCORE	Soil	28-AUG-00		
WG5224-2	VBLKWE	VOA-LL-8260B-ENCORE	Soil	28-AUG-00		
WG5224-3	VBLKWF	VOA-LL-8260B-ENCORE	Soil	28-AUG-00		
WG5224-4	VWDLCS	VOA-LL-8260B-ENCORE	Soil	28-AUG-00		
WG5224-5	VWELCS	VOA-LL-8260B-ENCORE	Soil	28-AUG-00		
WG5224-6	VWFLCS	VOA-LL-8260B-ENCORE	Soil	28-AUG-00		

Comments:

U1536-1 PPS 837/ 8260b ENCORE-PRESERVE/ REPORT ** ACETONE ONLY**/ LCS OKAY FOR QC/ SDG DONE
U1536-2 PPS 837/ 8260b ENCORE-PRESERVE/ REPORT ** ACETONE ONLY**/ LCS OKAY FOR QC/ SDG DONE

Internal Chain of Custody

Relinquished By	RefH4	Date 9-2-00	Received By	J. L	Date 9-2-00	Reason	
Relinquished By	J. L	Date 9-2-00	Received By	RefH4	Date 9-2-00	Reason	
Relinquished By	RefH4	Date 9-3-00	Received By	J. L	Date 9-3-00	Reason	
Relinquished By	J. L	Date 9-3-00	Received By	RefH4	Date 9-3-00	Reason	
Relinquished By		Date	Received By		Date	Reason	
Relinquished By		Date	Received By		Date	Reason	
Relinquished By		Date	Received By		Date	Reason	
Relinquished By		Date	Received By		Date	Reason	

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL) (or Reporting Limit) will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicates the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and all reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Form Is are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form I.

A : This flag indicates that a TIC is a suspected aldol-condensation product.

S : This flag indicates that an analyte was detected by a single column GC analysis but the result was below the Reporting Limit. This flag is only used when clients request a second (confirmation) column analysis after detecting an analyte above the Reporting Limit in the initial, single column analysis. This flag alerts the data user that only an analyte was detected below the Reporting Limit and a second (confirmation) analysis was not performed.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

Laboratory Notice

Initial Calibration Date: August 23, 2000

Instrument Identifier: f50052.i

An initial calibration was analyzed by Method 8260B. Per the methodology, all compounds are to meet a Percent Relative Standard Deviation (%RSD) limit of no more than 15%. Additional calibration options are provided in the method when the RSD exceeds 15%. CompuChem has chosen to apply the option of determining the mean RSD values for all analytes in the calibration.

When there are analytes with %RSDs greater than the limit, proof of calibration linearity can be shown if the average of all compounds in the initial calibration meet the same 15% limit. Based on Method 8000B, Revision 2 requirements described in Sections 7.5.1.2 and 7.5.1.2.3, we are providing a list of the compounds which failed to meet the limit, and their associated %RSDs. Finally the average of all %RSDs from all compounds in the initial calibration is shown, confirming the usability of the initial calibration and any data that follows it.

Bromomethane	15.8	Chloroethane	22.0	Acetone	22.6
Tert-butyl Alcohol	25.6	n-Hexane	18.4	2-Butanone	17.2
Tetrahydrofuran	95.0	2-Chloroethyl vinyl ether	75.2	4-Methyl-2-pentanone	24.1
1-Chlorohexane	16.3	1,2,4-Trichlorobenzene	20.1		

Average %RSD for all compounds in the Initial Calibration: 8.2 %

Data Reviewer/ID# Rebecca K Mead /2421

Date August 28, 2000

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB5 6

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: U1536

Matrix: (soil/water) SOIL Lab Sample ID: U1536-1

Sample wt/vol: 5.8 (g/mL) G Lab File ID: U1536-1RA52

Level: (low/med) LOW Date Received: 08/23/00

% Moisture: not dec. 15 Date Analyzed: 09/03/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
67-64-1	Acetone	35	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSBDUP

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: U1536

Matrix: (soil/water) SOIL Lab Sample ID: U1536-2

Sample wt/vol: 6.5 (g/mL) G Lab File ID: U1536-2A52

Level: (low/med) LOW Date Received: 08/23/00

% Moisture: not dec. 15 Date Analyzed: 09/03/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
67-64-1	Acetone	18	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VWDLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: U1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5224-4

Sample wt/vol: 5.0 (g/mL) G Lab File ID: WG5224-4A52

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/03/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	38	
74-87-3	Chloromethane	42	
75-01-4	Vinyl Chloride	47	
74-83-9	Bromomethane	56	
75-00-3	Chloroethane	67	
75-69-4	Trichlorofluoromethane	57	
75-35-4	1,1-Dichloroethene	55	
75-15-0	Carbon disulfide	10	U
67-64-1	Acetone	10	U
75-09-2	Methylene Chloride	10	U
1634-04-4	Methyl-tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
108-20-3	Isopropyl ether	10	U
594-20-7	2,2-Dichloropropane	10	U
78-93-3	2-butanone	10	U
74-97-5	Bromochloromethane	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-dichloropropene	10	U
71-43-2	Benzene	51	
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	51	
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	45	
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VWDLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: U1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5224-4

Sample wt/vol: 5.0 (g/mL) G Lab File ID: WG5224-4A52

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/03/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
591-78-6	2-hexanone	10	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	48	
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropyl Benzene	10	U
108-86-1	Bromobenzene	10	U
96-18-4	1,2,3-Trichloropropane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
103-65-1	n-Propyl Benzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethyl Benzene	10	U
98-06-6	tert-Butyl Benzene	10	U
95-63-6	1,2,4-Trimethyl Benzene	10	U
135-98-8	sec-Butyl Benzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
99-87-6	p-Isopropyl Toluene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butyl Benzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
1330-20-7	Xylene (total)	10	U

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: U1536

Level: (low/med) LOW

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	VBLKWD	113	98	106	105	0
02	VWDLCS	110	101	99	100	0
03	OBGSB5 6	103	99	93	88	0
04	OBGSBDUP	109	101	102	98	0
05						
06						
07						
08						
09						
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25						
26						
27						
28						

		QC LIMITS
SMC1	= Dibromofluoromethane	(71-141)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(70-139)
SMC3 (TOL)	= Toluene-d8	(72-123)
OTHER(BFB)	= Bromofluorobenzene	(65-131)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3B
SOIL VOLATILE LAB CONTROL SAMPLE

VWDLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: U1536

Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Vinyl Chloride	50.00	47.04	94	70-130
1,1-Dichloroethene	50.00	54.67	109	76-129
Benzene	50.00	50.80	102	67-124
Trichloroethene	50.00	50.81	102	72-136
Toluene	50.00	44.92	90	64-117
Chlorobenzene	50.00	48.05	96	72-116

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 6 outside limits

COMMENTS: _____

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKWD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: U1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5224-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: WG5224-1A52

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/03/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(ul

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
67-64-1	Acetone	10	U

COMPUCHEM
a division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513
1-800-833-5097

CHAIN-OF-CUSTODY RECORD

No. 051264

Project Name : OBRIEN & GREE MILLER, MOULTRIE GA	Client Address : OBRIEN & GREE 1015 AVIATION PKWY SUITE 700 MORRISVILLE NC 27560	Point-of-Contact : C. ROCK
Carrier :		Telephone No. : 919 469 0091
Airbill No. :		Sampling complete? Y or N (see Note 1)
Sampler Name : CHRISTOPHER ROCK	Sampler Signature :	Project-specific (PS) or Batch (B) QC ? ____

BOX #1	BOX #2	BOX #3	Box #4	Box #5
1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil / Sediment / Sludge 6. Trip Blank 7. Oil 8. Waste 9. Other_____	A. HCl + Ice B. HNO3 + Ice C. NaOH + Ice D. H2SO4 + Ice E. Unpreserved F. Ice Only G. Other_____ H. NaHSO4 + Ice I. ZnAc+NaOH + Ice	F. Filtered U. Unfiltered	H. High M. Medium L. Low	C. CLP 3/90 S. SW-846 W. CWA 600-series O. Other_____ T. TCLP

Sample ID (9 characters maximum)	Date:Year: 2000	Time	Box #1 Matrix	Box #2 Preservative	Box #3 Filtered / Unfiltered	Box #4 Expected Conc.	Box #5 Method	No. of Bottles	Use for Lab QC (MS or DUP)	VOA 8260B	SVOC	Pesticide	PCB	Herbicide	Metals / Mercury	Cyanide	TOC / TOX	O&G / TPH	[illegible]	[illegible]			Remarks / Comments (see Notes 2 & 3)
OBGSB1:6-8	8/21	16:45	S	F		L	S	4		X										X			
OBGSB5:6	8/21	17:15	S	F		L	S	4											X	X			
OBGSBDUP	8/21	17:40	S	F		L	S	4											X	X			
	/	:																					
	/	:																					
	/	:																					
	/	:																					
	/	:																					
	/	:																					
	/	:																					

Clients Special Instructions: Temperature 4 °C

Lab: Received in Good Condition? Y or N Describe Problems, If any:

#1 Relinquished By: (Sig) [signature]	Date:	#2 Relinquished By: (Sig)	Date:	#3 Relinquished By: (Sig)	Date:
Company Name: OBRIEN & GREE	Time:	Company Name:	Time:	Company Name:	Time:
#1 Received By: (Sig) Glenn Horne	Date: 8-23-00	#2 Received By: (Sig)	Date:	#3 Received By: (Sig)	Date:
Company Name: CompuChem	Time: 9:35	Company Name:	Time:	Company Name:	Time:

Note (1): If "N" lab will hold samples to await remainder of project-maximizing batch size and minimizing QC ratio; if "Y" lab will begin processing batches now.
Note (2): Samples stored 30 days after date report mailed at no extra charge. Note (3): All lab copies of data destroyed after three years.

SAMPLENUM	CLIENTID	CASE	SDG	MATRIX	ACCTNUM	PROJECTNUM	RECEIVEDATE
T1536-1	OBGSB1 6-8	Q1536	T1536	SO	O'BRIEN & GERE	MILLER- MOULTRIE	8/23/00

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE
SDG #T1536

SAMPLE IDENTIFICATIONS: OBGSB1 6-8

The one soil sample listed above was received intact in Encore samplers, at 4 degrees C, with proper documentation, in sealed shipping containers, on August 23, 2000. The sample was scheduled for volatile only analysis.

The sample was prepared and analyzed following SW846 Method 8260B. All pertinent Quality Assurance notices are included in the narrative section, and all pertinent Laboratory notices for SDG # T1536 are included in the sample data sections. Analysis holding time requirements were met for this sample, and percent moisture was measured at 9 percent.

No reportable levels of volatile target analytes were identified in this sample.

No Tentatively Identified Compounds (TICs) were searched at the request of the client.

All Bromofluorobenzene (BFB) abundance criteria were met for tunes associated to this SDG. Overall QC criteria were met for all initial and continuing calibration standards associated to this SDG.

All of the system monitoring compounds(SMCs) met recovery criteria in the analysis of this sample, and all of the internal standards met response and retention time criteria in the analysis of this samples.

The associated method blank did not contain any of the requested target analytes above the reporting limits.

Manual quantitations were performed on the process files for the initial and continuing calibration(s) associated with this SDG. The reasons have been coded with explanations provided in the notice included in the narrative section of this SDG.

The duplicate matrix spikes generated from this original met all QC precision and accuracy criteria without exception. The associated Laboratory Control Sample(LCS) met all accuracy criteria.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Roy Sutton
Case Reviewer
September 05, 2000

EnCore™ Preparation Worksheet

SDG _____ Prepared By: Mitch Zimmerman Date: 8-23-00

	LoginNum	Date	Time	Weight of Jar (g)	Weight of Jar + Sample (g)	Weight of Sample (g)
1	U1536-2	8-23-00	1635	29.92	36.37	6.45
2	R_1		1636	29.84	35.85	5.96
3	MEOH		1637	28.19	34.05	5.86
4	U1536-1		1638	29.80	35.62	5.82
5	R_1		1639	28.69	34.51	5.82
6	MEOH		1640	26.65	32.55	5.90
7	T1536-1		1641	30.06	35.42	5.36
8	R_1		1642	~~35.42~~ 29.90	36.85	6.45
9	MEOH	↓	16:43	26.64	35.58	8.94
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						~~ME 8-23-00~~
21						

Volume of Methanol Added: _____

Lot Numbers of Preservatives: Sodium Bisulfate: N05646 Methanol: VX ~~526~~ 256

Reviewed By: _____ 8-23-00

COMPUCHEM

Work Group Report (wk02)

01-SEP-00 02:32 PM

Work Group: WG5336
Department: 435 MS/VOA ANALYSIS **Created:** 01-SEP-00

Sample	Client ID	Product	Matrix	RecvDate	Bottle#	Lab Information
T1536-1	OBGSB1 6-8	VOA-LL-8260B-ENCORE	Soil	23-AUG-00		
WG5336-1	VBLKZQ	VOA-LL-8260B-ENCORE	Soil	01-SEP-00		
WG5336-2	VBLKZR	VOA-LL-8260B-ENCORE	Soil	01-SEP-00		
WG5336-3	VBLKZS	VOA-LL-8260B-ENCORE	Soil	01-SEP-00		
WG5336-4	VZQLCS	VOA-LL-8260B-ENCORE	Soil	01-SEP-00		
WG5336-5	VZRLCS	VOA-LL-8260B-ENCORE	Soil	01-SEP-00		
WG5336-6	OGBSB1 6-8MS	VOA-LL-8260B-ENCORE	Soil	01-SEP-00		
WG5336-7	OBGSB1 6-8MSD	VOA-LL-8260B-ENCORE	Soil	01-SEP-00		

Comments:

T1536-1 PPS 837- 8260-5GR ENCORE-PRESERVE/ REPORT 837.SUB LIST/ QC SAMPLE/ SDG DONE

Internal Chain of Custody

Relinquished By	Ref #4	Date 9-2-00	Received By		Date 9-2-00	Reason	analysis
Relinquished By		Date 9-2-00	Received By	Ref #4	Date 9-2-00	Reason	storage
Relinquished By	Ref #4	Date 9-3-00	Received By		Date 9-3-00	Reason	analysis
Relinquished By		Date 9-3-00	Received By	Ref #4	Date 9-3-00	Reason	Storage
Relinquished By		Date	Received By		Date	Reason	
Relinquished By		Date	Received By		Date	Reason	
Relinquished By		Date	Received By		Date	Reason	
Relinquished By		Date	Received By		Date	Reason	

CompuChem
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Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These adjustments are performed by the data reviewer, GC/MS operator, or GC chemist. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration of each compound to demonstrate the accuracy of that process. Adjustments are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count as possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that the data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

With the introduction of the current EPA CLP SOW (Document Number OLM03.0, plus revisions) additional explanations for manual editing/integration are required. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC data packages.

Robert E. Meierer
Vice President

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL) (or Reporting Limit) will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicates the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and all reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Form Is are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form I.

A : This flag indicates that a TIC is a suspected aldol-condensation product.

S : This flag indicates that an analyte was detected by a single column GC analysis but the result was below the Reporting Limit. This flag is only used when clients request a second (confirmation) column analysis after detecting an analyte above the Reporting Limit in the initial, single column analysis. This flag alerts the data user that only an analyte was detected below the Reporting Limit and a second (confirmation) analysis was not performed.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

Laboratory Notice

Initial Calibration Date: August 23, 2000

Instrument Identifier: f50052.i

An initial calibration was analyzed by Method 8260B. Per the methodology, all compounds are to meet a Percent Relative Standard Deviation (%RSD) limit of no more than 15%. Additional calibration options are provided in the method when the RSD exceeds 15%. CompuChem has chosen to apply the option of determining the mean RSD values for all analytes in the calibration.

When there are analytes with %RSDs greater than the limit, proof of calibration linearity can be shown if the average of all compounds in the initial calibration meet the same 15% limit. Based on Method 8000B, Revision 2 requirements described in Sections 7.5.1.2 and 7.5.1.2.3, we are providing a list of the compounds which failed to meet the limit, and their associated %RSDs. Finally the average of all %RSDs from all compounds in the initial calibration is shown, confirming the usability of the initial calibration and any data that follows it.

Bromomethane	15.8	Chloroethane	22.0	Acetone	22.6
Tert-butyl Alcohol	25.6	n-Hexane	18.4	2-Butanone	17.2
Tetrahydrofuran	95.0	2-Chloroethyl vinyl ether	75.2	4-Methyl-2-pentanone	24.1
1-Chlorohexane	16.3	1,2,4-Trichlorobenzene	20.1		

Average %RSD for all compounds in the Initial Calibration: 8.2 %

Data Reviewer/ID# Rebecca K Mead /2421

Date August 28, 2000

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB1 6-8

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: T1536

Matrix: (soil/water) SOIL Lab Sample ID: T1536-1

Sample wt/vol: 6.5 (g/mL) G Lab File ID: T1536-1RA52

Level: (low/med) LOW Date Received: 08/23/00

% Moisture: not dec. 9 Date Analyzed: 09/03/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	9	U
74-87-3	Chloromethane	9	U
75-01-4	Vinyl Chloride	9	U
74-83-9	Bromomethane	9	U
75-00-3	Chloroethane	9	U
75-69-4	Trichlorofluoromethane	9	U
75-35-4	1,1-Dichloroethene	9	U
75-15-0	Carbon disulfide	9	U
67-64-1	Acetone	9	U
75-09-2	Methylene Chloride	9	U
1634-04-4	Methyl-tert-butyl ether	9	U
75-34-3	1,1-Dichloroethane	9	U
108-20-3	Isopropyl ether	9	U
594-20-7	2,2-Dichloropropane	9	U
78-93-3	2-butanone	9	U
74-97-5	Bromochloromethane	9	U
67-66-3	Chloroform	9	U
71-55-6	1,1,1-Trichloroethane	9	U
56-23-5	Carbon Tetrachloride	9	U
563-58-6	1,1-dichloropropene	9	U
71-43-2	Benzene	9	U
107-06-2	1,2-Dichloroethane	9	U
79-01-6	Trichloroethene	9	U
78-87-5	1,2-Dichloropropane	9	U
74-95-3	Dibromomethane	9	U
75-27-4	Bromodichloromethane	9	U
10061-01-5	cis-1,3-Dichloropropene	9	U
108-10-1	4-Methyl-2-pentanone	9	U
108-88-3	Toluene	9	U
10061-02-6	trans-1,3-Dichloropropene	9	U
79-00-5	1,1,2-Trichloroethane	9	U
127-18-4	Tetrachloroethene	9	U
142-28-9	1,3-Dichloropropane	9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB1 6-8

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: T1536

Matrix: (soil/water) SOIL Lab Sample ID: T1536-1

Sample wt/vol: 6.5 (g/mL) G Lab File ID: T1536-1RA52

Level: (low/med) LOW Date Received: 08/23/00

% Moisture: not dec. 9 Date Analyzed: 09/03/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(ul

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
591-78-6	2-hexanone	9	U
124-48-1	Dibromochloromethane	9	U
106-93-4	1,2-Dibromoethane	9	U
108-90-7	Chlorobenzene	9	U
630-20-6	1,1,1,2-Tetrachloroethane	9	U
100-41-4	Ethylbenzene	9	U
100-42-5	Styrene	9	U
75-25-2	Bromoform	9	U
98-82-8	Isopropyl Benzene	9	U
108-86-1	Bromobenzene	9	U
96-18-4	1,2,3-Trichloropropane	9	U
79-34-5	1,1,2,2-Tetrachloroethane	9	U
103-65-1	n-Propyl Benzene	9	U
95-49-8	2-Chlorotoluene	9	U
106-43-4	4-Chlorotoluene	9	U
108-67-8	1,3,5-Trimethyl Benzene	9	U
98-06-6	tert-Butyl Benzene	9	U
95-63-6	1,2,4-Trimethyl Benzene	9	U
135-98-8	sec-Butyl Benzene	9	U
541-73-1	1,3-Dichlorobenzene	9	U
106-46-7	1,4-Dichlorobenzene	9	U
99-87-6	p-Isopropyl Toluene	9	U
95-50-1	1,2-Dichlorobenzene	9	U
104-51-8	n-Butyl Benzene	9	U
96-12-8	1,2-Dibromo-3-Chloropropane	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
87-68-3	Hexachlorobutadiene	9	U
91-20-3	Naphthalene	9	U
87-61-6	1,2,3-Trichlorobenzene	9	U
540-59-0	1,2-Dichloroethene (total)	9	U
1330-20-7	Xylene (total)	9	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB1 6-8MS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: T1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5336-6

Sample wt/vol: 5.3 (g/mL) G Lab File ID: WG5336-6A52

Level: (low/med) LOW Date Received: 08/23/00

% Moisture: not dec. 9 Date Analyzed: 09/03/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	50	
75-15-0	Carbon disulfide	10	U
67-64-1	Acetone	10	U
75-09-2	Methylene Chloride	10	U
1634-04-4	Methyl-tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
108-20-3	Isopropyl ether	10	U
594-20-7	2,2-Dichloropropane	10	U
78-93-3	2-butanone	10	U
74-97-5	Bromochloromethane	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-dichloropropene	10	U
71-43-2	Benzene	51	
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	51	
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	44	
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB1 6-8MS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: T1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5336-6

Sample wt/vol: 5.3 (g/mL) G Lab File ID: WG5336-6A52

Level: (low/med) LOW Date Received: 08/23/00

% Moisture: not dec. 9 Date Analyzed: 09/03/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
591-78-6	2-hexanone	10	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	48	
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropyl Benzene	10	U
108-86-1	Bromobenzene	10	U
96-18-4	1,2,3-Trichloropropane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
103-65-1	n-Propyl Benzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethyl Benzene	10	U
98-06-6	tert-Butyl Benzene	10	U
95-63-6	1,2,4-Trimethyl Benzene	10	U
135-98-8	sec-Butyl Benzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
99-87-6	p-Isopropyl Toluene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butyl Benzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
1330-20-7	Xylene (total)	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB1 6-8MSD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: T1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5336-7

Sample wt/vol: 5.5 (g/mL) G Lab File ID: WG5336-7A52

Level: (low/med) LOW Date Received: 08/23/00

% Moisture: not dec. 9 Date Analyzed: 09/03/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	52	
75-15-0	Carbon disulfide	10	U
67-64-1	Acetone	10	U
75-09-2	Methylene Chloride	10	U
1634-04-4	Methyl-tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
108-20-3	Isopropyl ether	10	U
594-20-7	2,2-Dichloropropane	10	U
78-93-3	2-butanone	10	U
74-97-5	Bromochloromethane	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-dichloropropene	10	U
71-43-2	Benzene	49	
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	50	
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	41	
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGSB1 6-8MSD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: T1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5336-7

Sample wt/vol: 5.5 (g/mL) G Lab File ID: WG5336-7A52

Level: (low/med) LOW Date Received: 08/23/00

% Moisture: not dec. 9 Date Analyzed: 09/03/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
591-78-6	2-hexanone	10	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	46	
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropyl Benzene	10	U
108-86-1	Bromobenzene	10	U
96-18-4	1,2,3-Trichloropropane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
103-65-1	n-Propyl Benzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethyl Benzene	10	U
98-06-6	tert-Butyl Benzene	10	U
95-63-6	1,2,4-Trimethyl Benzene	10	U
135-98-8	sec-Butyl Benzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
99-87-6	p-Isopropyl Toluene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butyl Benzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
1330-20-7	Xylene (total)	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VWDLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: T1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5224-4

Sample wt/vol: 5.0 (g/mL) G Lab File ID: WG5224-4A52

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/03/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	38	
74-87-3	Chloromethane	42	
75-01-4	Vinyl Chloride	47	
74-83-9	Bromomethane	56	
75-00-3	Chloroethane	67	
75-69-4	Trichlorofluoromethane	57	
75-35-4	1,1-Dichloroethene	55	
75-15-0	Carbon disulfide	10	U
67-64-1	Acetone	10	U
75-09-2	Methylene Chloride	10	U
1634-04-4	Methyl-tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
108-20-3	Isopropyl ether	10	U
594-20-7	2,2-Dichloropropane	10	U
78-93-3	2-butanone	10	U
74-97-5	Bromochloromethane	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-dichloropropene	10	U
71-43-2	Benzene	51	
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	51	
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	45	
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VWDLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: T1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5224-4

Sample wt/vol: 5.0 (g/mL) G Lab File ID: WG5224-4A52

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/03/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
591-78-6	2-hexanone	10	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	48	
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropyl Benzene	10	U
108-86-1	Bromobenzene	10	U
96-18-4	1,2,3-Trichloropropane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
103-65-1	n-Propyl Benzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethyl Benzene	10	U
98-06-6	tert-Butyl Benzene	10	U
95-63-6	1,2,4-Trimethyl Benzene	10	U
135-98-8	sec-Butyl Benzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
99-87-6	p-Isopropyl Toluene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butyl Benzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
1330-20-7	Xylene (total)	10	U

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: T1536

Level: (low/med) LOW

	CLIENT SAMPLE NO.	SMC1 (DBF) #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	VBLKWD	113	98	106	105	0
02	VWDLCS	110	101	99	100	0
03	OBGSB1 6-8	114	112	96	96	0
04	OBGSB1 6-8MS	117	119	94	99	0
05	OBGSB1 6-8MS	114	114	89	101	0
06						
07						
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28						

		QC LIMITS
SMC1 (DBF)	= Dibromofluoromethane	(71-141)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(70-139)
SMC3 (TOL)	= Toluene-d8	(72-123)
OTHER (BFB)	= Bromofluorobenzene	(65-131)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 3

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: T1536

Matrix Spike - Sample No.: OBGSB1 6-8 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	52.13	0.00	50.49	97	76-129
Benzene	52.13	0.00	50.62	97	67-124
Trichloroethene	52.13	0.00	50.95	98	72-136
Toluene	52.13	0.00	43.64	84	64-117
Chlorobenzene	52.13	0.00	47.88	92	72-116

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	49.95	52.21	104	3	22	76-129
Benzene	49.95	48.90	98	3	21	67-124
Trichloroethene	49.95	49.92	100	2	24	72-136
Toluene	49.95	41.32	83	5	21	64-117
Chlorobenzene	49.95	45.64	91	5	21	72-116

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

3B
SOIL VOLATILE LAB CONTROL SAMPLE

VWDLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: T1536

Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC. LIMITS REC.
Vinyl Chloride	50.00	47.04	94	70-130
1,1-Dichloroethene	50.00	54.67	109	76-129
Benzene	50.00	50.80	102	67-124
Trichloroethene	50.00	50.81	102	72-136
Toluene	50.00	44.92	90	64-117
Chlorobenzene	50.00	48.05	96	72-116

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 6 outside limits

COMMENTS: _____

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NC

VBLKWD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: T1536

Lab File ID: WG5224-1A52 Lab Sample ID: WG5224-1

Date Analyzed: 09/03/00 Time Analyzed: 1252

GC Column: EQUITY624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: F50052

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VWDLCS	WG5224-4	WG5224-4A52	1338
02	OBGSB1 6-8	T1536-1	T1536-1RA52	1441
03	OBGSB1 6-8MS	WG5336-6	WG5336-6A52	1618
04	OBGSB1 6-8MS	WG5336-7	WG5336-7A52	1649
05				
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30				

COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKWD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: T1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5224-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: WG5224-1A52

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/03/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon disulfide	10	U
67-64-1	Acetone	10	U
75-09-2	Methylene Chloride	10	U
1634-04-4	Methyl-tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
108-20-3	Isopropyl ether	10	U
594-20-7	2,2-Dichloropropane	10	U
78-93-3	2-butanone	10	U
74-97-5	Bromochloromethane	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
563-58-6	1,1-dichloropropene	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
74-95-3	Dibromomethane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
142-28-9	1,3-Dichloropropane	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKWD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: T1536

Matrix: (soil/water) SOIL Lab Sample ID: WG5224-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: WG5224-1A52

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/03/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
591-78-6	2-hexanone	10	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
630-20-6	1,1,1,2-Tetrachloroethane	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropyl Benzene	10	U
108-86-1	Bromobenzene	10	U
96-18-4	1,2,3-Trichloropropane	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
103-65-1	n-Propyl Benzene	10	U
95-49-8	2-Chlorotoluene	10	U
106-43-4	4-Chlorotoluene	10	U
108-67-8	1,3,5-Trimethyl Benzene	10	U
98-06-6	tert-Butyl Benzene	10	U
95-63-6	1,2,4-Trimethyl Benzene	10	U
135-98-8	sec-Butyl Benzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
99-87-6	p-Isopropyl Toluene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
104-51-8	n-Butyl Benzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
91-20-3	Naphthalene	10	U
87-61-6	1,2,3-Trichlorobenzene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
1330-20-7	Xylene (total)	10	U

CHAIN-OF-CUSTODY RECORD

No. 051264

CompuChem
a division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513
1-800-833-5097

Project Name : Gbrow & Gree	Client Address : Gbrow & Gree	Point-of-Contact :
Include, Mobilize GA	1015 Aviation Pkwy Suite 700	C. Rook
Carrier :	Mobilisville NC 27560	Telephone No. : 919 468 0091
Airbill No. :		Sampling complete? Y or N (see Note 1)
Sampler Name : Christopher Rook	Sampler Signature :	Project-specific (PS) or Batch (B) QC ?

BOX #1	1. Surface Water	6. Trip Blank	BOX #2	A. HCl + Ice	F. Ice Only	BOX #3	F. Filtered	Box #4	H. High	Box #5	C. CLP 3/90	T. TCLP
	2. Ground Water	7. Oil		B. HNO3 + Ice	G. Other_____		U. Unfiltered		M. Medium		S. SW-846	
	3. Leachate	8. Waste		C. NaOH + Ice	H. NaHSO4 + Ice				L. Low		W. CWA 600-series	
	4. Rinsate	9. Other_____		D. H2SO4 + Ice	I. ZnAc+NaOH + Ice						O. Other_____	
	5. Soil / Sediment / Sludge			E. Unpreserved								

Sample ID (9 characters maximum)	Date:Year: 2000	Time	Box #1 Matrix	Box #2 Preservative	Box #3 Filtered / Unfiltered	Box #4 Expected Conc.	Box #5 Method	No. of Bottles	Use for Lab QC (MS or DUP)	VOA Bzn,T	SVOC	Pesticide	PCB	Herbicide	Metals / Mercury	Cyanide	TOC / TOX	O&G / TPH	Nitrate only	Total Metals			Remarks / Comments (see Notes 2 & 3)
GB26S2I-6-8	8/21	16:45	S	F		L	S	4		X										X			
GB26S3I-6-8	8/21	17:15	S	F		L	S	4											X	X			
GB26S4I-6-8	8/21	17:40	S	F		L	S	4											X	X			
	/	:																					
	/	:																					
	/	:																					
	/	:																					
	/	:																					
	/	:																					
	/	:																					

Temperature 4 °C

Clients Special Instructions:

Lab: Received in Good Condition? Y or N **Describe Problems, If any:**

#1 Relinquished By: (Sig)	Date:	#2 Relinquished By: (Sig)	Date:	#3 Relinquished By: (Sig)	Date:
Company Name: Gbrow & Gree	Time:	Company Name:	Time:	Company Name:	Time:
#1 Received By: (Sig)	Date: 8-23-00	#2 Received By: (Sig)	Date:	#3 Received By: (Sig)	Date:
Company Name: CompuChem	Time: 9:35	Company Name:	Time:	Company Name:	Time:

Note (1): If "N" lab will hold samples to await remainder of project-maximizing batch size and minimizing QC ratio; if "Y" lab will begin processing batches now.
Not San stor days dat t m t no charg Note (2): All lab copies of data destroyed after three years

April 2004

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8935
Sample Description: OBGSB 8-1
Instrument: HP5973 GCMS#3
Units: ug/Kg Dry weight
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/27/04

Matrix: Solid
QC Batch: 042704S3
%Solids: 96.4
Sample Size: 6.06 g
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<4.3	U	4.3	04/27/04
Vinyl chloride	<4.3	U	4.3	04/27/04
Chloroethane	<4.3	U	4.3	04/27/04
Trichlorofluoromethane	<4.3	U	4.3	04/27/04
Acetone	<8.6	U	8.6	04/27/04
1,1-Dichloroethene	<2.1	U	2.1	04/27/04
Methylene chloride	<4.3	U	4.3	04/27/04
Carbon disulfide	<2.1	U	2.1	04/27/04
trans-1,2-Dichloroethene	<2.1	U	2.1	04/27/04
1,1-Dichloroethane	<2.1	U	2.1	04/27/04
Vinyl acetate	<4.3	U	4.3	04/27/04
2-Butanone	<8.6	U	8.6	04/27/04
cis-1,2-Dichloroethene	<2.1	U	2.1	04/27/04
1,2-Dichloroethane	<2.1	U	2.1	04/27/04
1,1,1-Trichloroethane	<2.1	U	2.1	04/27/04
Benzene	<2.1	U	2.1	04/27/04
Dibromomethane	<2.1	U	2.1	04/27/04
Trichloroethene	<2.1	U	2.1	04/27/04
4-Methyl-2-pentanone	<4.3	U	4.3	04/27/04
Toluene	<2.1	U	2.1	04/27/04
Tetrachloroethene	<2.1	U	2.1	04/27/04
Ethylbenzene	<2.1	U	2.1	04/27/04
Xylene (total)	<2.1	U	2.1	04/27/04
1,1,2,2-Tetrachloroethane	<2.1	U	2.1	04/27/04
1,2,3-Trichloropropane	<2.1	U	2.1	04/27/04
1,2-Dibromo-3-chloropropane	<4.3	U	4.3	04/27/04
1,2,4-Trichlorobenzene	<4.3	U	4.3	04/27/04
Naphthalene	<4.3	U	4.3	04/27/04
1,2,3-Trichlorobenzene	<4.3	U	4.3	04/27/04

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 30, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8935
Sample Description: OBGSB 8-1
Instrument: HP5973 GCMS#3
Units: ug/Kg Dry weight
Number of analytes: 29

Job No.: 3435 . 218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/27/04

Matrix: Solid
QC Batch: 042704S3
%Solids: 96.4
Sample Size: 6.06 g
Dilution: 1

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	104		76-124
1,2-Dichloroethane-d4 (surrogate)	102		69-131
Toluene-d8 (surrogate)	98		80-120
Bromofluorobenzene (surrogate)	90		57-122

Notes:

Isobutyl alcohol < 86. ug/Kg

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 30, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8936
Sample Description: OBGSB 8-2
Instrument: HP5973 GCMS#3
Units: ug/Kg Dry weight
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/27/04

Matrix: Solid
QC Batch: 042704S3
%Solids: 96.3
Sample Size: 5.47 g
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<4.7	U	4.7	04/27/04
Vinyl chloride	<4.7	U	4.7	04/27/04
Chloroethane	<4.7	U	4.7	04/27/04
Trichlorofluoromethane	<4.7	U	4.7	04/27/04
Acetone	<9.5	U	9.5	04/27/04
1,1-Dichloroethene	<2.4	U	2.4	04/27/04
Methylene chloride	<4.7	U	4.7	04/27/04
Carbon disulfide	<2.4	U	2.4	04/27/04
trans-1,2-Dichloroethene	<2.4	U	2.4	04/27/04
1,1-Dichloroethane	<2.4	U	2.4	04/27/04
Vinyl acetate	<4.7	U	4.7	04/27/04
2-Butanone	<9.5	U	9.5	04/27/04
cis-1,2-Dichloroethene	<2.4	U	2.4	04/27/04
1,2-Dichloroethane	<2.4	U	2.4	04/27/04
1,1,1-Trichloroethane	<2.4	U	2.4	04/27/04
Benzene	<2.4	U	2.4	04/27/04
Dibromomethane	<2.4	U	2.4	04/27/04
Trichloroethene	<2.4	U	2.4	04/27/04
4-Methyl-2-pentanone	<4.7	U	4.7	04/27/04
Toluene	<2.4	U	2.4	04/27/04
Tetrachloroethene	<2.4	U	2.4	04/27/04
Ethylbenzene	<2.4	U	2.4	04/27/04
Xylene (total)	<2.4	U	2.4	04/27/04
1,1,2,2-Tetrachloroethane	<2.4	U	2.4	04/27/04
1,2,3-Trichloropropane	<2.4	U	2.4	04/27/04
1,2-Dibromo-3-chloropropane	<4.7	U	4.7	04/27/04
1,2,4-Trichlorobenzene	<4.7	U	4.7	04/27/04
Naphthalene	<4.7	U	4.7	04/27/04
1,2,3-Trichlorobenzene	<4.7	U	4.7	04/27/04

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	104		76-124

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 30, 2004

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8936
Sample Description: OBGSB 8-2
Instrument: HP5973 GCMS#3
Units: ug/Kg Dry weight
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/27/04

Matrix: Solid
QC Batch: 042704S3
%Solids: 96.3
Sample Size: 5.47 g
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	103		69-131
Toluene-d8 (surrogate)	98		80-120
Bromofluorobenzene (surrogate)	89		57-122

Notes:

Isobutyl alcohol < 95. ug/Kg

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 30, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8937
Sample Description: OBGSB 9-1
Instrument: HP5973 GCMS#3
Units: ug/Kg Dry weight
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/27/04

Matrix: Solid
QC Batch: 042704S3
%Solids: 94.5
Sample Size: 4.94 g
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<5.4	U	5.4	04/27/04	
Vinyl chloride	<5.4	U	5.4	04/27/04	
Chloroethane	<5.4	U	5.4	04/27/04	
Trichlorofluoromethane	<5.4	U	5.4	04/27/04	
Acetone	<11.	U	11.	04/27/04	
1,1-Dichloroethene	<2.7	U	2.7	04/27/04	
Methylene chloride	<5.4	U	5.4	04/27/04	
Carbon disulfide	<2.7	U	2.7	04/27/04	
trans-1,2-Dichloroethene	<2.7	U	2.7	04/27/04	
1,1-Dichloroethane	<2.7	U	2.7	04/27/04	
Vinyl acetate	<5.4	U	5.4	04/27/04	
2-Butanone	<11.	U	11.	04/27/04	
cis-1,2-Dichloroethene	<2.7	U	2.7	04/27/04	
1,2-Dichloroethane	<2.7	U	2.7	04/27/04	
1,1,1-Trichloroethane	<2.7	U	2.7	04/27/04	
Benzene	<2.7	U	2.7	04/27/04	
Dibromomethane	<2.7	U	2.7	04/27/04	
Trichloroethene	<2.7	U	2.7	04/27/04	
4-Methyl-2-pentanone	<5.4	U	5.4	04/27/04	
Toluene	<2.7	U	2.7	04/27/04	
Tetrachloroethene	<2.7	U	2.7	04/27/04	
Ethylbenzene	<2.7	U	2.7	04/27/04	
Xylene (total)	<2.7	U	2.7	04/27/04	
1,1,2,2-Tetrachloroethane	<2.7	U	2.7	04/27/04	
1,2,3-Trichloropropane	<2.7	U	2.7	04/27/04	
1,2-Dibromo-3-chloropropane	<5.4	U	5.4	04/27/04	
1,2,4-Trichlorobenzene	<5.4	U	5.4	04/27/04	
Naphthalene	<5.4	U	5.4	04/27/04	
1,2,3-Trichlorobenzene	<5.4	U	5.4	04/27/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	105		76-124

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 30, 2004

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8937
Sample Description: OBGSB 9-1
Instrument: HP5973 GCMS#3
Units: ug/Kg Dry weight
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/27/04

Matrix: Solid
QC Batch: 042704S3
%Solids: 94.5
Sample Size: 4.94 g
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	105		69-131
Toluene-d8 (surrogate)	99		80-120
Bromofluorobenzene (surrogate)	91		57-122

Notes:

Isobutyl alcohol < 110. ug/Kg

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 30, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8938
Sample Description: OBGSB 9-2
Instrument: HP5973 GCMS#3
Units: ug/Kg Dry weight
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/27/04

Matrix: Solid
QC Batch: 042704S3
%Solids: 76.2
Sample Size: 5.79 g
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<5.7	U	5.7	04/27/04
Vinyl chloride	<5.7	U	5.7	04/27/04
Chloroethane	<5.7	U	5.7	04/27/04
Trichlorofluoromethane	<5.7	U	5.7	04/27/04
Acetone	<11.	U	11.	04/27/04
1,1-Dichloroethene	<2.8	U	2.8	04/27/04
Methylene chloride	<5.7	U	5.7	04/27/04
Carbon disulfide	<2.8	U	2.8	04/27/04
trans-1,2-Dichloroethene	<2.8	U	2.8	04/27/04
1,1-Dichloroethane	<2.8	U	2.8	04/27/04
Vinyl acetate	<5.7	U	5.7	04/27/04
2-Butanone	<11.	U	11.	04/27/04
cis-1,2-Dichloroethene	<2.8	U	2.8	04/27/04
1,2-Dichloroethane	<2.8	U	2.8	04/27/04
1,1,1-Trichloroethane	<2.8	U	2.8	04/27/04
Benzene	<2.8	U	2.8	04/27/04
Dibromomethane	<2.8	U	2.8	04/27/04
Trichloroethene	<2.8	U	2.8	04/27/04
4-Methyl-2-pentanone	<5.7	U	5.7	04/27/04
Toluene	<2.8	U	2.8	04/27/04
Tetrachloroethene	<2.8	U	2.8	04/27/04
Ethylbenzene	<2.8	U	2.8	04/27/04
Xylene (total)	<2.8	U	2.8	04/27/04
1,1,2,2-Tetrachloroethane	<2.8	U	2.8	04/27/04
1,2,3-Trichloropropane	<2.8	U	2.8	04/27/04
1,2-Dibromo-3-chloropropane	<5.7	U	5.7	04/27/04
1,2,4-Trichlorobenzene	<5.7	U	5.7	04/27/04
Naphthalene	<5.7	U	5.7	04/27/04
1,2,3-Trichlorobenzene	<5.7	U	5.7	04/27/04

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	105		76-124

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 30, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8938
Sample Description: OBGSB 9-2
Instrument: HP5973 GCMS#3
Units: ug/Kg Dry weight
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/27/04

Matrix: Solid
QC Batch: 042704S3
%Solids: 76.2
Sample Size: 5.79 g
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	105		69-131
Toluene-d8 (surrogate)	99		80-120
Bromofluorobenzene (surrogate)	92		57-122

Notes:

Isobutyl alcohol < 110. ug/Kg

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 30, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8939
Sample Description: OBGSB 10-1
Instrument: HP5973 GCMS#3
Units: ug/Kg Dry weight
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/27/04

Matrix: Solid
QC Batch: 042704S3
%Solids: 84.3
Sample Size: 6.03 g
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<4.9	U	4.9	04/27/04
Vinyl chloride	<4.9	U	4.9	04/27/04
Chloroethane	<4.9	U	4.9	04/27/04
Trichlorofluoromethane	<4.9	U	4.9	04/27/04
Acetone	<9.8	U	9.8	04/27/04
1,1-Dichloroethene	<2.5	U	2.5	04/27/04
Methylene chloride	<4.9	U	4.9	04/27/04
Carbon disulfide	<2.5	U	2.5	04/27/04
trans-1,2-Dichloroethene	<2.5	U	2.5	04/27/04
1,1-Dichloroethane	<2.5	U	2.5	04/27/04
Vinyl acetate	<4.9	U	4.9	04/27/04
2-Butanone	<9.8	U	9.8	04/27/04
cis-1,2-Dichloroethene	4.7		2.5	04/27/04
1,2-Dichloroethane	<2.5	U	2.5	04/27/04
1,1,1-Trichloroethane	<2.5	U	2.5	04/27/04
Benzene	<2.5	U	2.5	04/27/04
Dibromomethane	<2.5	U	2.5	04/27/04
Trichloroethene	3.7		2.5	04/27/04
4-Methyl-2-pentanone	<4.9	U	4.9	04/27/04
Toluene	<2.5	U	2.5	04/27/04
Tetrachloroethene	<2.5	U	2.5	04/27/04
Ethylbenzene	<2.5	U	2.5	04/27/04
Xylene (total)	<2.5	U	2.5	04/27/04
1,1,2,2-Tetrachloroethane	<2.5	U	2.5	04/27/04
1,2,3-Trichloropropane	<2.5	U	2.5	04/27/04
1,2-Dibromo-3-chloropropane	<4.9	U	4.9	04/27/04
1,2,4-Trichlorobenzene	<4.9	U	4.9	04/27/04
Naphthalene	<4.9	U	4.9	04/27/04
1,2,3-Trichlorobenzene	<4.9	U	4.9	04/27/04

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	105		76-124

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 30, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8939
Sample Description: OBGSB 10-1
Instrument: HP5973 GCMS#3
Units: ug/Kg Dry weight
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/27/04

Matrix: Solid
QC Batch: 042704S3
%Solids: 84.3
Sample Size: 6.03 g
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	103		69-131
Toluene-d8 (surrogate)	98		80-120
Bromofluorobenzene (surrogate)	88		57-122

Notes:

Isobutyl alcohol < 98. ug/Kg

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 30, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8940
Sample Description: DUP 1
Instrument: HP5973 GCMS#3
Units: ug/Kg Dry weight
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/27/04

Matrix: Solid
QC Batch: 042704S3
%Solids: 89.7
Sample Size: 6.1 g
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<4.6	U	4.6	04/27/04
Vinyl chloride	<4.6	U	4.6	04/27/04
Chloroethane	<4.6	U	4.6	04/27/04
Trichlorofluoromethane	<4.6	U	4.6	04/27/04
Acetone	<9.1	U	9.1	04/27/04
1,1-Dichloroethene	<2.3	U	2.3	04/27/04
Methylene chloride	<4.6	U	4.6	04/27/04
Carbon disulfide	<2.3	U	2.3	04/27/04
trans-1,2-Dichloroethene	<2.3	U	2.3	04/27/04
1,1-Dichloroethane	<2.3	U	2.3	04/27/04
Vinyl acetate	<4.6	U	4.6	04/27/04
2-Butanone	<9.1	U	9.1	04/27/04
cis-1,2-Dichloroethene	<2.3	U	2.3	04/27/04
1,2-Dichloroethane	<2.3	U	2.3	04/27/04
1,1,1-Trichloroethane	<2.3	U	2.3	04/27/04
Benzene	<2.3	U	2.3	04/27/04
Dibromomethane	<2.3	U	2.3	04/27/04
Trichloroethene	<2.3	U	2.3	04/27/04
4-Methyl-2-pentanone	<4.6	U	4.6	04/27/04
Toluene	<2.3	U	2.3	04/27/04
Tetrachloroethene	<2.3	U	2.3	04/27/04
Ethylbenzene	<2.3	U	2.3	04/27/04
Xylene (total)	<2.3	U	2.3	04/27/04
1,1,2,2-Tetrachloroethane	<2.3	U	2.3	04/27/04
1,2,3-Trichloropropane	<2.3	U	2.3	04/27/04
1,2-Dibromo-3-chloropropane	<4.6	U	4.6	04/27/04
1,2,4-Trichlorobenzene	<4.6	U	4.6	04/27/04
Naphthalene	<4.6	U	4.6	04/27/04
1,2,3-Trichlorobenzene	<4.6	U	4.6	04/27/04

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	105		76-124

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 30, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8940
Sample Description: DUP 1
Instrument: HP5973 GCMS#3
Units: ug/Kg Dry weight
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/27/04

Matrix: Solid
QC Batch: 042704S3
%Solids: 89.7
Sample Size: 6.1 g
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	105		69-131
Toluene-d8 (surrogate)	100		80-120
Bromofluorobenzene (surrogate)	90		57-122

Notes:

Isobutyl alcohol < 91. ug/Kg

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 30, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8942
Sample Description: QC Trip Blank
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/27/04

Matrix: Water
QC Batch: 042704W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/27/04	
Vinyl chloride	<1.0	U	1.0	04/27/04	
Chloroethane	<1.0	U	1.0	04/27/04	
Trichlorofluoromethane	<1.0	U	1.0	04/27/04	
Acetone	<10.	U	10.	04/27/04	
1,1-Dichloroethene	<.50	U	.50	04/27/04	
Methylene chloride	<2.0	U	2.0	04/27/04	
Carbon disulfide	<.50	U	.50	04/27/04	
trans-1,2-Dichloroethene	<.50	U	.50	04/27/04	
1,1-Dichloroethane	<.50	U	.50	04/27/04	
Vinyl acetate	<2.0	U	2.0	04/27/04	
2-Butanone	<10.	U	10.	04/27/04	
cis-1,2-Dichloroethene	<.50	U	.50	04/27/04	
1,2-Dichloroethane	<.50	U	.50	04/27/04	
1,1,1-Trichloroethane	<.50	U	.50	04/27/04	
Benzene	<.50	U	.50	04/27/04	
Dibromomethane	<.50	U	.50	04/27/04	
Trichloroethene	<.50	U	.50	04/27/04	
4-Methyl-2-pentanone	<5.0	U	5.0	04/27/04	
Toluene	<.50	U	.50	04/27/04	
Tetrachloroethene	<.50	U	.50	04/27/04	
Ethylbenzene	<.50	U	.50	04/27/04	
Xylene (total)	<.50	U	.50	04/27/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/27/04	
1,2,3-Trichloropropane	<.50	U	.50	04/27/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/27/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/27/04	
Naphthalene	<1.0	U	1.0	04/27/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/27/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	109		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 27, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8942
Sample Description: QC Trip Blank
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/27/04

Matrix: Water
QC Batch: 042704W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	122		71-126
Toluene-d8 (surrogate)	103		80-120
Bromofluorobenzene (surrogate)	96		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 27, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample GC/MS Volatile Organics

Package#: 7744
Sample: L042704S3
Analyzed: 04/27/04

QC Batch: 042704S3
Instrument: HP5973 GCMS#3
Number of analytes: 29

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Chloromethane	48.4605	50	ug/Kg	97	58-137	
Vinyl chloride	53.4135	50	ug/Kg	107	75-131	
Chloroethane	46.4602	50	ug/Kg	93	71-134	
Trichlorofluoromethane	49.2470	50	ug/Kg	98	72-129	
Acetone	87.7786	100	ug/Kg	88	38-175	
1,1-Dichloroethene	53.6886	50	ug/Kg	107	81-123	
Methylene chloride	46.4103	50	ug/Kg	93	79-117	
Carbon disulfide	51.0709	50	ug/Kg	102	85-124	
trans-1,2-Dichloroethene	50.2324	50	ug/Kg	100	85-121	
1,1-Dichloroethane	50.2606	50	ug/Kg	101	85-121	
Vinyl acetate	38.1082	50	ug/Kg	76	25-175	
2-Butanone	84.2337	100	ug/Kg	84	50-156	
cis-1,2-Dichloroethene	48.9362	50	ug/Kg	98	85-118	
1,2-Dichloroethane	53.6907	50	ug/Kg	107	72-123	
1,1,1-Trichloroethane	59.9889	50	ug/Kg	120	77-128	
Benzene	54.2711	50	ug/Kg	109	85-121	
Dibromomethane	46.7648	50	ug/Kg	94	82-115	
Trichloroethene	55.7066	50	ug/Kg	111	84-119	
4-Methyl-2-pentanone	97.3173	100	ug/Kg	97	50-138	
Toluene	52.4287	50	ug/Kg	105	85-120	
Tetrachloroethene	55.2304	50	ug/Kg	110	80-121	
Ethylbenzene	52.5280	50	ug/Kg	105	85-119	
Xylene (total)	146.7382	150	ug/Kg	98	78-128	
1,1,2,2-Tetrachloroethane	54.1076	50	ug/Kg	108	62-150	
1,2,3-Trichloropropane	55.2570	50	ug/Kg	111	68-138	
1,2-Dibromo-3-chloropropane	55.4889	50	ug/Kg	111	56-140	
1,2,4-Trichlorobenzene	46.9741	50	ug/Kg	94	71-123	
Naphthalene	52.3105	50	ug/Kg	105	57-150	
1,2,3-Trichlorobenzene	47.5321	50	ug/Kg	95	73-124	
Isobutyl alcohol	484.66	%R 500	ug/kg	97	50-150	

Surrogate	%R	Qual	Limits
Dibromofluoromethane (surrogate)	96		76-124
1,2-Dichloroethane-d4 (surrogate)	103		69-131
Toluene-d8 (surrogate)	98		80-120
Bromofluorobenzene (surrogate)	102		57-122

Notes:

- Outside control limits

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample GC/MS Volatile Organics

Package#: 7744
Sample: D042704S3
Analyzed: 04/27/04

QC Batch: 042704S3
Instrument: HP5973 GCMS#3
Number of analytes: 29

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Chloromethane	49.3703	50	ug/Kg	99	58-137	
Vinyl chloride	53.1464	50	ug/Kg	106	75-131	
Chloroethane	46.3356	50	ug/Kg	93	71-134	
Trichlorofluoromethane	48.4642	50	ug/Kg	97	72-129	
Acetone	86.1397	100	ug/Kg	86	38-175	
1,1-Dichloroethene	55.7690	50	ug/Kg	112	81-123	
Methylene chloride	49.1296	50	ug/Kg	98	79-117	
Carbon disulfide	50.7791	50	ug/Kg	102	85-124	
trans-1,2-Dichloroethene	51.6583	50	ug/Kg	103	85-121	
1,1-Dichloroethane	51.0245	50	ug/Kg	102	85-121	
Vinyl acetate	38.9144	50	ug/Kg	78	25-175	
2-Butanone	81.9777	100	ug/Kg	82	50-156	
cis-1,2-Dichloroethene	49.6620	50	ug/Kg	99	85-118	
1,2-Dichloroethane	54.2437	50	ug/Kg	108	72-123	
1,1,1-Trichloroethane	59.9505	50	ug/Kg	120	77-128	
Benzene	54.6747	50	ug/Kg	109	85-121	
Dibromomethane	47.9444	50	ug/Kg	96	82-115	
Trichloroethene	55.0676	50	ug/Kg	110	84-119	
4-Methyl-2-pentanone	97.0401	100	ug/Kg	97	50-138	
Toluene	52.4930	50	ug/Kg	105	85-120	
Tetrachloroethene	56.4742	50	ug/Kg	113	80-121	
Ethylbenzene	53.5499	50	ug/Kg	107	85-119	
Xylene (total)	148.2427	150	ug/Kg	99	78-128	
1,1,2,2-Tetrachloroethane	57.7973	50	ug/Kg	116	62-150	
1,2,3-Trichloropropane	57.6598	50	ug/Kg	115	68-138	
1,2-Dibromo-3-chloropropane	56.6679	50	ug/Kg	113	56-140	
1,2,4-Trichlorobenzene	49.1137	50	ug/Kg	98	71-123	
Naphthalene	56.0173	50	ug/Kg	112	57-150	
1,2,3-Trichlorobenzene	49.5636	50	ug/Kg	99	73-124	
Isobutyl alcohol	482.00	%R 500	ug/kg	96	50-150	

Surrogate	%R	Qual	Limits
Dibromofluoromethane (surrogate)	95		76-124
1,2-Dichloroethane-d4 (surrogate)	102		69-131
Toluene-d8 (surrogate)	98		80-120
Bromofluorobenzene (surrogate)	102		57-122

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample GC/MS Volatile Organics

Package#: 7744
Sample: L042704W1
Analyzed: 04/27/04

QC Batch: 042704W1
Instrument: HP5973 GC/MS#1
Number of analytes: 29

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Chloromethane	9.7295	10	ug/L	97	58-133	
Vinyl chloride	10.5231	10	ug/L	105	76-127	
Chloroethane	9.6790	10	ug/L	97	77-125	
Trichlorofluoromethane	12.1634	10	ug/L	122	78-128	
Acetone	25.5594	20	ug/L	128	37-175	
1,1-Dichloroethene	10.3920	10	ug/L	104	80-115	
Methylene chloride	9.7887	10	ug/L	98	76-115	
Carbon disulfide	10.5055	10	ug/L	105	83-117	
trans-1,2-Dichloroethene	10.3064	10	ug/L	103	84-115	
1,1-Dichloroethane	11.0389	10	ug/L	110	85-117	
Vinyl acetate	7.9076	10	ug/L	79	25-175	
2-Butanone	22.4693	20	ug/L	112	44-162	
cis-1,2-Dichloroethene	10.5297	10	ug/L	105	85-115	
1,2-Dichloroethane	12.1560	10	ug/L	122	75-121	#
1,1,1-Trichloroethane	11.7959	10	ug/L	118	83-124	
Benzene	10.0052	10	ug/L	100	85-122	
Dibromomethane	10.9778	10	ug/L	110	80-115	
Trichloroethene	10.3486	10	ug/L	103	85-120	
4-Methyl-2-pentanone	21.2469	20	ug/L	106	50-132	
Toluene	9.9108	10	ug/L	99	85-122	
Tetrachloroethene	10.2946	10	ug/L	103	85-121	
Ethylbenzene	9.7613	10	ug/L	98	85-123	
Xylene (total)	28.6784	30	ug/L	96	82-128	
1,1,2,2-Tetrachloroethane	10.1888	10	ug/L	102	70-123	
1,2,3-Trichloropropane	10.2678	10	ug/L	103	75-120	
1,2-Dibromo-3-chloropropane	11.5971	10	ug/L	116	63-123	
1,2,4-Trichlorobenzene	10.8879	10	ug/L	109	76-117	
Naphthalene	11.5839	10	ug/L	116	69-125	
1,2,3-Trichlorobenzene	10.9611	10	ug/L	110	78-119	
Isobutyl alcohol	336.69	%R 250	ug/L	135	50-150	

Surrogate	%R	Qual	Limits
Dibromofluoromethane (surrogate)	112		78-120
1,2-Dichloroethane-d4 (surrogate)	122		71-126
Toluene-d8 (surrogate)	99		80-120
Bromofluorobenzene (surrogate)	97		78-120

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample GC/MS Volatile Organics

Package#: 7744
Sample: D042704W1
Analyzed: 04/27/04

QC Batch: 042704W1
Instrument: HP5973 GC/MS#1
Number of analytes: 29

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Chloromethane	9.4380	10	ug/L	94	58-133	
Vinyl chloride	10.2642	10	ug/L	103	76-127	
Chloroethane	9.5559	10	ug/L	96	77-125	
Trichlorofluoromethane	11.9638	10	ug/L	120	78-128	
Acetone	24.9252	20	ug/L	125	37-175	
1,1-Dichloroethene	10.3490	10	ug/L	103	80-115	
Methylene chloride	9.8052	10	ug/L	98	76-115	
Carbon disulfide	10.3772	10	ug/L	104	83-117	
trans-1,2-Dichloroethene	10.3298	10	ug/L	103	84-115	
1,1-Dichloroethane	11.0108	10	ug/L	110	85-117	
Vinyl acetate	7.5798	10	ug/L	76	25-175	
2-Butanone	22.1648	20	ug/L	111	44-162	
cis-1,2-Dichloroethene	10.6088	10	ug/L	106	85-115	
1,2-Dichloroethane	12.1216	10	ug/L	121	75-121	
1,1,1-Trichloroethane	11.7820	10	ug/L	118	83-124	
Benzene	9.9889	10	ug/L	100	85-122	
Dibromomethane	10.8785	10	ug/L	109	80-115	
Trichloroethene	10.3849	10	ug/L	104	85-120	
4-Methyl-2-pentanone	21.0411	20	ug/L	105	50-132	
Toluene	9.9582	10	ug/L	100	85-122	
Tetrachloroethene	10.4887	10	ug/L	105	85-121	
Ethylbenzene	9.9047	10	ug/L	99	85-123	
Xylene (total)	28.8899	30	ug/L	96	82-128	
1,1,2,2-Tetrachloroethane	10.0626	10	ug/L	101	70-123	
1,2,3-Trichloropropane	10.2100	10	ug/L	102	75-120	
1,2-Dibromo-3-chloropropane	11.2192	10	ug/L	112	63-123	
1,2,4-Trichlorobenzene	10.5829	10	ug/L	106	76-117	
Naphthalene	11.7108	10	ug/L	117	69-125	
1,2,3-Trichlorobenzene	10.8064	10	ug/L	108	78-119	
Isobutyl alcohol	319.42	%R 250	ug/L	128	50-150	

Surrogate	%R	Qual	Limits
Dibromofluoromethane (surrogate)	111		78-120
1,2-Dichloroethane-d4 (surrogate)	120		71-126
Toluene-d8 (surrogate)	99		80-120
Bromofluorobenzene (surrogate)	97		78-120

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
GC/MS Volatile Organics

Package#: 7744
Sample: PB042704S3
Analyzed: 04/27/04

QC Batch: 042704S3
Instrument: HP5973 GCMS#3
Number of analytes: 29

Parameter	Sample Result	Q	PQL	Units	Note
Chloromethane	<5.0	U	5.0	ug/Kg	
Vinyl chloride	<5.0	U	5.0	ug/Kg	
Chloroethane	<5.0	U	5.0	ug/Kg	
Trichlorofluoromethane	<5.0	U	5.0	ug/Kg	
Acetone	<10.	U	10.	ug/Kg	
1,1-Dichloroethene	<2.5	U	2.5	ug/Kg	
Methylene chloride	<5.0	U	5.0	ug/Kg	
Carbon disulfide	<2.5	U	2.5	ug/Kg	
trans-1,2-Dichloroethene	<2.5	U	2.5	ug/Kg	
1,1-Dichloroethane	<2.5	U	2.5	ug/Kg	
Vinyl acetate	<5.0	U	5.0	ug/Kg	
2-Butanone	<10.	U	10.	ug/Kg	
cis-1,2-Dichloroethene	<2.5	U	2.5	ug/Kg	
1,2-Dichloroethane	<2.5	U	2.5	ug/Kg	
1,1,1-Trichloroethane	<2.5	U	2.5	ug/Kg	
Benzene	<2.5	U	2.5	ug/Kg	
Dibromomethane	<2.5	U	2.5	ug/Kg	
Trichloroethene	<2.5	U	2.5	ug/Kg	
4-Methyl-2-pentanone	<5.0	U	5.0	ug/Kg	
Toluene	<2.5	U	2.5	ug/Kg	
Tetrachloroethene	<2.5	U	2.5	ug/Kg	
Ethylbenzene	<2.5	U	2.5	ug/Kg	
Xylene (total)	<2.5	U	2.5	ug/Kg	
1,1,2,2-Tetrachloroethane	<2.5	U	2.5	ug/Kg	
1,2,3-Trichloropropane	<2.5	U	2.5	ug/Kg	
1,2-Dibromo-3-chloropropane	<5.0	U	5.0	ug/Kg	
1,2,4-Trichlorobenzene	<5.0	U	5.0	ug/Kg	
Naphthalene	<5.0	U	5.0	ug/Kg	
1,2,3-Trichlorobenzene	<5.0	U	5.0	ug/Kg	
Isobutyl alcohol	<100.	U	100.	ug/kg	

Surrogate	%R	Qual	Limits
Dibromofluoromethane (surrogate)	102		76-124
1,2-Dichloroethane-d4 (surrogate)	102		69-131
Toluene-d8 (surrogate)	100		80-120
Bromofluorobenzene (surrogate)	92		57-122

Notes:

- Outside control limits. J - Estimated value. U - Undetected at the reported level.

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
GC/MS Volatile Organics

Package#: 7744
Sample: PB042704W1
Analyzed: 04/27/04

QC Batch: 042704W1
Instrument: HP5973 GC/MS#1
Number of analytes: 29

Parameter	Sample Result	Q	PQL	Units	Note
Chloromethane	<1.0	U	1.0	ug/L	
Vinyl chloride	<1.0	U	1.0	ug/L	
Chloroethane	<1.0	U	1.0	ug/L	
Trichlorofluoromethane	<1.0	U	1.0	ug/L	
Acetone	<10.	U	10.	ug/L	
1,1-Dichloroethene	<.50	U	.50	ug/L	
Methylene chloride	<2.0	U	2.0	ug/L	
Carbon disulfide	<.50	U	.50	ug/L	
trans-1,2-Dichloroethene	<.50	U	.50	ug/L	
1,1-Dichloroethane	<.50	U	.50	ug/L	
Vinyl acetate	<2.0	U	2.0	ug/L	
2-Butanone	<10.	U	10.	ug/L	
cis-1,2-Dichloroethene	<.50	U	.50	ug/L	
1,2-Dichloroethane	<.50	U	.50	ug/L	
1,1,1-Trichloroethane	<.50	U	.50	ug/L	
Benzene	<.50	U	.50	ug/L	
Dibromomethane	<.50	U	.50	ug/L	
Trichloroethene	<.50	U	.50	ug/L	
4-Methyl-2-pentanone	<5.0	U	5.0	ug/L	
Toluene	<.50	U	.50	ug/L	
Tetrachloroethene	<.50	U	.50	ug/L	
Ethylbenzene	<.50	U	.50	ug/L	
Xylene (total)	<.50	U	.50	ug/L	
1,1,2,2-Tetrachloroethane	<.50	U	.50	ug/L	
1,2,3-Trichloropropane	<.50	U	.50	ug/L	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	ug/L	
1,2,4-Trichlorobenzene	<1.0	U	1.0	ug/L	
Naphthalene	<1.0	U	1.0	ug/L	
1,2,3-Trichlorobenzene	<1.0	U	1.0	ug/L	
Isobutyl alcohol	<50.	U	50.	ug/L	

Surrogate	%R	Qual	Limits
Dibromofluoromethane (surrogate)	107		78 - 120
1,2-Dichloroethane-d4 (surrogate)	120		71 - 126
Toluene-d8 (surrogate)	103		80 - 120
Bromofluorobenzene (surrogate)	98		78 - 120

Notes:

- Outside control limits. J - Estimated value. U - Undetected at the reported level.

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

TABLE OF CONTENTS
VOLUME II – APPENDIX F

Revised Compliance Status Report
Miller Brewing Company
Moultrie, Georgia

Laboratory Analytical Data For Ground Water

- **August – September 2000**
- **November 2000**
- **January 2001**
- **Ground Water Analytical Data Validation Summary**
- **April 2004**

Appendix F

Laboratory Analytical Data for Ground Water Sampling

August – September 2000

COMPUCHEM
a division of Liberty Analytical Corp.

September 13, 2000

Chris Rook
O'BRIEN & GERE
1015 Aviation PKWY
STE 700
Morrisville, NC 27560

Subject:
Report of Data – Project: MILLER- MOULTRIE Quote #: Q1536 SDG #: V1536

Attn.: Chris Rook

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097.

Sincerely,

CompuChem Environmental
A Division of Liberty Analytical

Attachment

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE

SDG # V1536
PROTOCOL: SW-846

SAMPLE IDENTIFICATIONS: CH2MW2, CH2MW3, CH2MW4D, DUP, ETMW114, ETMW116, ETMW117, ETMW121, FB082300, OBGMW122, TRIP BLANK

The 11 water samples listed above were received intact, properly refrigerated at a temperature of 4°C, with prope documentation, in a sealed shipping container, on August 24, 2000. The samples were scheduled for the requested analyses of the volatile fractions. SW-846, 3rd Edition, Update 3, Method 8260B was used to prepare and analyze these samples, with the exceptions and/or additions requested by the client.

Volatiles

Analysis holding time requirements were met for all of the samples listed above. Due to a scheduling error the duplicate matrix spikes were not analyzed until the day after holding times had expired.

The pH values of these samples are tabulated on the attached batch sheets.

There were an assortment of target analytes identified above the reporting limit in these samples, most of which were chlorinated compounds. No Tentatively Identified Compounds (TICs) were searched in these samples, per the client.

In the initial analyses of 25 mL of DUP and ETMW116, the on-column amounts of 1,1-dichloroethene and trichloroethen exceeded the instrument's analytical range as defined by the highest concentration level of the Initial Calibration. In DUP tetrachloroethene also exceeded the instrument's analytical range. The samples were reanalyzed using a smaller aliquot of raw sampl (1 mL for both samples) to bring the on-column amounts into range. We have reported both analyses of these two samples.

Due to the results of a screen of ETMW114, the sample was initially analyzed using 300 µL of raw sample. Even at this level of dilution (an effective 83.3 x dilution) trichloroethene exceeded the instrument's analytical range. The sample was reanalyzed, using an even smaller aliquot of raw sample (100µl) to bring the analyte into range. We have reported both of the diluted analyses of thi sample.

Due to the results of an undiluted screen of ETMW117, the sample was initially analyzed using 3.5 mL of raw sample.

All bromofluorobenzene (BFB) abundance criteria were met for tunes associated to this SDG. Overall QC criteria were me for all initial and continuing calibration standards associated to this SDG.

All of the system monitoring compounds met recovery criteria in the analyses of these samples. All of the internal standards met response and retention time criteria in the analyses of these samples.

The four associated method blanks met all quality control criteria. One of the method blanks contained a level of th common laboratory solvent acetone, which was within allowable limits.

ETMW114 was used as the original to prepare the duplicate matrix spikes as requested. Due to a laboratory error the spikes were both analyzed at the highest reported dilution level that the associated original had been analyzed at, rather than the mo concentrated (least dilute) level. With one exception, the associated duplicate matrix spikes met all accuracy and precision criteria. The Relative Percent Difference (RPD) of toluene was flagged as an outlier in the comparison of the duplicate matrix spikes. The maximum acceptable RPD value is 14%, and these spikes exhibited a 15% variation.

The four associated Laboratory Control Sample (LCS) met all accuracy criteria.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by th Laboratory Manager or his/her designee, as verified by the following signature.

Michael Steven Schapira 9/11/00

Michael Steven Schapira

Data Reviewer II
September 11, 2000

GC and GC/MS Column and Trap Specifications Table

COLUMNS

Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
GC Laboratory				
Restek	RTX-1701	0.53	0.5	30
J & W	DB-608	0.53	0.83	30
Restek	CLPesticides	0.53	0.5	30
Restek	CLPesticides II	0.53	0.42	30
GC Volatiles Laboratory				
Restek	RTX-1	0.53	0.5	105
Restek	RTX-502.2	0.53	0.5	105
GC/MS Volatiles Laboratory				
J & W	DB-624	0.53	3.0	30/75
Supelco	Equity™-624	0.53	3.0	75
GC/MS Semivolatiles Laboratory				
J & W	DB-5.625	0.32	1.0	30
J & W	DB5-MS	0.25	0.25	30
Hewlett Packard	HP5-MS	0.25	0.25	30
Optima	5-MS	0.25	0.25	30
Restek	RTX-5MS	0.25	0.25	30

TRAPS

GC and GC/MS Volatiles Laboratory	
Tekmar 3	* 8 cm of 2,6-diphenylene oxide polymer (Tenax) * 8 cm of silica gel * 7 cm of coconut charcoal * 0.5 cm of silanized glass wool at each end
Tekmar 5	* 1 cm of methyl silicone packing (OV-1 coating) * 8 cm of 2,6-diphenylene oxide polymer (Tenax) * 8 cm of silica gel * 7 cm of coconut charcoal * 0.5 cm of silanized glass wool at each end
Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons) * 6 cm of Carboxen 1000 (Carbon molecular sieves) * 1 cm of Carboxen 1001 (Carbon molecular sieves)

Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These adjustments are performed by the data reviewer, GC/MS operator, or GC chemist. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration of each compound to demonstrate the accuracy of that process. Adjustments are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count as possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that the data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

With the introduction of the current EPA CLP SOW (Document Number OLM03.0, plus revisions) additional explanations for manual editing/integration are required. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC data packages.

Robert E. Meierer
Vice President

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL) (or Reporting Limit) will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicates the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and all reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Form Is are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form I.

A : This flag indicates that a TIC is a suspected aldol-condensation product.

S : This flag indicates that an analyte was detected by a single column GC analysis but the result was below the Reporting Limit. This flag is only used when clients request a second (confirmation) column analysis after detecting an analyte above the Reporting Limit in the initial, single column analysis. This flag alerts the data user that only an analyte was detected below the Reporting Limit and a second (confirmation) analysis was not performed.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

COMPUCHEM
a division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513
1-800-833-5097

CHAIN-OF-CUSTODY RECORD

No. 05u770

Project Name: OBRIEN & GERE MILLER Moultrie	Client Address: OBRIEN & GERE 1015 AVIATION PARKWAY SUITE 700 MORRISVILLE NC 27560	Point-of-Contact: C ROOK
Carrier:		Telephone No.: 919 469 0099
Airbill No.:		Sampling complete? Y or N (see Note 1)
Sampler Name: CHRISTOPHER ROOK	Sampler Signature: [signature]	Project-specific (PS) or Batch (B) QC?

BOX #1: 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil / Sediment / Sludge 6. Trip Blank 7. Oil 8. Waste 9. Other_____

BOX #2: A. HCl + Ice B. HNO3 + Ice C. NaOH + Ice D. H2SO4 + Ice E. Unpreserved F. Ice Only G. Other_____ H. NaHSO4 + Ice I. ZnAc+NaOH + Ice

BOX #3: F. Filtered U. Unfiltered

Box #4: H. High M. Medium L. Low

Box #5: C. CLP 3/90 S. SW-846 W. CWA 600-series O. Other_____ T. TCLP

Sample ID (9 characters maximum)	Date:Year: 2000	Time	Box #1 Matrix	Box #2 Preservative	Box #3 Filtered / Unfiltered	Box #4 Expected Conc.	Box #5 Method	No. of Bottles	Use for Lab QC (MS or DUP)	VOA	SVOC	Pesticide	PCB	~~Herbicide~~ CHLORIDE	Metals / Mercury	~~Cyanide~~ NITRITE	TOC / ~~TOX~~	~~O&G / TPH~~ NITRATE	MEE	ALK.	SULFATE	SULFIDE	DOC per Chris Rook MSE/KS	Remarks / Comments (see Notes 2 & 3)
CH2MW2	8/23	12:40	2	ADI	U	L	S	12		X				X		X	X	X	X	X	X	X	X	
CH2MW3	8/23	11:35	2	ADI	U	L	S	12		X				X		X	X	X	X	X	X	X	X	
CH2MW4D	8/23	13:15	2	ADI	U	L	S	12		X				X		X	X	X	X	X	X	X	X	
ETMW117	8/23	14:10	2	ADI	U	L	S	3		X														Rec'd MEE w/ this id
ETMW114	8/23	15:00	2	ADI	U	L	S	3		X														
ETMW116	8/23	14:25	2	ADI	U	L	S	12		X				X		X	X	X	X	X	X	X	X	
ETMW121	8/23	15:10	2	ADI	U	L	S	3		X														
OBGMW122	8/23	13:45	2	ADI	U	L	S	3		X														
DUP	8/23	:	2	ADI	U	L	S	3		X														
FB082300	8/23	14:50	4	ADI	U	L	S	3		X														

Clients Special Instructions:

Temperature 4 °C

Lab: Received in Good Condition? Y or N Describe Problems, If any:

#1 Relinquished By: (Sig) [signature]	Date:	#2 Relinquished By: (Sig)	Date:	#3 Relinquished By: (Sig)	Date:
Company Name: OBRIEN & GERE	Time:	Company Name:	Time:	Company Name:	Time:
#1 Received By: (Sig)	Date:	#2 Received By: (Sig) P McGill	Date 8/24	#3 Received By: (Sig)	Date:
Company Name:	Time:	Company Name: Compuchem	Time: 10:20	Company Name:	Time:

Note (1): If "N" lab will hold samples to await remainder of project-maximizing batch size and minimizing QC ratio; if "Y" lab will begin processing batches now.
Note (2): Samples stored 60 days after date report mailed at no extra charge. Note (3): All lab copies of data destroyed after three years.

CompuChem
a division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513
1-800-833-5097

CHAIN-OF-CUSTODY RECORD

No. 050780

Project Name : O'Brien & Gere Miller Moultrie GA	Client Address : O'Brien & Gere 1015 Aviation Avenue	Point-of-Contact : C. Rook
Carrier :	Suite 200	Telephone No. : 919 469 0554
Airbill No. :	Morrisville NC 27560	Sampling complete? (Y) or N (see Note 1)
Sampler Name : Christopher Rook	Sampler Signature : Christopher Rook	Project-specific (PS) or Batch (B) QC ? ____

BOX #1	1. Surface Water	6. Trip Blank	BOX #2	A. HCl + Ice	F. Ice Only	BOX #3	F. Filtered	Box #4	H. High	Box #5	C. CLP 3/90	T. TCLP
	2. Ground Water	7. Oil		B. HNO3 + Ice	G. Other____		U. Unfiltered		M. Medium		S. SW-846	
	3. Leachate	8. Waste		C. NaOH + Ice	H. NaHSO4 + Ice				L. Low		W. CWA 600-series	
	4. Rinsate	9. Other____		D. H2SO4 + Ice	I. ZnAc+NaOH + Ice						O. Other____	
	5. Soil / Sediment / Sludge			E. Unpreserved								

Sample ID (9 characters maximum)	Date: Year: 2002	Time	Box #1 Matrix	Box #2 Preservative	Box #3 Filtered / Unfiltered	Box #4 Expected Conc.	Box #5 Method	No. of Bottles	Use for Lab QC (MS or DUP)	VOA 8260B	SVOC	Pesticide	PCB	Herbicide	Metals / Mercury	Cyanide	TOC / TOX	O&G / TPH	Remarks / Comments (see Notes 2 & 3)
ETMW11HMS	8/23	15:00	2	A	U	L	5	3		3									
ETMW11HMSD	8/23	15:00	2	A	U	L	5	3		3									
TRIP BLANK	8/23	:	6	A	U	L	5	3		3									
	/	:																	
	/	:																	
	/	:																	
	/	:																	
	/	:																	
	/	:																	
	/	:																	

Clients Special Instructions:

Temperature 4 °C

Lab: Received in Good Condition? Y or N Describe Problems, If any:

#1 Relinquished By: (Sig) Christopher Rook Date: 8/23/02	#2 Relinquished By: (Sig) Date:	#3 Relinquished By: (Sig) Date:
Company Name: O'Brien & Gere Time: 1600	Company Name: Time:	Company Name: Time:
#1 Received By: (Sig) Date:	#2 Received By: (Sig) AMcGuy Date: 8/24	#3 Received By: (Sig) Date:
Company Name: Time:	Company Name: CompuChem Time: 10:20	Company Name: Time:

Note (1): If "N" lab will hold samples to await remainder of project-maximizing batch size and minimizing QC ratio; if "Y" lab will begin processing batches now.
Note (2): Samples stored 60 days after date report mailed at no extra charge. Note (3): All lab copies of data destroyed after three years.

CompuChem
a Division of Liberty Analytical Corp.

Method: W826015 · 25 mL

Batch #: _____

SAMPLENUM	CLIENTID	LOGINNUM	pH	Time	Date	INST #	Operator	H/T	Volume	Bottle #	Report	Comments
V1536-1	CH2MW2	V1536	1	2034	9.1.00	54	2331		25ml	1	CS	dirty port
V1536-9	ETMW117	V1536	1	[illegible]	↓	↓	↓		↓	1	DI	
V1536-10	ETMW114	V1536	1	[illegible]	↓	↓	↓		↓	1	DI	
V1536-11	ETMW121	V1536	1	1359	9.6.00	54	2331		1ml	1	DW	
V1536-12	OBGMW122	V1536	1	1502	↓	↓	↓		25ml	1	/	
V1536-13	DUP	V1536	1	↓	↓	↓	↓		↓	1	DI	
V1536-2	CH2MW3	V1536	1	2105	9.1.00	54	2331		25ml	1	/	
V1536-3	CH2MW4D	V1536	1	2137	↓	↓	↓		↓	1	/	
V1536-4	ETMW116	V1536	1	2208	↓	↓	↓		↓	1	DI	
V1536-14	FB062300	V1536	1	2003	↓	↓	↓		↓	1	CS	Dirty port
V1536-15	TRIP BLANK	V1536	1	1931	↓	↓	↓		↓	1	CS	↓
WG5153-1	VBLKUK											
WG5153-2	VBLKUL											
WG5153-3	VBLKUM											
WG5153-4	VUKLCS											
WG5153-5	VULLCS											
WG5153-6	ETMW114MS			1931	9-6	54	2423		100ul		SH	
WG5153-7	ETMW114MSD			0031	↓ 9-7	↓	↓		↓		/	
V1536-11R				1117	9-6-00	54	2331		25ml		/	
V1536-4D				1147	9-6-00	54	2331		1ml		/	
V1536-9D				1226	↓	↓	↓		3.5ml		/	
V1536-10D				1329	↓	↓	↓		300 ml		DW	
V1536-14R				1046	↓	↓	↓		25ml		/	
V1536-15R				1016	↓	↓	↓		25ml		/	
V1536-11R				1432	↓	↓	↓		25ml		/	
V1536-13D				1643	9-6	54	2423		1ml		SH	
V1536-11D2				1931	↓	↓	↓		100ul		/	
V1536-13D2				1733	↓	↓	↓		1ml		/	
WG5153-6R				0004	9-7	54	2423		100ul		IL	
WG5153-6R2				—	↓	↓	2423		↓		OK	technician stopped during run
WG5153-6D3				1545	9-7-00	54	2331		100ml		/	

HOLD 9.6 - REPORT 837.5UB -

DUE 9.6

13

Work Group Report (wk02)

24-AUG-00 05:42 PM

FRI

Work Group: WG5153
Department: 435 MS/VOA ANALYSIS

Created: 24-AUG-00

Sample	Client ID	Product	Matrix	RecvDate	Bottle#	Lab Information
V1536-1	CH2MW2	VOA-8260B-25ML	Water	24-AUG-00	1,20 3	
V1536-10	ETMW114	VOA-8260B-25ML	Water	24-AUG-00	1-3 a 16	
V1536-11	ETMW121	VOA-8260B-25ML	Water	24-AUG-00	1,2a 3	
V1536-12	OBGMW122	VOA-8260B-25ML	Water	24-AUG-00		
V1536-13	DUP	VOA-8260B-25ML	Water	24-AUG-00		
V1536-14	FB082300	VOA-8260B-25ML	Water	24-AUG-00	1,2a 2	
V1536-15	TRIP BLANK	VOA-8260B-25ML	Water	24-AUG-00	1,24 3	
V1536-2	CH2MW3	VOA-8260B-25ML	Water	24-AUG-00		
V1536-3	CH2MW4D	VOA-8260B-25ML	Water	24-AUG-00		
V1536-4	ETMW116	VOA-8260B-25ML	Water	24-AUG-00		
V1536-9	ETMW117	VOA-8260B-25ML	Water	24-AUG-00		
WG5153-1	VBLKUK	VOA-8260B-25ML	Water	24-AUG-00		
WG5153-2	VBLKUL	VOA-8260B-25ML	Water	24-AUG-00		
WG5153-3	VBLKUM	VOA-8260B-25ML	Water	24-AUG-00		
WG5153-4	VUKLCS	VOA-8260B-25ML	Water	24-AUG-00		
WG5153-5	VULLCS	VOA-8260B-25ML	Water	24-AUG-00		
WG5153-6	ETMW114MS	VOA-8260B-25ML	Water	24-AUG-00		
WG5153-7	ETMW114MSD	VOA-8260B-25ML	Water	24-AUG-00		

Comments:

V1536-1	PPS 837 / 8260-25ML-REPORT 837.SUB/ TOC/ SO3/NO2/N03/ALK/SO4/CL/ PICK QC FOR WET CHEM ONLY/
V1536-10	PPS 837/ ***QC SAMPLE FOR VOCs****/ 8260b-25ml-REPORT 837.SUB
V1536-11	PPS 837/ 8260b-25ml-REPORT 837.SUB
V1536-12	PPS 837/ 8260b-25ml-REPORT 837.SUB
V1536-13	PPS 837/ 8260b-25ml-REPORT 837.SUB
V1536-14	PPS 837/ 8260b-25ml-REPORT 837.SUB
V1536-15	PPS 837/ 8260b-25ml-REPORT 837.SUB/ TRIP BLANK
V1536-2	PPS 837 / 8260-25ML-REPORT 837.SUB/ TOC/ SO3/NO2/N03/ALK/SO4/CL/ PICK QC FOR WET CHEM ONLY/
V1536-3	PPS 837 / 8260-25ML-REPORT 837.SUB/ TOC/ SO3/NO2/N03/ALK/SO4/CL/ PICK QC FOR WET CHEM ONLY/
V1536-4	PPS 837 / 8260-25ML-REPORT 837.SUB/ TOC/ SO3/NO2/N03/ALK/SO4/CL/ PICK QC FOR WET CHEM ONLY/
V1536-9	PPS 837/ 8260b-25ml-REPORT 837.SUB

Internal Chain of Custody

Relinquished By	PMQW	Date	8/25/00	Received By	MZ	Date	Reason
Relinquished By	MZ	Date	9-1-00	Received By		Date 9-1-00	Reason analysis
Relinquished By	MZ	Date	9-1-00	Received By	REFEX	Date 9-1-00	Reason
Relinquished By	REFEX	Date	9-6-00	Received By	MZ	Date 9-6-00	Reason ANALYSIS
Relinquished By	MZ	Date	9-7-00	Received By	REFEX	Date 9-7-00	Reason STORAGE
Relinquished By		Date		Received By		Date	Reason
Relinquished By		Date		Received By		Date	Reason
Relinquished By		Date		Received By		Date	Reason

CompuChem
a Division of Liberty Analytical Corp.

Method: W826U3 - 25mL

Batch #: _____

15

SAMPLENUM	CLIENTID	LOGINNUM	pH	Time	Date	INST #	Operator	H/T	Volume	Bottle #	Report	Comments
V1536-1	CH2MW2	V1536	1	2034	9-1-00	54	2331		25ml	1	CS	dirty port
V1536-9	ETMW117	V1536	1	[illegible]	↓	↓	↓		↓	1	DI	
V1536-10	ETMW114	V1536	1	[illegible]	↓	↓	↓		↓	1	DI	
V1536-11	ETMW121	V1536	1	1359	9-6-00	54	2331		1ml	1	DW	
V1536-12	OBGMW122	V1536	1	1502	↓	↓	↓		25ml	1	/	
V1536-13	DUP	V1536	1	↓	↓	↓	↓		↓	1	DI	
V1536-2	CH2MW3	V1536	1	2105	9-1-00	54	2331		25ml	1	/	
V1536-3	CH2MW4D	V1536	1	2137	↓	↓	↓		↓	1	/	
V1536-4	ETMW116	V1536	1	2208	↓	↓	↓		↓	1	DI	
V1536-14	FB062300	V1536	1	2003	↓	↓	↓		↓	1	CS	Dirty port
V1536-15	TRIP BLANK	V1536	1	1931	↓	↓	↓		↓	1	CS	↓
WG5153-1	VBLKUK											
WG5153-2	VBLKUL											
WG5153-3	VBLKUM											
WG5153-4	VUKLCS											
WG5153-5	VULLCS											
WG5153-6	ETMW114MS			1931	9-6	54	2423		100ml		SH	
WG5153-7	ETMW114MSD			0031	↓9-7	↓	↓		↓		/	
V1536-12				1117	9-6-00	54	2331		25ml		/	
V1536-4D				1147	9-6-00	54	2331		1ml		/	
V1536-9D				1226	↓	↓	↓		3.5ml		/	
V1536-10D				1329	↓	↓	↓		300ml		DW	
V1536-14R				1046	↓	↓	↓		25ml		/	
V1536-15R				1016	↓	↓	↓		25ml		/	
V1536-11R				1432	↓	↓	↓		25ml		/	
V1536-13D				1603	9-6	54	2423		1ml		SH	
V1536-10D2				1931	↓	↓	↓		100ml		✓	
V1536-13D2				1733	↓	↓	↓		1ml		✓	
WG5153-6R				0004	9-7	54	2423		100ml		IC	
WG5153-6R2				—	↓	↓	2423		↓		OK	tekmar stopped during run
WG5153-6D3				1545	9-7-00	54	2331		100ml		✓	

HOLD 9-6 - REPORT 837.5UB -

DUE 9-6

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW2

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-1RA54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	
75-09-2	Methylene Chloride	0.7	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW2

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-1RA54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW3

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-2

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-2B54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/01/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.7	
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.6	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW3

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-2

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-2B54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/01/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW4D

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-3

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-3B54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/01/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	7	
75-09-2	Methylene Chloride	0.8	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW4D

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-3

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-3B54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/01/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-10

DUP

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-13

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-13A54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	1	
75-35-4	1,1-Dichloroethene	18	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	11	
75-09-2	Methylene Chloride	0.9	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	45	E
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.7	
79-01-6	Trichloroethene	190	E
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	26	E
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DUP

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-13

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-13A54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DUPDL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-13

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-13D2A54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 25.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	13	U
74-87-3	Chloromethane	13	U
75-01-4	Vinyl Chloride	13	U
74-83-9	Bromomethane	13	U
75-00-3	Chloroethane	13	U
75-69-4	Trichlorofluoromethane	13	U
75-35-4	1,1-Dichloroethene	13	U
75-15-0	Carbon disulfide	13	U
67-64-1	Acetone	63	U
75-09-2	Methylene Chloride	13	U
1634-04-4	Methyl-tert-butyl ether	13	U
75-34-3	1,1-Dichloroethane	39	D
108-20-3	Isopropyl ether	13	U
594-20-7	2,2-Dichloropropane	13	U
78-93-3	2-butanone	63	U
74-97-5	Bromochloromethane	13	U
67-66-3	Chloroform	13	U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
563-58-6	1,1-dichloropropene	13	U
71-43-2	Benzene	13	U
107-06-2	1,2-Dichloroethane	13	U
79-01-6	Trichloroethene	350	D
78-87-5	1,2-Dichloropropane	13	U
74-95-3	Dibromomethane	13	U
75-27-4	Bromodichloromethane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
108-10-1	4-Methyl-2-pentanone	63	U
108-88-3	Toluene	13	U
10061-02-6	trans-1,3-Dichloropropene	13	U
79-00-5	1,1,2-Trichloroethane	13	U
127-18-4	Tetrachloroethene	22	D
142-28-9	1,3-Dichloropropane	13	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DUPDL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-13

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-13D2A54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 25.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	63	U
124-48-1	Dibromochloromethane	13	U
106-93-4	1,2-Dibromoethane	13	U
108-90-7	Chlorobenzene	13	U
630-20-6	1,1,1,2-Tetrachloroethane	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
75-25-2	Bromoform	13	U
98-82-8	Isopropyl Benzene	13	U
108-86-1	Bromobenzene	13	U
96-18-4	1,2,3-Trichloropropane	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
103-65-1	n-Propyl Benzene	13	U
95-49-8	2-Chlorotoluene	13	U
106-43-4	4-Chlorotoluene	13	U
108-67-8	1,3,5-Trimethyl Benzene	13	U
98-06-6	tert-Butyl Benzene	13	U
95-63-6	1,2,4-Trimethyl Benzene	13	U
135-98-8	sec-Butyl Benzene	13	U
541-73-1	1,3-Dichlorobenzene	13	U
106-46-7	1,4-Dichlorobenzene	13	U
99-87-6	p-Isopropyl Toluene	13	U
95-50-1	1,2-Dichlorobenzene	13	U
104-51-8	n-Butyl Benzene	13	U
96-12-8	1,2-Dibromo-3-Chloropropane	13	U
120-82-1	1,2,4-Trichlorobenzene	13	U
87-68-3	Hexachlorobutadiene	13	U
91-20-3	Naphthalene	13	U
87-61-6	1,2,3-Trichlorobenzene	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
1330-20-7	Xylene (total)	13	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-10

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-10DA54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 83.3

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	42	U
74-87-3	Chloromethane	42	U
75-01-4	Vinyl Chloride	42	U
74-83-9	Bromomethane	42	U
75-00-3	Chloroethane	42	U
75-69-4	Trichlorofluoromethane	42	U
75-35-4	1,1-Dichloroethene	260	
75-15-0	Carbon disulfide	42	U
67-64-1	Acetone	1800	
75-09-2	Methylene Chloride	42	U
1634-04-4	Methyl-tert-butyl ether	42	U
75-34-3	1,1-Dichloroethane	230	
108-20-3	Isopropyl ether	42	U
594-20-7	2,2-Dichloropropane	42	U
78-93-3	2-butanone	3900	
74-97-5	Bromochloromethane	42	U
67-66-3	Chloroform	42	U
71-55-6	1,1,1-Trichloroethane	42	U
56-23-5	Carbon Tetrachloride	42	U
563-58-6	1,1-dichloropropene	42	U
71-43-2	Benzene	42	U
107-06-2	1,2-Dichloroethane	42	U
79-01-6	Trichloroethene	2800	E
78-87-5	1,2-Dichloropropane	42	U
74-95-3	Dibromomethane	42	U
75-27-4	Bromodichloromethane	42	U
10061-01-5	cis-1,3-Dichloropropene	42	U
108-10-1	4-Methyl-2-pentanone	210	U
108-88-3	Toluene	42	U
10061-02-6	trans-1,3-Dichloropropene	42	U
79-00-5	1,1,2-Trichloroethane	42	U
127-18-4	Tetrachloroethene	140	
142-28-9	1,3-Dichloropropane	42	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-10

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-10DA54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 83.3

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	210	U
124-48-1	Dibromochloromethane	42	U
106-93-4	1,2-Dibromoethane	42	U
108-90-7	Chlorobenzene	42	U
630-20-6	1,1,1,2-Tetrachloroethane	42	U
100-41-4	Ethylbenzene	42	U
100-42-5	Styrene	42	U
75-25-2	Bromoform	42	U
98-82-8	Isopropyl Benzene	42	U
108-86-1	Bromobenzene	42	U
96-18-4	1,2,3-Trichloropropane	42	U
79-34-5	1,1,2,2-Tetrachloroethane	42	U
103-65-1	n-Propyl Benzene	42	U
95-49-8	2-Chlorotoluene	42	U
106-43-4	4-Chlorotoluene	42	U
108-67-8	1,3,5-Trimethyl Benzene	42	U
98-06-6	tert-Butyl Benzene	42	U
95-63-6	1,2,4-Trimethyl Benzene	42	U
135-98-8	sec-Butyl Benzene	42	U
541-73-1	1,3-Dichlorobenzene	42	U
106-46-7	1,4-Dichlorobenzene	42	U
99-87-6	p-Isopropyl Toluene	42	U
95-50-1	1,2-Dichlorobenzene	42	U
104-51-8	n-Butyl Benzene	42	U
96-12-8	1,2-Dibromo-3-Chloropropane	42	U
120-82-1	1,2,4-Trichlorobenzene	42	U
87-68-3	Hexachlorobutadiene	42	U
91-20-3	Naphthalene	42	U
87-61-6	1,2,3-Trichlorobenzene	42	U
540-59-0	1,2-Dichloroethene (total)	42	U
1330-20-7	Xylene (total)	42	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-10

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-10D2A54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 250.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	130	U
74-87-3	Chloromethane	130	U
75-01-4	Vinyl Chloride	130	U
74-83-9	Bromomethane	130	U
75-00-3	Chloroethane	130	U
75-69-4	Trichlorofluoromethane	130	U
75-35-4	1,1-Dichloroethene	260	D
75-15-0	Carbon disulfide	130	U
67-64-1	Acetone	940	D
75-09-2	Methylene Chloride	130	U
1634-04-4	Methyl-tert-butyl ether	130	U
75-34-3	1,1-Dichloroethane	240	D
108-20-3	Isopropyl ether	130	U
594-20-7	2,2-Dichloropropane	130	U
78-93-3	2-butanone	3500	D
74-97-5	Bromochloromethane	130	U
67-66-3	Chloroform	130	U
71-55-6	1,1,1-Trichloroethane	130	U
56-23-5	Carbon Tetrachloride	130	U
563-58-6	1,1-dichloropropene	130	U
71-43-2	Benzene	130	U
107-06-2	1,2-Dichloroethane	130	U
79-01-6	Trichloroethene	3100	D
78-87-5	1,2-Dichloropropane	130	U
74-95-3	Dibromomethane	130	U
75-27-4	Bromodichloromethane	130	U
10061-01-5	cis-1,3-Dichloropropene	130	U
108-10-1	4-Methyl-2-pentanone	630	U
108-88-3	Toluene	130	U
10061-02-6	trans-1,3-Dichloropropene	130	U
79-00-5	1,1,2-Trichloroethane	130	U
127-18-4	Tetrachloroethene	150	D
142-28-9	1,3-Dichloropropane	130	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-10

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-10D2A54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 250.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	630	U
124-48-1	Dibromochloromethane	130	U
106-93-4	1,2-Dibromoethane	130	U
108-90-7	Chlorobenzene	130	U
630-20-6	1,1,1,2-Tetrachloroethane	130	U
100-41-4	Ethylbenzene	130	U
100-42-5	Styrene	130	U
75-25-2	Bromoform	130	U
98-82-8	Isopropyl Benzene	130	U
108-86-1	Bromobenzene	130	U
96-18-4	1,2,3-Trichloropropane	130	U
79-34-5	1,1,2,2-Tetrachloroethane	130	U
103-65-1	n-Propyl Benzene	130	U
95-49-8	2-Chlorotoluene	130	U
106-43-4	4-Chlorotoluene	130	U
108-67-8	1,3,5-Trimethyl Benzene	130	U
98-06-6	tert-Butyl Benzene	130	U
95-63-6	1,2,4-Trimethyl Benzene	130	U
135-98-8	sec-Butyl Benzene	130	U
541-73-1	1,3-Dichlorobenzene	130	U
106-46-7	1,4-Dichlorobenzene	130	U
99-87-6	p-Isopropyl Toluene	130	U
95-50-1	1,2-Dichlorobenzene	130	U
104-51-8	n-Butyl Benzene	130	U
96-12-8	1,2-Dibromo-3-Chloropropane	130	U
120-82-1	1,2,4-Trichlorobenzene	130	U
87-68-3	Hexachlorobutadiene	130	U
91-20-3	Naphthalene	130	U
87-61-6	1,2,3-Trichlorobenzene	130	U
540-59-0	1,2-Dichloroethene (total)	130	U
1330-20-7	Xylene (total)	130	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW116

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-4B54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/01/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	1	
75-35-4	1,1-Dichloroethene	16	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	10	
75-09-2	Methylene Chloride	1	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	38	E
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.7	
79-01-6	Trichloroethene	170	E
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	24	
142-28-9	1,3-Dichloropropane	0.5	U

FORM I
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW116

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-4B54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/01/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.7	
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW116DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-4DA54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 25.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	13	U
74-87-3	Chloromethane	13	U
75-01-4	Vinyl Chloride	13	U
74-83-9	Bromomethane	13	U
75-00-3	Chloroethane	13	U
75-69-4	Trichlorofluoromethane	13	U
75-35-4	1,1-Dichloroethene	15	D
75-15-0	Carbon disulfide	13	U
67-64-1	Acetone	63	U
75-09-2	Methylene Chloride	13	U
1634-04-4	Methyl-tert-butyl ether	13	U
75-34-3	1,1-Dichloroethane	45	D
108-20-3	Isopropyl ether	13	U
594-20-7	2,2-Dichloropropane	13	U
78-93-3	2-butanone	63	U
74-97-5	Bromochloromethane	13	U
67-66-3	Chloroform	13	U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
563-58-6	1,1-dichloropropene	13	U
71-43-2	Benzene	13	U
107-06-2	1,2-Dichloroethane	13	U
79-01-6	Trichloroethene	420	D
78-87-5	1,2-Dichloropropane	13	U
74-95-3	Dibromomethane	13	U
75-27-4	Bromodichloromethane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
108-10-1	4-Methyl-2-pentanone	63	U
108-88-3	Toluene	13	U
10061-02-6	trans-1,3-Dichloropropene	13	U
79-00-5	1,1,2-Trichloroethane	13	U
127-18-4	Tetrachloroethene	27	D
142-28-9	1,3-Dichloropropane	13	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW116DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-4DA54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 25.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	63	U
124-48-1	Dibromochloromethane	13	U
106-93-4	1,2-Dibromoethane	13	U
108-90-7	Chlorobenzene	13	U
630-20-6	1,1,1,2-Tetrachloroethane	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
75-25-2	Bromoform	13	U
98-82-8	Isopropyl Benzene	13	U
108-86-1	Bromobenzene	13	U
96-18-4	1,2,3-Trichloropropane	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
103-65-1	n-Propyl Benzene	13	U
95-49-8	2-Chlorotoluene	13	U
106-43-4	4-Chlorotoluene	13	U
108-67-8	1,3,5-Trimethyl Benzene	13	U
98-06-6	tert-Butyl Benzene	13	U
95-63-6	1,2,4-Trimethyl Benzene	13	U
135-98-8	sec-Butyl Benzene	13	U
541-73-1	1,3-Dichlorobenzene	13	U
106-46-7	1,4-Dichlorobenzene	13	U
99-87-6	p-Isopropyl Toluene	13	U
95-50-1	1,2-Dichlorobenzene	13	U
104-51-8	n-Butyl Benzene	13	U
96-12-8	1,2-Dibromo-3-Chloropropane	13	U
120-82-1	1,2,4-Trichlorobenzene	13	U
87-68-3	Hexachlorobutadiene	13	U
91-20-3	Naphthalene	13	U
87-61-6	1,2,3-Trichlorobenzene	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
1330-20-7	Xylene (total)	13	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW117

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-9

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-9DA54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 7.1

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	4	U
74-87-3	Chloromethane	4	U
75-01-4	Vinyl Chloride	4	U
74-83-9	Bromomethane	4	U
75-00-3	Chloroethane	4	U
75-69-4	Trichlorofluoromethane	4	U
75-35-4	1,1-Dichloroethene	4	U
75-15-0	Carbon disulfide	4	U
67-64-1	Acetone	18	U
75-09-2	Methylene Chloride	4	U
1634-04-4	Methyl-tert-butyl ether	4	U
75-34-3	1,1-Dichloroethane	17	
108-20-3	Isopropyl ether	4	U
594-20-7	2,2-Dichloropropane	4	U
78-93-3	2-butanone	18	U
74-97-5	Bromochloromethane	4	U
67-66-3	Chloroform	4	U
71-55-6	1,1,1-Trichloroethane	4	U
56-23-5	Carbon Tetrachloride	4	U
563-58-6	1,1-dichloropropene	4	U
71-43-2	Benzene	4	U
107-06-2	1,2-Dichloroethane	4	U
79-01-6	Trichloroethene	120	
78-87-5	1,2-Dichloropropane	4	U
74-95-3	Dibromomethane	4	U
75-27-4	Bromodichloromethane	4	U
10061-01-5	cis-1,3-Dichloropropene	4	U
108-10-1	4-Methyl-2-pentanone	18	U
108-88-3	Toluene	4	U
10061-02-6	trans-1,3-Dichloropropene	4	U
79-00-5	1,1,2-Trichloroethane	4	U
127-18-4	Tetrachloroethene	5	
142-28-9	1,3-Dichloropropane	4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW117

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-9

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-9DA54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 7.1

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	18	U
124-48-1	Dibromochloromethane	4	U
106-93-4	1,2-Dibromoethane	4	U
108-90-7	Chlorobenzene	4	U
630-20-6	1,1,1,2-Tetrachloroethane	4	U
100-41-4	Ethylbenzene	4	U
100-42-5	Styrene	4	U
75-25-2	Bromoform	4	U
98-82-8	Isopropyl Benzene	4	U
108-86-1	Bromobenzene	4	U
96-18-4	1,2,3-Trichloropropane	4	U
79-34-5	1,1,2,2-Tetrachloroethane	4	U
103-65-1	n-Propyl Benzene	4	U
95-49-8	2-Chlorotoluene	4	U
106-43-4	4-Chlorotoluene	4	U
108-67-8	1,3,5-Trimethyl Benzene	4	U
98-06-6	tert-Butyl Benzene	4	U
95-63-6	1,2,4-Trimethyl Benzene	4	U
135-98-8	sec-Butyl Benzene	4	U
541-73-1	1,3-Dichlorobenzene	4	U
106-46-7	1,4-Dichlorobenzene	4	U
99-87-6	p-Isopropyl Toluene	4	U
95-50-1	1,2-Dichlorobenzene	4	U
104-51-8	n-Butyl Benzene	4	U
96-12-8	1,2-Dibromo-3-Chloropropane	4	U
120-82-1	1,2,4-Trichlorobenzene	4	U
87-68-3	Hexachlorobutadiene	4	U
91-20-3	Naphthalene	4	U
87-61-6	1,2,3-Trichlorobenzene	4	U
540-59-0	1,2-Dichloroethene (total)	4	U
1330-20-7	Xylene (total)	4	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW121

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-11

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-11RA54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	9	
75-09-2	Methylene Chloride	0.9	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW121

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-11

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-11RA54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

FB082300

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-14

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-14RA54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	5	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

FB082300

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-14

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-14RA54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW122

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-12

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-12A54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	16	
75-09-2	Methylene Chloride	1	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM I
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW122

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-12

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-12A54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

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Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-15

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-15RA54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	2	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM I
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

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Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: V1536-15

Sample wt/vol: 25 (g/ml) ML Lab File ID: V1536-15RA54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114DLMS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5153-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5153-6D3A54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/07/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 250.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	130	U
74-87-3	Chloromethane	130	U
75-01-4	Vinyl Chloride	130	U
74-83-9	Bromomethane	130	U
75-00-3	Chloroethane	130	U
75-69-4	Trichlorofluoromethane	130	U
75-35-4	1,1-Dichloroethene	1900	D
75-15-0	Carbon disulfide	130	U
67-64-1	Acetone	920	DB
75-09-2	Methylene Chloride	130	U
1634-04-4	Methyl-tert-butyl ether	130	U
75-34-3	1,1-Dichloroethane	270	D
108-20-3	Isopropyl ether	130	U
594-20-7	2,2-Dichloropropane	130	U
78-93-3	2-butanone	5000	D
74-97-5	Bromochloromethane	130	U
67-66-3	Chloroform	130	U
71-55-6	1,1,1-Trichloroethane	130	U
56-23-5	Carbon Tetrachloride	130	U
563-58-6	1,1-dichloropropene	130	U
71-43-2	Benzene	1600	D
107-06-2	1,2-Dichloroethane	130	U
79-01-6	Trichloroethene	4700	D
78-87-5	1,2-Dichloropropane	130	U
74-95-3	Dibromomethane	130	U
75-27-4	Bromodichloromethane	130	U
10061-01-5	cis-1,3-Dichloropropene	130	U
108-10-1	4-Methyl-2-pentanone	630	U
108-88-3	Toluene	1400	D
10061-02-6	trans-1,3-Dichloropropene	130	U
79-00-5	1,1,2-Trichloroethane	130	U
127-18-4	Tetrachloroethene	140	D
142-28-9	1,3-Dichloropropane	130	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114DLMS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5153-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5153-6D3A54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/07/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 250.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	630	U
124-48-1	Dibromochloromethane	130	U
106-93-4	1,2-Dibromoethane	130	U
108-90-7	Chlorobenzene	1500	D
630-20-6	1,1,1,2-Tetrachloroethane	130	U
100-41-4	Ethylbenzene	130	U
100-42-5	Styrene	130	U
75-25-2	Bromoform	130	U
98-82-8	Isopropyl Benzene	130	U
108-86-1	Bromobenzene	130	U
96-18-4	1,2,3-Trichloropropane	130	U
79-34-5	1,1,2,2-Tetrachloroethane	130	U
103-65-1	n-Propyl Benzene	130	U
95-49-8	2-Chlorotoluene	130	U
106-43-4	4-Chlorotoluene	130	U
108-67-8	1,3,5-Trimethyl Benzene	130	U
98-06-6	tert-Butyl Benzene	130	U
95-63-6	1,2,4-Trimethyl Benzene	130	U
135-98-8	sec-Butyl Benzene	130	U
541-73-1	1,3-Dichlorobenzene	130	U
106-46-7	1,4-Dichlorobenzene	130	U
99-87-6	p-Isopropyl Toluene	130	U
95-50-1	1,2-Dichlorobenzene	130	U
104-51-8	n-Butyl Benzene	130	U
96-12-8	1,2-Dibromo-3-Chloropropane	130	U
120-82-1	1,2,4-Trichlorobenzene	130	U
87-68-3	Hexachlorobutadiene	130	U
91-20-3	Naphthalene	130	U
87-61-6	1,2,3-Trichlorobenzene	130	U
540-59-0	1,2-Dichloroethene (total)	130	U
1330-20-7	Xylene (total)	130	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114DLMSD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5136-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5136-7B54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/07/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 250.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	130	U
74-87-3	Chloromethane	130	U
75-01-4	Vinyl Chloride	130	U
74-83-9	Bromomethane	130	U
75-00-3	Chloroethane	130	U
75-69-4	Trichlorofluoromethane	130	U
75-35-4	1,1-Dichloroethene	1700	D
75-15-0	Carbon disulfide	130	U
67-64-1	Acetone	1600	D
75-09-2	Methylene Chloride	130	U
1634-04-4	Methyl-tert-butyl ether	130	U
75-34-3	1,1-Dichloroethane	230	D
108-20-3	Isopropyl ether	130	U
594-20-7	2,2-Dichloropropane	130	U
78-93-3	2-butanone	630	U
74-97-5	Bromochloromethane	130	U
67-66-3	Chloroform	130	U
71-55-6	1,1,1-Trichloroethane	130	U
56-23-5	Carbon Tetrachloride	130	U
563-58-6	1,1-dichloropropene	130	U
71-43-2	Benzene	1400	D
107-06-2	1,2-Dichloroethane	130	U
79-01-6	Trichloroethene	4100	D
78-87-5	1,2-Dichloropropane	130	U
74-95-3	Dibromomethane	130	U
75-27-4	Bromodichloromethane	130	U
10061-01-5	cis-1,3-Dichloropropene	130	U
108-10-1	4-Methyl-2-pentanone	630	U
108-88-3	Toluene	1200	D
10061-02-6	trans-1,3-Dichloropropene	130	U
79-00-5	1,1,2-Trichloroethane	130	U
127-18-4	Tetrachloroethene	130	U
142-28-9	1,3-Dichloropropane	130	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114DLMSD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5136-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5136-7B54

Level: (low/med) LOW Date Received: 08/24/00

% Moisture: not dec. _____ Date Analyzed: 09/07/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 250.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	690	D
124-48-1	Dibromochloromethane	130	U
106-93-4	1,2-Dibromoethane	130	U
108-90-7	Chlorobenzene	1300	D
630-20-6	1,1,1,2-Tetrachloroethane	130	U
100-41-4	Ethylbenzene	130	U
100-42-5	Styrene	130	U
75-25-2	Bromoform	130	U
98-82-8	Isopropyl Benzene	130	U
108-86-1	Bromobenzene	130	U
96-18-4	1,2,3-Trichloropropane	130	U
79-34-5	1,1,2,2-Tetrachloroethane	130	U
103-65-1	n-Propyl Benzene	130	U
95-49-8	2-Chlorotoluene	130	U
106-43-4	4-Chlorotoluene	130	U
108-67-8	1,3,5-Trimethyl Benzene	130	U
98-06-6	tert-Butyl Benzene	130	U
95-63-6	1,2,4-Trimethyl Benzene	130	U
135-98-8	sec-Butyl Benzene	130	U
541-73-1	1,3-Dichlorobenzene	130	U
106-46-7	1,4-Dichlorobenzene	130	U
99-87-6	p-Isopropyl Toluene	130	U
95-50-1	1,2-Dichlorobenzene	130	U
104-51-8	n-Butyl Benzene	130	U
96-12-8	1,2-Dibromo-3-Chloropropane	150	D
120-82-1	1,2,4-Trichlorobenzene	130	U
87-68-3	Hexachlorobutadiene	130	U
91-20-3	Naphthalene	150	D
87-61-6	1,2,3-Trichlorobenzene	160	D
540-59-0	1,2-Dichloroethene (total)	130	U
1330-20-7	Xylene (total)	130	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKWG

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5110-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5110-1B54PPS83

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/01/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKWG

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5110-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5110-1B54PPS8

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/01/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKUK

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5153-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5153-1A54

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKUK

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5153-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5153-1A54

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKBK

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5409-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5409-1B54

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

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FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKBK

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5409-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5409-1B54

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKVX

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5198-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5198-1R2A54V

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/07/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	4	
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKVX

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5198-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5198-1R2A54V

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/07/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VWGLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5110-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5110-4B54PPS8

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/01/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	6	
74-87-3	Chloromethane	6	
75-01-4	Vinyl Chloride	6	
74-83-9	Bromomethane	6	
75-00-3	Chloroethane	6	
75-69-4	Trichlorofluoromethane	6	
75-35-4	1,1-Dichloroethene	6	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	6	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	6	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	5	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VWGLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5110-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5110-4B54PPS8

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/01/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	6	
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VUKLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5153-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5153-4A54

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	6	
74-87-3	Chloromethane	6	
75-01-4	Vinyl Chloride	6	
74-83-9	Bromomethane	6	
75-00-3	Chloroethane	6	
75-69-4	Trichlorofluoromethane	6	
75-35-4	1,1-Dichloroethene	6	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	5	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	5	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	5	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VUKLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5153-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5153-4A54

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	5	
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBKLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5409-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5409-4B54

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	6	
74-87-3	Chloromethane	7	
75-01-4	Vinyl Chloride	7	
74-83-9	Bromomethane	6	
75-00-3	Chloroethane	7	
75-69-4	Trichlorofluoromethane	6	
75-35-4	1,1-Dichloroethene	6	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	6	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	5	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	5	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBKLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5409-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5409-4B54

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/06/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	5	
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VVXLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5198-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5198-4A54V

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/07/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	6	
74-87-3	Chloromethane	7	
75-01-4	Vinyl Chloride	7	
74-83-9	Bromomethane	6	
75-00-3	Chloroethane	7	
75-69-4	Trichlorofluoromethane	6	
75-35-4	1,1-Dichloroethene	6	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	B
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	6	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	6	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	6	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VVXLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix: (soil/water) WATER Lab Sample ID: WG5198-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5198-4A54V

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/07/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	6	
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	VBLKWG	110	107	105	98	0
02	VWGLCS	108	108	106	104	0
03	CH2MW3	114	115	108	100	0
04	CH2MW4D	121	122	115	109	0
05	ETMW116	111	115	110	103	0
06	VBLKUK	113	110	109	106	0
07	VUKLCS	109	110	105	103	0
08	TRIP BLANK	102	103	106	104	0
09	FB082300	113	121	95	96	0
10	CH2MW2	106	109	100	97	0
11	ETMW116DL	117	119	110	104	0
12	ETMW117	106	108	101	96	0
13	ETMW114	103	107	102	97	0
14	ETMW121	106	109	100	96	0
15	OBGMW122	114	123	102	101	0
16	DUP	115	124	114	109	0
17	DUPDL	115	114	120	114	0
18	ETMW114DL	110	114	112	108	0
19	VBLKBK	113	115	112	107	0
20	VBKLCS	107	110	105	102	0
21	ETMW114DLMSD	103	108	96	96	0
22	VBLKVX	111	111	111	104	0
23	VVXLCS	109	109	110	107	0
24	ETMW114DLMS	123	124	116	115	0
25						
26						
27						
28						

		QC LIMITS
SMC1	= Dibromofluoromethane	(85-126)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(81-141)
SMC3 (TOL)	= Toluene-d8	(76-135)
OTHER(BFB)	= Bromofluorobenzene	(78-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 3
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Matrix Spike - Sample No.: ETMW114DL

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMI REC
1,1-Dichloroethene	1250	260.6	1920	133	60-1
Benzene	1250	0.00	1556	124	60-1
Trichloroethene	1250	3055	4694	131	60-1
Toluene	1250	0.00	1448	116	60-140
Chlorobenzene	1250	0.00	1532	122	60-1

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	1250	1661	112	14	14	60-1
Benzene	1250	1392	111	11	14	60-1
Trichloroethene	1250	4084	82	14	14	60-140
Toluene	1250	1249	100	15*	14	60-1
Chlorobenzene	1250	1330	106	14	14	60-1

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

3A
WATER VOLATILE LAB CONTROL SAMPLE

VWGLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5.00	5.93	119	60-140
Benzene	5.00	5.58	112	60-140
Trichloroethene	5.00	5.63	113	60-140
Toluene	5.00	5.36	107	60-140
Chlorobenzene	5.00	5.52	110	60-140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

FORM III VOA-1

WATER VOLATILE LAB CONTROL SAMPLE

VUKLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5.00	5.71	114	60-140
Benzene	5.00	5.37	107	60-140
Trichloroethene	5.00	5.24	105	60-140
Toluene	5.00	5.08	102	60-140
Chlorobenzene	5.00	5.28	106	60-140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

3A
WATER VOLATILE LAB CONTROL SAMPLE

VBKLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5.00	5.88	118	60-140
Benzene	5.00	5.54	111	60-140
Trichloroethene	5.00	5.43	109	60-140
Toluene	5.00	5.17	103	60-140
Chlorobenzene	5.00	5.29	106	60-140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

FORM III VOA-1

WATER VOLATILE LAB CONTROL SAMPLE

VVXLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5.00	6.23	125	60-140
Benzene	5.00	5.87	117	60-140
Trichloroethene	5.00	5.65	113	60-140
Toluene	5.00	5.55	111	60-140
Chlorobenzene	5.00	5.70	114	60-140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE N

VBLKWG

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Lab File ID: WG5110-1B54PPS837 Lab Sample ID: WG5110-1

Date Analyzed: 09/01/00 Time Analyzed: 1531

GC Column: EQUITY624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: F50054

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VWGLCS	WG5110-4	WG5110-4B54P	1618
02	CH2MW3	V1536-2	V1536-2B54	2105
03	CH2MW4D	V1536-3	V1536-3B54	2137
04	ETMW116	V1536-4	V1536-4B54	2208
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COMMENTS:

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE N

VBLKUK

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Lab File ID: WG5153-1A54 Lab Sample ID: WG5153-1

Date Analyzed: 09/06/00 Time Analyzed: 0853

GC Column: EQUITY624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: F50054

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VUKLCS	WG5153-4	WG5153-4A54	0933
02	TRIP BLANK	V1536-15	V1536-15RA54	1016
03	FB082300	V1536-14	V1536-14RA54	1046
04	CH2MW2	V1536-1	V1536-1RA54	1117
05	ETMW116DL	V1536-4	V1536-4DA54	1147
06	ETMW117	V1536-9	V1536-9DA54	1226
07	ETMW114	V1536-10	V1536-10DA54	1329
08	ETMW121	V1536-11	V1536-11RA54	1432
09	OBGMW122	V1536-12	V1536-12A54	1502
10	DUP	V1536-13	V1536-13A54	1533
11	DUPDL	V1536-13	V1536-13D2A5	1733
12	ETMW114DL	V1536-10	V1536-10D2A5	1813
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COMMENTS:

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE N

VBLKBK

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Lab File ID: WG5409-1B54 Lab Sample ID: WG5409-1

Date Analyzed: 09/06/00 Time Analyzed: 2227

GC Column: EQUITY624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: F50054

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VBKLCS	WG5409-4	WG5409-4B54	2319
02	ETMW114DLMSD	WG5136-7	WG5136-7B54	0031
03				
04				
05				
06				
07				
08				
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11				
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COMMENTS:

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE I

VBLKVX

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: V1536

Lab File ID: WG5198-1R2A54V Lab Sample ID: WG5198-1

Date Analyzed: 09/07/00 Time Analyzed: 1048

GC Column: EQUITY624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: F50054

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VVXLCS	WG5198-4	WG5198-4A54V	1143
02	ETMW114DLMS	WG5153-6	WG5153-6D3A5	1545
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04				
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COMMENTS:

A Division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513

September 12, 2000

Mr. Chris Rook
O'BRIEN & GERE
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

Dear Mr. Rook:

We at CompuChem are pleased to provide our report for the analysis you requested.
Data for the following samples are enclosed:

Client ID Number	CompuChem ID Number	Analysis Code	Case Number	Description of Work Requested
CH2MW2	V1536-1	1193	V1536	Alkalinity
CH2MW3	V1536-2	1194		Chloride
CH2MW4D	V1536-3			Nitrate
ETMW116	V1536-4			Nitrite
ETMW114	V1536-16	1192		Sulfate
ETMW121	V1536-17			Sulfide
ETMW117	V1536-18			Total Organic Carbon
CH2MW2	V1536-5			Dissolved Organic Carbon
CH2MW3	V1536-6			
CH2MW4D	V1536-7			
ETMW116	V1536-8			

Thank you for selecting CompuChem Environmental for your sample analysis.
If you have any questions concerning this report or the analytical methods employed, please contact your Sales Representative at 919-379-4100.

Sincerely,

PROJECT MANAGER

ANALYTICAL REPORT OF DATA - CASE # V1536

SUBMITTED TO:
Mr. Chris Rook
O'BRIEN & GERE
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

LABORATORY CHRONICLE - ALKALINITY ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	CH2MW2	V1536-1	08/24/00	08/28/00
2.	CH2MW3	V1536-2	08/24/00	08/28/00
3.	CH2MW4D	V1536-3	08/24/00	08/28/00
4.	ETMW116	V1536-4	08/24/00	08/28/00
5.	ETMW114	V1536-16	08/25/00	09/07/00
6.	ETMW121	V1536-17	08/25/00	09/07/00
7.	ETMW117	V1536-18	08/25/00	09/07/00

ANALYTICAL REPORT OF DATA - CASE # V1536

SUBMITTED TO:
Mr. Chris Rook
O'BRIEN & GERE
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

LABORATORY CHRONICLE - CHLORIDE ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	CH2MW2	V1536-1	08/24/00	09/08/00
2.	CH2MW3	V1536-2	08/24/00	09/08/00
3.	CH2MW4D	V1536-3	08/24/00	09/08/00
4.	ETMW116	V1536-4	08/24/00	09/08/00
5.	ETMW114	V1536-16	08/25/00	09/08/00
6.	ETMW121	V1536-17	08/25/00	09/08/00
7.	ETMW117	V1536-18	08/25/00	09/08/00

ANALYTICAL REPORT OF DATA - CASE # V1536

SUBMITTED TO:
Mr. Chris Rook
O'BRIEN & GERE
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

LABORATORY CHRONICLE - NITRATE ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	CH2MW2	V1536-1	08/24/00	08/25/00
2.	CH2MW3	V1536-2	08/24/00	08/25/00
3.	CH2MW4D	V1536-3	08/24/00	08/25/00
4.	ETMW116	V1536-4	08/24/00	08/25/00
5.	ETMW114	V1536-16	08/25/00	08/25/00
6.	ETMW121	V1536-17	08/25/00	08/25/00
7.	ETMW117	V1536-18	08/25/00	08/25/00

ANALYTICAL REPORT OF DATA - CASE # V1536

SUBMITTED TO:
Mr. Chris Rook
O'BRIEN & GERE
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

LABORATORY CHRONICLE - NITRITE ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	CH2MW2	V1536-1	08/24/00	08/25/00
2.	CH2MW3	V1536-2	08/24/00	08/25/00
3.	CH2MW4D	V1536-3	08/24/00	08/25/00
4.	ETMW116	V1536-4	08/24/00	08/25/00
5.	ETMW114	V1536-16	08/25/00	08/25/00
6.	ETMW121	V1536-17	08/25/00	08/25/00
7.	ETMW117	V1536-18	08/25/00	08/25/00

ANALYTICAL REPORT OF DATA - CASE # V1536

SUBMITTED TO:
Mr. Chris Rook
O'BRIEN & GERE
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

LABORATORY CHRONICLE - SULFATE ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	CH2MW2	V1536-1	08/24/00	09/11/00
2.	CH2MW3	V1536-2	08/24/00	09/11/00
3.	CH2MW4D	V1536-3	08/24/00	09/11/00
4.	ETMW116	V1536-4	08/24/00	09/11/00
5.	ETMW114	V1536-16	08/25/00	09/11/00
6.	ETMW121	V1536-17	08/25/00	09/11/00
7.	ETMW117	V1536-18	08/25/00	09/11/00

ANALYTICAL REPORT OF DATA - CASE # V1536

SUBMITTED TO:
Mr. Chris Rook
O'BRIEN & GERE
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

LABORATORY CHRONICLE - SULFIDE ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	CH2MW2	V1536-1	08/24/00	08/28/00
2.	CH2MW3	V1536-2	08/24/00	08/28/00
3.	CH2MW4D	V1536-3	08/24/00	08/28/00
4.	ETMW116	V1536-4	08/24/00	08/28/00

ANALYTICAL REPORT OF DATA - CASE # V1536

SUBMITTED TO:
Mr. Chris Rook
O'BRIEN & GERE
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

LABORATORY CHRONICLE - TOTAL ORGANIC CARBON ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	CH2MW2	V1536-1	08/24/00	09/11/00
2.	CH2MW3	V1536-2	08/24/00	09/11/00
3.	CH2MW4D	V1536-3	08/24/00	09/11/00
4.	ETMW116	V1536-4	08/24/00	09/11/00
5.	ETMW114	V1536-16	08/25/00	09/11/00
6.	ETMW117	V1536-18	08/25/00	09/11/00

ANALYTICAL REPORT OF DATA - CASE # V1536

SUBMITTED TO:
Mr. Chris Rook
O'BRIEN & GERE
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

LABORATORY CHRONICLE - DISSOLVED ORGANIC CARBON ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	CH2MW2	V1536-5	08/24/00	09/11/00
2.	CH2MW3	V1536-6	08/24/00	09/11/00
3.	CH2MW4D	V1536-7	08/24/00	09/11/00
4.	ETMW116	V1536-8	08/24/00	09/11/00

ALKALINITY ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	V1536-1	BRL	10
2.	CH2MW3	V1536-2	BRL	10
3.	CH2MW4D	V1536-3	39.5	10
4.	ETMW116	V1536-4	12.5	10
5.	ETMW114	V1536-16	82.2	10
6.	ETMW121	V1536-17	30.7	10
7.	ETMW117	V1536-18	13.9	10

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: RV Jeong / 2405 Date: 9/14/00

CHLORIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	V1536-1	37.6	3
2.	CH2MW3	V1536-2	18.6	3
3.	CH2MW4D	V1536-3	BRL	3
4.	ETMW116	V1536-4	11.7	3
5.	ETMW114	V1536-16	90.1	3
6.	ETMW121	V1536-17	10.5	3
7.	ETMW117	V1536-18	10.7	3

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R W George / 2405 Date: 9/14/00

NITRATE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	V1536-1	6.12	0.05
2.	CH2MW3	V1536-2	2.26	0.05
3.	CH2MW4D	V1536-3	0.87	0.05
4.	ETMW116	V1536-4	8.25	0.05
5.	ETMW114	V1536-16	18.15	0.05
6.	ETMW121	V1536-17	1.94	0.05
7.	ETMW117	V1536-18	6.72	0.05

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R. Wong / 2405 Date: 9/14/06

NITRITE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	V1536-1	BRL	0.05
2.	CH2MW3	V1536-2	BRL	0.05
3.	CH2MW4D	V1536-3	BRL	0.05
4.	ETMW116	V1536-4	BRL	0.05
5.	ETMW114	V1536-16	0.053	0.05
6.	ETMW121	V1536-17	BRL	0.05
7.	ETMW117	V1536-18	BRL	0.05

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R J George / 2405 Date: 9/14/00

SULFATE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	V1536-1	19.7	5
2.	CH2MW3	V1536-2	6.71	5
3.	CH2MW4D	V1536-3	BRL	5
4.	ETMW116	V1536-4	5.12	5
5.	ETMW114	V1536-16	54.1	5
6.	ETMW121	V1536-17	10.3	5
7.	ETMW117	V1536-18	7.62	5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: [signature] / 2405 Date: 9/14/00

SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	V1536-1	BRL	0.2
2.	CH2MW3	V1536-2	BRL	0.2
3.	CH2MW4D	V1536-3	BRL	0.2
4.	ETMW116	V1536-4	BRL	0.2

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: [signature] / 2405 Date: 9/14/00

TOTAL ORGANIC CARBON ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	V1536-1	37.4	1
2.	CH2MW3	V1536-2	22.9	1
3.	CH2MW4D	V1536-3	5.71	1
4.	ETMW116	V1536-4	15.1	1
5.	ETMW114	V1536-16	21.6	1
6.	ETMW117	V1536-18	7.9	1

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: A.J. George / 2405 Date: 9/14/00

DISSOLVED ORGANIC CARBON ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	V1536-5	18.4	1
2.	CH2MW3	V1536-6	9.98	1
3.	CH2MW4D	V1536-7	5.95	1
4.	ETMW116	V1536-8	9.14	1

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: [signature] / 2405 Date: 9/14/00

ALKALINITY ANALYSIS
QUALITY CONTROL REPORT

CASE: V1536
MATRIX: WATER

Analyst:2449
Date Analyzed:08/28/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5159-2	100	106.08	106
WG5550-2	100	105.93	106

ORIG. SAMPLE COMPUCHEM #: V1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG5159-3
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG5159-4

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
100.0	BRL	104.0	104.0	97.8	98.0	6.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5159-1	METHOD BLANK	BRL
WG5550-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

CHLORIDE ANALYSIS
QUALITY CONTROL REPORT

CASE: V1536
MATRIX: WATER

Analyst:2441
Date Analyzed:09/08/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5159-2	70.1	73.84	105

ORIG. SAMPLE COMPUCHEM #: V1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG5159-3
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG5159-4

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
60.0	37.6	107.6	117.0	111.3	123.0	3.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5159-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

NITRATE ANALYSIS
QUALITY CONTROL REPORT

CASE: V1536
MATRIX: WATER

Analyst:2441
Date Analyzed:08/25/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5159-2	15.6	14.385	92
WG5550-2	15.6	14.325	92
WG5366-2	15.6	14.4	92

ORIG. SAMPLE COMPUCHEM #: V1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG5159-3
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG5159-4

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
1.0	6.1	7.1	96.0	7.0	88.0	1.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5159-1	METHOD BLANK	BRL
WG5550-1	METHOD BLANK	BRL
WG5366-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

NITRITE ANALYSIS
QUALITY CONTROL REPORT

CASE: V1536
MATRIX: WATER

Analyst:2441
Date Analyzed:08/25/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5159-2	1.0	0.99	99
WG5550-2	1.0	1.0	100

ORIG. SAMPLE COMPUCHEM #: V1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG5159-3
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG5159-4

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
1.0	BRL	1.0	102.0	1.0	97.0	5.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5159-1	METHOD BLANK	BRL
WG5550-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

SULFATE ANALYSIS
QUALITY CONTROL REPORT

CASE: V1536
MATRIX: WATER

Analyst:2454
Date Analyzed:09/11/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5159-2	20	19.03	95

ORIG. SAMPLE COMPUCHEM #: V1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG5159-3
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG5159-4

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
15.0	19.7	26.3	109.0	26.2	109.0	0.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5159-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

SULFIDE ANALYSIS
QUALITY CONTROL REPORT

CASE: V1536
MATRIX: WATER

Analyst:2449
Date Analyzed:08/28/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5159-2	5	3.96	79

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5159-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

TOTAL ORGANIC CARBON ANALYSIS
QUALITY CONTROL REPORT

CASE: V1536
MATRIX: WATER

Analyst:2454
Date Analyzed:09/11/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5403-2	50	47.12	94

ORIG. SAMPLE COMPUCHEM #: V1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG5159-3
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG5159-4

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
50.0	37.4	79.8	85.0	76.3	78.0	4.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5403-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

DISSOLVED ORGANIC CARBON ANALYSIS
QUALITY CONTROL REPORT

CASE: V1536
MATRIX: WATER

Analyst:2454
Date Analyzed:

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5403-2	50	47.12	94
WG5159-2	50	49.71	99

ORIG. SAMPLE COMPUCHEM #: V1536-5
MATRIX SPIKE (MS) COMPUCHEM #: WG5159-3
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG5159-4

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
50.0	18.4	64.5	92.0	63.4	90.0	2.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5403-1	METHOD BLANK	BRL
WG5159-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

Vaportech Services, Inc.

CCM14-02462

CompuChem
Project: Miller - Moultrie
-- WATER SAMPLES --

SAMPLE NAME	METHANE (ug/l)	ETHANE (ug/l)	ETHENE (ug/l)	FILE NAME	DATE COLLECTED	DATE RECEIVED	DATE ANALYZED
CH2MW2	ND	ND	0.02	D11A2.18A	08/23/2000	08/25/2000	08/30/2000
CH2MW3	ND	ND	ND	D11A2.19A	08/23/2000	08/25/2000	08/30/2000
CH2MW4D	ND	0.01	0.08	D11A2.20A	08/23/2000	08/25/2000	08/30/2000
ETMW117	ND	0.02	0.03	D11A2.21A	08/23/2000	08/25/2000	08/30/2000
ETMW116	ND	0.07	0.04	D11A2.22A	08/23/2000	08/25/2000	08/30/2000
MDL for above samples	0.2	0.01	0.01				

MDL - denotes lower 'Method Detection Limit'

ND - denotes 'Not Detected' at or above the lower method detection limit

30-Aug-2000

Reviewed By: _____

Vaportech Services, Inc.

CCM15-02467

CompuChem
Project: Miller - Moultrie
-- WATER SAMPLES --

SAMPLE NAME	METHANE (ug/l)	ETHANE (ug/l)	ETHENE (ug/l)	FILE NAME	DATE COLLECTED	DATE RECEIVED	DATE ANALYZED
ETMW114	43.9	0.16	0.51	D11A2.39A	08/24/2000	08/31/2000	08/31/2000
ETMW121	ND	ND	0.02	D11A2.40A	08/24/2000	08/31/2000	08/31/2000
MDL for above samples	0.2	0.01	0.01				

MDL - denotes lower 'Method Detection Limit'

ND - denotes 'Not Detected' at or above the lower method detection limit

31-Aug-2000

Reviewed By: mm

Vaportech Services, Inc.

CCM15-02467

CompuChem
Project: Miller - Moultrie
– WATER SAMPLES –

QUALITY CONTROL

CONTINUING CALIBRATION CHECK (FID)

STANDARD: "54"
FILE NAME: D11A2.37A
DATE ANALYZED: 8/31/00

COMPOUND	KNOWN PPMV	RESULT PPMV	PERCENT DIFFERENCE
Methane	15.00	15.25	1.65
Ethane	15.00	15.18	1.21
Ethene	15.10	15.35	1.67

ND - denotes 'Not Detected' at or above the lower method detection limit

LABORATORY BLANK RESULTS (FID)

BLANK: CARRIER IN LOOP
FILE NAME: D11A2.34A
DATE ANALYZED: 8/31/00

COMPOUND	BLANK PPMV	METHOD DETECTION LIMIT PPMV
Methane	ND	1.00
Ethane	ND	0.02
Ethene	ND	0.02

31-Aug-2000

Reviewed By: MMA

Vaportech Services, Inc.

CCM14-02462

CompuChem
Project: Miller - Moultrie
-- WATER SAMPLES --

QUALITY CONTROL

CONTINUING CALIBRATION CHECK (FID)

STANDARD: "54"
FILE NAME: D11A2.07A
DATE ANALYZED: 8/30/00

COMPOUND	KNOWN PPMV	RESULT PPMV	PERCENT DIFFERENCE
Methane	15.00	14.89	0.75
Ethane	15.00	14.95	0.34
Ethene	15.10	15.06	0.25

LABORATORY BLANK RESULTS (FID)

BLANK: CARRIER IN LOOP
FILE NAME: D11A2.06A
DATE ANALYZED: 8/30/00

COMPOUND	BLANK PPMV	METHOD DETECTION LIMIT PPMV
Methane	ND	1.00
Ethane	ND	0.02
Ethene	ND	0.02

ND - denotes 'Not Detected' at or above the lower method detection limit

30-Aug-2000

Reviewed By: _____

CompuChem
A Division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513

September 13, 2000

Mr. Chris Rook
O'Brien Gere
1015 Aviation Pkwy
Suite 700
Morrisville, NC 27560

Dear Mr. Rook:

We at CompuChem are pleased to provide our report for the analysis you requested.
Data for the following samples are enclosed:

Client ID Number	CompuChem ID Number	Analysis Code	Case Number	Description of Work Requested
ETMW117 8-25	X1536-1		X1536	Sulfide
ETMW117 8-28	X1536-2			Total Organic Carbon
ETMW121 8-25	X1536-3			Dissolved Organic Carbon
ETMW121 8-28	X1536-4			

Thank you for selecting CompuChem Environmental for your sample analysis.
If you have any questions concerning this report or the analytical methods employed, please contact your Sales Representative at 919-379-4100.

Sincerely,

PROJECT MANAGER

SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	ETMW117 8-25	X1536-1	BRL	0.2
2.	ETMW121 8-25	X1536-3	BRL	0.2

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: [signature] / 2405 Date: 9/13/00

TOTAL ORGANIC CARBON ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	ETMW121 8-28	X1536-4	19.8	1

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: RW George / 2405 Date: 9/13/00

DISSOLVED ORGANIC CARBON ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	ETMW117 8-28	X1536-2	18.8	1
2.	ETMW121 8-28	X1536-4	12.9	1

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: RW Reese / 2405 Date: 9/13/00

SULFIDE ANALYSIS
QUALITY CONTROL REPORT

CASE: X1536
MATRIX: WATER

Analyst:2449
Date Analyzed:09/12/00

BLANK SPIKE COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5454-2	5	3.22	64

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5454-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

TOTAL ORGANIC CARBON ANALYSIS
QUALITY CONTROL REPORT

CASE: X1536
MATRIX: WATER

Analyst:2454
Date Analyzed:09/12/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5159-2	50	49.71	99

ORIG. SAMPLE COMPUCHEM #: X1536-4
MATRIX SPIKE (MS) COMPUCHEM #: WG5403-3
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG5403-4

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
50.0	19.8	67.6	96.0	64.2	89.0	5.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5159-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

DISSOLVED ORGANIC CARBON ANALYSIS
QUALITY CONTROL REPORT

CASE: X1536
MATRIX: WATER

Analyst:2454
Date Analyzed:#REF!

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5403-2	50	47.12	94

ORIG. SAMPLE COMPUCHEM #: X1536-2
MATRIX SPIKE (MS) COMPUCHEM #: WG5403-3
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG5403-4

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
50.0	18.8	63.1	89.0	65.2	92.0	3.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5403-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: O'Brien & Gere Engineers	Project Manager: Chris Rook	Date: 8/28/00	Chain of Custody Number: 33286
Address: 1015 Aviation Parkway suite 700	Telephone Number (Area Code)/Fax Number: (919) 469-0079	Lab Number:	Page 1 of 1
City: Morrisville; State: NC; Zip Code: 27560	Site Contact: C. Rook	Lab Contact:	
Project Name: Miller Moultrie Ga.	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: Sulfide	Dissolved org. carbon	TOC	Special Instructions/ Conditions of Receipt
ETMW 117	8/25/00	0700	X									X	X			
ETMW 117	8/28/00	0820	X											X		
ETMW 121	8/25/00	0720	X									X	X			
ETMW 121	8/28/00	840	X					X						X	X	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Tim Jellett	8/28/00	1700	1. Received By: Glenn Kane	8-29-00	1:30
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

COMPUCHEM
a division of Liberty Analytical Corp.

September 22, 2000

Chris Rook
O'BRIEN & GERE
1015 Aviation PKWY
STE 700
Morrisville, NC 27560

Subject:
Report of Data – Project: MILLER- MOULTRIE Quote #: Q1536 SDG #: Y1536

Attn.: Chris Rook

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097.

Sincerely,

CompuChem Environmental
A Division of Liberty Analytical

Attachment

SAMPLENUM	CLIENTID	CASE	SDG	MATRIX	ACCTNUM	PROJECTNUM	RECEIVEDATE
Y1536-1	ETMW113	Q1536	Y1536	WA	O'BRIEN & GERE	MILLER- MOULTRIE	9/8/00
Y1536-2	ETMW114	Q1536	Y1536	WA	O'BRIEN & GERE	MILLER- MOULTRIE	9/8/00
Y1536-4	OBGMW123	Q1536	Y1536	WA	O'BRIEN & GERE	MILLER- MOULTRIE	9/9/00
Y1536-3	TRIP BLANK 1	Q1536	Y1536	WA	O'BRIEN & GERE	MILLER- MOULTRIE	9/8/00
Y1536-5	TRIP BLANK 2	Q1536	Y1536	WA	O'BRIEN & GERE	MILLER- MOULTRIE	9/9/00

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE

SDG # Y1536
PROTOCOL: SW-846

SAMPLE IDENTIFICATIONS: ETMW113, OBGMW123, TRIP BLANK1, TRIP BLANK2

The four water samples listed above were received intact, properly refrigerated at temperatures of 3°C and 4°C, with proper documentation, in sealed shipping containers, on September 8 and 9, 2000. The samples were scheduled for the requested analyses of the volatile fractions. SW-846, 3rd Edition, Update 3, Method 8260B was used to prepare and analyze these samples, with the exceptions and/or additions requested by the client.

Volatiles

Analysis holding time requirements were met for all of these samples.

The pH values of these samples are tabulated on the attached batch sheets.

The common laboratory solvent methylene chloride was identified above the reporting limit in OBGMW123. Several target analytes were identified above the reporting limits in ETMW113. No Tentatively Identified Compounds (TICs) were searched in these samples, per the client.

The trip blank TRIP BLANK1 contained no target analytes other than the common laboratory solvent methylene chloride.

The trip blank TRIP BLANK2 contained the target analyte chloroform above the reporting limit, in addition to the common laboratory solvent acetone. This trip blank was analyzed twice, and confirmed the presence of both compounds above the reporting limits.

In the initial analysis of 25 mL of ETMW113, the on-column amounts of 1,1-dichloroethene, 1,1-dichloroethane, trichlorethene, and tetrachloroethene exceeded the instrument's analytical range as defined by the highest concentration level of the Initial Calibration. The sample was reanalyzed using a smaller aliquot (500 µL) of raw sample to bring the on-column amount into range. We have reported both analyses of ETMW113.

All bromofluorobenzene (BFB) abundance criteria were met for tunes associated to this SDG. Overall QC criteria were met for all initial and continuing calibration standards associated to this SDG.

All of the system monitoring compounds met recovery criteria in the analyses of these samples. All of the internal standards met response and retention time criteria in the analyses of these samples.

The associated method blanks met all quality control criteria. The method blanks were free from target analyte contamination.

ETMW113 was used as the original to prepare the duplicate matrix spikes. The duplicate matrix spikes were prepared and analyzed at the same 50x dilution the sample was analyzed at, rather than being prepared undiluted. The associated duplicate matrix spikes met all advisory accuracy and precision criteria.

The two associated Laboratory Control Samples (LCSs) met all accuracy criteria.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Michael Steven Schapira 9/22/00

Michael Steven Schapira

Data Reviewer II
September 22, 2000

CompuChem
a Division of Liberty Analytical Corp.

Method: 8260B 25mL

Batch #: _____

SAMPLENUM	CLIENTID	LOGINNUM	pH	Time	Date	INST #	Operator	H/T	Volume	Bottle #	Report	Comments
Y1536-1	ETMW113	Y1536	1	2310	9-20	59	2423		25ml	1	DL	
Y1536-3	TRIP BLANK	Y1536	1	2146	↓	↓	↓		25ml	2	/	
Y1536-4	OBGMW123	Y1536	1	2344	↓	↓	↓		↓	1	CS	
Y1536-5	TRIP BLANK	Y1536	1	2220	↓	↓	↓		↓	2	VR	
WG5533-1	VBLKFN			1046	9-21	59	2331		25ml		/	
WG5533-2	VBLKFO											
WG5533-3	VBLKFP											
WG5533-4	VFNLCS			1128	9-21	59	2331		25 ml		/	
WG5533-5	VFOLCS											
WG5533-6	PICKMS			201	9-21	59	2423		5ml		/	
WG5533-7	PICKMSD			235	↓	↓	↓		↓		/	
Y1536-5R				053	9-21	59	↓		25ml		RP	
Y1536-1D				127	↓	↓	↓		5ml		/	
Y1536-1/2				1205	9-21-02	59	2331		25ml	2	/	

RICH 9/22/02

HOLD: 9-21

DUE: 9-22

GC and GC/MS Column and Trap Specifications Table

COLUMNS

Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
GC Laboratory				
Restek	RTX-1701	0.53	0.5	30
J & W	DB-608	0.53	0.83	30
Restek	CLPesticides	0.53	0.5	30
Restek	CLPesticides II	0.53	0.42	30
GC Volatiles Laboratory				
Restek	RTX-1	0.53	0.5	105
Restek	RTX-502.2	0.53	0.5	105
GC/MS Volatiles Laboratory				
J & W	DB-624	0.53	3.0	30/75
Supelco	Equity™-624	0.53	3.0	75
GC/MS Semivolatiles Laboratory				
J & W	DB-5.625	0.32	1.0	30
J & W	DB5-MS	0.25	0.25	30
Hewlett Packard	HP5-MS	0.25	0.25	30
Optima	5-MS	0.25	0.25	30
Restek	RTX-5MS	0.25	0.25	30

TRAPS

GC and GC/MS Volatiles Laboratory	
Tekmar 3	* 8 cm of 2,6-diphenylene oxide polymer (Tenax) * 8 cm of silica gel * 7 cm of coconut charcoal * 0.5 cm of silanized glass wool at each end
Tekmar 5	* 1 cm of methyl silicone packing (OV-1 coating) * 8 cm of 2,6-diphenylene oxide polymer (Tenax) * 8 cm of silica gel * 7 cm of coconut charcoal * 0.5 cm of silanized glass wool at each end
Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons) * 6 cm of Carboxen 1000 (Carbon molecular sieves) * 1 cm of Carboxen 1001 (Carbon molecular sieves)

CompuChem

a division of Liberty Analytical Corporation

CompuChem's Pagination Convention

As required by the current EPA CLP Statement of Work (SOW) (Document Number OLM04.0, plus revisions), data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add in an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW113

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: Y1536-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: Y1536-1B59

Level: (low/med) LOW Date Received: 09/08/00

% Moisture: not dec. _____ Date Analyzed: 09/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	1	
75-69-4	Trichlorofluoromethane	0.9	
75-35-4	1,1-Dichloroethene	27	E
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	7	
75-09-2	Methylene Chloride	2	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	66	E
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.6	
107-06-2	1,2-Dichloroethane	0.8	
79-01-6	Trichloroethene	720	E
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	60	E
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW113

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: Y1536-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: Y1536-1B59

Level: (low/med) LOW Date Received: 09/08/00

% Moisture: not dec. _____ Date Analyzed: 09/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW113DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: Y1536-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: Y1536-1DB59

Level: (low/med) LOW Date Received: 09/08/00

% Moisture: not dec. _____ Date Analyzed: 09/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 50.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	25	U
74-87-3	Chloromethane	25	U
75-01-4	Vinyl Chloride	25	U
74-83-9	Bromomethane	25	U
75-00-3	Chloroethane	25	U
75-69-4	Trichlorofluoromethane	25	U
75-35-4	1,1-Dichloroethene	25	U
75-15-0	Carbon disulfide	25	U
67-64-1	Acetone	130	U
75-09-2	Methylene Chloride	25	U
1634-04-4	Methyl-tert-butyl ether	25	U
75-34-3	1,1-Dichloroethane	56	D
108-20-3	Isopropyl ether	25	U
594-20-7	2,2-Dichloropropane	25	U
78-93-3	2-butanone	130	U
74-97-5	Bromochloromethane	25	U
67-66-3	Chloroform	25	U
71-55-6	1,1,1-Trichloroethane	25	U
56-23-5	Carbon Tetrachloride	25	U
563-58-6	1,1-dichloropropene	25	U
71-43-2	Benzene	25	U
107-06-2	1,2-Dichloroethane	25	U
79-01-6	Trichloroethene	530	D
78-87-5	1,2-Dichloropropane	25	U
74-95-3	Dibromomethane	25	U
75-27-4	Bromodichloromethane	25	U
10061-01-5	cis-1,3-Dichloropropene	25	U
108-10-1	4-Methyl-2-pentanone	130	U
108-88-3	Toluene	25	U
10061-02-6	trans-1,3-Dichloropropene	25	U
79-00-5	1,1,2-Trichloroethane	25	U
127-18-4	Tetrachloroethene	44	D
142-28-9	1,3-Dichloropropane	25	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW113DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: Y1536-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: Y1536-1DB59

Level: (low/med) LOW Date Received: 09/08/00

% Moisture: not dec. _____ Date Analyzed: 09/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 50.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	130	U
124-48-1	Dibromochloromethane	25	U
106-93-4	1,2-Dibromoethane	25	U
108-90-7	Chlorobenzene	25	U
630-20-6	1,1,1,2-Tetrachloroethane	25	U
100-41-4	Ethylbenzene	25	U
100-42-5	Styrene	25	U
75-25-2	Bromoform	25	U
98-82-8	Isopropyl Benzene	25	U
108-86-1	Bromobenzene	25	U
96-18-4	1,2,3-Trichloropropane	25	U
79-34-5	1,1,2,2-Tetrachloroethane	25	U
103-65-1	n-Propyl Benzene	25	U
95-49-8	2-Chlorotoluene	25	U
106-43-4	4-Chlorotoluene	25	U
108-67-8	1,3,5-Trimethyl Benzene	25	U
98-06-6	tert-Butyl Benzene	25	U
95-63-6	1,2,4-Trimethyl Benzene	25	U
135-98-8	sec-Butyl Benzene	25	U
541-73-1	1,3-Dichlorobenzene	25	U
106-46-7	1,4-Dichlorobenzene	25	U
99-87-6	p-Isopropyl Toluene	25	U
95-50-1	1,2-Dichlorobenzene	25	U
104-51-8	n-Butyl Benzene	25	U
96-12-8	1,2-Dibromo-3-Chloropropane	25	U
120-82-1	1,2,4-Trichlorobenzene	25	U
87-68-3	Hexachlorobutadiene	25	U
91-20-3	Naphthalene	25	U
87-61-6	1,2,3-Trichlorobenzene	25	U
540-59-0	1,2-Dichloroethene (total)	25	U
1330-20-7	Xylene (total)	25	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW123

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: Y1536-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: Y1536-4RA59

Level: (low/med) LOW Date Received: 09/09/00

% Moisture: not dec. _____ Date Analyzed: 09/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	1	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW123

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: Y1536-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: Y1536-4RA59

Level: (low/med) LOW Date Received: 09/09/00

% Moisture: not dec. _____ Date Analyzed: 09/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK1

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: Y1536-3

Sample wt/vol: 25 (g/ml) ML Lab File ID: Y1536-3B59

Level: (low/med) LOW Date Received: 09/08/00

% Moisture: not dec. _____ Date Analyzed: 09/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	1	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK1

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: Y1536-3

Sample wt/vol: 25 (g/ml) ML Lab File ID: Y1536-3B59

Level: (low/med) LOW Date Received: 09/08/00

% Moisture: not dec. _____ Date Analyzed: 09/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK2

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: Y1536-5

Sample wt/vol: 25 (g/ml) ML Lab File ID: Y1536-5RB59

Level: (low/med) LOW Date Received: 09/09/00

% Moisture: not dec. _____ Date Analyzed: 09/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	17	
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	2	
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIP BLANK2

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: Y1536-5

Sample wt/vol: 25 (g/ml) ML Lab File ID: Y1536-5RB59

Level: (low/med) LOW Date Received: 09/09/00

% Moisture: not dec. _____ Date Analyzed: 09/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW113DLMS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: WG5533-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5533-6B59

Level: (low/med) LOW Date Received: 09/08/00

% Moisture: not dec. _____ Date Analyzed: 09/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 50.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	25	U
74-87-3	Chloromethane	25	U
75-01-4	Vinyl Chloride	25	U
74-83-9	Bromomethane	25	U
75-00-3	Chloroethane	25	U
75-69-4	Trichlorofluoromethane	25	U
75-35-4	1,1-Dichloroethene	300	D
75-15-0	Carbon disulfide	25	U
67-64-1	Acetone	130	U
75-09-2	Methylene Chloride	25	U
1634-04-4	Methyl-tert-butyl ether	25	U
75-34-3	1,1-Dichloroethane	57	D
108-20-3	Isopropyl ether	25	U
594-20-7	2,2-Dichloropropane	25	U
78-93-3	2-butanone	130	U
74-97-5	Bromochloromethane	25	U
67-66-3	Chloroform	25	U
71-55-6	1,1,1-Trichloroethane	25	U
56-23-5	Carbon Tetrachloride	25	U
563-58-6	1,1-dichloropropene	25	U
71-43-2	Benzene	260	D
107-06-2	1,2-Dichloroethane	25	U
79-01-6	Trichloroethene	830	D
78-87-5	1,2-Dichloropropane	25	U
74-95-3	Dibromomethane	25	U
75-27-4	Bromodichloromethane	25	U
10061-01-5	cis-1,3-Dichloropropene	25	U
108-10-1	4-Methyl-2-pentanone	130	U
108-88-3	Toluene	260	D
10061-02-6	trans-1,3-Dichloropropene	25	U
79-00-5	1,1,2-Trichloroethane	25	U
127-18-4	Tetrachloroethene	47	D
142-28-9	1,3-Dichloropropane	25	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW113DLMS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: WG5533-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5533-6B59

Level: (low/med) LOW Date Received: 09/08/00

% Moisture: not dec. _____ Date Analyzed: 09/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 50.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	130	U
124-48-1	Dibromochloromethane	25	U
106-93-4	1,2-Dibromoethane	25	U
108-90-7	Chlorobenzene	260	D
630-20-6	1,1,1,2-Tetrachloroethane	25	U
100-41-4	Ethylbenzene	25	U
100-42-5	Styrene	25	U
75-25-2	Bromoform	25	U
98-82-8	Isopropyl Benzene	25	U
108-86-1	Bromobenzene	25	U
96-18-4	1,2,3-Trichloropropane	25	U
79-34-5	1,1,2,2-Tetrachloroethane	25	U
103-65-1	n-Propyl Benzene	25	U
95-49-8	2-Chlorotoluene	25	U
106-43-4	4-Chlorotoluene	25	U
108-67-8	1,3,5-Trimethyl Benzene	25	U
98-06-6	tert-Butyl Benzene	25	U
95-63-6	1,2,4-Trimethyl Benzene	25	U
135-98-8	sec-Butyl Benzene	25	U
541-73-1	1,3-Dichlorobenzene	25	U
106-46-7	1,4-Dichlorobenzene	25	U
99-87-6	p-Isopropyl Toluene	25	U
95-50-1	1,2-Dichlorobenzene	25	U
104-51-8	n-Butyl Benzene	25	U
96-12-8	1,2-Dibromo-3-Chloropropane	25	U
120-82-1	1,2,4-Trichlorobenzene	25	U
87-68-3	Hexachlorobutadiene	25	U
91-20-3	Naphthalene	25	U
87-61-6	1,2,3-Trichlorobenzene	25	U
540-59-0	1,2-Dichloroethene (total)	25	U
1330-20-7	Xylene (total)	25	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW113DLMSD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: WG5533-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5533-7B59

Level: (low/med) LOW Date Received: 09/08/00

% Moisture: not dec. _____ Date Analyzed: 09/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 50.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	25	U
74-87-3	Chloromethane	25	U
75-01-4	Vinyl Chloride	25	U
74-83-9	Bromomethane	25	U
75-00-3	Chloroethane	25	U
75-69-4	Trichlorofluoromethane	25	U
75-35-4	1,1-Dichloroethene	280	D
75-15-0	Carbon disulfide	25	U
67-64-1	Acetone	130	U
75-09-2	Methylene Chloride	25	U
1634-04-4	Methyl-tert-butyl ether	25	U
75-34-3	1,1-Dichloroethane	55	D
108-20-3	Isopropyl ether	25	U
594-20-7	2,2-Dichloropropane	25	U
78-93-3	2-butanone	130	U
74-97-5	Bromochloromethane	25	U
67-66-3	Chloroform	25	U
71-55-6	1,1,1-Trichloroethane	25	U
56-23-5	Carbon Tetrachloride	25	U
563-58-6	1,1-dichloropropene	25	U
71-43-2	Benzene	240	D
107-06-2	1,2-Dichloroethane	25	U
79-01-6	Trichloroethene	760	D
78-87-5	1,2-Dichloropropane	25	U
74-95-3	Dibromomethane	25	U
75-27-4	Bromodichloromethane	25	U
10061-01-5	cis-1,3-Dichloropropene	25	U
108-10-1	4-Methyl-2-pentanone	130	U
108-88-3	Toluene	250	D
10061-02-6	trans-1,3-Dichloropropene	25	U
79-00-5	1,1,2-Trichloroethane	25	U
127-18-4	Tetrachloroethene	40	D
142-28-9	1,3-Dichloropropane	25	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW113DLMSD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: WG5533-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5533-7B59

Level: (low/med) LOW Date Received: 09/08/00

% Moisture: not dec. _____ Date Analyzed: 09/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 50.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	130	U
124-48-1	Dibromochloromethane	25	U
106-93-4	1,2-Dibromoethane	25	U
108-90-7	Chlorobenzene	250	D
630-20-6	1,1,1,2-Tetrachloroethane	25	U
100-41-4	Ethylbenzene	25	U
100-42-5	Styrene	25	U
75-25-2	Bromoform	25	U
98-82-8	Isopropyl Benzene	25	U
108-86-1	Bromobenzene	25	U
96-18-4	1,2,3-Trichloropropane	25	U
79-34-5	1,1,2,2-Tetrachloroethane	25	U
103-65-1	n-Propyl Benzene	25	U
95-49-8	2-Chlorotoluene	25	U
106-43-4	4-Chlorotoluene	25	U
108-67-8	1,3,5-Trimethyl Benzene	25	U
98-06-6	tert-Butyl Benzene	25	U
95-63-6	1,2,4-Trimethyl Benzene	25	U
135-98-8	sec-Butyl Benzene	25	U
541-73-1	1,3-Dichlorobenzene	25	U
106-46-7	1,4-Dichlorobenzene	25	U
99-87-6	p-Isopropyl Toluene	25	U
95-50-1	1,2-Dichlorobenzene	25	U
104-51-8	n-Butyl Benzene	25	U
96-12-8	1,2-Dibromo-3-Chloropropane	25	U
120-82-1	1,2,4-Trichlorobenzene	25	U
87-68-3	Hexachlorobutadiene	25	U
91-20-3	Naphthalene	25	U
87-61-6	1,2,3-Trichlorobenzene	25	U
540-59-0	1,2-Dichloroethene (total)	25	U
1330-20-7	Xylene (total)	25	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VCULCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: WG5433-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5433-6B59PPS83

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	6	
74-87-3	Chloromethane	6	
75-01-4	Vinyl Chloride	6	
74-83-9	Bromomethane	5	
75-00-3	Chloroethane	6	
75-69-4	Trichlorofluoromethane	6	
75-35-4	1,1-Dichloroethene	6	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	5	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	5	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	5	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VCULCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: WG5433-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5433-6B59PPS833

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	5	
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VFNLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: WG5533-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5533-4A59PPS833

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	6	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	5	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	5	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	6	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VFNLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: WG5533-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5533-4A59PPS83

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	5	
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKCU

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: WG5433-3

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5433-3B59PPS833

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKCU

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: WG5433-3

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5433-3B59PPS8??

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKFN

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: WG5533-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5533-1A59PPS833

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKFN

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix: (soil/water) WATER Lab Sample ID: WG5533-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG5533-1A59PPS833

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	VBLKCU	105	101	108	105	0
02	VCULCS	100	102	99	98	0
03	TRIP BLANK1	108	109	105	99	0
04	ETMW113	111	111	102	98	0
05	TRIP BLANK2	115	116	102	99	0
06	ETMW113DL	111	114	104	101	0
07	ETMW113DLMS	112	113	100	98	0
08	ETMW113DLMSD	110	111	100	98	0
09	VBLKFN	107	106	111	103	0
10	VFNLCS	103	98	102	95	0
11	OBGMW123	108	106	104	97	0
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						

		QC LIMITS
SMC1	= Dibromofluoromethane	(85-126)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(81-141)
SMC3 (TOL)	= Toluene-d8	(76-135)
OTHER(BFB)	= Bromofluorobenzene	(78-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 3
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Matrix Spike - Sample No.: ETMW113DL

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	250.0	0.00	297.9	119	60-140
Benzene	250.0	0.00	260.3	104	60-140
Trichloroethene	250.0	529.1	828.8	120	60-140
Toluene	250.0	0.00	261.2	104	60-140
Chlorobenzene	250.0	0.00	259.1	104	60-140

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	250.0	275.6	110	8	14	60-140
Benzene	250.0	243.7	97	6	14	60-140
Trichloroethene	250.0	763.9	94	8	14	60-140
Toluene	250.0	246.8	99	6	14	60-140
Chlorobenzene	250.0	250.5	100	3	14	60-140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

3A
WATER VOLATILE LAB CONTROL SAMPLE

VCULCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5.00	5.65	113	60-140
Benzene	5.00	5.21	104	60-140
Trichloroethene	5.00	5.43	109	60-140
Toluene	5.00	5.27	105	60-140
Chlorobenzene	5.00	5.13	103	60-140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

3A
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: VFNLCS

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5.00	5.67	113	60-140
Benzene	5.00	5.03	101	60-140
Trichloroethene	5.00	5.31	106	60-140
Toluene	5.00	5.50	110	60-140
Chlorobenzene	5.00	5.31	106	60-140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

VBLKCU

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Lab File ID: WG5433-3B59PPS833 Lab Sample ID: WG5433-3

Date Analyzed: 09/20/00 Time Analyzed: 1759

GC Column: EQUITY624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972HP59

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VCULCS	WG5433-6	WG5433-6B59P	1902
02	TRIP BLANK1	Y1536-3	Y1536-3B59	2146
03	ETMW113	Y1536-1	Y1536-1B59	2310
04	TRIP BLANK2	Y1536-5	Y1536-5RB59	0053
05	ETMW113DL	Y1536-1	Y1536-1DB59	0127
06	ETMW113DLMS	WG5533-6	WG5533-6B59	0201
07	ETMW113DLMSD	WG5533-7	WG5533-7B59	0235
08				
09				
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COMMENTS:

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE N

VBLKFN

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Y1536

Lab File ID: WG5533-1A59PPS833 Lab Sample ID: WG5533-1

Date Analyzed: 09/21/00 Time Analyzed: 1046

GC Column: EQUITY624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972HP59

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VFNLCS	WG5533-4	WG5533-4A59P	1128
02	OBGMW123	Y1536-4	Y1536-4RA59	1205
03				
04				
05				
06				
07				
08				
09				
10				
11				
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COMMENTS:

CompuChem
A Division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513

September 21, 2000

Mr. Chris Rook
O'Brien & Gere
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

Dear Mr. Rook:

We at CompuChem are pleased to provide our report for the analysis you requested. Data for the following samples are enclosed:

Client ID Number	CompuChem ID Number	Analysis Code	Case Number	Description of Work Requested
ETMW113	Y1536-1	1193	Y1536	Alkalinity
ETMW114	Y1536-2	1194		Chloride
				Dissolved Organic Carbon
				Nitrate
				Nitrite
		1192		Sulfate
				Sulfide
				Total Organic Carbon

Thank you for selecting CompuChem Environmental for your sample analysis. If you have any questions concerning this report or the analytical methods employed, please contact your Sales Representative at 919-379-4100.

Sincerely,

PROJECT MANAGER

ANALYTICAL REPORT OF DATA - CASE # Y1536

SUBMITTED TO:
Mr. Chris Rook
O'Brien & Gere
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

LABORATORY CHRONICLE - ALKALINITY ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	ETMW113	Y1536-1	09/08/00	09/11/00

ANALYTICAL REPORT OF DATA - CASE # Y1536

SUBMITTED TO:
Mr. Chris Rook
O'Brien & Gere
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

LABORATORY CHRONICLE - CHLORIDE ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	ETMW113	Y1536-1	09/08/00	09/20/00

ANALYTICAL REPORT OF DATA - CASE # Y1536

SUBMITTED TO:
Mr. Chris Rook
O'Brien & Gere
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

LABORATORY CHRONICLE - DISSOLVED ORGANIC CARBON ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	ETMW113	Y1536-1	09/08/00	09/12/00

ANALYTICAL REPORT OF DATA - CASE # Y1536

SUBMITTED TO:
Mr. Chris Rook
O'Brien & Gere
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

LABORATORY CHRONICLE - NITRITE ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	ETMW113	Y1536-1	09/08/00	09/08/00

ANALYTICAL REPORT OF DATA - CASE # Y1536

SUBMITTED TO:
Mr. Chris Rook
O'Brien & Gere
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

LABORATORY CHRONICLE - NITRATE ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	ETMW113	Y1536-1	09/08/00	09/08/00

ANALYTICAL REPORT OF DATA - CASE # Y1536

SUBMITTED TO:
Mr. Chris Rook
O'Brien & Gere
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

LABORATORY CHRONICLE - SULFATE ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	ETMW113	Y1536-1	09/08/00	09/19/00

ANALYTICAL REPORT OF DATA - CASE # Y1536

SUBMITTED TO:
Mr. Chris Rook
O'Brien & Gere
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

LABORATORY CHRONICLE - SULFIDE ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	ETMW113	Y1536-1	09/08/00	09/12/00
2.	ETMW114	Y1536-2	09/08/00	09/12/00

ANALYTICAL REPORT OF DATA - CASE # Y1536

SUBMITTED TO:
Mr. Chris Rook
O'Brien & Gere
1015 Aviation Pkwy
STE 700
Morrisville, NC 27560

LABORATORY CHRONICLE - TOTAL ORGANIC CARBON ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	ETMW113	Y1536-1	09/08/00	09/12/00

ALKALINITY ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	ETMW113	Y1536-1	BRL	10

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R W Deerge / 2405 Date: 9/21/00

CHLORIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	ETMW113	Y1536-1	12.9	3

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R. George 12405 Date: 9/21/00

DISSOLVED ORGANIC CARBON ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	ETMW113	Y1536-1	4.42	1

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R/George / 2405 Date: 9/21/00

NITRITE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	ETMW113	Y1536-1	BRL	0.05

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R. George / 2405 Date: 9/21/00

NITRATE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	ETMW113	Y1536-1	7.05	0.05

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R W Deorge / 2405 Date: 9/21/00

SULFATE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	ETMW113	Y1536-1	BRL	5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R W George / 2405 Date: 9/21/00

SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	ETMW113	Y1536-1	BRL	0.2
2.	ETMW114	Y1536-2	BRL	0.2

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R. George / 2405 Date: 9/21/00

TOTAL ORGANIC CARBON ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	ETMW113	Y1536-1	7.94	1

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: [signature] / 2405 Date: 9/21/00

ALKALINITY ANALYSIS
QUALITY CONTROL REPORT

CASE: Y1536
MATRIX: WATER

Analyst:2449
Date Analyzed:09/11/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5454-2	100	102	102

ORIG. SAMPLE COMPUCHEM #: Y1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG5454-3
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG5454-4

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
100.0	BRL	103.0	103.0	99.0	99.0	4.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5454-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

CHLORIDE ANALYSIS
QUALITY CONTROL REPORT

CASE: Y1536
MATRIX: WATER

Analyst:2441
Date Analyzed:09/20/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5454-2	70.01	73.34	105

ORIG. SAMPLE COMPUCHEM #: Y1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG5454-3
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG5454-4

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
60.0	12.9	74.0	102.0	74.0	102.0	0.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5454-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

DISSOLVED ORGANIC CARBON ANALYSIS
QUALITY CONTROL REPORT

CASE: Y1536
MATRIX: WATER

Analyst:2454
Date Analyzed:09/12/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5159-2	50	49.71	99

ORIG. SAMPLE COMPUCHEM #: Y1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG5454-3
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG5454-4

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	† MSD % RECOVERY	RPD
50.0	4.4	54.3	100.0	54.1	99.0	0.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5159-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

NITRITE ANALYSIS
QUALITY CONTROL REPORT

CASE: Y1536
MATRIX: WATER

Analyst:2441
Date Analyzed:09/08/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5454-2	1	1.05	105

ORIG. SAMPLE COMPUCHEM #: Y1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG5454-3
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG5454-4

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
1.0	BRL	1.2	117.0	1.1	113.0	3.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5454-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

NITRATE ANALYSIS
QUALITY CONTROL REPORT

CASE: Y1536
MATRIX: WATER

Analyst:2441
Date Analyzed:09/08/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG4979-2	15.6	15.6	100

ORIG. SAMPLE COMPUCHEM #: Y1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG5454-3
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG5454-4

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
1.0	7.1	8.4	130.0	8.2	115.0	2.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG4979-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

SULFATE ANALYSIS
QUALITY CONTROL REPORT

CASE: Y1536
MATRIX: WATER

Analyst:2454
Date Analyzed:09/19/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5454-2	20	19.7	99

ORIG. SAMPLE COMPUCHEM #: Y1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG5454-3
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG5454-4

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
20.0	BRL	20.1	101.0	20.5	103.0	2.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5454-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

SULFIDE ANALYSIS
QUALITY CONTROL REPORT

CASE: Y1536
MATRIX: WATER

Analyst:2449
Date Analyzed:09/12/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5454-2	5	3.22	64

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5454-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

TOTAL ORGANIC CARBON ANALYSIS
QUALITY CONTROL REPORT

CASE: Y1536
MATRIX: WATER

Analyst:2454
Date Analyzed:09/12/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG5159-2	50	49.71	99

ORIG. SAMPLE COMPUCHEM #: Y1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG5454-3
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG5454-4

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
50.0	7.9	56.8	98.0	57.0	98.0	0.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG5159-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

Vaportech Services, Inc.

CCM16-02493

CompuChem
Project: Miller - Moultrie
-- WATER SAMPLES --

SAMPLE NAME	METHANE (ug/l)	ETHANE (ug/l)	ETHENE (ug/l)	FILE NAME	DATE COLLECTED	DATE RECEIVED	DATE ANALYZED
ETMW113	ND	0.09	0.02	D11A3.09A	09/07/2000	09/12/2000	09/12/2000
MDL for above samples	0.2	0.01	0.01				

MDL - denotes lower 'Method Detection Limit'
ND - denotes 'Not Detected' at or above the lower method detection limit

12-Sep-2000

Reviewed By: mmk

Vaportech Services, Inc.

CCM16-02493

CompuChem
Project: Miller - Moultrie
-- WATER SAMPLES --

QUALITY CONTROL

CONTINUING CALIBRATION CHECK (FID)

STANDARD: "54"
FILE NAME: D11A2.96A
DATE ANALYZED: 9/12/00

COMPOUND	KNOWN PPMV	RESULT PPMV	PERCENT DIFFERENCE
Methane	15.00	15.36	2.40
Ethane	15.00	14.76	1.57
Ethene	15.10	14.85	1.68

LABORATORY BLANK RESULTS (FID)

BLANK: CARRIER IN LOOP
FILE NAME: D11A2.95A
DATE ANALYZED: 9/12/00

COMPOUND	BLANK PPMV	METHOD DETECTION LIMIT PPMV
Methane	ND	1.00
Ethane	ND	0.02
Ethene	ND	0.02

ND - denotes 'Not Detected' at or above the lower method detection limit

12-Sep-2000

Reviewed By: _____

Chain of Custody Record

Quanterra

QUA-4124 0797

Client	Project Manager	Date	Chain of Custody Number
O'Brien & Gere Engineers	Peter Berger	9/7/00	3328
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
1015 Aviation Parkway Suite 700	(919) 469-0099		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Morrisville / NC / 27560	Chris Rook	Bill Scott	
Project Name	**Carrier/Waybill Number**		
OB&G Miller Moultrie Ga.			
Contract/Purchase Order/Quote No.			
26765.001.001			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Chloride	D.O.C.	TOC	Nitrate/Nitrite	mother, Ethane, Ethene	Alkalinity	Sulfide	Sulfate	8260B
~~OBG~~ TMS ~~Miller~~			TMS																	
~~OBG MW 123~~ TMS	~~9/7/00~~ TMS		X						TMS											TMS
ETMW 113	9/7/00	1230	X				1		6		1	X	X	X	X	X	X	X	X	X
ETMW 114	9/7/00	1515	X								1							X		
trip Blank	—	—	X						2											X

Special Instructions/ Conditions of Receipt

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☒ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Tim Juliett	9/7/00	1700	1. Received By: Glenn Dome	9/8/00	10:00
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

Quanterra

QUA-4124 0797

Client: O'Brien & Gere Engineers	Project Manager: Peter Berger	Date: 9/8/00	Chain of Custody Number: 33283
Address: 1015 Aviation Parkway Suite 700	Telephone Number (Area Code)/Fax Number: (919) 469-0099	Lab Number:	Page 1 of 1
City: Morrisville / State: NC / Zip Code: 27560	Site Contact: Chris Rook	Lab Contact: Bill Scott	
Project Name: OBG Miller Moultrie Ga.	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: 26765.001			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): 8260B	Special Instructions/ Conditions of Receipt
OBG MW123	9/8/00	1440	X						X			X	
trip Blank	—	—	X						2			X	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By			1. Received By		
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By	9/8/00	10:40

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

COMPUCHEM
a division of Liberty Analytical Corp.

November 21, 2000

Mike Hall
O'BRIEN & GERE
951 Aviation PKWY
STE 1400
Morrisville, NC 27560

Subject:
Report of Data – Project: MILLER- MOULTRIE Quote #: Q1536 SDG #: Q1536

Attn.: Mike Hall

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097.

Sincerely,

CompuChem Environmental
A Division of Liberty Analytical

Attachment

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE
SDG #Q1536

SAMPLE IDENTIFICATIONS: CH2MW2 CH2MW3 OBGDUP1 ETHW113 OBGMW123 OBGMW122 TRIPBLANK ETMW114 ETMW116 ETMW117 ETMW121 CH2MW4D OBGEB1 TRIPBLK ETMW116

The fifteen water samples listed above were received intact, at 4, and 6 degrees C, with proper documentation, in sealed shipping containers, on November 10, and 11, 2000. All samples were scheduled for volatile analysis.
The samples were prepared and analyzed following SW846 Method 8260B. This portion of the SDG narrative deals with the volatile fractions only. All pertinent Quality Assurance Notices are included in the narrative section, and all pertinent Laboratory Notices for SDG # Q1536 are included in the sample data sections. Analysis holding time requirements were met for all of these samples.

All sample pH values were less than 2.0, and the pH results are tabulated in the following batch sheets. The volatile target analytes acetone, methylene chloride, 1,1-dichloroethane, trichloroethene, tetrachloroethene, 1,1-dichloroethene, naphthalene, 1,2,3-trichlorobenzene, and 1,2-dibromo-3-chloropropane were the most frequently identified above the reporting limits. Based on screen data samples ETHW113, ETMW114, and ETMW116, were diluted due to high levels of target analytes and we have only reported one analysis. Sample ETMW117 was also analyzed at a dilution due to high levels of trichloroethene, and we have reported both neat and diluted analyses so that no target analyte data would be lost due to dilution. No instrument blank was analyzed after the neat analysis of ETMW117, however due to the fact that proceeding sample ETMW121 did not contain any reportable levels of trichloroethene, we are reporting the data with reference to this qualifier.
No searches were conducted for Tentatively Identified Compounds (TICs) per client request.

All Bromofluorobenzene (BFB) abundance criteria were met for tunes associated to this SDG. Overall QC criteria were met for all initial and continuing calibration standards associated to this SDG.

All of the system monitoring compounds(SMCs) met recovery criteria in the analyses of these samples, and all of the internal standards met response and retention time criteria in the analyses of these samples.

Manual quantitations were performed on one or more process files in the initial and continuing calibration(s) associated with this SDG, and in samples TRIPBLK and OBGDUP1. The reasons have been coded with explanations provided in the notice included in the narrative section of the SDG.

The associated method blanks did not contain any target analytes above the reporting limits with the exception of acetone in VBLKVR. Levels were however less than 5X the reporting limits as allowed for this common laboratory solvent.

The duplicate matrix spikes generated from OBGMW122 met all QC precision and accuracy criteria with one exception. The advisory RPD was exceeded for the spike compound toluene.
The associated Laboratory Control Samples(LCSs) met all accuracy criteria.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Roy Sutton
Case Reviewer
November 21, 2000

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL) (or Reporting Limit) will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicates the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue.

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

DATA REPORTING QUALIFIERS (continued)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and all reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Form Is are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form I.

A : This flag indicates that a TIC is a suspected aldol-condensation product.

S : This flag indicates that an analyte was detected by a single column GC analysis but the result was below the Reporting Limit. This flag is only used when clients request a second (confirmation) column analysis after detecting an analyte above the Reporting Limit in the initial, single column analysis. This flag alerts the data user that only an analyte was detected below the Reporting Limit and a second (confirmation) analysis was not performed.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

CompuChem
a division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513
1-800-833-5097

CHAIN-OF-CUSTODY RECORD

No. 056128

Project Name : Miller Brewing Moultrie Ga.	Client Address : O'Brien & Gere Eng. Aviation Parkway Morrisville NC.	Point-of-Contact : Mike Hall
Carrier : FedEx		Telephone No. : (919) 469-0099
Airbill No. :		Sampling complete? Y or N (see Note 1)
Sampler Name : Tim Jellett	Sampler Signature : Tim Jellett	Project-specific (PS) or Batch (B) QC ?

BOX #1: 1. Surface Water; 2. Ground Water; 3. Leachate; 4. Rinsate; 5. Soil / Sediment / Sludge; 6. Trip Blank; 7. Oil; 8. Waste; 9. Other_____

BOX #2: A. HCl + Ice; B. HNO3 + Ice; C. NaOH + Ice; D. H2SO4 + Ice; E. Unpreserved; F. Ice Only; G. Other_____; H. NaHSO4 + Ice; I. ZnAc+NaOH + Ice

BOX #3: F. Filtered; U. Unfiltered

Box #4: H. High; M. Medium; L. Low

Box #5: C. CLP 3/90; S. SW-846; W. CWA 600-series; O. Other_____; T. TCLP

Sample ID (9 characters maximum)	Date:Year:	Time	Box #1 Matrix	Box #2 Preservative	Box #3 Filtered / Unfiltered	Box #4 Expected Conc.	Box #5 Method	No. of Bottles	Use for Lab QC (MS or DUP)	VOA	SVOC	DOC	Pesticide	Chloride, Alkalinity, Sulfate	PCB	Herbicide	Metals / Mercury	Cyanide	TOC / TOX	ORG / TPH	Sulfide	Nitrate/nitrite	Methane, ethane, ethene	Remarks / Comments (see Notes 2 & 3)
ETMW114	11/10	08:15	2	A I E	U	L	T	15		X	X	X		X					X		X	X	X	
ETMW116	11/10	10:45	2	A I E	U	L	T	8		X	[redacted]								[redacted]			X	X	
ETMW117	11/10	10:15	2	A I E	U	L	T	15		X	X	X		X					X		X	X	X	
ETMW121	11/10	09:00	2	A I E	U	L	T	15		X	X	X		X					X		X	X	X	
CH2MW4D	11/10	14:00	2	A I E	U	L	T	15		X	X	X		X					X		X	X	X	
OBGFB1	11/10	14:20	2	A I E	U	L	T	15		X	X	X		X					X		X	X	X	
TRIPBLK	+	-	2	A	U	L	T	2		X														
	/	:																						
	/	:																						
	/	:																						

Clients Special Instructions:

Temperature 4 °C

Lab: Received in Good Condition? Y or N Describe Problems, If any:

#1 Relinquished By: (Sig) Tim Jellett	Date: 11/10/00	#2 Relinquished By: (Sig)	Date:	#3 Relinquished By: (Sig)	Date:
Company Name: O'Brien & Gere	Time: 1800	Company Name:	Time:	Company Name:	Time:
#1 Received By: (Sig) [signature]	Date: 11/11/00	#2 Received By: (Sig)	Date:	#3 Received By: (Sig)	Date:
Company Name: CompuChem	Time: 11:30	Company Name:	Time:	Company Name:	Time:

Note (1): If "N" lab will hold samples to await remainder of project-maximizing batch size and minimizing QC ratio; if "Y" lab will begin processing batches now.
Note (2): Samples stored 60 days after date report mailed at no extra charge.
Note (3): All lab copies of data destroyed after three years.

CompuChem

a division of Liberty Analytical Corp.

501 Madison Avenue
Cary, NC 27513
1-800-833-5097

CHAIN-OF-CUSTODY RECORD

No. 056127

Project Name: Miller Brewery in Moultrie Ga.
Carrier: FedEx
Airbill No.: 8231 8641 4980
Sampler Name: Tim Jellett

Client Address: O'Brien & Gere Eng
Aviation Parkway
Morrisville NC
Sampler Signature: Tim Jellett

Point-of-Contact: Mike Hall
Telephone No.: 919 469-0099
Sampling complete? Y or (N) (see Note 1)
Project-specific (PS) or Batch (B) QC ?

BOX #1
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil / Sediment / Sludge
6. Trip Blank
7. Oil
8. Waste
9. Other_____

BOX #2
A. HCl + Ice
B. HNO3 + Ice
C. NaOH + Ice
D. H2SO4 + Ice
E. Unpreserved
F. Ice Only
G. Other_____
H. NaHSO4 + Ice
I. ZnAc+NaOH + Ice

BOX #3
F. Filtered
U. Unfiltered

Box #4
H. High
M. Medium
L. Low

Box #5
C. CLP 3/90
S. SW-846
W. CWA 600-series
O. Other_____
T. TCL

Sample ID (9 characters maximum)	Date:Year: 2000	Time	Box #1 Matrix	Box #2 Preservative	Box #3 Filtered / Unfiltered	Box #4 Expected Conc.	Box #5 Method	No. of Bottles	Use for Lab QC (MS or DUP)	VOA	SVOC	Pesticide	PCB	Herbicide	Metals / Mercury	Cyanide Ethene, Ether, Methan	TOC / TOX	O&G / TPH	Sulfide	Chloride, Alkal, Sulfate	Nitrat / Nitrite	Dissolv. O, Carbon	Remarks / Comments (see Notes 2 & 3)
CHZMW2	11/9	10:50	2	A H E	–	L	T	15		X							X		X	X	X	X	
CHZMW3	11/9	13:15	2	A I E	–	L	T	15		X							X		X	X	X	X	
OBGDUP1	11/9	–	2	A. I. E.	–	L	T	15		X							X		X	X	X	X	
OBGMW123	11/9	13:45	2	A	–	L	T	3		X													
OBGMW122	11/9	14:25	2	A	–	L	T	3		X													
ETMW113	11/9	15:30	2	A I E	–	L	T	15		X							X		X	X	X	X	
TRIPBLK	–	–	2							X													
	/	:																					
	/	:																					
	/	:																					

Clients Special Instructions:

Temperature 4 °C

Lab: Received in Good Condition? Y or N Describe Problems, If any:

#1 Relinquished By: (Sig) Tim Jellett Date: 11/9/00	#2 Relinquished By: (Sig) Date:	#3 Relinquished By: (Sig) Date:
Company Name: O'Brien & Gere Time:	Company Name: Time:	Company Name: Time:
#1 Received By: (Sig) Date: 11-10-00	#2 Received By: (Sig) Date:	#3 Received By: (Sig) Date:
Company Name: CompuChem Time: 9:31	Company Name: Time:	Company Name: Time:

Note (1): If "N" lab will hold samples to await remainder of project-maximizing batch size and minimizing QC ratio; if "Y" lab will begin processing batches now.
Note (2): Samples stored 60 days after date report mailed at no extra charge. Note (3): All lab copies of data destroyed after three years.

CompuChem
a division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513
1-800-833-5097

CHAIN-OF-CUSTODY RECORD

No. 0 129

Project Name: Miller Brewery in Moultrie Ga	Client Address: O'Brien & Gere Engineers Aviation Parkway morrisville NC	Point-of-Contact: Mike Hall
Carrier: FedEx		Telephone No.: (919) 469-0099
Airbill No.:		Sampling complete? Y or N (see Note 1)
Sampler Name: Tim Jellett	Sampler Signature: Tim Jellett	Project-specific (PS) or Batch (B) QC ?

BOX #1: 1. Surface Water; 2. Ground Water; 3. Leachate; 4. Rinsate; 5. Soil / Sediment / Sludge; 6. Trip Blank; 7. Oil; 8. Waste; 9. Other_____

BOX #2: A. HCl + Ice; B. HNO3 + Ice; C. NaOH + Ice; D. H2SO4 + Ice; E. Unpreserved; F. Ice Only; G. Other_____; H. NaHSO4 + Ice; I. ZnAc+NaOH + Ice

BOX #3: F. Filtered; U. Unfiltered

Box #4: H. High; M. Medium; L. Low

Box #5: C. CLP 3/90; S. SW-846; W. CWA 600-series; O. Other_____; T. TCLP

Sample ID (9 characters maximum)	Date: Year: 2000	Time	Box #1 Matrix	Box #2 Preservative	Box #3 Filtered / Unfiltered	Box #4 Expected Conc.	Box #5 Method	No. of Bottles	Use for Lab QC (MS or DUP)	VOA	SVOC	Pesticide	PCB	Herbicide	Metals / Mercury	Cyanide	TOC / ~~TOX~~	O&G / TPH	Dissolved O2	Sulfide	Remarks / Comments (see Notes 2 & 3)
ETMW116	11/11	14:00	2	H	U	L	T	7									X		X	X	received only 6 VOA vials mp 11/14
	/	:																			
	/	:																			
	/	:																			
	/	:																			
	/	:																			
	/	:																			
	/	:																			
	/	:																			
	/	:																			

Temperature 6 °C

Clients Special Instructions:

Lab: Received in Good Condition? Y or N **Describe Problems, If any:** Samples were collected on 11/11/00 not 11/10/00

#1 Relinquished By: (Sig) Tim Jellett Date: 11/14/00	#2 Relinquished By: (Sig) Date:	#3 Relinquished By: (Sig) Date:
Company Name: O'Brien & Gere Time:	Company Name: Time:	Company Name: Time:
#1 Received By: (Sig) Madera J. Lunsford Date: 11/14/00	#2 Received By: (Sig) Date:	#3 Received By: (Sig) Date:
Company Name: CompuChem Time: 10:00	Company Name: Time:	Company Name: Time:

Note (1): If "N" lab will hold samples to await remainder of project-maximizing batch size and minimizing QC ratio; if "Y" lab will begin processing batches now.
Note (2): Samples stored 60 days after date report mailed at no extra charge.
Note (3): All lab copies of data destroyed after three years.

Laboratory Notice

Initial Calibration Date: November 10, 2000

Instrument Identifier: f50054.i

An initial calibration was analyzed by Method 8260B. Per the methodology, all compounds are to meet a Percent Relative Standard Deviation (%RSD) limit of no more than 15%. Additional calibration options are provided in the method when the RSD exceeds 15%. CompuChem has chosen to apply the option of determining the mean RSD values for all analytes in the calibration.

When there are analytes with %RSDs greater than the limit, proof of calibration linearity can be shown if the average of all compounds in the initial calibration meet the same 15% limit. Based on Method 8000B, Revision 2 requirements described in Sections 7.5.1.2 and 7.5.1.2.3, we are providing a list of the compounds which failed to meet the limit, and their associated %RSDs. Finally the average of all %RSDs from all compounds in the initial calibration is shown, confirming the usability of the initial calibration and any data that follows it.

Bromomethane	25.5	Chloroethane	23.0	Diethylether	15.7
Acrolein	22.5	1,1-Dichloroethene	17.4	Acetone	50.7
Iodomethane	33.0			1,1,2-Trichloro-1,2,2-trifluoroethane	15.9
Acetonitrile	23.5	Methylene Chloride	20.9	Acrylonitrile	16.1
n-Hexane	15.4	2-Butanone	28.9	Methacrylonitrile	17.6
Tetrahydrofuran	16.1	Pentafluorobenzene	17.1	Crotonaldehyde	48.5
1,4-Dioxane	16.0	2-Chloroethyl vinyl ether	54.1	trans-1,3-dichloropropene	15.9
cis-1,4-dichloro-2-butene	18.7			trans-1,4-dichloro-2-butene	18.6
Benzyl chloride	19.3	Hexachlorobutadiene	24.0	Naphthalene	18.9
1,2,3-Trichlorobenzene	21.2				

Average %RSD for all compounds in the Initial Calibration: 12.2 %

Data Reviewer/ID# [signature] /1595

Date November 13, 2000

Laboratory Notice

Initial Calibration Date: November 17, 2000

Instrument Identifier: f50054.i

An initial calibration was analyzed by Method 8260B. Per the methodology, all compounds are to meet a Percent Relative Standard Deviation (%RSD) limit of no more than 15%. Additional calibration options are provided in the method when the RSD exceeds 15%. CompuChem has chosen to apply the option of determining the mean RSD values for all analytes in the calibration.

When there are analytes with %RSDs greater than the limit, proof of calibration linearity can be shown if the average of all compounds in the initial calibration meet the same 15% limit. Based on Method 8000B, Revision 2 requirements described in Sections 7.5.1.2 and 7.5.1.2.3, we are providing a list of the compounds which failed to meet the limit, and their associated %RSDs. Finally the average of all %RSDs from all compounds in the initial calibration is shown, confirming the usability of the initial calibration and any data that follows it.

Dichlorodifluoromethane	16.2	Chloromethane	16.6	Chloroethane	19.9
Iodomethane	16.7	1,1,2-trichloro-1,2,2-trifluoroethane	26.5	Acetone	47.8
Methylene chloride	26.1	Acrylonitrile	18.5	Propionitrile	19.8
Tetrahydrofuran	19.5	Isobutyl alcohol	37.7	1,4-Dioxane	38.0
Methylmethacrylate	15.7	2-chloroethyl vinyl ether	35.8	trans-1,3-Dichloropropene	22.2
Ethylmethacrylate	15.0	cis-1,4-Dichloro-2-butene	21.4	trans-1,4-Dichloro-2-butene	20.4
Benzyl chloride	22.6	Hexachlorobutadiene	20.5	Naphthalene	17.1
1,2-Dichloroethane-d4	20.5	Bromofluorobenzene	15.9		

Average %RSD for all compounds in the Initial Calibration: 11.2 %

Data Reviewer/ID# Rebecca K Mead /2421

Date November 20, 2000

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW2

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-1RA54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.6	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW2

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-1RA54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW3

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-2

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-2A54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/16/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(ul

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW3

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-2

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-2A54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/16/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.6	
120-82-1	1,2,4-Trichlorobenzene	0.7	
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	2	
87-61-6	1,2,3-Trichlorobenzene	1	
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW4D

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-12

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-12A54

Level: (low/med) LOW Date Received: 11/11/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(ul

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	B
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW4D

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-12

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-12A54

Level: (low/med) LOW Date Received: 11/11/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETHW113

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-4D4A54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon disulfide	5	U
67-64-1	Acetone	26	
75-09-2	Methylene Chloride	5	U
1634-04-4	Methyl-tert-butyl ether	5	U
75-34-3	1,1-Dichloroethane	24	
108-20-3	Isopropyl ether	5	U
594-20-7	2,2-Dichloropropane	5	U
78-93-3	2-butanone	25	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
563-58-6	1,1-dichloropropene	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	150	
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-pentanone	25	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	13	
142-28-9	1,3-Dichloropropane	5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETHW113

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-4D4A54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	25	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropyl Benzene	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
103-65-1	n-Propyl Benzene	5	U
95-49-8	2-Chlorotoluene	5	U
106-43-4	4-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethyl Benzene	5	U
98-06-6	tert-Butyl Benzene	5	U
95-63-6	1,2,4-Trimethyl Benzene	5	U
135-98-8	sec-Butyl Benzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
99-87-6	p-Isopropyl Toluene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	n-Butyl Benzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
1330-20-7	Xylene (total)	5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-8

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-8R4A54

Level: (low/med) LOW Date Received: 11/11/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 35.7

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	18	U
74-87-3	Chloromethane	18	U
75-01-4	Vinyl Chloride	18	U
74-83-9	Bromomethane	18	U
75-00-3	Chloroethane	120	
75-69-4	Trichlorofluoromethane	18	U
75-35-4	1,1-Dichloroethene	120	
75-15-0	Carbon disulfide	18	U
67-64-1	Acetone	89	U
75-09-2	Methylene Chloride	18	U
1634-04-4	Methyl-tert-butyl ether	18	U
75-34-3	1,1-Dichloroethane	200	
108-20-3	Isopropyl ether	18	U
594-20-7	2,2-Dichloropropane	18	U
78-93-3	2-butanone	89	U
74-97-5	Bromochloromethane	18	U
67-66-3	Chloroform	18	U
71-55-6	1,1,1-Trichloroethane	18	U
56-23-5	Carbon Tetrachloride	18	U
563-58-6	1,1-dichloropropene	18	U
71-43-2	Benzene	18	U
107-06-2	1,2-Dichloroethane	18	U
79-01-6	Trichloroethene	740	
78-87-5	1,2-Dichloropropane	18	U
74-95-3	Dibromomethane	18	U
75-27-4	Bromodichloromethane	18	U
10061-01-5	cis-1,3-Dichloropropene	18	U
108-10-1	4-Methyl-2-pentanone	89	U
108-88-3	Toluene	18	U
10061-02-6	trans-1,3-Dichloropropene	18	U
79-00-5	1,1,2-Trichloroethane	18	U
127-18-4	Tetrachloroethene	36	
142-28-9	1,3-Dichloropropane	18	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-8

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-8R4A54

Level: (low/med) LOW Date Received: 11/11/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 35.7

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	89	U
124-48-1	Dibromochloromethane	18	U
106-93-4	1,2-Dibromoethane	18	U
108-90-7	Chlorobenzene	18	U
630-20-6	1,1,1,2-Tetrachloroethane	18	U
100-41-4	Ethylbenzene	18	U
100-42-5	Styrene	18	U
75-25-2	Bromoform	18	U
98-82-8	Isopropyl Benzene	18	U
108-86-1	Bromobenzene	18	U
96-18-4	1,2,3-Trichloropropane	18	U
79-34-5	1,1,2,2-Tetrachloroethane	18	U
103-65-1	n-Propyl Benzene	18	U
95-49-8	2-Chlorotoluene	18	U
106-43-4	4-Chlorotoluene	18	U
108-67-8	1,3,5-Trimethyl Benzene	18	U
98-06-6	tert-Butyl Benzene	18	U
95-63-6	1,2,4-Trimethyl Benzene	18	U
135-98-8	sec-Butyl Benzene	18	U
541-73-1	1,3-Dichlorobenzene	18	U
106-46-7	1,4-Dichlorobenzene	18	U
99-87-6	p-Isopropyl Toluene	18	U
95-50-1	1,2-Dichlorobenzene	18	U
104-51-8	n-Butyl Benzene	18	U
96-12-8	1,2-Dibromo-3-Chloropropane	18	U
120-82-1	1,2,4-Trichlorobenzene	18	U
87-68-3	Hexachlorobutadiene	18	U
91-20-3	Naphthalene	18	U
87-61-6	1,2,3-Trichlorobenzene	18	U
540-59-0	1,2-Dichloroethene (total)	18	U
1330-20-7	Xylene (total)	18	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW116

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-9

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-9R2A54

Level: (low/med) LOW Date Received: 11/11/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon disulfide	5	U
67-64-1	Acetone	36	B
75-09-2	Methylene Chloride	5	U
1634-04-4	Methyl-tert-butyl ether	5	U
75-34-3	1,1-Dichloroethane	12	
108-20-3	Isopropyl ether	5	U
594-20-7	2,2-Dichloropropane	5	U
78-93-3	2-butanone	25	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
563-58-6	1,1-dichloropropene	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	130	
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-pentanone	25	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	7	
142-28-9	1,3-Dichloropropane	5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW116

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-9

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-9R2A54

Level: (low/med) LOW Date Received: 11/11/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	25	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropyl Benzene	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
103-65-1	n-Propyl Benzene	5	U
95-49-8	2-Chlorotoluene	5	U
106-43-4	4-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethyl Benzene	5	U
98-06-6	tert-Butyl Benzene	5	U
95-63-6	1,2,4-Trimethyl Benzene	5	U
135-98-8	sec-Butyl Benzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
99-87-6	p-Isopropyl Toluene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	n-Butyl Benzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
1330-20-7	Xylene (total)	5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW117

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-10

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-10A54

Level: (low/med) LOW Date Received: 11/11/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	3	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.6	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	17	
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.8	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	94	E
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	5	
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW117

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-10

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-10A54

Level: (low/med) LOW Date Received: 11/11/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW117DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-10

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-10RA54

Level: (low/med) LOW Date Received: 11/11/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	3	U
74-87-3	Chloromethane	3	U
75-01-4	Vinyl Chloride	3	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	3	U
75-69-4	Trichlorofluoromethane	3	U
75-35-4	1,1-Dichloroethene	3	U
75-15-0	Carbon disulfide	3	U
67-64-1	Acetone	13	U
75-09-2	Methylene Chloride	3	U
1634-04-4	Methyl-tert-butyl ether	3	U
75-34-3	1,1-Dichloroethane	11	D
108-20-3	Isopropyl ether	3	U
594-20-7	2,2-Dichloropropane	3	U
78-93-3	2-butanone	13	U
74-97-5	Bromochloromethane	3	U
67-66-3	Chloroform	3	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon Tetrachloride	3	U
563-58-6	1,1-dichloropropene	3	U
71-43-2	Benzene	3	U
107-06-2	1,2-Dichloroethane	3	U
79-01-6	Trichloroethene	70	D
78-87-5	1,2-Dichloropropane	3	U
74-95-3	Dibromomethane	3	U
75-27-4	Bromodichloromethane	3	U
10061-01-5	cis-1,3-Dichloropropene	3	U
108-10-1	4-Methyl-2-pentanone	13	U
108-88-3	Toluene	3	U
10061-02-6	trans-1,3-Dichloropropene	3	U
79-00-5	1,1,2-Trichloroethane	3	U
127-18-4	Tetrachloroethene	3	U
142-28-9	1,3-Dichloropropane	3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW117DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-10

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-10RA54

Level: (low/med) LOW Date Received: 11/11/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	13	U
124-48-1	Dibromochloromethane	3	U
106-93-4	1,2-Dibromoethane	3	U
108-90-7	Chlorobenzene	3	U
630-20-6	1,1,1,2-Tetrachloroethane	3	U
100-41-4	Ethylbenzene	3	U
100-42-5	Styrene	3	U
75-25-2	Bromoform	3	U
98-82-8	Isopropyl Benzene	3	U
108-86-1	Bromobenzene	3	U
96-18-4	1,2,3-Trichloropropane	3	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U
103-65-1	n-Propyl Benzene	3	U
95-49-8	2-Chlorotoluene	3	U
106-43-4	4-Chlorotoluene	3	U
108-67-8	1,3,5-Trimethyl Benzene	3	U
98-06-6	tert-Butyl Benzene	3	U
95-63-6	1,2,4-Trimethyl Benzene	3	U
135-98-8	sec-Butyl Benzene	3	U
541-73-1	1,3-Dichlorobenzene	3	U
106-46-7	1,4-Dichlorobenzene	3	U
99-87-6	p-Isopropyl Toluene	3	U
95-50-1	1,2-Dichlorobenzene	3	U
104-51-8	n-Butyl Benzene	3	U
96-12-8	1,2-Dibromo-3-Chloropropane	3	U
120-82-1	1,2,4-Trichlorobenzene	3	U
87-68-3	Hexachlorobutadiene	3	U
91-20-3	Naphthalene	3	U
87-61-6	1,2,3-Trichlorobenzene	3	U
540-59-0	1,2-Dichloroethene (total)	3	U
1330-20-7	Xylene (total)	3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW121

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-11

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-11A54

Level: (low/med) LOW Date Received: 11/11/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	B
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW121

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-11

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-11A54

Level: (low/med) LOW Date Received: 11/11/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CH2MHL-3

CLIENT SAMPLE NO.

OBGDUP1

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-3

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-3A54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/16/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGDUP1

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-3

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-3A54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/16/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.9	
87-61-6	1,2,3-Trichlorobenzene	0.6	
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGEB1

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-13

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-13A54

Level: (low/med) LOW Date Received: 11/11/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.6	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGEB1

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-13

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-13A54

Level: (low/med) LOW Date Received: 11/11/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW122

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-6A54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/16/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW122

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-6A54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/16/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.6	
79-34-5	1,1,2,2-Tetrachloroethane	0.6	
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.6	
120-82-1	1,2,4-Trichlorobenzene	0.9	
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	1	
87-61-6	1,2,3-Trichlorobenzene	2	
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW123

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-5

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-5A54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/16/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	3	
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW123

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-5

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-5A54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/16/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIPBLANK

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-7A54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/16/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(ul

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	2	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIPBLANK

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-7A54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/16/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIPBLK

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-14

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-14A54

Level: (low/med) LOW Date Received: 11/11/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	4	B
75-09-2	Methylene Chloride	1	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TRIPBLK

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: Q1536-14

Sample wt/vol: 25 (g/ml) ML Lab File ID: Q1536-14A54

Level: (low/med) LOW Date Received: 11/11/00

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW122MS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: WG6862-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG6862-6A54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uI

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	5	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	6	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	5	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	6	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW122MS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: WG6862-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG6862-6A54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	5	
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW122MSD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: WG6862-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG6862-7A54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	6	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	10	
75-09-2	Methylene Chloride	0.6	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	6	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	6	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	7	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW122MSD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: WG6862-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG6862-7A54

Level: (low/med) LOW Date Received: 11/10/00

% Moisture: not dec. _____ Date Analyzed: 11/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	6	
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VVDLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: WG6856-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG6856-4A54_833

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/16/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	4	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	5	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	5	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	6	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VVDLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: WG6856-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG6856-4A54_833

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/16/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	5	
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VVQLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: WG6862-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG6862-4A54

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	5	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	5	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	5	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	5	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VVQLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: WG6862-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG6862-4A54

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	5	
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VVRLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: WG6862-5

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG6862-5A54

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	6	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	6	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	5	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	6	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VVRLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: WG6862-5

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG6862-5A54

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	6	
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

	CLIENT SAMPLE NO.	SMC1 (DBF) #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	VBLKVD	121	100	114	122	0
02	VVDLCS	121	103	115	121	0
03	CH2MW3	122	114	92	110	0
04	OBGDUP1	121	111	100	112	0
05	OBGMW123	115	111	98	106	0
06	OBGMW122	122	128	95	110	0
07	TRIPBLANK	122	122	97	108	0
08	VBLKVR	115	101	121	116	0
09	VVQLCS	111	103	113	112	0
10	ETMW116	118	112	110	98	0
11	ETMW114	117	111	119	104	0
12	TRIPBLK	112	106	100	94	0
13	ETMW117	111	113	97	92	0
14	ETMW121	116	113	102	96	0
15	CH2MW4D	111	110	96	91	0
16	OBGEB1	112	109	92	93	0
17	ETMW117DL	112	106	100	94	0
18	VBLKVS	115	103	122	116	0
19	VVRLCS	116	110	120	120	0
20	CH2MW2	123	126	102	104	0
21	ETHW113	114	112	111	103	0
22	OBGMW122MS	125	134	110	106	0
23	OBGMW122MSD	125	131	123	115	0
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		QC LIMITS
SMC1 (DBF)	= Dibromofluoromethane	(85-126)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(81-141)
SMC3 (TOL)	= Toluene-d8	(76-135)
OTHER(BFB)	= Bromofluorobenzene	(78-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 3
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix Spike - Sample No.: OBGMW122

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5.00	0.00	5.24	105	60-140
Benzene	5.00	0.00	5.70	114	60-140
Trichloroethene	5.00	0.00	5.25	105	60-140
Toluene	5.00	0.00	5.78	116	60-140
Chlorobenzene	5.00	0.00	5.34	107	60-140

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	5.00	6.00	120	14	14	60-140
Benzene	5.00	6.04	121	6	14	60-140
Trichloroethene	5.00	5.79	116	10	14	60-140
Toluene	5.00	6.70	134	15*	14	60-140
Chlorobenzene	5.00	5.95	119	11	14	60-140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

3A
WATER VOLATILE LAB CONTROL SAMPLE

VVDLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5.00	4.30	86	60-140
Benzene	5.00	4.78	96	60-140
Trichloroethene	5.00	5.24	105	60-140
Toluene	5.00	5.68	114	60-140
Chlorobenzene	5.00	5.42	108	60-140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

3A
WATER VOLATILE LAB CONTROL SAMPLE

VVQLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5.00	5.12	102	60-140
Benzene	5.00	5.11	102	60-140
Trichloroethene	5.00	4.94	99	60-140
Toluene	5.00	5.40	108	60-140
Chlorobenzene	5.00	5.06	101	60-140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

3A
WATER VOLATILE LAB CONTROL SAMPLE

VVRLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5.00	5.58	112	60-140
Benzene	5.00	5.58	112	60-140
Trichloroethene	5.00	5.35	107	60-140
Toluene	5.00	6.22	124	60-140
Chlorobenzene	5.00	5.50	110	60-140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

VBLKVD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Lab File ID: WG6856-1RA54_833 Lab Sample ID: WG6856-1

Date Analyzed: 11/16/00 Time Analyzed: 1046

GC Column: EQUITY624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: F50054

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VVDLCS	WG6856-4	WG6856-4A54	1130
02	CH2MW3	Q1536-2	Q1536-2A54	1630
03	OBGDUP1	Q1536-3	Q1536-3A54	1658
04	OBGMW123	Q1536-5	Q1536-5A54	1755
05	OBGMW122	Q1536-6	Q1536-6A54	1823
06	TRIPBLANK	Q1536-7	Q1536-7A54	1851
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKVD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: WG6856-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG6856-1RA54_833

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/16/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKVD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: WG6856-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG6856-1RA54_833

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/16/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

VBLKVR

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Lab File ID: WG6862-2RA54 Lab Sample ID: WG6862-2

Date Analyzed: 11/20/00 Time Analyzed: 1124

GC Column: EQUITY624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: F50054

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VVQLCS	WG6862-4	WG6862-4A54	1210
02	ETMW116	Q1536-9	Q1536-9R2A54	1557
03	ETMW114	Q1536-8	Q1536-8R4A54	1628
04	TRIPBLK	Q1536-14	Q1536-14A54	1707
05	ETMW117	Q1536-10	Q1536-10A54	1737
06	ETMW121	Q1536-11	Q1536-11A54	1808
07	CH2MW4D	Q1536-12	Q1536-12A54	1839
08	OBGEB1	Q1536-13	Q1536-13A54	1909
09	ETMW117DL	Q1536-10	Q1536-10RA54	2004
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKVR

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: WG6862-2

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG6862-2RA54

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKVR

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: WG6862-2

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG6862-2RA54

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/20/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

VBLKVS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Lab File ID: WG6862-3A54 Lab Sample ID: WG6862-3

Date Analyzed: 11/21/00 Time Analyzed: 1001

GC Column: EQUITY624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: F50054

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VVRLCS	WG6862-5	WG6862-5A54	1044
02	CH2MW2	Q1536-1	Q1536-1RA54	1304
03	ETHW113	Q1536-4	Q1536-4D4A54	1414
04	OBGMW122MS	WG6862-6	WG6862-6A54	1445
05	OBGMW122MSD	WG6862-7	WG6862-7A54	1515
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKVS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: WG6862-3

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG6862-3A54

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKVS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: Q1536

Matrix: (soil/water) WATER Lab Sample ID: WG6862-3

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG6862-3A54

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/21/00

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

CompuChem
A Division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513

November 21, 2000

Mr. Mike Hall
O'Brien & Gere
951 Aviation Pkwy
STE 1400
Morrisville, NC 27560

Dear Mr. Hall:

We at CompuChem are pleased to provide our report for the analysis you requested.
Data for the following samples are enclosed:

Client ID Number	CompuChem ID Number	Analysis Code	Case Number	Description of Work Requested
CH2MW2	Q1536-1	1193	Q1536	Alkalinity
CH2WM3	Q1536-2	1194		Chloride
OBGDUP1	Q1536-3			Dissolved Organic Carbon
ETHW113	Q1536-4			Nitrate
ETMW114	Q1536-8			Nitrite
ETMW116	Q1536-9	1192		Sulfate
ETMW117	Q1536-10			Sulfide
ETMW121	Q1536-11			Total Organic Carbon
CH2MW4D	Q1536-12			
OBGEB1	Q1536-13			
ETMW116	Q1536-15			

Thank you for selecting CompuChem Environmental for your sample analysis.
If you have any questions concerning this report or the analytical methods employed, please contact your Sales Representative at 919-379-4100.

Sincerely,

PROJECT MANAGER

ALKALINITY ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	Q1536-1	BRL	10
2.	CH2WM3	Q1536-2	BRL	10
3.	OBGDUP1	Q1536-3	BRL	10
4.	ETHW113	Q1536-4	BRL	10
5.	ETMW114	Q1536-8	128	10
6.	ETMW116	Q1536-9	BRL	10
7.	ETMW117	Q1536-10	BRL	10
8.	ETMW121	Q1536-11	32	10
9.	CH2MW4D	Q1536-12	62	10
10.	OBGEB1	Q1536-13	BRL	10

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R W George / 2405 Date: 11/21/01

CHLORIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	Q1536-1	33.7	3
2.	CH2WM3	Q1536-2	19	3
3.	OBGDUP1	Q1536-3	18.8	3
4.	ETHW113	Q1536-4	11.7	3
5.	ETMW114	Q1536-8	108	3
6.	ETMW116	Q1536-9	8.77	3
7.	ETMW117	Q1536-10	12	3
8.	ETMW121	Q1536-11	10.8	3
9.	CH2MW4D	Q1536-12	BRL	3
10.	OBGEB1	Q1536-13	BRL	3

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R. Doerge / 2405 Date: 11/21/00

DISSOLVED ORGANIC CARBON ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	Q1536-1	23.1	1
2.	CH2WM3	Q1536-2	8.75	1
3.	OBGDUP1	Q1536-3	19.1	1
4.	ETHW113	Q1536-4	6.65	1
5.	ETMW114	Q1536-8	32.9	1
6.	ETMW117	Q1536-10	8.44	1
7.	ETMW121	Q1536-11	7.74	1
8.	CH2MW4D	Q1536-12	3.91	1
9.	OBGEB1	Q1536-13	BRL	1
10.	ETMW116	Q1536-15	7.7	1

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: RW Deeney / 2405 Date: 11/21/00

NITRATE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	Q1536-1	6.2	0.05
2.	CH2WM3	Q1536-2	2.38	0.05
3.	OBGDUP1	Q1536-3	2.36	0.05
4.	ETHW113	Q1536-4	10.7	0.05

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R J Seeger / 2405 Date: 11/21/00

NITRATE-NITRITE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	ETMW114	Q1536-8	58	0.05
2.	ETMW116	Q1536-9	7.72	0.05
3.	ETMW117	Q1536-10	7.64	0.05
4.	ETMW121	Q1536-11	1.86	0.05
5.	CH2MW4D	Q1536-12	0.89	0.05
6.	OBGEB1	Q1536-13	BRL	0.05

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R Yeager / 24105 Date: 11/21/00

NITRITE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	Q1536-1	BRL	0.05
2.	CH2WM3	Q1536-2	BRL	0.05
3.	OBGDUP1	Q1536-3	BRL	0.05
4.	ETHW113	Q1536-4	BRL	0.05

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R W George 12405 Date: 11/21/00

SULFATE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	Q1536-1	27	5
2.	CH2WM3	Q1536-2	5.4	5
3.	OBGDUP1	Q1536-3	6	5
4.	ETHW113	Q1536-4	5.8	5
5.	ETMW114	Q1536-8	110	5
6.	ETMW116	Q1536-9	5.2	5
7.	ETMW117	Q1536-10	5.2	5
8.	ETMW121	Q1536-11	12.6	5
9.	CH2MW4D	Q1536-12	BRL	5
10.	OBGEB1	Q1536-13	BRL	5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: [signature] / 2405 Date: 11/21/00

SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	Q1536-1	BRL	0.5
2.	CH2WM3	Q1536-2	0.6	0.5
3.	OBGDUP1	Q1536-3	0.6	0.5
4.	ETHW113	Q1536-4	0.8	0.5
5.	ETMW114	Q1536-8	0.5	0.5
6.	ETMW117	Q1536-10	0.6	0.5
7.	ETMW121	Q1536-11	BRL	0.5
8.	CH2MW4D	Q1536-12	BRL	0.5
9.	OBGEB1	Q1536-13	BRL	0.5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R W Berger / 2405 Date: 11/21/00

TOTAL ORGANIC CARBON ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	Q1536-1	29.1	1
2.	CH2WM3	Q1536-2	26.1	1
3.	OBGDUP1	Q1536-3	20.7	1
4.	ETHW113	Q1536-4	5.6	1
5.	ETMW114	Q1536-8	40.5	1
6.	ETMW117	Q1536-10	17.3	1
7.	ETMW121	Q1536-11	15.6	1
8.	CH2MW4D	Q1536-12	7.8	1
9.	OBGEB1	Q1536-13	BRL	1
10.	ETMW116	Q1536-15	9.1	1

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R. George / 2405 Date: 11/21/00

ALKALINITY ANALYSIS
QUALITY CONTROL REPORT

CASE: Q1536
MATRIX: WATER

Analyst:2454
Date Analyzed:11/16/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG6881-4	58.6	58	99

ORIG. SAMPLE COMPUCHEM #: Q1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG6881-1
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG6881-2

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
100.0	BRL	98.0	98.0	100.0	100.0	2.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG6881-5	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

CHLORIDE ANALYSIS
QUALITY CONTROL REPORT

CASE: Q1536
MATRIX: WATER

Analyst:2441
Date Analyzed:11/19/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG6881-4	104	111	107

ORIG. SAMPLE COMPUCHEM #: Q1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG6881-1
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG6881-2

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
60.0	33.7	119.0	142.0	120.0	144.0	1.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG6881-5	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

DISSOLVED ORGANIC CARBON ANALYSIS
QUALITY CONTROL REPORT

CASE: Q1536
MATRIX: WATER

Analyst:2454
Date Analyzed:11/13/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG6881-4	150	162	108
WG7104-2	150	158	105

ORIG. SAMPLE COMPUCHEM #: Q1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG6881-1
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG6881-2

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
50.0	23.1	76.0	106.0	73.0	100.0	4.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG6881-5	METHOD BLANK	BRL
WG7104-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

NITRATE ANALYSIS
QUALITY CONTROL REPORT

CASE: Q1536
MATRIX: WATER

Analyst:2454
Date Analyzed:11/10/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG6881-4	5.96	5.85	98
WG6967-4	5.96	5.84	98

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG6881-5	METHOD BLANK	BRL
WG5967-5	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

NITRATE-NITRITE ANALYSIS
QUALITY CONTROL REPORT

CASE: Q1536
MATRIX: WATER

Analyst:2454
Date Analyzed:11/10/00

BLANK SPIKE COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG6881-4	5.96	5.85	98
WG6967-4	5.96	5.84	98

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG6881-5	METHOD BLANK	BRL
WG5967-5	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

NITRITE ANALYSIS
QUALITY CONTROL REPORT

CASE: Q1536
MATRIX: WATER

Analyst:2454
Date Analyzed:11/10/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG6881-4	1	1.04	104

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG6881-5	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

SULFATE ANALYSIS
QUALITY CONTROL REPORT

CASE: Q1536
MATRIX: WATER

Analyst:2454
Date Analyzed:11/20/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG6881-4	20	20.7	104

ORIG. SAMPLE COMPUCHEM #: Q1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG6881-1
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG6881-2

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
15.0	27.0	39.5	83.0	41.2	95.0	4.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG6881-5	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

SULFIDE ANALYSIS
QUALITY CONTROL REPORT

CASE: Q1536
MATRIX: WATER

Analyst:2454
Date Analyzed:11/14/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG6881-4	25	26.4	106

ORIG. SAMPLE COMPUCHEM #: Q1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG6881-1
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG6881-2

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
5.0	BRL	4.8	96.0	4.8	96.0	0.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG6881-5	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

TOTAL ORGANIC CARBON ANALYSIS
QUALITY CONTROL REPORT

CASE: Q1536
MATRIX: WATER

Analyst:2454
Date Analyzed:11/13/00

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG6881-4	150	162	108
WG7104-2	150	158	105

ORIG. SAMPLE COMPUCHEM #: Q1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG6881-1
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG6881-2

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
50.0	29.1	86.0	114.0	79.0	100.0	8.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG6881-5	METHOD BLANK	BRL
WG7104-1	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

COMPUCHEM
a division of Liberty Analytical Corp.

December 5, 2000

Mike Hall
O'BRIEN & GERE
951 Aviation PKWY
STE 1400
Morrisville, NC 27560

Subject:
Report of Data – Project: MILLER- MOULTRIE Quote #: Q1536 SDG #: A1536

Attn.: Mike Hall

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097.

Sincerely,

CompuChem Environmental
A Division of Liberty Analytical

Attachment

Vaportech Services, Inc.

CCM23-02680

CompuChem
Project: MILLER/MOULTRIE
-- WATER SAMPLES --

SAMPLE NAME	METHANE (ug/l)	ETHANE (ug/l)	ETHENE (ug/l)	FILE NAME	DATE COLLECTED	DATE RECEIVED	DATE ANALYZED
CH2MW2	ND	ND	ND	D12A4.59A	11/09/2000	11/14/2000	11/21/2000
CH2MW3	ND	ND	ND	D12A4.60A	11/09/2000	11/14/2000	11/21/2000
OBGDUP1	ND	ND	ND	D12A4.61A	11/09/2000	11/14/2000	11/21/2000
ETMW113	ND	ND	ND	D12A4.62A	11/09/2000	11/14/2000	11/21/2000
ETMW114	0.5	0.03	0.03	D12A4.63A	11/10/2000	11/14/2000	11/21/2000
ETMW116	ND	0.01	0.03	D12A4.64A	11/10/2000	11/14/2000	11/21/2000
ETMW117	ND	0.02	0.02	D12A4.65A	11/10/2000	11/14/2000	11/21/2000
ETMW21	ND	ND	0.01	D12A4.66A	11/10/2000	11/14/2000	11/21/2000
CH2MW4D	ND	ND	0.01	D12A4.67A	11/10/2000	11/14/2000	11/21/2000
OBGEB1	ND	ND	ND	D12A4.68A	11/10/2000	11/14/2000	11/21/2000
MDL for above samples	0.2	0.01	0.01				

ND - denotes 'Not Detected' at or above the lower method detection limit

27-Nov-2000

Reviewed By: DGM

Vaportech Services, Inc.

CCM23-02680

CompuChem
Project: MILLER/MOULTRIE
-- WATER SAMPLES --

QUALITY CONTROL

CONTINUING CALIBRATION CHECK (FID)

STANDARD: "54"
FILE NAME: D12A4.57A
DATE ANALYZED: 11/21/00

COMPOUND	KNOWN PPMV	RESULT PPMV	PERCENT DIFFERENCE
Methane	15.00	15.50	3.33
Ethane	15.00	15.08	0.55
Ethene	15.10	15.02	0.52

ND - denotes 'Not Detected' at or above the lower method detection limit

LABORATORY BLANK RESULTS (FID)

BLANK: CARRIER IN LOOP
FILE NAME: D12A4.56A
DATE ANALYZED: 11/21/00

COMPOUND	BLANK PPMV	METHOD DETECTION LIMIT PPMV
Methane	ND	1.00
Ethane	ND	0.02
Ethene	ND	0.02

27-Nov-2000

Reviewed By: DSM

CompuChem
a division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513
1-800-833-5097

CHAIN-OF-CUSTODY RECORD

No. 056127

Project Name: Miller Brewery in Moultrie Ga.
Carrier: FedEx
Airbill No.: 8231 8641 4980
Sampler Name: Tim Jellett

Client Address: O'Brien & Gere Eng. Aviation Parkway Mooresville NC
Sampler Signature: Tim Jellett

Point-of-Contact: Mike Hall
Telephone No.: 919 469-0099
Sampling complete? Y or (N) (see Note 1)
Project-specific (PS) or Batch (B) QC ?

BOX #1: 1. Surface Water; 2. Ground Water; 3. Leachate; 4. Rinsate; 5. Soil / Sediment / Sludge; 6. Trip Blank; 7. Oil; 8. Waste; 9. Other_____

BOX #2: A. HCl + Ice; B. HNO3 + Ice; C. NaOH + Ice; D. H2SO4 + Ice; E. Unpreserved; F. Ice Only; G. Other_____; H. NaHSO4 + Ice; I. ZnAc+NaOH + Ice

BOX #3: F. Filtered; U. Unfiltered

Box #4: H. High; M. Medium; L. Low

Box #5: C. CLP 3/90; S. SW-846; W. CWA 600-series; O. Other_____; T. TCLP

Sample ID (9 characters maximum)	Date: Year: 2000	Time	Box #1 Matrix	Box #2 Preservative	Box #3 Filtered / Unfiltered	Box #4 Expected Conc.	Box #5 Method	No. of Bottles	Use for Lab QC (MS or DUP)	VOA	SVOC	Pesticide	PCB	Herbicide	Metals / Mercury	Cyanide Ethers, Ether, Methanol	TOC / TOX	O&G / TPH	Sulfide Sulfide	Chloride Alkal. Sulfate	Nitrate / Nitrite	Dissolv. O. Carbon	Remarks / Comments (see Notes 2 & 3)
CHZMW2	11/9	10:50	2	A I E	–	L	T	15		X							X		X	X	X	X	
CHZMW3	11/9	13:15	2	A I E	–	L	T	15		X							X		X	X	X	X	
OBGDUP1	11/9	–	2	A, I, E,	–	L	T	15		X							X		X	X	X	X	
OBGMW123	11/9	13:45	2	A	–	L	T	3		X							X		X	X	X	X	
OBGMW122	11/9	14:25	2	A	–	L	T	3		X													
ETMW113	11/9	15:30	2	A I E	–	L	T	15		X							X		X	X	X	X	
TRIPBLK	+	–	2							X													
	/	:																					
	/	:																					
	/	:																					

Clients Special Instructions:

Lab: Received in Good Condition? Y or N Describe Problems, If any: Temperature 4 °C

#1 Relinquished By: (Sig) Tim Jellett	Date: 11/9/00	#2 Relinquished By: (Sig)	Date:	#3 Relinquished By: (Sig)	Date:
Company Name: O'Brien & Gere	Time:	Company Name:	Time:	Company Name:	Time:
#1 Received By: (Sig)	Date: 11-10-00	#2 Received By: (Sig)	Date:	#3 Received By: (Sig)	Date:
Company Name: CompuChem	Time: 9:31	Company Name:	Time:	Company Name:	Time:

Note (1): If "N" lab will hold samples to await remainder of project-maximizing batch size and minimizing QC ratio; if "Y" lab will begin processing batches now.
Note (2): Samples stored 60 days after date report mailed at no extra charge.
Note (3): All lab copies of data destroyed after three years.

CHEM
a division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513
1-800-833-5097

CHAIN-OF-CUSTODY RECORD

No. 356,28

Project Name: Miller Brewing Moultrie Ga.	Client Address: O'Brien & Gere Eng. Aviation Parkway Morrisville NC.	Point-of-Contact: Mike Hall
Carrier: FedEx		Telephone No.: (919) 469-0099
Airbill No.:		Sampling complete? Y or N (see Note 1)
Sampler Name: Tim Jellett	Sampler Signature: Tim Jellett	Project-specific (PS) or Batch (B) QC?

BOX #1: 1. Surface Water; 2. Ground Water; 3. Leachate; 4. Rinsate; 5. Soil / Sediment / Sludge; 6. Trip Blank; 7. Oil; 8. Waste; 9. Other

BOX #2: A. HCl + Ice; B. HNO3 + Ice; C. NaOH + Ice; D. H2SO4 + Ice; E. Unpreserved; F. Ice Only; G. Other; H. NaHSO4 + Ice; I. ZnAc+NaOH + Ice

BOX #3: F. Filtered; U. Unfiltered

Box #4: H. High; M. Medium; L. Low

Box #5: C. CLP 3/90; S. SW-846; W. CWA 600-series; O. Other; T. TCLP

Sample ID (9 characters maximum)	Date:Year:	Time	Box #1 Matrix	Box #2 Preservative	Box #3 Filtered / Unfiltered	Box #4 Expected Conc.	Box #5 Method	No. of Bottles	Use for Lab QC (MS or DUP)	VOA	~~SVOC~~ DOC	~~Pesticide~~ Chloride	~~PCB~~ Alkalinity/Sulfate	~~Herbicide~~	~~Metals/Mercury~~	~~Cyanide~~	TOC / ~~TOX~~	~~O&G/TPH~~	Sulfide	Nitrate/Nitrite	methane, ethane, ethene	Remarks / Comments (see Notes 2 & 3)
ETMW114	11/10	08:15	2	A I E	U	L	T	15		X	X	X	X				X		X	X	X	
ETMW116	11/10	10:45	2	A I E	U	L	T	8		X	[redacted]						[redacted]			X	X	
ETMW117	11/10	10:15	2	A I E	U	L	T	15		X	X	X	X				X		X	X	X	
ETMW121	11/10	09:00	2	A I E	U	L	T	15		X	X	X	X				X		X	X	X	
CHZMW4D	11/10	14:00	2	A I E	U	L	T	15		X	X	X	X				X		X	X	X	
OBGEB1	11/10	14:20	2	A I E	U	L	T	15		X	X	X	X				X		X	X	X	
TRIPBLK	+	-	2	A	U	L	T	2		X												
	/	:																				
	/	:																				
	/	:																				

Clients Special Instructions:

Temperature 4 °C

Lab: Received in Good Condition? Y or N Describe Problems, If any:

#1 Relinquished By: (Sig) Tim Jellett	Date: 11/10/00	#2 Relinquished By: (Sig) / Date:	#3 Relinquished By: (Sig) / Date:
Company Name: O'Brien & Gere	Time: 1800	Company Name: / Time:	Company Name: / Time:
#1 Received By: (Sig) [signature]	Date: 11/11/00	#2 Received By: (Sig) / Date:	#3 Received By: (Sig) / Date:
Company Name: Compu Chem	Time: 11:30	Company Name: / Time:	Company Name: / Time:

Note (1): If "N" lab will hold samples to await remainder of project-maximizing batch size and minimizing QC ratio; if "Y" lab will begin processing batches now.
Note (2): Samples stored 60 days after date report mailed at no extra charge. Note (3): All lab copies of data destroyed after three years.

January 2001

COMPUCHEM
a division of Liberty Analytical Corp.

February 6, 2001

Mike Hall
O'BRIEN & GERE
951 Aviation PKWY
STE 1400
Morrisville, NC 27560

Subject:
Report of Data – Project: MILLER- MOULTRIE Quote #: Q1536 SDG #: B1536

Attn.: Mike Hall

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097.

Sincerely,

CompuChem Environmental
A Division of Liberty Analytical

Attachment

501 Madison Avenue ■ Cary, NC 27513 ■ Tel 919-379-4100 ■ Fax 919-379-4050

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE
SDG #B1536

SAMPLE IDENTIFICATIONS: CH2MW2 CH2MW3 ETMW121 OBGEB1 ETMW114 ETMW116 ETMW117 OBGFR1 OBGMW123 OBGMW122 OBGTB1CH2MW4D ETMW113 OBGTB1(A)

The fourteen water samples listed above were received intact, at 3, and 4 degrees C, in sealed shipping containers, on January 25, and 26, 2001. All samples were submitted for volatile analysis, and the majority of samples were also submitted for alkalinity, chloride, dissolved organic carbon, nitrate, nitrite, sulfate, sulfide, and TOC analysis.
The volatile samples were prepared and analyzed following SW846 Method 8260B. All pertinent Quality Assurance Notices are included in the narrative section, and all pertinent Laboratory Notices for SDG # B1536 are included in the sample data sections.
Analysis holding time requirements were met for all samples,and sample pH values were less than 2.0 for all samples. A copy of the pH results follow this narrative.
The Target Compound List(TCL) analytes vinyl chloride, chloroethane, acetone, methylene chloride, cis-1,2-dichloroethene, 1,1-dichloroethene, 1,1-dichloroethane, trichloroethene, benzene, and tetrachloroethene were the most frequently identified above the reporting limits.
Samples ETMW114, ETMW116, ETMW117, OBGFR1, and ETMW113 were diluted due to high levels of TCL analytes, and for these samples we have reported both neat and diluted analyses.
Two samples with ID OBGTB1(lab IDs B1536-11, and B1536-14) were submitted by the client, and it was necessary to add an "A" suffix to lab sample number B1536-14 for the forms generation software to distinguish these two samples.
No instrument blank was analyzed between samples ETMW114, ETMW116, ETMW117, and OBGFR1. Due to the fact that all of these samples contained one or more target analytes that exceeded calibration limits; carryover of these target analytes may have occurred. Since we are also reporting diluted reanalyses of all of these samples with all target analytes within calibration limits, we are reporting the data with reference to this qualifier.

Tentatively Identified Compounds (TICs) were not searched at the request of the client.
All Bromofluorobenzene (BFB) abundance criteria were met for tunes associated to this SDG. Overall QC criteria were met for all initial and continuing calibration standards associated to this SDG.

The system monitoring compounds (SMCs) met recovery criteria in the analyses of these samples, and all of the internal standards met retention time and response criteria in the analyses of these samples.

The associated method blanks met all quality control criteria, and did not contain any target analytes above the reporting limits.

Duplicate matrix spikes were generated from the original CH2MW2, and met all QC precision and accuracy criteria with one exception.. The advisory RPD was exceeded for the spike compound 1,1-dichloroethene.
The associated Laboratory Control Samples(LCSs) met all accuracy requirements.

Manual quantitations were performed on the process files in some of the the associated initial, and continuing calibration(s), and in samples ETMW114, and OBGFR1. The reasons have been coded with explanations provided in the notice included in the narrative section of this SDG.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Roy Sutton
Case Reviewer
February 01, 2001

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue.

DATA REPORTING QUALIFIERS (continued)

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and all reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Form Is are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form I.

A : This flag indicates that a TIC is a suspected aldol-condensation product.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

CompuChem
a division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513
1-800-833-5097

CHAIN-OF-CUSTODY RECORD

No. 055641

Project Name : Miller Brewery	Client Address : O'Brien & Gere	Point-of-Contact : Peter Berger
Carrier : FedEx	Aviation Parkway	Telephone No. : (919) 469-0999
Airbill No. : 8244 3103 5335	Morrisville	Sampling complete? Y or (N) (see Note 1)
Sampler Name : Tim Jellett	Sampler Signature : Tim Jellett	Project-specific (PS) or Batch (B) QC ?

BOX #1
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil / Sediment / Sludge
6. Trip Blank
7. Oil
8. Waste
9. Other_____

BOX #2
A. HCl + Ice
B. HNO3 + Ice
C. NaOH + Ice
D. H2SO4 + Ice
E. Unpreserved
F. Ice Only
G. Other_____
H. NaHSO4 + Ice
I. ZnAc+NaOH + Ice

BOX #3
F. Filtered
U. Unfiltered

Box #4
H. High
M. Medium
L. Low

Box #5
C. CLP 3/90
S. SW-846
W. CWA 600-series
O. Other_____
T. TCLP

Sample ID (9 characters maximum)	Date: Year: 2001	Time	Box #1 Matrix	Box #2 Preservative	Box #3 Filtered / Unfiltered	Box #4 Expected Conc.	Box #5 Method	No. of Bottles	Use for Lab QC (MS or DUP)	VOA 8260	SVOC	Pesticide	PCB	Herbicide	Metals / Mercury	Cyanide	TOC / TOX / DOC	O&G / TPH	Sulfide	Chl. Alka. Sulfate	Nitrate, Nitrite	methane, Ethane, Ether	Remarks / Comments (see Notes 2 & 3)
CHZMW2	1/24	09:30	2	A, E, D	U	L		15		X							X		X	X	X	X	
CHZMW3	1/24	10:45	2	A, E, D	U	L		15		X							X		X	X	X	X	
OBGMW123	1/24	11:15	2	A	U	L		3		X													
OBGMW122	1/24	11:45	2	A	U	L		3		X													
ETMW121	1/24	12:00	2	A, E, D	U	L		15		X							X		X	X	X	X	
OBGEB1	1/24	10:00	2		U	L		15		X							X		X	X	X	X	
ETMW114	1/24	12:45	2		U	L		15		X							X		X	X	X	X	
ETMW116	1/24	14:30	2		U	L		15		X							X		X	X	X	X	
ETMW117	1/24	15:00	2		U	L		15		X							X		X	X	X	X	
OBGFRI	1/24	--	2	↓	U	L		15		X							X		X	X	X	X	

Clients Special Instructions:

Temperature 4 °C

Lab: Received in Good Condition? Y or N Describe Problems, If any: CHZMW2 only has (2) methanes VOA Bottles

#1 Relinquished By: (Sig) Tim Jellett	#2 Relinquished By: (Sig)	#3 Relinquished By: (Sig)
Date: 1/24/01	Date:	Date:
Company Name: O'Brien & Gere Eng.	Company Name:	Company Name:
Time: 1800	Time:	Time:
#1 Received By: (Sig) William Petrie	#2 Received By: (Sig)	#3 Received By: (Sig)
Date: 1-25-01	Date:	Date:
Company Name: CompuChem	Company Name:	Company Name:
Time: 850	Time:	Time:

Note (1): If "N" lab will hold samples to await remainder of project-maximizing batch size and minimizing QC ratio; if "Y" lab will begin processing batches now.
Note (2): Samples stored 60 days after date report mailed at no extra charge.
Note (3): All lab copies of data destroyed after three years.

CHAIN-OF-CUSTODY RECORD

No. 055642

CompuChem
a division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513
1-800-833-5097

Project Name : Miller Brewery	Client Address : O'Brien & Gere Engineers
Carrier : FedEx	Aviation Parkway
Airbill No. :	Morrisville NC
Sampler Name : Tim Jellett	Sampler Signature :

Point-of-Contact : Peter Berger
Telephone No. : (919) 469-0099
Sampling complete? Y or (N) (see Note 1)
Project-specific (PS) or Batch (B) QC ? ____

BOX #1
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil / Sediment / Sludge
6. Trip Blank
7. Oil
8. Waste
9. Other_____

BOX #2
A. HCl + Ice
B. HNO3 + Ice
C. NaOH + Ice
D. H2SO4 + Ice
E. Unpreserved
F. Ice Only
G. Other_____
H. NaHSO4 + Ice
I. ZnAc+NaOH + Ice

BOX #3
F. Filtered
U. Unfiltered

Box #4
H. High
M. Medium
L. Low

Box #6
C. CLP 3/90
S. SW-846
W. CWA 600-series
O. Other_____
T. TCLP

Sample ID (9 characters maximum)	Date:Year: 00	Time	Box #1 Matrix	Box #2 Preservative	Box #3 Filtered / Unfiltered	Box #4 Expected Conc.	Box #5 Method	No. of Bottles	Use for Lab QC (MS or DUP)	VOA 8260B	SVOC	Pesticide	PCB	Herbicide	Metals / Mercury	Cyanide	TOC / TOX	O&G / TPH	Remarks / Comments (see Notes 2 & 3)
OBGTB1	1/24	—	2	A	U	L		3		X									
	/	:																	
	/	:																	
	/	:																	
	/	:																	
	/	:																	
	/	:																	
	/	:																	
	/	:																	
	/	:																	

Temperature 4 °C

Clients Special Instructions:

Lab: Received in Good Condition? Y or N **Describe Problems, If any:**

#1 Relinquished By: (Sig) Tim Jellett	Date: 1/24	#2 Relinquished By: (Sig)	Date:	#3 Relinquished By: (Sig)	Date:
Company Name: O'Brien & Gere	Time: 1800	Company Name:	Time:	Company Name:	Time:
#1 Received By: (Sig) D Lundstrom	Date: 1-25-01	#2 Received By: (Sig)	Date:	#3 Received By: (Sig)	Date:
Company Name: CompuChem	Time: 8:50	Company Name:	Time:	Company Name:	Time:

Note (1): If "N" lab will hold samples to await remainder of project-maximizing batch size and minimizing QC ratio; if "Y" lab will begin processing batches now.
Note (2): Samples stored 60 days after date report mailed at no extra charge.
Note (3): All lab copies of data destroyed after three years.

CompuChem

a division of Liberty Analytical Corp.

501 Madison Avenue
Cary, NC 27513
1-800-833-5097

CHAIN-OF-CUSTODY RECORD

No. 055643

Project Name : Miller Brewery	Client Address : O'Brien & Gere Engineers	Point-of-Contact : Peter Berger
Carrier : FedEx	Aviation Parkway	Telephone No. : (919) 469-0099
Airbill No. :	Morrisville NC	Sampling complete? (Y) or N (see Note 1)
Sampler Name : Tim Jellett	Sampler Signature : Tim Jellett	Project-specific (PS) or Batch (B) QC ?

BOX #1	1. Surface Water	6. Trip Blank	
	2. Ground Water	7. Oil	
	3. Leachate	8. Waste	
	4. Rinsate	9. Other_____	
	5. Soil / Sediment / Sludge		
BOX #2	A. HCl + Ice	F. Ice Only	
	B. HNO3 + Ice	G. Other_____	
	C. NaOH + Ice	H. NaHSO4 + Ice	
	D. H2SO4 + Ice	I. ZnAc+NaOH + Ice	
	E. Unpreserved		
BOX #3	F. Filtered		
	U. Unfiltered		
Box #4	H. High		
	M. Medium		
	L. Low		
Box #5	C. CLP 3/90	T. TCL	
	S. SW-846		
	W. CWA 600-series		
	O. Other_____		

Sample ID (9 characters maximum)	Date: Year 2001	Time	Box #1 Matrix	Box #2 Preservative	Box #3 Filtered / Unfiltered	Box #4 Expected Conc.	Box #5 Method	No. of Bottles	Use for Lab QC (MS or DUP)	VOA 8260B	8260B DOC	Pesticide	PCB	Herbicide	Metals / Mercury	Cyanide Moist. Content	TOC / TOX	O&G / TPH	Methane	Sulfide	Chloride Alka. Sulfate	Nitrate/Nitrite	Remarks / Comments (see Notes 2 & 3)
ETMW11S	1/25	09:00	2	ADEH	U	L		15		X	X						X		X	X	X	X	sulfide pH's 7 1/26/01
CH2MW4D	1/25	10:30	2	AHDE	U	L		15		X	X						X		X	X	X	X	
OBGTB1	~~1/25~~ 1/30	09:30	2	A	U	L		3		X													Container ID's OBGTB1
OBGSB1	~~1/25~~ 1/30	10:15	5	E	U	L		1								X	X						
OBGSB2	~~1/25~~ 1/30	11:45	5	E	U	L		1								X	X						
OBGSB3	~~1/25~~ 1/30	12:00	5	E	U	L		1								X	X						
OBGSB4	~~1/25~~ 1/30	12:15	5	E	U	L		1								X	X						
	/	:																					
	/	:																					
	/	:																					

Clients Special Instructions:

Temperature 3 °C

Lab: Received In Good Condition? Y or N Describe Problems, If any:

#1 Relinquished By: (Sig) Tim Jellett	Date: 1/25/01	#2 Relinquished By: (Sig)	Date:	#3 Relinquished By: (Sig)	Date:
Company Name: O'Brien & Gere	Time: 1700	Company Name:	Time:	Company Name:	Time:
#1 Received By: (Sig) Kelly Dorey	Date: 1/26/01	#2 Received By: (Sig)	Date:	#3 Received By: (Sig)	Date:
Company Name: CompuChem	Time: 0830	Company Name:	Time:	Company Name:	Time:

Note (1): If "N" lab will hold samples to await remainder of project-maximizing batch size and minimizing QC ratio; if "Y" lab will begin processing batches now.
Note (2): Samples stored 60 days after date report mailed at no extra charge. Note (3): All lab copies of data destroyed after three years.

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW2

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-1A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW2

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-1A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW2

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-1A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW3

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-2

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-2A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	
75-09-2	Methylene Chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW3

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-2

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-2A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW3

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-2

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-2A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW4D

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-12

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-12B71

Level: (low/med) LOW Date Received: 01/26/01

% Moisture: not dec. _____ Date Analyzed: 01/30/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW4D

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-12

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-12B71

Level: (low/med) LOW Date Received: 01/26/01

% Moisture: not dec. _____ Date Analyzed: 01/30/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW4D

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-12

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-12B71

Level: (low/med) LOW Date Received: 01/26/01

% Moisture: not dec. _____ Date Analyzed: 01/30/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW113

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-13

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-13B71

Level: (low/med) LOW Date Received: 01/26/01

% Moisture: not dec. _____ Date Analyzed: 01/30/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	2	
75-69-4	Trichlorofluoromethane	1	
75-35-4	1,1-Dichloroethene	26	E
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.6	
156-60-5	trans-1,2-Dichloroethene	0.5	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	50	E
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	91	E
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	2	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	160	E
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW113

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-13

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-13B71

Level: (low/med) LOW Date Received: 01/26/01

% Moisture: not dec. _____ Date Analyzed: 01/30/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	35	E
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW113

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-13

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-13B71

Level: (low/med) LOW Date Received: 01/26/01

% Moisture: not dec. _____ Date Analyzed: 01/30/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	84	E
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW113DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-13

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-13R4A55

Level: (low/med) LOW Date Received: 01/26/01

% Moisture: not dec. _____ Date Analyzed: 01/31/01

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 31.2

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	16	U
74-87-3	Chloromethane	16	U
75-01-4	Vinyl Chloride	16	U
74-83-9	Bromomethane	16	U
75-00-3	Chloroethane	16	U
75-69-4	Trichlorofluoromethane	16	U
75-35-4	1,1-Dichloroethene	20	D
75-15-0	Carbon disulfide	16	U
67-64-1	Acetone	78	U
75-09-2	Methylene Chloride	16	U
156-60-5	trans-1,2-Dichloroethene	16	U
1634-04-4	Methyl-tert-butyl ether	16	U
75-34-3	1,1-Dichloroethane	36	D
108-20-3	Isopropyl ether	16	U
594-20-7	2,2-Dichloropropane	16	U
156-59-2	cis-1,2-Dichloroethene	100	D
78-93-3	2-butanone	78	U
74-97-5	Bromochloromethane	16	U
67-66-3	Chloroform	16	U
71-55-6	1,1,1-Trichloroethane	16	U
56-23-5	Carbon Tetrachloride	16	U
563-58-6	1,1-dichloropropene	16	U
71-43-2	Benzene	16	U
107-06-2	1,2-Dichloroethane	16	U
79-01-6	Trichloroethene	240	D
78-87-5	1,2-Dichloropropane	16	U
74-95-3	Dibromomethane	16	U
75-27-4	Bromodichloromethane	16	U
10061-01-5	cis-1,3-Dichloropropene	16	U
108-10-1	4-Methyl-2-pentanone	78	U
108-88-3	Toluene	16	U
10061-02-6	trans-1,3-Dichloropropene	16	U
79-00-5	1,1,2-Trichloroethane	16	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW113DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-13

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-13R4A55

Level: (low/med) LOW Date Received: 01/26/01

% Moisture: not dec. _____ Date Analyzed: 01/31/01

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 31.2

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	16	U
142-28-9	1,3-Dichloropropane	16	U
591-78-6	2-hexanone	110	D
124-48-1	Dibromochloromethane	16	U
106-93-4	1,2-Dibromoethane	16	U
108-90-7	Chlorobenzene	16	U
630-20-6	1,1,1,2-Tetrachloroethane	16	U
100-41-4	Ethylbenzene	16	U
108-38-3	m,p-Xylene	31	U
95-47-6	o-Xylene	16	U
100-42-5	Styrene	16	U
75-25-2	Bromoform	16	U
98-82-8	Isopropyl Benzene	16	U
108-86-1	Bromobenzene	16	U
96-18-4	1,2,3-Trichloropropane	16	U
79-34-5	1,1,2,2-Tetrachloroethane	16	U
103-65-1	n-Propyl Benzene	16	U
95-49-8	2-Chlorotoluene	16	U
106-43-4	4-Chlorotoluene	16	U
108-67-8	1,3,5-Trimethyl Benzene	16	U
98-06-6	tert-Butyl Benzene	16	U
95-63-6	1,2,4-Trimethyl Benzene	16	U
135-98-8	sec-Butyl Benzene	16	U
541-73-1	1,3-Dichlorobenzene	16	U
106-46-7	1,4-Dichlorobenzene	16	U
99-87-6	p-Isopropyl Toluene	16	U
95-50-1	1,2-Dichlorobenzene	16	U
104-51-8	n-Butyl Benzene	16	U
96-12-8	1,2-Dibromo-3-Chloropropane	26	D
120-82-1	1,2,4-Trichlorobenzene	42	D
87-68-3	Hexachlorobutadiene	17	D
91-20-3	Naphthalene	160	D
87-61-6	1,2,3-Trichlorobenzene	86	D

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW113DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-13

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-13R4A55

Level: (low/med) LOW Date Received: 01/26/01

% Moisture: not dec. _____ Date Analyzed: 01/31/01

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 31.2

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	110	D
1330-20-7	Xylene (total)	16	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-5

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-5A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	1	
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	61	E
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	60	E
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	1	
156-60-5	trans-1,2-Dichloroethene	4	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	85	E
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	510	E
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	2	
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	3	
107-06-2	1,2-Dichloroethane	4	
79-01-6	Trichloroethene	170	E
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	8	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-5

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-5A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	39	E
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-5

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-5A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	470	E
1330-20-7	Xylene (total)	0.5	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-5

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-5D3B71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 166.7

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	83	U
74-87-3	Chloromethane	83	U
75-01-4	Vinyl Chloride	83	U
74-83-9	Bromomethane	83	U
75-00-3	Chloroethane	83	U
75-69-4	Trichlorofluoromethane	83	U
75-35-4	1,1-Dichloroethene	120	D
75-15-0	Carbon disulfide	83	U
67-64-1	Acetone	420	U
75-09-2	Methylene Chloride	83	U
156-60-5	trans-1,2-Dichloroethene	83	U
1634-04-4	Methyl-tert-butyl ether	83	U
75-34-3	1,1-Dichloroethane	120	D
108-20-3	Isopropyl ether	83	U
594-20-7	2,2-Dichloropropane	83	U
156-59-2	cis-1,2-Dichloroethene	3400	D
78-93-3	2-butanone	420	U
74-97-5	Bromochloromethane	83	U
67-66-3	Chloroform	83	U
71-55-6	1,1,1-Trichloroethane	83	U
56-23-5	Carbon Tetrachloride	83	U
563-58-6	1,1-dichloropropene	83	U
71-43-2	Benzene	83	U
107-06-2	1,2-Dichloroethane	83	U
79-01-6	Trichloroethene	820	D
78-87-5	1,2-Dichloropropane	83	U
74-95-3	Dibromomethane	83	U
75-27-4	Bromodichloromethane	83	U
10061-01-5	cis-1,3-Dichloropropene	83	U
108-10-1	4-Methyl-2-pentanone	420	U
108-88-3	Toluene	83	U
10061-02-6	trans-1,3-Dichloropropene	83	U
79-00-5	1,1,2-Trichloroethane	83	U

48

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-5

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-5D3B71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 166.7

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	83	U
142-28-9	1,3-Dichloropropane	83	U
591-78-6	2-hexanone	420	U
124-48-1	Dibromochloromethane	83	U
106-93-4	1,2-Dibromoethane	83	U
108-90-7	Chlorobenzene	83	U
630-20-6	1,1,1,2-Tetrachloroethane	83	U
100-41-4	Ethylbenzene	83	U
108-38-3	m,p-Xylene	170	U
95-47-6	o-Xylene	83	U
100-42-5	Styrene	83	U
75-25-2	Bromoform	83	U
98-82-8	Isopropyl Benzene	83	U
108-86-1	Bromobenzene	83	U
96-18-4	1,2,3-Trichloropropane	83	U
79-34-5	1,1,2,2-Tetrachloroethane	83	U
103-65-1	n-Propyl Benzene	83	U
95-49-8	2-Chlorotoluene	83	U
106-43-4	4-Chlorotoluene	83	U
108-67-8	1,3,5-Trimethyl Benzene	83	U
98-06-6	tert-Butyl Benzene	83	U
95-63-6	1,2,4-Trimethyl Benzene	83	U
135-98-8	sec-Butyl Benzene	83	U
541-73-1	1,3-Dichlorobenzene	83	U
106-46-7	1,4-Dichlorobenzene	83	U
99-87-6	p-Isopropyl Toluene	83	U
95-50-1	1,2-Dichlorobenzene	83	U
104-51-8	n-Butyl Benzene	83	U
96-12-8	1,2-Dibromo-3-Chloropropane	83	U
120-82-1	1,2,4-Trichlorobenzene	83	U
87-68-3	Hexachlorobutadiene	83	U
91-20-3	Naphthalene	83	U
87-61-6	1,2,3-Trichlorobenzene	83	U

49

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-5

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-5D3B71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 166.7

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	3100	D
1330-20-7	Xylene (total)	83	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW116

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-6A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	4	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	12	
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	26	E
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	65	E
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW116

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-6A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	5	
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW116

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-6A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	24	
1330-20-7	Xylene (total)	0.5	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW116DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-6D2B71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	3	U
74-87-3	Chloromethane	3	U
75-01-4	Vinyl Chloride	3	U
74-83-9	Bromomethane	3	U
75-00-3	Chloroethane	3	U
75-69-4	Trichlorofluoromethane	3	U
75-35-4	1,1-Dichloroethene	4	D
75-15-0	Carbon disulfide	3	U
67-64-1	Acetone	13	U
75-09-2	Methylene Chloride	3	U
156-60-5	trans-1,2-Dichloroethene	3	U
1634-04-4	Methyl-tert-butyl ether	3	U
75-34-3	1,1-Dichloroethane	13	D
108-20-3	Isopropyl ether	3	U
594-20-7	2,2-Dichloropropane	3	U
156-59-2	cis-1,2-Dichloroethene	26	D
78-93-3	2-butanone	13	U
74-97-5	Bromochloromethane	3	U
67-66-3	Chloroform	3	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon Tetrachloride	3	U
563-58-6	1,1-dichloropropene	3	U
71-43-2	Benzene	3	U
107-06-2	1,2-Dichloroethane	3	U
79-01-6	Trichloroethene	100	D
78-87-5	1,2-Dichloropropane	3	U
74-95-3	Dibromomethane	3	U
75-27-4	Bromodichloromethane	3	U
10061-01-5	cis-1,3-Dichloropropene	3	U
108-10-1	4-Methyl-2-pentanone	13	U
108-88-3	Toluene	3	U
10061-02-6	trans-1,3-Dichloropropene	3	U
79-00-5	1,1,2-Trichloroethane	3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW116DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-6D2B71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	5	D
142-28-9	1,3-Dichloropropane	3	U
591-78-6	2-hexanone	13	U
124-48-1	Dibromochloromethane	3	U
106-93-4	1,2-Dibromoethane	3	U
108-90-7	Chlorobenzene	3	U
630-20-6	1,1,1,2-Tetrachloroethane	3	U
100-41-4	Ethylbenzene	3	U
108-38-3	m,p-Xylene	5	U
95-47-6	o-Xylene	3	U
100-42-5	Styrene	3	U
75-25-2	Bromoform	3	U
98-82-8	Isopropyl Benzene	3	U
108-86-1	Bromobenzene	3	U
96-18-4	1,2,3-Trichloropropane	3	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U
103-65-1	n-Propyl Benzene	3	U
95-49-8	2-Chlorotoluene	3	U
106-43-4	4-Chlorotoluene	3	U
108-67-8	1,3,5-Trimethyl Benzene	3	U
98-06-6	tert-Butyl Benzene	3	U
95-63-6	1,2,4-Trimethyl Benzene	3	U
135-98-8	sec-Butyl Benzene	3	U
541-73-1	1,3-Dichlorobenzene	3	U
106-46-7	1,4-Dichlorobenzene	3	U
99-87-6	p-Isopropyl Toluene	3	U
95-50-1	1,2-Dichlorobenzene	3	U
104-51-8	n-Butyl Benzene	3	U
96-12-8	1,2-Dibromo-3-Chloropropane	3	U
120-82-1	1,2,4-Trichlorobenzene	3	U
87-68-3	Hexachlorobutadiene	3	U
91-20-3	Naphthalene	3	U
87-61-6	1,2,3-Trichlorobenzene	3	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW116DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-6D2B71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 5.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	24	D
1330-20-7	Xylene (total)	3	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW117

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-7A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	2	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	
75-09-2	Methylene Chloride	2	
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	8	
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	16	
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	2	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	44	E
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW117

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-7A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	2	
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW117

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-7A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	15	
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW117DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-7DRB71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/30/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 2.8

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
75-35-4	1,1-Dichloroethene	2	D
75-15-0	Carbon disulfide	1	U
67-64-1	Acetone	7	U
75-09-2	Methylene Chloride	2	D
156-60-5	trans-1,2-Dichloroethene	1	U
1634-04-4	Methyl-tert-butyl ether	1	U
75-34-3	1,1-Dichloroethane	7	D
108-20-3	Isopropyl ether	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	16	D
78-93-3	2-butanone	7	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-dichloropropene	1	U
71-43-2	Benzene	1	D
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	50	D
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
108-10-1	4-Methyl-2-pentanone	7	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW117DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-7DRB71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/30/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 2.8

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	2	D
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-hexanone	7	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
108-38-3	m,p-Xylene	3	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropyl Benzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propyl Benzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethyl Benzene	1	U
98-06-6	tert-Butyl Benzene	1	U
95-63-6	1,2,4-Trimethyl Benzene	1	U
135-98-8	sec-Butyl Benzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyl Toluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butyl Benzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
87-68-3	Hexachlorobutadiene	1	U
91-20-3	Naphthalene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKME

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-2

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-2A71

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKME

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-2

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-2A71

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

VBLKJT

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Lab File ID: WG8159-1B71 Lab Sample ID: WG8159-1

Date Analyzed: 01/29/01 Time Analyzed: 1615

GC Column: J&W DB-624ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972HP71

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VJYLCS	WG8159-4	WG8159-4B71	1656
02	OBGMW122	B1536-10	B1536-10RB71	1841
03	OBGMW123	B1536-9	B1536-9R2B71	2119
04	ETMW114DL	B1536-5	B1536-5D3B71	2248
05	ETMW116DL	B1536-6	B1536-6D2B71	2337
06	ETMW117DL	B1536-7	B1536-7DRB71	0003
07	OBGFR1DL	B1536-8	B1536-8D2B71	0029
08	OBGTB1A	B1536-14	B1536-14B71	0055
09	CH2MW4D	B1536-12	B1536-12B71	0121
10	ETMW113	B1536-13	B1536-13B71	0148
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKJT

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8159-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8159-1B71

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKJT

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8159-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8159-1B71

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKJT

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8159-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8159-1B71

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

VBLKDM

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Lab File ID: WG8260-9A55 Lab Sample ID: WG8260-9

Date Analyzed: 01/31/01 Time Analyzed: 0943

GC Column: EQUITY624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: F50055

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VDMLCS	WG8260-10	WG8260-10A55	1020
02	CH2MW2MS	WG8260-6	WG8260-6A55	1159
03	CH2MW2MSD	WG8260-7	WG8260-7A55	1232
04	ETMW113DL	B1536-13	B1536-13R4A5	1759
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
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17				
18				
19				
20				
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30				

COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKDM

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-9

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-9A55

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/31/01

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKDM

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-9

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-9A55

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/31/01

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKDM

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-9

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-9A55

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/31/01

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW117DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-7DRB71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/30/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 2.8

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	14	D
1330-20-7	Xylene (total)	1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW121

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-3

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-3A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW121

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-3

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-3A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW121

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-3

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-3A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGEB1

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-4A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.7	
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGEB1

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-4A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGEB1

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-4A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

ETCMW-114

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGFR1

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-8

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-8A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	1	
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	62	E
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	82	E
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	3	
156-60-5	trans-1,2-Dichloroethene	3	
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	85	E
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	510	E
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	2	
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	3	
107-06-2	1,2-Dichloroethane	4	
79-01-6	Trichloroethene	170	E
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	8	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGFR1

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-8

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-8A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	39	E
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGFR1

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-8

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-8A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	470	E
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGFR1DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-8

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-8D2B71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/30/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 166.7

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	83	U
74-87-3	Chloromethane	83	U
75-01-4	Vinyl Chloride	83	U
74-83-9	Bromomethane	83	U
75-00-3	Chloroethane	83	U
75-69-4	Trichlorofluoromethane	83	U
75-35-4	1,1-Dichloroethene	110	D
75-15-0	Carbon disulfide	83	U
67-64-1	Acetone	420	U
75-09-2	Methylene Chloride	83	U
156-60-5	trans-1,2-Dichloroethene	83	U
1634-04-4	Methyl-tert-butyl ether	83	U
75-34-3	1,1-Dichloroethane	120	D
108-20-3	Isopropyl ether	83	U
594-20-7	2,2-Dichloropropane	83	U
156-59-2	cis-1,2-Dichloroethene	3300	D
78-93-3	2-butanone	420	U
74-97-5	Bromochloromethane	83	U
67-66-3	Chloroform	83	U
71-55-6	1,1,1-Trichloroethane	83	U
56-23-5	Carbon Tetrachloride	83	U
563-58-6	1,1-dichloropropene	83	U
71-43-2	Benzene	83	U
107-06-2	1,2-Dichloroethane	83	U
79-01-6	Trichloroethene	790	D
78-87-5	1,2-Dichloropropane	83	U
74-95-3	Dibromomethane	83	U
75-27-4	Bromodichloromethane	83	U
10061-01-5	cis-1,3-Dichloropropene	83	U
108-10-1	4-Methyl-2-pentanone	420	U
108-88-3	Toluene	83	U
10061-02-6	trans-1,3-Dichloropropene	83	U
79-00-5	1,1,2-Trichloroethane	83	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGFR1DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-8

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-8D2B71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/30/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 166.7

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	83	U
142-28-9	1,3-Dichloropropane	83	U
591-78-6	2-hexanone	420	U
124-48-1	Dibromochloromethane	83	U
106-93-4	1,2-Dibromoethane	83	U
108-90-7	Chlorobenzene	83	U
630-20-6	1,1,1,2-Tetrachloroethane	83	U
100-41-4	Ethylbenzene	83	U
108-38-3	m,p-Xylene	170	U
95-47-6	o-Xylene	83	U
100-42-5	Styrene	83	U
75-25-2	Bromoform	83	U
98-82-8	Isopropyl Benzene	83	U
108-86-1	Bromobenzene	83	U
96-18-4	1,2,3-Trichloropropane	83	U
79-34-5	1,1,2,2-Tetrachloroethane	83	U
103-65-1	n-Propyl Benzene	83	U
95-49-8	2-Chlorotoluene	83	U
106-43-4	4-Chlorotoluene	83	U
108-67-8	1,3,5-Trimethyl Benzene	83	U
98-06-6	tert-Butyl Benzene	83	U
95-63-6	1,2,4-Trimethyl Benzene	83	U
135-98-8	sec-Butyl Benzene	83	U
541-73-1	1,3-Dichlorobenzene	83	U
106-46-7	1,4-Dichlorobenzene	83	U
99-87-6	p-Isopropyl Toluene	83	U
95-50-1	1,2-Dichlorobenzene	83	U
104-51-8	n-Butyl Benzene	83	U
96-12-8	1,2-Dibromo-3-Chloropropane	83	U
120-82-1	1,2,4-Trichlorobenzene	83	U
87-68-3	Hexachlorobutadiene	83	U
91-20-3	Naphthalene	83	U
87-61-6	1,2,3-Trichlorobenzene	83	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGFR1DL

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-8

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-8D2B71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/30/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 166.7

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	3100	D
1330-20-7	Xylene (total)	83	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW122

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-10

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-10RB71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW122

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-10

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-10RB71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW122

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-10

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-10RB71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW123

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-9

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-9R2B71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW123

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-9

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-9R2B71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGMW123

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-9

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-9R2B71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGTB1

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-11

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-11A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	2	
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGTB1

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-11

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-11A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGTB1

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-11

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-11A71

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGTB1A

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-14

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-14B71

Level: (low/med) LOW Date Received: 01/26/01

% Moisture: not dec. _____ Date Analyzed: 01/30/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	3	
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGTB1A

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-14

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-14B71

Level: (low/med) LOW Date Received: 01/26/01

% Moisture: not dec. _____ Date Analyzed: 01/30/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OBGTB1A

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: B1536-14

Sample wt/vol: 25 (g/ml) ML Lab File ID: B1536-14B71

Level: (low/med) LOW Date Received: 01/26/01

% Moisture: not dec. _____ Date Analyzed: 01/30/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW2MS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-6A55

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/31/01

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	6	
74-87-3	Chloromethane	6	
75-01-4	Vinyl Chloride	6	
74-83-9	Bromomethane	5	
75-00-3	Chloroethane	7	
75-69-4	Trichlorofluoromethane	7	
75-35-4	1,1-Dichloroethene	5	
75-15-0	Carbon disulfide	3	
67-64-1	Acetone	9	
75-09-2	Methylene Chloride	4	
156-60-5	trans-1,2-Dichloroethene	4	
1634-04-4	Methyl-tert-butyl ether	4	
75-34-3	1,1-Dichloroethane	5	
108-20-3	Isopropyl ether	5	
594-20-7	2,2-Dichloropropane	7	
156-59-2	cis-1,2-Dichloroethene	5	
78-93-3	2-butanone	18	
74-97-5	Bromochloromethane	5	
67-66-3	Chloroform	6	
71-55-6	1,1,1-Trichloroethane	7	
56-23-5	Carbon Tetrachloride	7	
563-58-6	1,1-dichloropropene	7	
71-43-2	Benzene	6	
107-06-2	1,2-Dichloroethane	6	
79-01-6	Trichloroethene	6	
78-87-5	1,2-Dichloropropane	6	
74-95-3	Dibromomethane	5	
75-27-4	Bromodichloromethane	6	
10061-01-5	cis-1,3-Dichloropropene	6	
108-10-1	4-Methyl-2-pentanone	19	
108-88-3	Toluene	6	
10061-02-6	trans-1,3-Dichloropropene	5	
79-00-5	1,1,2-Trichloroethane	5	

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW2MS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-6A55

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/31/01

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	5	
142-28-9	1,3-Dichloropropane	5	
591-78-6	2-hexanone	19	
124-48-1	Dibromochloromethane	6	
106-93-4	1,2-Dibromoethane	5	
108-90-7	Chlorobenzene	5	
630-20-6	1,1,1,2-Tetrachloroethane	6	
100-41-4	Ethylbenzene	6	
108-38-3	m,p-Xylene	12	
95-47-6	o-Xylene	6	
100-42-5	Styrene	6	
75-25-2	Bromoform	5	
98-82-8	Isopropyl Benzene	7	
108-86-1	Bromobenzene	5	
96-18-4	1,2,3-Trichloropropane	5	
79-34-5	1,1,2,2-Tetrachloroethane	5	
103-65-1	n-Propyl Benzene	6	
95-49-8	2-Chlorotoluene	6	
106-43-4	4-Chlorotoluene	6	
108-67-8	1,3,5-Trimethyl Benzene	6	
98-06-6	tert-Butyl Benzene	7	
95-63-6	1,2,4-Trimethyl Benzene	6	
135-98-8	sec-Butyl Benzene	6	
541-73-1	1,3-Dichlorobenzene	5	
106-46-7	1,4-Dichlorobenzene	5	
99-87-6	p-Isopropyl Toluene	6	
95-50-1	1,2-Dichlorobenzene	5	
104-51-8	n-Butyl Benzene	6	
96-12-8	1,2-Dibromo-3-Chloropropane	5	
120-82-1	1,2,4-Trichlorobenzene	4	
87-68-3	Hexachlorobutadiene	6	
91-20-3	Naphthalene	4	
87-61-6	1,2,3-Trichlorobenzene	4	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW2MS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-6A55

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/31/01

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	10	
1330-20-7	Xylene (total)	20	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW2MSD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-7A55

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/31/01

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	6	
74-87-3	Chloromethane	6	
75-01-4	Vinyl Chloride	6	
74-83-9	Bromomethane	6	
75-00-3	Chloroethane	7	
75-69-4	Trichlorofluoromethane	7	
75-35-4	1,1-Dichloroethene	5	
75-15-0	Carbon disulfide	3	
67-64-1	Acetone	10	
75-09-2	Methylene Chloride	5	
156-60-5	trans-1,2-Dichloroethene	5	
1634-04-4	Methyl-tert-butyl ether	5	
75-34-3	1,1-Dichloroethane	6	
108-20-3	Isopropyl ether	6	
594-20-7	2,2-Dichloropropane	7	
156-59-2	cis-1,2-Dichloroethene	6	
78-93-3	2-butanone	22	
74-97-5	Bromochloromethane	6	
67-66-3	Chloroform	6	
71-55-6	1,1,1-Trichloroethane	7	
56-23-5	Carbon Tetrachloride	7	
563-58-6	1,1-dichloropropene	7	
71-43-2	Benzene	6	
107-06-2	1,2-Dichloroethane	7	
79-01-6	Trichloroethene	6	
78-87-5	1,2-Dichloropropane	6	
74-95-3	Dibromomethane	5	
75-27-4	Bromodichloromethane	7	
10061-01-5	cis-1,3-Dichloropropene	6	
108-10-1	4-Methyl-2-pentanone	24	
108-88-3	Toluene	6	
10061-02-6	trans-1,3-Dichloropropene	6	
79-00-5	1,1,2-Trichloroethane	6	

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW2MSD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-7A55

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/31/01

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	5	
142-28-9	1,3-Dichloropropane	6	
591-78-6	2-hexanone	24	
124-48-1	Dibromochloromethane	6	
106-93-4	1,2-Dibromoethane	6	
108-90-7	Chlorobenzene	6	
630-20-6	1,1,1,2-Tetrachloroethane	6	
100-41-4	Ethylbenzene	6	
108-38-3	m,p-Xylene	12	
95-47-6	o-Xylene	6	
100-42-5	Styrene	6	
75-25-2	Bromoform	6	
98-82-8	Isopropyl Benzene	7	
108-86-1	Bromobenzene	6	
96-18-4	1,2,3-Trichloropropane	6	
79-34-5	1,1,2,2-Tetrachloroethane	6	
103-65-1	n-Propyl Benzene	6	
95-49-8	2-Chlorotoluene	6	
106-43-4	4-Chlorotoluene	6	
108-67-8	1,3,5-Trimethyl Benzene	6	
98-06-6	tert-Butyl Benzene	8	
95-63-6	1,2,4-Trimethyl Benzene	6	
135-98-8	sec-Butyl Benzene	6	
541-73-1	1,3-Dichlorobenzene	5	
106-46-7	1,4-Dichlorobenzene	5	
99-87-6	p-Isopropyl Toluene	6	
95-50-1	1,2-Dichlorobenzene	5	
104-51-8	n-Butyl Benzene	6	
96-12-8	1,2-Dibromo-3-Chloropropane	6	
120-82-1	1,2,4-Trichlorobenzene	5	
87-68-3	Hexachlorobutadiene	6	
91-20-3	Naphthalene	4	
87-61-6	1,2,3-Trichlorobenzene	4	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW2MSD

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-7A55

Level: (low/med) LOW Date Received: 01/25/01

% Moisture: not dec. _____ Date Analyzed: 01/31/01

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	11	
1330-20-7	Xylene (total)	20	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VMELCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-5

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-5A71

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5	
74-87-3	Chloromethane	5	
75-01-4	Vinyl Chloride	6	
74-83-9	Bromomethane	5	
75-00-3	Chloroethane	5	
75-69-4	Trichlorofluoromethane	5	
75-35-4	1,1-Dichloroethene	5	
75-15-0	Carbon disulfide	4	
67-64-1	Acetone	23	
75-09-2	Methylene Chloride	4	
156-60-5	trans-1,2-Dichloroethene	5	
1634-04-4	Methyl-tert-butyl ether	5	
75-34-3	1,1-Dichloroethane	5	
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	5	
156-59-2	cis-1,2-Dichloroethene	5	
78-93-3	2-butanone	22	
74-97-5	Bromochloromethane	5	
67-66-3	Chloroform	5	
71-55-6	1,1,1-Trichloroethane	5	
56-23-5	Carbon Tetrachloride	5	
563-58-6	1,1-dichloropropene	5	
71-43-2	Benzene	5	
107-06-2	1,2-Dichloroethane	5	
79-01-6	Trichloroethene	5	
78-87-5	1,2-Dichloropropane	5	
74-95-3	Dibromomethane	5	
75-27-4	Bromodichloromethane	5	
10061-01-5	cis-1,3-Dichloropropene	5	
108-10-1	4-Methyl-2-pentanone	28	
108-88-3	Toluene	5	
10061-02-6	trans-1,3-Dichloropropene	5	
79-00-5	1,1,2-Trichloroethane	5	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VMELCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-5

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-5A71

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	5	
142-28-9	1,3-Dichloropropane	5	
591-78-6	2-hexanone	27	
124-48-1	Dibromochloromethane	5	
106-93-4	1,2-Dibromoethane	5	
108-90-7	Chlorobenzene	5	
630-20-6	1,1,1,2-Tetrachloroethane	5	
100-41-4	Ethylbenzene	5	
108-38-3	m,p-Xylene	10	
95-47-6	o-Xylene	5	
100-42-5	Styrene	5	
75-25-2	Bromoform	5	
98-82-8	Isopropyl Benzene	5	
108-86-1	Bromobenzene	5	
96-18-4	1,2,3-Trichloropropane	5	
79-34-5	1,1,2,2-Tetrachloroethane	5	
103-65-1	n-Propyl Benzene	5	
95-49-8	2-Chlorotoluene	5	
106-43-4	4-Chlorotoluene	5	
108-67-8	1,3,5-Trimethyl Benzene	5	
98-06-6	tert-Butyl Benzene	5	
95-63-6	1,2,4-Trimethyl Benzene	5	
135-98-8	sec-Butyl Benzene	5	
541-73-1	1,3-Dichlorobenzene	5	
106-46-7	1,4-Dichlorobenzene	5	
99-87-6	p-Isopropyl Toluene	5	
95-50-1	1,2-Dichlorobenzene	5	
104-51-8	n-Butyl Benzene	5	
96-12-8	1,2-Dibromo-3-Chloropropane	4	
120-82-1	1,2,4-Trichlorobenzene	5	
87-68-3	Hexachlorobutadiene	6	
91-20-3	Naphthalene	5	
87-61-6	1,2,3-Trichlorobenzene	5	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VMELCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-5

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-5A71

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	10	
1330-20-7	Xylene (total)	16	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VJYLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8159-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8159-4B71

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	6	
74-87-3	Chloromethane	5	
75-01-4	Vinyl Chloride	6	
74-83-9	Bromomethane	6	
75-00-3	Chloroethane	6	
75-69-4	Trichlorofluoromethane	7	
75-35-4	1,1-Dichloroethene	7	
75-15-0	Carbon disulfide	3	
67-64-1	Acetone	21	
75-09-2	Methylene Chloride	5	
156-60-5	trans-1,2-Dichloroethene	6	
1634-04-4	Methyl-tert-butyl ether	5	
75-34-3	1,1-Dichloroethane	6	
108-20-3	Isopropyl ether	5	
594-20-7	2,2-Dichloropropane	7	
156-59-2	cis-1,2-Dichloroethene	6	
78-93-3	2-butanone	19	
74-97-5	Bromochloromethane	6	
67-66-3	Chloroform	6	
71-55-6	1,1,1-Trichloroethane	7	
56-23-5	Carbon Tetrachloride	7	
563-58-6	1,1-dichloropropene	6	
71-43-2	Benzene	6	
107-06-2	1,2-Dichloroethane	6	
79-01-6	Trichloroethene	6	
78-87-5	1,2-Dichloropropane	6	
74-95-3	Dibromomethane	6	
75-27-4	Bromodichloromethane	6	
10061-01-5	cis-1,3-Dichloropropene	6	
108-10-1	4-Methyl-2-pentanone	25	
108-88-3	Toluene	6	
10061-02-6	trans-1,3-Dichloropropene	6	
79-00-5	1,1,2-Trichloroethane	6	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VJYLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8159-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8159-4B71

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	7	
142-28-9	1,3-Dichloropropane	6	
591-78-6	2-hexanone	24	
124-48-1	Dibromochloromethane	6	
106-93-4	1,2-Dibromoethane	6	
108-90-7	Chlorobenzene	6	
630-20-6	1,1,1,2-Tetrachloroethane	6	
100-41-4	Ethylbenzene	7	
108-38-3	m,p-Xylene	13	
95-47-6	o-Xylene	7	
100-42-5	Styrene	6	
75-25-2	Bromoform	6	
98-82-8	Isopropyl Benzene	7	
108-86-1	Bromobenzene	6	
96-18-4	1,2,3-Trichloropropane	6	
79-34-5	1,1,2,2-Tetrachloroethane	6	
103-65-1	n-Propyl Benzene	7	
95-49-8	2-Chlorotoluene	6	
106-43-4	4-Chlorotoluene	6	
108-67-8	1,3,5-Trimethyl Benzene	6	
98-06-6	tert-Butyl Benzene	7	
95-63-6	1,2,4-Trimethyl Benzene	6	
135-98-8	sec-Butyl Benzene	6	
541-73-1	1,3-Dichlorobenzene	6	
106-46-7	1,4-Dichlorobenzene	6	
99-87-6	p-Isopropyl Toluene	7	
95-50-1	1,2-Dichlorobenzene	6	
104-51-8	n-Butyl Benzene	6	
96-12-8	1,2-Dibromo-3-Chloropropane	5	
120-82-1	1,2,4-Trichlorobenzene	6	
87-68-3	Hexachlorobutadiene	7	
91-20-3	Naphthalene	5	
87-61-6	1,2,3-Trichlorobenzene	6	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VJYLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8159-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8159-4B71

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/29/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	12	
1330-20-7	Xylene (total)	21	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VDMLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-10

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-10A55

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/31/01

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	6	
74-87-3	Chloromethane	6	
75-01-4	Vinyl Chloride	6	
74-83-9	Bromomethane	5	
75-00-3	Chloroethane	7	
75-69-4	Trichlorofluoromethane	7	
75-35-4	1,1-Dichloroethene	5	
75-15-0	Carbon disulfide	2	
67-64-1	Acetone	10	
75-09-2	Methylene Chloride	4	
156-60-5	trans-1,2-Dichloroethene	4	
1634-04-4	Methyl-tert-butyl ether	4	
75-34-3	1,1-Dichloroethane	6	
108-20-3	Isopropyl ether	8	
594-20-7	2,2-Dichloropropane	6	
156-59-2	cis-1,2-Dichloroethene	5	
78-93-3	2-butanone	20	
74-97-5	Bromochloromethane	5	
67-66-3	Chloroform	6	
71-55-6	1,1,1-Trichloroethane	7	
56-23-5	Carbon Tetrachloride	7	
563-58-6	1,1-dichloropropene	6	
71-43-2	Benzene	5	
107-06-2	1,2-Dichloroethane	6	
79-01-6	Trichloroethene	5	
78-87-5	1,2-Dichloropropane	5	
74-95-3	Dibromomethane	5	
75-27-4	Bromodichloromethane	6	
10061-01-5	cis-1,3-Dichloropropene	5	
108-10-1	4-Methyl-2-pentanone	20	
108-88-3	Toluene	6	
10061-02-6	trans-1,3-Dichloropropene	5	
79-00-5	1,1,2-Trichloroethane	5	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VDMLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-10

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-10A55

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/31/01

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	5	
142-28-9	1,3-Dichloropropane	5	
591-78-6	2-hexanone	19	
124-48-1	Dibromochloromethane	5	
106-93-4	1,2-Dibromoethane	5	
108-90-7	Chlorobenzene	5	
630-20-6	1,1,1,2-Tetrachloroethane	5	
100-41-4	Ethylbenzene	6	
108-38-3	m,p-Xylene	12	
95-47-6	o-Xylene	6	
100-42-5	Styrene	6	
75-25-2	Bromoform	5	
98-82-8	Isopropyl Benzene	6	
108-86-1	Bromobenzene	5	
96-18-4	1,2,3-Trichloropropane	5	
79-34-5	1,1,2,2-Tetrachloroethane	5	
103-65-1	n-Propyl Benzene	6	
95-49-8	2-Chlorotoluene	6	
106-43-4	4-Chlorotoluene	6	
108-67-8	1,3,5-Trimethyl Benzene	6	
98-06-6	tert-Butyl Benzene	7	
95-63-6	1,2,4-Trimethyl Benzene	6	
135-98-8	sec-Butyl Benzene	6	
541-73-1	1,3-Dichlorobenzene	5	
106-46-7	1,4-Dichlorobenzene	5	
99-87-6	p-Isopropyl Toluene	6	
95-50-1	1,2-Dichlorobenzene	5	
104-51-8	n-Butyl Benzene	6	
96-12-8	1,2-Dibromo-3-Chloropropane	4	
120-82-1	1,2,4-Trichlorobenzene	3	
87-68-3	Hexachlorobutadiene	6	
91-20-3	Naphthalene	2	
87-61-6	1,2,3-Trichlorobenzene	3	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VDMLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-10

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-10A55

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/31/01

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	10	
1330-20-7	Xylene (total)	19	

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

	CLIENT SAMPLE NO.	SMC1 (DBF) #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	VBLKME	126	119	119	105	0
02	VMELCS	110	103	106	100	0
03	OBGTB1	120	109	113	99	0
04	CH2MW2	118	110	115	99	0
05	CH2MW3	112	103	107	96	0
06	ETMW121	110	101	106	94	0
07	OBGEB1	116	107	113	99	0
08	ETMW114	109	102	105	91	0
09	ETMW116	106	98	101	87	0
10	ETMW117	120	111	115	99	0
11	OBGFR1	108	106	104	88	0
12	VBLKJT	122	111	120	106	0
13	VJYLCS	114	103	115	103	0
14	OBGMW122	120	114	114	98	0
15	OBGMW123	115	105	112	96	0
16	ETMW114DL	97	89	99	83	0
17	ETMW116DL	114	102	115	101	0
18	ETMW117DL	108	98	104	90	0
19	OBGFR1DL	103	96	101	87	0
20	OBGTB1A	112	99	110	94	0
21	CH2MW4D	104	96	100	84	0
22	ETMW113	109	104	103	92	0
23	VBLKDM	114	121	110	116	0
24	VDMLCS	106	127	106	102	0
25	CH2MW2MS	104	129	104	100	0
26	CH2MW2MSD	108	135	105	103	0
27	ETMW113DL	112	107	114	109	0
28						

		QC LIMITS
SMC1 (DBF)	= Dibromofluoromethane	(85-126)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(81-141)
SMC3 (TOL)	= Toluene-d8	(76-135)
OTHER(BFB)	= Bromofluorobenzene	(78-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 3
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix Spike - Sample No.: CH2MW2

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5.00	0.00	4.62	92	60-140
Benzene	5.00	0.00	5.59	112	60-140
Trichloroethene	5.00	0.00	5.51	110	60-140
Toluene	5.00	0.00	5.80	116	60-140
Chlorobenzene	5.00	0.00	5.48	110	60-140

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	5.00	5.44	109	16*	14	60-140
Benzene	5.00	5.84	117	4	14	60-140
Trichloroethene	5.00	5.78	116	5	14	60-140
Toluene	5.00	5.99	120	3	14	60-140
Chlorobenzene	5.00	5.79	116	6	14	60-140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

3A
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: VMELCS

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5.00	5.24	105	60-140
Benzene	5.00	4.92	98	60-140
Trichloroethene	5.00	5.17	103	60-140
Toluene	5.00	4.93	99	60-140
Chlorobenzene	5.00	4.94	99	60-140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

3A
WATER VOLATILE LAB CONTROL SAMPLE

VJYLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5.00	6.54	131	60-140
Benzene	5.00	6.06	121	60-140
Trichloroethene	5.00	6.49	130	60-140
Toluene	5.00	6.07	121	60-140
Chlorobenzene	5.00	6.00	120	60-140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

3A
WATER VOLATILE LAB CONTROL SAMPLE

VDMLCS

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5.00	4.52	90	60-140
Benzene	5.00	5.42	108	60-140
Trichloroethene	5.00	5.34	107	60-140
Toluene	5.00	5.64	113	60-140
Chlorobenzene	5.00	5.22	104	60-140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

VBLKME

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Lab File ID: WG8260-2A71 Lab Sample ID: WG8260-2

Date Analyzed: 01/27/01 Time Analyzed: 1205

GC Column: J&W DB-624ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972HP71

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VMELCS	WG8260-5	WG8260-5A71	1232
02	OBGTB1	B1536-11	B1536-11A71	1554
03	CH2MW2	B1536-1	B1536-1A71	1629
04	CH2MW3	B1536-2	B1536-2A71	1705
05	ETMW121	B1536-3	B1536-3A71	1743
06	OBGEB1	B1536-4	B1536-4A71	1820
07	ETMW114	B1536-5	B1536-5A71	1858
08	ETMW116	B1536-6	B1536-6A71	1936
09	ETMW117	B1536-7	B1536-7A71	2014
10	OBGFR1	B1536-8	B1536-8A71	2051
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKME

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: B1536

Matrix: (soil/water) WATER Lab Sample ID: WG8260-2

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG8260-2A71

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/27/01

GC Column: J&W DB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

CompuChem
A Division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513

February 6, 2001

Mr. Mike Hall
O'Brien & Gere
951 Aviation Pkwy
STE 1400
Morrisville, NC 27560

Dear Mr. Hall:

We at CompuChem are pleased to provide our report for the analysis you requested.
Data for the following samples are enclosed:

Client ID Number	CompuChem ID Number	Analysis Code	Case Number	Description of Work Requested
CH2MW2	B1536-1	1193	B1536	Alkalinity
CH2MW3	B1536-2	1194		Chloride
ETMW121	B1536-3			Dissolved Organic Carbon
OBGEB1	B1536-4			Nitrate
ETMW114	B1536-5			Nitrite
ETMW116	B1536-6	1192		Sulfate
ETMW117	B1536-7			Sulfide
OBGFR1	B1536-8			Total Organic Carbon
CH2MW4D	B1536-12			
ETMW113	B1536-13			

Thank you for selecting CompuChem Environmental for your sample analysis.
If you have any questions concerning this report or the analytical methods employed, please contact your Sales Representative at 919-379-4100.

Sincerely,

PROJECT MANAGER

ALKALINITY ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	B1536-1	BRL	10
2.	CH2MW3	B1536-2	BRL	10
3.	ETMW121	B1536-3	57	10
4.	OBGEB1	B1536-4	BRL	10
5.	ETMW114	B1536-5	134	10
6.	ETMW116	B1536-6	62	10
7.	ETMW117	B1536-7	58	10
8.	OBGFR1	B1536-8	135	10
9.	CH2MW4D	B1536-12	32	10
10.	ETMW113	B1536-13	BRL	10

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R W George / 2405 Date: 2/6/01

CHLORIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	B1536-1	39.3	3
2.	CH2MW3	B1536-2	13.2	3
3.	ETMW121	B1536-3	3.34	3
4.	OBGEB1	B1536-4	BRL	3
5.	ETMW114	B1536-5	82.8	3
6.	ETMW116	B1536-6	11.6	3
7.	ETMW117	B1536-7	6.73	3
8.	OBGFR1	B1536-8	82.1	3
9.	CH2MW4D	B1536-12	BRL	3
10.	ETMW113	B1536-13	13.4	3

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: R W George 12405 Date: 2/6/01

DISSOLVED ORGANIC CARBON ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	B1536-1	37	1
2.	CH2MW3	B1536-2	19.4	1
3.	ETMW121	B1536-3	21.1	1
4.	OBGEB1	B1536-4	1.78	1
5.	ETMW114	B1536-5	40.6	1
6.	ETMW116	B1536-6	25.4	1
7.	ETMW117	B1536-7	28.3	1
8.	OBGFR1	B1536-8	27.3	1
9.	CH2MW4D	B1536-12	4.44	1
10.	ETMW113	B1536-13	8.51	1

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: RW Doerge 12405 Date: 2/6/01

TOTAL ORGANIC CARBON ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	B1536-1	47.4	1
2.	CH2MW3	B1536-2	22.3	1
3.	ETMW121	B1536-3	25.7	1
4.	OBGEB1	B1536-4	BRL	1
5.	ETMW114	B1536-5	51.2	1
6.	ETMW116	B1536-6	32	1
7.	ETMW117	B1536-7	38.7	1
8.	OBGFR1	B1536-8	52.2	1
9.	CH2MW4D	B1536-12	6.78	1
10.	ETMW113	B1536-13	11.7	1

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: RWDeaye / 2405 Date: 2/6/01

NITRATE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	B1536-1	6.95	0.25
2.	CH2MW3	B1536-2	0.906	0.05
3.	ETMW121	B1536-3	1.19	0.05
4.	OBGEB1	B1536-4	BRL	0.05
5.	ETMW114	B1536-5	44.8	1.25
6.	ETMW116	B1536-6	7.7	0.25
7.	ETMW117	B1536-7	4.47	0.15
8.	OBGFR1	B1536-8	45.8	1.25
9.	CH2MW4D	B1536-12	0.896	0.05
10.	ETMW113	B1536-13	11.8	0.5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: [signature] / 2405 Date: 2/6/01

NITRITE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	B1536-1	BRL	0.05
2.	CH2MW3	B1536-2	BRL	0.05
3.	ETMW121	B1536-3	BRL	0.05
4.	OBGEB1	B1536-4	BRL	0.05
5.	ETMW114	B1536-5	BRL	0.05
6.	ETMW116	B1536-6	0.405	0.05
7.	ETMW117	B1536-7	BRL	0.05
8.	OBGFR1	B1536-8	BRL	0.05
9.	CH2MW4D	B1536-12	BRL	0.05
10.	ETMW113	B1536-13	BRL	0.05

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: [signature] / 2405 Date: 2/6/01

SULFATE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	B1536-1	20.2	5
2.	CH2MW3	B1536-2	49.8	10
3.	ETMW121	B1536-3	8.93	5
4.	OBGEB1	B1536-4	BRL	5
5.	ETMW114	B1536-5	75.6	20
6.	ETMW116	B1536-6	42.8	10
7.	ETMW117	B1536-7	19.7	5
8.	OBGFR1	B1536-8	75.6	20
9.	CH2MW4D	B1536-12	BRL	5
10.	ETMW113	B1536-13	BRL	5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: [signature] / 2405 Date: 2/6/01

SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/L)	REPORTING LIMIT (mg/L)
1.	CH2MW2	B1536-1	BRL	0.5
2.	CH2MW3	B1536-2	BRL	0.5
3.	ETMW121	B1536-3	BRL	0.5
4.	OBGEB1	B1536-4	BRL	0.5
5.	ETMW114	B1536-5	BRL	0.5
6.	ETMW116	B1536-6	BRL	0.5
7.	ETMW117	B1536-7	BRL	0.5
8.	OBGFR1	B1536-8	BRL	0.5
9.	CH2MW4D	B1536-12	BRL	0.5
10.	ETMW113	B1536-13	BRL	0.5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: [signature] / 2405 Date: 2/6/01

ALKALINITY ANALYSIS
QUALITY CONTROL REPORT

CASE: B1536
MATRIX: WATER

Analyst:2454
Date Analyzed:02/02/01

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG8248-4	71.4	73	102

ORIG. SAMPLE COMPUCHEM #: B1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG8248-1
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG8248-2

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
100.0	BRL	100.0	100.0	102.0	102.0	2.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG8248-5	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

CHLORIDE ANALYSIS
QUALITY CONTROL REPORT

CASE: B1536
MATRIX: WATER

Analyst:2441
Date Analyzed:02/05/01

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG8248-4	73	76.4	105

ORIG. SAMPLE COMPUCHEM #: B1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG8248-1
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG8248-2

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
60.0	39.3	105.6	111.0	106.8	113.0	1.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG8248-5	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

DISSOLVED ORGANIC CARBON ANALYSIS
QUALITY CONTROL REPORT

CASE: B1536
MATRIX: WATER

Analyst:2454
Date Analyzed:02/01/01

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG8248-4	52.7	54.7	104

ORIG. SAMPLE COMPUCHEM #: B1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG8248-1
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG8248-2

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
150.0	37.0	190.0	102.0	186.0	99.0	2.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG8248-5	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

TOTAL ORGANIC CARBON ANALYSIS
QUALITY CONTROL REPORT

CASE: B1536
MATRIX: WATER

Analyst:2454
Date Analyzed:02/01/01

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG8248-4	52.7	55.4	105

ORIG. SAMPLE COMPUCHEM #: B1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG8248-1
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG8248-2

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
150.0	47.4	197.0	100.0	198.0	100.0	1.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG8248-5	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

NITRATE ANALYSIS
QUALITY CONTROL REPORT

CASE: B1536
MATRIX: WATER

Analyst:2454
Date Analyzed:01/25/01

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG8248-4	5.96	6.24	105

ORIG. SAMPLE COMPUCHEM #: B1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG8248-1
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG8248-2

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
1.0	7.0	8.1	110.0	8.2	120.0	1.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG8248-5	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

NITRITE ANALYSIS
QUALITY CONTROL REPORT

CASE: B1536
MATRIX: WATER

Analyst:2454
Date Analyzed:01/25/01

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG8248-4	1	0.977	98

ORIG. SAMPLE COMPUCHEM #: B1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG8248-1
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG8248-2

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
1.0	BRL	1.1	107.0	1.1	109.0	2.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG8248-5	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

SULFATE ANALYSIS
QUALITY CONTROL REPORT

CASE: B1536
MATRIX: WATER

Analyst:A Rothacker
Date Analyzed:01/31/01

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG8248-4	20	20.04	100

ORIG. SAMPLE COMPUCHEM #: B1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG8248-1
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG8248-2

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
20.0	20.2	62.8	106.5	62.6	105.9	0.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG8248-5	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

SULFIDE ANALYSIS
QUALITY CONTROL REPORT

CASE: B1536
MATRIX: WATER

Analyst:2454
Date Analyzed:01/29/01

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/L)	OBSERVED RESULT (mg/L)	BS % RECOVERY
WG8248-4	25	26.2	105

ORIG. SAMPLE COMPUCHEM #: B1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG8248-1
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG8248-2

SPIKE ADDED (mg/L)	SAMPLE CONC. (mg/L)	MS CONC. (mg/L)	MS % RECOVERY	MSD CONC. (mg/L)	MSD % RECOVERY	RPD
5.0	BRL	5.2	104.0	5.2	104.0	0.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/L)
WG8248-5	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

Vaportech Services, Inc.

CCM29_30-12069

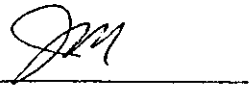
CompuChem
Project: MILLER - MOULTRIE
-- WATER SAMPLES --

SAMPLE NAME	METHANE (ug/l)	ETHANE (ug/l)	ETHENE (ug/l)	FILE NAME	DATE COLLECTED	DATE RECEIVED	DATE ANALYZED
CH2MW2	ND	ND	ND	D14A.37A	01/24/2001	01/26/2001	01/30/2001
CH2MW3	ND	0.01	0.01	D14A.38A	01/24/2001	01/26/2001	01/30/2001
ETMW121	ND	0.01	0.02	D14A.39A	01/24/2001	01/26/2001	01/30/2001
OBGEB1	ND	ND	ND	D14A.40A	01/24/2001	01/26/2001	01/30/2001
ETMW114	ND	0.03	0.01	D14A.41A	01/24/2001	01/26/2001	01/30/2001
ETWM116	ND	0.01	0.02	D14A.42A	01/24/2001	01/26/2001	01/30/2001
ETMW117	ND	0.01	0.03	D14A.43A	01/24/2001	01/26/2001	01/30/2001
OBGFR1	ND	0.02	0.01	D14A.44A	01/24/2001	01/26/2001	01/30/2001
CH2MW4D	ND	0.01	0.03	D14A.45A	01/25/2001	01/29/2001	01/30/2001
ETM113	0.3	0.13	0.03	D14A.46A	01/25/2001	01/29/2001	01/30/2001
MDL for above samples	0.2	0.01	0.01				

MDL - denotes lower 'Method Detection Limit'

ND - denotes 'Not Detected' at or above the lower method detection limit

01-Feb-2001

Reviewed By: 

Vaportech Services, Inc.

CCM29_30-12069

CompuChem
Project: MILLER - MOULTRIE
-- WATER SAMPLES --

QUALITY CONTROL

CONTINUING CALIBRATION CHECK (FID)

STANDARD: "54"
FILE NAME: D14A.17A
DATE ANALYZED: 01/30/01

COMPOUND	KNOWN PPMV	RESULT PPMV	PERCENT DIFFERENCE
Methane	15.00	15.34	2.26
Ethane	15.00	14.48	3.49
Ethene	15.10	14.50	3.99

LABORATORY BLANK RESULTS (FID)

BLANK: CARRIER IN LOOP
FILE NAME: D14A.16A
DATE ANALYZED: 01/30/01

COMPOUND	BLANK PPMV	METHOD DETECTION LIMIT PPMV
Methane	ND	1.00
Ethane	ND	0.02
Ethene	ND	0.02

ND - denotes 'Not Detected' at or above the lower method detection limit

31-Jan-2001

Reviewed By: _____

A Division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513

February 1, 2001

Mr. Mike Hall
O'Brien & Gere
951 Aviation Pkwy
STE 1400
Morrisville, NC 27560

Dear Mr. Hall:

We at CompuChem are pleased to provide our report for the analysis you requested.
Data for the following samples are enclosed:

Client ID Number	CompuChem ID Number	Analysis Code	Case Number	Description of Work Requested
OBGHA1	D1536-1		D1536	Total Organic Carbon
OBGHA2	D1536-2			
OBGHA3	D1536-3			
OBGHA4	D1536-4			

Thank you for selecting CompuChem Environmental for your sample analysis.
If you have any questions concerning this report or the analytical methods employed, please contact your Sales Representative at 919-379-4100.

Sincerely,

PROJECT MANAGER

ANALYTICAL REPORT OF DATA - CASE # D1536

SUBMITTED TO:
Mr. Mike Hall
O'Brien & Gere
951 Aviation Pkwy
STE 1400
Morrisville, NC 27560

LABORATORY CHRONICLE - TOTAL ORGANIC CARBON ANALYSIS

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	DATE SAMPLE RECEIVED	DATE ANALYSIS COMPLETED
1.	OBGHA1	D1536-1	01/26/01	01/31/01
2.	OBGHA2	D1536-2	01/27/01	01/31/01
3.	OBGHA3	D1536-3	01/28/01	01/31/01
4.	OBGHA4	D1536-4	01/29/01	01/31/01

TOTAL ORGANIC CARBON ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)
1.	OBGHA1	D1536-1	2100	60
2.	OBGHA2	D1536-2	383	61
3.	OBGHA3	D1536-3	191	55
4.	OBGHA4	D1536-4	740	58

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: RW Long / 2405 Date: 2/1/01

TOTAL ORGANIC CARBON ANALYSIS
QUALITY CONTROL REPORT

CASE: D1536
MATRIX: SOIL

Analyst:2441
Date Analyzed: 01/31/01

BLANK SPIKE

COMPUCHEM #	TRUE VALUE (mg/Kg)	OBSERVED RESULT (mg/Kg)	BS % RECOVERY
WG8345-4	12700	14800	117

ORIG. SAMPLE COMPUCHEM #: D1536-1
MATRIX SPIKE (MS) COMPUCHEM #: WG8345-1
MATRIX SPIKE DUP. (MSD) COMPUCHEM #: WG8345-2

SPIKE ADDED (mg/Kg)	SAMPLE CONC. (mg/Kg)	MS CONC. (mg/Kg)	MS % RECOVERY	MSD CONC. (mg/Kg)	MSD % RECOVERY	RPD
3750.0	2100.0	7243.0	137.0	6551.0	119.0	10.0

COMPUCHEM #	QC TYPE	AMOUNT DETECTED (mg/Kg)
WG8345-5	METHOD BLANK	BRL

RPD = RELATIVE PERCENT DIFFERENCE
BRL = BELOW REPORTING LIMIT

TOTAL ORGANIC CARBON

Sample Prep & Analysis Runlog (Soil)

Page 1 of 2 Analyst [illegible] Date: 1/31/01

Methods (circle one): 415.1, 9060 (QUAD) SDG'S D1536/U1847

	CCN	Client ID	Comments	vol/wt. mg	Instrument Reading	X Dil	Corrected Conc. (PPM)*
	2000 ppm	Calibration % STD= 0.768		40			
	2000 ppm			40			
	2000 ppm			40			
	ICV	TV=1000 mg/l		40	1018	1	1020
	ICB			40	20.35	1	20.4
	LRS	TV=50 mg/l		40	65.71	1	65.7
	WG8345-5	PBS		40	8.467	1	8.47
	WG8345-4	TV=12700, LCSS	Accept Limit 10200-15300	9.0	14780	1	14800
	D1536-1	OBGSB1		39.6	1554	1	1550
	WG8345-1	↓ S	SS=3750 mg/kg (19.2 mg) ERA06086 Rec=120%	19.2	6066	1	6070
	WG8345-2	↓ SD	Rec=105% RSD=7.05%	21.0	5490	1	5490
	D1536-2	OBGSB2		41.9	314.1	1	314
	D1536-3	↓ 3		39.5	172.6	1	172
9							
10			N/A 1/31/01 [illegible]				
	CCV	TV=1000 mg/l		40	992.7	1	993
	CCB			40	3.662	1	3.66
1	D1536-4	OBGSB4		40.6	643.2	1	643
2	WG8346-5	PBS		40	7.61	1	7.61
3	↓ -4	LCSS=12700 mg/kg		~~9.6~~ 10.5 1/31/01 [illegible]	14000	1	14000
4	U1847-1	20018B01-S17		~~20.4~~ 9.5 1/31/01 [illegible]	11030	1	11000
5	WG8346-1	↓ -S17S	Rec=267% } Matrix	7.4	21050	1	21000
6	↓ -2	↓ -S17SD	Rec=236% } Effect	6.6	19880	1	19900
7	~~U1847-2~~	↓ -S18	N/A 01/31/01 [illegible]				
8							
9			N/A 01/31/01 [illegible]				
10							
	CCV	TV=1000 mg/l		40			
	CCB			~~992.9~~ 1/31/01 [illegible] 40	992.9	1	993
					1.03	1	1.03

*Quad results will be an average of four instrument readings

Samples Acidified ✓

All water samples sparged for a minimum of 10 minutes

Reviewed By: [signature]

Date: 1/31/1

The presence of the Chemist's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist together with the chemist's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

553

7/25/00:mlj

CompuChem a division of Liberty Analytical Corp. Logbook 6 V 4

TOTAL ORGANIC CARBON

Sample Prep & Analysis Runlog (Soil)

Page 2 **of** 2 **Analyst** [illegible] **Date:** 1/31/01

Methods (circle one): 415.1, 9060 (QUAD) **SDG'S** D1536 / U1847

	CCN	Client ID	Comments	vol/wt. mg	Instrument Reading	X Dil	Corrected Conc. (PPM)*
	2000 ppm						
	2000 ppm	Calibration % STD=					
	2000 ppm		N/A 1/31/01 [illegible]				
	ICV						
	ICB						
1	U1847-2	2001ZB01-S18		40.4	1251	1	1250
2 X	-3	-S19		8.5	24150	1	123123
3	-3	-S19		5.5	20900	1	20900
4	-4	-S20		40.3	1982	1	1980
5 X	-5	-S21		31.9	11060	1	123123
6	-5	-S21		9.9	15500	1	15500
7 X	-6	-S22		40.3	16330	1	123123
8 X	-6	-S22		9.7	17940	1	123123
9	-6	-S22		6.8	13110	1	13100
10			N/A 1/31/01 [illegible]				
	CCV	TV=1000 mg/l		40	1004	1	1000
	CCB			40	4.636	1	4.64
1 X	U1847-7	2001ZB01-S23		8.0	9252	1	123123
2	-7	-S23		10.4	10580	1	10600
3	-8	-S24		10.1	10710	1	10700
4	-9	-D03		14.6	7814	1	7810
5							
6							
7							
8			N/A 1/31/01 [illegible]				
9							
10							
	CCV	TV=1000 mg/l		40	1042	1	1040
	CCB			40	2.903	1	2.90

* Quad results will be an average of four instrument readings

Samples Acidified ✓

All water samples sparged for a minimum of 10 minutes

Reviewed By: [illegible]

Date: 1/31/01

The presence of the Chemist's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred. Any SOP deviations require documentation by the responsible chemist together with the chemist's initials and the initials of the lab supervisor and a QA department representative, signifying approval of the deviation.

554

7/25/00:mlj

COMPUCHEM a division of Liberty Analytical Corp. LOGBOOK 6 AA 1

Standards/QC Preparation and Traceability for Total Organic Carbon in Soil

ITEM TO BE PREPARED	PREPARATION INSTRUCTIONS	PREPARED BY	DATE
TOC standard (2000 ppm) Calibration Standard Ref# MMI-13-20 40044 ppm	Pre-made 2000 ppm solution from Tekmar-Dohrmann Use as is Lot # 34261-18 Expiration Date 02/04	HTS	1/30/01
TOC standard ~~(2000 ppm)~~ Check Standard Ref# 1pp-1-11-13	~~Pre-made 2000 ppm solution from Tekmar-Dohrmann~~ Use as is. Make sure lot # is different ~~than~~ the Calibration Standard Lot # 1pp-1-11-13 1/30/01 HTS Expiration Date 1/15/02		
TOC standard (1000 ppm) Calibration Standard Check	Place in a 100-ml volumetric flask: ~~50.0 ml~~ 2.5 ml of ~~2000~~ 40044 ppm Calibration Standard Dilute to mark with deionized water. Prepare fresh monthly or more often as needed 1/30/01 HTS		
TOC standard (50 ppm) Calibration Standard	Place into a 100-ml volumetric flask: 2.5 ml of 2000 ppm Calibration Standard Dilute to mark with deionized water. Prepare fresh monthly or more often as needed.		

Reviewed By: Matthew J Pansing **Date:** 1/30/01

Operating Parameters

Empty-Sparger	45.
Pick-up Loop fill	210.
Loop to Sparger Xfer	30.
Acid Addition	10.
Sparging time	150.
Inj. loop fill time	4.
Injection time	120.
POC trap desorb time	60.
Delay btwn repeats	5.
Delay btwn modes	60.
Integ. time-out(min)	4.
Number of repeats	1
# of NPOC injections	3
Analysis Mode:	Boat Inlet
Multi-Sampler used	No
Calibration mode:	Syringe Calibration

Calibration Factors

NPOC w/Inj.Loop	7.8E-05	System Blank =	0.
NPOC direct inject	7.8E-05	System Blank =	0.
IC & POC Calibration	7.8E-05	System Blank =	0.
Syringe Inj.Calib.	1.870278E-04	System Blank =	0.

Pickup Loop Volume: 10.
Inj.Loop Volume(ml) 0.2

ID# 2000.
1. Boat 19.09ppmC Sample weight (mg) 40.

11:40:48 Wed Jan 31, 2001

ID# 2000.
1. Boat 1984.ppmC Sample weight (mg) 40.
2. Boat 1992.ppmC Sample weight (mg) 40.
3. Boat 2014.ppmC Sample weight (mg) 40.

AVG +/- Std.Dev: 1996.9 +/- 15.35 % std dev: 0.768

12:14:12 Wed Jan 31, 2001

Calibration Factors

NPOC w/Inj.Loop	7.8E-05	System Blank =	0.
NPOC direct inject	7.8E-05	System Blank =	0.
IC & POC Calibration	7.8E-05	System Blank =	0.
Syringe Inj.Calib.	1.873171E-04	System Blank =	0.

Pickup Loop Volume: 10.
Inj.Loop Volume(ml) 0.2

ICV = 1000 mg/l

ID# 1000.
1. Boat 1018.ppmC Sample weight (mg) 40.

12:23:31 Wed Jan 31, 2001

1. Boat 20.35ppmC Sample weight (mg) 40.

2

12:28:30 Wed Jan 31, 2001 WG8345-5, PBS

ID# 8345.5
1. Boat 8.467ppmC Sample weight (mg) 40.

13:00:19 Wed Jan 31, 2001 LRS = 50 mg/l

ID# 50.
1. Boat 65.71ppmC Sample weight (mg) 40.

13:05:16 Wed Jan 31, 2001 WG8345-4, LCSS = 12700 mg/l
Accept Limit (10200 - 15300)

ID# 8345.401
1. Boat 14700.ppmC Sample weight (mg) 9.

13:15:46 Wed Jan 31, 2001

ID# 1536.1 1/23/23
1. Boat 2355.ppmC Sample weight (mg) 20.7

13:19:19 Wed Jan 31, 2001 1/31/23

ID# 1536.1 D1536-1
1. Boat 1554.ppmC Sample weight (mg) 39.6

13:25:20 Wed Jan 31, 2001 WG8345-1

ID# 8345.099
1. Boat 6066.ppmC Sample weight (mg) 19.2
2. Boat 5490.ppmC Sample weight (mg) 21. WG8345-2

AVG +/- Std.Dev: 5778. +/- 407.2 % std dev: 7.047

13:43:35 Wed Jan 31, 2001 D1536-2

ID# 1536.2
1. Boat 314.1ppmC Sample weight (mg) 40.9

13:59:35 Wed Jan 31, 2001 D1536-3

ID# 1536.3
1. Boat 172.6ppmC Sample weight (mg) 39.5

14:09:02 Wed Jan 31, 2001 CCV = 1000 mg/l

ID# 1000.
1. Boat 392.7ppmC Sample weight (mg) 40.

14:15:20 Wed Jan 31, 2001 CCB

ID# 0.
1. Boat 3.662ppmC Sample weight (mg) 40.

14:32:07 Wed Jan 31, 2001 D1536-4

ID# 1536.4
1. Boat 643.2ppmC Sample weight (mg) 40.6

14:29:15 Wed Jan 31, 2001 WG8346-5, PBS

ID# 8346.5
1. Boat 7.61ppmC Sample weight (mg) 40.

14:33:59 Wed Jan 31, 2001

ID# 8346.4
1. Boat 15830.ppmC Sample weight (mg) 9.6 {2312}
2. Boat 14000.ppmC Sample weight (mg) 10.5 WG8346-4, Less = 12900 mg/kg

AVG +/- Std.Dev: 14912. +/- 1291. % std dev: 8.66

14:47:20 Wed Jan 31, 2001

ID# 1847.1
1. Boat 11360.ppmC Sample weight (mg) 20.4 } {2312}

14:56:24 Wed Jan 31, 2001

ID# 1847.1
1. Boat 16800.ppmC Sample weight (mg) 9.7 }

15:05:32 Wed Jan 31, 2001 U1847-1

ID# 1847.1
1. Boat 11030.ppmC Sample weight (mg) 8.5

15:08:12 Wed Jan 31, 2001 WG8346-1

ID# 8346.1
1. Boat 21050.ppmC Sample weight (mg) 7.4 WG8346-1
2. Boat 19880.ppmC Sample weight (mg) 6.6 WG8346-2

AVG +/- Std.Dev: 20465. +/- 824.6 % std dev: 4.029

15:26:23 Wed Jan 31, 2001 CCV = 1000 mg/l

ID# 1000.
1. Boat 992.9ppmC Sample weight (mg) 40.

15:37:01 Wed Jan 31, 2001 CCB

ID# 0.
1. Boat 1.03ppmC Sample weight (mg) 40.

15:40:48 Wed Jan 31, 2001 U1847-2

ID# 1847.2
1. Boat 1251.ppmC Sample weight (mg) 40.4

B4
1/31/01

15:47:15 Wed Jan 31, 2001 U1847-3

ID# 1847.3
1. Boat 24150.ppmC Sample weight (mg) 8.5 } 12312
2. Boat 20900.ppmC Sample weight (mg) 5.5

AVG +/- Std.Dev: 22524. +/- 2301. % std dev: 10.22

16:01:22 Wed Jan 31, 2001 U1847-4

ID# 1847.4
1. Boat 1982.ppmC Sample weight (mg) 40.3

16:08:34 Wed Jan 31, 2001 U1847-5

ID# 1847.5
1. Boat 11060.ppmC Sample weight (mg) 31.9 } 12312
2. Boat 15500.ppmC Sample weight (mg) 9.9

AVG +/- Std.Dev: 13279. +/- 3135. % std dev: 23.61

16:22:26 Wed Jan 31, 2001 U1847-6

ID# 1847.6
1. Boat 16330.ppmC Sample weight (mg) 40.3 } 12312
2. Boat 17940.ppmC Sample weight (mg) 9.7 }
3. Boat 13110.ppmC Sample weight (mg) 6.8

AVG +/- Std.Dev: 15794. +/- 2463. % std dev: 15.59

16:42:31 Wed Jan 31, 2001 CCV = 1000 mg/l

ID# 1000.
1. Boat 1004.ppmC Sample weight (mg) 40.

16:49:15 Wed Jan 31, 2001 CCB

ID# 0.
1. Boat 4.636ppmC Sample weight (mg) 40.

16:52:05 Wed Jan 31, 2001 U1847-7

ID# 1847.7
1. Boat 9252.ppmC Sample weight (mg) 8. } 12312
2. Boat 10580.ppmC Sample weight (mg) 10.4

AVG +/- Std.Dev: 9917.2 +/- 940.6 % std dev: 9.485

17:00:42 Wed Jan 31, 2001 U1847-8

ID# 1847.8
1. Boat 10710.ppmC Sample weight (mg) 10.1

17:06:46 Wed Jan 31, 2001 U1847-9

ID# 1847.9
1. Boat 7814.ppmC Sample weight (mg) 14.6

17:16:40 Wed Jan 31, 2001

ICV = 1000 mg/l

ID# 1000.

1. Boat 1042.ppmC Sample weight (mg) 40.

1/31/01 5

17:22:14 Wed Jan 31, 2001

CCB

ID# 0.

1. Boat 2.903ppmC Sample weight (mg) 40.

17:24:57 Wed Jan 31, 2001

CompuChem a division of Liberty Analytical Corp. Worksheet

Undecanted Dry Weight/pH Worksheet

QUEUE #113 -143/ -157/ -190 (in red #'s)

Date Assigned: 1/30/01 Assigned To: LB

Date Completed: 1/31/01 Employee ID #: 2454

	Sample Number	UNDECANTED DRY WEIGHT: Weight of Container (0.00g)	Weight of Container & Wet Sample (0.00)	Weight of Container & Dry Sample (0.00)	pH Determination: Weight (0.0 g)	pH (0.0)	
1	D1536-1	2.64	23.67	20.29			63.8
2	-1D	2.60	21.49	18.53			8
3	-2	2.65	28.21	23.59			81.9
4	-3	2.64	37.25	33.84			90.2
5	-4	2.64	28.16	24.82			86.9
6	U1849-1	2.63	24.33	22.31			
7	-1D	2.59	24.33	21.67			
8	-2	2.63	32.00	26.67			
9	-3	2.66	32.03	28.22			
10	-4	2.66	34.11	29.25			
11	-5	2.63	33.00	28.39			
12	-6	2.63	34.10	30.29			
13	-7	2.58	48.22	40.11			
14	-8	2.61	50.94	42.56			
15	-9	2.59	44.56	38.09			
16							
17							
18							
19							
20			N/A 1/30/01 LB				
21							
22							
23							
24							
25							

CHAIN-OF-CUSTODY RECORD

No. 055643

CompuChem
a division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513
1-800-833-5097

Project Name: Miller Brewery	Client Address: O'Brien & Gere Engineers, Aviation Parkway, Morrisville NC	Point-of-Contact: Peter Berger
Carrier: FedEx		Telephone No.: (919) 469-0099
Airbill No.:		Sampling complete? (Y) or N (see Note 1)
Sampler Name: Tim Jellett	Sampler Signature: Tim Jellett	Project-specific (PS) or Batch (B) QC? ____

BOX #1: 1. Surface Water; 2. Ground Water; 3. Leachate; 4. Rinsate; 5. Soil / Sediment / Sludge; 6. Trip Blank; 7. Oil; 8. Waste; 9. Other____

BOX #2: A. HCl + Ice; B. HNO3 + Ice; C. NaOH + Ice; D. H2SO4 + Ice; E. Unpreserved; F. Ice Only; G. Other____; H. NaHSO4 + Ice; I. ZnAc+NaOH + Ice

BOX #3: F. Filtered; U. Unfiltered

Box #4: H. High; M. Medium; L. Low

Box #5: C. CLP 3/90; S. SW-846; W. CWA 600-series; O. Other____; T. TCLP

Sample ID (9 characters maximum)	Date: Year: 2001	Time	Box #1 Matrix	Box #2 Preservative	Box #3 Filtered / Unfiltered	Box #4 Expected Conc.	Box #5 Method	No. of Bottles	Use for Lab QC (MS or DUP)	VOA 8260B	~~8260B~~ DOC	Pesticide	PCB	Herbicide	Metals / Mercury	~~Cyanide~~ Moist. Content	TOC / ~~TOX~~	O&G / TPH	Methane	Sulfide	Chloride/Alk. Sulfate	Nitrate/Nitrite	Remarks / Comments (see Notes 2 & 3)
ETMW11 3	1/25	09:00	2	A D F H	U	L		15		X	X						X		X	X	X	X	sulfide pH's 7 9 (180) 1/26/01
CH2MW4D	1/25	10:30	2	A H D E	U	L		15		X	X						X		X	X	X	X	
OBGTB1	1/25 (08/30)	09:30	2	A	U	L		3		X													containers ID's OBGTB1 (180)
OBGSB1	1/25 (10/15)	10:15	5	E	U	L		1								X	X						ID's changed per client 2/1/01 OBGHA1
OBGSB2	1/25 (11/45)	11:45	5	E	U	L		1								X	X						OBGHA2
OBGSB3	1/25 (12/00)	12:00	5	E	U	L		1								X	X						OBGHA3 (180)
OBGSB4	1/25 (12/15)	12:15	5	E	U	L		1								X	X						OBGHA4 (180) 2/1/01
	/	:																					
	/	:																					
	/	:																					

Temperature 3 °C

Clients Special Instructions:

Lab: Received in Good Condition? Y or N **Describe Problems, If any:**

#1 Relinquished By: (Sig) Tim Jellett	Date: 1/25/01	#2 Relinquished By: (Sig)	Date:	#3 Relinquished By: (Sig)	Date:
Company Name: O'Brien & Gere	Time: 1700	Company Name:	Time:	Company Name:	Time:
#1 Received By: (Sig) Kathy Doney	Date: 1/26/01	#2 Received By: (Sig)	Date:	#3 Received By: (Sig)	Date:
Company Name: CompuChem	Time: 0830	Company Name:	Time:	Company Name:	Time:

Note (1): If "N" lab will hold samples to await remainder of project-maximizing batch size and minimizing QC ratio; if "Y" lab will begin processing batches now.
Note (2): Samples stored 60 days after date report mailed at no extra charge.
Note (3): All lab copies of data destroyed after three years.

Ground Water Analytical Data Validation Summary

To: Mike Hall
From: KA Storne
Re: Review of the Ground Water Sampling Events for 2000, Collected August, September, and November 2000 At the Miller Moultrie Facility
File: 26765.007.181
Date: November 29, 2000

cc: SJ Spiegel
SW Kaczmar

The samples collected for this program were analyzed for the following as summarized in Table 1-1:

- Volatile organic compounds (VOCs1) following United States Environmental Protection Agency (USEPA) method 8260B[1];

CompuChem Environmental Laboratories performed the analyses and provided the laboratory data packages, which contained summary forms for quality control analysis only. Partial validation was performed on the limited data packages. A review of the laboratory data packages was conducted using the following documents as guidance:

- USEPA. 1994. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* EPA-540/R-94/012. Washington D.C.

The review included checking the following parameters:

- Case narratives
- Chain-of-custody
- Holding times
- Blank analysis
- Surrogate recoveries
- Matrix spike/matrix spike duplicate results
- Laboratory control samples
- Field duplicates
- Reported detection limits
- Dilutions

The quantity and types of samples that were submitted for data validation are presented in Table 1-1 below:

Table 1-1. *Sample cross reference list*

Package Number	Date Collected	Client ID	Laboratory ID	Analysis Requested
V1536	8/23/00	CH2MW2	V1536-1	VOC
		CH2MW3	V1536-2	VOC
		CH2MW4D	V1536-3	VOC

1 USEPA. 1996. Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW-846), 3rd Edition. Washington, D.C., 1986 as updated through December 1996.

Table 1-1. *Sample cross reference list*

Package Number	Date Collected	Client ID	Laboratory ID	Analysis Requested
		ETMW117	V1536-9	VOC
		ETMW114, MS/MSD	V1536-10	VOC
		ETMW116	V1536-4	VOC
		ETMW121	V1536-11	VOC
		OBGMW122	V1536-12	VOC
		DUP [ETMW116]	V1536-13	VOC
		FB082300	V1536-14	VOC
		Trip Blank 8/23/00	V1536-15	VOC
Y1536	9/7/00	ETMW113	Y1536-1	VOC
	9/8/00	OBGMW123	Y1536-4	VOC
	9/7/00	Trip Blank 1	Y1536-3	VOC
	9/8/00	Trip Blank 2	Y1536-5	VOC
Q1536	11/9/00	CH2MW2	Q1536-1	VOC
		CH2MW3	Q1536-2	VOC
		OBGDUP1[CH2MW3]	Q1536-3	VOC
		OBGMW123	Q1536-5	VOC
		OBGMW122	Q1536-6	VOC
		ETMW113	Q1536-4	VOC
		Trip Blank 11/9/00	Q1536-7	VOC
	11/10/00	ETMW114	Q1536-8	VOC
		ETMW116	Q1536-15	VOC
		ETMW117	Q1536-10	VOC
		ETMW121	Q1536-11	VOC
		CH2MW4D	Q1536-12	VOC
		OBGEB1	Q1536-13	VOC
		Trip Blank 11/10/00	Q1536-14	VOC

Note:

VOCs indicates volatile organic compounds.

MS/MSD indicates matrix spike/matrix spike duplicate analyses.

The sample identification in brackets indicates the sample location from which the duplicate sample was collected.

The following sections of this memorandum present the results of the comparison of the analytical data to the QA/QC criteria specified in USEPA Method 8260B, and the qualifiers assigned to the data when the QA/QC criteria were not met. Samples that required qualifiers are described in the following sections, and the validated analytical results are included as a separate appendix.

ORGANIC DATA EVALUATION

I. Blank analysis

Analytes were detected in trip blanks collected 8/23/00, 9/7/00, 9/8/00, 11/9/00, and 11/10/00, in field blanks collected 8/23/00 and 11/10/00, and with the method blanks of 9/7/00 and 11/20/00, associated with samples analyzed for VOCs for this investigation. Samples that contained methylene chloride or acetone at less than ten times the blank concentration were qualified as undetected (U) when compared to the highest concentration detected in the blanks that were associated with the samples. The blank excursions are summarized in the following table:

Table 1-2. *Blank excursions for VOC analyses*

Blank ID	Analyte	Concentration	Affected Sample	Action
FB082300	methylene chloride	5.0 µg/L	CH2MW2 8/23/00	0.7U
			CH2MW3 8/23/00	0.6U
			CH2MW4D 8/23/00	0.8U
			DUP[ETMW116] 8/23/00	0.9U
			ETMW116 8/23/00	1.0U
			ETMW121 8/23/00	0.9U
			OBGMW122 8/23/00	1.0U
Trip Blank-1 9/7/00	methylene chloride	1.0 µg/L	ETMW113 9/7/00	2.0U
			OBGMW123 9/8/00	1.0U
Trip Blank-2 9/8/00	acetone	17.0 µg/L	ETMW113 9/7/00	7.0U
Trip Blank 11/9/00	methylene chloride	2.0 µg/L	CH2MW2 11/9/00	0.6U
Trip Blank 11/10/00	acetone	4.0 µg/L	CH2MW4D 11/10/00	3U
			ETMW116 11/10/00	36U
			ETMW121 11/10/00	3U
	methylene chloride	1.0 µg/L	ETMW117 11/10/00	0.6U

Note:

FB indicates field blank.

II. Chain-of-custody

Chain-of-custody number 050778, associated with water samples collected 8/23/00 and received by the laboratory 8/24/00 at 10:20, was incomplete since the date and time that the field sampler relinquished the samples was not documented on page 1 of 2. This information was documented on page 2 of 2 on the chain-of-custody.

Chain-of-custody number 33283, associated with water samples collected 9/8/00 and received by the laboratory 9/9/00 at 10:40, was incomplete since the date and time that the field sampler relinquished the samples was not documented on the chain-of-custody.

Chain-of-custody number 056128, associated with water samples collected 11/10/00 and received by the laboratory 11/11/00 at 11:30, was incomplete since the air bill number was not documented on the chain-of-custody.

III. Dilutions

Samples were analyzed at a dilution as a result of the presence of target analytes at concentrations that exceeded the calibration range. For some samples, both the concentration from the diluted analysis (for those target analytes that exceeded calibration range) and the detection limits from the lowest dilution analysis were combined in the sample report. The analytes which were analyzed using one or more dilutions are summarized in the following table:

Table 1-3. *Dilutions for VOC analyses*

Sample ID	Dilution Used	Reason
DUP [ETMW116] 8/23/00 combined	Undiluted/1:25	High concentration of 1,1-dichloroethane, trichloroethene, tetrachloroethene
ETMW114 8/23/00 combined	1:83.3/1:250	High concentration of trichloroethene
ETMW116 8/23/00 combined	Undiluted/1:25	High concentration of 1,1-dichloroethane, trichloroethene
ETMW117 8/23/00	1:7.1	High concentration of target analytes
ETMW113 9/7/00 combined	Undiluted/1:50	High concentration of 1,1-dichloroethene, 1,1-dichloroethane, trichloroethene, tetrachloroethene
ETMW113 11/9/00	1:10	High concentration of trichloroethene
ETMW114 11/10/00	1:35.7	High concentration of 1,1-dichloroethane, trichloroethene
ETMW116 11/10/00	1:10	High concentration of trichloroethene
ETMW117 11/10/00 combined	Undiluted/1:5	High concentration of trichloroethene

Note:

Combined indicates that the results for two analyses were combined together and reported for that sample as a result of high concentration of target analytes and resultant dilutions.

III. Overall assessment

The quality of the data presented in the data packages is acceptable based on the findings described in this memorandum. The data were found to be usable for qualitative and quantitative purposes.

April 2002

COMPUCHEM
a division of Liberty Analytical Corp.

May 8, 2002

Mike Hall
O'BRIEN & GERE
951 Aviation PKWY
STE 1400
Morrisville, NC 27560

Subject:
Report of Data – Project: MILLER- MOULTRIE Quote #: Q1536 SDG #: E1536

Attn.: Mike Hall

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers sample(s) appearing on the attached listing.

Thank you for selecting CompuChem for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097.

Sincerely,

Rodney A Raymond

CompuChem
A Division of Liberty Analytical

Attachment

CompuChem

a division of Liberty Analytical Corporation
501 Madison Avenue
Cary, N.C. 27513
Tel: 919/379-4100 Fax: 919/379-4050

SDG NARRATIVE
SDG #E1536

SAMPLE IDENTIFICATIONS: OB6MW123 CH2MW1 ETMW114 MWR01 CH2MW1A IDW01 TB01

The seven water samples listed above were received intact, at 4 degrees C, with proper documentation, in sealed shipping containers, on May 01, 2002. All samples were scheduled for volatile only analysis, and were analyzed following SW846 Method 8260B. All pertinent Quality Assurance Notices are included in the narrative section, and all pertinent Laboratory Notices for SDG # E1536 are included in the sample data sections. Analysis holding time requirements were met for all of these samples, and all sample pH values were less than 2.0.

The volatile target analytes acetone, vinyl chloride, trichlorofluoromethane, 1,1-dichloroethene, 1,1-dichloroethane, cis and trans-1,2-dichloroethene, chloroethane, chloroform, benzene, 1,2-dichloroethane, trichloroethene, 1,1,2-trichloroethane, and tetrachloroethene were the most frequently identified above the reporting limits in the submitted samples. Samples ETMW114, MWR01, and IDW01 all contained one or more target analytes in the initial neat analysis outside of calibration limits, and were reanalyzed at dilutions, and we have reported both neat and diluted analyses.

No instrument blank separated concurrently analyzed samples ETMW114, MWR01, and IDW01 all with target analytes outside of calibration limits, and there is potential for carryover. Due to the fact that all of these samples were reanalyzed at appropriate dilutions with all target analytes within calibration limits, we are reporting the data with reference to this qualifier.

There is no Form VII in the deliverables package for the associated tune batch BF020502A73(08:41). This batch included an initial calibration, and all of the relavent response factors are displayed on the Form VI. This initial calibration met all acceptance criteria, and therefore samples could be analyzed without having to analyze a continuing calibration verification standard.

No Tentatively Identified Compounds (TICs) were searched at the request of the client.

All Bromofluorobenzene (BFB) abundance criteria were met for tunes associated to this SDG. Overall QC criteria were met for all initial and continuing calibration standards associated to this SDG.
All of the system monitoring compounds(SMCs) met recovery criteria in the analyses of these samples, and all of the internal standards met response and retention time criteria in the analyses of these samples.

The associated method blanks met all QC criteria and did not contain any target analytes above the reporting limits with the exception of acetone in VBLKZD. Levels of acetone were however less than 5X the reporting limits as allowed for this common laboratory solvent.

The matrix spikes were generated from OB6MW123 as requested, and met all QC precision and accuracy criteria without exception.
The associated Laboratory Control Samples (LCSs) met all accuracy criteria.

Manual Quantitations were performed on some of the process files in the asssociated initial and continuing calibration, and in samples TB01, OB6MW123MS, IDW01, ETMW114DL, and MWR01DL. The reasons have been coded with explanations provided in the notice included in the narrative section of this SDG.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package, has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Roy Sutton
Case Reviewer
May 08, 2002

CompuChem

a division of Liberty Analytical Corporation

Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These manual integrations are performed by the data reviewers, GC/MS operators, or GC chemists. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration performed on each compound to demonstrate the accuracy of that process. The manual integrations are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count possible for the peak.

H - Denotes that a data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that a data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW documents require additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was initially not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC data packages.

Robert E. Meierer
Vice President

CompuChem
a division of Liberty Analytical Corporation

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than a 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue.

DATA REPORTING QUALIFIERS (continued)

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged with a B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on the Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on the Form I for the more diluted sample, and all reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds that are not detected in the sample analysis i.e., compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Forms I are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e., the results from both analyses are not combined on a single Form I.

A : This flag indicates that a TIC is a suspected aldol-condensation product.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

CompuChem
a division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513
1-800-833-5097

CHAIN-OF-CUSTODY RECORD

No. 062875

Project Name : Miller Brewery	Client Address : O'Brien & Gere 951 Aviation Parkway Suite 1400 Morrisville N.C.	Point-of-Contact : Mike Hall
Carrier : FedEx		Telephone No. :
Airbill No. :		Sampling complete? Y or N (see Note 1)
Sampler Name : Tim Jellett	Sampler Signature :	Project-specific (PS) or Batch (B) QC ?

BOX #1	1. Surface Water	6. Trip Blank	BOX #2	A. HCl + Ice	F. Ice Only	BOX #3	F. Filtered	Box #4	H. High	Box #6	C. CLP 3/90	T. TCLP
	2. Ground Water	7. Oil		B. HNO3 + Ice	G. Other_____		U. Unfiltered		M. Medium		S. SW-846	
	3. Leachate	8. Waste		C. NaOH + Ice	H. NaHSO4 + Ice				L. Low		W. CWA 600-series	
	4. Rinsate	9. Other_____		D. H2SO4 + Ice	I. ZnAc+NaOH + Ice						O. Other_____	
	5. Soil / Sediment / Sludge			E. Unpreserved								

Sample ID (9 characters maximum)	Date: Year: 2002	Time	Box #1 Matrix	Box #2 Preservative	Box #3 Filtered / Unfiltered	Box #4 Expected Conc.	Box #6 Method	No. of Bottles	Use for Lab QC (MS or DUP)	VOA	SVOC	Pesticide	PCB	Herbicide	Metals / Mercury	Cyanide	TOC / TOX	O&G / TPH	Remarks / Comments (see Notes 2 & 3)
~~CH2~~ 0136 MW123	04/29	11:10	2	A	U	L	S	9	ms/msd	X									MS/MSD
CH2MW1	4/29	12:00	2	A	U	L	S	3		X									
ETMW114	4/29	14:00	2	A	U	L	S	3		X									
MWR01	4/29	—	2	A	U	L	S	3		X									
CH2MW1A	4/29	14:15	2	A	U	L	S	3		X									
TB01	+	—	2	A	U	L	S	3		X									
IDW01	4/29	14:45	2	A	U	L	S	3		X									
	/	:																	
	/	:																	
	/	:																	

Clients Special Instructions: standard turn around Temperature 4.0 °C

Lab: Received in Good Condition? Y or N Describe Problems, If any:

#1 Relinquished By: (Sig) Tim Jellett Date: 4-30-02	#2 Relinquished By: (Sig) Date:	#3 Relinquished By: (Sig) Date:
Company Name: O'Brien & Gere Engineers Time: 1200	Company Name: Time:	Company Name: Time:
#1 Received By: (Sig) D. Schiller Date: 5/1/02	#2 Received By: (Sig) Date:	#3 Received By: (Sig) Date:
Company Name: CompuChem Time: 0925	Company Name: Time:	Company Name: Time:

Note (1): If "N" lab will hold samples to await remainder of project-maximizing batch size and minimizing QC ratio; if "Y" lab will begin processing batches now.
Note (2): Samples stored 60 days after date report mailed at no extra charge. Note (3): All lab copies of data destroyed after three years.

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW1

Lab Name: COMPUCHEM Method:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: E1536-2

Sample wt/vol: 25 (g/ml) ML Lab File ID: E1536-2A73

Level: (low/med) LOW Date Received: 05/01/02

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
156-59-2	cis-1,2-Dichloroethene	3	
78-93-3	2-butanone	3	U
79-01-6	Trichloroethene	12	
91-20-3	Naphthalene	0.5	U
540-59-0	1,2-Dichloroethene (total)	3	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

CH2MW1A

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: E1536-5

Sample wt/vol: 25 (g/ml) ML Lab File ID: E1536-5RA73

Level: (low/med) LOW Date Received: 05/01/02

% Moisture: not dec. _____ Date Analyzed: 05/03/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
79-01-6	Trichloroethene	0.5	U
91-20-3	Naphthalene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114

Lab Name: COMPUCHEM Method:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: E1536-3

Sample wt/vol: 25 (g/ml) ML Lab File ID: E1536-3A73

Level: (low/med) LOW Date Received: 05/01/02

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-35-4	1,1-Dichloroethene	310	E
156-60-5	trans-1,2-Dichloroethene	9	
156-59-2	cis-1,2-Dichloroethene	1300	E
78-93-3	2-butanone	3	U
79-01-6	Trichloroethene	1200	E
91-20-3	Naphthalene	0.5	U
540-59-0	1,2-Dichloroethene (total)	1300	E

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ETMW114DL

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: E1536-3

Sample wt/vol: 25 (g/ml) ML Lab File ID: E1536-3D2A73

Level: (low/med) LOW Date Received: 05/01/02

% Moisture: not dec. _____ Date Analyzed: 05/03/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 250.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-35-4	1,1-Dichloroethene	390	D
156-60-5	trans-1,2-Dichloroethene	130	U
156-59-2	cis-1,2-Dichloroethene	3800	D
78-93-3	2-butanone	630	U
79-01-6	Trichloroethene	4500	D
91-20-3	Naphthalene	130	U
540-59-0	1,2-Dichloroethene (total)	3900	D

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MWR01

Lab Name: COMPUCHEM Method:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: E1536-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: E1536-4A73

Level: (low/med) LOW Date Received: 05/01/02

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-35-4	1,1-Dichloroethene	300	E
156-60-5	trans-1,2-Dichloroethene	7	
156-59-2	cis-1,2-Dichloroethene	1300	E
78-93-3	2-butanone	3	U
79-01-6	Trichloroethene	1200	E
91-20-3	Naphthalene	0.5	U
540-59-0	1,2-Dichloroethene (total)	1300	E

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MWR01DL

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: E1536-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: E1536-4D2A73

Level: (low/med) LOW Date Received: 05/01/02

% Moisture: not dec. _____ Date Analyzed: 05/03/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 250.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-35-4	1,1-Dichloroethene	330	D
156-60-5	trans-1,2-Dichloroethene	130	U
156-59-2	cis-1,2-Dichloroethene	3700	D
78-93-3	2-butanone	630	U
79-01-6	Trichloroethene	4000	D
91-20-3	Naphthalene	130	U
540-59-0	1,2-Dichloroethene (total)	3800	D

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

IDW01

Lab Name: COMPUCHEM Method:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: E1536-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: E1536-6A73

Level: (low/med) LOW Date Received: 05/01/02

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-35-4	1,1-Dichloroethene	120	E
156-60-5	trans-1,2-Dichloroethene	3	
156-59-2	cis-1,2-Dichloroethene	930	E
78-93-3	2-butanone	3	U
79-01-6	Trichloroethene	930	E
91-20-3	Naphthalene	0.5	U
540-59-0	1,2-Dichloroethene (total)	940	E

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

IDW01DL

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: E1536-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: E1536-6D2A73

Level: (low/med) LOW Date Received: 05/01/02

% Moisture: not dec. _____ Date Analyzed: 05/03/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 83.3

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-35-4	1,1-Dichloroethene	120	D
156-60-5	trans-1,2-Dichloroethene	42	U
156-59-2	cis-1,2-Dichloroethene	1500	D
78-93-3	2-butanone	210	U
79-01-6	Trichloroethene	1500	D
91-20-3	Naphthalene	42	U
540-59-0	1,2-Dichloroethene (total)	1500	D

FORM 1

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TB01

Lab Name: COMPUCHEM Method:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: E1536-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: E1536-7A73

Level: (low/med) LOW Date Received: 05/01/02

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
79-01-6	Trichloroethene	0.5	U
91-20-3	Naphthalene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OB6MW123

Lab Name: COMPUCHEM Method:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: E1536-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: E1536-1A73

Level: (low/med) LOW Date Received: 05/01/02

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
79-01-6	Trichloroethene	0.5	U
91-20-3	Naphthalene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COMPUCHEM Contract: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

	CLIENT SAMPLE NO.	SMC1 (DBF) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	VBLKZD	114	114	112	109	0
02	VZDLCS	102	95	117	110	0
03	TB01	110	110	111	102	0
04	OB6MW123	113	115	113	108	0
05	OB6MW123MS	113	115	118	107	0
06	OB6MW123MSD	111	117	120	108	0
07	CH2MW1	113	123	117	107	0
08	ETMW114	116	116	116	109	0
09	MWR01	109	110	109	112	0
10	IDW01	115	117	118	105	0
11	VBLKAK	114	111	118	113	0
12	VAKLCS	106	104	107	104	0
13	CH2MW1A	110	103	118	114	0
14	ETMW114DL	114	119	118	113	0
15	MWR01DL	121	128	112	110	0
16	IDW01DL	118	117	114	113	0
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		QC LIMITS
SMC1 (DBF)	= Dibromofluoromethane	(65-150)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(59-150)
SMC3 (TOL)	= Toluene-d8	(61-145)
SMC4 (BFB)	= Bromofluorobenzene	(63-143)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 3
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix Spike - Sample No.: OB6MW123

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5	0.00	7.4	150	50-150
Benzene	5	0.00	5.5	110	76-134
Trichloroethene	5	0.00	5.7	110	71-143
Toluene	5	0.00	5.6	110	70-137
Chlorobenzene	5	0.00	5.2	100	74-136

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	5	7.2	140	3	14	50-150
Benzene	5	5.6	110	2	11	76-134
Trichloroethene	5	5.9	120	3	14	71-143
Toluene	5	5.9	120	5	13	70-137
Chlorobenzene	5	5.8	120	11	13	74-136

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

3A
WATER VOLATILE LAB CONTROL SAMPLE

VZDLCS

Lab Name: COMPUCHEM Contract: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5.00	4.95	99	50-150
Benzene	5.00	4.81	96	76-134
Trichloroethene	5.00	5.19	104	71-143
Toluene	5.00	5.16	103	70-137
Chlorobenzene	5.00	5.01	100	74-136

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

3A
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 8260B VAKLCS

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	5.00	4.92	98	50-150
Benzene	5.00	4.57	91	76-134
Trichloroethene	5.00	5.17	103	71-143
Toluene	5.00	4.59	92	70-137
Chlorobenzene	5.00	4.79	96	74-136

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

VBLKZD

Lab Name: COMPUCHEM Contract: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Lab File ID: WG17126-1A73P833 Lab Sample ID: WG17126-1

Date Analyzed: 05/02/02 Time Analyzed: 1238

GC Column: ZB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972HP73

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VZDLCS	WG17126-4	WG17126-4A73	1314
02	TB01	E1536-7	E1536-7A73	1657
03	OB6MW123	E1536-1	E1536-1A73	1724
04	OB6MW123MS	WG17177-6	WG17177-6A73	1751
05	OB6MW123MSD	WG17177-7	WG17177-7A73	1818
06	CH2MW1	E1536-2	E1536-2A73	1845
07	ETMW114	E1536-3	E1536-3A73	1912
08	MWR01	E1536-4	E1536-4A73	1938
09	IDW01	E1536-6	E1536-6A73	2032
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKZD

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17126-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17126-1A73P83

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(ul

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	
75-09-2	Methylene Chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKZD

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17126-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17126-1A73P833

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKZD

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17126-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17126-1A73P83

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

VBLKAK

Lab Name: COMPUCHEM Contract: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Lab File ID: WG17177-1A73E Lab Sample ID: WG17177-1

Date Analyzed: 05/03/02 Time Analyzed: 1018

GC Column: ZB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972HP73

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VAKLCS	WG17177-4	WG17177-4A73	1052
02	CH2MW1A	E1536-5	E1536-5RA73	1119
03	ETMW114DL	E1536-3	E1536-3D2A73	1344
04	MWR01DL	E1536-4	E1536-4D2A73	1413
05	IDW01DL	E1536-6	E1536-6D2A73	1442
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKAK

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17177-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17177-1A73E

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/03/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U
75-09-2	Methylene Chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKAK

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17177-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17177-1A73E

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/03/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLKAK

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17177-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17177-1A73E

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/03/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OB6MW123MS

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17177-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17177-6A73

Level: (low/med) LOW Date Received: 05/01/02

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	7	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	B
75-09-2	Methylene Chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	6	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	6	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	6	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OB6MW123MS

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17177-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17177-6A73

Level: (low/med) LOW Date Received: 05/01/02

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	5	
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OB6MW123MS

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17177-6

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17177-6A73

Level: (low/med) LOW Date Received: 05/01/02

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OB6MW123MSD

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17177-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17177-7A73

Level: (low/med) LOW Date Received: 05/01/02

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	0.5	U
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-69-4	Trichlorofluoromethane	0.5	U
75-35-4	1,1-Dichloroethene	7	
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	B
75-09-2	Methylene Chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
1634-04-4	Methyl-tert-butyl ether	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
108-20-3	Isopropyl ether	0.5	U
594-20-7	2,2-Dichloropropane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
74-97-5	Bromochloromethane	0.5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
563-58-6	1,1-dichloropropene	0.5	U
71-43-2	Benzene	6	
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	6	
78-87-5	1,2-Dichloropropane	0.5	U
74-95-3	Dibromomethane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	6	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OB6MW123MSD

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17177-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17177-7A73

Level: (low/med) LOW Date Received: 05/01/02

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	0.5	U
142-28-9	1,3-Dichloropropane	0.5	U
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
106-93-4	1,2-Dibromoethane	0.5	U
108-90-7	Chlorobenzene	6	
630-20-6	1,1,1,2-Tetrachloroethane	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U
98-82-8	Isopropyl Benzene	0.5	U
108-86-1	Bromobenzene	0.5	U
96-18-4	1,2,3-Trichloropropane	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
103-65-1	n-Propyl Benzene	0.5	U
95-49-8	2-Chlorotoluene	0.5	U
106-43-4	4-Chlorotoluene	0.5	U
108-67-8	1,3,5-Trimethyl Benzene	0.5	U
98-06-6	tert-Butyl Benzene	0.5	U
95-63-6	1,2,4-Trimethyl Benzene	0.5	U
135-98-8	sec-Butyl Benzene	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
99-87-6	p-Isopropyl Toluene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
104-51-8	n-Butyl Benzene	0.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
87-68-3	Hexachlorobutadiene	0.5	U
91-20-3	Naphthalene	0.5	U
87-61-6	1,2,3-Trichlorobenzene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

OB6MW123MSD

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17177-7

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17177-7A73

Level: (low/med) LOW Date Received: 05/01/02

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VZDLCS

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17126-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17126-4A73P833

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	4	
74-87-3	Chloromethane	4	
75-01-4	Vinyl Chloride	6	
74-83-9	Bromomethane	4	
75-00-3	Chloroethane	6	
75-69-4	Trichlorofluoromethane	6	
75-35-4	1,1-Dichloroethene	5	
75-15-0	Carbon disulfide	9	
67-64-1	Acetone	17	B
75-09-2	Methylene Chloride	5	
156-60-5	trans-1,2-Dichloroethene	5	
1634-04-4	Methyl-tert-butyl ether	4	
75-34-3	1,1-Dichloroethane	5	
108-20-3	Isopropyl ether	4	
594-20-7	2,2-Dichloropropane	5	
156-59-2	cis-1,2-Dichloroethene	5	
78-93-3	2-butanone	20	
74-97-5	Bromochloromethane	5	
67-66-3	Chloroform	5	
71-55-6	1,1,1-Trichloroethane	5	
56-23-5	Carbon Tetrachloride	6	
563-58-6	1,1-dichloropropene	6	
71-43-2	Benzene	5	
107-06-2	1,2-Dichloroethane	4	
79-01-6	Trichloroethene	5	
78-87-5	1,2-Dichloropropane	5	
74-95-3	Dibromomethane	4	
75-27-4	Bromodichloromethane	5	
10061-01-5	cis-1,3-Dichloropropene	4	
108-10-1	4-Methyl-2-pentanone	23	
108-88-3	Toluene	5	
10061-02-6	trans-1,3-Dichloropropene	5	
79-00-5	1,1,2-Trichloroethane	5	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VZDLCS

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17126-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17126-4A73P83

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	6	
142-28-9	1,3-Dichloropropane	5	
591-78-6	2-hexanone	22	
124-48-1	Dibromochloromethane	4	
106-93-4	1,2-Dibromoethane	4	
108-90-7	Chlorobenzene	5	
630-20-6	1,1,1,2-Tetrachloroethane	5	
100-41-4	Ethylbenzene	5	
108-38-3	m,p-Xylene	11	
95-47-6	o-Xylene	5	
100-42-5	Styrene	5	
75-25-2	Bromoform	4	
98-82-8	Isopropyl Benzene	6	
108-86-1	Bromobenzene	5	
96-18-4	1,2,3-Trichloropropane	5	
79-34-5	1,1,2,2-Tetrachloroethane	5	
103-65-1	n-Propyl Benzene	6	
95-49-8	2-Chlorotoluene	5	
106-43-4	4-Chlorotoluene	5	
108-67-8	1,3,5-Trimethyl Benzene	6	
98-06-6	tert-Butyl Benzene	6	
95-63-6	1,2,4-Trimethyl Benzene	6	
135-98-8	sec-Butyl Benzene	6	
541-73-1	1,3-Dichlorobenzene	5	
106-46-7	1,4-Dichlorobenzene	5	
99-87-6	p-Isopropyl Toluene	6	
95-50-1	1,2-Dichlorobenzene	5	
104-51-8	n-Butyl Benzene	6	
96-12-8	1,2-Dibromo-3-Chloropropane	3	
120-82-1	1,2,4-Trichlorobenzene	5	
87-68-3	Hexachlorobutadiene	6	
91-20-3	Naphthalene	4	
87-61-6	1,2,3-Trichlorobenzene	5	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VZDLCS

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17126-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17126-4A73P833

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/02/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	10	
1330-20-7	Xylene (total)	16	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VAKLCS

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17177-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17177-4A73E

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/03/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	4	
74-87-3	Chloromethane	4	
75-01-4	Vinyl Chloride	5	
74-83-9	Bromomethane	5	
75-00-3	Chloroethane	4	
75-69-4	Trichlorofluoromethane	5	
75-35-4	1,1-Dichloroethene	5	
75-15-0	Carbon disulfide	4	
67-64-1	Acetone	14	
75-09-2	Methylene Chloride	5	
156-60-5	trans-1,2-Dichloroethene	5	
1634-04-4	Methyl-tert-butyl ether	4	
75-34-3	1,1-Dichloroethane	5	
108-20-3	Isopropyl ether	4	
594-20-7	2,2-Dichloropropane	6	
156-59-2	cis-1,2-Dichloroethene	5	
78-93-3	2-butanone	19	
74-97-5	Bromochloromethane	5	
67-66-3	Chloroform	5	
71-55-6	1,1,1-Trichloroethane	6	
56-23-5	Carbon Tetrachloride	6	
563-58-6	1,1-dichloropropene	6	
71-43-2	Benzene	5	
107-06-2	1,2-Dichloroethane	5	
79-01-6	Trichloroethene	5	
78-87-5	1,2-Dichloropropane	4	
74-95-3	Dibromomethane	4	
75-27-4	Bromodichloromethane	5	
10061-01-5	cis-1,3-Dichloropropene	4	
108-10-1	4-Methyl-2-pentanone	21	
108-88-3	Toluene	5	
10061-02-6	trans-1,3-Dichloropropene	4	
79-00-5	1,1,2-Trichloroethane	4	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VAKLCS

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17177-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17177-4A73E

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/03/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
127-18-4	Tetrachloroethene	5	
142-28-9	1,3-Dichloropropane	4	
591-78-6	2-hexanone	21	
124-48-1	Dibromochloromethane	4	
106-93-4	1,2-Dibromoethane	4	
108-90-7	Chlorobenzene	5	
630-20-6	1,1,1,2-Tetrachloroethane	5	
100-41-4	Ethylbenzene	5	
108-38-3	m,p-Xylene	10	
95-47-6	o-Xylene	5	
100-42-5	Styrene	5	
75-25-2	Bromoform	4	
98-82-8	Isopropyl Benzene	6	
108-86-1	Bromobenzene	4	
96-18-4	1,2,3-Trichloropropane	4	
79-34-5	1,1,2,2-Tetrachloroethane	4	
103-65-1	n-Propyl Benzene	5	
95-49-8	2-Chlorotoluene	5	
106-43-4	4-Chlorotoluene	5	
108-67-8	1,3,5-Trimethyl Benzene	5	
98-06-6	tert-Butyl Benzene	5	
95-63-6	1,2,4-Trimethyl Benzene	5	
135-98-8	sec-Butyl Benzene	6	
541-73-1	1,3-Dichlorobenzene	5	
106-46-7	1,4-Dichlorobenzene	5	
99-87-6	p-Isopropyl Toluene	5	
95-50-1	1,2-Dichlorobenzene	5	
104-51-8	n-Butyl Benzene	6	
96-12-8	1,2-Dibromo-3-Chloropropane	4	
120-82-1	1,2,4-Trichlorobenzene	5	
87-68-3	Hexachlorobutadiene	6	
91-20-3	Naphthalene	4	
87-61-6	1,2,3-Trichlorobenzene	5	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VAKLCS

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: E1536

Matrix: (soil/water) WATER Lab Sample ID: WG17177-4

Sample wt/vol: 25 (g/ml) ML Lab File ID: WG17177-4A73E

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/03/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
540-59-0	1,2-Dichloroethene (total)	10	
1330-20-7	Xylene (total)	15	

April 2004

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: RSK175M

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7620
Sample: B 8048
Sample Description: CH2MW3-3
Instrument: HP5890-OSI
Units: mg/L
Number of analytes: 3 Column Name: GS-ALUMINA, 50m x .53mm ID

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/06/04
Received: 04/07/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004G1
%Solids:
Sample Size: .03 L
Primary: Y

Parameter	Result	Qual	PQL	Dil	Analyzed	Notes
Methane	< .0020	U	.002	1	04/20/04	
Ethane	< .0040	U	.004	1	04/20/04	
Ethene	< .0040	U	.004	1	04/20/04	

Surrogate	%R	Qual	%R Limits

Notes:

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits. U - Undetected at the reported level.
J - Reported value is estimated. D - Result is diluted.
E - Concentration exceeded the calibration range and is estimated.
P - RPD>40% between primary and confirmation.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: RSK175M

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8112
Sample Description: CH2MW-5
Instrument: HP5890-OSI
Units: mg/L
Number of analytes: 3 Column Name: GS-ALUMINA, 50m x .53mm ID

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004G1
%Solids:
Sample Size: .03 L
Primary: Y

Parameter	Result	Qual	PQL	Dil	Analyzed	Notes
Methane	< .0020	U	.002	1	04/20/04	
Ethane	< .0040	U	.004	1	04/20/04	
Ethene	< .0040	U	.004	1	04/20/04	

Surrogate	%R	Qual	%R Limits

Notes:

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits. U - Undetected at the reported level.
J - Reported value is estimated. D - Result is diluted.
E - Concentration exceeded the calibration range and is estimated.
P - RPD>40% between primary and confirmation.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: RSK175M

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8113
Sample Description: CH2MW-1A
Instrument: HP5890-OSI
Units: mg/L
Number of analytes: 3 Column Name: GS-ALUMINA, 50m x .53mm ID

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004G1
%Solids:
Sample Size: .03 L
Primary: Y

Parameter	Result	Qual	PQL	Dil	Analyzed	Notes
Methane	< .0020	U	.002	1	04/20/04	
Ethane	< .0040	U	.004	1	04/20/04	
Ethene	< .0040	U	.004	1	04/20/04	

Surrogate	%R	Qual	%R Limits

Notes:

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits. U - Undetected at the reported level.
J - Reported value is estimated. D - Result is diluted.
E - Concentration exceeded the calibration range and is estimated.
P - RPD>40% between primary and confirmation.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: RSK175M

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8114
Sample Description: ETMW-121
Instrument: HP5890-OSI
Units: mg/L
Number of analytes: 3 Column Name: GS-ALUMINA, 50m x .53mm ID

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004G1
%Solids:
Sample Size: .03 L
Primary: Y

Parameter	Result	Qual	PQL	Dil	Analyzed	Notes
Methane	< .0020	U	.002	1	04/20/04	
Ethane	< .0040	U	.004	1	04/20/04	
Ethene	< .0040	U	.004	1	04/20/04	

Surrogate	%R	Qual	%R Limits

Notes:

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits. U - Undetected at the reported level.
J - Reported value is estimated. D - Result is diluted.
E - Concentration exceeded the calibration range and is estimated.
P - RPD>40% between primary and confirmation.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: RSK175M

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8136
Sample Description: ETCMW-114
Instrument: HP5890-OSI
Units: mg/L
Number of analytes: 3 Column Name: GS-ALUMINA, 50m x .53mm ID

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004G1
%Solids:
Sample Size: .03 L
Primary: Y

Parameter	Result	Qual	PQL	Dil	Analyzed	Notes
Methane	< .0020	U	.002	1	04/20/04	
Ethane	< .0040	U	.004	1	04/20/04	
Ethene	< .0040	U	.004	1	04/20/04	

Surrogate	%R	Qual	%R Limits

Notes:

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits. U - Undetected at the reported level.
J - Reported value is estimated. D - Result is diluted.
E - Concentration exceeded the calibration range and is estimated.
P - RPD>40% between primary and confirmation.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: RSK175M

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8137
Sample Description: DUP-2
Instrument: HP5890-OSI
Units: mg/L
Number of analytes: 3 Column Name: GS-ALUMINA, 50m x .53mm ID

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004G1
%Solids:
Sample Size: .03 L
Primary: Y

Parameter	Result	Qual	PQL	Dil	Analyzed	Notes
Methane	< .0020	U	.002	1	04/20/04	
Ethane	< .0040	U	.004	1	04/20/04	
Ethene	< .0040	U	.004	1	04/20/04	

Surrogate	%R	Qual	%R Limits

Notes:

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits. U - Undetected at the reported level.
J - Reported value is estimated. D - Result is diluted.
E - Concentration exceeded the calibration range and is estimated.
P - RPD>40% between primary and confirmation.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: RSK175M

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B 8138
Sample Description: CH2MW-114D
Instrument: HP5890-OSI
Units: mg/L
Number of analytes: 3 Column Name: GS-ALUMINA, 50m x .53mm ID

Job No.: 3435 . 218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004G1
%Solids:
Sample Size: .03 L
Primary: Y

Parameter	Result	Qual	PQL	Dil	Analyzed	Notes
Methane	< .0020	U	.002	1	04/20/04	
Ethane	< .0040	U	.004	1	04/20/04	
Ethene	< .0040	U	.004	1	04/20/04	

Surrogate	%R	Qual	%R Limits

Notes:

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits. U - Undetected at the reported level.
J - Reported value is estimated. D - Result is diluted.
E - Concentration exceeded the calibration range and is estimated.
P - RPD>40% between primary and confirmation.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Matrix Spike/Matrix Spike Duplicate
Method: RSK175M

Package#: 7637
Sample: B8112
Samp. Description: CH2MW-5
Primary column: Y
Units: mg/L
Column: GS-ALUMINA, 50m x .53mm ID
Instrument: HP5890-OSI

Matrix: Water
%Solids:
Number of analytes: 3

Parameter	Dilution	Sample Result	Spike Added	MS Result	%R	MSD Result	%R	%R Limits	RPD	RPD Limits	Col	Note
Methane	1	< .0020	.0218	.0166	76	.0184	84	5-140	10	0-20	1	
Ethane	1	< .0040	.0409	.0369	90	.038	93	43-117	3	0-31	1	
Ethene	1	< .0040	.0381	.0295	78	.0301	79	41-102	2	0-26	1	

Notes:

J-Estimated value #-Outside limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample GC Semivolatile Organics

Package#: 7620
Sample: L042004G1
Analyzed: 04/20/04
Column No.: 1 Desc.: GS-ALUMINA, 50m x .53mm ID

QC Batch: 042004G1
Instrument: HP5890-OSI
Number of analytes: 3
Primary: Y

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Methane	.0187	.02183	mg/L	86	40-95	
Ethane	.0381	.04091	mg/L	93	46-110	
Ethene	.0282	.03809	mg/L	74	37-93	

Surrogate	%R	Qual	%R Limits

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample GC Semivolatile Organics

Package#: 7620
Sample: D042004G1
Analyzed: 04/20/04
Column No.: 1 Desc.: GS-ALUMINA, 50m x .53mm ID

QC Batch: 042004G1
Instrument: HP5890-OSI
Number of analytes: 3
Primary: Y

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Methane	.0160	.02183	mg/L	73	40-95	
Ethane	.0327	.04091	mg/L	80	46-110	
Ethene	.0245	.03809	mg/L	64	37-93	

Surrogate	%R	Qual	%R Limits

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
GC Semivolatile Organics

Package#: 7620
Sample: PB042004G1
Analyzed: 04/20/04
Column: GS-ALUMINA, 50m x .53mm ID

QC Batch: 042004G1
Instrument: HP5890-OSI
Number of analytes: 3
Primary: Y

Parameter	Sample Result	Q	PQL	Units	Note
Methane	<.0020	U	.0020	mg/L	
Ethane	<.0040	U	.0040	mg/L	
Ethene	<.0040	U	.0040	mg/L	

Surrogate	%R	Qual	%R Limits

Notes:

- Outside control limits. J - Estimated value. U - Undetected at the reported level.

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: RSK175M

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B 8941
Sample Description: OBGMW-124
Instrument: HP5890-OSI
Units: mg/L
Number of analytes: 3 Column Name: GS-ALUMINA, 50m x .53mm ID

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/28/04

Matrix: Water
QC Batch: 042804G1
%Solids:
Sample Size: .03 L
Primary: Y

Parameter	Result	Qual	PQL	Dil	Analyzed	Notes
Methane	< .0020	U	.002	1	04/28/04	
Ethane	< .0040	U	.004	1	04/28/04	
Ethene	< .0040	U	.004	1	04/28/04	

Surrogate	%R	Qual	%R Limits

Notes:

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits. U - Undetected at the reported level.
J - Reported value is estimated. D - Result is diluted.
E - Concentration exceeded the calibration range and is estimated.
P - RPD>40% between primary and confirmation.

Authorized: Monika Santucci
Date: April 28, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample GC Semivolatile Organics

Package#: 7744
Sample: L042804G1
Analyzed: 04/28/04
Column No.: 1 Desc.: GS-ALUMINA, 50m x .53mm ID

QC Batch: 042804G1
Instrument: HP5890-OSI
Number of analytes: 3
Primary: Y

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Methane	.0172	.02183	mg/L	79	40-95	
Ethane	.0402	.04091	mg/L	98	46-110	
Ethene	.0288	.03809	mg/L	76	37-93	

Surrogate	%R	Qual	%R Limits

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample GC Semivolatile Organics

Package#: 7744
Sample: D042804G1
Analyzed: 04/28/04
Column No.: 1 Desc.: GS-ALUMINA, 50m x .53mm ID

QC Batch: 042804G1
Instrument: HP5890-OSI
Number of analytes: 3
Primary: Y

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Methane	.0165	.02183	mg/L	76	40-95	
Ethane	.0374	.04091	mg/L	91	46-110	
Ethene	.0266	.03809	mg/L	70	37-93	

Surrogate	%R	Qual	%R Limits

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
GC Semivolatile Organics

Package#: 7744
Sample: PB042804G1
Analyzed: 04/28/04
Column: GS-ALUMINA, 50m x .53mm ID

QC Batch: 042804G1
Instrument: HP5890-OSI
Number of analytes: 3
Primary: Y

Parameter	Sample Result	Q	PQL	Units	Note
Methane	<.0020	U	.0020	mg/L	
Ethane	<.0040	U	.0040	mg/L	
Ethene	<.0040	U	.0040	mg/L	

Surrogate	%R	Qual	%R Limits

Notes:

- Outside control limits. J - Estimated value. U - Undetected at the reported level.

O'Brien & Gere Laboratories, Inc.

Analytical Results Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7620
Sample: B8048
Sample Description: CH2MW3-3
Units: mg/L

Job No.: 3435 . 218.21100
Certification NY No.: 10155R

Collected: 04/06/04 Matrix: Water
Received: 04/07/04 %Solids:
Number of analytes: 2

Parameter	Result	Q	Method	PQL	Prepared	Analyzed	QC Batch	Dil	Note
Iron	<.050	U	6010	.050	04/08/04	04/09/04	040804W1	1	
Manganese	<.050	U	6010	.050	04/08/04	04/09/04	040804W1	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank.
U - Undetected at the reported level.
J - Reported value is estimated. D - Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8138
Sample Description: CH2MW-114D
Units: mg/L

Job No.: 3435 . 218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04

Matrix: Water
%Solids:
Number of analytes: 2

Parameter	Result	Q	Method	PQL	Prepared	Analyzed	QC Batch	Dil	Note
Iron	17.		6010	.050	04/12/04	04/15/04	041204W2	1	
Manganese	<.050	U	6010	.050	04/12/04	04/15/04	041204W2	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank.
U - Undetected at the reported level.
J - Reported value is estimated. D - Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: May 10, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8137
Sample Description: DUP-2
Units: mg/L

Job No.: 3435 . 218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04

Matrix: Water
%Solids:
Number of analytes: 2

Parameter	Result	Q	Method	PQL	Prepared	Analyzed	QC Batch	Dil	Note
Iron	1.8		6010	.050	04/12/04	04/15/04	041204W2	1	
Manganese	<.050	U	6010	.050	04/12/04	04/15/04	041204W2	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank.
U - Undetected at the reported level.
J - Reported value is estimated. D - Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: May 10, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8136
Sample Description: ETCMW-114
Units: mg/L

Job No.: 3435 . 218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04

Matrix: Water
%Solids:
Number of analytes: 2

Parameter	Result	Q	Method	PQL	Prepared	Analyzed	QC Batch	Dil	Note
Iron	2.0		6010	.050	04/12/04	04/15/04	041204W2	1	
Manganese	<.050	U	6010	.050	04/12/04	04/15/04	041204W2	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank.
U - Undetected at the reported level.
J - Reported value is estimated. D - Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: May 10, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample Trace Metals

Package#: 7620
Sample: L040804W1
Analyzed: 04/09/04

QC Batch: 040804W1
Instrument: ICAP-61
Number of analytes: 2

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Iron	.97893	1	mg/L	98	85-115	
Manganese	.19613	.2	mg/L	98	85-115	

Notes:

- Outside control limits

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O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
Trace Metals

Package#: 7620
Sample: PB040804W1
Analyzed: 04/09/04

QC Batch: 040804W1
Instrument: ICAP-61
Number of analytes: 2

Parameter	Sample Result	Q	PQL	Units	Note
Iron	<.050	U	.050	mg/L	
Manganese	<.050	U	.050	mg/L	

Notes:

J - Estimated value. U - Undetected at the reported level.

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O'Brien & Gere Laboratories, Inc.

Analytical Results Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8144
Sample Description: CH2MW-5
Units: mg/L

Job No.: 3435 . 218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04

Matrix: Water
%Solids:
Number of analytes: 2

Parameter	Result	Q	Method	PQL	Prepared	Analyzed	QC Batch	Dil	Note
Iron	4.2		6010	.050	04/12/04	04/15/04	041204W2	1	
Manganese	<.050	U	6010	.050	04/12/04	04/15/04	041204W2	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank.
U - Undetected at the reported level.
J - Reported value is estimated. D - Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: May 10, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8145
Sample Description: CH2MW-1A
Units: mg/L

Job No.: 3435 . 218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04

Matrix: Water
%Solids:
Number of analytes: 2

Parameter	Result	Q	Method	PQL	Prepared	Analyzed	QC Batch	Dil	Note
Iron	.63		6010	.050	04/12/04	04/15/04	041204W2	1	
Manganese	<.050	U	6010	.050	04/12/04	04/15/04	041204W2	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank.
U - Undetected at the reported level.
J - Reported value is estimated. D - Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: May 10, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8146
Sample Description: ETMW-121
Units: mg/L

Job No.: 3435 . 218.21100
Certification NY No.: 10155R

Collected: 04/07/04 Matrix: Water
Received: 04/09/04 %Solids:
Number of analytes: 2

Parameter	Result	Q	Method	PQL	Prepared	Analyzed	QC Batch	Dil	Note
Iron	1.1		6010	.050	04/12/04	04/15/04	041204W2	1	
Manganese	<.050	U	6010	.050	04/12/04	04/15/04	041204W2	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank.
U - Undetected at the reported level.
J - Reported value is estimated. D - Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: May 10, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8941
Sample Description: OBGMW-124
Units: mg/L

Job No.: 3435 . 218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04

Matrix: Water
%Solids:
Number of analytes: 2

Parameter	Result	Q	Method	PQL	Prepared	Analyzed	QC Batch	Dil	Note
Iron	.41		6010	.050	04/28/04	04/29/04	042804W1	1	
Manganese	.090		6010	.050	04/28/04	04/29/04	042804W1	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank.
U - Undetected at the reported level.
J - Reported value is estimated. D - Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: May 7, 2004

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc. Trace Metals

Quality Control Summary Matrix Spike/Matrix Spike Duplicate

Package#: 7642
Sample: B8144
Sample Description: CH2MW-5

Matrix: Water
Number of analytes: 2

Parameter	Sample Result	Spike Added	MS Result		%R	MSD Result		%R	%R Limits	RPD	RPD Limits	Units	Method	Note
Iron	4.2	1	6.0236	#	183	5.8435	#	165	60-140	3	0-10	mg/L	6010	
Manganese	<.050	.2	.2174		109	.2107		105	78-122	3	0-10	mg/L	6010	

Notes:

J-Estimated value #-Outside limits

O'Brien & Gere Laboratories,Inc.

Quality Control Summary
Post Digestion Spike
Trace Metals

Package# 7642
Sample: B8144
Samp. Description: CH2MW-5

Matrix: Water Units: mg/L
% Solids: Number of analytes: 2

Parameter	MS Result	Sample Result	Spike Added	MS %R	%R Limits	Method
Iron	5.0561	4.2	1.000	86	75-125	6010
Manganese	.2146	<.050	.200	107	75-125	6010

J-Estimated value #-Outside limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample Trace Metals

Package#: 7642
Sample: L041204W2
Analyzed: 04/15/04

QC Batch: 041204W2
Instrument: ICAP-61
Number of analytes: 2

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Iron	.99999	1	mg/L	100	85-115	
Manganese	.1987	.2	mg/L	99	85-115	

Notes:

- Outside control limits

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O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample Trace Metals

Package#: 7744
Sample: L042804W1
Analyzed: 04/29/04

QC Batch: 042804W1
Instrument: ICAP-61
Number of analytes: 2

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Iron	1.026	1	mg/L	103	85-115	
Manganese	.20326	.2	mg/L	102	85-115	

Notes:

- Outside control limits

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O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
Trace Metals

Package#: 7642
Sample: PB041204W2
Analyzed: 04/15/04

QC Batch: 041204W2
Instrument: ICAP-61
Number of analytes: 2

Parameter	Sample Result	Q	PQL	Units	Note
Iron	<.050	U	.050	mg/L	
Manganese	<.050	U	.050	mg/L	

Notes:

J - Estimated value. U - Undetected at the reported level.

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
Trace Metals

Package#: 7744
Sample: PB042804W1
Analyzed: 04/29/04

QC Batch: 042804W1
Instrument: ICAP-61
Number of analytes: 2

Parameter	Sample Result	Q	PQL	Units	Note
Iron	<.050	U	.050	mg/L	
Manganese	<.050	U	.050	mg/L	

Notes:

J - Estimated value. U - Undetected at the reported level.

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O'Brien & Gere Laboratories, Inc.

Analytical Results Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7620
Sample: B8048
Samp. Description: CH2MW3-3

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/06/04 12:34
Received: 04/07/04 09:00
Matrix: Water
Number of Analytes: 6

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Chloride	14.		mg/L	EPA 300.0	1.0	04/07/04 15:44	040704W11	1	
Nitrate (as N)	.65		mg/L	EPA 300.0	.050	04/07/04 15:44	040704W11	1	
Sulfate	41.		mg/L	EPA 300.0	1.0	04/07/04 15:44	040704W11	1	
Sulfide	<1.6	U	mg/L	EPA 376.1	1.6	04/09/04	040904W28	2	29
Total alkalinity	<10.	U	mg/L	EPA 310.1	10.	04/12/04	041204W2	1	
Total organic carbon	2.1		mg/L	EPA 415.1	1.0	04/07/04	040704W17	1	

Notes:
29 : Elevated detection limit due to matrix interference.

Package#: 7620
Sample: B8052
Samp. Description: CH2MW-3 (FIELD FILTERED)

Collected: 04/06/04
Received: 04/07/04 09:00
Matrix: Water
Number of Analytes: 1

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Total organic carbon	6.4		mg/L	EPA 415.1	1.0	04/07/04	040704W17	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank
U - Undetected at the reported level.
J - Reported value is estimated. D- Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7620
Sample: B8048
Samp. Description: CH2MW3-3

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/06/04 12:34
Received: 04/07/04 09:00
Matrix: Water
Number of Analytes: 1

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Total organic carbon	2.1		mg/L	EPA 415.1	1.0	04/07/04	040704W17	1	

Notes:

Package#: 7620
Sample: B8052
Samp. Description: CH2MW-3 (FIELD FILTERED)

Collected: 04/06/04
Received: 04/07/04 09:00
Matrix: Water
Number of Analytes: 1

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Total organic carbon	1.8		mg/L	EPA 415.1	1.0	04/27/04	042704W13	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank
U - Undetected at the reported level.
J - Reported value is estimated. D- Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 29, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8935
Samp. Description: OBGSB 8-1

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04 08:15
Matrix: Solid
Number of Analytes: 1

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
% Total Solids	96.4		%	2540-G	1.0	04/28/04	042804S21	1	

Notes:

Package#: 7744
Sample: B8936
Samp. Description: OBGSB 8-2

Collected: 04/21/04
Received: 04/23/04 08:15
Matrix: Solid
Number of Analytes: 1

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
% Total Solids	96.3		%	2540-G	1.0	04/28/04	042804S21	1	

Notes:

Package#: 7744
Sample: B8937
Samp. Description: OBGSB 9-1

Collected: 04/21/04
Received: 04/23/04 08:15
Matrix: Solid
Number of Analytes: 1

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
% Total Solids	94.5		%	2540-G	1.0	04/28/04	042804S21	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank
U - Undetected at the reported level.
J - Reported value is estimated. D- Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: May 7, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:

Job No.: 3435.218.21100
Certification NY No.: 10155R

Package#: 7744
Sample: B8938
Samp. Description: OBGSB 9-2

Collected: 04/21/04
Received: 04/23/04 08:15
Matrix: Solid
Number of Analytes: 1

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
% Total Solids	76.2		%	2540-G	1.0	04/28/04	042804S21	1	

Notes:

Package#: 7744
Sample: B8939
Samp. Description: OBGSB 10-1

Collected: 04/21/04
Received: 04/23/04 08:15
Matrix: Solid
Number of Analytes: 1

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
% Total Solids	84.3		%	2540-G	1.0	04/28/04	042804S21	1	

Notes:

Package#: 7744
Sample: B8940
Samp. Description: DUP 1

Collected: 04/21/04
Received: 04/23/04 08:15
Matrix: Solid
Number of Analytes: 1

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
% Total Solids	89.7		%	2540-G	1.0	04/28/04	042804S21	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank
U - Undetected at the reported level.
J - Reported value is estimated. D- Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: May 7, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8941
Samp. Description: OBGMW-124

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04 16:10
Received: 04/23/04 08:15
Matrix: Water
Number of Analytes: 6

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Chloride	390.	E	mg/L	EPA 300.0	1.0	04/23/04 10:55	042304W11	1	
Nitrate (as N)	.14		mg/L	EPA 300.0	.050	04/23/04 10:55	042304W11	1	
Sulfate	300.	E	mg/L	EPA 300.0	1.0	04/23/04 10:55	042304W11	1	
Sulfide	<.80	U	mg/L	EPA 376.1	.80	04/28/04	042804W14	1	
Total alkalinity	300.		mg/L	EPA 310.1	10.	04/27/04	042704W3	1	
Total organic carbon	4.9		mg/L	EPA 415.1	1.0	04/27/04	042704W11	1	

Notes:

Package#: 7744
Sample: B8941 DL
Samp. Description: OBGMW-124

Collected: 04/21/04 16:10
Received: 04/23/04 08:15
Matrix: Water
Number of Analytes: 3

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Chloride	410.		mg/L	EPA 300.0	10.	04/23/04 14:49	042304W11	10	
Nitrate (as N)	<.50	U	mg/L	EPA 300.0	.50	04/23/04 14:49	042304W11	10	
Sulfate	310.		mg/L	EPA 300.0	10.	04/23/04 14:49	042304W11	10	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank
U - Undetected at the reported level.
J - Reported value is estimated. D- Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: May 7, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7745
Sample: B8943
Samp. Description: OBGMW-124 (FIELD FILTERED)

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04 16:10
Received: 04/23/04 08:15
Matrix: Water
Number of Analytes: 1

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Total organic carbon	5.1		mg/L	EPA 415.1	1.0	04/27/04	042704W13	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank
U - Undetected at the reported level.
J - Reported value is estimated. D- Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: May 7, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample Wet Chemistry

Package#: 7620
Sample: L040704W11
Analyzed: 04/07/04

QC Batch: 040704W11
Instrument: ICS-2000
Number of analytes: 7

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Bromide	1.916	2	mg/L	96	80-120	
Chloride	20.3	20	mg/L	102	80-120	
Fluoride	2.076	2	mg/L	104	80-120	
Nitrate (as N)	2.002	2	mg/L	100	80-120	
Nitrite (as N)	2.064	2	mg/L	103	80-120	
Orthophosphate (as P)	1.989	2	mg/L	99	80-120	
Sulfate	19.98	20	mg/L	100	80-120	

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample Wet Chemistry

Package#: 7620
Sample: L040904W29
Analyzed: 04/09/04

QC Batch: 040904W28
Instrument: NONE
Number of analytes: 1

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Sulfide	1.8	2	mg/L	90	87-114	

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample Wet Chemistry

Package#: 7620
Sample: L041204W2
Analyzed: 04/12/04

QC Batch: 041204W2
Instrument: PH - METER
Number of analytes: 1

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Total alkalinity	52	50	mg/L	104	90-110	

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample Wet Chemistry

Package#: 7620
Sample: L040704W17
Analyzed: 04/07/04

QC Batch: 040704W17
Instrument: DC190
Number of analytes: 1

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Total organic carbon	47.2	50	mg/L	94	90-110	

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample Wet Chemistry

Package#: 7620
Sample: L042704W13
Analyzed: 04/27/04

QC Batch: 042704W13
Instrument: DC190
Number of analytes: 1

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Total organic carbon	53	50	mg/L	106	90-110	

Notes:

- Outside control limits

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O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample Wet Chemistry

Package#: 7744
Sample: L042804W14
Analyzed: 04/28/04

QC Batch: 042804W14
Instrument: NONE
Number of analytes: 1

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Sulfide	2	2	mg/L	100	87-114	

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample Wet Chemistry

Package#: 7744
Sample: L042704W3
Analyzed: 04/27/04

QC Batch: 042704W3
Instrument: PH - METER
Number of analytes: 1

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Total alkalinity	46	50	mg/L	92	90-110	

Notes:

- Outside control limits

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O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample Wet Chemistry

Package#: 7744
Sample: L042704W11
Analyzed: 04/27/04

QC Batch: 042704W11
Instrument: DC190
Number of analytes: 1

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Total organic carbon	52.44	50	mg/L	105	90-110	

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
Wet Chemistry

Package#: 7620
Sample: PB040704W11
Analyzed: 04/07/04

QC Batch: 040704W11
Instrument: ICS-2000
Number of analytes: 7

Parameter	Sample Result	Q	PQL	Units	Note
Bromide	<.050	U	.050	mg/L	
Chloride	<1.0	U	1.0	mg/L	
Fluoride	<.10	U	.10	mg/L	
Nitrate (as N)	<.050	U	.050	mg/L	
Nitrite (as N)	<.050	U	.050	mg/L	
Orthophosphate (as P)	<.050	U	.050	mg/L	
Sulfate	<1.0	U	1.0	mg/L	

Notes:

J - Estimated value. U - Undetected at the reported level.

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O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
Wet Chemistry

Package#: 7620
Sample: PB042704W13
Analyzed: 04/27/04

QC Batch: 042704W13
Instrument: DC190
Number of analytes: 1

Parameter	Sample Result	Q	PQL	Units	Note
Total organic carbon	<1.0	U	1.0	mg/L	

Notes:

J - Estimated value. U - Undetected at the reported level.

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
Wet Chemistry

Package#: 7744
Sample: PB042304W11
Analyzed: 04/23/04

QC Batch: 042304W11
Instrument: ICS-2000
Number of analytes: 7

Parameter	Sample Result	Q	PQL	Units	Note
Bromide	<.050	U	.050	mg/L	
Chloride	<1.0	U	1.0	mg/L	
Fluoride	<.10	U	.10	mg/L	
Nitrate (as N)	<.050	U	.050	mg/L	
Nitrite (as N)	<.050	U	.050	mg/L	
Orthophosphate (as P)	<.050	U	.050	mg/L	
Sulfate	<1.0	U	1.0	mg/L	

Notes:

J - Estimated value. U - Undetected at the reported level.

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O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
Wet Chemistry

Package#: 7744
Sample: PB042804W14
Analyzed: 04/28/04

QC Batch: 042804W14
Instrument: NONE
Number of analytes: 1

Parameter	Sample Result	Q	PQL	Units	Note
Sulfide	<.80	U	.80	mg/L	

Notes:

J - Estimated value. U - Undetected at the reported level.

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
Wet Chemistry

Package#: 7744
Sample: PB042704W3
Analyzed: 04/27/04

QC Batch: 042704W3
Instrument: PH - METER
Number of analytes: 1

Parameter	Sample Result	Q	PQL	Units	Note
Total alkalinity	<10.	U	10.	mg/L	

Notes:

J - Estimated value. U - Undetected at the reported level.

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
Wet Chemistry

Package#: 7744
Sample: PB042704W11
Analyzed: 04/27/04

QC Batch: 042704W11
Instrument: DC190
Number of analytes: 1

Parameter	Sample Result	Q	PQL	Units	Note
Total organic carbon	<1.0	U	1.0	mg/L	

Notes:

J - Estimated value. U - Undetected at the reported level.

O'Brien & Gere Laboratories, Inc.

Analytical Results Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8136
Samp. Description: ETCMW-114

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04 17:43
Received: 04/09/04 08:40
Matrix: Water
Number of Analytes: 6

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Chloride	37.		mg/L	EPA 300.0	1.0	04/09/04 11:24	040904W15	1	
Nitrate (as N)	1.2		mg/L	EPA 300.0	.050	04/09/04 11:24	040904W15	1	
Sulfate	33.		mg/L	EPA 300.0	1.0	04/09/04 11:24	040904W15	1	
Sulfide	<.80	U	mg/L	EPA 376.1	.80	04/09/04	040904W28	1	
Total alkalinity	94.		mg/L	EPA 310.1	10.	04/12/04	041204W2	1	
Total organic carbon	2.6		mg/L	EPA 415.1	1.0	04/13/04	041304W13	1	

Notes:

Package#: 7642
Sample: B8137
Samp. Description: DUP-2

Collected: 04/07/04
Received: 04/09/04 08:40
Matrix: Water
Number of Analytes: 6

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Chloride	37.		mg/L	EPA 300.0	1.0	04/09/04 11:38	040904W15	1	
Nitrate (as N)	1.1		mg/L	EPA 300.0	.050	04/09/04 11:38	040904W15	1	
Sulfate	33.		mg/L	EPA 300.0	1.0	04/09/04 11:38	040904W15	1	
Sulfide	<.80	U	mg/L	EPA 376.1	.80	04/09/04	040904W28	1	
Total alkalinity	96.		mg/L	EPA 310.1	10.	04/12/04	041204W2	1	
Total organic carbon	2.6		mg/L	EPA 415.1	1.0	04/13/04	041304W13	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank
U - Undetected at the reported level.
J - Reported value is estimated. D- Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 22, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8138
Samp. Description: CH2MW-114D

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04 18:46
Received: 04/09/04 08:40
Matrix: Water
Number of Analytes: 6

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Chloride	2.1		mg/L	EPA 300.0	1.0	04/09/04 11:51	040904W15	1	
Nitrate (as N)	.46		mg/L	EPA 300.0	.050	04/09/04 11:51	040904W15	1	
Sulfate	3.6		mg/L	EPA 300.0	1.0	04/09/04 11:51	040904W15	1	
Sulfide	<.80	U	mg/L	EPA 376.1	.80	04/09/04	040904W28	1	
Total alkalinity	<10.	U	mg/L	EPA 310.1	10.	04/12/04	041204W2	1	
Total organic carbon	2.3		mg/L	EPA 415.1	1.0	04/13/04	041304W13	1	

Notes:

Package#: 7642
Sample: B8144
Samp. Description: CH2MW-5

Collected: 04/07/04 09:32
Received: 04/09/04 08:40
Matrix: Water
Number of Analytes: 6

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Chloride	5.6		mg/L	EPA 300.0	1.0	04/09/04 09:13	040904W11	1	
Nitrate (as N)	1.0		mg/L	EPA 300.0	.050	04/09/04 09:13	040904W11	1	
Sulfate	4.5		mg/L	EPA 300.0	1.0	04/09/04 09:13	040904W11	1	
Sulfide	<.80	U	mg/L	EPA 376.1	.80	04/09/04	040904W28	1	
Total alkalinity	60.		mg/L	EPA 310.1	10.	04/12/04	041204W2	1	
Total organic carbon	1.7		mg/L	EPA 415.1	1.0	04/13/04	041304W13	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank
U - Undetected at the reported level.
J - Reported value is estimated. D- Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 22, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8145
Samp. Description: CH2MW-1A

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04 11:07
Received: 04/09/04 08:40
Matrix: Water
Number of Analytes: 6

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Chloride	15.		mg/L	EPA 300.0	1.0	04/09/04 10:22	040904W15	1	
Nitrate (as N)	1.6		mg/L	EPA 300.0	.050	04/09/04 10:22	040904W15	1	
Sulfate	1.3		mg/L	EPA 300.0	1.0	04/09/04 10:22	040904W15	1	
Sulfide	<.80	U	mg/L	EPA 376.1	.80	04/09/04	040904W28	1	
Total alkalinity	22.		mg/L	EPA 310.1	10.	04/12/04	041204W2	1	
Total organic carbon	1.3		mg/L	EPA 415.1	1.0	04/13/04	041304W13	1	

Notes:

Package#: 7642
Sample: B8146
Samp. Description: ETMW-121

Collected: 04/07/04 12:09
Received: 04/09/04 08:40
Matrix: Water
Number of Analytes: 6

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Chloride	7.8		mg/L	EPA 300.0	1.0	04/09/04 09:54	040904W11	1	
Nitrate (as N)	.65		mg/L	EPA 300.0	.050	04/09/04 09:54	040904W11	1	
Sulfate	8.5		mg/L	EPA 300.0	1.0	04/09/04 09:54	040904W11	1	
Sulfide	<.80	U	mg/L	EPA 376.1	.80	04/09/04	040904W28	1	
Total alkalinity	38.		mg/L	EPA 310.1	10.	04/12/04	041204W2	1	
Total organic carbon	1.9		mg/L	EPA 415.1	1.0	04/13/04	041304W13	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank
U - Undetected at the reported level.
J - Reported value is estimated. D- Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 22, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8147
Samp. Description: ETCMW-114 (FIELD FILTERED)

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04 17:43
Received: 04/09/04 08:40
Matrix: Water
Number of Analytes: 1

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Total organic carbon	2.3		mg/L	EPA 415.1	1.0	04/27/04	042704W13	1	

Notes:

Package#: 7642
Sample: B8148
Samp. Description: DUP-2 (FIELD FILTERED)

Collected: 04/07/04
Received: 04/09/04 08:40
Matrix: Water
Number of Analytes: 1

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Total organic carbon	2.2		mg/L	EPA 415.1	1.0	04/27/04	042704W13	1	

Notes:

Package#: 7642
Sample: B8149
Samp. Description: CH2MW-114D (FIELD FILTERED)

Collected: 04/07/04 18:46
Received: 04/09/04 08:40
Matrix: Water
Number of Analytes: 1

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Total organic carbon	1.1		mg/L	EPA 415.1	1.0	04/27/04	042704W13	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank
U - Undetected at the reported level.
J - Reported value is estimated. D- Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 29, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8150
Samp. Description: CH2MW-5 (FIELD FILTERED)

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04 09:32
Received: 04/09/04 08:40
Matrix: Water
Number of Analytes: 1

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Total organic carbon	1.8		mg/L	EPA 415.1	1.0	04/27/04	042704W13	1	

Notes:

Package#: 7642
Sample: B8151
Samp. Description: CH2MW-1A (FIELD FILTERED)

Collected: 04/07/04 11:07
Received: 04/09/04 08:40
Matrix: Water
Number of Analytes: 1

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Total organic carbon	1.3		mg/L	EPA 415.1	1.0	04/27/04	042704W13	1	

Notes:

Package#: 7642
Sample: B8152
Samp. Description: ETMW-121 (FIELD FILTERED)

Collected: 04/07/04 12:09
Received: 04/09/04 08:40
Matrix: Water
Number of Analytes: 1

Parameter	Result	Q	Units	Method	PQL	Analyzed	QC Batch	Dil	Note
Total organic carbon	1.9		mg/L	EPA 415.1	1.0	04/27/04	042704W13	1	

Notes:

B - Analyte detected above the PQL in the associated Prep Blank
U - Undetected at the reported level.
J - Reported value is estimated. D- Result is diluted.
E - Concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 29, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc. Wet Chemistry

Quality Control Summary Matrix Spike/Matrix Spike Duplicate

Package#: 7642
Sample: B8144
Sample Description: CH2MW-5

Matrix: Water
Number of analytes: 5

Parameter	Sample Result	Spike Added	MS Result	%R	MSD Result	%R	%R Limits	RPD	RPD Limits	Units	Method	Note
Chloride	5.6	20.000	25.4500	99	25.0400	97	75-125	2	0-20	mg/L	EPA 300.0	
Nitrate (as N)	1.0	2.000	3.0090	101	3.0140	101	75-125	0	0-20	mg/L	EPA 300.0	
Sulfate	4.5	20.000	24.1400	98	24.1800	98	75-125	0	0-20	mg/L	EPA 300.0	
Sulfide	<.80	2.000	1.8000	90	1.8000	90	60-132	0	0-10	mg/L	EPA 376.1	
Total organic carbon	1.7	20.000	21.5000	99	21.2000	98	71-123	1	0-17	mg/L	EPA 415.1	

Notes:

J-Estimated value #-Outside limits

O'Brien & Gere Laboratories, Inc. Wet Chemistry

Quality Control Summary Duplicate

Package#: 7642
Sample: B8144
Sample Description: CH2MW-5

Matrix: Water
Number of analytes: 1

Parameter	Sample Result	Dup Result	RPD	RPD Limits	Units	Method	Note
Total alkalinity	60.	56	7	0 - 10	mg/L	EPA 310.1	

Notes:

J-Estimated value #-Outside limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample Wet Chemistry

Package#: 7642
Sample: L040904W11
Analyzed: 04/09/04

QC Batch: 040904W11
Instrument: ICS-2000
Number of analytes: 7

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Bromide	1.755	2	mg/L	88	80-120	
Chloride	19.04	20	mg/L	95	80-120	
Fluoride	1.951	2	mg/L	98	80-120	
Nitrate (as N)	1.865	2	mg/L	93	80-120	
Nitrite (as N)	1.926	2	mg/L	96	80-120	
Orthophosphate (as P)	1.839	2	mg/L	92	80-120	
Sulfate	18.76	20	mg/L	94	80-120	

Notes:

- Outside control limits

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample Wet Chemistry

Package#: 7642
Sample: L040904W15
Analyzed: 04/09/04

QC Batch: 040904W15
Instrument: ICS-2000
Number of analytes: 7

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Bromide	1.834	2	mg/L	92	80-120	
Chloride	19.5	20	mg/L	98	80-120	
Fluoride	2.03	2	mg/L	102	80-120	
Nitrate (as N)	1.942	2	mg/L	97	80-120	
Nitrite (as N)	2.009	2	mg/L	100	80-120	
Orthophosphate (as P)	1.905	2	mg/L	95	80-120	
Sulfate	19.75	20	mg/L	99	80-120	

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample Wet Chemistry

Package#: 7642
Sample: L040904W29
Analyzed: 04/09/04

QC Batch: 040904W28
Instrument: NONE
Number of analytes: 1

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Sulfide	1.8	2	mg/L	90	87-114	

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample Wet Chemistry

Package#: 7642
Sample: L042704W13
Analyzed: 04/27/04

QC Batch: 042704W13
Instrument: DC190
Number of analytes: 1

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Total organic carbon	53	50	mg/L	106	90-110	

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
Wet Chemistry

Package#: 7642
Sample: PB040904W11
Analyzed: 04/09/04

QC Batch: 040904W11
Instrument: ICS-2000
Number of analytes: 7

Parameter	Sample Result	Q	PQL	Units	Note
Bromide	<.050	U	.050	mg/L	
Chloride	<1.0	U	1.0	mg/L	
Fluoride	<.10	U	.10	mg/L	
Nitrate (as N)	<.050	U	.050	mg/L	
Nitrite (as N)	<.050	U	.050	mg/L	
Orthophosphate (as P)	<.050	U	.050	mg/L	
Sulfate	<1.0	U	1.0	mg/L	

Notes:

J - Estimated value. U - Undetected at the reported level.

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
Wet Chemistry

Package#: 7642
Sample: PB042704W13
Analyzed: 04/27/04

QC Batch: 042704W13
Instrument: DC190
Number of analytes: 1

Parameter	Sample Result	Q	PQL	Units	Note
Total organic carbon	<1.0	U	1.0	mg/L	

Notes:

J - Estimated value. U - Undetected at the reported level.

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client:

Project: Miller Brewing Company, Multiple

Sampled by: ANDREW BRUNTON

Client Contact: ANDREW Phone # 919-469-0099

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	Analysis/Method: VOC	Methane, ethane ethene	NO3 Chlorides, Soy, Co2	TOC, DOC	TALK	Sulfide/Fe/Mn		Comments
CH2 MW-3	4/6/04	12:34	GW	6	11	3	2	1	2	1	2		DOC (field filtered)
OBGMW-123	4/6/04	13:52	GW	6	3	3							
CH2 MW-2	4/6/04	14:50	GW	6	3	3							
DUP-1	4/6/04	—	GW	6	3	3							

Relinquished by: Andrew Brunton	Date: 4/6/04	Time: 16:00	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by Lab: Jeff Scott
Shipment Method:			Airbill Number:

Received by:	Date:	Time:
Received by:	Date:	Time:
Received by Lab: Jeff Scott	Date: 4/7/04	Time: 9:00
Airbill Number:		

Turnaround Time Required:

Routine_____

Rush (Specify)_____

Comments:

Cooler Temperature: 2°C Iced

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client:

Project: Miller Brewing Company, Moultrie

Sampled by: ANDREW BRUNTON

Client Contact: Andrew Phone # (919) 469-0099

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	Analysis/Method: VOC							Comments: 7620
OB6SB-9-1	4/5/04	14:25	Soil	G	3	3							
OB6SB-9-2	4/5/04	14:30	"	G	3	3							
OB6SB-8-1	4/5/04	15:10	"	G	3	3							
OB6SB-8-2	4/5/04	15:20	"	G	3	3							
OB6SB-10-2	4/5/04	15:50	"	G	3	3							
DUP-1	4/5/04	—	"	G	3	3							

Relinquished by: Andrew Brunton	Date: 4/6/04	Time: 16:00	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by Lab:
Shipment Method:			Airbill Number:

Date: | Time:
Date: | Time:
Date: 4/7/04 | Time: 9:00

Turnaround Time Required:
Routine
Rush (Specify)

Cooler Temperature: 2°C Wet Ice

Comments: QC Trip Blank
Delete CO_2 - per Mike Hall. KB
Delete 8260 on Soils - per Mike Hall KB

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client:

Project: Miller Brewing Company, Moultrie

Sampled by: ANDREW BRUNTON

Client Contact: ANDREW Phone # (919) 469-0099

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	Analysis/Method: VOC	Methane/Ethane/Ethene	NO3, Chloride, SO4, [illegible]	TOC / Dissolved [illegible]	TALK	Sulfide	Fe/Mn	Comments
CH2PP-1	4-7-04	8:40	GW	G	3	3							7437
CH2MW-5-MS/MSD	4-7-04	9:32	GW	G	4	6	2	1	2	1	1	1	
CH2MW-5	4-7-04	9:32	GW	G	1	3	2	1	2	1	1	1	
CH2MW-1A	4-7-04	11:07	GW	G	1	3	2	1	2	1	1	1	
ETMW-121	4-7-04	12:09	GW	G	1	3	2	1	2	1	1	1	
ETMW-120	4-7-04	13:28	GW	G	3	3							
TRIP BLANK	4-7-04	—	TB	—	2	2							
ETMW-119	4-7-04	14:04	GW	G	3	3							
ETMW-115	4-7-04	14:44	GW	G	3	3							
CH2MW-1	4-7-04	15:09	GW	G	3	3							

Relinquished by: Andrew Brunton Date: 4-7-04 Time: 16:00

Relinquished by: Date: Time:

Relinquished by: Date: Time:

Shipment Method:

Received by: Date: Time:

Received by: Date: Time:

Received by Lab: [signature] Date: 4/8/04 Time: 10:20

Airbill Number:

Turnaround Time Required:

Routine

Rush (Specify)

Cooler Temperature: 1°C Welliced

Comments: MNA Samples rec'd on 4/9/04 @ 8:40 AM

Original - Laboratory
Copy - Client

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client:

Project: Miller Brewing Company, Moultrie

Sampled by: ANDREW BRUNTON

Client Contact: Andrew Phone # (919) 469-0099

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	Analysis/Method: VOC	Methane, ethane ethene	NO3, chloride, SO4	TOC / DOC (Field filtered)	TALK	Sulfide	Fe/Mn	7642 Comments
ETCMW-114	4/7/04	17:43	GW	G	11	3	2	1	2	1	1	1	
DUP-2	4/7/04	—	GW	G	11	3	2	1	2	1	1	1	
CHZMW-114D	4/7/04	18:46	GW	G	11	3	2	1	2	1	1	1	
CHZ MW-4D	4/8/04	10:00	GW	G	3	3							
ETMW-118	4/8/04	10:50	GW	G	3	3							
ETMW-117	4/8/04	11:38	GW	G	3	3							
ETMW-116	4/8/04	12:55	GW	G	3	3							
TRIP BLANK	4	—	TB	—	2	3							

Relinquished by: Andrew Brunton	Date: 4/8/04	Time: 15:30	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by Lab:
Shipment Method:			Airbill Number:

Received by: Date: Time:

Received by: Date: Time:

Received by Lab: Date: 4/9/04 Time: 8:40

Turnaround Time Required:

Routine

Rush (Specify)

Comments:

Cooler Temperature: 2°C w/Iced

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client:

Project: Miller Brewing Company, Mountain

Sampled by: ANDREW BRUNTON

Client Contact: ANDREW Phone # (919) 469-0099

7037

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	Analysis/Method: VOC	Methane/ethane ethene	NO3, Chloride, SO4	TOC / DOC (Field Filtered)	TALK	Sulfide	Fe/Mn	Comments
CHZPP-1	4-7-04	8:40	GW	G	3	3							
CHZMW-5-MS/MSD	4-7-04	9:32	GW	G	4	6	2	1	2	1	1	1	
CHZMW-5	4-7-04	9:32	GW	G	1	3	2	1	2	1	1	1	
CHZMW-1A	4-7-04	11:07	GW	G	1	3	2	1	2	1	1	1	
ETMW-121	4-7-04	12:09	GW	G	1	3	2	1	2	1	1	1	
ETMW-120	4-7-04	13:28	GW	G	3	3							
TRIP BLANK	4-7-04	—	TB	—	2	2							
ETMW-119	4-7-04	14:04	GW	G	3	3							
ETMW-115	4-7-04	14:44	GW	G	3	3							
CHZMW-1	4-7-04	15:09	GW	G	3	3							

Relinquished by: Andrew Brunton	Date: 4-7-04	Time: 16:00	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by Lab:
Shipment Method:			Airbill Number:

Received by: Date: Time:

Received by: Date: Time:

Received by Lab: Date: 4/6/04 Time: 10:20

Turnaround Time Required:

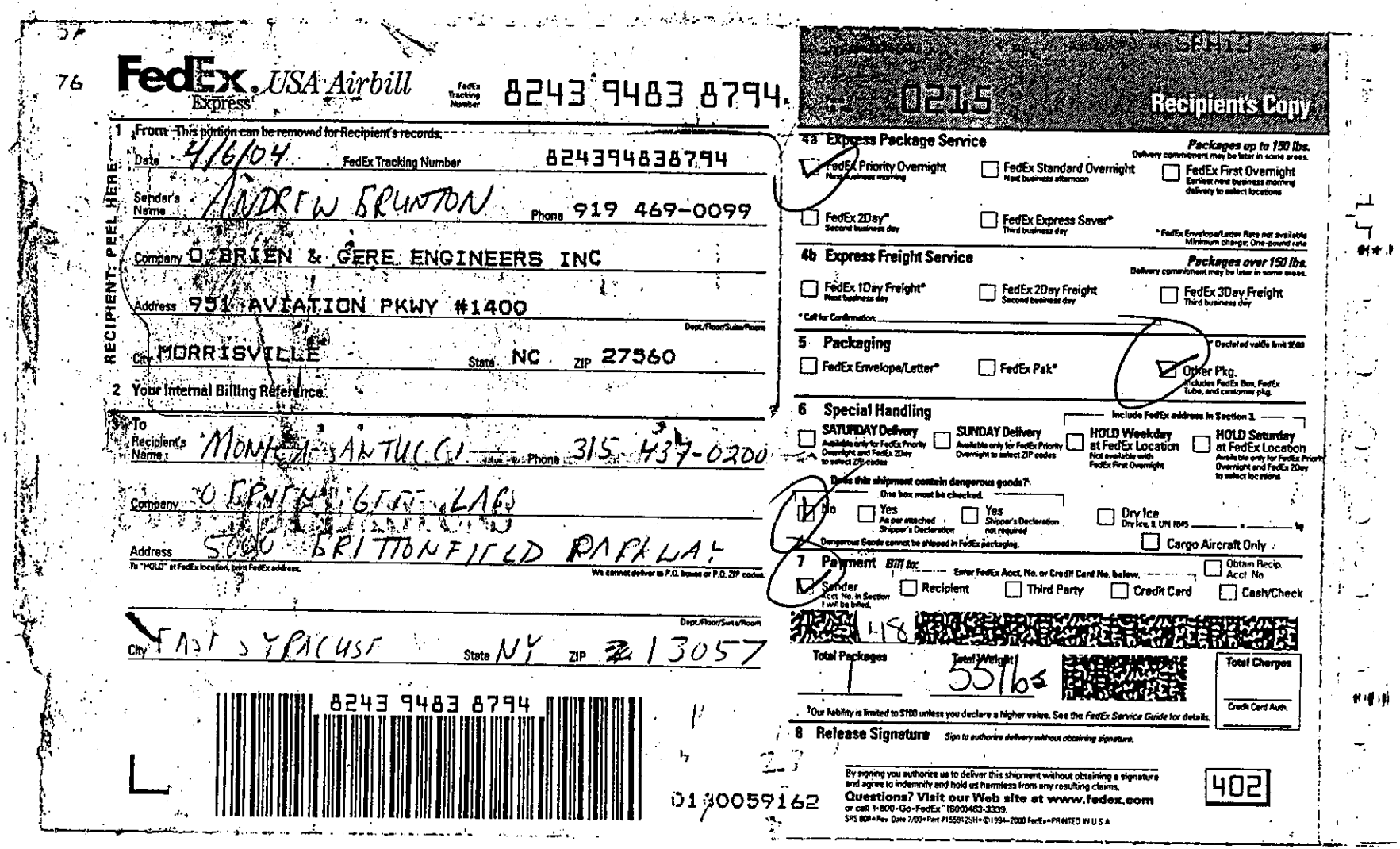
Routine

Rush (Specify)

Cooler Temperature: 1°C Well iced

Comments:

Original - Laboratory
Copy - Client



FedEx. USA Airbill
Express

FedEx Tracking Number 8243 9483 8794

0215

Recipient's Copy

RECIPIENT: PEEL HERE

1 From This portion can be removed for Recipient's records.

Date 4/16/04 FedEx Tracking Number 824394838794

Sender's Name ANDREW BRUNTON Phone 919 469-0099

Company O'BRIEN & GERE ENGINEERS INC

Address 951 AVIATION PKWY #1400

Dept./Floor/Suite/Room

City MORRISVILLE State NC ZIP 27560

2 Your Internal Billing Reference

3 To

Recipient's Name MONICA ANTUCCI Phone 315 437-0200

Company O'BRIEN & GERE LABS

Address 5000 BRITTONFIELD PARKWAY

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

City EAST SYRACUSE State NY ZIP 13057

8243 9483 8794

0130059162

4a Express Package Service — Packages up to 150 lbs. Delivery commitment may be later in some areas.

- [x] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day* — Second business day
- [ ] FedEx Express Saver* — Third business day

* FedEx Envelope/Letter Rate not available. Minimum charge: One-pound rate

4b Express Freight Service — Packages over 150 lbs. Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging — * Declared value limit $500

- [ ] FedEx Envelope/Letter*
- [ ] FedEx Pak*
- [x] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg.

6 Special Handling — Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] SUNDAY Delivery — Available only for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods?* One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

* Dangerous Goods cannot be shipped in FedEx packaging.

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below. [ ] Obtain Recip. Acct. No.

- [x] Sender — Acct. No. in Section 1 will be billed
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages: 1 Total Weight: 55lbs Total Charges

† Our liability is limited to $100 unless you declare a higher value. See the FedEx Service Guide for details.

8 Release Signature — Sign to authorize delivery without obtaining signature.

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

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402

Align bottom of Airbill Pouch here.
Part # 150454 Rev. 4/00

FedEx. USA Airbill Express

8417 6687 5233

0200 Form I.D. No.

FedEx Retrieval Copy

1 From

Date 4/8/04 Sender's FedEx Account Number 148225168

Sender's Name ANDREW BRUNTON Phone 919 469-0099

Company O'Brien & Gere Engineers

Address 951 Aviation Pkwy Suite 1400 Dept/Floor/Suite/Room

City Morrisville State NC ZIP 27560

2 Your Internal Billing Reference

3 To

Recipient's Name MONIKA SANTUCCI Phone 315 437-0200

Company O'Brien & Gere Labs

Address 5000 BRITTONFIELD PARKWAY

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address Dept/Floor/Suite/Room

City EAST SYRACUSE State NY ZIP 13057

8417 6687 5233

4a Express Package Service — Packages up to 150 lbs. Delivery commitment may be later in some areas.

1 ☑ FedEx Priority Overnight — Next business morning
5 ☐ FedEx Standard Overnight — Next business afternoon
6 ☐ FedEx First Overnight — Earliest next business morning delivery to select locations
3 ☐ FedEx 2Day — Second business day
20 ☐ FedEx Express Saver — Third business day
FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service — Packages over 150 lbs. Delivery commitment may be later in some areas.

7 ☐ FedEx 1Day Freight* — Next business day
8 ☐ FedEx 2Day Freight — Second business day
83 ☐ FedEx 3Day Freight — Third business day
* Call for Confirmation:

5 Packaging — * Declared value limit $500

6 ☐ FedEx Envelope*
2 ☐ FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
1 ☐ Other

6 Special Handling — Include FedEx address in Section 2.

3 ☐ SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
1 ☐ HOLD Weekday at FedEx Location — Not available for FedEx First Overnight
31 ☐ HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

☑ No
4 ☐ Yes — As per attached Shipper's Declaration
☐ Yes — Shipper's Declaration not required
6 ☐ Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
Dangerous Goods (including Dry Ice) cannot be shipped in FedEx packaging.
☐ Cargo Aircraft Only

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below. ☐ Obtain Recip. Acct. No.

1 ☑ Sender — Acct. No. in Section 1 will be billed.
2 ☐ Recipient
3 ☐ Third Party
4 ☐ Credit Card
5 ☐ Cash/Check

FedEx Acct. No. / Credit Card No. 1482-2516-3 Exp. Date

Total Packages 1 Total Weight 50 lbs Total Charges

Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the *FedEx Service Guide* for details.

8 Release Signature — Sign to authorize delivery without obtaining signature.

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

446

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O'BRIEN & GERE LABORATORIES, INC.

76

FedEx Express USA Airbill

FedEx Tracking Number 8243 9483 8810

RECIPIENT: PEEL HERE

1 From This portion can be removed for Recipient's records.

Date 4/8/04 FedEx Tracking Number 824394838810

Sender's Name ANDREW BRUNTON Phone 919 469-0099

Company O'BRIEN & GERE ENGINEERS INC

Address 951 AVIATION PKWY #1400

Dept./Floor/Suite/Room

City MORRISVILLE State NC ZIP 27560

2 Your Internal Billing Reference

3 To

Recipient's Name MONICA SANTUCCI Phone 315 437-0200

Company O'Brien & Gere Labs

Address 5000 BRITTONFIELD PARKWAY

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

City EAST SYRACUSE State NY ZIP 13057

8243 9483 8810

0160059162

SPH13

Form I.D. No. 0215 **Recipient's Copy**

4a Express Package Service *Packages up to 150 lbs.* Delivery commitment may be later in some areas.

- [x] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day* — Second business day
- [ ] FedEx Express Saver* — Third business day

* FedEx Envelope/Letter Rate not available. Minimum charge: One-pound rate

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging * Declared value limit $500

- [ ] FedEx Envelope/Letter*
- [ ] FedEx Pak*
- [x] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg.

6 Special Handling Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] SUNDAY Delivery — Available only for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods cannot be shipped in FedEx packaging.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Obtain Recip. Acct. No.
- [ ] Cash/Check

Total Packages 1 Total Weight 50 lbs Total Charges

Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the *FedEx Service Guide* for details.

8 Release Signature *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at www.fedex.com or call 1-800-Go-FedEx® (800)463-3339.

SRS 800+Rev. Date 7/00+Part #155912SH+©1994-2000 FedEx+PRINTED IN U.S.A.

402

Align bottom of Airbill Pouch here.
Part # 150454 Rev. 4/00

USING THIS TAG

USING THIS TAG

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client: Miller Brewing Company / O'Brien & Gere Engineers
Project: Miller Brewing Company Moultrie, GA
Sampled by: John Jennings
Client Contact: Andrew Brunton Phone #(919) 469-0049

Analysis/Method: 7744, 7745

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	VOCs 8260	Methane, Ethane, Ethene	NO3, Cl, SO4, CO2	TOC/DOC (Field Filtered)	Talk	Sulfide	Fe/Mn	Comments
OBGSB8-1	4/21/04		SO	GRAB	4	X							
OBGSB8-2	4/21/04		SO	GRAB	4	X							
OBGSB9-1	4/21/04		SO	GRAB	4	X							
OBGSB9-2	4/21/04		SO	GRAB	4	X							
OBGSB10-1	4/21/04		SO	GRAB	4	X							
Trip Blank	4/21/04	—	WQ	GRAB	3	X							
Dup 1	4/21/04	—	SO	GRAB	4	X							
OBGMW-124	4/21/04		GW	GRAB	11	X	X	X	X	X	X	X	

Relinquished by: [signature] Date: 04/22/04 Time: 1715
Relinquished by: Date: Time:
Relinquished by: Date: Time:

Received by: FEDERAL EXPRESS 824394838280 Date: Time:
Received by: Date: Time:
Received by Lab: [signature] Date: 4/23/04 Time: 8:15

Shipment Method:
Airbill Number:

Turnaround Time Required:
Routine
Rush (Specify)

Cooler Temperature: 5°c iced

Comments: Time collected for Sample OBG MW-124 taken from Sample bottle, "16:10". (MS)
Cancel CO_2 analysis per Mike Hall.

Original-Laboratory Copy-Client

Align bottom of AirBill Pouch here.
Part # 150454 Rev. 4/00

531

76

FedEx Express . *USA Airbill*

FedEx Tracking Number 8243 9483 8750

SPHLS

0215

Recipient's Copy

RECIPIENT: PEEL HERE

1 From This portion can be removed for Recipient's records.

Date 4/22/24 FedEx Tracking Number 824394838750

Sender's Name JOHN JEFFRIES Phone 919 469-0099

Company O'BRIEN & GERE ENGINEERS INC

Address 951 AVIATION PKWY #1400 Dept./Floor/Suite/Room

City MORRISVILLE State NC ZIP 27560

2 Your Internal Billing Reference 34350.002.001

3 To Recipient's Name X SAMPLE RECEIVING OBG LABORATORIES Phone 315 437-6100

Company O'BRIEN & GERE LABORATORIES

Address 5000 BRITTONFIELD PKWY

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

City EAST SYRACUSE State NY ZIP 13057

8243 9483 8750

0160059162

4a Express Package Service — *Packages up to 150 lbs.* Delivery commitment may be later in some areas.

- ☐ FedEx Priority Overnight — Next business morning
- ☐ FedEx Standard Overnight — Next business afternoon
- ☒ FedEx First Overnight — Earliest next business morning delivery to select locations
- ☐ FedEx 2Day* — Second business day
- ☐ FedEx Express Saver* — Third business day

*FedEx Envelope/Letter Rate not available. Minimum charge: One-pound rate

4b Express Freight Service — *Packages over 150 lbs.* Delivery commitment may be later in some areas.

- ☐ FedEx 1Day Freight* — Next business day
- ☐ FedEx 2Day Freight — Second business day
- ☐ FedEx 3Day Freight — Third business day

*Call for Confirmation: _____ *Declared value limit $500

5 Packaging

- ☐ FedEx Envelope/Letter*
- ☐ FedEx Pak*
- ☒ Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg.

6 Special Handling — Include FedEx address in Section 3.

- ☐ SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- ☐ SUNDAY Delivery — Available only for FedEx Priority Overnight to select ZIP codes
- ☐ HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- ☐ HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- ☒ No
- ☐ Yes — As per attached Shipper's Declaration
- ☐ Yes — Shipper's Declaration not required
- ☐ Dry Ice — Dry Ice, 9, UN 1845 _____ x _____ kg
- ☐ Cargo Aircraft Only

Dangerous Goods cannot be shipped in FedEx packaging.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below

- ☒ Sender — Acct. No. in Section 1 will be billed.
- ☐ Recipient
- ☐ Third Party
- ☐ Credit Card
- ☐ Cash/Check
- ☐ Obtain Recip. Acct. No.

Total Packages	Total Weight	Total Charges
1		Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the *FedEx Service Guide* for details.

8 Release Signature — *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify us and hold us harmless from any resulting claims.

Questions? Visit our Web site at www.fedex.com or call 1-800-Go-FedEx® (800)463-3339.

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402

Table 1
Target Analyte List and Geochemistry Parameters
Miller Brewing Company Can Plant
Moultrie, Georgia

Target Analytes	Geochemistry Parameters
1,1,1-Trichloroethane (TCA)	Alkalinity
1,1,2,2-Tetrachloroethane	Chloride
1,1-Dichloroethane	Nitrate
1,1-Dichloroethene	Sulfate
1,2,3-Trichlorobenzene	Sulfide
1,2,3-Trichloropropane	Methane
1,2,4-Trichlorobenzene	Ethane
1,2-Dibromo-3-chloropropane (DBCP)	Ethene
1,2-Dichloroethane	Soluble Organic Carbon (Dissolved)
1,2-Dichloroethene (Total)	Total Organic Carbon
2-Butanone (MEK)	Total Iron
4-methyl-2-pentanone (MIBK)	Conductivity*
Acetone	Dissolved Oxygen*
Benzene	Ferrous Iron*
Carbon Disulfide	Manganese*
Chloroethane	Oxidation/Reduction Potential (ORP)*
Chloromethane	pH*
cis-1,2-dichloroethene	Temperature*
Dibromomethane	
Ethylbenzene	
Isobutyl Alcohol	* measured at time of sampling
M,P-Xylenes	
Methylene Chloride	
Naphthalene	
O-Xylenes	
Tetrachloroethene (PCE)	
Toluene	
trans-1,2-dichloroethene	
Trichloroethene (TCE)	
Trichlorofluoromethane	
Vinyl Acetate	
Vinyl Chloride	
Xylenes (total)	

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7620
Sample: B8048
Sample Description: CH2MW3-3
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/06/04
Received: 04/07/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<1.0	U	1.0	04/15/04
Vinyl chloride	<1.0	U	1.0	04/15/04
Chloroethane	<1.0	U	1.0	04/15/04
Trichlorofluoromethane	<1.0	U	1.0	04/15/04
Acetone	<10.	U	10.	04/15/04
1,1-Dichloroethene	<.50	U	.50	04/15/04
Methylene chloride	<2.0	U	2.0	04/15/04
Carbon disulfide	<.50	U	.50	04/15/04
trans-1,2-Dichloroethene	<.50	U	.50	04/15/04
1,1-Dichloroethane	<.50	U	.50	04/15/04
Vinyl acetate	<2.0	U	2.0	04/15/04
2-Butanone	<10.	U	10.	04/15/04
cis-1,2-Dichloroethene	<.50	U	.50	04/15/04
1,2-Dichloroethane	<.50	U	.50	04/15/04
1,1,1-Trichloroethane	<.50	U	.50	04/15/04
Benzene	<.50	U	.50	04/15/04
Dibromomethane	<.50	U	.50	04/15/04
Trichloroethene	<.50	U	.50	04/15/04
4-Methyl-2-pentanone	<5.0	U	5.0	04/15/04
Toluene	<.50	U	.50	04/15/04
Tetrachloroethene	<.50	U	.50	04/15/04
Ethylbenzene	<.50	U	.50	04/15/04
Xylene (total)	<.50	U	.50	04/15/04
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/15/04
1,2,3-Trichloropropane	<.50	U	.50	04/15/04
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/15/04
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/15/04
Naphthalene	<1.0	U	1.0	04/15/04
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/15/04

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 19, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7620
Sample: B8048
Sample Description: CH2MW3-3
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/06/04
Received: 04/07/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	103		78-120
1,2-Dichloroethane-d4 (surrogate)	118		71-126
Toluene-d8 (surrogate)	100		80-120
Bromofluorobenzene (surrogate)	95		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 19, 2004 Monika Santucci

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7620
Sample: B8049
Sample Description: OBGMW-123
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/06/04
Received: 04/07/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<1.0	U	1.0	04/15/04
Vinyl chloride	<1.0	U	1.0	04/15/04
Chloroethane	<1.0	U	1.0	04/15/04
Trichlorofluoromethane	<1.0	U	1.0	04/15/04
Acetone	<10.	U	10.	04/15/04
1,1-Dichloroethene	<.50	U	.50	04/15/04
Methylene chloride	<2.0	U	2.0	04/15/04
Carbon disulfide	<.50	U	.50	04/15/04
trans-1,2-Dichloroethene	<.50	U	.50	04/15/04
1,1-Dichloroethane	<.50	U	.50	04/15/04
Vinyl acetate	<2.0	U	2.0	04/15/04
2-Butanone	<10.	U	10.	04/15/04
cis-1,2-Dichloroethene	<.50	U	.50	04/15/04
1,2-Dichloroethane	<.50	U	.50	04/15/04
1,1,1-Trichloroethane	<.50	U	.50	04/15/04
Benzene	<.50	U	.50	04/15/04
Dibromomethane	<.50	U	.50	04/15/04
Trichloroethene	<.50	U	.50	04/15/04
4-Methyl-2-pentanone	<5.0	U	5.0	04/15/04
Toluene	<.50	U	.50	04/15/04
Tetrachloroethene	<.50	U	.50	04/15/04
Ethylbenzene	<.50	U	.50	04/15/04
Xylene (total)	<.50	U	.50	04/15/04
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/15/04
1,2,3-Trichloropropane	<.50	U	.50	04/15/04
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/15/04
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/15/04
Naphthalene	<1.0	U	1.0	04/15/04
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/15/04

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	104		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 19, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7620
Sample: B8049
Sample Description: OBGMW-123
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/06/04
Received: 04/07/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	117		71-126
Toluene-d8 (surrogate)	100		80-120
Bromofluorobenzene (surrogate)	95		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
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Authorized: Monika Santucci
Date: April 19, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7620
Sample: B8050
Sample Description: CH2MW-2
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/06/04
Received: 04/07/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<1.0	U	1.0	04/15/04
Vinyl chloride	<1.0	U	1.0	04/15/04
Chloroethane	<1.0	U	1.0	04/15/04
Trichlorofluoromethane	<1.0	U	1.0	04/15/04
Acetone	<10.	U	10.	04/15/04
1,1-Dichloroethene	<.50	U	.50	04/15/04
Methylene chloride	<2.0	U	2.0	04/15/04
Carbon disulfide	<.50	U	.50	04/15/04
trans-1,2-Dichloroethene	<.50	U	.50	04/15/04
1,1-Dichloroethane	<.50	U	.50	04/15/04
Vinyl acetate	<2.0	U	2.0	04/15/04
2-Butanone	<10.	U	10.	04/15/04
cis-1,2-Dichloroethene	<.50	U	.50	04/15/04
1,2-Dichloroethane	<.50	U	.50	04/15/04
1,1,1-Trichloroethane	<.50	U	.50	04/15/04
Benzene	<.50	U	.50	04/15/04
Dibromomethane	<.50	U	.50	04/15/04
Trichloroethene	<.50	U	.50	04/15/04
4-Methyl-2-pentanone	<5.0	U	5.0	04/15/04
Toluene	<.50	U	.50	04/15/04
Tetrachloroethene	<.50	U	.50	04/15/04
Ethylbenzene	<.50	U	.50	04/15/04
Xylene (total)	<.50	U	.50	04/15/04
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/15/04
1,2,3-Trichloropropane	<.50	U	.50	04/15/04
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/15/04
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/15/04
Naphthalene	<1.0	U	1.0	04/15/04
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/15/04

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	105		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
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Authorized: Monika Santucci
Date: April 19, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7620
Sample: B8050
Sample Description: CH2MW-2
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/06/04
Received: 04/07/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	119		71-126
Toluene-d8 (surrogate)	100		80-120
Bromofluorobenzene (surrogate)	95		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
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E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 19, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7620
Sample: B8051
Sample Description: DUP-1
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/06/04
Received: 04/07/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/15/04	
Vinyl chloride	<1.0	U	1.0	04/15/04	
Chloroethane	<1.0	U	1.0	04/15/04	
Trichlorofluoromethane	<1.0	U	1.0	04/15/04	
Acetone	<10.	U	10.	04/15/04	
1,1-Dichloroethene	<.50	U	.50	04/15/04	
Methylene chloride	<2.0	U	2.0	04/15/04	
Carbon disulfide	<.50	U	.50	04/15/04	
trans-1,2-Dichloroethene	<.50	U	.50	04/15/04	
1,1-Dichloroethane	<.50	U	.50	04/15/04	
Vinyl acetate	<2.0	U	2.0	04/15/04	
2-Butanone	<10.	U	10.	04/15/04	
cis-1,2-Dichloroethene	<.50	U	.50	04/15/04	
1,2-Dichloroethane	<.50	U	.50	04/15/04	
1,1,1-Trichloroethane	<.50	U	.50	04/15/04	
Benzene	<.50	U	.50	04/15/04	
Dibromomethane	<.50	U	.50	04/15/04	
Trichloroethene	<.50	U	.50	04/15/04	
4-Methyl-2-pentanone	<5.0	U	5.0	04/15/04	
Toluene	<.50	U	.50	04/15/04	
Tetrachloroethene	<.50	U	.50	04/15/04	
Ethylbenzene	<.50	U	.50	04/15/04	
Xylene (total)	<.50	U	.50	04/15/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/15/04	
1,2,3-Trichloropropane	<.50	U	.50	04/15/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/15/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/15/04	
Naphthalene	<1.0	U	1.0	04/15/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/15/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	105		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 19, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7620
Sample: B8051
Sample Description: DUP-1
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/06/04
Received: 04/07/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	119		71-126
Toluene-d8 (surrogate)	100		80-120
Bromofluorobenzene (surrogate)	95		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 19, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7621
Sample: B8053
Sample Description: QC Trip Blank
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/06/04
Received: 04/07/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<1.0	U	1.0	04/15/04
Vinyl chloride	<1.0	U	1.0	04/15/04
Chloroethane	<1.0	U	1.0	04/15/04
Trichlorofluoromethane	<1.0	U	1.0	04/15/04
Acetone	<10.	U	10.	04/15/04
1,1-Dichloroethene	<.50	U	.50	04/15/04
Methylene chloride	<2.0	U	2.0	04/15/04
Carbon disulfide	<.50	U	.50	04/15/04
trans-1,2-Dichloroethene	<.50	U	.50	04/15/04
1,1-Dichloroethane	<.50	U	.50	04/15/04
Vinyl acetate	<2.0	U	2.0	04/15/04
2-Butanone	<10.	U	10.	04/15/04
cis-1,2-Dichloroethene	<.50	U	.50	04/15/04
1,2-Dichloroethane	<.50	U	.50	04/15/04
1,1,1-Trichloroethane	<.50	U	.50	04/15/04
Benzene	<.50	U	.50	04/15/04
Dibromomethane	<.50	U	.50	04/15/04
Trichloroethene	<.50	U	.50	04/15/04
4-Methyl-2-pentanone	<5.0	U	5.0	04/15/04
Toluene	<.50	U	.50	04/15/04
Tetrachloroethene	<.50	U	.50	04/15/04
Ethylbenzene	<.50	U	.50	04/15/04
Xylene (total)	<.50	U	.50	04/15/04
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/15/04
1,2,3-Trichloropropane	<.50	U	.50	04/15/04
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/15/04
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/15/04
Naphthalene	<1.0	U	1.0	04/15/04
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/15/04

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 19, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7621
Sample: B8053
Sample Description: QC Trip Blank
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/06/04
Received: 04/07/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	103		78-120
1,2-Dichloroethane-d4 (surrogate)	117		71-126
Toluene-d8 (surrogate)	98		80-120
Bromofluorobenzene (surrogate)	94		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 19, 2004 Monika Santucci

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample GC/MS Volatile Organics

Package#: 7620
Sample: L041504W1
Analyzed: 04/15/04

QC Batch: 041504W1
Instrument: HP5973 GC/MS#1
Number of analytes: 29

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Chloromethane	11.0383	10	ug/L	110	58-133	
Vinyl chloride	11.3657	10	ug/L	114	76-127	
Chloroethane	10.6669	10	ug/L	107	77-125	
Trichlorofluoromethane	11.9501	10	ug/L	120	78-128	
Acetone	24.0106	20	ug/L	120	37-175	
1,1-Dichloroethene	11.0920	10	ug/L	111	80-115	
Methylene chloride	10.4436	10	ug/L	104	76-115	
Carbon disulfide	10.9702	10	ug/L	110	83-117	
trans-1,2-Dichloroethene	10.8235	10	ug/L	108	84-115	
1,1-Dichloroethane	11.5102	10	ug/L	115	85-117	
Vinyl acetate	9.9247	10	ug/L	99	25-175	
2-Butanone	22.9825	20	ug/L	115	44-162	
cis-1,2-Dichloroethene	11.0018	10	ug/L	110	85-115	
1,2-Dichloroethane	12.0605	10	ug/L	121	75-121	
1,1,1-Trichloroethane	11.6348	10	ug/L	116	83-124	
Benzene	10.6044	10	ug/L	106	85-122	
Dibromomethane	11.0992	10	ug/L	111	80-115	
Trichloroethene	10.5618	10	ug/L	106	85-120	
4-Methyl-2-pentanone	23.9694	20	ug/L	120	50-132	
Toluene	10.5068	10	ug/L	105	85-122	
Tetrachloroethene	9.8476	10	ug/L	98	85-121	
Ethylbenzene	10.0230	10	ug/L	100	85-123	
Xylene (total)	29.7436	30	ug/L	99	82-128	
1,1,2,2-Tetrachloroethane	10.4832	10	ug/L	105	70-123	
1,2,3-Trichloropropane	10.7755	10	ug/L	108	75-120	
1,2-Dibromo-3-chloropropane	11.2201	10	ug/L	112	63-123	
1,2,4-Trichlorobenzene	10.5010	10	ug/L	105	76-117	
Naphthalene	11.5119	10	ug/L	115	69-125	
1,2,3-Trichlorobenzene	10.6397	10	ug/L	106	78-119	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	105		78-120
1,2-Dichloroethane-d4 (surrogate)	116		71-126
Toluene-d8 (surrogate)	101		80-120
Bromofluorobenzene (surrogate)	97		78-120

Notes:

	LCS Result	Spike added	%R	%R Limits
Isobutyl alcohol	279.54	250 ug/L	112	50-150

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample GC/MS Volatile Organics

Package#: 7620
Sample: D041504W1
Analyzed: 04/15/04

QC Batch: 041504W1
Instrument: HP5973 GC/MS#1
Number of analytes: 29

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Chloromethane	9.9616	10	ug/L	100	58-133	
Vinyl chloride	10.4555	10	ug/L	105	76-127	
Chloroethane	9.8596	10	ug/L	99	77-125	
Trichlorofluoromethane	10.9016	10	ug/L	109	78-128	
Acetone	20.9695	20	ug/L	105	37-175	
1,1-Dichloroethene	10.2182	10	ug/L	102	80-115	
Methylene chloride	9.5570	10	ug/L	96	76-115	
Carbon disulfide	10.1089	10	ug/L	101	83-117	
trans-1,2-Dichloroethene	9.9134	10	ug/L	99	84-115	
1,1-Dichloroethane	10.8619	10	ug/L	109	85-117	
Vinyl acetate	8.6627	10	ug/L	87	25-175	
2-Butanone	20.2455	20	ug/L	101	44-162	
cis-1,2-Dichloroethene	10.1110	10	ug/L	101	85-115	
1,2-Dichloroethane	11.2645	10	ug/L	113	75-121	
1,1,1-Trichloroethane	10.5847	10	ug/L	106	83-124	
Benzene	9.7805	10	ug/L	98	85-122	
Dibromomethane	10.1260	10	ug/L	101	80-115	
Trichloroethene	9.7986	10	ug/L	98	85-120	
4-Methyl-2-pentanone	21.1527	20	ug/L	106	50-132	
Toluene	9.5932	10	ug/L	96	85-122	
Tetrachloroethene	8.9670	10	ug/L	90	85-121	
Ethylbenzene	9.2345	10	ug/L	92	85-123	
Xylene (total)	27.3714	30	ug/L	91	82-128	
1,1,2,2-Tetrachloroethane	9.4506	10	ug/L	95	70-123	
1,2,3-Trichloropropane	9.4598	10	ug/L	95	75-120	
1,2-Dibromo-3-chloropropane	10.4750	10	ug/L	105	63-123	
1,2,4-Trichlorobenzene	9.6980	10	ug/L	97	76-117	
Naphthalene	10.1939	10	ug/L	102	69-125	
1,2,3-Trichlorobenzene	9.7532	10	ug/L	98	78-119	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	103		78-120
1,2-Dichloroethane-d4 (surrogate)	113		71-126
Toluene-d8 (surrogate)	101		80-120
Bromofluorobenzene (surrogate)	96		78-120

Notes:

	Lcs Result	Spike added	%R	%R Limits
Isobutyl alcohol	259.85	250. ug/L	104	50-150

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
GC/MS Volatile Organics

Package#: 7620
Sample: PB041504W1
Analyzed: 04/15/04

QC Batch: 041504W1
Instrument: HP5973 GC/MS#1
Number of analytes: 29

Parameter	Sample Result	Q	PQL	Units	Note
Chloromethane	<1.0	U	1.0	ug/L	
Vinyl chloride	<1.0	U	1.0	ug/L	
Chloroethane	<1.0	U	1.0	ug/L	
Trichlorofluoromethane	<1.0	U	1.0	ug/L	
Acetone	<10.	U	10.	ug/L	
1,1-Dichloroethene	<.50	U	.50	ug/L	
Methylene chloride	<2.0	U	2.0	ug/L	
Carbon disulfide	<.50	U	.50	ug/L	
trans-1,2-Dichloroethene	<.50	U	.50	ug/L	
1,1-Dichloroethane	<.50	U	.50	ug/L	
Vinyl acetate	<2.0	U	2.0	ug/L	
2-Butanone	<10.	U	10.	ug/L	
cis-1,2-Dichloroethene	<.50	U	.50	ug/L	
1,2-Dichloroethane	<.50	U	.50	ug/L	
1,1,1-Trichloroethane	<.50	U	.50	ug/L	
Benzene	<.50	U	.50	ug/L	
Dibromomethane	<.50	U	.50	ug/L	
Trichloroethene	<.50	U	.50	ug/L	
4-Methyl-2-pentanone	<5.0	U	5.0	ug/L	
Toluene	<.50	U	.50	ug/L	
Tetrachloroethene	<.50	U	.50	ug/L	
Ethylbenzene	<.50	U	.50	ug/L	
Xylene (total)	<.50	U	.50	ug/L	
1,1,2,2-Tetrachloroethane	<.50	U	.50	ug/L	
1,2,3-Trichloropropane	<.50	U	.50	ug/L	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	ug/L	
1,2,4-Trichlorobenzene	<1.0	U	1.0	ug/L	
Naphthalene	<1.0	U	1.0	ug/L	
1,2,3-Trichlorobenzene	<1.0	U	1.0	ug/L	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	103		78-120
1,2-Dichloroethane-d4 (surrogate)	116		71-126
Toluene-d8 (surrogate)	99		80-120
Bromofluorobenzene (surrogate)	94		78-120

Notes:

	Sample Result	PQL	
Isobutyl alcohol	<50.0 U	50.0	ug/L

- Outside control limits. J - Estimated value. U - Undetected at the reported level.

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8111
Sample Description: CH2PP-1
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<1.0	U	1.0	04/15/04
Vinyl chloride	<1.0	U	1.0	04/15/04
Chloroethane	<1.0	U	1.0	04/15/04
Trichlorofluoromethane	<1.0	U	1.0	04/15/04
Acetone	<10.	U	10.	04/15/04
1,1-Dichloroethene	<.50	U	.50	04/15/04
Methylene chloride	<2.0	U	2.0	04/15/04
Carbon disulfide	<.50	U	.50	04/15/04
trans-1,2-Dichloroethene	<.50	U	.50	04/15/04
1,1-Dichloroethane	.57		.50	04/15/04
Vinyl acetate	<2.0	U	2.0	04/15/04
2-Butanone	<10.	U	10.	04/15/04
cis-1,2-Dichloroethene	<.50	U	.50	04/15/04
1,2-Dichloroethane	<.50	U	.50	04/15/04
1,1,1-Trichloroethane	<.50	U	.50	04/15/04
Benzene	<.50	U	.50	04/15/04
Dibromomethane	<.50	U	.50	04/15/04
Trichloroethene	<.50	U	.50	04/15/04
4-Methyl-2-pentanone	<5.0	U	5.0	04/15/04
Toluene	<.50	U	.50	04/15/04
Tetrachloroethene	<.50	U	.50	04/15/04
Ethylbenzene	<.50	U	.50	04/15/04
Xylene (total)	<.50	U	.50	04/15/04
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/15/04
1,2,3-Trichloropropane	<.50	U	.50	04/15/04
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/15/04
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/15/04
Naphthalene	<1.0	U	1.0	04/15/04
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/15/04

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8111
Sample Description: CH2PP-1
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	102		78-120
1,2-Dichloroethane-d4 (surrogate)	116		71-126
Toluene-d8 (surrogate)	95		80-120
Bromofluorobenzene (surrogate)	94		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8112
Sample Description: CH2MW-5
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/15/04	
Vinyl chloride	<1.0	U	1.0	04/15/04	
Chloroethane	<1.0	U	1.0	04/15/04	
Trichlorofluoromethane	<1.0	U	1.0	04/15/04	
Acetone	<10.	U	10.	04/15/04	
1,1-Dichloroethene	<.50	U	.50	04/15/04	
Methylene chloride	<2.0	U	2.0	04/15/04	
Carbon disulfide	<.50	U	.50	04/15/04	
trans-1,2-Dichloroethene	<.50	U	.50	04/15/04	
1,1-Dichloroethane	<.50	U	.50	04/15/04	
Vinyl acetate	<2.0	U	2.0	04/15/04	
2-Butanone	<10.	U	10.	04/15/04	
cis-1,2-Dichloroethene	<.50	U	.50	04/15/04	
1,2-Dichloroethane	<.50	U	.50	04/15/04	
1,1,1-Trichloroethane	<.50	U	.50	04/15/04	
Benzene	<.50	U	.50	04/15/04	
Dibromomethane	<.50	U	.50	04/15/04	
Trichloroethene	<.50	U	.50	04/15/04	
4-Methyl-2-pentanone	<5.0	U	5.0	04/15/04	
Toluene	<.50	U	.50	04/15/04	
Tetrachloroethene	<.50	U	.50	04/15/04	
Ethylbenzene	<.50	U	.50	04/15/04	
Xylene (total)	<.50	U	.50	04/15/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/15/04	
1,2,3-Trichloropropane	<.50	U	.50	04/15/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/15/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/15/04	
Naphthalene	<1.0	U	1.0	04/15/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/15/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	101		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8112
Sample Description: CH2MW-5
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	114		71-126
Toluene-d8 (surrogate)	94		80-120
Bromofluorobenzene (surrogate)	93		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8113
Sample Description: CH2MW-1A
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<1.0	U	1.0	04/15/04
Vinyl chloride	<1.0	U	1.0	04/15/04
Chloroethane	<1.0	U	1.0	04/15/04
Trichlorofluoromethane	<1.0	U	1.0	04/15/04
Acetone	<10.	U	10.	04/15/04
1,1-Dichloroethene	<.50	U	.50	04/15/04
Methylene chloride	<2.0	U	2.0	04/15/04
Carbon disulfide	<.50	U	.50	04/15/04
trans-1,2-Dichloroethene	<.50	U	.50	04/15/04
1,1-Dichloroethane	<.50	U	.50	04/15/04
Vinyl acetate	<2.0	U	2.0	04/15/04
2-Butanone	<10.	U	10.	04/15/04
cis-1,2-Dichloroethene	<.50	U	.50	04/15/04
1,2-Dichloroethane	<.50	U	.50	04/15/04
1,1,1-Trichloroethane	<.50	U	.50	04/15/04
Benzene	<.50	U	.50	04/15/04
Dibromomethane	<.50	U	.50	04/15/04
Trichloroethene	<.50	U	.50	04/15/04
4-Methyl-2-pentanone	<5.0	U	5.0	04/15/04
Toluene	<.50	U	.50	04/15/04
Tetrachloroethene	<.50	U	.50	04/15/04
Ethylbenzene	<.50	U	.50	04/15/04
Xylene (total)	<.50	U	.50	04/15/04
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/15/04
1,2,3-Trichloropropane	<.50	U	.50	04/15/04
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/15/04
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/15/04
Naphthalene	<1.0	U	1.0	04/15/04
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/15/04

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	100		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8113
Sample Description: CH2MW-1A
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435 . 218 . 21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	114		71-126
Toluene-d8 (surrogate)	92		80-120
Bromofluorobenzene (surrogate)	94		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8114
Sample Description: ETMW-121
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<1.0	U	1.0	04/15/04
Vinyl chloride	<1.0	U	1.0	04/15/04
Chloroethane	<1.0	U	1.0	04/15/04
Trichlorofluoromethane	<1.0	U	1.0	04/15/04
Acetone	<10.	U	10.	04/15/04
1,1-Dichloroethene	<.50	U	.50	04/15/04
Methylene chloride	<2.0	U	2.0	04/15/04
Carbon disulfide	<.50	U	.50	04/15/04
trans-1,2-Dichloroethene	<.50	U	.50	04/15/04
1,1-Dichloroethane	<.50	U	.50	04/15/04
Vinyl acetate	<2.0	U	2.0	04/15/04
2-Butanone	<10.	U	10.	04/15/04
cis-1,2-Dichloroethene	<.50	U	.50	04/15/04
1,2-Dichloroethane	<.50	U	.50	04/15/04
1,1,1-Trichloroethane	<.50	U	.50	04/15/04
Benzene	<.50	U	.50	04/15/04
Dibromomethane	<.50	U	.50	04/15/04
Trichloroethene	<.50	U	.50	04/15/04
4-Methyl-2-pentanone	<5.0	U	5.0	04/15/04
Toluene	<.50	U	.50	04/15/04
Tetrachloroethene	<.50	U	.50	04/15/04
Ethylbenzene	<.50	U	.50	04/15/04
Xylene (total)	<.50	U	.50	04/15/04
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/15/04
1,2,3-Trichloropropane	<.50	U	.50	04/15/04
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/15/04
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/15/04
Naphthalene	<1.0	U	1.0	04/15/04
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/15/04

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	101		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8114
Sample Description: ETMW-121
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	114		71-126
Toluene-d8 (surrogate)	92		80-120
Bromofluorobenzene (surrogate)	93		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8115
Sample Description: ETMW-120
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/15/04	
Vinyl chloride	<1.0	U	1.0	04/15/04	
Chloroethane	<1.0	U	1.0	04/15/04	
Trichlorofluoromethane	<1.0	U	1.0	04/15/04	
Acetone	<10.	U	10.	04/15/04	
1,1-Dichloroethene	<.50	U	.50	04/15/04	
Methylene chloride	<2.0	U	2.0	04/15/04	
Carbon disulfide	<.50	U	.50	04/15/04	
trans-1,2-Dichloroethene	<.50	U	.50	04/15/04	
1,1-Dichloroethane	<.50	U	.50	04/15/04	
Vinyl acetate	<2.0	U	2.0	04/15/04	
2-Butanone	<10.	U	10.	04/15/04	
cis-1,2-Dichloroethene	1.1		.50	04/15/04	
1,2-Dichloroethane	<.50	U	.50	04/15/04	
1,1,1-Trichloroethane	<.50	U	.50	04/15/04	
Benzene	<.50	U	.50	04/15/04	
Dibromomethane	<.50	U	.50	04/15/04	
Trichloroethene	<.50	U	.50	04/15/04	
4-Methyl-2-pentanone	<5.0	U	5.0	04/15/04	
Toluene	<.50	U	.50	04/15/04	
Tetrachloroethene	<.50	U	.50	04/15/04	
Ethylbenzene	<.50	U	.50	04/15/04	
Xylene (total)	<.50	U	.50	04/15/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/15/04	
1,2,3-Trichloropropane	<.50	U	.50	04/15/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/15/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/15/04	
Naphthalene	<1.0	U	1.0	04/15/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/15/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	99		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

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Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8115
Sample Description: ETMW-120
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	113		71-126
Toluene-d8 (surrogate)	90		80-120
Bromofluorobenzene (surrogate)	93		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8116
Sample Description: ETMW-119
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<1.0	U	1.0	04/15/04
Vinyl chloride	<1.0	U	1.0	04/15/04
Chloroethane	<1.0	U	1.0	04/15/04
Trichlorofluoromethane	<1.0	U	1.0	04/15/04
Acetone	<10.	U	10.	04/15/04
1,1-Dichloroethene	<.50	U	.50	04/15/04
Methylene chloride	<2.0	U	2.0	04/15/04
Carbon disulfide	<.50	U	.50	04/15/04
trans-1,2-Dichloroethene	<.50	U	.50	04/15/04
1,1-Dichloroethane	<.50	U	.50	04/15/04
Vinyl acetate	<2.0	U	2.0	04/15/04
2-Butanone	<10.	U	10.	04/15/04
cis-1,2-Dichloroethene	<.50	U	.50	04/15/04
1,2-Dichloroethane	<.50	U	.50	04/15/04
1,1,1-Trichloroethane	<.50	U	.50	04/15/04
Benzene	<.50	U	.50	04/15/04
Dibromomethane	<.50	U	.50	04/15/04
Trichloroethene	<.50	U	.50	04/15/04
4-Methyl-2-pentanone	<5.0	U	5.0	04/15/04
Toluene	<.50	U	.50	04/15/04
Tetrachloroethene	<.50	U	.50	04/15/04
Ethylbenzene	<.50	U	.50	04/15/04
Xylene (total)	<.50	U	.50	04/15/04
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/15/04
1,2,3-Trichloropropane	<.50	U	.50	04/15/04
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/15/04
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/15/04
Naphthalene	<1.0	U	1.0	04/15/04
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/15/04

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	100		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8116
Sample Description: ETMW-119
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	114		71-126
Toluene-d8 (surrogate)	91		80-120
Bromofluorobenzene (surrogate)	93		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8117
Sample Description: ETMW-115
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/15/04	
Vinyl chloride	1.5		1.0	04/15/04	
Chloroethane	<1.0	U	1.0	04/15/04	
Trichlorofluoromethane	<1.0	U	1.0	04/15/04	
Acetone	<10.	U	10.	04/15/04	
1,1-Dichloroethene	<.50	U	.50	04/15/04	
Methylene chloride	<2.0	U	2.0	04/15/04	
Carbon disulfide	<.50	U	.50	04/15/04	
trans-1,2-Dichloroethene	<.50	U	.50	04/15/04	
1,1-Dichloroethane	6.4		.50	04/15/04	
Vinyl acetate	<2.0	U	2.0	04/15/04	
2-Butanone	<10.	U	10.	04/15/04	
cis-1,2-Dichloroethene	70.	E	.50	04/15/04	
1,2-Dichloroethane	<.50	U	.50	04/15/04	
1,1,1-Trichloroethane	<.50	U	.50	04/15/04	
Benzene	<.50	U	.50	04/15/04	
Dibromomethane	<.50	U	.50	04/15/04	
Trichloroethene	16.		.50	04/15/04	
4-Methyl-2-pentanone	<5.0	U	5.0	04/15/04	
Toluene	<.50	U	.50	04/15/04	
Tetrachloroethene	<.50	U	.50	04/15/04	
Ethylbenzene	<.50	U	.50	04/15/04	
Xylene (total)	<.50	U	.50	04/15/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/15/04	
1,2,3-Trichloropropane	<.50	U	.50	04/15/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/15/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/15/04	
Naphthalene	<1.0	U	1.0	04/15/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/15/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	101		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8117
Sample Description: ETMW-115
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	114		71-126
Toluene-d8 (surrogate)	90		80-120
Bromofluorobenzene (surrogate)	93		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8117 DL
Sample Description: ETMW-115
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 5

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<5.0	U	5.0	04/19/04	
Vinyl chloride	<5.0	U	5.0	04/19/04	
Chloroethane	<5.0	U	5.0	04/19/04	
Trichlorofluoromethane	<5.0	U	5.0	04/19/04	
Acetone	<50.	U	50.	04/19/04	
1,1-Dichloroethene	<2.5	U	2.5	04/19/04	
Methylene chloride	<10.	U	10.	04/19/04	
Carbon disulfide	<2.5	U	2.5	04/19/04	
trans-1,2-Dichloroethene	<2.5	U	2.5	04/19/04	
1,1-Dichloroethane	8.1		2.5	04/19/04	
Vinyl acetate	<10.	U	10.	04/19/04	
2-Butanone	<50.	U	50.	04/19/04	
cis-1,2-Dichloroethene	86.		2.5	04/19/04	
1,2-Dichloroethane	<2.5	U	2.5	04/19/04	
1,1,1-Trichloroethane	<2.5	U	2.5	04/19/04	
Benzene	<2.5	U	2.5	04/19/04	
Dibromomethane	<2.5	U	2.5	04/19/04	
Trichloroethene	21.		2.5	04/19/04	
4-Methyl-2-pentanone	<25.	U	25.	04/19/04	
Toluene	<2.5	U	2.5	04/19/04	
Tetrachloroethene	<2.5	U	2.5	04/19/04	
Ethylbenzene	<2.5	U	2.5	04/19/04	
Xylene (total)	<2.5	U	2.5	04/19/04	
1,1,2,2-Tetrachloroethane	<2.5	U	2.5	04/19/04	
1,2,3-Trichloropropane	<2.5	U	2.5	04/19/04	
1,2-Dibromo-3-chloropropane	<5.0	U	5.0	04/19/04	
1,2,4-Trichlorobenzene	<5.0	U	5.0	04/19/04	
Naphthalene	<5.0	U	5.0	04/19/04	
1,2,3-Trichlorobenzene	<5.0	U	5.0	04/19/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	106		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8117 DL
Sample Description: ETMW-115
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435 . 218 . 21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 5

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	123		71-126
Toluene-d8 (surrogate)	101		80-120
Bromofluorobenzene (surrogate)	95		78-120

Notes:

Isobutyl alcohol < 250. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8118
Sample Description: CH2MW-1
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/19/04	
Vinyl chloride	<1.0	U	1.0	04/19/04	
Chloroethane	<1.0	U	1.0	04/19/04	
Trichlorofluoromethane	<1.0	U	1.0	04/19/04	
Acetone	<10.	U	10.	04/19/04	
1,1-Dichloroethene	<.50	U	.50	04/19/04	
Methylene chloride	<2.0	U	2.0	04/19/04	
Carbon disulfide	<.50	U	.50	04/19/04	
trans-1,2-Dichloroethene	<.50	U	.50	04/19/04	
1,1-Dichloroethane	1.5		.50	04/19/04	
Vinyl acetate	<2.0	U	2.0	04/19/04	
2-Butanone	<10.	U	10.	04/19/04	
cis-1,2-Dichloroethene	1.3		.50	04/19/04	
1,2-Dichloroethane	<.50	U	.50	04/19/04	
1,1,1-Trichloroethane	<.50	U	.50	04/19/04	
Benzene	<.50	U	.50	04/19/04	
Dibromomethane	<.50	U	.50	04/19/04	
Trichloroethene	3.9		.50	04/19/04	
4-Methyl-2-pentanone	<5.0	U	5.0	04/19/04	
Toluene	<.50	U	.50	04/19/04	
Tetrachloroethene	<.50	U	.50	04/19/04	
Ethylbenzene	<.50	U	.50	04/19/04	
Xylene (total)	<.50	U	.50	04/19/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/19/04	
1,2,3-Trichloropropane	<.50	U	.50	04/19/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/19/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/19/04	
Naphthalene	<1.0	U	1.0	04/19/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/19/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	105		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8118
Sample Description: CH2MW-1
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	122		71-126
Toluene-d8 (surrogate)	101		80-120
Bromofluorobenzene (surrogate)	94		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8119
Sample Description: QC Trip Blank
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/15/04	
Vinyl chloride	<1.0	U	1.0	04/15/04	
Chloroethane	<1.0	U	1.0	04/15/04	
Trichlorofluoromethane	<1.0	U	1.0	04/15/04	
Acetone	<10.	U	10.	04/15/04	
1,1-Dichloroethene	<.50	U	.50	04/15/04	
Methylene chloride	<2.0	U	2.0	04/15/04	
Carbon disulfide	<.50	U	.50	04/15/04	
trans-1,2-Dichloroethene	<.50	U	.50	04/15/04	
1,1-Dichloroethane	<.50	U	.50	04/15/04	
Vinyl acetate	<2.0	U	2.0	04/15/04	
2-Butanone	<10.	U	10.	04/15/04	
cis-1,2-Dichloroethene	<.50	U	.50	04/15/04	
1,2-Dichloroethane	<.50	U	.50	04/15/04	
1,1,1-Trichloroethane	<.50	U	.50	04/15/04	
Benzene	<.50	U	.50	04/15/04	
Dibromomethane	<.50	U	.50	04/15/04	
Trichloroethene	<.50	U	.50	04/15/04	
4-Methyl-2-pentanone	<5.0	U	5.0	04/15/04	
Toluene	<.50	U	.50	04/15/04	
Tetrachloroethene	<.50	U	.50	04/15/04	
Ethylbenzene	<.50	U	.50	04/15/04	
Xylene (total)	<.50	U	.50	04/15/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/15/04	
1,2,3-Trichloropropane	<.50	U	.50	04/15/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/15/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/15/04	
Naphthalene	<1.0	U	1.0	04/15/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/15/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	99		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8119
Sample Description: QC Trip Blank
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	113		71-126
Toluene-d8 (surrogate)	90		80-120
Bromofluorobenzene (surrogate)	93		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8120
Sample Description: CH2MW-2
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/15/04	
Vinyl chloride	<1.0	U	1.0	04/15/04	
Chloroethane	<1.0	U	1.0	04/15/04	
Trichlorofluoromethane	<1.0	U	1.0	04/15/04	
Acetone	<10.	U	10.	04/15/04	
1,1-Dichloroethene	<.50	U	.50	04/15/04	
Methylene chloride	<2.0	U	2.0	04/15/04	
Carbon disulfide	<.50	U	.50	04/15/04	
trans-1,2-Dichloroethene	<.50	U	.50	04/15/04	
1,1-Dichloroethane	<.50	U	.50	04/15/04	
Vinyl acetate	<2.0	U	2.0	04/15/04	
2-Butanone	<10.	U	10.	04/15/04	
cis-1,2-Dichloroethene	<.50	U	.50	04/15/04	
1,2-Dichloroethane	<.50	U	.50	04/15/04	
1,1,1-Trichloroethane	<.50	U	.50	04/15/04	
Benzene	<.50	U	.50	04/15/04	
Dibromomethane	<.50	U	.50	04/15/04	
Trichloroethene	<.50	U	.50	04/15/04	
4-Methyl-2-pentanone	<5.0	U	5.0	04/15/04	
Toluene	<.50	U	.50	04/15/04	
Tetrachloroethene	<.50	U	.50	04/15/04	
Ethylbenzene	<.50	U	.50	04/15/04	
Xylene (total)	<.50	U	.50	04/15/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/15/04	
1,2,3-Trichloropropane	<.50	U	.50	04/15/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/15/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/15/04	
Naphthalene	<1.0	U	1.0	04/15/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/15/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	99		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8120
Sample Description: CH2MW-2
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/15/04

Matrix: Water
QC Batch: 041504W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	113		71-126
Toluene-d8 (surrogate)	90		80-120
Bromofluorobenzene (surrogate)	93		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8121
Sample Description: OBGMW-122
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<1.0	U	1.0	04/19/04
Vinyl chloride	<1.0	U	1.0	04/19/04
Chloroethane	<1.0	U	1.0	04/19/04
Trichlorofluoromethane	<1.0	U	1.0	04/19/04
Acetone	<10.	U	10.	04/19/04
1,1-Dichloroethene	<.50	U	.50	04/19/04
Methylene chloride	<2.0	U	2.0	04/19/04
Carbon disulfide	<.50	U	.50	04/19/04
trans-1,2-Dichloroethene	<.50	U	.50	04/19/04
1,1-Dichloroethane	<.50	U	.50	04/19/04
Vinyl acetate	<2.0	U	2.0	04/19/04
2-Butanone	<10.	U	10.	04/19/04
cis-1,2-Dichloroethene	<.50	U	.50	04/19/04
1,2-Dichloroethane	<.50	U	.50	04/19/04
1,1,1-Trichloroethane	<.50	U	.50	04/19/04
Benzene	<.50	U	.50	04/19/04
Dibromomethane	<.50	U	.50	04/19/04
Trichloroethene	<.50	U	.50	04/19/04
4-Methyl-2-pentanone	<5.0	U	5.0	04/19/04
Toluene	<.50	U	.50	04/19/04
Tetrachloroethene	<.50	U	.50	04/19/04
Ethylbenzene	<.50	U	.50	04/19/04
Xylene (total)	<.50	U	.50	04/19/04
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/19/04
1,2,3-Trichloropropane	<.50	U	.50	04/19/04
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/19/04
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/19/04
Naphthalene	<1.0	U	1.0	04/19/04
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/19/04

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	101		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8121
Sample Description: OBGMW-122
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	118		71-126
Toluene-d8 (surrogate)	92		80-120
Bromofluorobenzene (surrogate)	93		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8122
Sample Description: ETCMW-113
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/19/04	
Vinyl chloride	<1.0	U	1.0	04/19/04	
Chloroethane	<1.0	U	1.0	04/19/04	
Trichlorofluoromethane	<1.0	U	1.0	04/19/04	
Acetone	<10.	U	10.	04/19/04	
1,1-Dichloroethene	7.0		.50	04/19/04	
Methylene chloride	<2.0	U	2.0	04/19/04	
Carbon disulfide	<.50	U	.50	04/19/04	
trans-1,2-Dichloroethene	<.50	U	.50	04/19/04	
1,1-Dichloroethane	22.		.50	04/19/04	
Vinyl acetate	<2.0	U	2.0	04/19/04	
2-Butanone	<10.	U	10.	04/19/04	
cis-1,2-Dichloroethene	71.	E	.50	04/19/04	
1,2-Dichloroethane	<.50	U	.50	04/19/04	
1,1,1-Trichloroethane	<.50	U	.50	04/19/04	
Benzene	<.50	U	.50	04/19/04	
Dibromomethane	<.50	U	.50	04/19/04	
Trichloroethene	180.	E	.50	04/19/04	
4-Methyl-2-pentanone	<5.0	U	5.0	04/19/04	
Toluene	<.50	U	.50	04/19/04	
Tetrachloroethene	16.		.50	04/19/04	
Ethylbenzene	<.50	U	.50	04/19/04	
Xylene (total)	<.50	U	.50	04/19/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/19/04	
1,2,3-Trichloropropane	<.50	U	.50	04/19/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/19/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/19/04	
Naphthalene	<1.0	U	1.0	04/19/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/19/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	102		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8122
Sample Description: ETCMW-113
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	118		71-126
Toluene-d8 (surrogate)	91		80-120
Bromofluorobenzene (surrogate)	93		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8122 DL
Sample Description: ETCMW-113
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 10

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<10.	U	10.	04/19/04	
Vinyl chloride	<10.	U	10.	04/19/04	
Chloroethane	<10.	U	10.	04/19/04	
Trichlorofluoromethane	<10.	U	10.	04/19/04	
Acetone	<100.	U	100.	04/19/04	
1,1-Dichloroethene	7.2		5.0	04/19/04	
Methylene chloride	<20.	U	20.	04/19/04	
Carbon disulfide	<5.0	U	5.0	04/19/04	
trans-1,2-Dichloroethene	<5.0	U	5.0	04/19/04	
1,1-Dichloroethane	21.		5.0	04/19/04	
Vinyl acetate	<20.	U	20.	04/19/04	
2-Butanone	<100.	U	100.	04/19/04	
cis-1,2-Dichloroethene	66.		5.0	04/19/04	
1,2-Dichloroethane	<5.0	U	5.0	04/19/04	
1,1,1-Trichloroethane	<5.0	U	5.0	04/19/04	
Benzene	<5.0	U	5.0	04/19/04	
Dibromomethane	<5.0	U	5.0	04/19/04	
Trichloroethene	160.		5.0	04/19/04	
4-Methyl-2-pentanone	<50.	U	50.	04/19/04	
Toluene	<5.0	U	5.0	04/19/04	
Tetrachloroethene	17.		5.0	04/19/04	
Ethylbenzene	<5.0	U	5.0	04/19/04	
Xylene (total)	<5.0	U	5.0	04/19/04	
1,1,2,2-Tetrachloroethane	<5.0	U	5.0	04/19/04	
1,2,3-Trichloropropane	<5.0	U	5.0	04/19/04	
1,2-Dibromo-3-chloropropane	<10.	U	10.	04/19/04	
1,2,4-Trichlorobenzene	<10.	U	10.	04/19/04	
Naphthalene	<10.	U	10.	04/19/04	
1,2,3-Trichlorobenzene	<10.	U	10.	04/19/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	99		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7637
Sample: B8122 DL
Sample Description: ETCMW-113
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/08/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 10

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	114		71-126
Toluene-d8 (surrogate)	89		80-120
Bromofluorobenzene (surrogate)	92		78-120

Notes:

Isobutyl alcohol < 500. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 20, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Matrix Spike/Matrix Spike Duplicate
Method: 8260

Package#: 7637
Sample: B8112
Sample Description: CH2MW-5
Units: ug/L
Instrument: HP5973 GC/MS#1

Matrix: Water
%Solids:
Number of analytes: 33

Parameter	Dilution	Sample Result	Spike Added	MS Result	%R	MSD Result	%R	%R Limits	RPD	RPD Limits	Note
Chloromethane	1	<1.0	10	8.2025	82	8.8768	89	50-140	8	0-15	
Vinyl chloride	1	<1.0	10	8.2203	82	9.1953	92	62-135	11	0-16	
Chloroethane	1	<1.0	10	7.8548	79	8.4999	85	71-130	8	0-10	
Trichlorofluoromethane	1	<1.0	10	9.2182	92	9.8828	99	72-130	7	0-10	
Acetone	1	<10.	20	9.7022	49	10.4889	52	25-169	8	0-19	
1,1-Dichloroethene	1	<.50	10	8.1084	81	8.5793	86	79-120	6	0-10	
Methylene chloride	1	<2.0	10	7.6151	# 76	8.087	81	77-120	6	0-10	
Carbon disulfide	1	<.50	10	8.2115	82	8.8056	88	80-120	7	0-10	
trans-1,2-Dichloroethene	1	<.50	10	8.0167	80	8.4563	85	80-120	5	0-10	
1,1-Dichloroethane	1	<.50	10	9.0205	90	9.5239	95	80-120	5	0-10	
Vinyl acetate	1	<2.0	10	7.2814	73	7.851	79	45-175	8	0-50	
2-Butanone	1	<10.	20	12.3519	62	13.5446	68	25-145	9	0-12	
cis-1,2-Dichloroethene	1	<.50	10	8.1457	81	8.7064	87	73-130	7	0-10	
1,2-Dichloroethane	1	<.50	10	9.9108	99	10.4375	104	72-124	5	0-10	
1,1,1-Trichloroethane	1	<.50	10	9.0179	90	9.4659	95	78-126	5	0-10	
Benzene	1	<.50	10	7.9675	80	8.3996	84	80-125	5	0-10	
Dibromomethane	1	<.50	10	8.47	85	9.0773	91	80-120	7	0-10	

J-Estimated value #-Outside limits

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Matrix Spike/Matrix Spike Duplicate
Method: 8260

Package#: 7637
Sample: B8112
Sample Description: CH2MW-5
Units: ug/L
Instrument: HP5973 GC/MS#1

Matrix: Water
%Solids:
Number of analytes: 33

Parameter	Dilution	Sample Result	Spike Added	MS Result	%R	MSD Result	%R	%R Limits	RPD	RPD Limits	Note
Trichloroethene	1	<.50	10	8.0884	81	8.5844	86	75-126	6	0-10	
4-Methyl-2-pentanone	1	<5.0	20	16.4791	82	18.0461	90	46-133	9	0-10	
Toluene	1	<.50	10	7.8312	# 78	8.3163	83	80-129	6	0-10	
Tetrachloroethene	1	<.50	10	8.3834	84	9.2037	92	70-132	9	0-10	
Ethylbenzene	1	<.50	10	8.6608	87	9.3837	94	79-130	8	0-10	
Xylene (total)	1	<.50	30	24.9099	83	26.8047	89	76-137	7	0-10	
1,1,2,2-Tetrachloroethane	1	<.50	10	9.5837	96	10.5955	106	73-122	10	0-10	
1,2,3-Trichloropropane	1	<.50	10	9.6907	97	10.7639	108	66-129	10	0-10	
1,2-Dibromo-3-chloropropane	1	<1.0	10	10.5365	105	11.5999	116	62-122	10	0-11	
1,2,4-Trichlorobenzene	1	<1.0	10	9.017	90	10.0975	101	69-120	11	0-11	
Naphthalene	1	<1.0	10	9.8685	99	11.3076	113	57-143	# 14	0-12	
1,2,3-Trichlorobenzene	1	<1.0	10	9.2946	93	10.3887	104	72-121	11	0-12	
Dibromofluoromethane (surrogat	1	101.%			101		103	78-120			
1,2-Dichloroethane-d4 (surroga	1	114.%			114		114	71-126			
Toluene-d8 (surrogate)	1	94.%			92		91	80-120			
Bromofluorobenzene (surrogate	1	93.%			95		94	78-120			
Isobutyl alcohol	1	< 50.	250	238.16	95	262.98	105	50-150	10	0-30	

J-Estimated value #-Outside limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample GC/MS Volatile Organics

Package#: 7637
Sample: L041504W1
Analyzed: 04/15/04

QC Batch: 041504W1
Instrument: HP5973 GC/MS#1
Number of analytes: 29

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Chloromethane	11.0383	10	ug/L	110	58-133	
Vinyl chloride	11.3657	10	ug/L	114	76-127	
Chloroethane	10.6669	10	ug/L	107	77-125	
Trichlorofluoromethane	11.9501	10	ug/L	120	78-128	
Acetone	24.0106	20	ug/L	120	37-175	
1,1-Dichloroethene	11.0920	10	ug/L	111	80-115	
Methylene chloride	10.4436	10	ug/L	104	76-115	
Carbon disulfide	10.9702	10	ug/L	110	83-117	
trans-1,2-Dichloroethene	10.8235	10	ug/L	108	84-115	
1,1-Dichloroethane	11.5102	10	ug/L	115	85-117	
Vinyl acetate	9.9247	10	ug/L	99	25-175	
2-Butanone	22.9825	20	ug/L	115	44-162	
cis-1,2-Dichloroethene	11.0018	10	ug/L	110	85-115	
1,2-Dichloroethane	12.0605	10	ug/L	121	75-121	
1,1,1-Trichloroethane	11.6348	10	ug/L	116	83-124	
Benzene	10.6044	10	ug/L	106	85-122	
Dibromomethane	11.0992	10	ug/L	111	80-115	
Trichloroethene	10.5618	10	ug/L	106	85-120	
4-Methyl-2-pentanone	23.9694	20	ug/L	120	50-132	
Toluene	10.5068	10	ug/L	105	85-122	
Tetrachloroethene	9.8476	10	ug/L	98	85-121	
Ethylbenzene	10.0230	10	ug/L	100	85-123	
Xylene (total)	29.7436	30	ug/L	99	82-128	
1,1,2,2-Tetrachloroethane	10.4832	10	ug/L	105	70-123	
1,2,3-Trichloropropane	10.7755	10	ug/L	108	75-120	
1,2-Dibromo-3-chloropropane	11.2201	10	ug/L	112	63-123	
1,2,4-Trichlorobenzene	10.5010	10	ug/L	105	76-117	
Naphthalene	11.5119	10	ug/L	115	69-125	
1,2,3-Trichlorobenzene	10.6397	10	ug/L	106	78-119	
Isobutyl alcohol	279.54	%R 250	ug/L	112	50-150	

Surrogate	%R	Qual	Limits
Dibromofluoromethane (surrogate)	105		78-120
1,2-Dichloroethane-d4 (surrogate)	116		71-126
Toluene-d8 (surrogate)	101		80-120
Bromofluorobenzene (surrogate)	97		78-120

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample GC/MS Volatile Organics

Package#: 7637
Sample: D041504W1
Analyzed: 04/15/04

QC Batch: 041504W1
Instrument: HP5973 GC/MS#1
Number of analytes: 29

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Chloromethane	9.9616	10	ug/L	100	58-133	
Vinyl chloride	10.4555	10	ug/L	105	76-127	
Chloroethane	9.8596	10	ug/L	99	77-125	
Trichlorofluoromethane	10.9016	10	ug/L	109	78-128	
Acetone	20.9695	20	ug/L	105	37-175	
1,1-Dichloroethene	10.2182	10	ug/L	102	80-115	
Methylene chloride	9.5570	10	ug/L	96	76-115	
Carbon disulfide	10.1089	10	ug/L	101	83-117	
trans-1,2-Dichloroethene	9.9134	10	ug/L	99	84-115	
1,1-Dichloroethane	10.8619	10	ug/L	109	85-117	
Vinyl acetate	8.6627	10	ug/L	87	25-175	
2-Butanone	20.2455	20	ug/L	101	44-162	
cis-1,2-Dichloroethene	10.1110	10	ug/L	101	85-115	
1,2-Dichloroethane	11.2645	10	ug/L	113	75-121	
1,1,1-Trichloroethane	10.5847	10	ug/L	106	83-124	
Benzene	9.7805	10	ug/L	98	85-122	
Dibromomethane	10.1260	10	ug/L	101	80-115	
Trichloroethene	9.7986	10	ug/L	98	85-120	
4-Methyl-2-pentanone	21.1527	20	ug/L	106	50-132	
Toluene	9.5932	10	ug/L	96	85-122	
Tetrachloroethene	8.9670	10	ug/L	90	85-121	
Ethylbenzene	9.2345	10	ug/L	92	85-123	
Xylene (total)	27.3714	30	ug/L	91	82-128	
1,1,2,2-Tetrachloroethane	9.4506	10	ug/L	95	70-123	
1,2,3-Trichloropropane	9.4598	10	ug/L	95	75-120	
1,2-Dibromo-3-chloropropane	10.4750	10	ug/L	105	63-123	
1,2,4-Trichlorobenzene	9.6980	10	ug/L	97	76-117	
Naphthalene	10.1939	10	ug/L	102	69-125	
1,2,3-Trichlorobenzene	9.7532	10	ug/L	98	78-119	
Isobutyl alcohol	259.85	%R 250	ug/L	104	50-150	

Surrogate	%R	Qual	Limits
Dibromofluoromethane (surrogate)	103		78-120
1,2-Dichloroethane-d4 (surrogate)	113		71-126
Toluene-d8 (surrogate)	101		80-120
Bromofluorobenzene (surrogate)	96		78-120

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Laboratory Control Sample
GC/MS Volatile Organics

Package#: 7637
Sample: L041904W1
Analyzed: 04/19/04

QC Batch: 041904W1
Instrument: HP5973 GC/MS#1
Number of analytes: 29

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Chloromethane	10.0102	10	ug/L	100	58-133	
Vinyl chloride	10.0774	10	ug/L	101	76-127	
Chloroethane	9.7429	10	ug/L	97	77-125	
Trichlorofluoromethane	11.0065	10	ug/L	110	78-128	
Acetone	24.8964	20	ug/L	124	37-175	
1,1-Dichloroethene	9.8965	10	ug/L	99	80-115	
Methylene chloride	9.4882	10	ug/L	95	76-115	
Carbon disulfide	10.0773	10	ug/L	101	83-117	
trans-1,2-Dichloroethene	9.7693	10	ug/L	98	84-115	
1,1-Dichloroethane	10.9344	10	ug/L	109	85-117	
Vinyl acetate	9.3588	10	ug/L	94	25-175	
2-Butanone	23.3355	20	ug/L	117	44-162	
cis-1,2-Dichloroethene	9.9089	10	ug/L	99	85-115	
1,2-Dichloroethane	11.8121	10	ug/L	118	75-121	
1,1,1-Trichloroethane	10.7728	10	ug/L	108	83-124	
Benzene	9.7122	10	ug/L	97	85-122	
Dibromomethane	10.3570	10	ug/L	104	80-115	
Trichloroethene	9.6775	10	ug/L	97	85-120	
4-Methyl-2-pentanone	23.5112	20	ug/L	118	50-132	
Toluene	9.4691	10	ug/L	95	85-122	
Tetrachloroethene	8.7737	10	ug/L	88	85-121	
Ethylbenzene	9.0295	10	ug/L	90	85-123	
Xylene (total)	26.0748	30	ug/L	87	82-128	
1,1,2,2-Tetrachloroethane	9.9252	10	ug/L	99	70-123	
1,2,3-Trichloropropane	10.2524	10	ug/L	103	75-120	
1,2-Dibromo-3-chloropropane	10.7338	10	ug/L	107	63-123	
1,2,4-Trichlorobenzene	9.4646	10	ug/L	95	76-117	
Naphthalene	10.4496	10	ug/L	104	69-125	
1,2,3-Trichlorobenzene	9.6657	10	ug/L	97	78-119	
Isobutyl alcohol	312.36	%R 250	ug/L	125	50-150	

Surrogate	%R	Qual	Limits
Dibromofluoromethane (surrogate)	106		78-120
1,2-Dichloroethane-d4 (surrogate)	121		71-126
Toluene-d8 (surrogate)	102		80-120
Bromofluorobenzene (surrogate)	98		78-120

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Preparation Blank GC/MS Volatile Organics

Package#: 7637
Sample: PB041504W1
Analyzed: 04/15/04

QC Batch: 041504W1
Instrument: HP5973 GC/MS#1
Number of analytes: 29

Parameter	Sample Result	Q	PQL	Units	Note
Chloromethane	<1.0	U	1.0	ug/L	
Vinyl chloride	<1.0	U	1.0	ug/L	
Chloroethane	<1.0	U	1.0	ug/L	
Trichlorofluoromethane	<1.0	U	1.0	ug/L	
Acetone	<10.	U	10.	ug/L	
1,1-Dichloroethene	<.50	U	.50	ug/L	
Methylene chloride	<2.0	U	2.0	ug/L	
Carbon disulfide	<.50	U	.50	ug/L	
trans-1,2-Dichloroethene	<.50	U	.50	ug/L	
1,1-Dichloroethane	<.50	U	.50	ug/L	
Vinyl acetate	<2.0	U	2.0	ug/L	
2-Butanone	<10.	U	10.	ug/L	
cis-1,2-Dichloroethene	<.50	U	.50	ug/L	
1,2-Dichloroethane	<.50	U	.50	ug/L	
1,1,1-Trichloroethane	<.50	U	.50	ug/L	
Benzene	<.50	U	.50	ug/L	
Dibromomethane	<.50	U	.50	ug/L	
Trichloroethene	<.50	U	.50	ug/L	
4-Methyl-2-pentanone	<5.0	U	5.0	ug/L	
Toluene	<.50	U	.50	ug/L	
Tetrachloroethene	<.50	U	.50	ug/L	
Ethylbenzene	<.50	U	.50	ug/L	
Xylene (total)	<.50	U	.50	ug/L	
1,1,2,2-Tetrachloroethane	<.50	U	.50	ug/L	
1,2,3-Trichloropropane	<.50	U	.50	ug/L	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	ug/L	
1,2,4-Trichlorobenzene	<1.0	U	1.0	ug/L	
Naphthalene	<1.0	U	1.0	ug/L	
1,2,3-Trichlorobenzene	<1.0	U	1.0	ug/L	
Isobutyl alcohol	<50.	U&R	50.	ug/L	

Surrogate	%R	Qual	Limits
Dibromofluoromethane (surrogate)	103		78-120
1,2-Dichloroethane-d4 (surrogate)	116		71-126
Toluene-d8 (surrogate)	99		80-120
Bromofluorobenzene (surrogate)	94		78-120

Notes:

- Outside control limits. J - Estimated value. U - Undetected at the reported level.

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
GC/MS Volatile Organics

Package#: 7637
Sample: PB041904W1
Analyzed: 04/19/04

QC Batch: 041904W1
Instrument: HP5973 GC/MS#1
Number of analytes: 29

Parameter	Sample Result	Q	PQL	Units	Note
Chloromethane	<1.0	U	1.0	ug/L	
Vinyl chloride	<1.0	U	1.0	ug/L	
Chloroethane	<1.0	U	1.0	ug/L	
Trichlorofluoromethane	<1.0	U	1.0	ug/L	
Acetone	<10.	U	10.	ug/L	
1,1-Dichloroethene	<.50	U	.50	ug/L	
Methylene chloride	<2.0	U	2.0	ug/L	
Carbon disulfide	<.50	U	.50	ug/L	
trans-1,2-Dichloroethene	<.50	U	.50	ug/L	
1,1-Dichloroethane	<.50	U	.50	ug/L	
Vinyl acetate	<2.0	U	2.0	ug/L	
2-Butanone	<10.	U	10.	ug/L	
cis-1,2-Dichloroethene	<.50	U	.50	ug/L	
1,2-Dichloroethane	<.50	U	.50	ug/L	
1,1,1-Trichloroethane	<.50	U	.50	ug/L	
Benzene	<.50	U	.50	ug/L	
Dibromomethane	<.50	U	.50	ug/L	
Trichloroethene	<.50	U	.50	ug/L	
4-Methyl-2-pentanone	<5.0	U	5.0	ug/L	
Toluene	<.50	U	.50	ug/L	
Tetrachloroethene	<.50	U	.50	ug/L	
Ethylbenzene	<.50	U	.50	ug/L	
Xylene (total)	<.50	U	.50	ug/L	
1,1,2,2-Tetrachloroethane	<.50	U	.50	ug/L	
1,2,3-Trichloropropane	<.50	U	.50	ug/L	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	ug/L	
1,2,4-Trichlorobenzene	<1.0	U	1.0	ug/L	
Naphthalene	<1.0	U	1.0	ug/L	
1,2,3-Trichlorobenzene	<1.0	U	1.0	ug/L	
Isobutyl alcohol	<50.	U	50.	ug/L	

Surrogate	%R	Qual	Limits
Dibromofluoromethane (surrogate)	106		78-120
1,2-Dichloroethane-d4 (surrogate)	122		71-126
Toluene-d8 (surrogate)	100		80-120
Bromofluorobenzene (surrogate)	96		78-120

Notes:

- Outside control limits. J - Estimated value. U - Undetected at the reported level.

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8136
Sample Description: ETCMW-114
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/19/04	
Vinyl chloride	<1.0	U	1.0	04/19/04	
Chloroethane	5.3		1.0	04/19/04	
Trichlorofluoromethane	<1.0	U	1.0	04/19/04	
Acetone	<10.	U	10.	04/19/04	
1,1-Dichloroethene	140.	E	.50	04/19/04	
Methylene chloride	<2.0	U	2.0	04/19/04	
Carbon disulfide	<.50	U	.50	04/19/04	
trans-1,2-Dichloroethene	2.5		.50	04/19/04	
1,1-Dichloroethane	110.	E	.50	04/19/04	
Vinyl acetate	<2.0	U	2.0	04/19/04	
2-Butanone	<10.	U	10.	04/19/04	
cis-1,2-Dichloroethene	840.	E	.50	04/19/04	
1,2-Dichloroethane	2.9		.50	04/19/04	
1,1,1-Trichloroethane	<.50	U	.50	04/19/04	
Benzene	1.6		.50	04/19/04	
Dibromomethane	<.50	U	.50	04/19/04	
Trichloroethene	730.	E	.50	04/19/04	
4-Methyl-2-pentanone	<5.0	U	5.0	04/19/04	
Toluene	<.50	U	.50	04/19/04	
Tetrachloroethene	140.	E	.50	04/19/04	
Ethylbenzene	<.50	U	.50	04/19/04	
Xylene (total)	<.50	U	.50	04/19/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/19/04	
1,2,3-Trichloropropane	<.50	U	.50	04/19/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/19/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/19/04	
Naphthalene	<1.0	U	1.0	04/19/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/19/04	

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8136
Sample Description: ETCMW-114
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	102		78-120
1,2-Dichloroethane-d4 (surrogate)	113		71-126
Toluene-d8 (surrogate)	89		80-120
Bromofluorobenzene (surrogate)	92		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8136 DL
Sample Description: ETCMW-114
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004W4
%Solids:
Sample Size: 10 mL
Dilution: 100

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<100.	U	100.	04/20/04	
Vinyl chloride	<100.	U	100.	04/20/04	
Chloroethane	<100.	U	100.	04/20/04	
Trichlorofluoromethane	<100.	U	100.	04/20/04	
Acetone	<1000.	U	1000.	04/20/04	
1,1-Dichloroethene	130.		50.	04/20/04	
Methylene chloride	<200.	U	200.	04/20/04	
Carbon disulfide	<50.	U	50.	04/20/04	
trans-1,2-Dichloroethene	<50.	U	50.	04/20/04	
1,1-Dichloroethane	110.		50.	04/20/04	
Vinyl acetate	<200.	U	200.	04/20/04	
2-Butanone	<1000.	U	1000.	04/20/04	
cis-1,2-Dichloroethene	2400.		50.	04/20/04	
1,2-Dichloroethane	<50.	U	50.	04/20/04	
1,1,1-Trichloroethane	<50.	U	50.	04/20/04	
Benzene	<50.	U	50.	04/20/04	
Dibromomethane	<50.	U	50.	04/20/04	
Trichloroethene	1600.		50.	04/20/04	
4-Methyl-2-pentanone	<500.	U	500.	04/20/04	
Toluene	<50.	U	50.	04/20/04	
Tetrachloroethene	110.		50.	04/20/04	
Ethylbenzene	<50.	U	50.	04/20/04	
Xylene (total)	<50.	U	50.	04/20/04	
1,1,2,2-Tetrachloroethane	<50.	U	50.	04/20/04	
1,2,3-Trichloropropane	<50.	U	50.	04/20/04	
1,2-Dibromo-3-chloropropane	<100.	U	100.	04/20/04	
1,2,4-Trichlorobenzene	<100.	U	100.	04/20/04	
Naphthalene	<100.	U	100.	04/20/04	
1,2,3-Trichlorobenzene	<100.	U	100.	04/20/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	99		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8136 DL
Sample Description: ETCMW-114
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004W4
%Solids:
Sample Size: 10 mL
Dilution: 100

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	115		71-126
Toluene-d8 (surrogate)	89		80-120
Bromofluorobenzene (surrogate)	92		78-120

Notes:

Isobutyl alcohol < 5000. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8137
Sample Description: DUP-2
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/19/04	
Vinyl chloride	<1.0	U	1.0	04/19/04	
Chloroethane	5.3		1.0	04/19/04	
Trichlorofluoromethane	<1.0	U	1.0	04/19/04	
Acetone	<10.	U	10.	04/19/04	
1,1-Dichloroethene	140.	E	.50	04/19/04	
Methylene chloride	<2.0	U	2.0	04/19/04	
Carbon disulfide	<.50	U	.50	04/19/04	
trans-1,2-Dichloroethene	2.5		.50	04/19/04	
1,1-Dichloroethane	110.	E	.50	04/19/04	
Vinyl acetate	<2.0	U	2.0	04/19/04	
2-Butanone	<10.	U	10.	04/19/04	
cis-1,2-Dichloroethene	800.	E	.50	04/19/04	
1,2-Dichloroethane	2.9		.50	04/19/04	
1,1,1-Trichloroethane	<.50	U	.50	04/19/04	
Benzene	1.7		.50	04/19/04	
Dibromomethane	<.50	U	.50	04/19/04	
Trichloroethene	<.50	U	.50	04/19/04	
4-Methyl-2-pentanone	<5.0	U	5.0	04/19/04	
Toluene	<.50	U	.50	04/19/04	
Tetrachloroethene	130.	E	.50	04/19/04	
Ethylbenzene	<.50	U	.50	04/19/04	
Xylene (total)	<.50	U	.50	04/19/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/19/04	
1,2,3-Trichloropropane	<.50	U	.50	04/19/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/19/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/19/04	
Naphthalene	<1.0	U	1.0	04/19/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/19/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	100		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8137
Sample Description: DUP-2
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	110		71-126
Toluene-d8 (surrogate)	88		80-120
Bromofluorobenzene (surrogate)	92		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8137 DL
Sample Description: DUP-2
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004W4
%Solids:
Sample Size: 10 mL
Dilution: 100

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<100.	U	100.	04/20/04	
Vinyl chloride	<100.	U	100.	04/20/04	
Chloroethane	<100.	U	100.	04/20/04	
Trichlorofluoromethane	<100.	U	100.	04/20/04	
Acetone	<1000.	U	1000.	04/20/04	
1,1-Dichloroethene	130.		50.	04/20/04	
Methylene chloride	<200.	U	200.	04/20/04	
Carbon disulfide	<50.	U	50.	04/20/04	
trans-1,2-Dichloroethene	<50.	U	50.	04/20/04	
1,1-Dichloroethane	110.		50.	04/20/04	
Vinyl acetate	<200.	U	200.	04/20/04	
2-Butanone	<1000.	U	1000.	04/20/04	
cis-1,2-Dichloroethene	2400.		50.	04/20/04	
1,2-Dichloroethane	<50.	U	50.	04/20/04	
1,1,1-Trichloroethane	<50.	U	50.	04/20/04	
Benzene	<50.	U	50.	04/20/04	
Dibromomethane	<50.	U	50.	04/20/04	
Trichloroethene	1700.		50.	04/20/04	
4-Methyl-2-pentanone	<500.	U	500.	04/20/04	
Toluene	<50.	U	50.	04/20/04	
Tetrachloroethene	120.		50.	04/20/04	
Ethylbenzene	<50.	U	50.	04/20/04	
Xylene (total)	<50.	U	50.	04/20/04	
1,1,2,2-Tetrachloroethane	<50.	U	50.	04/20/04	
1,2,3-Trichloropropane	<50.	U	50.	04/20/04	
1,2-Dibromo-3-chloropropane	<100.	U	100.	04/20/04	
1,2,4-Trichlorobenzene	<100.	U	100.	04/20/04	
Naphthalene	<100.	U	100.	04/20/04	
1,2,3-Trichlorobenzene	<100.	U	100.	04/20/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	99		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8137 DL
Sample Description: DUP-2
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004W4
%Solids:
Sample Size: 10 mL
Dilution: 100

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	116		71-126
Toluene-d8 (surrogate)	88		80-120
Bromofluorobenzene (surrogate)	91		78-120

Notes:

Isobutyl alcohol < 5000. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8138
Sample Description: CH2MW-114D
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/19/04	
Vinyl chloride	<1.0	U	1.0	04/19/04	
Chloroethane	<1.0	U	1.0	04/19/04	
Trichlorofluoromethane	<1.0	U	1.0	04/19/04	
Acetone	<10.	U	10.	04/19/04	
1,1-Dichloroethene	5.3		.50	04/19/04	
Methylene chloride	<2.0	U	2.0	04/19/04	
Carbon disulfide	<.50	U	.50	04/19/04	
trans-1,2-Dichloroethene	<.50	U	.50	04/19/04	
1,1-Dichloroethane	7.7		.50	04/19/04	
Vinyl acetate	<2.0	U	2.0	04/19/04	
2-Butanone	<10.	U	10.	04/19/04	
cis-1,2-Dichloroethene	94.	E	.50	04/19/04	
1,2-Dichloroethane	<.50	U	.50	04/19/04	
1,1,1-Trichloroethane	<.50	U	.50	04/19/04	
Benzene	<.50	U	.50	04/19/04	
Dibromomethane	<.50	U	.50	04/19/04	
Trichloroethene	230.	E	.50	04/19/04	
4-Methyl-2-pentanone	<5.0	U	5.0	04/19/04	
Toluene	<.50	U	.50	04/19/04	
Tetrachloroethene	10.		.50	04/19/04	
Ethylbenzene	<.50	U	.50	04/19/04	
Xylene (total)	<.50	U	.50	04/19/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/19/04	
1,2,3-Trichloropropane	<.50	U	.50	04/19/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/19/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/19/04	
Naphthalene	<1.0	U	1.0	04/19/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/19/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	100		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8138
Sample Description: CH2MW-114D
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	112		71-126
Toluene-d8 (surrogate)	89		80-120
Bromofluorobenzene (surrogate)	93		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8138 DL
Sample Description: CH2MW-114D
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004W4
%Solids:
Sample Size: 10 mL
Dilution: 10

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<10.	U	10.	04/20/04
Vinyl chloride	<10.	U	10.	04/20/04
Chloroethane	<10.	U	10.	04/20/04
Trichlorofluoromethane	<10.	U	10.	04/20/04
Acetone	<100.	U	100.	04/20/04
1,1-Dichloroethene	5.7		5.0	04/20/04
Methylene chloride	<20.	U	20.	04/20/04
Carbon disulfide	<5.0	U	5.0	04/20/04
trans-1,2-Dichloroethene	<5.0	U	5.0	04/20/04
1,1-Dichloroethane	7.7		5.0	04/20/04
Vinyl acetate	<20.	U	20.	04/20/04
2-Butanone	<100.	U	100.	04/20/04
cis-1,2-Dichloroethene	88.		5.0	04/20/04
1,2-Dichloroethane	<5.0	U	5.0	04/20/04
1,1,1-Trichloroethane	<5.0	U	5.0	04/20/04
Benzene	<5.0	U	5.0	04/20/04
Dibromomethane	<5.0	U	5.0	04/20/04
Trichloroethene	200.		5.0	04/20/04
4-Methyl-2-pentanone	<50.	U	50.	04/20/04
Toluene	<5.0	U	5.0	04/20/04
Tetrachloroethene	11.		5.0	04/20/04
Ethylbenzene	<5.0	U	5.0	04/20/04
Xylene (total)	<5.0	U	5.0	04/20/04
1,1,2,2-Tetrachloroethane	<5.0	U	5.0	04/20/04
1,2,3-Trichloropropane	<5.0	U	5.0	04/20/04
1,2-Dibromo-3-chloropropane	<10.	U	10.	04/20/04
1,2,4-Trichlorobenzene	<10.	U	10.	04/20/04
Naphthalene	<10.	U	10.	04/20/04
1,2,3-Trichlorobenzene	<10.	U	10.	04/20/04

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	97		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8138 DL
Sample Description: CH2MW-114D
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004W4
%Solids:
Sample Size: 10 mL
Dilution: 10

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	112		71-126
Toluene-d8 (surrogate)	87		80-120
Bromofluorobenzene (surrogate)	93		78-120

Notes:

Isobutyl alcohol < 500. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8139
Sample Description: CH2MW-4D
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/08/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/19/04	
Vinyl chloride	<1.0	U	1.0	04/19/04	
Chloroethane	<1.0	U	1.0	04/19/04	
Trichlorofluoromethane	<1.0	U	1.0	04/19/04	
Acetone	<10.	U	10.	04/19/04	
1,1-Dichloroethene	<.50	U	.50	04/19/04	
Methylene chloride	<2.0	U	2.0	04/19/04	
Carbon disulfide	<.50	U	.50	04/19/04	
trans-1,2-Dichloroethene	<.50	U	.50	04/19/04	
1,1-Dichloroethane	<.50	U	.50	04/19/04	
Vinyl acetate	<2.0	U	2.0	04/19/04	
2-Butanone	<10.	U	10.	04/19/04	
cis-1,2-Dichloroethene	<.50	U	.50	04/19/04	
1,2-Dichloroethane	<.50	U	.50	04/19/04	
1,1,1-Trichloroethane	<.50	U	.50	04/19/04	
Benzene	<.50	U	.50	04/19/04	
Dibromomethane	<.50	U	.50	04/19/04	
Trichloroethene	.60		.50	04/19/04	31
4-Methyl-2-pentanone	<5.0	U	5.0	04/19/04	
Toluene	<.50	U	.50	04/19/04	
Tetrachloroethene	<.50	U	.50	04/19/04	
Ethylbenzene	<.50	U	.50	04/19/04	
Xylene (total)	<.50	U	.50	04/19/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/19/04	
1,2,3-Trichloropropane	<.50	U	.50	04/19/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/19/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/19/04	
Naphthalene	<1.0	U	1.0	04/19/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/19/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	99		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8139
Sample Description: CH2MW-4D
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/08/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	114		71-126
Toluene-d8 (surrogate)	89		80-120
Bromofluorobenzene (surrogate)	94		78-120

Notes:
31: carryover from previous sample

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8139 RE
Sample Description: CH2MW-4D
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/08/04
Received: 04/09/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004W4
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/20/04	
Vinyl chloride	<1.0	U	1.0	04/20/04	
Chloroethane	<1.0	U	1.0	04/20/04	
Trichlorofluoromethane	<1.0	U	1.0	04/20/04	
Acetone	<10.	U	10.	04/20/04	
1,1-Dichloroethene	<.50	U	.50	04/20/04	
Methylene chloride	<2.0	U	2.0	04/20/04	
Carbon disulfide	<.50	U	.50	04/20/04	
trans-1,2-Dichloroethene	<.50	U	.50	04/20/04	
1,1-Dichloroethane	<.50	U	.50	04/20/04	
Vinyl acetate	<2.0	U	2.0	04/20/04	
2-Butanone	<10.	U	10.	04/20/04	
cis-1,2-Dichloroethene	<.50	U	.50	04/20/04	
1,2-Dichloroethane	<.50	U	.50	04/20/04	
1,1,1-Trichloroethane	<.50	U	.50	04/20/04	
Benzene	<.50	U	.50	04/20/04	
Dibromomethane	<.50	U	.50	04/20/04	
Trichloroethene	<.50	U	.50	04/20/04	
4-Methyl-2-pentanone	<5.0	U	5.0	04/20/04	
Toluene	<.50	U	.50	04/20/04	
Tetrachloroethene	<.50	U	.50	04/20/04	
Ethylbenzene	<.50	U	.50	04/20/04	
Xylene (total)	<.50	U	.50	04/20/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/20/04	
1,2,3-Trichloropropane	<.50	U	.50	04/20/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/20/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/20/04	
Naphthalene	<1.0	U	1.0	04/20/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/20/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	99		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8139 RE
Sample Description: CH2MW-4D
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435 . 218.21100
Certification NY No.: 10155R

Collected: 04/08/04
Received: 04/09/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004W4
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	114		71-126
Toluene-d8 (surrogate)	89		80-120
Bromofluorobenzene (surrogate)	93		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8140
Sample Description: ETMW-118
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/08/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<1.0	U	1.0	04/19/04
Vinyl chloride	<1.0	U	1.0	04/19/04
Chloroethane	<1.0	U	1.0	04/19/04
Trichlorofluoromethane	<1.0	U	1.0	04/19/04
Acetone	<10.	U	10.	04/19/04
1,1-Dichloroethene	.61		.50	04/19/04
Methylene chloride	<2.0	U	2.0	04/19/04
Carbon disulfide	<.50	U	.50	04/19/04
trans-1,2-Dichloroethene	<.50	U	.50	04/19/04
1,1-Dichloroethane	3.3		.50	04/19/04
Vinyl acetate	<2.0	U	2.0	04/19/04
2-Butanone	<10.	U	10.	04/19/04
cis-1,2-Dichloroethene	5.7		.50	04/19/04
1,2-Dichloroethane	<.50	U	.50	04/19/04
1,1,1-Trichloroethane	<.50	U	.50	04/19/04
Benzene	<.50	U	.50	04/19/04
Dibromomethane	<.50	U	.50	04/19/04
Trichloroethene	21.		.50	04/19/04
4-Methyl-2-pentanone	<5.0	U	5.0	04/19/04
Toluene	<.50	U	.50	04/19/04
Tetrachloroethene	1.9		.50	04/19/04
Ethylbenzene	<.50	U	.50	04/19/04
Xylene (total)	<.50	U	.50	04/19/04
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/19/04
1,2,3-Trichloropropane	<.50	U	.50	04/19/04
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/19/04
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/19/04
Naphthalene	<1.0	U	1.0	04/19/04
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/19/04

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	100		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8140
Sample Description: ETMW-118
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/08/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	114		71-126
Toluene-d8 (surrogate)	89		80-120
Bromofluorobenzene (surrogate)	92		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8141
Sample Description: ETMW-117
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/08/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<1.0	U	1.0	04/19/04
Vinyl chloride	<1.0	U	1.0	04/19/04
Chloroethane	<1.0	U	1.0	04/19/04
Trichlorofluoromethane	<1.0	U	1.0	04/19/04
Acetone	<10.	U	10.	04/19/04
1,1-Dichloroethene	2.2		.50	04/19/04
Methylene chloride	<2.0	U	2.0	04/19/04
Carbon disulfide	<.50	U	.50	04/19/04
trans-1,2-Dichloroethene	<.50	U	.50	04/19/04
1,1-Dichloroethane	9.8		.50	04/19/04
Vinyl acetate	<2.0	U	2.0	04/19/04
2-Butanone	<10.	U	10.	04/19/04
cis-1,2-Dichloroethene	20.		.50	04/19/04
1,2-Dichloroethane	<.50	U	.50	04/19/04
1,1,1-Trichloroethane	<.50	U	.50	04/19/04
Benzene	<.50	U	.50	04/19/04
Dibromomethane	<.50	U	.50	04/19/04
Trichloroethene	63.	E	.50	04/19/04
4-Methyl-2-pentanone	<5.0	U	5.0	04/19/04
Toluene	<.50	U	.50	04/19/04
Tetrachloroethene	3.2		.50	04/19/04
Ethylbenzene	<.50	U	.50	04/19/04
Xylene (total)	<.50	U	.50	04/19/04
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/19/04
1,2,3-Trichloropropane	<.50	U	.50	04/19/04
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/19/04
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/19/04
Naphthalene	<1.0	U	1.0	04/19/04
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/19/04

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	100		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8141
Sample Description: ETMW-117
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/08/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	114		71-126
Toluene-d8 (surrogate)	89		80-120
Bromofluorobenzene (surrogate)	93		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8141 DL
Sample Description: ETMW-117
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/08/04
Received: 04/09/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004W4
%Solids:
Sample Size: 10 mL
Dilution: 5

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<5.0	U	5.0	04/20/04
Vinyl chloride	<5.0	U	5.0	04/20/04
Chloroethane	<5.0	U	5.0	04/20/04
Trichlorofluoromethane	<5.0	U	5.0	04/20/04
Acetone	<50.	U	50.	04/20/04
1,1-Dichloroethene	<2.5	U	2.5	04/20/04
Methylene chloride	<10.	U	10.	04/20/04
Carbon disulfide	<2.5	U	2.5	04/20/04
trans-1,2-Dichloroethene	<2.5	U	2.5	04/20/04
1,1-Dichloroethane	10.		2.5	04/20/04
Vinyl acetate	<10.	U	10.	04/20/04
2-Butanone	<50.	U	50.	04/20/04
cis-1,2-Dichloroethene	21.		2.5	04/20/04
1,2-Dichloroethane	<2.5	U	2.5	04/20/04
1,1,1-Trichloroethane	<2.5	U	2.5	04/20/04
Benzene	<2.5	U	2.5	04/20/04
Dibromomethane	<2.5	U	2.5	04/20/04
Trichloroethene	64.		2.5	04/20/04
4-Methyl-2-pentanone	<25.	U	25.	04/20/04
Toluene	<2.5	U	2.5	04/20/04
Tetrachloroethene	3.4		2.5	04/20/04
Ethylbenzene	<2.5	U	2.5	04/20/04
Xylene (total)	<2.5	U	2.5	04/20/04
1,1,2,2-Tetrachloroethane	<2.5	U	2.5	04/20/04
1,2,3-Trichloropropane	<2.5	U	2.5	04/20/04
1,2-Dibromo-3-chloropropane	<5.0	U	5.0	04/20/04
1,2,4-Trichlorobenzene	<5.0	U	5.0	04/20/04
Naphthalene	<5.0	U	5.0	04/20/04
1,2,3-Trichlorobenzene	<5.0	U	5.0	04/20/04

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	99		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8141 DL
Sample Description: ETMW-117
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/08/04
Received: 04/09/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004W4
%Solids:
Sample Size: 10 mL
Dilution: 5

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	117		71-126
Toluene-d8 (surrogate)	89		80-120
Bromofluorobenzene (surrogate)	92		78-120

Notes:

Isobutyl alcohol < 250. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8142
Sample Description: ETMW-116
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/08/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/19/04	
Vinyl chloride	<1.0	U	1.0	04/19/04	
Chloroethane	<1.0	U	1.0	04/19/04	
Trichlorofluoromethane	<1.0	U	1.0	04/19/04	
Acetone	<10.	U	10.	04/19/04	
1,1-Dichloroethene	5.5		.50	04/19/04	
Methylene chloride	<2.0	U	2.0	04/19/04	
Carbon disulfide	<.50	U	.50	04/19/04	
trans-1,2-Dichloroethene	<.50	U	.50	04/19/04	
1,1-Dichloroethane	18.		.50	04/19/04	
Vinyl acetate	<2.0	U	2.0	04/19/04	
2-Butanone	<10.	U	10.	04/19/04	
cis-1,2-Dichloroethene	39.		.50	04/19/04	
1,2-Dichloroethane	<.50	U	.50	04/19/04	
1,1,1-Trichloroethane	<.50	U	.50	04/19/04	
Benzene	<.50	U	.50	04/19/04	
Dibromomethane	<.50	U	.50	04/19/04	
Trichloroethene	170.	E	.50	04/19/04	
4-Methyl-2-pentanone	<5.0	U	5.0	04/19/04	
Toluene	<.50	U	.50	04/19/04	
Tetrachloroethene	11.		.50	04/19/04	
Ethylbenzene	<.50	U	.50	04/19/04	
Xylene (total)	<.50	U	.50	04/19/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/19/04	
1,2,3-Trichloropropane	<.50	U	.50	04/19/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/19/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/19/04	
Naphthalene	<1.0	U	1.0	04/19/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/19/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	98		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8142
Sample Description: ETMW-116
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/08/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	113		71-126
Toluene-d8 (surrogate)	88		80-120
Bromofluorobenzene (surrogate)	92		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8142 DL
Sample Description: ETMW-116
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/08/04
Received: 04/09/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004W4
%Solids:
Sample Size: 10 mL
Dilution: 10

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<10.	U	10.	04/20/04	
Vinyl chloride	<10.	U	10.	04/20/04	
Chloroethane	<10.	U	10.	04/20/04	
Trichlorofluoromethane	<10.	U	10.	04/20/04	
Acetone	<100.	U	100.	04/20/04	
1,1-Dichloroethene	6.4		5.0	04/20/04	
Methylene chloride	<20.	U	20.	04/20/04	
Carbon disulfide	<5.0	U	5.0	04/20/04	
trans-1,2-Dichloroethene	<5.0	U	5.0	04/20/04	
1,1-Dichloroethane	19.		5.0	04/20/04	
Vinyl acetate	<20.	U	20.	04/20/04	
2-Butanone	<100.	U	100.	04/20/04	
cis-1,2-Dichloroethene	40.		5.0	04/20/04	
1,2-Dichloroethane	<5.0	U	5.0	04/20/04	
1,1,1-Trichloroethane	<5.0	U	5.0	04/20/04	
Benzene	<5.0	U	5.0	04/20/04	
Dibromomethane	<5.0	U	5.0	04/20/04	
Trichloroethene	150.		5.0	04/20/04	
4-Methyl-2-pentanone	<50.	U	50.	04/20/04	
Toluene	<5.0	U	5.0	04/20/04	
Tetrachloroethene	11.		5.0	04/20/04	
Ethylbenzene	<5.0	U	5.0	04/20/04	
Xylene (total)	<5.0	U	5.0	04/20/04	
1,1,2,2-Tetrachloroethane	<5.0	U	5.0	04/20/04	
1,2,3-Trichloropropane	<5.0	U	5.0	04/20/04	
1,2-Dibromo-3-chloropropane	<10.	U	10.	04/20/04	
1,2,4-Trichlorobenzene	<10.	U	10.	04/20/04	
Naphthalene	<10.	U	10.	04/20/04	
1,2,3-Trichlorobenzene	<10.	U	10.	04/20/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	100		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8142 DL
Sample Description: ETMW-116
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/08/04
Received: 04/09/04
Prepared: 04/20/04

Matrix: Water
QC Batch: 042004W4
%Solids:
Sample Size: 10 mL
Dilution: 10

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	117		71-126
Toluene-d8 (surrogate)	89		80-120
Bromofluorobenzene (surrogate)	92		78-120

Notes:

Isobutyl alcohol < 500. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8143
Sample Description: QC Trip Blank
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/19/04	
Vinyl chloride	<1.0	U	1.0	04/19/04	
Chloroethane	<1.0	U	1.0	04/19/04	
Trichlorofluoromethane	<1.0	U	1.0	04/19/04	
Acetone	<10.	U	10.	04/19/04	
1,1-Dichloroethene	<.50	U	.50	04/19/04	
Methylene chloride	<2.0	U	2.0	04/19/04	
Carbon disulfide	<.50	U	.50	04/19/04	
trans-1,2-Dichloroethene	<.50	U	.50	04/19/04	
1,1-Dichloroethane	<.50	U	.50	04/19/04	
Vinyl acetate	<2.0	U	2.0	04/19/04	
2-Butanone	<10.	U	10.	04/19/04	
cis-1,2-Dichloroethene	<.50	U	.50	04/19/04	
1,2-Dichloroethane	<.50	U	.50	04/19/04	
1,1,1-Trichloroethane	<.50	U	.50	04/19/04	
Benzene	<.50	U	.50	04/19/04	
Dibromomethane	<.50	U	.50	04/19/04	
Trichloroethene	<.50	U	.50	04/19/04	
4-Methyl-2-pentanone	<5.0	U	5.0	04/19/04	
Toluene	<.50	U	.50	04/19/04	
Tetrachloroethene	<.50	U	.50	04/19/04	
Ethylbenzene	<.50	U	.50	04/19/04	
Xylene (total)	<.50	U	.50	04/19/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/19/04	
1,2,3-Trichloropropane	<.50	U	.50	04/19/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/19/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/19/04	
Naphthalene	<1.0	U	1.0	04/19/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/19/04	

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	99		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8143
Sample Description: QC Trip Blank
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	112		71-126
Toluene-d8 (surrogate)	90		80-120
Bromofluorobenzene (surrogate)	92		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 21, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Laboratory Control Sample
GC/MS Volatile Organics

Package#: 7642
Sample: L041904W1
Analyzed: 04/19/04

QC Batch: 041904W1
Instrument: HP5973 GC/MS#1
Number of analytes: 29

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Chloromethane	10.0102	10	ug/L	100	58-133	
Vinyl chloride	10.0774	10	ug/L	101	76-127	
Chloroethane	9.7429	10	ug/L	97	77-125	
Trichlorofluoromethane	11.0065	10	ug/L	110	78-128	
Acetone	24.8964	20	ug/L	124	37-175	
1,1-Dichloroethene	9.8965	10	ug/L	99	80-115	
Methylene chloride	9.4882	10	ug/L	95	76-115	
Carbon disulfide	10.0773	10	ug/L	101	83-117	
trans-1,2-Dichloroethene	9.7693	10	ug/L	98	84-115	
1,1-Dichloroethane	10.9344	10	ug/L	109	85-117	
Vinyl acetate	9.3588	10	ug/L	94	25-175	
2-Butanone	23.3355	20	ug/L	117	44-162	
cis-1,2-Dichloroethene	9.9089	10	ug/L	99	85-115	
1,2-Dichloroethane	11.8121	10	ug/L	118	75-121	
1,1,1-Trichloroethane	10.7728	10	ug/L	108	83-124	
Benzene	9.7122	10	ug/L	97	85-122	
Dibromomethane	10.3570	10	ug/L	104	80-115	
Trichloroethene	9.6775	10	ug/L	97	85-120	
4-Methyl-2-pentanone	23.5112	20	ug/L	118	50-132	
Toluene	9.4691	10	ug/L	95	85-122	
Tetrachloroethene	8.7737	10	ug/L	88	85-121	
Ethylbenzene	9.0295	10	ug/L	90	85-123	
Xylene (total)	26.0748	30	ug/L	87	82-128	
1,1,2,2-Tetrachloroethane	9.9252	10	ug/L	99	70-123	
1,2,3-Trichloropropane	10.2524	10	ug/L	103	75-120	
1,2-Dibromo-3-chloropropane	10.7338	10	ug/L	107	63-123	
1,2,4-Trichlorobenzene	9.4646	10	ug/L	95	76-117	
Naphthalene	10.4496	10	ug/L	104	69-125	
1,2,3-Trichlorobenzene	9.6657	10	ug/L	97	78-119	
Isobutyl alcohol	312.36	%R 250	ug/L	125	50-150	

Surrogate	%R	Qual	Limits
Dibromofluoromethane (surrogate)	106		78-120
1,2-Dichloroethane-d4 (surrogate)	121		71-126
Toluene-d8 (surrogate)	102		80-120
Bromofluorobenzene (surrogate)	98		78-120

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary Laboratory Control Sample GC/MS Volatile Organics

Package#: 7642
Sample: L042004W4
Analyzed: 04/20/04

QC Batch: 042004W4
Instrument: HP5973 GC/MS#1
Number of analytes: 29

Parameter	LCS Result	Spike Added	Units	%R	%R Limits	Note
Chloromethane	9.0700	10	ug/L	91	58-133	
Vinyl chloride	9.3171	10	ug/L	93	76-127	
Chloroethane	8.7440	10	ug/L	87	77-125	
Trichlorofluoromethane	9.9895	10	ug/L	100	78-128	
Acetone	18.8610	20	ug/L	94	37-175	
1,1-Dichloroethene	8.7256	10	ug/L	87	80-115	
Methylene chloride	8.3003	10	ug/L	83	76-115	
Carbon disulfide	8.9334	10	ug/L	89	83-117	
trans-1,2-Dichloroethene	8.7373	10	ug/L	87	84-115	
1,1-Dichloroethane	9.6039	10	ug/L	96	85-117	
Vinyl acetate	7.9358	10	ug/L	79	25-175	
2-Butanone	18.7134	20	ug/L	94	44-162	
cis-1,2-Dichloroethene	8.8836	10	ug/L	89	85-115	
1,2-Dichloroethane	10.5404	10	ug/L	105	75-121	
1,1,1-Trichloroethane	9.7036	10	ug/L	97	83-124	
Benzene	8.5706	10	ug/L	86	85-122	
Dibromomethane	9.0091	10	ug/L	90	80-115	
Trichloroethene	8.6782	10	ug/L	87	85-120	
4-Methyl-2-pentanone	19.5584	20	ug/L	98	50-132	
Toluene	8.4224	10	ug/L	84	85-122	#
Tetrachloroethene	8.9208	10	ug/L	89	85-121	
Ethylbenzene	9.1065	10	ug/L	91	85-123	
Xylene (total)	26.5720	30	ug/L	89	82-128	
1,1,2,2-Tetrachloroethane	9.8411	10	ug/L	98	70-123	
1,2,3-Trichloropropane	9.6083	10	ug/L	96	75-120	
1,2-Dibromo-3-chloropropane	11.1933	10	ug/L	112	63-123	
1,2,4-Trichlorobenzene	9.9517	10	ug/L	100	76-117	
Naphthalene	11.0697	10	ug/L	111	69-125	
1,2,3-Trichlorobenzene	10.0529	10	ug/L	101	78-119	
Isobutyl alcohol	247.23	%R 250	ug/L	99	50-150	

Surrogate	%R	Qual	Limits
Dibromofluoromethane (surrogate)	108		78-120
1,2-Dichloroethane-d4 (surrogate)	121		71-126
Toluene-d8 (surrogate)	98		80-120
Bromofluorobenzene (surrogate)	95		78-120

Notes:

- Outside control limits

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
GC/MS Volatile Organics

Package#: 7642
Sample: PB041904W1
Analyzed: 04/19/04

QC Batch: 041904W1
Instrument: HP5973 GC/MS#1
Number of analytes: 29

Parameter	Sample Result	Q	PQL	Units	Note
Chloromethane	<1.0	U	1.0	ug/L	
Vinyl chloride	<1.0	U	1.0	ug/L	
Chloroethane	<1.0	U	1.0	ug/L	
Trichlorofluoromethane	<1.0	U	1.0	ug/L	
Acetone	<10.	U	10.	ug/L	
1,1-Dichloroethene	<.50	U	.50	ug/L	
Methylene chloride	<2.0	U	2.0	ug/L	
Carbon disulfide	<.50	U	.50	ug/L	
trans-1,2-Dichloroethene	<.50	U	.50	ug/L	
1,1-Dichloroethane	<.50	U	.50	ug/L	
Vinyl acetate	<2.0	U	2.0	ug/L	
2-Butanone	<10.	U	10.	ug/L	
cis-1,2-Dichloroethene	<.50	U	.50	ug/L	
1,2-Dichloroethane	<.50	U	.50	ug/L	
1,1,1-Trichloroethane	<.50	U	.50	ug/L	
Benzene	<.50	U	.50	ug/L	
Dibromomethane	<.50	U	.50	ug/L	
Trichloroethene	<.50	U	.50	ug/L	
4-Methyl-2-pentanone	<5.0	U	5.0	ug/L	
Toluene	<.50	U	.50	ug/L	
Tetrachloroethene	<.50	U	.50	ug/L	
Ethylbenzene	<.50	U	.50	ug/L	
Xylene (total)	<.50	U	.50	ug/L	
1,1,2,2-Tetrachloroethane	<.50	U	.50	ug/L	
1,2,3-Trichloropropane	<.50	U	.50	ug/L	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	ug/L	
1,2,4-Trichlorobenzene	<1.0	U	1.0	ug/L	
Naphthalene	<1.0	U	1.0	ug/L	
1,2,3-Trichlorobenzene	<1.0	U	1.0	ug/L	
Isobutyl alcohol	<50.	$u_{\%R}$	50.	ug/L	

Surrogate	%R	Qual	Limits
Dibromofluoromethane (surrogate)	106		78-120
1,2-Dichloroethane-d4 (surrogate)	122		71-126
Toluene-d8 (surrogate)	100		80-120
Bromofluorobenzene (surrogate)	96		78-120

Notes:

- Outside control limits. J - Estimated value. U - Undetected at the reported level.

O'Brien & Gere Laboratories, Inc.

Quality Control Summary
Preparation Blank
GC/MS Volatile Organics

Package#: 7642
Sample: PB042004W4
Analyzed: 04/20/04

QC Batch: 042004W4
Instrument: HP5973 GC/MS#1
Number of analytes: 29

Parameter	Sample Result	Q	PQL	Units	Note
Chloromethane	<1.0	U	1.0	ug/L	
Vinyl chloride	<1.0	U	1.0	ug/L	
Chloroethane	<1.0	U	1.0	ug/L	
Trichlorofluoromethane	<1.0	U	1.0	ug/L	
Acetone	<10.	U	10.	ug/L	
1,1-Dichloroethene	<.50	U	.50	ug/L	
Methylene chloride	<2.0	U	2.0	ug/L	
Carbon disulfide	<.50	U	.50	ug/L	
trans-1,2-Dichloroethene	<.50	U	.50	ug/L	
1,1-Dichloroethane	<.50	U	.50	ug/L	
Vinyl acetate	<2.0	U	2.0	ug/L	
2-Butanone	<10.	U	10.	ug/L	
cis-1,2-Dichloroethene	<.50	U	.50	ug/L	
1,2-Dichloroethane	<.50	U	.50	ug/L	
1,1,1-Trichloroethane	<.50	U	.50	ug/L	
Benzene	<.50	U	.50	ug/L	
Dibromomethane	<.50	U	.50	ug/L	
Trichloroethene	<.50	U	.50	ug/L	
4-Methyl-2-pentanone	<5.0	U	5.0	ug/L	
Toluene	<.50	U	.50	ug/L	
Tetrachloroethene	<.50	U	.50	ug/L	
Ethylbenzene	<.50	U	.50	ug/L	
Xylene (total)	<.50	U	.50	ug/L	
1,1,2,2-Tetrachloroethane	<.50	U	.50	ug/L	
1,2,3-Trichloropropane	<.50	U	.50	ug/L	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	ug/L	
1,2,4-Trichlorobenzene	<1.0	U	1.0	ug/L	
Naphthalene	<1.0	U	1.0	ug/L	
1,2,3-Trichlorobenzene	<1.0	U	1.0	ug/L	
Isobutyl alcohol	<50.	u%R	50.	ug/L	

Surrogate	%R	Qual	Limits
Dibromofluoromethane (surrogate)	98		78-120
1,2-Dichloroethane-d4 (surrogate)	112		71-126
Toluene-d8 (surrogate)	89		80-120
Bromofluorobenzene (surrogate)	94		78-120

Notes:

- Outside control limits. J - Estimated value. U - Undetected at the reported level.

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8941
Sample Description: OBGMW-124
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/27/04

Matrix: Water
QC Batch: 042704W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed	Notes
Chloromethane	<1.0	U	1.0	04/27/04	
Vinyl chloride	<1.0	U	1.0	04/27/04	
Chloroethane	<1.0	U	1.0	04/27/04	
Trichlorofluoromethane	<1.0	U	1.0	04/27/04	
Acetone	<10.	U	10.	04/27/04	
1,1-Dichloroethene	<.50	U	.50	04/27/04	
Methylene chloride	<2.0	U	2.0	04/27/04	
Carbon disulfide	.63		.50	04/27/04	
trans-1,2-Dichloroethene	<.50	U	.50	04/27/04	
1,1-Dichloroethane	<.50	U	.50	04/27/04	
Vinyl acetate	<2.0	U	2.0	04/27/04	
2-Butanone	<10.	U	10.	04/27/04	
cis-1,2-Dichloroethene	<.50	U	.50	04/27/04	
1,2-Dichloroethane	<.50	U	.50	04/27/04	
1,1,1-Trichloroethane	<.50	U	.50	04/27/04	
Benzene	<.50	U	.50	04/27/04	
Dibromomethane	<.50	U	.50	04/27/04	
Trichloroethene	<.50	U	.50	04/27/04	
4-Methyl-2-pentanone	<5.0	U	5.0	04/27/04	
Toluene	<.50	U	.50	04/27/04	
Tetrachloroethene	<.50	U	.50	04/27/04	
Ethylbenzene	<.50	U	.50	04/27/04	
Xylene (total)	<.50	U	.50	04/27/04	
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/27/04	
1,2,3-Trichloropropane	<.50	U	.50	04/27/04	
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/27/04	
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/27/04	
Naphthalene	<1.0	U	1.0	04/27/04	
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/27/04	

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 27, 2004 Monika Santucci

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7744
Sample: B8941
Sample Description: OBGMW-124
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/21/04
Received: 04/23/04
Prepared: 04/27/04

Matrix: Water
QC Batch: 042704W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	110		78-120
1,2-Dichloroethane-d4 (surrogate)	123		71-126
Toluene-d8 (surrogate)	104		80-120
Bromofluorobenzene (surrogate)	97		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: April 27, 2004 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE
LABORATORIES, INC.

May 21, 2004

Mr. Andrew Brunton
O'Brien & Gere Engineers, Inc.
951 Aviation Parkway
Suite 1400
Morrisville, NC 27560

Re: Analytical Report

File: 3435.218, pkg: 7642

Dear Mr. Brunton:

The purpose of this letter is to provide a revised report form for the Miller Brewing Company project. You had brought to our attention that there was not agreement between the diluted and undiluted result for trichloroethene on sample "DUP-2". Upon investigation it was realized that the GC/MS software did not recognize the trichloroethene peak and failed to report the analyte. Please find attached the corrected trichloroethene result.

We apologize for the above types of errors and for any inconvenience this may have caused. Should you have any questions regarding the above please feel free to contact me at your convenience.

Very truly yours,

O'BRIEN & GERE LABORATORIES, INC.

Monika Santucci

Monika Santucci
Project Supervisor

G:\PROJMGT\DOCS\MS\Miller.doc

Enclosures

cc: Mark Vanderwarker
Anthony Crescenzi

O'Brien & Gere Laboratories, Inc., an O'Brien & Gere company
5000 Brittonfield Parkway, P.O. Box 4942, Syracuse, New York 13221
(315) 437-0200 / FAX (315) 463-7554 • http://www.obg.com
. . . and offices in major U.S. cities

O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8137
Sample Description: DUP-2
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Parameter	Result	Qual	PQL	Analyzed Notes
Chloromethane	<1.0	U	1.0	04/19/04
Vinyl chloride	<1.0	U	1.0	04/19/04
Chloroethane	5.3		1.0	04/19/04
Trichlorofluoromethane	<1.0	U	1.0	04/19/04
Acetone	<10.	U	10.	04/19/04
1,1-Dichloroethene	140.	E	.50	04/19/04
Methylene chloride	<2.0	U	2.0	04/19/04
Carbon disulfide	<.50	U	.50	04/19/04
trans-1,2-Dichloroethene	2.5		.50	04/19/04
1,1-Dichloroethane	110.	E	.50	04/19/04
Vinyl acetate	<2.0	U	2.0	04/19/04
2-Butanone	<10.	U	10.	04/19/04
cis-1,2-Dichloroethene	800.	E	.50	04/19/04
1,2-Dichloroethane	2.9		.50	04/19/04
1,1,1-Trichloroethane	<.50	U	.50	04/19/04
Benzene	1.7		.50	04/19/04
Dibromomethane	<.50	U	.50	04/19/04
Trichloroethene	700.	E	.50	04/19/04
4-Methyl-2-pentanone	<5.0	U	5.0	04/19/04
Toluene	<.50	U	.50	04/19/04
Tetrachloroethene	130.	E	.50	04/19/04
Ethylbenzene	<.50	U	.50	04/19/04
Xylene (total)	<.50	U	.50	04/19/04
1,1,2,2-Tetrachloroethane	<.50	U	.50	04/19/04
1,2,3-Trichloropropane	<.50	U	.50	04/19/04
1,2-Dibromo-3-chloropropane	<1.0	U	1.0	04/19/04
1,2,4-Trichlorobenzene	<1.0	U	1.0	04/19/04
Naphthalene	<1.0	U	1.0	04/19/04
1,2,3-Trichlorobenzene	<1.0	U	1.0	04/19/04

Surrogate	%R	Qual	%R Limits
Dibromofluoromethane (surrogate)	100		78-120

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: May 18, 2004

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O'Brien & Gere Laboratories, Inc.

Analytical Results Method: 8260

Client: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company, Moultrie, GA
Proj. Desc:
Package#: 7642
Sample: B8137
Sample Description: DUP-2
Instrument: HP5973 GC/MS#1
Units: ug/L
Number of analytes: 29

Job No.: 3435.218.21100
Certification NY No.: 10155R

Collected: 04/07/04
Received: 04/09/04
Prepared: 04/19/04

Matrix: Water
QC Batch: 041904W1
%Solids:
Sample Size: 10 mL
Dilution: 1

Surrogate	%R	Qual	%R Limits
1,2-Dichloroethane-d4 (surrogate)	110		71-126
Toluene-d8 (surrogate)	88		80-120
Bromofluorobenzene (surrogate)	92		78-120

Notes:

Isobutyl alcohol < 50. ug/L

B - Analyte detected above the PQL in the associated Prep Blank.
- Outside control limits U - Undetected at the reported level.
J - reported value is estimated. D - Result is diluted.
E - concentration exceeded the calibration range and is estimated.

Authorized: Monika Santucci
Date: May 18, 2004

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

REPORT
Volume III – Appendix G

Revised Compliance Status Report
Miller Brewing Company
Moultrie, Georgia

Miller Brewing Company
Moultrie, Georgia

June 2004



O'BRIEN & GERE
ENGINEERS, INC.

TABLE OF CONTENTS
VOLUME III – APPENDIX G

Revised Compliance Status Report
Miller Brewing Company
Moultrie, Georgia

Section	
1	Soil Sampling & Analysis Report prepared by: Westinghouse Environmental Services October 1998
2	Field Investigation Report prepared by: CH2M Hill October 1993
3	Summary Report (Step 1) prepared by: The Earth Technology Corporation December 10, 1993
4	Site Investigation Report prepared by: Earth Tech March 22, 1994
5	Supplemental Site Investigation Report prepared by: Earth Tech August 1995
6	Phase II Subsurface Investigation prepared by: McLaren/Hart, Inc. May 21, 1998
7	Compliance Status Report prepared by: CH2M Hill September 1998

Soil Sampling & Analysis Report prepared by: Westinghouse Environmental Services October 1998

SOIL SAMPLING & ANALYSIS REPORT
For
MILLER BREWING COMPANY

Red Label Pipe Area
Moultrie Can Plant
Moultrie, Georgia

Prepared by:

WESTINGHOUSE ENVIRONMENTAL SERVICES
WES Job No. 4125-88-150

October, 1988

Westinghouse
Environmental Services

Environmental Engineering

4000 DeKalb Technology Parkway, N.E.
Suite 250
Atlanta, Georgia 30340
(404) 458-9309
FAX (404) 458-9438

October 27, 1988

Miller Brewing Company
P. O. Box 1299
Moultrie, GA 31768

Attention: Mr. Bob Jones

Subject: Soil Sampling and Analysis - Red Label Pipe Area
Moultrie Can Plant
Moultrie, Georgia
WES Job No. 4125-88-150

Dear Mr. Jones:

Westinghouse Environmental Services (WES) is pleased to present this report detailing our soil sampling and monitoring procedures and the results of sample analysis with regards to the referenced project. The work was performed under the direction of Mr. E. A. Richards, P.E. of Bioenergy Systems, Ltd. as consultant to the Miller Brewing Company.

We hope that our services are responsive to your needs. If you have further questions regarding this or other matters, please call.

Very truly yours,

WESTINGHOUSE ENVIRONMENTAL SERVICES

Thomas S. Lawrence
Hydrogeologist

Larry Carter, P.G.
Project Manager

TSL/LC/rp

cc: E. A. Richards, P.E.
J.F. McCulloch, Manager - Environmental Engineering
C. Galmon, Plant Manager

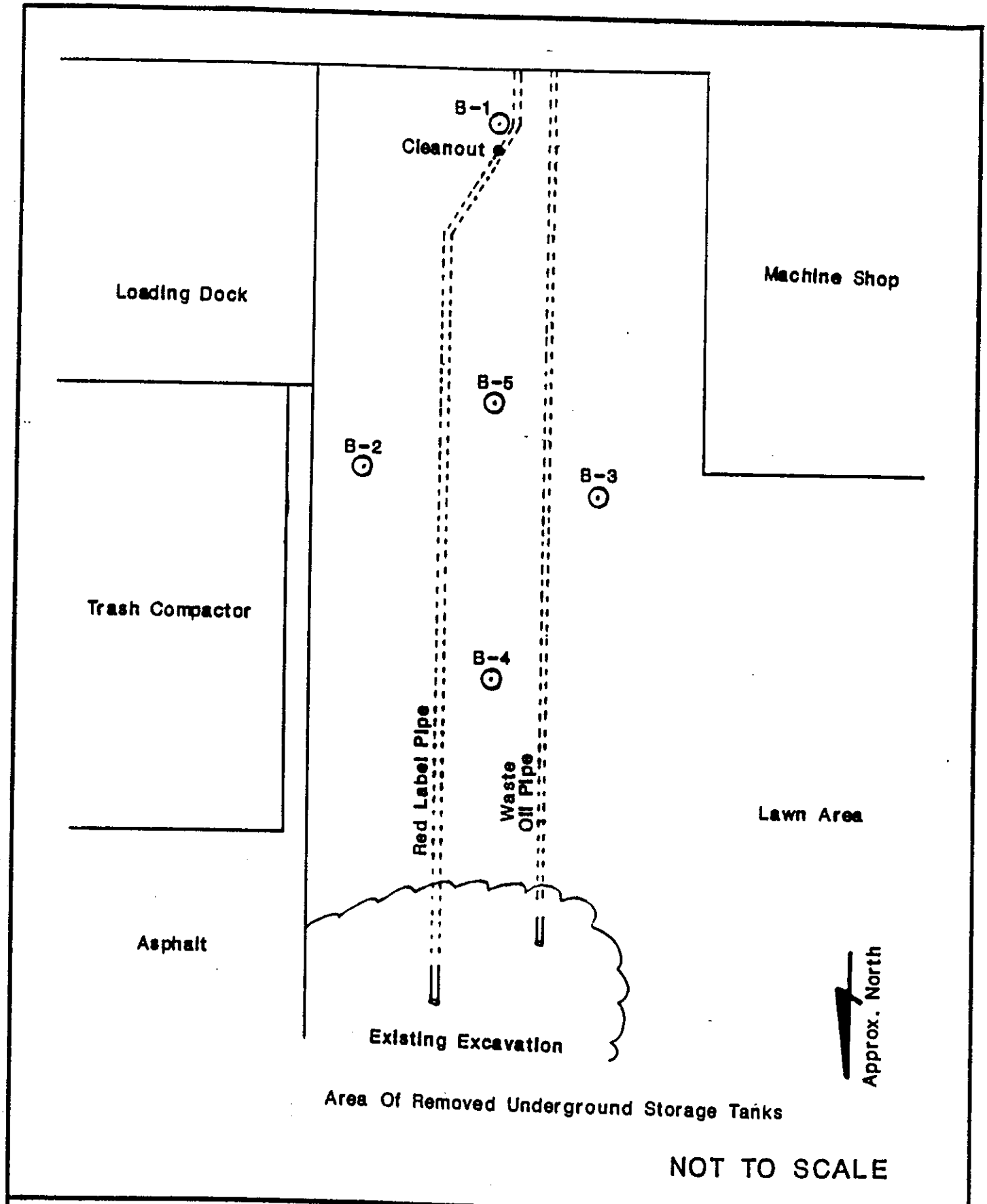
INTRODUCTION

Westinghouse Environmental Services (WES) was requested to provide technical services during the investigation and remediation of a suspected underground pipe leak at the Miller Brewing Company's Moultrie can plant. The work was directed by Mr. E. A. Richards, P. E. as consultant to the Miller Brewing Company. WES was asked to provide drilling and soil sampling services, field monitoring of soils using an Organic Volatile Analyzer (OVA) during remediation, and subcontract analytical testing. Labor and excavation equipment for the remediation portion of the project was provided by Southern Contractors and Machine Erectors of Valdosta, Georgia.

PROJECT INFORMATION

We understand that the possibility of an underground pipe leak was first discovered approximately one week prior to this investigation when workmen from Southern Contractors and Machine Erectors were attempting to uncover a buried waste oil pipe near where it enters the foundation of the plant (Figure 1). The area is close to the plant exterior and is confined by the machine shop wall and the loading dock. Due to the confined nature of the area and the presence of other buried pipes, the workmen were using hand shovels to uncover the pipe.

At a depth of approximately 3 to 4 feet, the workmen encountered a small inflow of liquid into the excavation close to the red label cleanout riser. The red label pipe drained waste solvents from the red label room to an underground storage tank, before the tank was removed and the other end of the pipe plugged. The red label pipe cleanout consisted of a vertical pipe that tied into the red label drain pipe, and extended approximately 4 feet to the ground surface, where it was closed with a threaded plug. The workmen explained that the liquid ran out of the soil as if it came from a pocket or void in the soil. Since the liquid gave off strong fumes, the hole was lined with plastic sheeting and backfilled with native soil.



Westinghouse
Environmental Services

Figure 1
Boring locations
Miller Brewing Company
WES Job # 4125-88-150

PRELIMINARY SOIL SAMPLING

On September 21, 1988 a WES geologist met with Mr. E. A. Richards, P. E. at the subject site. Under the direction of Mr. Richards, five soil boring locations were selected in the area outside the plant, between the machine shop and loading dock (Figure 1). The boring locations were selected in an effort to maximize data acquisition to determine the extent of soil contamination, while working within the limitations of using a truck-mounted auger drill in a confined area.

The soil borings were advanced using standard augering techniques (ASTMD-1586) to depths ranging between 13 and 15 feet. Split-spoon samples were taken through the hollow stem augers at approximately 5 feet intervals. Boring logs are included in the Appendix. Fifteen split-spoon soil samples were taken from the borings, placed in appropriate sample jars, labeled, and delivered to Advanced Chemistry Labs in Chamblee, Georgia for analysis. The split-spoons used for sampling were decontaminated between each sample and the drilling tools coming in contact with the formation were decontaminated between each boring. Decontamination consisted of steam-cleaning with tap water.

As directed by Mr. Richards, the soil samples were analyzed for 2-propanol, methylethylketone, and butyl cellosolve. The results of the laboratory analysis (received on September 26, 1988) are included in the Appendix.

SOIL EXCAVATION

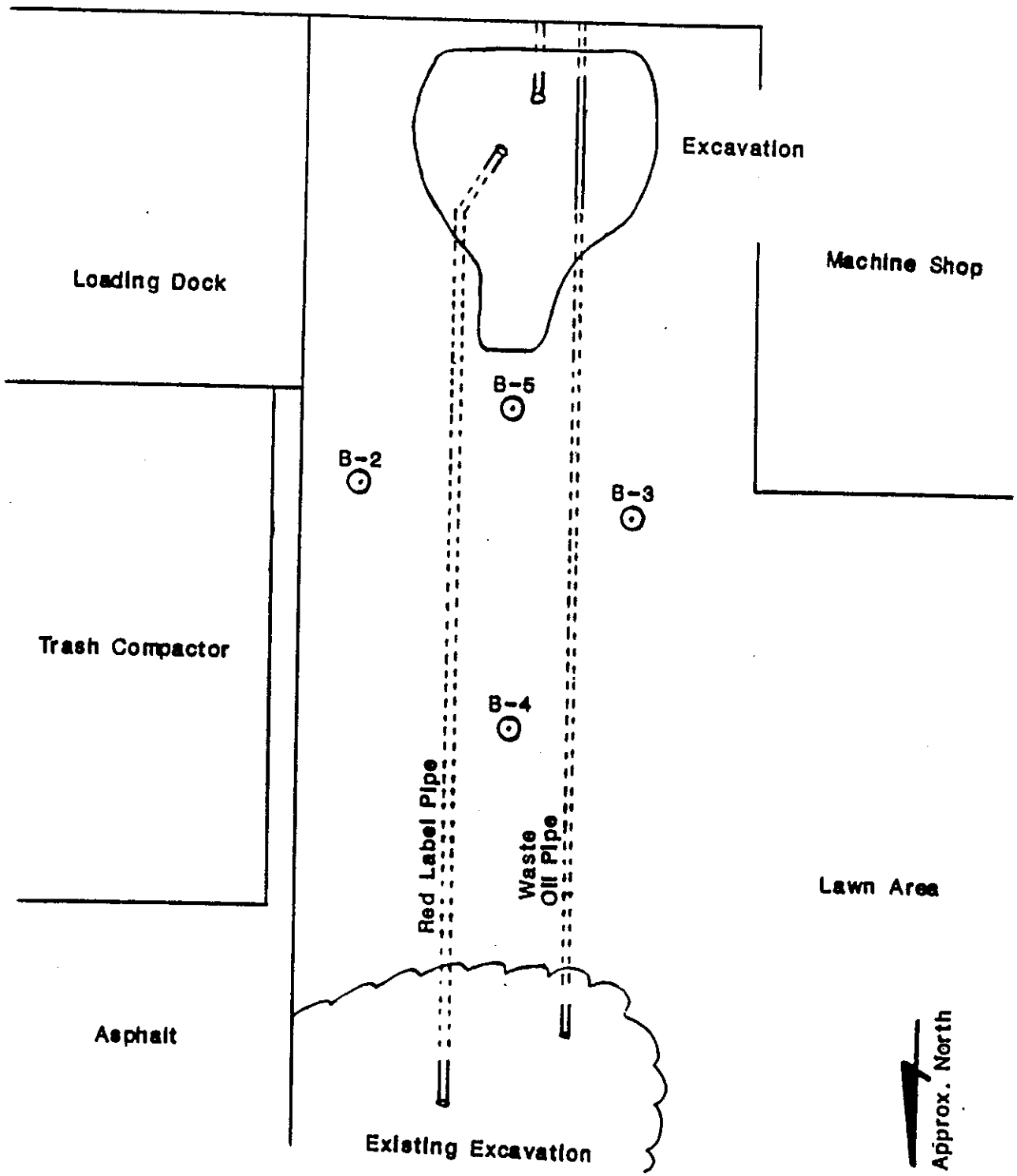
Mr. Richards determined that appropriate remediation would consist of removal of contaminated soils. On September 22, 1988 workmen from Southern Contractors and Machine Erectors were on-site to excavate soils. A WES geologist was also on-site to monitor volatile organic soil vapor contamination levels using an Organic Vapor Analyzer (OVA).

As soil was removed from the red label cleanout area, the geologist scanned the excavated area as well as the soils removed. Approximately the top two feet of soil gave no indication, on the OVA, of the presence of volatile organic vapors. This upper portion of soil was placed in a pile and saved, to be spread out on the plant lawn. When soils were encountered that did indicate volatile organic vapors, they were placed in a separate pile on plastic sheeting to be disposed of off site. Excavation stopped when organic soil vapor levels fell below 100ppm as indicated in the OVA. No excavated soils were returned to the pit; soils from offsite only were placed back in the excavation.

The approximate location of the excavation is outlined in Figure 2. The area of the excavation was approximately 10 by 12 feet. During the excavation, which extended to a depth of approximately 8 feet, the red labeled pipe as well as other pipes and conduits were uncovered As the red label pipe was uncovered, near where the cleanout riser joins the pipe, the highest levels of volatile organic vapors were encountered. OVA readings measured off-scale, greater than 1000 ppm. The contamination appeared to be coming from liquid leaking from the red label pipe, which was broken at the tee connection with the cleanout riser. The cleanout riser pipe, as well as about 5 feet of the red label pipe, was removed from the excavation.

The stratigraphy of the pit was visible in the sidewalls of the excavation. The upper 4 to 5 feet appeared to be clay backfill with pieces of scrap wood, trash, and concrete. Below the fill material, the pipes and conduits were embedded in a fine sand backfill, about 16 to 18 inches thick. The freshly uncovered sand was blackish to dark grey in color and smelled slightly like sewage. After exposure to air overnight, the sand changed color to light brown. Below the sand layer, in the bottom of the pit, is a hard clay. The clay extended to a depth of 15 feet, based on the attached boring logs.

The excavation pit was left open overnight and the next day (September 23) organic vapors in the pit were 3-4 ppm as indicated with the OVA. The three open ends of the red label pipe were plugged to prevent future leakage.



Area Of Removed Underground Storage Tanks

NOT TO SCALE

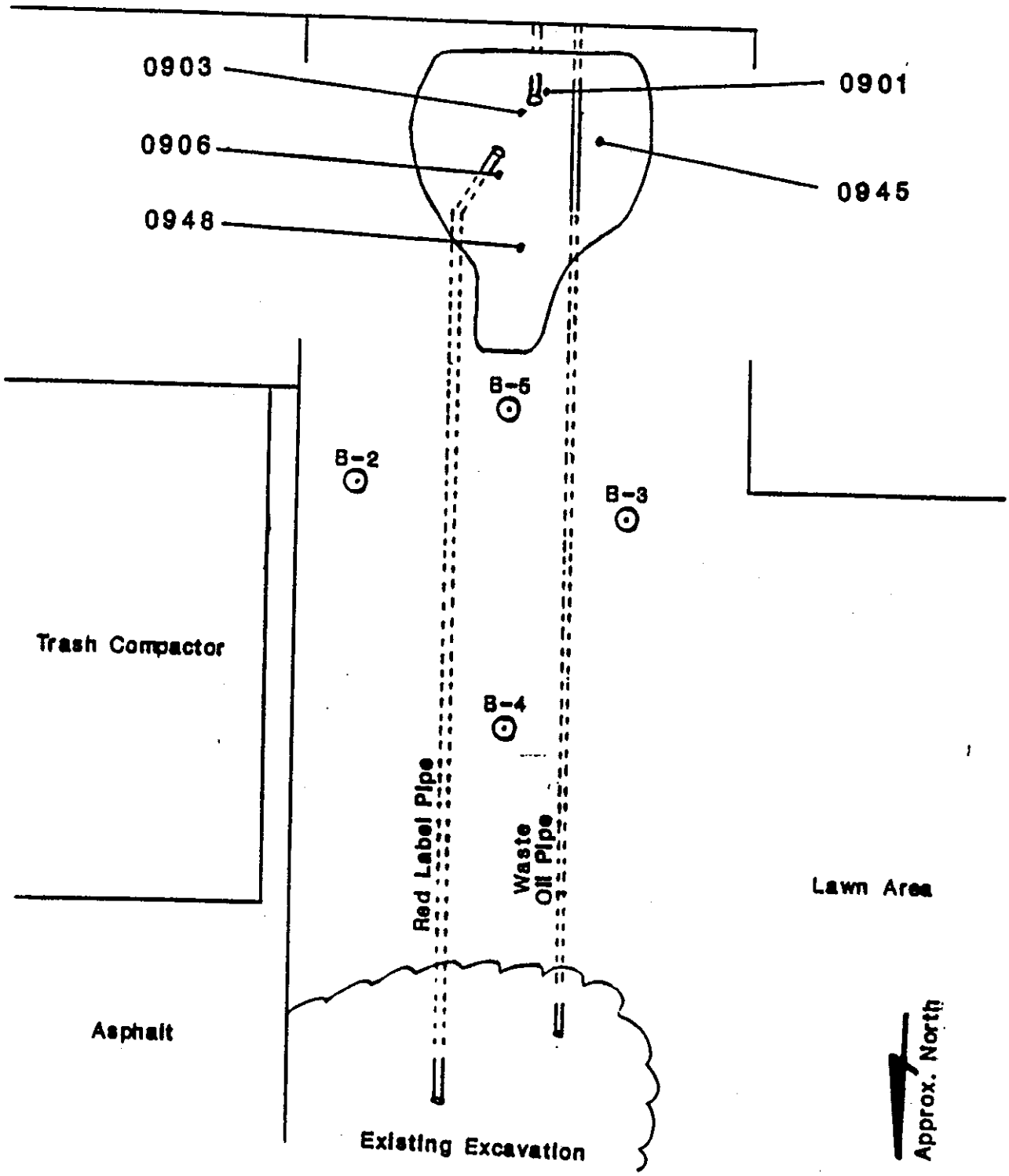
Westinghouse
Environmental Services

Figure 2
Approximate area of excavation
Miller Brewing Company
WES job # 4125-88-150

FINAL SOIL SAMPLING

Before leaving the site, WES collected five grab soil samples from the open pit. The purpose of this final sampling was to confirm the visual and OVA indications of reduced contamination levels. One soil sample (sample 0903) was taken from the pit bottom, in the hard clay formation. The four other samples were collected from the four sides of the pit at the depth of the contaminated horizon (Figure 3).

The results of the laboratory analyses of grab samples is included in the Appendix.



Area Of Removed Underground Storage Tanks

NOT TO SCALE

Westinghouse
Environmental Services

Figure 3
Grab sample locations
Miller Brewing Company
WES Job # 4125-88-150

APPENDIX

S&ME SUBSURFACE DRILL LOG

DEPTH FEET	SOIL/MATERIAL DESCRIPTION — SURFACE ELEVATION _____	SAMPLE	SPT BLOWS	RECOV.	WATER	SCREEN	REMARKS
5	Granular backfill		7/9/10	0			
	Clay: Mottled and fractured hard with dark gray sandy-muddy fracture filling	1-6	6/9/12	100			MEK smell
10		1-8	16/24/25	100			MEK smell
	Clay: hard, white-pink-red mottled.						
		1-11	17/25/35	100			MEK smell
	Boring terminated @ 13'						
15	No groundwater encountered at time of boring.						
	Boring backfilled after completion.						

DRILLING & SAMPLING MEETS ASTM D-1586 & ASTM D-1587

PAGE 1 OF 1

SUPERVISOR Tom Lawrence

RIG TYPE CME-55

WEATHER clear-hot

LOCATION NO. B-1

DATE DRILLED 9-21-88

JOB NO. 4125-88-150

S&ME SUBSURFACE DRILL LOG

DEPTH FEET	SOIL/MATERIAL DESCRIPTION — SURFACE ELEVATION ____	SAMPLE	SPT BLOWS	RECOV.	WATER	SCREEN	REMARKS
5	Sand: Dark to light brown muddy	2-3	4/12/15	100			
10	Clay: Mottled,dense,red-yellow-white-grey	2-8	8/19/29	100			
		2-11	12/22/28	33%			
15	Boring terminated @ 13' No groundwater encountered at time of boring. Boring backfilled aftercompletion.						

DRILLING & SAMPLING MEETS ASTM D-1586 & ASTM D-1587

PAGE 1 OF 1

SUPERVISOR Tom Lawrence

RIG TYPE CME-55

WEATHER clear-hot

LOCATION NO. B-2

DATE DRILLED 9-21-88

JOB NO. 4125-88-150

S&ME SUBSURFACE DRILL LOG

DEPTH FEET	SOIL/MATERIAL DESCRIPTION — SURFACE ELEVATION _____	SAMPLE	SPT BLOWS	RECOV.	WATER	SCREEN	REMARKS
5	Clay: Dense, purple-red mottled and light brown muddy sand	3-3	1/1/1	100	▼		Approximate 18 hour water level
10	Clay: Dense, hard, yellow-tan	3-8	17/22/28	100			
15		3-13	15/24/29	100			
	Boring terminated @ 15' No groundwater encountered at time of boring.						

DRILLING & SAMPLING MEETS ASTM D-1586 & ASTM D-1587

PAGE 1 OF 1

SUPERVISOR Tom Lawrence

RIG TYPE CME-55

WEATHER clear-hot

LOCATION NO. B-3

DATE DRILLED 9-21-88

JOB NO. 4125-88-150

S&ME SUBSURFACE DRILL LOG

DEPTH FEET	SOIL/MATERIAL DESCRIPTION (SURFACE ELEVATION _____)	SAMPLE	SPT BLOWS	RECOV.	WATER	SCREEN	REMARKS
5	Clay: Brown and tan, sandy	4-3	2/4/6	100	▼		Approximate 18 hour water level
10	Clay: Dense, mottled, white-purple	4-8	7/18/26	40%			
15		4-13	17/18/22	100			
	Boring complete @ 15 ' No groundwater encountered at time of boring.						

DRILLING & SAMPLING MEETS ASTM D-1586 & ASTM D-1587

PAGE 1 OF 1

SUPERVISOR Tom Lawrence

RIG TYPE CME-55

WEATHER clear-hot

LOCATION NO. B-4

DATE DRILLED 9-21-88

JOB NO. 4125-88-150

S&ME SUBSURFACE DRILL LOG

DEPTH FEET	SOIL/MATERIAL DESCRIPTION (SURFACE ELEVATION ____)	SAMPLE	SPT BLOWS	RECOV.	WATER	SCREEN	REMARKS
5	Clay: Dense, mottled, grey-purple-red	5-3	2/3/2	100			
10		5-6	7/21/29	100			
	Clay: Hard, mottled, grey-purple-red						
15		5-13	14/22/27	100			
	Boring terminated @ 15'						
	No groundwater encountered at time of boring.						
	Boring backfilled after completion.						

DRILLING & SAMPLING MEETS ASTM D-1586 & ASTM D-1587

PAGE 1 OF 1

SUPERVISOR Tom Lawrence

RIG TYPE CME-55

WEATHER clear-hot

LOCATION NO. B-5

DATE DRILLED 9-21-88

JOB NO. 4125-88-150

ACL

ADVANCED CHEMISTRY LABS, INC.

DR. STEVE N. TSOUKALAS
CHIEF CHEMIST

P.O. BOX 88610 • ATLANTA, GEORGIA 30356
TELEPHONE (404) 455-1266

Client: WESTINGHOUSE ENVIRONMENTAL/S & ME
4000 Dekalb Technology Parkway
Suite 250
Atlanta, GA 30340

Attention: Tom Lawrence

Client Project No.: #4125-88-150
ACL Project No.: #2133, #2142
Date Received: 9/22/88, 9/23/88
Report Date: 9/30/88

Station	ACL #	2-Propanol (mg/kg)	Methyl Ethyl Ketone (mg/kg)	Butyl Cellosol (mg/kg)
1-6	8831	761	962	200
1-8	8832	206	331	113
1-11	8833	< 1	< 1	2
2-3	8834	< 1	< 1	1
2-8	8835	< 1	< 1	< 1
2-11	8836	< 1	< 1	< 1
3-3	8837	< 1	< 1	< 1
3-8	8838	< 1	< 1	10
3-13	8839	< 1	< 1	< 1
4-3	8840	< 1	< 1	< 1
4-8	8841	< 1	< 1	< 1
4-13	8842	< 1	< 1	< 1
5-3	8843	< 1	< 1	< 1
5-8	8844	< 1	< 1	< 1
5-13	8845	< 1	< 1	< 1
0901	8870	9	15	< 1
0903	8871	< 1	4	2
0906	8872	< 1	4	3
0945	8873	6	54	< 1
0948	8874	3	19	8

Steve N. Tsoukalas
Steve Tsoukalas, Ph.D.
Director of Chemistry

Appendix G – Section 2

Field Investigation Report
prepared by: CH2M Hill
October 1993

FIELD INVESTIGATION REPORT
OF THE MILLER BREWING COMPANY
CONTAINER PLANT
MOULTRIE, GEORGIA

Prepared for:

Reynolds Metals Company

Prepared by:

CH2M HILL

October 1993

Revision No. 1
Date 10/25/93

Field Investigation Report

Following a site visit to the Miller Container Plant near Moultrie, Georgia on September 9 and 10, 1993, Phase II site assessment activities were scoped and presented in the **Phase II Scope of Work, Moultrie, Georgia Facility** dated September 24, 1993. On October 4 - 8, 11, 18, and 19, 1993, CH2M HILL conducted the field investigations for Reynolds Metals. The results of these field investigations are presented in this report.

Site Conditions

The Miller Container Plant is located about two miles south of Moultrie, Georgia, on Highway 319. The facility was built in 1980 on land reportedly previously used for agriculture. Surrounding property is used for agriculture with residential development currently occurring to the southwest.

The facility was built on top of a small hill. The native soils consist of a few feet of sand on top of a very hard, dense clay. Groundwater tends to follow the site topography and generally flows radially away from the facility. Because there is very limited infiltration into the clay, rain water tends to runoff or move laterally within the sand intervals. Perched water table conditions may exist in areas where the native clays were replaced with sandy fill material during construction activities.

Known sources of contamination at the facility are:

- Coral ACC-2A leak discovered in September 1991 - A consent order with the State of Georgia was closed in January 1993 following removal of contaminated soils with pH less than 4.

- Waste solvent piping leak discovered in September 1988 - Contaminated soils were excavated based on soil headspace readings.

Results of Field Investigation

Based on information gathered during the initial site visit, the following potential sources of contamination were identified for further investigation:

- Hill near visitor parking which was reportedly created during facility construction for storage of native soils removed to construct the building foundation

- Outside drum storage area used prior to construction of the current drum storage building in 1982

- Sump which collects water from the drum storage building

- Area where a rail spur was previously located and rail car loading took place
- Wastewater sumps set in the ground
- Coral ACC-2A leak area (site of a previous release and remediation project)
- Two 20,000-gallon underground storage tanks (USTs) previously used to store fuel oil for emergency power generation (removed in September 1988)
- One 5,220-gallon waste oil UST (removed in September 1988)
- One 7,500-gallon waste solvent UST (removed in September 1988)
- Waste solvent piping leak area (site of a previous release and remediation project)
- Floor drains and sumps inside the facility that carry oil to and from the Schneider filter
- Various oil leaks and spills that drained to the north of the facility into the stormwater ditch
- Aerial application of Paraquat to cotton fields east of the facility

Field investigations at the site began on October 4, 1993, and Figure 1 shows the locations where samples were collected to evaluate the potential sources of contamination listed above. Adjustments to the original Phase II scope of work were made based on additional information gathered at the site. The field changes were agreed to by Miller and Reynolds and documented in a field changes list dated October 4, 1993, which is included as Appendix A. All drilling and surveying activities were completed on October 8, but groundwater sampling continued on October 11. Because sufficient sample volume was still not available from some of the temporary wells, the wells were left in place for another week to allow more time for groundwater to flow into the wells. Groundwater sampling was completed on October 18. All temporary monitor wells were abandoned by grouting or filling with bentonite on October 19.

Table 1 presents the sample numbers, a description of the sampling locations, and the analytical parameters for each sample. Table 2 summarizes the depths of the temporary wells and soil borings as well as the groundwater level data. Table 3 presents the field parameter data collected during the field investigations. Tables 4 and 5 provide the analytical results for the water and soil samples, respectively. The laboratory data sheets are included as Appendix B. Appendix C contains the field notes which include the boring logs.

Summary

A total of twelve temporary wells and two soil borings were installed during the field investigations. Water level measurements were made in all temporary wells except TW-11 and the data are presented in Table 2. These water level data were not used for determining groundwater flow direction. Because of the low permeability of the clay, frequent and long-term

water level data would be necessary to characterize local groundwater flow conditons within the clay unit. After temporary well installation, a period of a day to a week or more was required before water flowed into the wells. Recharge to wells installed in sandy fill material (e.g., TW-6 and TW-10) occurred first. Field observations indicated the presence of a perched water table overlying the clays. Shallow groundwater flow would tend to follow the local topography and flow radially away from the facility.

Groundwater samples were collected from all temporary wells except for TW-11 where water never accumulated in the well during the 15 days that it remained in the ground. Insufficient sample volume was obtained from TW-9 for field parameter testing.

Split-spoon soil samples were collected during installation of the twelve temporary monitor wells and screened for organic vapors with an organic vapor analyzer (OVA). One soil sample was collected for laboratory analysis from each temporary well location, except TW-2, and also from boring B-2. Because of an error during sampling, soil samples for oil and grease (O&G) analysis were not collected from TW-1 and TW-12.

Visual screening of split-spoon samples from boring B-1 revealed sandy soil throughout the boring in the center of the hill and did not indicate the presence of construction debris at that location. No soil samples were collected from boring B-1. Visual screening of split-spoon samples from boring B-2 revealed stormwater sediments at a depth of about five to seven feet, where a soil sample was collected for laboratory analysis.

Four sediment samples and one surface water sample were collected from two different stormwater drainage ditches at the facility.

Contaminants were detected above background levels in groundwater samples from TW-2, TW-3, TW-7, TW-9, and TW-10. Contaminants were also detected above background levels in the surface water sample, SW-1.

Soil samples with contaminants detected above background levels were TW-2, TW-3, TW-5, TW-6, TW-7, TW-8, TW-9, TW-10, and TW-11. All of the sediment samples, including the sediment sample collected from boring B-2, showed one or more contaminants elevated above background levels.

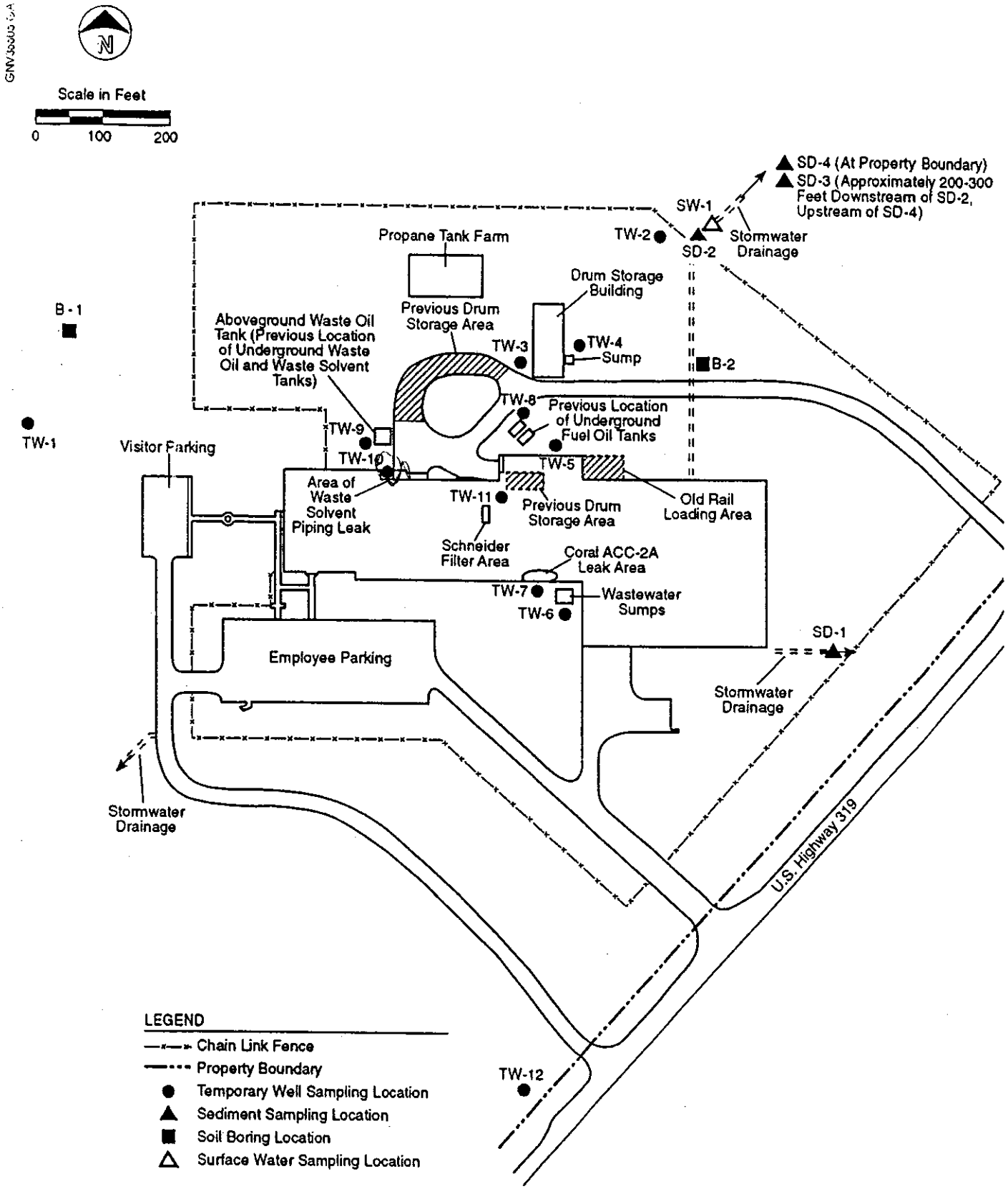


Figure 1. Sampling Locations, Miller Container Plant Moultrie, GA.

CHMHILL

Table 1
Summary of Sampling Locations
Miller Container Plant
Moultrie, Georgia

Sample Number	Sample Description	Analytical Parameters							
		VOCs	TPH	O&G	F	pH	PP Metals	Butyl Cellusolve	Paraquat
SOIL SAMPLES									
GA-TW-1-S	Adjacent to hill of soil removed before constructing facility foundation O&G sample not collected by mistake Sample depth = 6'-8' HNu readings = background	X	X						
GA-TW-2	Downgradient of northern side of plant Sample depth = 2'-4' HNu readings = background	X	X	X					
GA-TW-3-S	Adjacent to past drum storage area Sample depth = 4'-6' HNu readings = background	X	X	X		X			
GA-TW-4-S	Adjacent to sump that drains drum storage building Sample depth = 4'-6' (near sump bottom) HNu readings = 0-2 ppm above background	X	X	X		X			
GA-TW-5-S	Near old rail loading area Sample depth = 4'-6' HNu readings = background	X	X	X					
GA-TW-6-S	Adjacent to wastewater sumps set in ground Sample depth = 8'-10' HNu readings = 0-15 ppm above background	X	X	X	X	X			

Table 1
Summary of Sampling Locations
Miller Container Plant
Moultrie, Georgia

Sample Number	Sample Description	Analytical Parameters							
		VOCs	TPH	O&G	F	pH	PP Metals	Butyl Cellusolve	Paraquat
GA-TW-7-S	Adjacent to Coral ACC-2A leak area Sample depth = 12'-14' Did not take soil headspace readings - took soil pH readings				X	X			
GA-TW-8-S	Near previous location of fuel oil USTs Sample depth = 8'-10' HNu readings = 0-70 ppm above background	X	X	X					
GA-TW-9-S	Adjacent to previous location of waste solvent and waste oil USTs Sample depth = 8'-12' HNu readings = 0-80 ppm above background	X	X	X					
GA-TW-10-S	In area of waste solvent piping leak Sample depth = 6'-8' HNu readings = 0->1000 ppm above background	X	X	X				X	
GA-TW-11-S	Adjacent to Schneider filter oil sump inside plant Sample depth = 10'-11' HNu readings = 0-1 ppm above background	X	X	X					
GA-TW-12-S	Near Highway 319 (background location) O&G sample not collected by mistake Sample depth = 2'-6' HNu readings = background	X	X		X	X			X

Table 1
Summary of Sampling Locations
Miller Container Plant
Moultrie, Georgia

Sample Number	Sample Description	Analytical Parameters							
		VOCs	TPH	O&G	F	pH	PP Metals	Butyl Cellusolve	Paraquat
GA-B-1	Hill of soil removed before constructing facility foundation Split-spoon samples collected from top of hill to 18' and screened for evidence of construction debris - none found No soil sample collected/no HNu readings								
GA-B-2-S	In area where old stormwater ditch filled Sample depth = 5'-7' No HNu readings	X	X	X			X		
GROUNDWATER SAMPLES									
GA-TW-1-GW	Adjacent to hill of soil removed before constructing facility foundation	X	X	X					
GA-TW-2-GW	Downgradient of northern side of plant	X	X	X					
GA-TW-3-GW	Adjacent to past drum storage area	X	X	X		X			
GA-TW-4-GW	Adjacent to sump that drains drum storage building	X	X	X		X			
GA-TW-5-GW	Near old rail loading area	X	X	X					
GA-TW-6-GW	Adjacent to wastewater sumps set in ground	X	X	X	X	X			

Table 1
Summary of Sampling Locations
Miller Container Plant
Moultrie, Georgia

Sample Number	Sample Description	Analytical Parameters							
		VOCs	TPH	O&G	F	pH	PP Metals	Butyl Cellusolve	Paraquat
GA-TW-7-GW	Adjacent to Coral ACC-2A leak area				X	X			
GA-TW-8-GW	Near previous location of fuel oil USTs	X	X	X					
GA-TW-9-GW	Adjacent to previous location of waste solvent and waste oil USTs Did not produce enough water for O&G sample	X	X						
GA-TW-10-GW	In area of waste solvent piping leak	X	X	X				X	
GA-TW-11-GW	Adjacent to Schneider filter oil sump inside plant No sample collected - no water in well								
GA-TW-12-GW	Near Highway 319 (background location)	X	X	X	X	X			
GA-TW-13-GW	Duplicate of GA-TW-6-GW	X	X	X	X	X			
STORMWATER SYSTEM SAMPLES									
GA-SD-1	Sediment sample from drainage ditch that drains east from the southeast corner of the building	X	X	X			X		
GA-SD-2	Sediment sample from drainage ditch that drains to the north - sample collected at mouth of culvert at the fenceline	X	X	X			X		
GA-SD-3	Sediment sample from drainage ditch that drains to the north - sample collected between mouth of culvert and Miller property boundary	X	X	X			X		

Table 1
Summary of Sampling Locations
Miller Container Plant
Moultrie, Georgia

Sample Number	Sample Description	Analytical Parameters							
		VOCs	TPH	O&G	F	pH	PP Metals	Butyl Cellusolve	Paraquat
GA-SD-4	Sediment sample from drainage ditch that drains to the north - sample collected at Miller property boundary	X	X	X			X		
GA-SW-1	Surface water sample from drainage ditch that drains to the north - sample collected just downstream of GA-SD-2	X	X	X					

Notes:

Total petroleum hydrocarbon (TPH) analyses by EPA Method 418.1.

Volatile organic compound (VOC) analyses by EPA method 8240 (soil) and EPA Method 624 (water).

Oil and grease (O&G) analyses by EPA Method 413.

Fluoride (F) analyses of water by EPA Method 340.2 and fluoride analyses of soil by modified EPA Method 340.2.

Groundwater samples for pH analysis tested in the field. Soil samples for pH analysis tested in the laboratory.

Paraquat analysis by EPA Method 549.

Total metals analyses by EPA Method 7000 series.

APPENDIX A

FIELD CHANGES LIST

FIELD CHANGES TO PHASE II SCOPE OF WORK
MOULTRIE, GEORGIA FACILITY
OCTOBER 4, 1993

1) Add oil and grease analyses wherever total petroleum hydrocarbon (TPH) analyses had been specified.

Daralube 544 is not petroleum based and would not be detected by TPH analysis while other oils used are petroleum based and would be detected by TPH analysis.

2) Move Paraquat analysis from TW-2 to TW-12.

Paraquat was aerially applied to cotton fields which are closer to TW-12 than TW-2.

3) Move B-1 to hill near TW-1.

B-1 was originally located in an area where a stormwater ditch was believed to have been located previously. The ditch did not actually start until just north of the nearby roadway so a boring was not needed at the original B-1 location.

The hill near TW-1 was used for stockpiling soil removed during construction of the facility and, potentially, for other construction debris. A soil boring through the middle of the hill would help evaluate the contents of the hill. One soil sample is planned from this boring to be analyzed for TPH, VOCs, and oil and grease.

4) Move TW-1 west of the hill.

This would be more downgradient of the hill.

5) Move B-2 south near the roadway.

With the elimination of B-1 in this area, B-2 was moved to the area where the old stormwater ditch began.

6) Move TW-5 west about 100 feet.

This location would be closer to the area where scrap loading on rail cars previously took place.

7) Move TW-9 to the south side of the existing aboveground waste oil tank.

The waste oil and waste solvent underground tanks were previously located just south of the existing aboveground waste oil tank, not underneath the existing aboveground waste oil tank as previously believed.

8) Install TW-11 ~~in the corner~~ ALONG THE WALL of the compressor room adjacent to the main oil sump that feeds the Schneider filter.

This location is just on the other side of the wall from the oil sump of concern and in an area that can be closed off to avoid dust entering the manufacturing area. The driller will install the well by using a hand coring machine (water cooled, runs on electricity) to core through the floor slab and then use a hand auger to bore through the soil to the water table. Dust generation should be minimal.

THE UNDERSIGNED PARTIES AGREE TO THESE CHANGES:

October 4, 1993

Robert L Crispin 10/4/93
Miller Brewing Co.

Robert J. Bourcier 10/5/93
Reynolds Metals Co.

Barb Prater 10/5/93
CH2M HILL

APPENDIX B

LABORATORY DATA SHEETS

ICM

CHAIN OF CUSTODY RECORD

Client: REYNOLDS

Project ID: CONV 36606.6A

Address: MOULTRIE, GA.

Sampler: Robert Petersen

City/State:

Phone #: 904-331-2442 ~~ext. 296~~

ICM lab ID #	Sample ID	Sample Date	Sample Time	Sample Type			No. of Bottles
				Grab	Soil	Comp	
	GA-TW12-S (4-6)	10/4	1500	X	X		4
	GA-TW1-S (6-8)	10/4	1800	X	X		2
	GA-TW7-S (12-14)	10/5	0910	X	X		2
	GA-TW11-S (10-11)	10/5	1440	X	X		3
							11

Sample Containers Relinquished By: R. W. J. Petersen 10/5/93	Sample Containers Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:

INDUSTRIAL CORROSION MANAGEMENT INCORPORATED

1102 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0880

ANALYSIS REQUEST FORM

Client Name: REYNOLDS - MOULTRIE, GA

Project ID: ENV 36606.GA

Sample ID	Matrix: Water	Soil	Other	PP +40 *	VO GC/MS	VO GC/MS +15	AF GC/MS	AF GC/MS +10	BN GC/MS	BN GC/MS +15	Pesticides/PCBs	PP Metals	Cyanide	Phenol	Pet. Hydrocarbons	PCBs	TCLP Inorganics	TCLP Organics	Reactivity (CN+S)	Corrosivity (as pH)	Ignitability	TCLP VOA	TCLP AF	TCLP BN	Other
SA-Tw12-S (2-4)		X																							624 VOC's, TPH
SA-Tw12-S (4-6)		X																							TPH, FLUORIDE
SA-Tw1-S (6-8)		X																							624 VOC's TPH
SA-Tw7-S (12-14)		X																							TPH, FLUORIDE
SA-Tw11-S (10-11)		X																							624 VOC, TPH, OIL & GREASE

- ☐ ECRA
- ☐ RCRA
- ☐ BUST
- ☐ Gas/Kerosene
- ☐ Other _____
- ☐ State forms req.
- ☐ Results only
- ☐ Regulatory format
- ☐ Reduced deliverables
- ☐ CLP I
- ☐ CLP II

TURNAROUND TIME

- ☐ Standard (4wk H.C.)
- ☒ Rush 7-DAY

TCLP: MATRIX SPIKE

- ☐ Required
- ☐ Not Required

COMPOUND LISTS

- ☐ Priority Pollutant
- ☐ Target Compound List
- ☐ NJAC 7:14A App. B
- ☐ Other _____

Special Instructions: Isopropyl Alcohol used to decon soil sampling equipment

* Includes – VO +15; AF +10; BN +15; Pesticides/PCBs; Priority Pollutant Metals; CN & Phenol

This signature authorizes ICM to perform the analyses listed above. Any changes will be confirmed in writing.

Robert J. Petersen — Robert J. Petersen - CH2M HILL — 10/5/93

Signature — Print Name and Title — Date

ICM

CHAIN OF CUSTODY RECORD

Client: Reynolds

Project ID: GNV 36606.6A

Address:

Sampler: Joe Robinson

City/State: Moultrie, GA

Phone #: 904/331-2442 ext 296

ICM lab ID #	Sample ID	Sample Date	Sample Time	Sample Type			No. of Bottles
				Grab	Soil	Comp	
	GA-SD-2	10/5/93	1450	X	X		4
	GA-SD-3	10/3/93	1430	X	X		4
	GA-SD-4	10/5/93	1410	X	X		4
							//
							12

Sample Containers Relinquished By:	Sample Containers Received By:	Date:	Time:
JT Robinson 10/5/93			
Relinquished By:	Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:

ICM INDUSTRIAL CORROSION MANAGEMENT INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

~~ANALYSIS REQUEST FORM~~

Client Name: Reynolds

Project ID: Moultrie GA GNV 36606-GA

- ☐ ECRA
- ☐ RCRA
- ☐ BUST
- ☐ Gas/Kerosene
- ☐ Other _____
- ☐ State forms req.
- ☐ Results only
- ☐ Regulatory format
- ☐ Reduced deliverables
- ☐ CLP I
- ☐ CLP II

TURNAROUND TIME

- ☐ Standard (4wk H.C.)
- ☒ Rush 7-Dy

TCLP: MATRIX SPIKE

- ☐ Required
- ☐ Not Required

COMPOUND LISTS

- ☐ Priority Pollutant
- ☐ Target Compound List
- ☐ NJAC 7:14A App. B
- ☐ Other _____

Sample ID	Matrix: Water	Matrix: Soil	Matrix: Other	PP +40 *	VO GC/MS	VO GC/MS +15	AF GC/MS	AF GC/MS +10	BN GC/MS	BN GC/MS +15	Pesticides/PCBs	PP Metals	Cyanide	Phenol	Pet. Hydrocarbons	PCBs	TCLP Inorganics	TCLP Organics	Reactivity (CN+S)	Corrosivity (as pH)	Ignitability	TCLP VOA	TCLP AF	TCLP BN	Other
~~GA-SD1~~		~~X~~																							
GA-SD-2		X																							TPH, O&G, VOC 624, Metals
GA-SD-3		X																							TPH, O&G, VOC 624, Metals
GA-SD-4		X																							TPH O&G, VOC 624, Metals

Special Instructions: Isopropyl Alcohol used to decon soil sampling equip+

* Includes – VO +15; AF +10; BN +15; Pesticides/PCBs; Priority Pollutant Metals; CN & Phenol

This signature authorizes ICM to perform the analyses listed above. Any changes will be confirmed in writing.

Signature	Print Name and Title	Date
Joseph K Robinson	Joseph K Robinson - EN-II	10/5/93

ICM

CHAIN OF CUSTODY RECORD

Client: Reynolds Project ID: GNV 36606 GA

Address: Moultrie, GA. Sampler: R. J. Petersen

City/State: Phone #: CH2M-(GCA)-331-2442

ICM lab ID #	Sample ID	Sample Date	Sample Time	Sample Type			No. of Bottles
				Grab	Soil	Comp	
	GA-TW6-S(8-10)	10/5	1620	X	X		5
	GA-TW4-S(4-6)	10/6	0840	X	X		4
	GA-TW3-S(4-6)	10/6	1015	X	X		4
	GA-TW8-S(8-10)	10/6	1150	X	X		3
	GA-SD-1	10/6	0950	X	X		4
							20

Sample Containers Relinquished By: Robert Petersen 10/6/93	Sample Containers Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:

ICM INDUSTRIAL CORROSION MANAGEMENT INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

ANALYS REQUEST FORM

Client Name: REYNOLDS- MOULTRIE, GA.

Project ID: GNV 36606GA

Sample ID	Matrix: Water	Matrix: Soil	Matrix: Other	PP +40 *	VO GC/MS	VO GC/MS +15	AF GC/MS	AF GC/MS +10	BN GC/MS	BN GC/MS +15	Pesticides/PCBs	PP Metals	Cyanide	Phenol	Pet. Hydrocarbons	PCBs	TCLP Inorganics	TCLP Organics	Reactivity (CN+S)	Corrosivity (as pH)	Ignitability	TCLP VOA	TCLP AF	TCLP BN	Other
GA-TW6-S(8-10)		X																							624 VOC, PH, TPH, OIL
																									& GREASE, FLUORIDE
A-TW3-S (~~8~~ 4-6)		X																							624 VOC, PH, TPH, O&G
A-TW4-S (4-6)		X																							624 VOC, PH, TPH, O&G
A-TW-8-S(8-10)		X																							624 VOC, TPH, O&G
GA-SD-1		X																							624 VOC, TPH, O&G, metals

- ☐ ECRA
- ☐ RCRA
- ☐ BUST
- ☐ Gas/Kerosene
- ☐ Other _____
- ☐ State forms req.
- ☐ Results only
- ☐ Regulatory format
- ☐ Reduced deliverables
- ☐ CLP I
- ☐ CLP II

TURNAROUND TIME

- ☐ Standard (4wk H.C.)
- ☑ Rush 7 DAY

TCLP: MATRIX SPIKE

- ☐ Required
- ☐ Not Required

COMPOUND LISTS

- ☐ Priority Pollutant
- ☐ Target Compound List
- ☐ NJAC 7:14A App. B
- ☐ Other _____

Special Instructions: _____

* Includes – VO +15; AF +10; BN +15; Pesticides/PCBs; Priority Pollutant Metals; CN & Phenol

This signature authorizes ICM to perform the analyses listed above. Any changes will be confirmed in writing.

[signature] Robert J Petersen CH2M-HILL 10/6/93

Signature Print Name and Title Date

ICM

CHAIN OF CUSTODY RECORD

Client: Reynolds Project ID: GNV 36606.GA

Address: Moultrie, GA Sampler: Joe Robinson

City/State: Phone #: 904/331-2442 ext. 296

ICM lab ID #	Sample ID	Sample Date 1993	Sample Time	Sample Type			No. of Bottles
				Grab	Soil	Comp	
	GA-SW-1	10-5	1730	X			4
	GA-EB-1-AQ	10-6	0900	X			5
	~~GA-SD-1~~	~~10-6~~	~~0950~~	~~X~~	~~X~~		~~4~~ (gm)
	GA-TW12-GW	10-6	1350	X			6
	GA-TW1-GW	10-6	1450	X			4
							~~4~~
							19

Sample Containers Relinquished By:	Sample Containers Received By:	Date:	Time:
JR Robinson 10/6/93			
Relinquished By:	Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:

ICM INDUSTRIAL CORROSION MANAGEMENT INCORPORATED

152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0380

ANALYSIS REQUEST FORM

Client Name: Reynolds Machine GA

Project ID: GNV36606-GA

- [ ] ECRA
- [ ] RCRA
- [ ] BUST
- [ ] Gas/Kerosene
- [ ] Other _____
- [ ] State forms req.
- [ ] Results only
- [ ] Regulatory format
- [ ] Reduced deliverables
- [ ] CLP I
- [ ] CLP II

TURNAROUND TIME

- [ ] Standard (4wk H.C.)
- [X] Rush 7-dy

TCLP: MATRIX SPIKE

- [ ] Required
- [ ] Not Required

COMPOUND LISTS

- [ ] Priority Pollutant
- [ ] Target Compound List
- [ ] NJAC 7:14A App. B
- [ ] Other _____

Sample ID	Matrix: Water	Soil	Other	PP +40 *	VO GC/MS	VO GC/MS +15	AF GC/MS	AF GC/MS +10	BN GC/MS	BN GC/MS +15	Pesticides/PCBs	PP Metals	Cyanide	Phenol	Pet. Hydrocarbons	PCBs	TCLP Inorganics	TCLP Organics	Reactivity (CN+S)	Corrosivity (as pH)	Ignitability	TCLP VOA	TCLP AF	TCLP BN	Other
A-SW-1	X																								624, TPH, O&G
A-EB-1-AQ	X																								624, TPH, O&G Metals
A-SD-1		X																							624 TPH, O&G, Metals
A-TW2-GW	X																								624, TPH, O&G, Isopropyl Alcohol
A-TRIP BLANK TW1-GW	X																								624, TPH, O&G

Special Instructions: Isopropyl alcohol used to clean soil sampling equipt

* Includes – VO +15; AF +10; BN +15; Pesticides/PCBs; Priority Pollutant Metals; CN & Phenol

This signature authorizes ICM to perform the analyses listed above. Any changes will be confirmed in writing.

Signature	Print Name and Title	Date
	JK Robinson EN-III	10/6/23

ICM

CHAIN OF CUSTODY RECORD

Client: Reynolds/CH2M-Hill Project ID: GNV 36606.GA

Address: Moultrie, GA. Sampler: Robert Petersen

City/State: Phone #: 904-331-2442

ICM lab ID #	Sample ID	Sample Date	Sample Time	Sample Type			No. of Bottles
				Grab	Soil	Comp	
	GA-TW9-S(8'-12')	10/6	1540	X	X		3
	GA-TW10-S(6'-8')	10/6	1655	X	X		3
	GA-TW2-S-(2'-4')	10/7	0930	X	X		3
	GA-TW5-S-(4'-6')	10/7	1055	X	X		3
	GA-B2-SD-(5'-7')	10/7	1140	X	X		4

Sample Containers Relinquished By: Robert Petersen 10/7/93	Sample Containers Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:

INDUSTRIAL CORROSION MANAGEMENT INCORPORATED

1102 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-664-0330

ANALYSIS REQUEST FORM

Client Name: Reynolds - Moultrie, GA.

Project ID: GNV 36606.GA

- ☐ ECI
- ☐ RCRA
- ☐ BUST
- ☐ Gas/Kerosene
- ☑ Other _____
- ☐ State forms req.
- ☐ Results only
- ☐ Regulatory format
- ☐ Reduced deliverabl
- ☐ CLP I
- ☐ CLP II

TURNAROUND TIME

- ☐ Standard (4wk H.C
- ☑ Rush 7 DAY

TCLP: MATRIX SPIKE

- ☐ Required
- ☐ Not Required

COMPOUND LISTS

- ☐ Priority Pollutant
- ☐ Target Compound L
- ☐ NJAC 7:14A App. I
- ☐ Other _____

Sample ID	Matrix: Water	Soil	Other	PP +40 *	VO GC/MS	VO GC/MS +15	AF GC/MS	AF GC/MS +10	BN GC/MS	BN GC/MS +15	Pesticides/PCBs	PP Metals	Cyanide	Phenol	Pet. Hydrocarbons	PCBs	TCLP Inorganics	TCLP Organics	Reactivity (CN+S)	Corrosivity (as pH)	Ignitability	TCLP VOA	TCLP AF	TCLP BN	Other
GA-TW9-S (8-12)		X																							624 VOC, TPH, O&G
GA-TW10-S (6-8)*		X																							624 VOC, TPH O&G
GA-TW2-S (2-4')		X																							624 Voc, TPH. O&G
GA-TW5-S (4-6)		X																							624 Voc, TPH, O&G
GA-B2-SD (5-7')		X																							Total Metals, 624 Voc, TPH, O&G

Special Instructions: * Potential High Levels (OVA Headspace > 1,000 ppm)

* Includes – VO +15; AF +10; BN +15; Pesticides/PCBs; Priority Pollutant Metals; CN & Phenol

This signature authorizes ICM to perform the analyses listed above. Any changes will be confirmed in writing.

Robert Petersen — Robert J. Petersen Tech II — 10/7/93

Signature — Print Name and Title — Date

ICM

CHAIN OF CUSTODY RECORD

Client: Reynolds Project ID: GNV 36606. GA

Address: Moultrie, GA Sampler: Joe Robinson

City/State: Phone #: 904/331-2442 x 296

ICM lab ID #	Sample ID	Sample Date 1993	Sample Time	Sample Type			No. of Bottles
				Grab	Soil	Comp	
	GA-TW6-GW	10/7	0920	X			5
	GA-TW13-GW	10/7	1020	X			5
							10
	TRAVEL BLANK	10/7					2
							12

Sample Containers Relinquished By: JC Robinson 10/7/93	Sample Containers Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:

AIR BILL 5570356046

INDUSTRIAL CORROSION MANAGEMENT INCORPORATED

162 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

ANALYSIS REQUEST FORM

Client Name: Reynolds Metlric GA

Project ID: GNV36606.6A

Sample ID	Matrix: Water	Soil	Other	PP +40 *	VO GC/MS	VO GC/MS +15	AF GC/MS	AF GC/MS +10	BN GC/MS	BN GC/MS +15	Pesticides/PCBs	PP Metals	Cyanide	Phenol	Pet. Hydrocarbons	PCBs	TCLP Inorganics	TCLP Organics	Reactivity (CN+S)	Corrosivity (as pH)	Ignitability	TCLP VOA	TCLP AF	TCLP BN	Other
A-TW6-GW	X																								624 TPH, O+G, Fluoride
A-TW13-GW	X																								624, TPH, O+G, Fluoride
Travel Blank	X																								624

- ☐ ECRA
- ☐ RCRA
- ☐ BUST
- ☐ Gas/Kerosene
- ☐ Other _____
- ☐ State forms req.
- ☐ Results only
- ☐ Regulatory format
- ☐ Reduced deliverables
- ☐ CLP I
- ☐ CLP II

TURNAROUND TIME

- ☐ Standard (4wk H.C.)
- ☒ Rush 7-dy

TCLP: MATRIX SPIKE

- ☐ Required
- ☐ Not Required

COMPOUND LISTS

- ☐ Priority Pollutant
- ☐ Target Compound List
- ☐ NJAC 7:14A App. B
- ☐ Other _____

Special Instructions: _____

* Includes – VO +15; AF +10; BN +15; Pesticides/PCBs; Priority Pollutant Metals; CN & Phenol

This signature authorizes ICM to perform the analyses listed above. Any changes will be confirmed in writing.

_____ _____ 10/7/93

ICM

CHAIN OF CUSTODY RECORD

Client: Reynolds Project ID: GNV 36606.GA

Address: Moultrie GA Sampler: Joe Robinson

City/State: Phone #: 904/331-2442

ICM lab ID #	Sample ID	Sample Date 1993	Sample Time	Sample Type			No. of Bottles
				Grab	Soil	Comp	
	GA-TW3-GW	10-8	0820	X			4
	GA-TW8-GW	10/8	0900	X			4
	GA-TW10-GW	10/8	0945	X			5
	GA-EB2-AQ	10/8	1020	X			5

Sample Containers Relinquished By: 10/8/93	Sample Containers Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:

INDUSTRIAL CORROSION MANAGEMENT INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0380

ANAL IS REQUEST FORM

Client Name: Reynolds Maitrie GA

Project ID: GNV36606.GA

Sample ID	Matrix: Water	Matrix: Soil	Matrix: Other	PP +40 *	VO GC/MS	VO GC/MS +15	AF GC/MS	AF GC/MS +10	BN GC/MS	BN GC/MS +15	Pesticides/PCBs	PP Metals	Cyanide	Phenol	Pet. Hydrocarbons	PCBs	TCLP Inorganics	TCLP Organics	Reactivity (CN+S)	Corrosivity (as pH)	Ignitability	TCLP VOA	TCLP AF	TCLP BN	Other
GA-TW3-GW	X																								624, O&G TPH
GA-TW8-GW	X																								624, O&G, TPH
*GA-TW10-GW	X																								624, O&G, TPH Butyl Cellosolve
GA-EB2-AQ	X																								624, O&G, TPH Fluoride

- ☐ ECRA
- ☐ RCRA
- ☐ BUST
- ☐ Gas/Kerosene
- ☐ Other _____
- ☐ State forms req.
- ☐ Results only
- ☐ Regulatory format
- ☐ Reduced deliverabl
- ☐ CLP I
- ☐ CLP II

TURNAROUND TIME

- ☐ Standard (4wk H.C
- ☒ Rush 7 dy

TCLP: MATRIX SPIKE

- ☐ Required
- ☐ Not Required

COMPOUND LISTS

- ☐ Priority Pollutant
- ☐ Target Compound L
- ☐ NJAC 7:14A App. E
- ☐ Other _____

Special Instructions: * GA-TW10-GW has strong solvent odor. Turbidity is present in VOC vials for GA-TW8-GW

* Includes – VO +15; AF +10; BN +15; Pesticides/PCBs; Priority Pollutant Metals; CN & Phenol

This signature authorizes ICM to perform the analyses listed above. Any changes will be confirmed in writing.

[signature] — K Robinson [illegible] — [illegible]-8-03

ICM

CHAIN OF CUSTODY RECORD

Client: Reynolds Project ID: GNV36606.GA

Address: Moultrie, GA Sampler: Joe Robinson

City/State: Phone #: 904/331-2447

AIR BILL # 557035605D

ICM lab ID #	Sample ID	Sample Date 1993	Sample Time	Sample Type			No. of Bottles
				Grab	Soil	Comp	
	GA-TW9-GW	10/11	1345	X			2
	GA-TW5-GW		1400	X			2
	GA-TW4-GW		1420	X			4
	GA-TW2-GW		1450	X			3
	GA-TW7-GW		1510	X			1
							12

Sample Containers Relinquished By: 10/11/93 JTR	Sample Containers Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:

ICM INDUSTRIAL CORROSION MANAGEMENT INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-544-0330

ANALYS. REQUEST FORM

Client Name: Reynolds, Moultrie GA

Project ID: GNV36606.GA

Sample ID	Matrix: Water	Matrix: Soil	Matrix: Other	PP +40 *	VO GC/MS	VO GC/MS +15	AF GC/MS	AF GC/MS +10	BN GC/MS	BN GC/MS +15	Pesticides/PCBs	PP Metals	Cyanide	Phenol	Pet. Hydrocarbons	PCBs	TCLP Inorganics	TCLP Organics	Reactivity (CN+S)	Corrosivity (as pH)	Ignitability	TCLP VOA	TCLP AF	TCLP BN	Other
GA-TW9-GW																									624 VOC
GA-TW5-GW																									624 VOC
GA-TW4-GW																									624 VOC, TPH, O&G
GA-TW2-GW																									624 VOC, TPH (partial)
GA-TW7-GW																									F⁻

- ☐ ECRA
- ☐ RCRA
- ☐ BUST
- ☐ Gas/Kerosene
- ☐ Other _____
- ☐ State forms req.
- ☐ Results only
- ☐ Regulatory format
- ☐ Reduced deliverables
- ☐ CLP I
- ☐ CLP II

TURNAROUND TIME

- ☐ Standard (4wk H.C.)
- ☒ Rush 7-dy

TCLP: MATRIX SPIKE

- ☐ Required
- ☐ Not Required

COMPOUND LISTS

- ☐ Priority Pollutant
- ☐ Target Compound List
- ☐ NJAC 7:14A App. B
- ☐ Other _____

Special Instructions: TPH

* Includes – VO +15; AF +10; BN +15; Pesticides/PCBs; Priority Pollutant Metals; CN & Phenol

This signature authorizes ICM to perform the analyses listed above. Any changes will be confirmed in writing.

[signature] JK [illegible] for EM II 10-11-93

Date

ICM

CHAIN OF CUSTODY RECORD

Client: Reynolds Project ID: GNV 36606.GA

Address: Moultrie GA Sampler: JK Robinson

City/State: Phone #: 904/331-2492

ICM lab ID #	Sample ID	Sample Date 1993	Sample Time	Sample Type			No. of Bottles
				Grab	Soil	Comp	
	GA-TW2-GW	10/18	1450	X			1
	GA-TW9-GW	10/18	1210	X			1
	GA-TW5-GW	10/18	1230	X			2
							~~2~~
							4

AIR BILL # 557035607 2

Sample Containers Relinquished By: JK Robinson 10/18/93	Sample Containers Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:

INDUSTRIAL CORROSION MANAGEMENT INCORPORATED

1102 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0360

ANALYSIS REQUEST FORM

Client Name: Reynolds Metals GA

Project ID: GNV36688. GA

Sample ID	Matrix: Water	Soil	Other	PP +40 *	VO GC/MS	VO GC/MS +15	AF GC/MS	AF GC/MS +10	BN GC/MS	BN GC/MS +15	Pesticides/PCBs	PP Metals	Cyanide	Phenol	Pet. Hydrocarbons	PCBs	TCLP Inorganics	TCLP Organics	Reactivity (CN+S)	Corrosivity (as pH)	Ignitability	TCLP VOA	TCLP AF	TCLP BN	Other
GA-TW2-GW																									Oil & Grease
GA-TW4-GW																									TPH
GA-TW5-GW																									TPH, O&G

- [ ] ECRA
- [ ] RCRA
- [ ] BUST
- [ ] Gas/Kerosene
- [ ] Other _____
- [ ] State forms req.
- [ ] Results only
- [ ] Regulatory format
- [ ] Reduced deliverabl
- [ ] CLP I
- [ ] CLP II

TURNAROUND TIME

- [ ] Standard (4wk H.C
- [x] Rush Tdy

TCLP: MATRIX SPIKE

- [ ] Required
- [ ] Not Required

COMPOUND LISTS

- [ ] Priority Pollutant
- [ ] Target Compound Li
- [ ] NJAC 7:14A App. E
- [ ] Other _____

Special Instructions: FINAL SHIPMENT

* Includes – VO +15; AF +10; BN +15; Pesticides/PCBs; Priority Pollutant Metals; CN & Phenol

This signature authorizes ICM to perform the analyses listed above. Any changes will be confirmed in writing.

Signature

Joe K Robinson EN-II

Print Name and Title

10/18/93

Date

INDUSTRIAL CORROSION MANAGEMENT, Inc.
52 Route 10, Randolph, NJ 07869
Phone# (201) 584-0330

Certified for: NJ, PA, DE, and NY (DOH)
US EPA Historic CLP Lab
Fax# (201) 584-0515

Preliminary Results

Lab out: 10/13/93

Client: CH2M HILL

Project: Reynolds GNV36606.GA

Parameter: Metals

Sample Date: 10/05/93

Date Faxed: / /

Laboratory ID:	175226				
Client ID:	GA-SD-4				
	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
Aluminum	1330				
Antimony	U				
Arsenic	U				
Beryllium	U				
Cadmium	U				
Chromium	3.91				
Copper	U				
Lead	U				
Mercury	U				
Nickel	U				
Selenium	U				
Silver	U				
Thallium	U				
Zinc	5.83				

These results are tentative only. They must still under-go QA/QC review.

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 2
To Becky Sistos	From Amelia Jarosz
Co. GNV	Co. NJO
Dept.	Phone #
Fax #	Fax #

INDUSTRIAL CORROSION MANAGEMENT, Inc.
152 Route 10, Randolph, NJ 07869
Phone# (201) 584-0330

Certified for: NJ, PA, DE, and NY DOH)
US EPA Historic CLP Lab
Fax# (201) 584-0515

Preliminary Results

Lab out: 10/13/93

Client: CH2M HILL

Project: Reynolds GNV36606.GA

Parameter: Metals

Sample Date: 10/05/93

Date Faxed: 10/20/93

Laboratory ID:	175224	175225	~~175256~~	175328	175682
Client ID:	GA-SD-2	GA-SD-3	~~B-1~~	GA-SD-1	NC-SD-003
	MG/KG	MG/KG	~~MG/KG~~	MG/KG	MG/KG
Aluminum	8100	5330		4620	5220
Antimony	U	U		U	U
Arsenic	0.942	1.29		1.02	U
Beryllium	U	0.322		U	0.457
Cadmium	U	U		0.682	U
Chromium	10.4	16.3		7.43	12.7
Copper	14.5	15.0		4.02	3.85
Lead	16.4	48.1		12.3	3.65
Mercury	U	U		U	U
Nickel	2.95	2.36		1.98	5.74
Selenium	0.377	U		U	U
Silver	U	U		U	U
Thallium	U	U		U	U
Zinc	463	77.8		132	20.0

These results are tentative only. They must still under-go QA/QC review.

Table 2
Miller Container Plant
Moultrie, Georgia
Well Construction Details and Water Level Data

Well #	Total Depth (ft bls)	Screened Interval (ft bls)	Depth to Water (ft. BTOC)	Water Surface Elevation (ft NGVD)
TW-1	25	15-25	12.24	293.85
TW-2	12	2-12	13.96	287.03
TW-3	25	15-25	23.06	285.91
TW-4	14	4-14	13.62	292.49
TW-5	12	2-12	14.75	293.93
TW-6	15	5-15	10.90	301.12
TW-7	20	10-20	21.62	290.38
TW-8	15	5-15	9.10	299.50
TW-9	15	5-15	17.09	293.43
TW-10	12	2-12	8.45	302.58
TW-11	10.5	0.5-10.5	DRY	--
TW-12	12	2-12	7.05	299.52
Boring 1	7	--	--	--
Boring 2	18	--	--	--

Notes:

All wells 2 in. PVC, with 2-3 ft. casing above ground.
ft BTOC = feet below top of casing.
ft bls = feet below land surface.

Table 3
Miller Container Plant
Moultrie, Georgia
Field Parameter Data Collected October 5-18, 1993

Station Analyses (Aqueous)	GA-TW-1-GW	GA-TW-2-GW	GA-TW-3-GW	GA-TW-4-GW	GA-TW-5-GW	GA-TW-6-GW	GA-TW-7-GW	GA-TW-8-GW	GA-TW-9-GW	GA-TW-10-GW	GA-TW-11-GW	GA-TW-12-GW	GA-SW-1	GA TW-7S (soil pH)
Temperature, C	24.2	24.9	23.7	27.6	24.3	27.1	26.3	25.2	NA	25.0	NA	25.4	23.5	NA
Conductivity, umhos/cm	210	130	210	230	210	510	318	840	NA	700	NA	395	1100	NA
pH	4.2	6.0	5.8	5.5	5.3	6.9	4.5	6.7	NA	4.9	NA	4.5	8.3	6 - 7

Note:

NA = not analyzed.
GA-TW-9-GW and GA-TW-11-GW did not produce sufficient water to collect field parameter data.

Table 4
Miller Container Plant
Moultrie, Georgia
Analytical Results for Water Samples Collected October 5-18, 1993

Station Analyses (Aqueous)	GA-TW-1-GW	GA-TW-2-GW	GA-TW-3-GW	GA-TW-4-GW	GA-TW-5-GW	GA-TW-6-GW	GA-TW-7-GW	GA-TW-8-GW	GA-TW-9-GW	GA-TW-10-GW	GA-TW-11-GW	GA-TW-12-GW	GA-SW-1	GA-TW-13-GW (dupe of TW6)	Travel Blank	GA-EB-2-AQ
VOCs Method 624, ug/l																
Chloroethane	5U	5U	5U	5U	5U	5U		5U	5U	2900		5U	5U	5U	5U	5U
Methylene Chloride	5U	5U	5U	5U	5U	5U		5U	5U	198		5U	5U	4JB	4JB	3JB
Acetone	20U	40	23	20U	20U	20U		20U	23B	14000		20U	20U	20U	20U	20U
1,1-Dichloroethene	5U	5U	5U	5U	5U	5U		5U	5U	600		5U	5U	5U	5U	5U
1,1-Dichloroethane	5U	5U	5U	2J	5U	5U		5U	5U	14000		5U	5U	5U	5U	5U
Total 1,2-Dichloroethene	5U	5U	5U	3J	5U	5U		5U	3J	14000		5U	5U	5U	5U	5U
1,2-Dichloroethane	5U	5U	5U	5U	5U	5U		5U	5U	45		5U	5U	5U	5U	5U
1,1,1-Trichloroethane	5U	5U	5U	5U	5U	5U		5U	5U	4300		5U	5U	5U	5U	5U
Dibromochloromethane	5U	5U	5U	5U	5U	5U		5U	5U	U		5U	7	5U	5U	5U
Bromoform	5U	5U	5U	5U	5U	5U		5U	5U	U		5U	350	5U	5U	5U
Trichloroethene	5U	5U	5U	5U	5U	5U		5U	5U	12000		5U	5U	5U	5U	5U
Benzene	5U	5U	5U	5U	5U	5U		5U	5U	88		5U	5U	5U	5U	5U
4-Methyl-2-pentanone	20U	20U	20U	20U	20U	20U		20U	20U	160		20U	20U	20U	20U	20U
2-Hexanone	20U	20U	20U	20U	20U	20U		20U	20U	250		20U	20U	20U	20U	20U
Tetrachloroethene	5U	5U	5U	5U	5U	5U		5U	5U	2100		5U	5U	5U	5U	5U
1,1,2,2-Tetrachloroethane	5U	5U	5U	5U	5U	5U		5U	5U	37		5U	5U	5U	5U	5U
Toluene	5U	5U	5U	5U	5U	5U		5U	5U	1300		5U	5U	5U	5U	5U
Ethylbenzene	5U	5U	5U	5U	5U	5U		5U	5U	130		5U	5U	5U	5U	5U
Total Xylenes	5U	5U	5U	5U	5U	5U		5U	5U	630		5U	5U	5U	5U	5U
Tentatively Identified Compounds (a):																
Methyl butanone	U	U	U	U	U	U		U	U	49		U	U	U	U	U
Hexane	U	U	U	U	U	U		U	U	61		U	U	U	U	U
Unknown (23.59)	U	U	U	U	U	U		U	U	130		U	U	U	U	U
Unknown (25.10)	U	U	U	U	U	U		U	U	32		U	U	U	U	U
TPH, mg/l	0.6U	2.1U	1.2	0.61U	NR	0.66U		0.57U	NR	1.2		0.63U	34	0.67U		0.6U
Oil & Grease, mg/l	5.0U	NR	5.0U	5.0U	NR	5.0U		5.0U	NA	8.5		5.0U	60.6	5.0U		5.0U
Fluoride, mg/l						0.28	1.15					0.72		0.25		0.10U
Paraquat												NR				
Butyl Cellusolve, ug/l										1700						

Note:

(a) Concentrations of tentatively identified compounds are estimated. Retention times of unknown compounds are given in parenthesis.
NR = Analysis requested but results have not been received as of 10/20/93.
NA = Not analyzed.
U = Indicates a compound was analyzed for but not detected. Number next to "U" is detection limit.
J = Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit.
B = Indicates that the analyte was found in the method blank as well as the sample. It indicates possible/probable blank contamination.
GA-TW-11-GW did not produce sufficient water to collect a sample for laboratory analysis.
GA-TW-9-GW did not produce sufficient water to collect a sample for oil and grease.

Table 5
Miller Container Plant
Moultrie, Georgia
Analytical Results for Soil Samples Collected October 4-8, 1993

Station (Depth, ft) Analyses (Soil/Sed)	GA-TW-1-S (6-8)	GA-TW-2-S (2-4)	GA-TW-3-S (4-6)	GA-TW-4-S (4-6)	GA-TW-5-S (4-6)	GA-TW-6-S (8-10)	GA-TW-7-S (12-14)	GA-TW-8-S (8-10)	GA-TW-9-S (8-12)	GA-TW-10-S (6-8)	GA-TW-11-S (10-11)	GA-TW-12-S (2-4)	GA-SD-1	GA-SD-2	GA-SD-3	GA-SD-4	GA-B2-SD (5-7)	GA-EB1-AQ
VOCs Method 624, ug/kg																		
Methylene chloride	4JB	9	6	6U	9	5J		5JB	8	9	6U	6U	7J	6JB	5U	4JB	10	5U
Acetone	20JB	23U	21J	23U	24U	27		23JB	22U	430	23U	23U	27U	25U	21U	21U	23U	20U
1,1-Dichloroethane	6U	6U	6U	6U	6U	6U		6U	6U	17	6U	6U	7U	6U	5U	5U	6U	5U
Total 1,2-Dichloroethene	6U	6U	6U	6U	6U	6U		6U	6U	22	6U	6U	7U	6U	5U	5U	6U	5U
1,1,1-Trichloroethane	6U	6U	6U	6U	6U	6U		6U	6U	29	6U	6U	7U	4J	5J	2J	6U	5U
Trichloroethene	6U	6U	6U	6U	6U	6U		6U	6U	20	6U	6U	7U	6U	5U	5U	6U	5U
Tetrachloroethene	6U	6U	6U	6U	6U	6U		6U	6U	55	6U	6U	7U	8	10	7	6U	5U
Toluene	6U	6U	6U	6U	6U	6U		6U	6U	16	6U	6U	7U	6U	5U	5U	6U	5U
Ethylbenzene	6U	6U	6U	6U	6U	6U		6U	6U	6	6U	6U	7U	6U	5U	5U	6U	5U
Total Xylenes	6U	6U	6U	6U	6U	6U		6U	6U	48	6U	6U	7U	6U	5U	5U	6U	5U
Tentatively Identified Compounds (a):																		
2-Propanol	U	U	U	U	U	U		U	U	19	U	U	U	U	U	U	U	U
Unknown (13.62)	U	U	U	U	U	U		U	U	38	U	U	U	U	U	U	U	U
Unknown (14.55)	U	U	U	U	U	U		U	U	16	U	U	U	U	U	U	U	U
Unknown hydrocarbon (15.36)	U	U	U	U	U	U		U	U	19	U	U	U	U	U	U	U	U
Unknown hydrocarbon (16.09)	U	U	U	U	U	U		U	U	6	U	U	U	U	U	U	U	U
Unknown hydrocarbon (18.49)	U	U	U	U	U	U		U	U	8	U	U	U	U	U	U	U	U
Unknown alkane (20.08)	U	U	U	U	U	U		U	U	120	U	U	U	U	U	U	U	U
Unknown (20.73)	U	U	U	U	U	U		U	U	22	U	U	U	U	U	U	U	U
Unknown (21.43)	U	U	U	U	U	U		U	U	6	U	U	U	U	U	U	U	U
Dimethyl pentane	U	U	U	U	U	U		U	U	28	U	U	U	U	U	U	U	U
Methyl hexane	U	U	U	U	U	U		U	U	110	U	U	U	U	U	U	U	U
Unknown (26.35)	U	U	U	U	U	U		U	U	12	U	U	U	U	U	U	U	U
TPH, mg/kg	23	21U	32	20	26U	31		23	23	88	34	22	36	350	1000	41	23U	0.64U
Oil & Grease, mg/kg	NA	69	110	48	62	86		54	79	200	76	NA	85	750	1600	110	63	5.0U
Metals, mg/kg																		
Aluminum													4620	8100	5330	1330	NA	NA
Antimony													2.05U	1.88U	1.61U	1.61U	2.87U	0.050U
Arsenic													1.02	0.942	1.29	0.214U	3.91	0.004U
Beryllium													0.341U	0.314U	0.322	0.268U	0.287U	0.005U
Cadmium													0.682	0.314U	0.268U	0.268U	0.287U	0.005U
Chromium													7.43	10.4	16.3	3.91	6.38	0.010U
Copper													4.02	14.5	15.0	1.34U	1.44U	0.025U
Lead													12.3	16.4	48.1	2.68U	5.11	0.004U
Mercury													0.136U	0.126U	0.107U	0.107U	0.115U	0.0005U
Nickel													1.98	2.95	2.36	1.34U	1.44U	0.025U
Selenium													0.273U	0.377	0.215U	0.214U	0.230U	0.004U
Silver													0.682U	0.628U	0.537U	0.535U	0.574U	0.010U
Thallium													0.273U	0.251U	0.215U	0.214U	0.230U	0.004
Zinc													132	463	77.8	5.83	1.15U	0.020U

Table 5
Miller Container Plant
Moultrie, Georgia
Analytical Results for Soil Samples Collected October 4-8, 1993

Station (Depth, ft) Analyses (Soil/Sed)	GA-TW-1-S (6-8)	GA-TW-2-S (2-4)	GA-TW-3-S (4-6)	GA-TW-4-S (4-6)	GA-TW-5-S (4-6)	GA-TW-6-S (8-10)	GA-TW-7-S (12-14)	GA-TW-8-S (8-10)	GA-TW-9-S (8-12)	GA-TW-10-S (6-8)	GA-TW-11-S (10-11)	GA-TW-12-S (2-4)	GA-SD-1	GA-SD-2	GA-SD-3	GA-SD-4	GA-B2-SD (5-7)	GA-EB1-AQ
Fluoride, mg/kg						46.9	81.3					11.1						
Butyl Cellusolve, ug/kg										2200								
pH			4.67	5.08		7.68	4.72					5.23						

Note:

(a) Concentrations of tentatively identified compouns are estimated. Retention times of unknown compounds are given in parenthesis.
NA = Not analyzed.
U = Indicates a compound was analyzed for but not detected. Number next to "U" is the detection limit.
J = Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit.
B = Indicates that the analyte was found in the method blank as well as the sample. It indicates possible/probable blank contamination.
Equipment blank GA-EB-2-AQ is an aqueous sample. Units are ug/l for volatiles and butyl cellulosive, and mg/l for metals, TPH, oil & grease, and fluoride.



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ANALYTICAL DATA REPORT PACKAGE

CH2M HILL

GEORGIA

REPORT GENERATION DATE: October 15, 1993

INDUSTRIAL CORROSION MANAGEMENT, INC.
1152 Route 10
Randolph, NJ 07869
201-584-0330
OCTOBER 14, 1993

Certified for: NJ, PA, DE, and NY(DOH)
NJ #14116 NY #11376
US EPA Historic CLP Lab

TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175224
Client: CH2M HILL
Sample source: Reynolds GNV36606.GA
Sample ID: GA-SD-2
Sample date: 10/05/93
Sampled by: Customer
At lab date: 10/06/93
Matrix: SOIL

Percent Moisture: 20.34%
Init Sample wght= 5 Final volume= 5
Initial sample weight DWB= 3.983

Conc. in Sample = (Conc. on Quant Report/Initial Sample Weight DWB)*Final Volume

Parameter	Result ug/kg	Method Blank ug/kg	Minimum Detection Limit ug/kg
Chloromethane	U	U	6
Bromomethane	U	U	6
Vinyl chloride	U	U	6
Chloroethane	U	U	6
Methylene chloride	6JB	6	6
Acetone	U	U	25
Carbon disulfide	U	U	6
1,1-Dichloroethene	U	U	6
1,1-Dichloroethane	U	U	6
total-1,2-Dichloroethene	U	U	6
Chloroform	U	U	6
1,2-Dichloroethane	U	U	6
Butanone	U	U	25
1,1-Trichloroethane	4J	U	6
Carbon tetrachloride	U	U	6
Bromodichloromethane	U	U	6
1,2-Dichloropropane	U	U	6
cis-1,3-Dichloropropene	U	U	6
Trichloroethene	U	U	6
Dibromochloromethane	U	U	6
1,1,2-Trichloroethane	U	U	6
Benzene	U	U	6
trans-1,3-Dichloropropene	U	U	6
Bromoform	U	U	25
4-Methyl-2-pentanone	U	U	25
2-Hexanone	8	U	6
Tetrachloroethene	U	U	6
1,1,2,2-Tetrachloroethane	U	U	6
Toluene	U	U	6
Chlorobenzene	U	U	6
Ethylbenzene	U	U	6
Styrene	U	U	6
total Xylenes			

Results are in ug/kg; they are reported on a dry weight basis.
ug/kg = micrograms/kilogram or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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OBER 15, 1993

LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >H5297
Lab number: 175224
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5
Moisture=20.34% Initial sample weight DWB=3.983

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/kg
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/kg is: 0

Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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NJ #14116 NY #11376
US EPA Historic CLP Lab

INORGANIC LABORATORY ANALYSIS

Lab Number: 175224
Client: CH2M HILL
Sample source: Reynolds GNV36606.GA
Sample ID: GA-SD-2
Sample date: 10/05/93
Sampled by: Customer
At lab date: 10/06/93
Matrix: SOIL

Percent Moisture: 20.34%

Results in mg/kg dry weight basis.

Parameter	Sample Result	Method Blank Analysis	Minimum Detection Limit
Antimony	U	U	1.88
Arsenic	0.942	U	0.251
Beryllium	U	U	0.314
Cadmium	U	U	0.314
Chromium	10.4	U	0.628
Copper	14.5	U	1.57
Lead	16.4	U	3.14
Mercury	U	U	0.126
Nickel	2.95	U	1.57
Selenium	0.377	U	0.251
Silver	U	U	0.628
Thallium	U	U	0.251
Zinc	463	U	1.26

U = Not Detected

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NJ #14116 NY #11376
US EPA Historic CLP Lab

PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: Reynolds GNV36606.GA
Sample Date: 10/05/93
Sampled by: Customer
At Lab Date: 10/06/93
Sample Matrix: Soil

Lab No.	SAMPLE ID	RESULT mg/kg	METHOD BLANK	MINIMUM DETECTION LIMIT mg/kg	ANALYSIS DATE	EXTRACTION DATE
5224	GA-SD-2	350	U	20	10/11/93	10/7/93

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

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US EPA Historic CLP Lab

LABORATORY ANALYSIS

All results are reported in mg/kg (ppm) dry weight basis unless otherwise stated.

Lab Number: 175224
Client: CH2M HILL
Sample Source: Reynolds GNV36606.GA
Sample ID: GA-SD-2
Sample date: 10/05/93
Sampled by: Customer
At lab date: 10/06/93
Percent Moisture: 20.34%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	750	U	20

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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201-584-0330
OCTOBER 18, 1993

Certified for: NJ, PA, DE, and NY(DOH)
NJ #14116 NY #11376
US EPA Historic CLP Lab

TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS PLUS 10 PEAKS

Lab Number: 175225
Client: CH2M HILL
Sample source: Reynolds GNV36606.GA
Sample ID: GA-SD-3
Sample date: 10/05/93
Sampled by: Customer
At lab date: 10/06/93
Matrix: SOIL

Percent Moisture: 6.85%
Init Sample wght= 5 Final volume= 5
Initial sample weight DWB= 4.6575

Conc. in Sample = (Conc. on Quant Report/Initial Sample Weight DWB)*Final Volume

Parameter	Result ug/kg	Method Blank ug/kg	Minimum Detection Limit ug/kg
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	U	U	5
Methylene chloride	U	6	5
Acetone	U	U	21
Carbon disulfide	U	U	5
1,1-Dichloroethene	U	U	5
1,1-Dichloroethane	U	U	5
total-1,2-Dichloroethene	U	U	5
Chloroform	U	U	5
1,2-Dichloroethane	U	U	5
Butanone	U	U	21
1,1,1-Trichloroethane	5J	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	U	U	5
Dibromochloromethane	U	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	U	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	U	U	5
4-Methyl-2-pentanone	U	U	21
2-Hexanone	U	U	21
Tetrachloroethene	10	U	5
1,1,2,2-Tetrachloroethane	U	U	5
Toluene	U	U	5
Chlorobenzene	U	U	5
Ethylbenzene	U	U	5
Styrene	U	U	5
total Xylenes	U	U	5

Results are in ug/kg; they are reported on a dry weight basis.
ug/kg = micrograms/kilogram or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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NJ #14116 NY #11376
US EPA Historic CLP Lab

LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >H5298
Lab number: 175225
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5
Moisture=6.85% Initial sample weight DWB=4.6575

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/kg
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/kg is: 0

Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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NJ #14116 NY #11376
US EPA Historic CLP Lab

INORGANIC LABORATORY ANALYSIS

Lab Number: 175225
Client: CH2M HILL
Sample source: Reynolds GNV36606.GA
Sample ID: GA-SD-3
Sample date: 10/05/93
Sampled by: Customer
At lab date: 10/06/93
Matrix: SOIL

Percent Moisture: 6.85%

Results in mg/kg dry weight basis.

Parameter	Sample Result	Method Blank Analysis	Minimum Detection Limit
Antimony	U	U	1.61
Arsenic	1.29	U	0.215
Beryllium	0.322	U	0.268
Cadmium	U	U	0.268
Chromium	16.3	U	0.537
Copper	15.0	U	1.34
Lead	48.1	U	2.68
Mercury	U	U	0.107
Nickel	2.36	U	1.34
Selenium	U	U	0.215
Silver	U	U	0.537
Thallium	U	U	0.215
Zinc	77.8	U	1.07

U = Not Detected

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US EPA Historic CLP Lab

PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: Reynolds GNV36606.GA
Sample Date: 10/05/93
Sampled by: Customer
At Lab Date: 10/06/93
Sample Matrix: Soil

Lab No.	SAMPLE ID	RESULT mg/kg	METHOD BLANK	MINIMUM DETECTION LIMIT mg/kg	ANALYSIS DATE	EXTRACTION DATE
5225	GA-SD-3	1000	U	15	10/11/93	10/7/93

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

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US EPA Historic CLP Lab

LABORATORY ANALYSIS

All results are reported in mg/kg (ppm) dry weight basis unless otherwise stated.

Lab Number: 175225
Client: CH2M HILL
Sample Source: Reynolds GNV36606.GA
Sample ID: GA-SD-3
Sample date: 10/05/93
Sampled by: Customer
At lab date: 10/06/93
Percent Moisture: 6.85%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	1600	U	15

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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OCTOBER 14, 1993

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NJ #14116 NY #11376
US EPA Historic CLP Lab

TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175226
Client: CH2M HILL
Sample source: Reynolds GNV36606.GA
Sample ID: GA-SD-4
Sample date: 10/05/93
Sampled by: Customer
At lab date: 10/06/93
Matrix: SOIL

Percent Moisture: 6.56%
Init Sample wght= 5 Final volume= 5
Initial sample weight DWB= 4.672

Conc. in Sample = (Conc. on Quant Report/Initial Sample Weight DWB)*Final Volume

Parameter	Result ug/kg	Method Blank ug/kg	Minimum Detection Limit ug/kg
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	U	U	5
Methylene chloride	4JB	6	5
Acetone	U	U	21
Carbon disulfide	U	U	5
1,1-Dichloroethene	U	U	5
1,1-Dichloroethane	U	U	5
total-1,2-Dichloroethene	U	U	5
Chloroform	U	U	5
1,2-Dichloroethane	U	U	5
Butanone	U	U	21
,1,1-Trichloroethane	2J	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	U	U	5
Dibromochloromethane	U	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	U	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	U	U	21
4-Methyl-2-pentanone	U	U	21
2-Hexanone	7	U	5
Tetrachloroethene	U	U	5
1,1,2,2-Tetrachloroethane	U	U	5
Toluene	U	U	5
Chlorobenzene	U	U	5
Ethylbenzene	U	U	5
Styrene	U	U	5
total Xylenes			

Results are in ug/kg; they are reported on a dry weight basis.
ug/kg = micrograms/kilogram or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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US EPA Historic CLP Lab

. OBER 15, 1993

LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >H5294
Lab number: 175226
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5
Moisture=6.56% Initial sample weight DWB=4.672

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/kg
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/kg is: 0

Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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NJ #14116 NY #11376
US EPA Historic CLP Lab

INORGANIC LABORATORY ANALYSIS

Lab Number: 175226
Client: CH2M HILL
Sample source: Reynolds GNV36606.GA
Sample ID: GA-SD-4
Sample date: 10/05/93
Sampled by: Customer
At lab date: 10/06/93
Matrix: SOIL

Percent Moisture: 6.56%

Results in mg/kg dry weight basis.

Parameter	Sample Result	Method Blank Analysis	Minimum Detection Limit
Antimony	U	U	1.61
Arsenic	U	U	0.214
Beryllium	U	U	0.268
Cadmium	U	U	0.268
Chromium	3.91	U	0.535
Copper	U	U	1.34
Lead	U	U	2.68
Mercury	U	U	0.107
Nickel	U	U	1.34
Selenium	U	U	0.214
Silver	U	U	0.535
Thallium	U	U	0.214
Zinc	5.83	U	1.07

U = Not Detected

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201-584-0330

Certified for: NJ, PA, DE, and NY(DOH)
NJ #14116 NY #11376
US EPA Historic CLP Lab

PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: Reynolds GNV36606.GA
Sample Date: 10/05/93
Sampled by: Customer
At Lab Date: 10/06/93
Sample Matrix: Soil

Lab No.	SAMPLE ID	RESULT mg/kg	METHOD BLANK	MINIMUM DETECTION LIMIT mg/kg	ANALYSIS DATE	EXTRACTION DATE
5226	GA-SD-4	41	U	20	10/11/93	10/7/93

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

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US EPA Historic CLP Lab

LABORATORY ANALYSIS

All results are reported in mg/kg (ppm) dry weight basis unless otherwise stated.

Lab Number: 175226
Client: CH2M HILL
Sample Source: Reynolds GNV36606.GA
Sample ID: GA-SD-4
Sample date: 10/05/93
Sampled by: Customer
At lab date: 10/06/93
Percent Moisture: 6.56%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	110	U	20

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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SURROGATE RECOVERY SUMMARY
Soil Volatile

Batch number: QV2614

Sample Number	Data File	% Recovery 1,2 DCE-d4	% Recovery Tol-d8	% Recovery BFB	# Outside QC Limits
BLANK	>H5293	102	103	103	0
175226	>H5294	100	97	93	0
175224	>H5297	106	104	92	0
175225	>H5298	100	95	87	0

	Compound	Percent Recovery	Concentration Added
QC Limits:	1,2-Dichloroethane-d4	70-121	50ppb
	Toluene-d8	81-117	50ppb
	Bromofluorobenzene	74-121	50ppb

* Values outside QC Limits.

S= Spike sample
SD= Spike duplicate sample
DL= Dilution
RE= Indicates a reanalysis of the sample confirming matrix interference.
NA= Not Applicable

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TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS PLUS 10 PEAKS

Lab Number: 175227
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW12-5 (2-4)
Sample date: 10/04/93
Sampled by: Customer
At lab date: 10/06/93
Matrix: SOIL

Percent Moisture: 11.62%
Init Sample wght= 5 Final volume= 5
Initial sample weight DWB= 4.419

Conc. in Sample = (Conc. on Quant Report/Initial Sample Weight DWB)*Final Volume

Parameter	Result ug/kg	Method Blank ug/kg	Minimum Detection Limit ug/kg
Chloromethane	U	U	6
Bromomethane	U	U	6
Vinyl chloride	U	U	6
Chloroethane	U	U	6
Methylene chloride	U	4J	6
Acetone	U	U	23
Carbon disulfide	U	U	6
1,1-Dichloroethene	U	U	6
1,1-Dichloroethane	U	U	6
total-1,2-Dichloroethene	U	U	6
Chloroform	U	U	6
1,2-Dichloroethane	U	U	6
2-Butanone	U	U	23
1,1,1-Trichloroethane	U	U	6
Carbon tetrachloride	U	U	6
Bromodichloromethane	U	U	6
1,2-Dichloropropane	U	U	6
cis-1,3-Dichloropropene	U	U	6
Trichloroethene	U	U	6
Dibromochloromethane	U	U	6
1,1,2-Trichloroethane	U	U	6
Benzene	U	U	6
trans-1,3-Dichloropropene	U	U	6
Bromoform	U	U	23
4-Methyl-2-pentanone	U	U	23
2-Hexanone	U	U	6
Tetrachloroethene	U	U	6
1,1,2,2-Tetrachloroethane	U	U	6
Toluene	U	U	6
Chlorobenzene	U	U	6
Ethylbenzene	U	U	6
Styrene	U	U	6
total Xylenes	U	U	6

Results are in ug/kg; they are reported on a dry weight basis.
ug/kg = micrograms/kilogram or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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US EPA Historic CLP Lab

LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >H5303
Lab number: 175227
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5
Moisture=11.62% Initial sample weight DWB=4.419

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/kg
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/kg is: 0

^: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/04/93
Sampled by: Customer
At Lab Date: 10/06/93
Sample Matrix: Soil

Lab No.	SAMPLE ID	RESULT mg/kg	METHOD BLANK	MINIMUM DETECTION LIMIT mg/kg	ANALYSIS DATE	EXTRACTION DATE
5227	GA-TW12-5 (2-4)	22	U	20	10/11/93	10/7/93

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/04/93
Sampled by: Customer
At Lab Date: 10/06/93
Sample Matrix: Soil

Lab No.	SAMPLE ID	RESULT mg/kg	METHOD BLANK	MINIMUM DETECTION LIMIT mg/kg	ANALYSIS DATE	EXTRACTION DATE
5229	GA-TW1-5 (6-8)	23	U	18	10/11/93	10/7/93

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/05/93
Sampled by: Customer
At Lab Date: 10/06/93
Sample Matrix: Soil

Lab No.	SAMPLE ID	RESULT mg/kg	METHOD BLANK	MINIMUM DETECTION LIMIT mg/kg	ANALYSIS DATE	EXTRACTION DATE
5231	GA-TW11-S(10-11)	34	U	17	10/11/93	10/7/93

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

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US EPA Historic CLP Lab

LABORATORY ANALYSIS

All results are reported in mg/kg (ppm) dry weight basis unless otherwise stated.

Lab Number: 175228
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW12-5 (4-6)
Sample date: 10/04/93
Sampled by: Customer
At lab date: 10/06/93
Percent Moisture: 13.58%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
pH (units)	5.23	NA	NA
Fluoride	11.1	U	7.41

Client informed pH must be done within 15 minutes of sampling per NJDEPE.

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS PLUS 10 PEAKS

Lab Number: 175229
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW1-5 (6-8)
Sample date: 10/04/93
Sampled by: Customer
At lab date: 10/06/93
Matrix: SOIL

Percent Moisture: 9.85%
Init Sample wght= 5 Final volume= 5
Initial sample weight DWB= 4.5075

Conc. in Sample = (Conc. on Quant Report/Initial Sample Weight DWB)*Final Volume

Parameter	Result ug/kg	Method Blank ug/kg	Minimum Detection Limit ug/kg
Chloromethane	U	U	6
Bromomethane	U	U	6
Vinyl chloride	U	U	6
Chloroethane	U	U	6
Methylene chloride	4JB	5J	6
Acetone	20JB	11J	22
Carbon disulfide	U	U	6
1,1-Dichloroethene	U	U	6
1,1-Dichloroethane	U	U	6
total-1,2-Dichloroethene	U	U	6
Chloroform	U	U	6
1,2-Dichloroethane	U	U	6
2-Butanone	U	U	22
1,1,1-Trichloroethane	U	U	6
Carbon tetrachloride	U	U	6
Bromodichloromethane	U	U	6
1,2-Dichloropropane	U	U	6
cis-1,3-Dichloropropene	U	U	6
Trichloroethene	U	U	6
Dibromochloromethane	U	U	6
1,1,2-Trichloroethane	U	U	6
Benzene	U	U	6
trans-1,3-Dichloropropene	U	U	6
Bromoform	U	U	6
4-Methyl-2-pentanone	U	U	22
2-Hexanone	U	U	22
Tetrachloroethene	U	U	6
1,1,2,2-Tetrachloroethane	U	U	6
Toluene	U	U	6
Chlorobenzene	U	U	6
Ethylbenzene	U	U	6
Styrene	U	U	6
total Xylenes	U	U	6

Results are in ug/kg; they are reported on a dry weight basis.
ug/kg = micrograms/kilogram or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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NJ #14116 NY #11376
US EPA Historic CLP Lab

LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >H5346
Lab number: 175229
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5
Moisture=9.85% Initial sample weight DWB=4.5075

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/kg
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/kg is: 0

: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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US EPA Historic CLP Lab

SURROGATE RECOVERY SUMMARY
Soil Volatile

Batch number: QV2617

Sample Number	Data File	% Recovery 1,2 DCE-d4	% Recovery Tol-d8	% Recovery BFB	# Outside QC Limits
BLANK	>H5345	101	98	94	0
175229	>H5346	109	100	96	0

	Compound	Percent Recovery	Concentration Added
QC Limits:	1,2-Dichloroethane-d4	70-121	50ppb
	Toluene-d8	81-117	50ppb
	Bromofluorobenzene	74-121	50ppb

* Values outside QC Limits.

S= Spike sample
SD= Spike duplicate sample
DL= Dilution
RE= Indicates a reanalysis of the sample confirming matrix interference.
NA= Not Applicable

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LABORATORY ANALYSIS
All results are reported in mg/l (ppm) unless otherwise stated.

Lab Number: 175329
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-SW-1
Sample date: 10/05/93
Sampled by: Customer
At lab date: 10/07/93
Percent Moisture:100%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	60.6	U	5.0

< = Less than
> = Greater than
'J= Not detected, NA= Not applicable.

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TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS PLUS 10 PEAKS

Lab Number: 175330
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-EB-1-AQ
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/07/93
Matrix: WATER

Percent Moisture: 100%

Init Sample vol= 5 Final volume= 5

Conc. in Sample = (Conc. on Quant Report/Initial Volume)*Final Volume

Parameter	Result ug/l	Method Blank ug/l	Minimum Detection Limit ug/l
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	U	U	5
Methylene chloride	U	U	5
Acetone	U	U	20
Carbon disulfide	U	U	5
1,1-Dichloroethene	U	U	5
1,1-Dichloroethane	U	U	5
total-1,2-Dichloroethene	U	U	5
Chloroform	U	U	5
1,2-Dichloroethane	U	U	5
-Butanone	U	U	20
,1,1-Trichloroethane	U	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	U	U	5
Dibromochloromethane	U	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	U	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	U	U	5
4-Methyl-2-pentanone	U	U	20
2-Hexanone	U	U	20
Tetrachloroethene	U	U	5
1,1,2,2-Tetrachloroethane	U	U	5
Toluene	U	U	5
Chlorobenzene	U	U	5
Ethylbenzene	U	U	5
Styrene	U	U	5
total Xylenes	U	U	5

ug/l = micrograms/liter or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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US EPA Historic CLP Lab

OBER 16, 1993

LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >G6480
Lab number: 175330
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/l
None found					

timated total non-target compound concentration (excluding compounds
lagged with A, B or **) in ug/l is: 0

A: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
. Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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OCTOBER 18, 1993

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NJ #14116 NY #11376
US EPA Historic CLP Lab

INORGANIC LABORATORY ANALYSIS

Lab Number: 175330
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-EB-1-AQ
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/07/93
Matrix: WATER

Percent Moisture: 100%

Results in mg/l (ppm).

Parameter	Sample Result	Method Blank Analysis	Minimum Detection Limit
Antimony	U	U	0.050
Arsenic	U	U	0.004
Beryllium	U	U	0.005
Cadmium	U	U	0.005
Chromium	U	U	0.010
Copper	U	U	0.025
Lead	U	U	0.004
Mercury	U	U	0.0005
Nickel	U	U	0.025
Selenium	U	U	0.004
Silver	U	U	0.010
Thallium	U	U	0.004
Zinc	U	U	0.020

U = Not Detected

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US EPA Historic CLP Lab

PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/06/93
Sampled by: Customer
At Lab Date: 10/07/93
Sample Matrix: Aqueous

Lab No.	SAMPLE ID	RESULT mg/l	METHOD BLANK	MINIMUM DETECTION LIMIT mg/l	ANALYSIS DATE	EXTRACTION DATE
75330	GA-EB-1-AQ	U	U	0.64	10/13/93	10/12/93

U = Not detected

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NJ #14116 NY #11376
US EPA Historic CLP Lab

LABORATORY ANALYSIS
All results are reported in mg/l (ppm) unless otherwise stated.

Lab Number: 175330
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-EB-1-AQ
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/07/93
Percent Moisture: 100%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	U	U	5.0

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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US EPA Historic CLP Lab

OCTOBER 15, 1993

TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175331
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW12-GW
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/07/93 Percent Moisture: 100%
Matrix: WATER
Init Sample vol= 5 Final volume= 5

Conc. in Sample = (Conc. on Quant Report/Initial Volume)*Final Volume

Parameter	Result ug/l	Method Blank ug/l	Minimum Detection Limit ug/l
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	U	U	5
Methylene chloride	U	U	5
Acetone	U	U	20
Carbon disulfide	U	U	5
1,1-Dichloroethene	U	U	5
1,1-Dichloroethane	U	U	5
total-1,2-Dichloroethene	U	U	5
Chloroform	U	U	5
1,2-Dichloroethane	U	U	5
-Butanone	U	U	20
,1,1-Trichloroethane	U	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	U	U	5
Dibromochloromethane	U	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	U	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	U	U	5
4-Methyl-2-pentanone	U	U	20
2-Hexanone	U	U	20
Tetrachloroethene	U	U	5
1,1,2,2-Tetrachloroethane	U	U	5
Toluene	U	U	5
Chlorobenzene	U	U	5
Ethylbenzene	U	U	5
Styrene	U	U	5
total Xylenes	U	U	5

ug/l = micrograms/liter or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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US EPA Historic CLP Lab

PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/06/93
Sampled by: Customer
At Lab Date: 10/07/93
Sample Matrix: Aqueous

ib No.	SAMPLE ID	RESULT mg/l	METHOD BLANK	MINIMUM DETECTION LIMIT mg/l	ANALYSIS DATE	EXTRACTION DATE
5331	GA-TW12-GW	U	U	0.63	10/13/93	10/12/93

U = Not detected

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LABORATORY ANALYSIS

All results are reported in mg/l (ppm) unless otherwise stated.

Lab Number: 175331
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW12-GW
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/07/93
Percent Moisture:100%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Fluoride	0.72	U	0.10
Oil and Grease	U	U	5.0

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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OCTOBER 15, 1993

TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175332
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW1-GW
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/07/93 Percent Moisture: 100%
Matrix: WATER
Init Sample vol= 5 Final volume= 5

Conc. in Sample = (Conc. on Quant Report/Initial Volume)*Final Volume

Parameter	Result ug/l	Method Blank ug/l	Minimum Detection Limit ug/l
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	U	U	5
Methylene chloride	U	U	5
Acetone	U	U	20
Carbon disulfide	U	U	5
1,1-Dichloroethene	U	U	5
1,1-Dichloroethane	U	U	5
total-1,2-Dichloroethene	U	U	5
Chloroform	U	U	5
1,2-Dichloroethane	U	U	5
?-Butanone	U	U	20
,1,1-Trichloroethane	U	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	U	U	5
Dibromochloromethane	U	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	U	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	U	U	5
4-Methyl-2-pentanone	U	U	20
2-Hexanone	U	U	20
Tetrachloroethene	U	U	5
1,1,2,2-Tetrachloroethane	U	U	5
Toluene	U	U	5
Chlorobenzene	U	U	5
Ethylbenzene	U	U	5
Styrene	U	U	5
total Xylenes	U	U	5

ug/l = micrograms/liter or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >G6482
Lab number: 175332
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/l
None found					

stimated total non-target compound concentration (excluding compounds
lagged with A, B or **) in ug/l is: 0

A: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/06/93
Sampled by: Customer
At Lab Date: 10/07/93
Sample Matrix: Aqueous

ab No. SAMPLE ID	RESULT mg/l	METHOD BLANK	MINIMUM DETECTION LIMIT mg/l	ANALYSIS DATE	EXTRACTION DATE
75332 GA-TW1-GW	U	U	0.6	10/13/93	10/12/93

U = Not detected

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LABORATORY ANALYSIS
All results are reported in mg/l (ppm) unless otherwise stated.

Lab Number: 175332
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW1-GW
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/07/93
Percent Moisture:100%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	U	U	5.0

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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SURROGATE RECOVERY SUMMARY
Aqueous Volatile

Batch number: QV2613

Sample Number	Data File	% Recovery 1,2 DCE-d4	% Recovery Tol-d8	% Recovery BFB	# Outside QC Limits
BLANK	>G6436	105	95	94	0
175329	>G6439	108	103	103	0

	Compound	Percent Recovery	Concentration Added
QC Limits:	1,2-Dichloroethane-d4	76-114	50ppb
	Toluene-d8	88-110	50ppb
	Bromofluorobenzene	86-115	50ppb

* Values outside QC Limits.

S= Spike sample
SD= Spike duplicate sample
DL= Dilution
RE= Indicates a reanalysis of the sample confirming matrix interference.
NA= Not Applicable

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SURROGATE RECOVERY SUMMARY
Aqueous Volatile

Batch number: QV2615

Sample Number	Data File	% Recovery 1,2 DCE-d4	% Recovery Tol-d8	% Recovery BFB	# Outside QC Limits
BLANK	>G6474	95	97	95	0
175330	>G6480	104	100	102	0
175331	>G6481	109	101	105	0
175332	>G6482	104	99	104	0

	Compound	Percent Recovery	Concentration Added
QC Limits:	1,2-Dichloroethane-d4	76-114	50ppb
	Toluene-d8	88-110	50ppb
	Bromofluorobenzene	86-115	50ppb

* Values outside QC Limits.

S= Spike sample
SD= Spike duplicate sample
DL= Dilution
RE= Indicates a reanalysis of the sample confirming matrix interference.
NA= Not Applicable

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TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175507
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW6-GW
Sample date: 10/07/93
Sampled by: Customer
At lab date: 10/08/93
Matrix: WATER

Percent Moisture: 100%

Init Sample vol= 5 Final volume= 5

Conc. in Sample = (Conc. on Quant Report/Initial Volume)*Final Volume

Parameter	Result ug/l	Method Blank ug/l	Minimum Detection Limit ug/l
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	U	U	5
Methylene chloride	U	4J	5
Acetone	U	U	20
Carbon disulfide	U	U	5
1,1-Dichloroethene	U	U	5
1,1-Dichloroethane	U	U	5
total-1,2-Dichloroethene	U	U	5
Chloroform	U	U	5
1,2-Dichloroethane	U	U	5
2-Butanone	U	U	20
1,1,1-Trichloroethane	U	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	U	U	5
Dibromochloromethane	U	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	U	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	U	U	5
4-Methyl-2-pentanone	U	U	20
2-Hexanone	U	U	20
Tetrachloroethene	U	U	5
1,1,2,2-Tetrachloroethane	U	U	5
Toluene	U	U	5
Chlorobenzene	U	U	5
Ethylbenzene	U	U	5
Styrene	U	U	5
total Xylenes	U	U	5

ug/l = micrograms/liter or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >G6514
Lab number: 175507
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/l
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/l is: 0

A: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >H5348
Lab number: 175327
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5
Moisture=18.11% Initial sample weight DWB=4.0945

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/kg
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/kg is: 0

A: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >H5339
Lab number: 175328
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5
Moisture=26.67% Initial sample weight DWB=3.6665

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/kg
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/kg is: 0

^: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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US EPA Historic CLP Lab

INORGANIC LABORATORY ANALYSIS

Lab Number: 175328
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-SD-1
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/07/93
Matrix: SOIL

Percent Moisture: 26.67%

Results in mg/kg dry weight basis.

Parameter	Sample Result	Method Blank Analysis	Minimum Detection Limit
Antimony	U	U	2.05
Arsenic	1.02	U	0.273
Beryllium	U	U	0.341
Cadmium	0.682	U	0.341
Chromium	7.43	U	0.682
Copper	4.02	U	1.70
Lead	12.3	U	3.41
Mercury	U	U	0.136
Nickel	1.98	U	1.70
Selenium	U	U	0.273
Silver	U	U	0.682
Thallium	U	U	0.273
Zinc	132	U	1.36

U = Not Detected

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LABORATORY ANALYSIS

All results are reported in mg/kg (ppm) dry weight basis unless otherwise stated.

Lab Number: 175328
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-SD-1
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/07/93
Percent Moisture: 26.67%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	85	U	21

Client informed pH must be done within 15 minutes of sampling per NJDEPE.

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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BON

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/05/93
Sampled by: Customer
At Lab Date: 10/07/93
Sample Matrix: Soil

Lab No.	SAMPLE ID	RESULT mg/kg	METHOD BLANK	MINIMUM DETECTION LIMIT mg/kg	ANALYSIS DATE	EXTRACTION DATE
5324	GA-TW6-S(8-10)	31	U	18	10/12/93	10/8/93

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

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US EPA Historic CLP Lab

PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/06/93
Sampled by: Customer
At Lab Date: 10/07/93
Sample Matrix: Soil

Lab No.	SAMPLE ID	RESULT mg/kg	METHOD BLANK	MINIMUM DETECTION LIMIT mg/kg	ANALYSIS DATE	EXTRACTION DATE
75325	GA-TW4-S(4-6)	20	U	18	10/12/93	10/8/93

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/06/93
Sampled by: Customer
At Lab Date: 10/07/93
Sample Matrix: Soil

Lab No.	SAMPLE ID	RESULT mg/kg	METHOD BLANK	MINIMUM DETECTION LIMIT mg/kg	ANALYSIS DATE	EXTRACTION DATE
75326	GA-TW3-S(4-6)	32	U	19	10/12/93	10/8/93

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/06/93
Sampled by: Customer
At Lab Date: 10/07/93
Sample Matrix: Soil

Lab No.	SAMPLE ID	RESULT mg/kg	METHOD BLANK	MINIMUM DETECTION LIMIT mg/kg	ANALYSIS DATE	EXTRACTION DATE
5327	GA-TW8-S(8-10)	23	U	18	10/12/93	10/8/93

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/06/93
Sampled by: Customer
At Lab Date: 10/07/93
Sample Matrix: Soil

Lab No.	SAMPLE ID	RESULT mg/kg	METHOD BLANK	MINIMUM DETECTION LIMIT mg/kg	ANALYSIS DATE	EXTRACTION DATE
75328	GA-SD-1	36	U	21	10/12/93	10/8/93

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

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SURROGATE RECOVERY SUMMARY
Soil Volatile

Batch number: QV2617

Sample Number	Data File	% Recovery 1,2 DCE-d4	% Recovery Tol-d8	% Recovery BFB	# Outside QC Limits
BLANK	>H5328	102	98	101	0
175324	>H5335	100	100	93	0
175325	>H5336	97	100	98	0
175326	>H5337	99	100	99	0
175328	>H5339	104	98	95	0
BLANK	>H5345	101	98	94	0
175327	>H5348	105	102	97	0

	Compound	Percent Recovery	Concentration Added
QC Limits:	1,2-Dichloroethane-d4	70-121	50ppb
	Toluene-d8	81-117	50ppb
	Bromofluorobenzene	74-121	50ppb

* Values outside QC Limits.

S= Spike sample
SD= Spike duplicate sample
DL= Dilution
RE= Indicates a reanalysis of the sample confirming matrix interference.
NA= Not Applicable

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OCTOBER 16, 1993

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NJ #14116 NY #11376
US EPA Historic CLP Lab

TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175329
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-SW-1
Sample date: 10/05/93
Sampled by: Customer
At lab date: 10/07/93
Matrix: WATER

Percent Moisture: 100%

Init Sample vol= 5 Final volume= 5

Conc. in Sample = (Conc. on Quant Report/Initial Volume)*Final Volume

Parameter	Result ug/l	Method Blank ug/l	Minimum Detection Limit ug/l
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	U	U	5
Methylene chloride	U	U	5
Acetone	U	U	20
Carbon disulfide	U	U	5
1,1-Dichloroethene	U	U	5
1,1-Dichloroethane	U	U	5
total-1,2-Dichloroethene	U	U	5
Chloroform	U	U	5
1,2-Dichloroethane	U	U	5
Butanone	U	U	20
1,1-Trichloroethane	U	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	U	U	5
Dibromochloromethane	7	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	U	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	350	U	5
4-Methyl-2-pentanone	U	U	20
2-Hexanone	U	U	20
Tetrachloroethene	U	U	5
1,1,2,2-Tetrachloroethane	U	U	5
Toluene	U	U	5
Chlorobenzene	U	U	5
Ethylbenzene	U	U	5
Styrene	U	U	5
total Xylenes	U	U	5

ug/l = micrograms/liter or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >G6439
Lab number: 175329
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/l
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/l is: 0

A: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/05/93
Sampled by: Customer
At Lab Date: 10/07/93
Sample Matrix: Aqueous

ab No. SAMPLE ID	RESULT mg/l	METHOD BLANK	MINIMUM DETECTION LIMIT mg/l	ANALYSIS DATE	EXTRACTION DATE
75329 GA-SW-1	34	U	0.61	10/12/93	10/12/93

U = Not detected

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/07/93
Sampled by: Customer
At Lab Date: 10/08/93
Sample Matrix: Aqueous

Lab No.	SAMPLE ID	RESULT mg/l	METHOD BLANK	MINIMUM DETECTION LIMIT mg/l	ANALYSIS DATE	EXTRACTION DATE
5507	GA-TW6-GW	U	U	0.66	10/13/93	10/13/93

U = Not detected

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LABORATORY ANALYSIS
All results are reported in mg/l (ppm) unless otherwise stated.

Lab Number: 175507
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW6-GW
Sample date: 10/07/93
Sampled by: Customer
At lab date: 10/08/93
Percent Moisture: 100%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Fluoride	0.28	U	0.10
Oil and Grease	U	U	5.0

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175508
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW13-GW
Sample date: 10/07/93
Sampled by: Customer
At lab date: 10/08/93 Percent Moisture: 100%
Matrix: WATER
Init Sample vol= 5 Final volume= 5

Conc. in Sample = (Conc. on Quant Report/Initial Volume)*Final Volume

Parameter	Result ug/l	Method Blank ug/l	Minimum Detection Limit ug/l
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	U	U	5
Methylene chloride	4JB	9	5
Acetone	U	U	20
Carbon disulfide	U	U	5
1,1-Dichloroethene	U	U	5
1,1-Dichloroethane	U	U	5
total-1,2-Dichloroethene	U	U	5
Chloroform	U	U	5
,2-Dichloroethane	U	U	5
Butanone	U	U	20
,1,1-Trichloroethane	U	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	U	U	5
Dibromochloromethane	U	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	U	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	U	U	5
4-Methyl-2-pentanone	U	U	20
2-Hexanone	U	U	20
Tetrachloroethene	U	U	5
1,1,2,2-Tetrachloroethane	U	U	5
Toluene	U	U	5
Chlorobenzene	U	U	5
Ethylbenzene	U	U	5
Styrene	U	U	5
total Xylenes	U	U	5

ug/l = micrograms/liter or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >G6520
Lab number: 175508
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/l
None found					

stimated total non-target compound concentration (excluding compounds
lagged with A, B or **) in ug/l is: 0

A: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/07/93
Sampled by: Customer
At Lab Date: 10/08/93
Sample Matrix: Aqueous

Lab No.	SAMPLE ID	RESULT mg/l	METHOD BLANK	MINIMUM DETECTION LIMIT mg/l	ANALYSIS DATE	EXTRACTION DATE
5508	GA-TW13-GW	U	U	0.67	10/13/93	10/13/93

U = Not detected

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LABORATORY ANALYSIS
All results are reported in mg/l (ppm) unless otherwise stated.

Lab Number: 175508
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW13-GW
Sample date: 10/07/93
Sampled by: Customer
At lab date: 10/08/93
Percent Moisture:100%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Fluoride	0.25	U	0.10
Oil and Grease	U	U	5.0

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175509
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: Travel Blank
Sample date: 10/07/93
Sampled by: Customer
At lab date: 10/08/93
Matrix: WATER

Percent Moisture: 100%

Init Sample vol= 5 Final volume= 5

Conc. in Sample = (Conc. on Quant Report/Initial Volume)*Final Volume

Parameter	Result ug/l	Method Blank ug/l	Minimum Detection Limit ug/l
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	U	U	5
Methylene chloride	4JB	9	5
Acetone	U	U	20
Carbon disulfide	U	U	5
1,1-Dichloroethene	U	U	5
1,1-Dichloroethane	U	U	5
total-1,2-Dichloroethene	U	U	5
Chloroform	U	U	5
1,2-Dichloroethane	U	U	5
2-Butanone	U	U	20
1,1,1-Trichloroethane	U	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	U	U	5
Dibromochloromethane	U	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	U	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	U	U	5
4-Methyl-2-pentanone	U	U	20
2-Hexanone	U	U	20
Tetrachloroethene	U	U	5
1,1,2,2-Tetrachloroethane	U	U	5
Toluene	U	U	5
Chlorobenzene	U	U	5
Ethylbenzene	U	U	5
Styrene	U	U	5
total Xylenes	U	U	5

ug/l = micrograms/liter or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >G6519
Lab number: 175509
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/l
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/l is: 0

A: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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SURROGATE RECOVERY SUMMARY
Aqueous Volatile

Batch number: QV2618

Sample Number	Data File	% Recovery 1,2 DCE-d4	% Recovery Tol-d8	% Recovery BFB	# Outside QC Limits
BLANK	>G6517	97	101	96	0
175509	>G6519	101	104	102	0
175508	>G6520	98	102	100	0

	Compound	Percent Recovery	Concentration Added
QC Limits:	1,2-Dichloroethane-d4	76-114	50ppb
	Toluene-d8	88-110	50ppb
	Bromofluorobenzene	86-115	50ppb

* Values outside QC Limits.

S= Spike sample
SD= Spike duplicate sample
DL= Dilution
RE= Indicates a reanalysis of the sample confirming matrix interference.
NA= Not Applicable

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SURROGATE RECOVERY SUMMARY
Aqueous Volatile

Batch number: QV2615

Sample Number	Data File	% Recovery 1,2 DCE-d4	% Recovery Tol-d8	% Recovery BFB	# Outside QC Limits
BLANK	>G6501	98	104	99	0
175507	>G6514	103	106	103	0

	Compound	Percent Recovery	Concentration Added
QC Limits:	1,2-Dichloroethane-d4	76-114	50ppb
	Toluene-d8	88-110	50ppb
	Bromofluorobenzene	86-115	50ppb

* Values outside QC Limits.

S= Spike sample
SD= Spike duplicate sample
DL= Dilution
RE= Indicates a reanalysis of the sample confirming matrix interference.
NA= Not Applicable

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OCTOBER 16, 1993

TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS PLUS 10 PEAKS

Lab Number: 175510
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW9-S(8-12')
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/08/93 Percent Moisture: 9.15%
Matrix: SOIL Init Sample wght= 5 Final volume= 5
Initial sample weight DWB= 4.5425

Conc. in Sample = (Conc. on Quant Report/Initial Sample Weight DWB)*Final Volume

Parameter	Result ug/kg	Method Blank ug/kg	Minimum Detection Limit ug/kg
Chloromethane	U	U	6
Bromomethane	U	U	6
Vinyl chloride	U	U	6
Chloroethane	U	U	6
Methylene chloride	8 *	U	6
Acetone	U	U	22
Carbon disulfide	U	U	6
1,1-Dichloroethene	U	U	6
1,1-Dichloroethane	U	U	6
total-1,2-Dichloroethene	U	U	6
Chloroform	U	U	6
1,2-Dichloroethane	U	U	6
2-Butanone	U	U	22
1,1,1-Trichloroethane	U	U	6
Carbon tetrachloride	U	U	6
Bromodichloromethane	U	U	6
1,2-Dichloropropane	U	U	6
cis-1,3-Dichloropropene	U	U	6
Trichloroethene	U	U	6
Dibromochloromethane	U	U	6
1,1,2-Trichloroethane	U	U	6
Benzene	U	U	6
trans-1,3-Dichloropropene	U	U	6
Bromoform	U	U	6
4-Methyl-2-pentanone	U	U	22
2-Hexanone	U	U	22
Tetrachloroethene	U	U	6
1,1,2,2-Tetrachloroethane	U	U	6
Toluene	U	U	6
Chlorobenzene	U	U	6
Ethylbenzene	U	U	6
Styrene	U	U	6
total Xylenes	U	U	6

* This compound is not flagged with B since it was not found in the corresponding method blank. However, this compound is commonly found as a laboratory contaminant.

Results are in ug/kg; they are reported on a dry weight basis.
ug/kg = micrograms/kilogram or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >H5385
Lab number: 175510
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5
Moisture=9.15% Initial sample weight DWB=4.5425

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/kg
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/kg is: 0

: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/06/93
Sampled by: Customer
At Lab Date: 10/08/93
Sample Matrix: Soil

Lab No.	SAMPLE ID	RESULT mg/kg	METHOD BLANK	MINIMUM DETECTION LIMIT mg/kg	ANALYSIS DATE	EXTRACTION DATE
5510	GA-TW9-S(8-12')	23	U	14	10/14/93	10/12/93

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

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LABORATORY ANALYSIS

All results are reported in mg/kg (ppm) dry weight basis unless otherwise stated.

Lab Number: 175510
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW9-S(8-12')
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/08/93
Percent Moisture: 9.15%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	79	U	14

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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OCTOBER 16, 1993

TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175511
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW10-S(6-8')
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/08/93
Matrix: SOIL

Percent Moisture: 14.71%
Init Sample wght= 5 Final volume= 5
Initial sample weight DWB= 4.2645

Conc. in Sample = (Conc. on Quant Report/Initial Sample Weight DWB)*Final Volume

Parameter	Result ug/kg	Method Blank ug/kg	Minimum Detection Limit ug/kg
Chloromethane	U	U	6
Bromomethane	U	U	6
Vinyl chloride	U	U	6
Chloroethane	U	U	6
Methylene chloride	9 *	U	6
Acetone	430	U	23
Carbon disulfide	U	U	6
1,1-Dichloroethene	U	U	6
1,1-Dichloroethane	17	U	6
total-1,2-Dichloroethene	22	U	6
Chloroform	U	U	6
1,2-Dichloroethane	U	U	6
Butanone	U	U	23
1,1-Trichloroethane	29	U	6
Carbon tetrachloride	U	U	6
Bromodichloromethane	U	U	6
1,2-Dichloropropane	U	U	6
cis-1,3-Dichloropropene	U	U	6
Trichloroethene	20	U	6
Dibromochloromethane	U	U	6
1,1,2-Trichloroethane	U	U	6
Benzene	U	U	6
trans-1,3-Dichloropropene	U	U	6
Bromoform	U	U	6
4-Methyl-2-pentanone	U	U	23
2-Hexanone	U	U	23
Tetrachloroethene	55	U	6
1,1,2,2-Tetrachloroethane	U	U	6
Toluene	16	U	6
Chlorobenzene	U	U	6
Ethylbenzene	8	U	6
Styrene	U	U	6
total Xylenes	48	U	6

* This compound is not flagged with B since it was not found in the corresponding method blank. However, this compound is commonly found as a laboratory contaminant.

Results are in ug/kg; they are reported on a dry weight basis.
ug/kg = micrograms/kilogram or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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OCTOBER 18, 1993

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NJ #14116 NY #11376
US EPA Historic CLP Lab

LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >H5388
Lab number: 175511
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5
Moisture=14.71% Initial sample weight DWB=4.2645

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/kg
230	67630	9.48	2-Propanol	60	19
337		13.62	Unknown		38
361		14.55	Unknown		16
382		15.36	Unknown hydrocarbon		19
		16.09	Unknown hydrocarbon		6
463		18.49	Unknown hydrocarbon		8
504		20.08	Unknown alkane	86	120
521		20.73	Unknown		22
539		21.43	Unknown		6
551	565593	21.89	Dimethyl pentane	100	28
583	589344	23.13	Methyl hexane	100	110
666		26.35	Unknown		12

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/kg is: 404

A: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
J: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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OCTOBER 15, 1993

TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175327
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW8-S(8-10)
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/07/93
Matrix: SOIL

Percent Moisture: 18.11%
Init Sample wght= 5 Final volume= 5
Initial sample weight DWB= 4.0945

Conc. in Sample = (Conc. on Quant Report/Initial Sample Weight DWB)*Final Volume

Parameter	Result ug/kg	Method Blank ug/kg	Minimum Detection Limit ug/kg
Chloromethane	U	U	6
Bromomethane	U	U	6
Vinyl chloride	U	U	6
Chloroethane	U	U	6
Methylene chloride	5JB	5J	6
Acetone	23JB	11J	24
Carbon disulfide	U	U	6
1,1-Dichloroethene	U	U	6
1,1-Dichloroethane	U	U	6
total-1,2-Dichloroethene	U	U	6
Chloroform	U	U	6
1,2-Dichloroethane	U	U	6
Butanone	U	U	24
1,1-Trichloroethane	U	U	6
Carbon tetrachloride	U	U	6
Bromodichloromethane	U	U	6
1,2-Dichloropropane	U	U	6
cis-1,3-Dichloropropene	U	U	6
Trichloroethene	U	U	6
Dibromochloromethane	U	U	6
1,1,2-Trichloroethane	U	U	6
Benzene	U	U	6
trans-1,3-Dichloropropene	U	U	6
Bromoform	U	U	6
4-Methyl-2-pentanone	U	U	24
2-Hexanone	U	U	24
Tetrachloroethene	U	U	6
1,1,2,2-Tetrachloroethane	U	U	6
Toluene	U	U	6
Chlorobenzene	U	U	6
Ethylbenzene	U	U	6
Styrene	U	U	6
total Xylenes	U	U	6

Results are in ug/kg; they are reported on a dry weight basis.
ug/kg = micrograms/kilogram or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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US EPA Historic CLP Lab

TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175324
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW6-S(8-10)
Sample date: 10/05/93
Sampled by: Customer
At lab date: 10/07/93
Matrix: SOIL

Percent Moisture: 14.53%
Init Sample wght= 5 Final volume= 5
Initial sample weight DWB= 4.2735

Conc. in Sample = (Conc. on Quant Report/Initial Sample Weight DWB)*Final Volume

Parameter	Result ug/kg	Method Blank ug/kg	Minimum Detection Limit ug/kg
Chloromethane	U	U	6
Bromomethane	U	U	6
Vinyl chloride	U	U	6
Chloroethane	U	U	6
Methylene chloride	5J*	U	6
Acetone	27 *	U	23
Carbon disulfide	U	U	6
1,1-Dichloroethene	U	U	6
1,1-Dichloroethane	U	U	6
total-1,2-Dichloroethene	U	U	6
Chloroform	U	U	6
1,2-Dichloroethane	U	U	6
2-Butanone	U	U	23
1,1-Trichloroethane	U	U	6
Carbon tetrachloride	U	U	6
Bromodichloromethane	U	U	6
1,2-Dichloropropane	U	U	6
cis-1,3-Dichloropropene	U	U	6
Trichloroethene	U	U	6
Dibromochloromethane	U	U	6
1,1,2-Trichloroethane	U	U	6
Benzene	U	U	6
trans-1,3-Dichloropropene	U	U	6
Bromoform	U	U	23
4-Methyl-2-pentanone	U	U	23
2-Hexanone	U	U	6
Tetrachloroethene	U	U	6
1,1,2,2-Tetrachloroethane	U	U	6
Toluene	U	U	6
Chlorobenzene	U	U	6
Ethylbenzene	U	U	6
Styrene	U	U	6
total Xylenes	U	U	6

* This compound is not flagged with B since it was not found in the corresponding method blank. However, this compound is commonly found as a laboratory contaminant.

** This compound is not flagged with B since it was not found in the corresponding method blank. However, this compound is commonly found as a laboratory contaminant.

Results are in ug/kg; they are reported on a dry weight basis.
ug/kg = micrograms/kilogram or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore

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LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >H5335
Lab number: 175324
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5
Moisture=14.53% Initial sample weight DWB=4.2735

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/kg
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/kg is: 0

`: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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US EPA Historic CLP Lab

LABORATORY ANALYSIS

All results are reported in mg/kg (ppm) dry weight basis unless otherwise stated.

Lab Number: 175324
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW6-S(8-10)
Sample date: 10/05/93
Sampled by: Customer
At lab date: 10/07/93
Percent Moisture: 14.53%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
pH (units)	7.68	NA	NA
Oil and Grease	86	U	18
Fluoride	46.9	U	6.90

Client informed pH must be done within 15 minutes of sampling per NJDEPE.

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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BON

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LABORATORY ANALYSIS

All results are reported in mg/kg (ppm) dry weight basis unless otherwise stated.

Lab Number: 175325
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW4-S(4-6)
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/07/93
Percent Moisture:11.6%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
pH (units)	5.08	NA	NA
Oil and Grease	48	U	18

Client informed pH must be done within 15 minutes of sampling per NJDEPE.

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> = Greater than
U= Not detected, NA= Not applicable.

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LABORATORY ANALYSIS

All results are reported in mg/kg (ppm) dry weight basis unless otherwise stated.

Lab Number: 175327
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW8-S(8-10)
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/07/93
Percent Moisture: 18.11%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	54	U	18

Client informed pH must be done within 15 minutes of sampling per NJDEPE.

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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LABORATORY ANALYSIS

All results are reported in mg/kg (ppm) dry weight basis unless otherwise stated.

Lab Number: 175230
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW7-S (12-14)
Sample date: 10/05/93
Sampled by: Customer
At lab date: 10/06/93
Percent Moisture: 11.41%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
pH (units)	4.72	NA	NA
Fluoride	81.3	U	6.77

Client informed pH must be done within 15 minutes of sampling per NJDEPE.

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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BASE/NEUTRAL ANALYSIS BY GC/MS

Lab Number: 175511
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW10-S(6-8')
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/08/93
Matrix: SOIL

Percent Moisture: 14.71%
Init Sample wght= 30 Final volume= 1
Initial sample weight DWB= 25.587

nc in Sample = ((Conc on Quant Report/Initial Sample Weight DWB)*Final Volume)*1000

Parameter	Result ug/kg	Method Blank ug/kg	Minimum Detection Limit ug/kg
Butly Cellusolve	2200	U	390

Results are in ug/kg (ppb); they are reported on a dry weight basis.
ug/kg = micrograms/kilogram or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/06/93
Sampled by: Customer
At Lab Date: 10/08/93
Sample Matrix: Soil

Lab No.	SAMPLE ID	RESULT mg/kg	METHOD BLANK	MINIMUM DETECTION LIMIT mg/kg	ANALYSIS DATE	EXTRACTION DATE
5511	GA-TW10-S(6-8')	88	U	18	10/14/93	10/12/93

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

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LABORATORY ANALYSIS

All results are reported in mg/kg (ppm) dry weight basis unless otherwise stated.

Lab Number: 175511
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW10-S(6-8')
Sample date: 10/06/93
Sampled by: Customer
At lab date: 10/08/93
Percent Moisture: 14.71%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	200	U	88

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175512
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW2-S(2-4')
Sample date: 10/07/93
Sampled by: Customer
At lab date: 10/08/93
Matrix: SOIL

Percent Moisture: 14.23%
Init Sample wght= 5 Final volume= 5
Initial sample weight DWB= 4.2885

Conc. in Sample = (Conc. on Quant Report/Initial Sample Weight DWB)*Final Volume

Parameter	Result ug/kg	Method Blank ug/kg	Minimum Detection Limit ug/kg
Chloromethane	U	U	6
Bromomethane	U	U	6
Vinyl chloride	U	U	6
Chloroethane	U	U	6
Methylene chloride	9 *	U	6
Acetone	U	U	23
Carbon disulfide	U	U	6
1,1-Dichloroethene	U	U	6
1,1-Dichloroethane	U	U	6
total-1,2-Dichloroethene	U	U	6
Chloroform	U	U	6
1,2-Dichloroethane	U	U	6
-Butanone	U	U	23
1,1,1-Trichloroethane	U	U	6
Carbon tetrachloride	U	U	6
Bromodichloromethane	U	U	6
1,2-Dichloropropane	U	U	6
cis-1,3-Dichloropropene	U	U	6
Trichloroethene	U	U	6
Dibromochloromethane	U	U	6
1,1,2-Trichloroethane	U	U	6
Benzene	U	U	6
trans-1,3-Dichloropropene	U	U	6
Bromoform	U	U	6
4-Methyl-2-pentanone	U	U	23
2-Hexanone	U	U	23
Tetrachloroethene	U	U	6
1,1,2,2-Tetrachloroethane	U	U	6
Toluene	U	U	6
Chlorobenzene	U	U	6
Ethylbenzene	U	U	6
Styrene	U	U	6
total Xylenes	U	U	6

* This compound is not flagged with B since it was not found in the corresponding method blank. However, this compound is commonly found as a laboratory contaminant.

Results are in ug/kg; they are reported on a dry weight basis.
ug/kg = micrograms/kilogram or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trahs 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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NJ #14116 NY #11376
US EPA Historic CLP Lab

LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >H5386
Lab number: 175512
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5
Moisture=14.23% Initial sample weight DWB=4.2885

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/kg
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/kg is: 0

: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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US EPA Historic CLP Lab

PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/07/93
Sampled by: Customer
At Lab Date: 10/08/93
Sample Matrix: Soil

Lab No.	SAMPLE ID	RESULT mg/kg	METHOD BLANK	MINIMUM DETECTION LIMIT mg/kg	ANALYSIS DATE	EXTRACTION DATE
5512	GA-TW2-S(2-4')	U	U	21	10/14/93	10/12/93

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

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OCTOBER 15, 1993

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US EPA Historic CLP Lab

LABORATORY ANALYSIS

All results are reported in mg/kg (ppm) dry weight basis unless otherwise stated.

Lab Number: 175512
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW2-S(2-4')
Sample date: 10/07/93
Sampled by: Customer
At lab date: 10/08/93
Percent Moisture: 14.23%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	69	U	21

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175513
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW5-S(4-6')
Sample date: 10/07/93
Sampled by: Customer
At lab date: 10/08/93
Matrix: SOIL

Percent Moisture: 16.61%
Init Sample wght= 5 Final volume= 5
Initial sample weight DWB= 4.1695

Conc. in Sample = (Conc. on Quant Report/Initial Sample Weight DWB)*Final Volume

Parameter	Result ug/kg	Method Blank ug/kg	Minimum Detection Limit ug/kg
Chloromethane	U	U	6
Bromomethane	U	U	6
Vinyl chloride	U	U	6
Chloroethane	U	U	6
Methylene chloride	9 *	U	6
Acetone	U	U	24
Carbon disulfide	U	U	6
1,1-Dichloroethene	U	U	6
1,1-Dichloroethane	U	U	6
total-1,2-Dichloroethene	U	U	6
Chloroform	U	U	6
1,2-Dichloroethane	U	U	6
-Butanone	U	U	24
,1,1-Trichloroethane	U	U	6
Carbon tetrachloride	U	U	6
Bromodichloromethane	U	U	6
1,2-Dichloropropane	U	U	6
cis-1,3-Dichloropropene	U	U	6
Trichloroethene	U	U	6
Dibromochloromethane	U	U	6
1,1,2-Trichloroethane	U	U	6
Benzene	U	U	6
trans-1,3-Dichloropropene	U	U	6
Bromoform	U	U	6
4-Methyl-2-pentanone	U	U	24
2-Hexanone	U	U	24
Tetrachloroethene	U	U	6
1,1,2,2-Tetrachloroethane	U	U	6
Toluene	U	U	6
Chlorobenzene	U	U	6
Ethylbenzene	U	U	6
Styrene	U	U	6
total Xylenes	U	U	6

* This compound is not flagged with B since it was not found in the corresponding method blank. However, this compound is commonly found as a laboratory contaminant.

Results are in ug/kg; they are reported on a dry weight basis.
ug/kg = micrograms/kilogram or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >H5387
Lab number: 175513
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5
Moisture=16.61% Initial sample weight DWB=4.1695

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/kg
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/kg is: 0

: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/07/93
Sampled by: Customer
At Lab Date: 10/08/93
Sample Matrix: Soil

Lab No.	SAMPLE ID	RESULT mg/kg	METHOD BLANK	MINIMUM DETECTION LIMIT mg/kg	ANALYSIS DATE	EXTRACTIC DATE
5513	GA-TW5-S(4-6')	U	U	26	10/14/93	10/12/93

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

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US EPA Historic CLP Lab

LABORATORY ANALYSIS

All results are reported in mg/kg (ppm) dry weight basis unless otherwise stated.

Lab Number: 175513
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW5-S(4-6')
Sample date: 10/07/93
Sampled by: Customer
At lab date: 10/08/93
Percent Moisture: 16.61%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	62	U	26

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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OCTOBER 16, 1993

TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175514
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-B2-SD(5-7')
Sample date: 10/07/93
Sampled by: Customer
At lab date: 10/08/93 Percent Moisture: 12.95%
Matrix: SOIL Init Sample wght= 5 Final volume= 5
Initial sample weight DWB= 4.3525

Conc. in Sample = (Conc. on Quant Report/Initial Sample Weight DWB)*Final Volume

Parameter	Result ug/kg	Method Blank ug/kg	Minimum Detection Limit ug/kg
Chloromethane	U	U	6
Bromomethane	U	U	6
Vinyl chloride	U	U	6
Chloroethane	U	U	6
Methylene chloride	10 *	U	6
Acetone	U	U	23
Carbon disulfide	U	U	6
1,1-Dichloroethene	U	U	6
1,1-Dichloroethane	U	U	6
total-1,2-Dichloroethene	U	U	6
Chloroform	U	U	6
1,2-Dichloroethane	U	U	6
Butanone	U	U	23
1,1-Trichloroethane	U	U	6
Carbon tetrachloride	U	U	6
Bromodichloromethane	U	U	6
1,2-Dichloropropane	U	U	6
cis-1,3-Dichloropropene	U	U	6
Trichloroethene	U	U	6
Dibromochloromethane	U	U	6
1,1,2-Trichloroethane	U	U	6
Benzene	U	U	6
trans-1,3-Dichloropropene	U	U	6
Bromoform	U	U	6
4-Methyl-2-pentanone	U	U	23
2-Hexanone	U	U	23
Tetrachloroethene	U	U	6
1,1,2,2-Tetrachloroethane	U	U	6
Toluene	U	U	6
Chlorobenzene	U	U	6
Ethylbenzene	U	U	6
Styrene	U	U	6
total Xylenes	U	U	6

* This compound is not flagged with B since it was not found in the corresponding method blank. However, this compound is commonly found as a laboratory contaminant.

Results are in ug/kg; they are reported on a dry weight basis.
ug/kg = micrograms/kilogram or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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US EPA Historic CLP Lab

LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >H5390
Lab number: 175514
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5
Moisture=12.95% Initial sample weight DWB=4.3525

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/kg
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/kg is: 0

: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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OCTOBER 18, 1993

INORGANIC LABORATORY ANALYSIS

Lab Number: 175514
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-B2-SD(5-7')
Sample date: 10/07/93
Sampled by: Customer
At lab date: 10/08/93
Matrix: SOIL

Percent Moisture: 12.95%

Results in mg/kg dry weight basis.

Parameter	Sample Result	Method Blank Analysis	Minimum Detection Limit
Antimony	U	U	2.87
Arsenic	3.91	U	0.230
Beryllium	U	U	0.287
Cadmium	U	U	0.287
Chromium	6.38	U	0.574
Copper	U	U	1.44
Lead	5.11	U	2.87
Mercury	U	U	0.115
Nickel	U	U	1.44
Selenium	U	U	0.230
Silver	U	U	0.574
Thallium	U	U	0.230
Zinc	U	U	1.15

U = Not Detected

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/07/93
Sampled by: Customer
At Lab Date: 10/08/93
Sample Matrix: Soil

Lab No.	SAMPLE ID	RESULT mg/kg	METHOD BLANK	MINIMUM DETECTION LIMIT mg/kg	ANALYSIS DATE	EXTRACTION DATE
75514	GA-B2-SD(5-7')	U	U	23	10/14/93	10/12/93

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

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LABORATORY ANALYSIS

All results are reported in mg/kg (ppm) dry weight basis unless otherwise stated.

Lab Number: 175514
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-B2-SD(5-7')
Sample date: 10/07/93
Sampled by: Customer
At lab date: 10/08/93
Percent Moisture: 12.95%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	63	U	23

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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SURROGATE RECOVERY SUMMARY
Soil Volatile

Batch number: QV2617B

Sample Number	Data File	% Recovery 1,2 DCE-d4	% Recovery Tol-d8	% Recovery BFB	# Outside QC Limits
BLANK	>H5381	104	98	98	0
175510	>H5385	109	97	98	0
175512	>H5386	107	101	90	0
175513	>H5387	109	99	93	0
175511	>H5388	106	97	97	0
175514	>H5390	113	102	100	0

	Compound	Percent Recovery	Concentration Added
QC Limits:	1,2-Dichloroethane-d4	70-121	50ppb
	Toluene-d8	81-117	50ppb
	Bromofluorobenzene	74-121	50ppb

* Values outside QC Limits.

S= Spike sample
SD= Spike duplicate sample
DL= Dilution
RE= Indicates a reanalysis of the sample confirming matrix interference.
NA= Not Applicable

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SURROGATE RECOVERY SUMMARY
Soil Base/Neutral

Batch number: QC4184

Sample Number	Data File	% Recovery NBZ-d5	% Recovery 2-Fbiphenyl	% Recovery Ter-d14	# Outside QC Limits
BLANK	>F6156	59	64	74	0
175511	>F6181	59	70	83	0

	Compound	Percent Recovery	Concentration Added
QC Limits:	Nitrobenzene-d5	23-120	100ppb
	2-Fluorobiphenyl	30-115	100ppb
	Terphenyl-d14	18-137	100ppb

** Surrogates are diluted out.
* Values outside QC Limits.

S= Spike sample
SD= Spike duplicate sample
DL= Dilution
RE= Indicates a reanalysis of the sample confirming matrix interference.
NA= Not Applicable

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TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175646
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW3-GW
Sample date: 10/08/93
Sampled by: Customer
At lab date: 10/09/93
Matrix: WATER

Percent Moisture: 100%

Init Sample vol= 5 Final volume= 5

Conc. in Sample = (Conc. on Quant Report/Initial Volume)*Final Volume

Parameter	Result ug/l	Method Blank ug/l	Minimum Detection Limit ug/l
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	U	U	5
Methylene chloride	U	14	5
Acetone	23	U	20
Carbon disulfide	U	U	5
1,1-Dichloroethene	U	U	5
1,1-Dichloroethane	U	U	5
total-1,2-Dichloroethene	U	U	5
Chloroform	U	U	5
1,2-Dichloroethane	U	U	5
Butanone	U	U	20
1,1-Trichloroethane	U	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	U	U	5
Dibromochloromethane	U	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	U	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	U	U	5
4-Methyl-2-pentanone	U	U	20
2-Hexanone	U	U	20
Tetrachloroethene	U	U	5
1,1,2,2-Tetrachloroethane	U	U	5
Toluene	U	U	5
Chlorobenzene	U	U	5
Ethylbenzene	U	U	5
Styrene	U	U	5
total Xylenes	U	U	5

ug/l = micrograms/liter or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >G6535
Lab number: 175648
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/l
436	563804	17.75	Methyl butanone	86	49
522	110543	21.10	Hexane	86	61
586		23.59	Unknown		130
625		25.10	Unknown		32

Estimated total non-target compound concentration (excluding compounds
ged with A, B or **) in ug/l is: 272

A: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
B: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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BASE/NEUTRAL ANALYSIS BY GC/MS

Lab Number: 175648
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW10-GW
Sample date: 10/08/93
Sampled by: Customer
At lab date: 10/09/93
Matrix: WATER

Percent Moisture: 100%

Init Sample vol= 1000 Final volume= 1

Conc. in Sample = ((Conc. on Quant Report/Initial Volume)*Final Volume)*1000

Parameter	Result ug/l	Method Blank ug/l	Minimum Detection Limit ug/l
Butyl Cellusolve	1700	U	10

ug/l = micrograms/liter or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/08/93
Sampled by: Customer
At Lab Date: 10/09/93
Sample Matrix: Aqueous

Lab No.	SAMPLE ID	RESULT mg/l	METHOD BLANK	MINIMUM DETECTION LIMIT mg/l	ANALYSIS DATE	EXTRACTION DATE
5648	GA-TW10-GW	1.2	U	0.57	10/13/93	10/13/93

U = Not detected

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LABORATORY ANALYSIS
All results are reported in mg/l (ppm) unless otherwise stated.

Lab Number: 175648
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW10-GW
Sample date: 10/08/93
Sampled by: Customer
At lab date: 10/09/93
Percent Moisture: 100%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	8.5	U	5.0

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS PLUS 10 PEAKS

Lab Number: 175649
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-EB2-AQ
Sample date: 10/08/93
Sampled by: Customer
At lab date: 10/09/93 Percent Moisture: 100%
Matrix: WATER

Init Sample vol= 5 Final volume= 5

Conc. in Sample = (Conc. on Quant Report/Initial Volume)*Final Volume

Parameter	Result ug/l	Method Blank ug/l	Minimum Detection Limit ug/l
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	U	U	5
Methylene chloride	3JB	4J	5
Acetone	U	U	20
Carbon disulfide	U	U	5
1,1-Dichloroethene	U	U	5
1,1-Dichloroethane	U	U	5
total-1,2-Dichloroethene	U	U	5
Chloroform	U	U	5
1,2-Dichloroethane	U	U	5
Butanone	U	U	20
1,1-Trichloroethane	U	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	U	U	5
Dibromochloromethane	U	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	U	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	U	U	5
4-Methyl-2-pentanone	U	U	20
2-Hexanone	U	U	20
Tetrachloroethene	U	U	5
1,1,2,2-Tetrachloroethane	U	U	5
Toluene	U	U	5
Chlorobenzene	U	U	5
Ethylbenzene	U	U	5
Styrene	U	U	5
total Xylenes	U	U	5

ug/l = micrograms/liter or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >G6534
Lab number: 175649
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/l
None found					

timated total non-target compound concentration (excluding compounds
agged with A, B or **) in ug/l is: 0

A: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
. Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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US EPA Historic CLP Lab

PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/08/93
Sampled by: Customer
At Lab Date: 10/09/93
Sample Matrix: Aqueous

Lab No.	SAMPLE ID	RESULT mg/l	METHOD BLANK	MINIMUM DETECTION LIMIT mg/l	ANALYSIS DATE	EXTRACTION DATE
5649	GA-EB2-AQ	U	U	0.6	10/13/93	10/13/93

U = Not detected

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LABORATORY ANALYSIS
All results are reported in mg/l (ppm) unless otherwise stated.

Lab Number: 175649
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-EB2-AQ
Sample date: 10/08/93
Sampled by: Customer
At lab date: 10/09/93
Percent Moisture: 100%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Fluoride	U	U	0.10
Oil and Grease	U	U	5.0

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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SURROGATE RECOVERY SUMMARY
Aqueous Volatile

Batch number: QV2618

Sample Number	Data File	% Recovery 1,2 DCE-d4	% Recovery Tol-d8	% Recovery BFB	# Outside QC Limits
BLANK	>G6527	99	97	99	0
175649	>G6534	102	104	105	0
175648	>G6535	100	93	104	0
BLANK	>G6542	100	101	97	0
175646	>G6548	114	103	102	0
BLANK	>G6552	96	97	94	0
175647	>G6555	97	100	97	0

	Compound	Percent Recovery	Concentration Added
QC Limits:	1,2-Dichloroethane-d4	76-114	50ppb
	Toluene-d8	88-110	50ppb
	Bromofluorobenzene	86-115	50ppb

* Values outside QC Limits.

S= Spike sample
SD= Spike duplicate sample
DL= Dilution
RE= Indicates a reanalysis of the sample confirming matrix interference.
NA= Not Applicable

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SURROGATE RECOVERY SUMMARY
Aqueous Base/Neutral

Batch number: QC4183

Sample Number	Data File	% Recovery NBZ-d5	% Recovery 2-Fbiphenyl	% Recovery Ter-d14	# Outside QC Limits
BLANK	>F6203	59	62	94	0
175648	>F6204	72	81	70	0
175648 DL	>F6236	76	89	154*	1

	Compound	Percent Recovery	Concentration Added
QC Limits:	Nitrobenzene-d5	35-114	100ppb
	2-Fluorobiphenyl	43-116	100ppb
	Terphenyl-d14	33-141	100ppb

** Surrogates are diluted out.
* Values outside QC Limits.

S= Spike sample
SD= Spike duplicate sample
DL= Dilution
RE= Indicates a reanalysis of the sample confirming matrix interference.
NA= Not Applicable

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TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS PLUS 10 PEAKS

Lab Number: 175743
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW9-GW
Sample date: 10/11/93
Sampled by: Customer
At lab date: 10/12/93 Percent Moisture: 100%
Matrix: WATER
Init Sample vol= 5 Final volume= 5

Conc. in Sample = (Conc. on Quant Report/Initial Volume)*Final Volume

Parameter	Result ug/l	Method Blank ug/l	Minimum Detection Limit ug/l
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	U	U	5
Methylene chloride	U	U	5
Acetone	23 B	12J	20
Carbon disulfide	U	U	5
1,1-Dichloroethene	U	U	5
1,1-Dichloroethane	U	U	5
total-1,2-Dichloroethene	3J	U	5
Chloroform	U	U	5
1,2-Dichloroethane	U	U	5
-Butanone	U	U	20
1,1-Trichloroethane	U	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	U	U	5
Dibromochloromethane	U	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	U	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	U	U	5
4-Methyl-2-pentanone	U	U	20
2-Hexanone	U	U	20
Tetrachloroethene	U	U	5
1,1,2,2-Tetrachloroethane	U	U	5
Toluene	U	U	5
Chlorobenzene	U	U	5
Ethylbenzene	U	U	5
Styrene	U	U	5
total Xylenes	U	U	5

ug/l = micrograms/liter or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >G6578
Lab number: 175743
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/l
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/l is: 0

A: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175744
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW5-GW
Sample date: 10/11/93
Sampled by: Customer
At lab date: 10/12/93 Percent Moisture: 100%
Matrix: WATER
Init Sample vol= 5 Final volume= 5

Conc. in Sample = (Conc. on Quant Report/Initial Volume)*Final Volume

Parameter	Result ug/l	Method Blank ug/l	Minimum Detection Limit ug/l
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	U	U	5
Methylene chloride	U	U	5
Acetone	U	U	20
Carbon disulfide	U	U	5
1,1-Dichloroethene	U	U	5
1,1-Dichloroethane	U	U	5
total-1,2-Dichloroethene	U	U	5
Chloroform	U	U	5
1,2-Dichloroethane	U	U	5
Butanone	U	U	20
1,1-Trichloroethane	U	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	U	U	5
Dibromochloromethane	U	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	U	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	U	U	5
4-Methyl-2-pentanone	U	U	20
2-Hexanone	U	U	20
Tetrachloroethene	U	U	5
1,1,2,2-Tetrachloroethane	U	U	5
Toluene	U	U	5
Chlorobenzene	U	U	5
Ethylbenzene	U	U	5
Styrene	U	U	5
total Xylenes	U	U	5

ug/l = micrograms/liter or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >G6587
Lab number: 175744
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/l
None found					

stimated total non-target compound concentration (excluding compounds
lagged with A, B or **) in ug/l is: 0

A: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >G6548
Lab number: 175646
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/l
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/l is: 0

A: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
. Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/08/93
Sampled by: Customer
At Lab Date: 10/09/93
Sample Matrix: Aqueous

Lab No.	SAMPLE ID	RESULT mg/l	METHOD BLANK	MINIMUM DETECTION LIMIT mg/l	ANALYSIS DATE	EXTRACTION DATE
5646	GA-TW3-GW	1.2	U	0.57	10/13/93	10/13/93

U = Not detected

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LABORATORY ANALYSIS
All results are reported in mg/l (ppm) unless otherwise stated.

Lab Number: 175646
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW3-GW
Sample date: 10/08/93
Sampled by: Customer
At lab date: 10/09/93
Percent Moisture:100%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	U	U	5.0

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS PLUS 10 PEAKS

Lab Number: 175647
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW8-GW
Sample date: 10/08/93
Sampled by: Customer
At lab date: 10/09/93
Matrix: WATER

Percent Moisture: 100%

Init Sample vol= 5 Final volume= 5

Conc. in Sample = (Conc. on Quant Report/Initial Volume)*Final Volume

Parameter	Result ug/l	Method Blank ug/l	Minimum Detection Limit ug/l
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	U	U	5
Methylene chloride	U	U	5
Acetone	U	U	20
Carbon disulfide	U	U	5
1,1-Dichloroethene	U	U	5
1,1-Dichloroethane	U	U	5
total-1,2-Dichloroethene	U	U	5
Chloroform	U	U	5
1,2-Dichloroethane	U	U	5
-Butanone	U	U	20
,1,1-Trichloroethane	U	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	U	U	5
Dibromochloromethane	U	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	U	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	U	U	5
4-Methyl-2-pentanone	U	U	20
2-Hexanone	U	U	20
Tetrachloroethene	U	U	5
1,1,2,2-Tetrachloroethane	U	U	5
Toluene	U	U	5
Chlorobenzene	U	U	5
Ethylbenzene	U	U	5
Styrene	U	U	5
total Xylenes	U	U	5

ug/l = micrograms/liter or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >G6555
Lab number: 175647
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/l
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/l is: 0

A: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/08/93
Sampled by: Customer
At Lab Date: 10/09/93
Sample Matrix: Aqueous

Lab No.	SAMPLE ID	RESULT mg/l	METHOD BLANK	MINIMUM DETECTION LIMIT mg/l	ANALYSIS DATE	EXTRACTION DATE
75647	GA-TW8-GW	U	U	0.57	10/15/93	10/13/93

U = Not detected

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LABORATORY ANALYSIS
All results are reported in mg/l (ppm) unless otherwise stated.

Lab Number: 175647
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW8-GW
Sample date: 10/08/93
Sampled by: Customer
At lab date: 10/09/93
Percent Moisture: 100%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	U	U	5.0

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175648
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW10-GW
Sample date: 10/08/93
Sampled by: Customer
At lab date: 10/09/93 Percent Moisture: 100%
Matrix: WATER

Init Sample vol= 5 Final volume= 5

Conc. in Sample = (Conc. on Quant Report/Initial Volume)*Final Volume

Parameter	Result ug/l	Method Blank ug/l	Minimum Detection Limit ug/l
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	2900	U	5
Methylene chloride	19 B	4J	5
Acetone	14,000	U	20
Carbon disulfide	U	U	5
1,1-Dichloroethene	600	U	5
1,1-Dichloroethane	14,000	U	5
total-1,2-Dichloroethene	14,000	U	5
Chloroform	U	U	5
1,2-Dichloroethane	45	U	5
Butanone	U	U	20
1,1-Trichloroethane	4300	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	12,000	U	5
Dibromochloromethane	U	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	88	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	U	U	5
4-Methyl-2-pentanone	160	U	20
2-Hexanone	250	U	20
Tetrachloroethene	2100	U	5
1,1,2,2-Tetrachloroethane	37	U	5
Toluene	1300	U	5
Chlorobenzene	U	U	5
Ethylbenzene	130	U	5
Styrene	U	U	5
total Xylenes	680	U	5

ug/l = micrograms/liter or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175745
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW4-GW
Sample date: 10/11/93
Sampled by: Customer
At lab date: 10/12/93 Percent Moisture: 100%
Matrix: WATER

Init Sample vol= 5 Final volume= 5

Conc. in Sample = (Conc. on Quant Report/Initial Volume)*Final Volume

Parameter	Result ug/l	Method Blank ug/l	Minimum Detection Limit ug/l
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	U	U	5
Methylene chloride	U	U	5
Acetone	U	U	20
Carbon disulfide	U	U	5
1,1-Dichloroethene	U	U	5
1,1-Dichloroethane	2J	U	5
total-1,2-Dichloroethene	3J	U	5
Chloroform	U	U	5
1,2-Dichloroethane	U	U	5
Butanone	U	U	20
1,1-Trichloroethane	U	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	U	U	5
Dibromochloromethane	U	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	U	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	U	U	5
4-Methyl-2-pentanone	U	U	20
2-Hexanone	U	U	20
Tetrachloroethene	U	U	5
1,1,2,2-Tetrachloroethane	U	U	5
Toluene	U	U	5
Chlorobenzene	U	U	5
Ethylbenzene	U	U	5
Styrene	U	U	5
total Xylenes	U	U	5

ug/l = micrograms/liter or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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201-584-0330
OCTOBER 18, 1993

Certified for: NJ, PA, DE, and NY(DOH)
NJ #14116 NY #11376
US EPA Historic CLP Lab

LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >G6588
Lab number: 175745
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/l
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/l is: 0

A: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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NJ #14116 NY #11376
US EPA Historic CLP Lab

PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/11/93
Sampled by: Customer
At Lab Date: 10/12/93
Sample Matrix: Aqueous

Lab No.	SAMPLE ID	RESULT mg/l	METHOD BLANK	MINIMUM DETECTION LIMIT mg/l	ANALYSIS DATE	EXTRACTION DATE
5745	GA-TW4-GW	U	U	0.61	10/13/93	10/13/93

U = Not detected

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OCTOBER 19, 1993

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NJ #14116 NY #11376
US EPA Historic CLP Lab

LABORATORY ANALYSIS
All results are reported in mg/l (ppm) unless otherwise stated.

Lab Number: 175745
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW4-GW
Sample date: 10/11/93
Sampled by: Customer
At lab date: 10/12/93
Percent Moisture: 100%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Oil and Grease	U	U	5.0

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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US EPA Historic CLP Lab

OCTOBER 19, 1993

TARGET COMPOUND LIST - VOLATILE ORGANIC ANALYSIS BY GC/MS
PLUS 10 PEAKS

Lab Number: 175746
Client: CH2M HILL
Sample source: GNV36606.GA Reynolds
Sample ID: GA-TW2-GW
Sample date: 10/11/93
Sampled by: Customer
At lab date: 10/12/93 Percent Moisture: 100%
Matrix: WATER

Init Sample vol= 5 Final volume= 5

Conc. in Sample = (Conc. on Quant Report/Initial Volume)*Final Volume

Parameter	Result ug/l	Method Blank ug/l	Minimum Detection Limit ug/l
Chloromethane	U	U	5
Bromomethane	U	U	5
Vinyl chloride	U	U	5
Chloroethane	U	U	5
Methylene chloride	U	U	5
Acetone	40	U	20
Carbon disulfide	U	U	5
1,1-Dichloroethene	U	U	5
1,1-Dichloroethane	U	U	5
total-1,2-Dichloroethene	U	U	5
Chloroform	U	U	5
1,2-Dichloroethane	U	U	5
Butanone	U	U	20
,1,1-Trichloroethane	U	U	5
Carbon tetrachloride	U	U	5
Bromodichloromethane	U	U	5
1,2-Dichloropropane	U	U	5
cis-1,3-Dichloropropene	U	U	5
Trichloroethene	U	U	5
Dibromochloromethane	U	U	5
1,1,2-Trichloroethane	U	U	5
Benzene	U	U	5
trans-1,3-Dichloropropene	U	U	5
Bromoform	U	U	5
4-Methyl-2-pentanone	U	U	20
2-Hexanone	U	U	20
Tetrachloroethene	U	U	5
1,1,2,2-Tetrachloroethane	U	U	5
Toluene	U	U	5
Chlorobenzene	U	U	5
Ethylbenzene	U	U	5
Styrene	U	U	5
total Xylenes	U	U	5

ug/l = micrograms/liter or ppb

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.

Note: Dichlorobenzenes, when applicable analyzed as semi-volatiles.

cis and trans 1,2-Dichloroethene are not resolved by this method, therefore total-1,2-Dichloroethene is reported.

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OCTOBER 19, 1993

LIBRARY SEARCH RESULTS OF NONTARGETED PEAKS WITH
ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS.

Data file name: >G6614
Lab number: 175746
Fraction: VOLATILE

Initial Sample Wt/Vol=5 Final Volume=5

Scan Number	CAS No.	Retention Time	Compound Name	Molecular Weight	Estimated Concentration ug/l
None found					

Estimated total non-target compound concentration (excluding compounds flagged with A, B or **) in ug/l is: 0

A: Indicates that the compound is an acetone based aldol-type condensation product formed by concentrating the extraction solvent (1:1 acetone/methylene chloride).
: Indicates that the analyte was found in the blank as well as the sample. It further indicates possible/probable blank contamination.
C: Co-eluting and/or poorly resolved non-target compounds cause superimposed spectra that prevent identification of individual compounds.
* Compounds flagged are from diluted analysis.
** This compound is not flagged B; it was not found in the corresponding blank. However, it is commonly found as a laboratory contaminant.

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US EPA Historic CLP Lab

PETROLEUM HYDROCARBONS

Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample Date: 10/11/93
Sampled by: Customer
At Lab Date: 10/12/93
Sample Matrix: Aqueous

Lab No.	SAMPLE ID	RESULT mg/l	METHOD BLANK	MINIMUM DETECTION LIMIT mg/l	ANALYSIS DATE	EXTRACTION DATE
5746	GA-TW2-GW	U	U	2.1	10/13/93	10/13/93

U = Not detected

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US EPA Historic CLP Lab

LABORATORY ANALYSIS
All results are reported in mg/l (ppm) unless otherwise stated.

Lab Number: 175747
Client: CH2M HILL
Sample Source: GNV36606.GA Reynolds
Sample ID: GA-TW7-GW
Sample date: 10/11/93
Sampled by: Customer
At lab date: 10/12/93
Percent Moisture: 100%

PARAMETER	RESULT	METHOD BLANK	MINIMUM DETECTION LIMIT
Fluoride	1.15	U	0.10

< = Less than
> = Greater than
U= Not detected, NA= Not applicable.

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SURROGATE RECOVERY SUMMARY
Aqueous Volatile

Batch number: QV2621

Sample Number	Data File	% Recovery 1,2 DCE-d4	% Recovery Tol-d8	% Recovery BFB	# Outside QC Limits
BLANK	>G6568	84	90	86	0
175743	>G6578	90	100	95	0
BLANK	>G6586	95	97	96	0
175744	>G6587	101	105	103	0
175745	>G6588	93	103	99	0

	Compound	Percent Recovery	Concentration Added
QC Limits:	1,2-Dichloroethane-d4	76-114	50ppb
	Toluene-d8	88-110	50ppb
	Bromofluorobenzene	86-115	50ppb

* Values outside QC Limits.

S= Spike sample
SD= Spike duplicate sample
DL= Dilution
RE= Indicates a reanalysis of the sample confirming matrix interference.
NA= Not Applicable

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APPENDIX C

FIELD NOTES AND BORING LOGS

CONTENTS

PAGE	REFERENCE	DATE
1-	MILLER CAN FACILITY - SITE INVESTIGATION	10/93

(1)

GNV 36606, GA

VMOULTRIE, GEORGIA -

MILLER ~~BEER~~

CAN FACILITY -

SITE INVESTIGATION

Oct 4 - 8 1993

CH2M Field Team

Bob Petersen

Ave Robinson

Contractor:

Ardaman & Assoc.

Tallahassee, FLA.

(2) Mon 10-4-93

8:00 Onsite at Visitor Area Clear, Sunny

8:40 Becky Svadoes, Joe R., Gil Gonzalez RA onsite. Meeting w. Miller people Bob Jones Plant Engineer

10:00 Looked at TW-11 area inside plant building. Will sample groundwater sump to determine if coring slab is necessary

10:20 Drillers on site - Carl Bedsoe & Kevin

11:00 Staked TW-1 and 12. Drillers setting up decon area near TW-4 on clay hill next to Drum Storage Area.

12-1230 LUNCH

1230 CH2M Staged non-sampling equipment in drum storage area.

Robert J. Petersen

(3) 10-4-93

1330 Set up at TW-12 & drill boring near 319 & Visitor Entrance

Depth	Rcvy	Description
0-2	12"	Sand, dark brown, moist some roots
2-4	10"	Sand, tan, moist, loose, grading to sandy clayey sand, reddish brown
4-6	24"	Sand, Clayey, wet, loose reddish brown to tan
6-8	20"	Clay Sandy, wet, med. stiff, tan to orange red.
8-10	18"	Clay Sandy, moist, v. stiff, gray to reddish orange
10-12	16"	Sand clayey, wet, dense, reddish orange

Robert J. Petersen

(4) 10-4-93

1440 End boring @ 12'. Will screen well from 2' to 13' BLS.

1450 Bob Crispin, Senior Engineer w/ Miller onsite w. Bob Jones/Miller Plant Engineer. Pluto 18 & 17

1455 B. Crispin offsite to look at Sumps in Building

OVA Headspace - TW 12
OVA-128, CA2M # 2323
Internally calibrated by Equip. Maint.

Depth	Reading (Abv Bkgnd)
0-2	0
2-4	0
4-6	0
6-8	0
8-10	0
10-12	0

Richard Petersen

(5) 10-4-93

1500 - Sampled 2'-4' Interval for
VOC's
TPH, Remainder of soil

Sampled 4-6' Interval for
pH
Fluoride

1530 - Well set to 12' BLS. (2-12 Screen)
3" riser, sand to 1' BLS,
0.5' Bentonite seal, cutting
to Land surface locking cap
installed. Saw-cut slot in casing
to let air pressure equilibrate. Will
Check water level in

1600 Checked access in Compressor room for TW-11 w. driller - tight but possible.

Richard Petersen

(6)

10-4-93

1625 Setting up @ TW-1. Moved to W. side of hill to catch any things downgradient of possible fill area. Photo 19-20

Depth	Recv.	Description
0-2	18"	Sand, V. fine, light brown, dry, loose
2-4'	16"	Sand, slightly clayey, loose, reddish orange, moist
4-6	20"	Sand, slightly clayey, loose, reddish orange to tan, moist to wet (?)
6-8'	14"	Sand, V. fine, dense, gray, moist
8-10'	20"	Sand clayey, firm, gray to reddish orange, wet (?)

Robert J. Peterson

(7)

10-4-93

Depth	Recv	Description
10-12	19"	Sand, Clayey w quartz pebbles, orangish red to brn, wet to moist
12-14'	18"	Clay, Sandy w quartz pebbles tan to rose-pink, moist
14-16'		Decided to auger to 20' to see if boring intercepts groundwater
20'		Reddish-brown clay - moist Augered to 25'
25'		Reddish brown clay - moist

Will set well at 25' (15-25 screen) Sand up to 6'. Let set overnight to see if any water. Bentonite up to 5'. Cuttings to LS.

Robert J. Peterson

(8) 10-4-93

Headspace Measurements - TW1

Depth	Reading (Abt Ptnsd)
0-2	0
2-4	0
4-6	0
6-8	0

1800 Sampled GA-TW-1-S-(6-8) Interval for TPH : VOC's

Driller noted wet clay on lead auger.

1840 OFFSITE

Rich Peterson

(9) Tues 10-5-93

7:00 Onsite, Filled out CoC for 10/4 samples.

7:20 Drillers onsite, Decontaminated from TW-1

7:45 AT TW-7 near Coal ACC-2A Leak area. to do boring. Photos 21,22 Baxter pH Indicator Strips used for Soil pH.

Depth	Recy	pH	Description
0-2	18"	6	Sand, fine, dry, Hbrn grading to Sand, slightly clayey, Orange red, moist
2-4'	16"	6	Sand, fine, Very slightly clayey, Orange red, moist
4-6'	15"	6	Sand, Clayey, light brown, firm, moist

Rich Peterson

(10)

10-5-93

Depth	Recy	pH	Description
6-8'	20"	6-7	Clay, sandy, firm to stiff, light brown to wk pink, moist
8-10'	--		No Recovery
		Lo -	Checked pH from auger cuttings
10-12'	6"	7	Clay - v. stiff to hard Pale gray w pink occlusions moist - hard sampling/drilling
0910 12-14'	18"	6	As above Took sample for Lab Analysis pH, Fluoride

Augered to 20'

Richard J. Petrusa

(11)

10-5-93

930 left TW-7 temporarily to show driller location of TW-11 core hole. Coring machine on site

1030 Return to TW-7

Depth	Recy	Descr.
20-22	15"	Clay very stiff (N=22) very slightly moist, Pale gray to purple, slightly sandy
22-24	8"	As above End Boring

Will set well to 20' sand pack to 5', Bentonite to 4', Cuttings to surface.

Very hard pulling augers, using R.g jacks

Richard J. Petrusa

(12) 10/5/93

1145 AT TW-1 to Bail = check for yield. DTW = 12.24
TD = 28.3
16.06' water column

16.06' (0.16 gal/ft 2" casing) = 2.6 gal = 1 well volume

~10 Bailer fuls should Purge well

1210 Purged 7 gallons w. Disp. Bailer DTW = 17.1, water clear - slight color, no odor

1225 AT TW-12 TO BAIL/DEVELOP
TD = 15.0
DTW = 7.05
7.95' water column
7.95 (0.16) = 1.3 gal = 1 well vol.

Bailed 3.5 gallons, water milky, DTW = 10.8 Cloudy, no odor

Richard Peterson

10/5/93 (13)

1245-1330 LUNCH

1345 AT TW-11 to hand auger boring inside Compressor room

Depth	Describe
2-4	Sand, clean fill below 9" thick slab, orange, moist
4-6'	As above
6-8'	As above
8-10'	As above, w. gravel, possible bottom fill (?) grading to H brown clayey sand, native material, hit viscous wet, clay at ~9.5'
10-11	Clay & Gravel, wet, gray Can not penetrate, gravel running into hole

Richard Peterson

(14)

10/5/93 (GA-TW11-S (soil))

1440 Sampled 10-11 Interval Soils for VOC, TPH, Oil & Grease

Set 10' well screen: 5' riser to ~10.5' Below ~~clay~~ floor elev., filter Sand to floor level.

Head Space for TW-11

Depth	Reading (gbr. BKgnd)
2-4	0
4-6	0
6-8	0
8-10	0
10-11	1

Robert Peterson

10/5/93 (15)

150 at TW-6. Driller had spooned to 6' prior to beginning TW-11

Depth	Ray	Descr.
0-2	20"	Sand, dry, clayey, tan to orange, fill
2-4	8"	Clayey Sand, dry, reddish orange, crumbly
4-6	9"	Sand, slightly clayey, lt. brown, moist
6-8	10"	P.R. 12/5 ~~Sand, clayey, dark brown moist~~ No Recovery (lt.) wet?
8-10	20"	Sand, wet, dark brown, clayey

Robert Peterson

(16)

10/5/93

Augered to 15', waste water sump bottom is ~13' B.G.S.

1545

Depth	Pen	Descr.
15-17	--	15-17-17-20 - Hi Blows - Probable clay encountered at Tw-7. Will set

Well at 15', sand to 3', Bentonite to 2'. Well is in probable excavation fill material when waste water sumps were constructed.

Head Space for TW-6

Depth	Reading (Above Bkgnd)
0-2	0
2-4	0
4-6	0
-	NO SAMPLE
8-10	15

1620 SAMPLED GA-TW6-S (8-10) for:
VOC
TPH
PH
O&G
FLUORIDE - 5 CONTAINERS

Robert J. Peterson

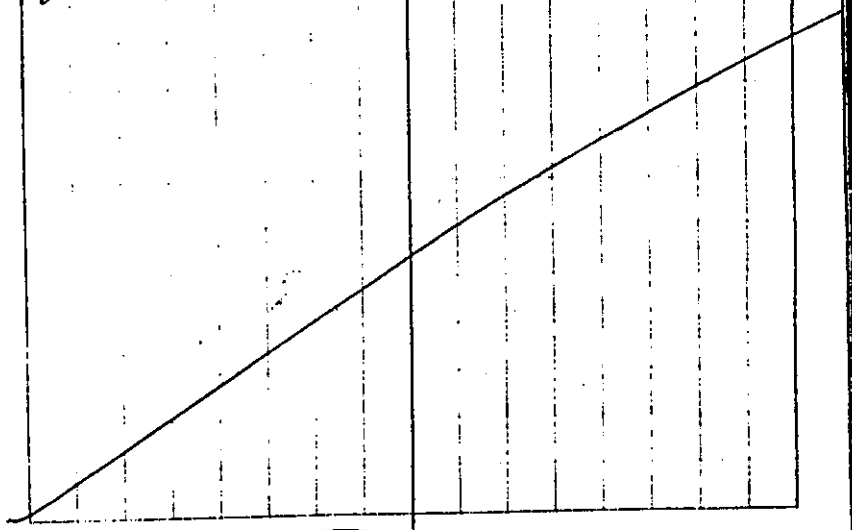
(17)

10/5/93

1700 Drillers offsite - Will bring Bladder Pump tomorrow to develop wells. Called Bryan McDonald to discuss development technique. We might save time by developing wells w. disp. bailers. He will discuss w. B. Svatos & give answer tomorrow.

Cleaned head-space jars

1010 OFFSITE



Robert J. Peterson

(18) Wed. 10/6/93

7:00 Onsite
AT Tw-6-
DTW = 10.90
TD (from TOC) = 18.0
7.10' water column
1.14 gals = 1 well volume

AT Tw-7
DTW = None
TD (from TOC) = 23.0

well point dry.

7:15 Drillers Onsite

7:30 Begin Boring Tw-4 near Drum Storage Building Sump (~5.8' deep)

Depth	Recy	Description
0-2	12"	Sandy Clay, hard, dry, brown to reddish orange

Robert J. Peterson

10/6/93 (19)

Depth	Recy	Description
2-4	18"/	Clay, v. stiff to hard, dry, reddish orange to purple
4-6	22"	Clay, Sandy, very stiff, tan to reddish orange, dry
6-8'	18"	Clay, Sandy (slightly) very stiff, moist, purple to reddish orage
8-10"	16"	Clay, very stiff, moist, red to purple w. orange stainings
10-12	18"	Clay, stiff, moist, red to tan
12-14	16"	Clay, stiff, moist, light brown to red.

Robert J. Peterson

(20)

10/6/93

820 Stopped at 14'. Will set well (4-14) to 14' w. sand to 3'. Bentonite to 2'. Used flight auger hole stayed open

Head Space Readings - TW4

Depth	Reading Abv Bkgnd
0-2	0
2-4	0
4-6	0
6-8	0
10-12	2

GA-TW4-S(4-6)

0840 Sampled 4-6 interval (closest to sump bottom) for: VOC, TPH, PH, O & G

Driller setup at TW-3 after decon

Called Bryan - driller has plastic 12-volt Solomer pump for development. Agreed we will

Robert J. Peterson

10/6/93 (21)

Bail the wells ourselves

TW-3

Depth	Rcvy	Description
0-2	10"	Sand, loose, dry brown (top 6") to Clay, hard brown, dry
2-4	12"	Clay, hard, dry, tan w. iron staining
4-6	20"	Clay, slightly sandy, v. stiff, slightly moist, orange red to tan
6-8	8"	Clay, v. stiff, moist tan to reddish purple
8-10	12"	Clay, stiff, moist, tan to red-orange
10-12		No Recovery

Robert J. Peterson

(22)

10/6/93

Will auger to 15'. Photos 23:24

15-17'	20"	Clay, very stiff, moist, pink to reddish orange
20-22'	22"	Clay, very stiff, moist, some sand grains, purple to orange
22-24'		Clay, as above

End Boring @ 25'

Will set well to 25', screen 15-25 possible dry hole, TW3 & TW-4 will screen interval 4-25' to see if any water table is present. Flight-Auger hole (5") used for well. Poured sand to 7'. Bentonite to 6'

Robert J. Peterson

(23)

10/6/93

Head Space - TW3

0-2	0
2-4	0
4-6	0
6-8	0
8-10	0

1015 Sampled 4-6' interval (GA-TW3-S(4-6) for: VOC, TPH, PH, O&G

1040 Driller setting up at TW-8 after drum.

Depth	Recy	Descr.
0-2	10"	Sand, dry, brown (6") grading to clay - V. stiff brown, hard, dry
2-4	16"	Sand, ~~dr~~, moist, fine, brown, fill
4-6	6"	Clay, moist, firm, purple

Robert J. Peterson

(24) 10/6/93

6-8 8" Clay - moist to wet, firm, pink to purple

8-10 22" Sand, wet, brown, (fill) loose (1' seam) grading to rose pink firm clay then back into sand; No odor or sheen

10-12 24" Sand, saturated, loose dark brown to gray, fill No odor

1110 Switch to HSA from flite Auger to advance hole. Will auger to 15' and sample 15-17. Photo 25-26.

15-17 20" Clay, moist, v. stiff pink to purple.

End Boring. Will set well to 15' in fill sand. (5-15 screen) Sand to 3', Bentonite to 2'. Back fill to surface

Richard Peterson

10/6/93 (25)

Head Space Readings - TW 8

Depth	
0-2	0
2-4	0
4-6	0
6-8	0
8-10	~~700~~ 70

RJP 10/6/93

1150 Sampled 8-10 interval (GA-TW8-S 8-10) for VOC, TPH, Oil 6 (3)

12-1 Lunch - clean jars

1330 Setting up on TW-5, in swale between 2 buildings. Appears to be on top of storm drain line. Discussed w. GL Bourcier/Reynolds. He recommended moving to another hole.

1350 Moved to TW-9

Richard Peterson

(26)

10-6-93

Depth	Rec	Descri (TW-9)
0-2	16"	Clay: Sand, dense, hard, dry, brown
2-4	14"	Sandy Clay, firm to stiff, dry to moist, brown to tan
4-6	8"	As above, pebble fill
6-8	14"	Clay, very hard, dry, tan to light brown.
8-10	10"	As above, some purple & orange mottling
10-12	12"	Clay, hard, moist, tan to light gray
12-14	16"	Clay, Sandy, very stiff, light gray w rose pink mottling

Robert Peters

10-6-93

(27)

1440 Augered to 15'

15-17 16" Clay, hard, moist gray-to bluish-gray

End Boring. Will set well to 15', (5-15' screen) Sand to 3' Bent to 2' Possible dry hole. File

Head space - TW9		Augered
0-2	0	
2-4	0	
4-6	0	
6-8	0	
8-10	~~400~~ 40	Contained sample due to low recoveries
10-12	~~800~~ 80	

RDP 10/6/93

1540 SAMPLED GA-TW9-S (8-12) for VOC, TPH, 0-6 (3)

Robert Peters

(28) 10/6/93

1545 Set up on TW-10 - Area of Solvent Leaking Pipes

Depth	Recv	Description
0-2	10"	Sand, loose moist, light brown, fill
2-4	16"	Sand, loose, moist, light to dark brown, fill, no odor
4-6	10"	Clay, bluish-gray - moist, firm, some staining, slight odor - sewage (?)
6-8'	18"	Clay, Sandy, wet, black staining, faint odor grading to Sand, tan, wet
8-10"	8"	Clay, hard, tan to light gray, moist
10-12'	4"	Clay, firm, tan, moist.

Richard Peterson

(29) 10/6/93

Hole caved in to 6'. Will set well to 12'. (2-12) screen. Sand to 1'. Bentonite to surface. HSA to 12, knock out plug to set well

Head Space (TW-10)

Depth	Reading
0-2	0
2-4	4
4-6	4000
6-8	> 1,000
8-10	> 1,000

1655 - SAMPLED 6-8' (GA-TW10-S(6-8) for VOC, TPH, O&G (3)

1730 Developed TW-6 w/ V. Robinson

Drove TW-7 - DRY

1800 OFF SITE

Richard Peterson

(30)

Thurs 10/7/93

7:15 ONSITE - Steady Rain falling
Driller has 3rd man on crew today - to help develop wells. Told him we would do development - maybe 3rd man can move drums at each wellsite to drum storage building

7:40 Rain ending

7:50 Steam cleaned augers - steam line developed leak. Tire repairman onsite to fix leak on drill rig tire.

835 Setting up on TW-2 at fence line

Depth	Recy	Description
0-2	18"	Sand, loose, moist, light tan to brown
2-4	17"	Sand as above, top 6" wet grading to clay, moist, soft to stiff, reddish brown

Rob Peterson

(31)

10/7/93

Depth	Recy	Descr
4-6	10"	Clay, orange to purple, moist, stiff
6-8'	20"	Clay, red, stiff, slightly moist,
8-10'	21"	Clay red to orange stiff to very stiff, slightly moist
10-12'	19"	Clay, orange, very stiff slightly moist
12-14'	18"	Clay, orange to pale green, stiff, plastic, slightly moist

End Boring 14'. Will set well to 12' (2-12 screen) sand to 1', Bentonite Cap to L.S.

Rob Peterson

(32)

10/7/93

9:00 Bob Jones, Gil Bourcier: Bob Crispin at site to discuss OVA results at TW-10 yesterday. With Gil's OK, I let them know:
4-6' interval = 600 ppm
6-8' " > 1000 "
8-10' " > 1000 "
Discussed leaving TW-10 in place to confirm groundwater sampling results.

Headspace at TW-2

Depth	Reading
0-2	0
2-4	0
4-6	0
6-8	0
8-10	0

930 SAMPLed GA-TW2-S (2-4) for VOC, TPH, O:G (3)

Richard W. Peterson

(33)

10/7/93

940 Begin TW-5

Depth	Rec	Desc
0-2	20"	Sand, dark brown, loose, moist
2-4'	8"	Clay, soft, moist, tan to orange
4-6'	18"	Clay, very stiff, tan to rose pink, moist
6-8	16"	Clay, very stiff, purple to orange, moist
8-10'	12"	Clay, firm to stiff, Bluish gray to rose-pink, moist

Rain Beginning - stop sampling. Will set well to 12'. (2-12 screen) possible dry hole.

Richard W. Peterson

(34)

10/7/93

1230 AT TW-10 to check for vapors & w.L - Gil Bourcier discussing possibility of trying to define extent of potential contamination during this field effort.

Checked headspace in top of 2" well casing @ TW-10:
OVA reading - 250
" " w charcoal filter - ~20

∴, Approx. 10% of organic vapor in well possibly methane or ethane

TW-5	Headspace
0-2	0
2-4	0
4-6	0
6-8	0
8-10	0

Robert Peterson

10/7/93 (35)

1055 - Sampled GA-TW5-S (4-6) for VOC, TPH, 0.6 (3)

1110 AT Boring B-2 to sample / spoon to old ditch bottom

Depth	Rec	Descr.
0-2	4"	Sand, loose, brown, fill
2-4	-	hit concrete (?), moved 4' away from object
2-4	3"	Sand + Gravel, (1/2-3/4") fill over pipe. Can't spoon. Will auger to 5'. Red clay on auger tip @ 5'
5-7	6"	Clay, very stiff, tan to rose pink dry, native sediments Sample zone.

Robert Peterson

(36)

10/7/93

Driller moved over 1' to auger to 5' and obtain 2nd 5-7' sample and again for 3rd 5-7' sample.

1140 Took sample GA-B-2-S (5-7) for VOA TPH, O;G and Total Metals (4)

1200 Driller offsite for lunch

1300 At top of hill to drill Bori, B-1 - Visual classification only to look for evidence of construction debris or land filling

Depth	Rec	Description
0-2	6"	2" Sand; topsoil; rest Clay, hard, dry, reddish orange
2-4	12"	Clay, Sandy, v. stiff, orange red, dry

Robert J. Pelose

(37)

10/7/93

Depth	Rec	Description
4-6	12"	6" Clay, moist, stiff, orange, Bottom 6" - Sand, v. fine, gray, moist
6-8	20"	Sand, v. fine, gray moist
8-10	22"	Sand, slightly clayey, gray to reddish brown, moist
10-12	24"	Sand, as above
12-14	20"	Sand, gray to dark gray w. root fragments, moist, grading to Sand light brown (1st 6")
14-16	24"	Clay, Sandy, soft, light brown to tan, moist

Robert J. Pelose

(38)

10/7/93

16-18 6" Clay, orange-red, moist stiff

1340 END BORING @ 18' - No evidence of Const. debris

DRILLERS moving drums from wells to drum storage area. Miller provided fork-lift & operator to move into building

1615 Total IDW

12 drums drill cuttings
2 drums decon & purge water - Contents
1 Drum Purge Water - CH2M
14 drums total left at drum storage - All drums labeled & dated.

1630 Drillers offsite I will call their office tomorrow to schedule well abandonment for next Mon. or Tues.

Robert Peterson

(39)

10/7/93

J. Robinson bailing / developing TW-8, makes plenty water - brown, turbid, muddy.

Robert Peterson

(40)

10-7-93

LEVELS TO ALL WELL POINTS

π - R. Petersen
φ - J. Robinson

1700 BM's from Topo Map of facility - prepared by Frank Carlton, GA. L.S #1544, 3-10-83

RJP 10-7-93
~~BM#1~~

	+		−	SS	elev.
BM#1	5.06	310.90			305.84
TP	2.20	310.88	2.22	5^{3}	305^{6} 308.68
TP	1.36	309.96	2.28	5^{1}	305^{8} 308.60
TP	1.75	307.86	3.85	5^{0}	RJP ~~304~~ 305^{0} 306.11
TP	8.95	309.94	6.87	9^{7}	298^{2} 300.99

Robert J. Petersen

10-7-93

(41)

COMMENTS

Rim elev. of storm sewer manhole, N. side of plant, near loading dock

NG @ TW-5
Toc 2" PVC Mon well TW-5

NG @ TW-8
Toc 2" PVC M. well TW-8

NG @ TW-4
Toc 2" PVC M. well TW-4

NG @ TW-2
Toc 2" PVC M. Well TW-2

Robert J. Petersen

(42)

10/7/93

	+		−	SS	ELEV.
				4ᵒ	305.9
TP			0.97		308.97
	3.43	312.40			
				4ᵍ	307.5
TP			1.88		310.52
	1.77	312.29			
				4ᵇ	307.7
TP			1.26		311.03
	1.61	312.64			
				2.60	310.04
BM #1			6.80		305.84 / 305.84
	(26.13)		(26.13)		Err: 0.00
1745	OFFSITE TO BUY DRUM WRENCH				NO ADJ.

Robert Peterson

(43)

10/7/93

NG @ TW-3
TOC, 2" M. well TW-3

NG @ TW-9
TOC, 2" M. well TW-9

NG @ TW-10
TOC, 2" M. well TW-10

FINISHED FLOOR OF BUILDING, COR. LOADING DOCK

RIM OF MANHOLE, PREVIOUSLY DESCRIBED

Robert Peterson

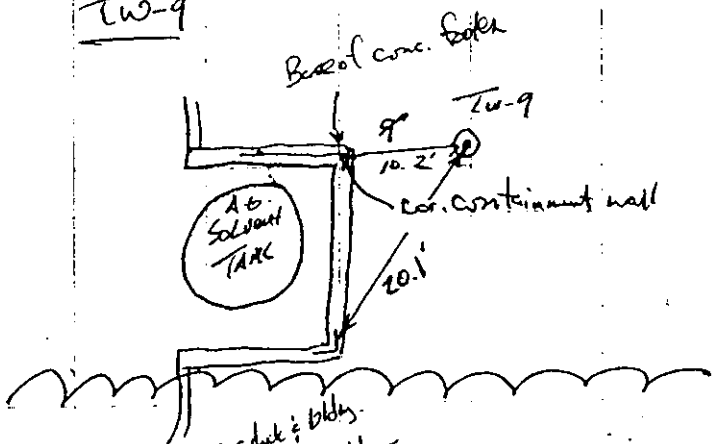
(44)

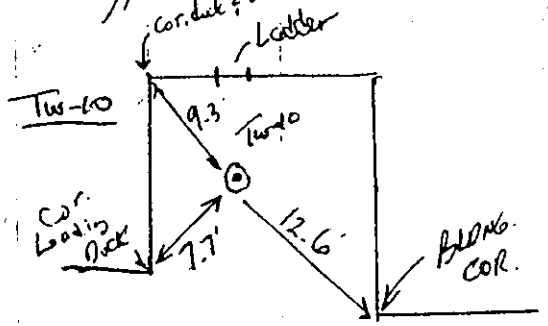
10/8/93

7:20 Onsite, J. Robinson-took notes, Sampled TW-3, 8 & 10.

1215 Location sketches of well points

TW-9





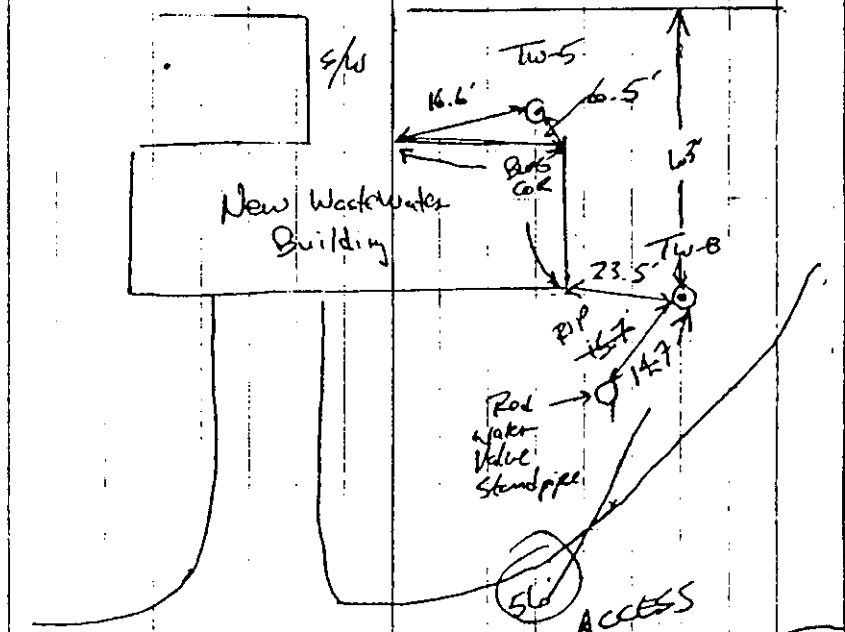
Richard Peterson

(45)

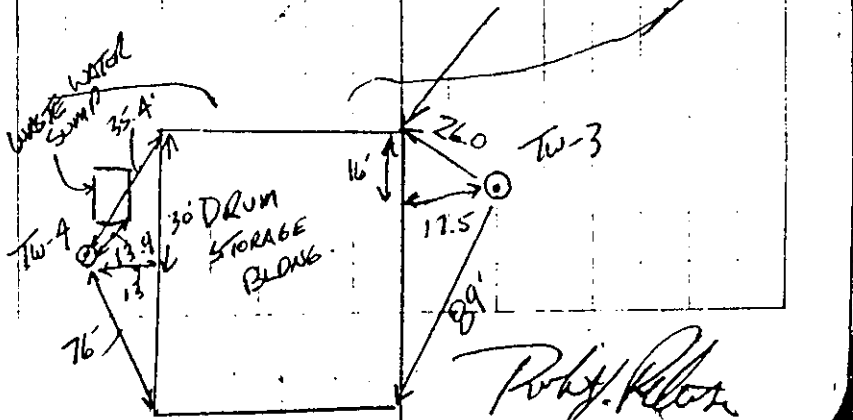
10/8/93

TW-5 & 8, 3 & 4

Plant Loading Area



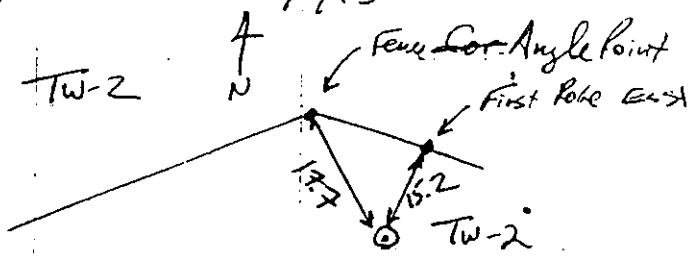
SHIPPING & RECEIVING



Richard Peterson

46

10/8/93



1300 Checked TW-11 inside building for water. Ran bailer to bottom - nothing - left bailer in over weekend

RSD

DTW @ TW-9/4 = DRY

DTW @ TW-4 = 13.62

TD = 14.7

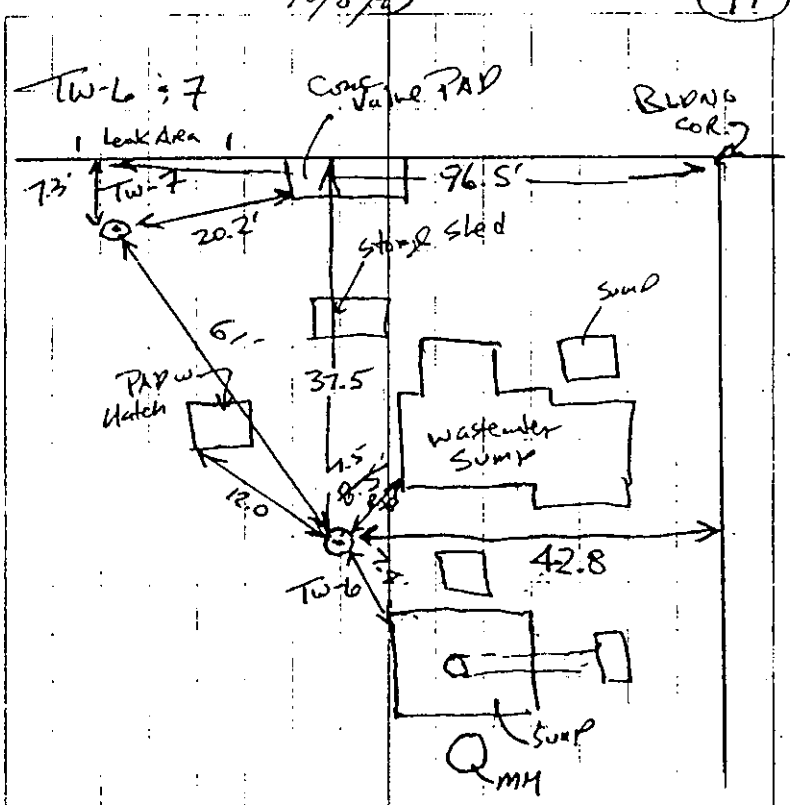
1.08' water column

1.08 (0.16) = 0.17 gal/well vol.

Robert Peterson

47

10/8/93



1340 - DTW @ TW-7 : 21.62

TD : 22.9

1.28 ft Water-Column

1.28 (0.16) : 0.20 gal/well vol.

Robert Peterson

(48)

10/8/93

Leads to Remaining well points

	+		−	SS	ELEV
Bm#2					309.98
	3.70	313.68			
				4⅙	309±
TP			1.68		312.00
	1.90	313.90			
				4⅛	309±
TP			1.88		312.02
	1.77	313.79			
					309.99
Bm#2			3.80		~~309.98~~ RIP
	3.67				
TP			8.22		
	2.98	308.42			
				5⅔	303±
~~TP~~ TP			2.33		306.09
	11.87				
				0⅘	317±
TP			10.74		
	2.40				
TP			5.69		
	6.55				

Robert J. Peterson

(49)

10/8/93

Sewer
Rim of manhole, S. side of plant, near corner of employee parking lot

N6 e TW-7
Toc, 2" PVC Mon. well, TW-7

N6 e TW-6
Toc, 2" PVC Mon. Well, TW-6

T. Rim MH

paintspot

N6 e TW-1
Toc, 2" PVC M. well, TW-1, W. side hill

Top Hille B-2 Boring
top curb

paint spot

Robert J. Peterson

(50) 10/8/93

	+	−	SS	Elev
TP		5.68		
	4.46			309.26
			5 I	303 6
TP		2.69		306.57
	3.10			
TP		1.65		
	4.03			
BM 2		2.06		309.99 / 309.98
	(46.43)	(46.42)		Exc = 0.01
				No adj.

1600 OFFSITE FOR GNV.

Robert J. Peterson

10/8/93 (51)

Paint spot

NGE TW-12

TOC 2" PVC M. well, TW-12

Paint spot

Rim Manhole, Previously described

Robert J. Peterson

(2)

10-4-93

SCT meter YSI 33 = 17.56
Redline OK
Reading 1020 µmhs at 29°C
of 1000 µmhos @ 25°C
Lot # 1524 exp 5/94

pH Meter SA250 # 5906
slope 95.9
Calibrate 7 to 4

1530 Unable to sample manhole in compressor room because no water present. Sump is about 11 ft deep.

1630 Trying to locate construction drawings for trench in compressor room.

1830 Setting up equipt for tomorrow's work.

1900 Offsite

JH Robinson
10-4-93

(3)

TUESDAY OCT 5, 1993

0700 Onsite at Miller Facility.
Personnel onsite
Joe Robinson / CH2
Bob Peterson / CH2
Rocky Scotes / CH2
Gil / Reynolds
Tom / Miller

Set up bottles for SVOA/SAD samples.

0820 Relocated TW-9 and TW-10 w/ Rocky Scotes

0936 Onsite at TW-12
TD = 15-FT
DTW = 7.05'
DEPTH TO FACTION = 15'
WC = 7.95 FT

(4)

10-5-93

0400 Onsite @ TW-1
TD = 28.30
DTW = 12.26'

WC = 16.04 - ft

1000 Onsite at TW-11 for inside coring

1015 LEL Meter MSA 260
18134
O_2 = 20.6 %
LEL = 0 %

1052 Drilled through floor
~~to~~ 9-in slab

1200 Bottle shipment has arrived.
11 Soil O&G
19 H_2O O&G

1330 Off to sample SD samples w/ Becky S & Gill.

(5)

10-5-93

1352 Onsite at SD-4 [illegible] creek bed (dry)

1410 Sample SD-4
TPH O&G
VOC PP Metals

1426 Onsite at SD-3
"Dammed-up" area midway along creek bed. Dry

1430 Sample SD-3
TPH O&G
VOC PP Metals

1443 Onsite at SD-2
Downstream of culvert opening

1450 Sample SD-2
TPH O&G
VOC PP Metals

1615 Packed one cooler for shipment to ICM
679 5321 562

(6)

10-5-93

1635 Staking SD-2, 3, 4 locations
w/ Bob Crispin/Miller

1710 Calibrate pH meter. See Day 1
Calibrate 7 to 4
Slope = 96.3

Conductivity meter
Redline ok
Standard not available.
Checked 10/4/93
T = 31° C of Milli-Q

1730 Sample SW-1, just downstream
of SD-4
Collect
VOC×2
TPH
O&G

Field Parameters

Temp	pH	Conductivity
23.5	8.3	1,100

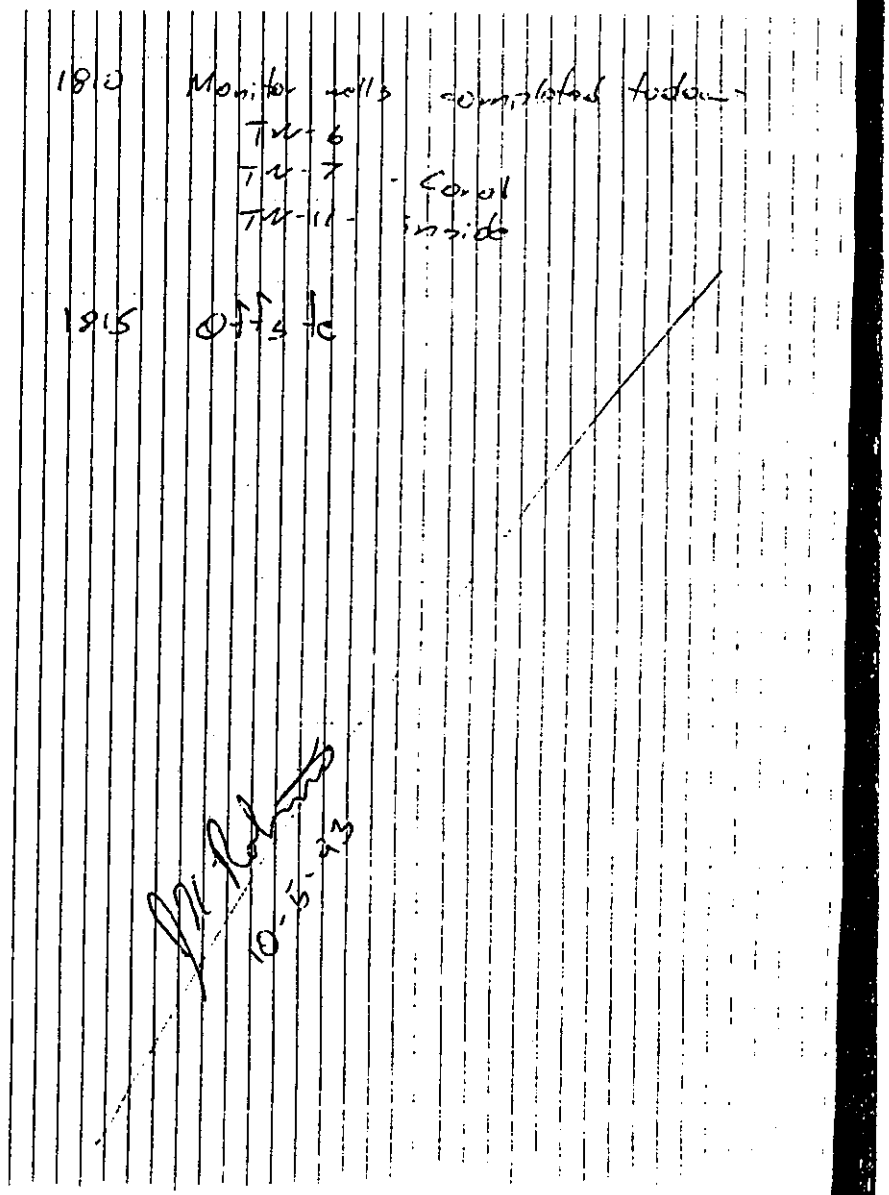
10-5-93

(7)

1810 Monitor wells completed today
TW-6
TW-7 - Coral
TW-11 - inside

1815 Offsite

[signature] 10-5-93



(8) WEDNESDAY, OCT 6 1993

0700 Onsite at Miller Brewing Facility.

Weather: Cool, 65°F, 0-5 mph winds. No precipitation

0800 Informed by Petersen that TW-7 (Cool) is dry, although TW-6 has water.

0810 Sump hot drum storage building is full, and has a fatty, meat-like odor.

0830 Take water level at TW-11
TD = 15.00 (per RJP)
DTW = DRY
WC = DRY

Well sounded at 15.10 Ft. Dry well. Probe had a small amount of moist sand and PVC shavings at tip. Went down well three times. Dry

10-6-93 (9)

0850 Located SD-1 at storm drain at ~~NE~~ SE (SR) corner of bldg. Sample will be collected just inside fence because there is a significant deposit of sand there

0900 Collect EB-1. Aqueous equipment blank for SS sediment sampling spoon.
TPH O+G
VOC x2 PP Metals

0910 Sample time for EB-1

0950 Sample GA-SD-1
TPH O+G
VOC x ~~2~~ (SR) PP Metals

1000 Petersen reported to me that TW-4 was dry, drilled to 15-ft. No OVA hits ~~or~~ or odor in cuttings. No signs of staining, so will not

(10)

10-6-93

sample adjacent sump

1020 Petersen had talked to Bryan McDonald / CH2M HILL and said it was okay to develop wells by bailing. TW-1 and TW-12 were bailed 10-5-93

1200 Break for lunch

1230 Prepare to sample TW1 and TW12

1306 Calibrate pH Meter. See day one for serial #'s
Calibrate 7 to 4
Slope = 94.7
Temp = 24.7°C

SCT Meter
Redline ok
Reading 1080 of 1000 µmhos
T = 26.5°C

10-6-93

(11)

1310 At TW-12
TD = 15.00 Ft
DTW = 7.20 Ft
WC = 7.80 Ft

gal/ft = 7.80 × 0.16 = 1.25 gal

(gal) Vol.	time	(°C) Temp	pH	(µmhos) Cond
1.25	1322	26.0	4.3	405
2.50	1325	25.0	4.5	405
4.0	1331	25.4	4.5	395

1350 Sample TW-12
VOC-2
TPH
O&G
Paraquat
Fluoride (filtered)

Fluoride sample filtered through 0.45 µ filter w/ Geopump. Intermediate 1-qt glass mason jar (decanted) was used.

(12)

10-6-93

Water at TW-12 silty, brown.
No characteristic odor

1415 Onsite at TW-1
TD= 28.30
DTW= 12.33
WC= 15.97

gal/ft = 15.97 × 0.16 = 2.56

Vol.	time	Temp	pH	Cond
2.6	1429	24.6	4.4	175
5.2	1437	24.2	4.2	210
7.8	NOT	TAKEN		

Only 2 well volumes removed because Temp & pH values are within 5 percent. Conductiv within 20 percent. Well was developed yesterday by evacuating 3 ~~cas~~ well volumes. This particular well has a relatively large well volume

(13)

10-6-93

1450 Sample TW-1
VOC-Z
TPH
O&G

Water is only slightly turbid, colo. free and odor free

1510 At staging area to pack coolers

1630 Shipped 2 coolers Fed Ex
557035606A
557035606B

1730 Onsite at TW-6 to develop by bailing.
TD= 18.00
DTW= 10.92
WC= 7.08

gal/ft = 7.08 × 0.16 = 1.13 gal/ft

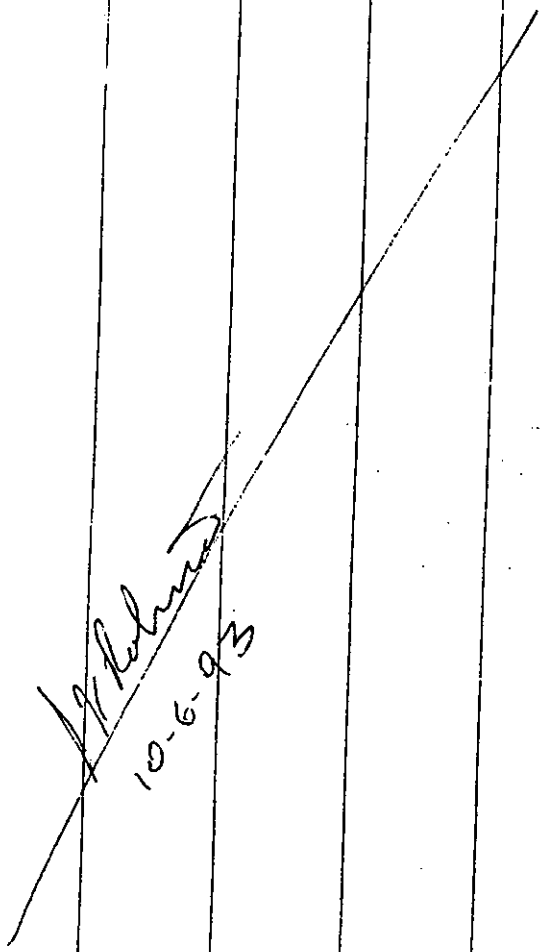
1900 Evacuated 7-gal DTW = 3 15.0 ft.

(14)

10-6-93

(couldn't get probe past backer, tied off on bottom)

1815 Offsite



THURS OCT 7, 1993

(15)

0710 Onsite - Moderate rain.

Calibrate meters -
PH - ORION SA 250
7-4
SLOPE - 94.7
TEMP 19.5

B-C-T meter
red-lined
reads 1,000 µs standard at
820 @ 18°C

0800 Rain has stopped. Reviewed access requirements at TW-5 with Bob Jones / Miller + B. Peterson

0840 Onsite at TW-6.
Recalibrate pH meter now that I am in vicinity of well
AH 7-4
slope = 96.6
temp = 19.0

(16)

10-7-93

Sound TW-6
TD = 18.00
DTW = 10.96
WC = 7.04

gal/# = 7.04 × 0.16 = 1.13 gal

#	time	Temp	pH	Conductiv
1.2	0856	26.6	6.5	560
2.4	0900	27.3	6.7	540
4.0	0905	27.1	6.9	~~470~~ (SM) 510

0920 Sample TW-6 for
VOC-2
TPH
O&G
Fluoride

This well is also blinded duped as TW-13 with a blind sample time" of 1020

(17)

10-7-93

All parameters except VOC sampled from peristaltic pump. Fluoride filtered through 0.45 μ filter. VOCs sampled with disposable bailer.

1130 Meas W.L. at TW-10
Sounding = 14.70 Ft
DTW = 8.45
WC = 6.25

1155 Meas W.L. at TW-9
Sounding = 19.00 (estimated)
DTW = DRY
WC = DRY
Actual sounding is ~~17.6~~ (SM) 17.6 Ft
Probe tip has mast sand & PVC shavings

1245 Meas W.L. at TW-8
Sounding = 18.00 (est.)
DTW = 9.10
WC = 8.90 (est.)

(18)

10-7-93

12.50 Meas w.l. at TW-3
TD = 28.00 (est.)
DTW = 23.06
WC = 4.94 (est.)

1300 Meas w.l. at TW-4
Sounded at 14.7 ft - Dry

1330 Begin developing TW-10
WC @ 1030 = 6.25 ft
6.25 x 0.16 = ~~1 gal/ft~~ (or)
1.0 gal/ft

1350 Evacuated 5 gals from TW-10
with bailer

1400 Begin developing TW-3
WC @ 1250 = 4.94 ft
4.94 x 0.16 = 0.79 gal/ft

1415 TW-3 purged dry after approx
1 gallon.

(19)

10-7-93

1630 Developed TW-9 by bailing
10 gal. Water is very
silty

1640 Shipped one cooler
Air Bill # 55 7035 6046

1740 Ran surveyed elevations
on TWs in North part
of plant.

TW-2 and TW-5 were constructed
today. Also B-1 and B-2

1750 Offsite

M Holmes
10-7-93

(20)

FAI OCT 8, 1993

0720 Onsite. Weather: Cool, clear, 60° F ±, 5 mph winds

Calibrate instruments

pH Orion SA 250

Calibrate 7 to 4

Initial reading = 6.8 of 7

Slope = 95.1

Temp = 20.2°C

SCT Meter

Redlined

Reading 890 mhos @ 18.5°C

of 1000 umhos @ 25°C

744 At TW-8 to start purge w. Geo-Pump

PTW = 9.17

TD 18.0

8.83' water column

0.83(0.16) = 1.4 gals/well volume

0755 Begin Purge

(21)

0810 Onsite at TW-3. Well was purged dry yesterday and it is really to be sampled. Clear & odo-less

Temp	pH	Cond
23.4	5.8	210

0820 SAMPLE TIME @ TW-3, Bailer. Total depth of well sounded at 27.5 ft.

0810 Onsite at TW-3

Field Parameters for TW-8

Vol	time	Temp	pH	Cond
3 gal	0811	25°C	6.5	820
7 "	0829	24.1	6.6	870
9 "	0838	25.2	6.7	840

Water clear, no color or odor when purged at slow rate w. Geo-Pump

(22) 10/8/93

Sample parameters for TW-3
VOC-2
TPH
O&G

RJB 10/8/93
~~0845~~ ~~SAM~~
0900 SAMPLE TIME @ TW-8,
Parameters sampled w GeoPump & tubing
TPH
O&G
Sampled w. Voss disposable bailer:
624 VOCs
TW8 sounded at 18.1 Total Depth
0910 Onsite at TW-10
TD = 14.70 ft
DTW = 8.11
WC = 6.59

gal/ft = 6.59 × 0.16 = 1.05 gal

Vol	time	Temp	pH	Conduct
1.1	930	24.6	5.8	890
2.5	933	25.1	5.3	800
4.0	937	25.0	4.9	700

(23) 10/8/93

Water is clear, slight color, slight turbidity, foamy when dumped in Purge bucket.

Well volume dropping. Stopped bailing & sals to sample

0945 SAMPLE TIME @ TW-10
TPH
O&G
VOC 624

Will return to take butyl-cellusol GW sample when bottle arrives.

1000 AT TW-5 to measure for water
DTW = DRY
TD from TOC = 14.8'

1005 AT TW-2 to measure for Water.
DTW = DRY
TD from TOC = 14.8'

(24) 10/8/93

1020 Collected EB2-AQ for
VOC's x 2
TPH
O:6
} from Disp. Bailer w. Baxter HPLC water, Lot #BF700

Fluoride - pumped through C-Flex tubing from mason jar to sample container (same HPLC water as noted above.)

1130 Collect Butyl Cellusolve from TW-10

1300 Ship 1 cooler Fed Ex
Air Bill 5570356035

1530 Spent afternoon shooting well elevations with Bob

1540 Offsite for GNV

[signature]
10-8-93

MON Oct 11, 1993 (25)

1220 Onsite. At TW-~~6~~ 7 RDP

Calibrate instruments

pH Orion SA 250
Calibrate 7 to 4
slope = 95.6
Temp = 23.3°C

Conductivity YSI 33
Redlined
Reading 950 µmhos @ 26.5°C
of 1000 µmhos @ 25°C

TW-~~6~~ 7 RDP Onsite
TD (est) = 22.3
DTW = 21.33

WC = 0.97 ft
gal/ft = 0.97 × 0.16 gal/ft = 0.16 gal/ft

1250 Sample TW-~~6~~ 7 RDP - DISCARDED

Temp	pH	Cond
27.0°C	6.3	225

(26)

10/11/93

WATER LEVELS

Time	Station	DTW	TD from TOC
1314	TW-1	12.65	
	TW-2	13.96	
1530	TW-3	17.43	
	TW-4	11.28	15.35
1355	TW-5	14.75	
1229	TW-6	11.18	
1226	TW-7	~~21.33~~	20.40
1520	TW-8	9.32	
1335	TW-9	17.09	
1535	TW-10	8.08	
1325	TW-11	DRY	
1307	TW-12	7.92	

10/11/93

(27)

RJB

TW-7 (cont)

TD sounded at 22.4 Ft

DTW 20.4

WC = 2.5 Ft

gal/ft = 2.5 × 0.16 = 0.40 gallo

Remove 3 bailer fulls of water

Collect field parameters - F-

	Temp	pH	Cond
1235	26.3	4.5	312

Will return later to sample for F-. This will allow well to clear up.

1325 Meas stick-up = 4.7 TW-11.

1335 On site at TW-9

TD = 17.60

DTW = 17.09

WC = 0.51

gal/ft = 0.51 × 0.16 = 0.08

(23)

10/11/93

1345 Sample TW-4 For 624 VOC-2.
Unable to get adequate volume for other parameters.
Well not purged or developed
Come back later for field parameters

1355 TW-5 Onsite
TD = 15.35
DTW = 14.75
WC = 0.60 ft

1400 Collect VOC-2 @ TW-5
Return later for field parameters

1415 Onsite @ TW-4
TD = 15.35
DTW = 11.28
WC = 4.07

4.07 (0.16) = 0.65 GAL = 1 well vol.

pH = 5.5 temp = 27.6 Cond = 230

(29)

10/11/93

1420 Collect VOC's (GA-TW-4-GW)
TPH and O&G

Well was sampled after removing one bailer-full of water for field parameters. Well was not developed

1435 Onsite at TW-2
TD = 15.4 (meas)
DTW 13.96
WC = 1.44
gal/# = 1.44 × 0.16 = 0.23 gal

pH = 6.0 Temp = 24.9 Cond = 130

1450 Sample TW-2 for
VOC-2, TPH (partial)
Not enough water for oil & grease.

Well was sampled after removing one bailer-full of water for field parameters. Well was not developed.
Sample w/ Norton Teflon bailer (decomm)

(30) 10-11-93

1510 Back at TW-7 for Fluoride sample.

1510 Sample TW-7

1520 Back at drum storage to pack coolers

1545 Got water levels at TW-3, 8, 10 (see table). Poured remaining purge water in last drum and closed up. Left outside drum storage pad.

1600 Onsite at TW-9 for field param.
pH= Temp= Cond=
Unable to collect Fied paramet

1605 Unable to collect field parameters at TW-5.

1620 Offsite

[signature]
10-11-93

MONDAY OCT 18, 1993 (31)

1100 Onsite to collect remaining field parameters and samples

Calibrate meters
pH ORION SA 250
5906
4 Buffer # E168 exp. 7/95
7 Buffer # E038 exp. 7/95
Calibrate 7 to 4
Original reading = 7.0
slope = 99.8
T = 26.2

SCT #1756 YSI 33
Redlined
Reading 1010 µmhos @ 24½°C
of 1000 std @ 25°C

1136 Onsite @ TW-2 to collect O&G

T= 24.9°C pH=.5-6 C= .80

1150 Sample TW-2 for O&G

(24) 10/18/93

1210 Onsite @ TW-4

1210 Sample TW-9 for TPH. Unable to get sample volume for oil & grease

~~T= 26.2 pH= 5.6~~ JR Not enough volume to cover probe for FID

Field parameters were not taken because insufficient sample volume were available.

1230 Onsite @ TW-5

Sample for TPH, O&G - done

Field Parameters
T= 24.3°C pH=5.3 C= 210

1300 Checked TW-11 inside compressor room. STILL DRY!!
Offsite for lunch

1420 Check TW-9 for additional sample volume. None.

10/18/93 (33)

1540 Offsite

10.18.93

(34)

TUE Oct 19, 1993

0730 Onsite for well abandonment.
Weather cool & clear 60°F
Winds 0 to 5 mph
Driller onsite

0820 Tw-9 dry. No volume avail. for O&G.

Driller is abandoning wells by removing screen and filling borehole with grout.

0845 Tw-11 abandoned by removing screen, filling hole to 2-ft below top of slab with bentonite pellets. Hydrating. Fill with 6-in unhydrated bentonite, 6-in sand, and 12-in dry pack grout.

1000 Grouting of wells complete. Placed safety barricade at Tw-11

1030 Offsite

/s/ Robinson / 10-19-93

(35)

Summary Report (Step 1) prepared by: Earth Technology Corporation - December 10, 1993

SUMMARY REPORT (STEP 1)
MOULTRIE CONTAINER DIVISION FACILITY

Prepared for:

Miller Brewing Company
3939 West Highland Blvd.
Milwaukee, Wisconsin 53201-0482

Submitted by:

The Earth Technology Corporation
12129 West Feerick Street
Wauwatosa, Wisconsin 53222
414/466-9266

TETC Project No. 94-4124-01

December 10, 1993

TABLE OF CONTENTS

		PAGE
1.0	INTRODUCTION/OBJECTIVE	1
2.0	"SCHEDULE B" ISSUES	3
2.1	Data Review	3
2.2	Evaluation	3
2.2.1	Hydrocarbon and Metals Contamination in the Stormwater Drainage Area Northeast of the Facility	3
2.2.2	Solvent Contamination in Soil and Groundwater in the Waste Solvent UST Piping Area	5
3.0	REGULATORY REQUIREMENTS	8
3.1	Soil	8
3.2	Groundwater	9
4.0	PROPOSED ACTION	10
4.1	Hydrocarbon and Metals Contamination in the Stormwater Drainage Area Northeast of the Facility	10
4.2	Solvent Contamination in the Soil and Groundwater in the Waste Solvent UST Piping Area	10

LIST OF FIGURES

FIGURE 1 PROJECT DECISION FLOW CHART 2

LIST OF APPENDICES

APPENDIX A $CH_2MHILL'S$ SITE FIGURE

SUMMARY REPORT (STEP 1)
MOULTRIE CONTAINER DIVISION FACILITY

1.0 INTRODUCTION/OBJECTIVE

The Moultrie Container Division Facility was acquired by Reynolds Metals Company (Reynolds) from Miller Brewing Company (Miller). Reynolds' environmental consultant, CH_2MHill, conducted a Phase II investigation at the facility as documented in an October 25, 1993, "Field Investigation Report." Several potentially impacted areas were identified in CH_2MHill's report. The following issues were subsequently identified as requiring further evaluation/resolution (reference Miller's November 15, 1993, "Schedule B"):

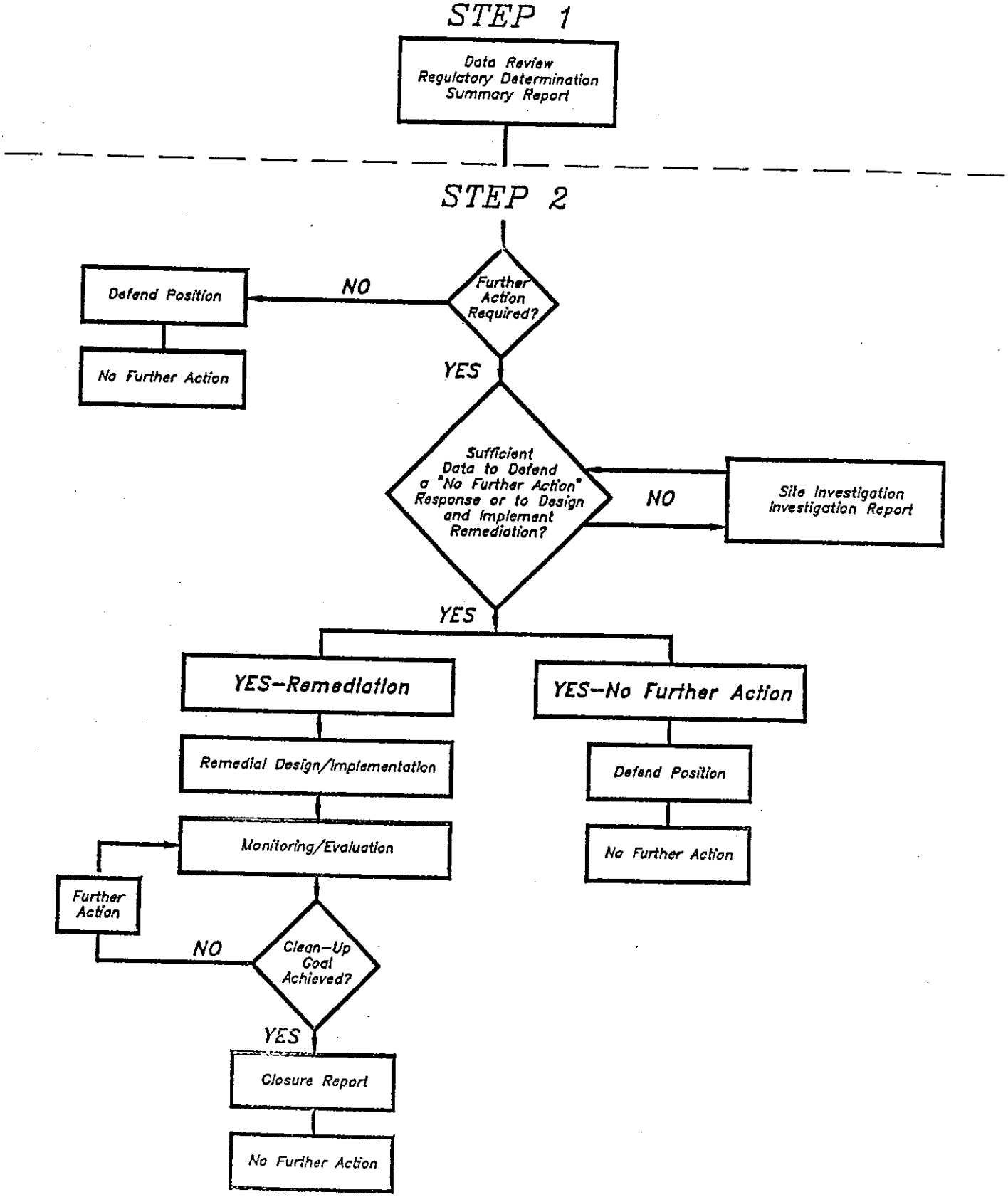
- Hydrocarbon and metals contamination in the stormwater drainage area northeast of the facility.

- Solvent contamination in the soil and groundwater in the waste solvent underground storage tank (UST) piping area.

The Earth Technology Corporation (TETC) was retained by Miller to provide technical assistance regarding the validity of the issues potentially requiring further action. Specifically, TETC's objective is to evaluate each issue relative to the accuracy/representativeness/ adequacy of the CH_2MHill data, the applicable state and federal regulatory requirements, and (as appropriate) the additional delineation and projected remedial actions required. The logic that will be utilized to evaluate the need for further delineation/remedial activities is depicted on Figure 1.

The remaining sections of this Summary Report document TETC's Step 1 evaluation.

Figure 1
Project Decision Flowchart
The Earth Technology Corporation



2.0 "SCHEDULE B" ISSUES

2.1 Data Review.

CH_2MHill's study objectives were apparently formulated to determine potential impacts to soil and groundwater media utilizing analytical methodologies applicable to a broad range of parameters. In accomplishing this determination of potential impacts, portions of the field sampling program apparently did not adhere to U. S. EPA/Georgia Environmental Protection Division- (GEPD) approved procedures.

TETC determined through review of the "Field Investigation Report" for this site that there are several factors which could have a potential impact on interpretation/use of the data.

- Extraction/analysis dates are not included on the laboratory reports; therefore, holding times could not be evaluated.
- No quality control duplicate samples for soil or sediments are indicated in the report.
- Samples were obtained on 6 days (October 4-8, 1993, and October 11, 1993). However, only 2 equipment blanks were obtained on October 6 and 8, 1993. U. S. EPA-approved quality control/quality assurance (QA/QC) sampling procedures specify the collection of equipment blanks daily to evaluate the adequacy of equipment decontamination procedures.
- Samples were shipped to the laboratory on 5 separate days. However, only 1 trip blank was submitted with the October 7, 1993, shipment. U. S. EPA-approved QA/QC procedures specify one VOC trip blank for every shipment to the laboratory to evaluate the potential for cross contamination during sample handling.

2.2 Evaluation.

Two issues were identified in "Schedule B" as requiring evaluation. CH_2MHill's site figure is included as Appendix A for reference. Each issue is discussed below relative to the CH_2MHill findings:

2.2.1 Hydrocarbon and Metals Contamination in the Stormwater Drainage Area Northeast of the Facility.

Per conversations with Reynolds representatives in January 1992, waste oil was inadvertently released from the exterior waste oil storage tank located northwest of the plant building. This material entered the facility storm drain system and flowed into the stormwater drainage area (ditch/intermittent stream in a wooded/swampy area) north of the facility. The released material was removed from the drainage area utilizing vacuum trucks.

In October 1993, CH_2MHill obtained samples of surface water and sediments from the ditch/stream. All samples were analyzed for volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), and oil and grease (O&G). In addition, the sediment samples were analyzed for total metals.

The compounds detected in the surface water sample (GA-SW-1) are summarized below:

ANALYTICAL PARAMETER*	GA-SW-1
VOC (ug/l)	
Dibromochloromethane	7
Bromoform	350
TPH (mg/l)	34
O&G (mg/l)	60.6
*Only compounds present above their detection limits are reported.	

Compounds detected in the sediment samples are summarized below:

ANALYTICAL PARAMETER*	GA-SD-2	GA-SD-3	GA-SD-4
VOC (ug/l)			
Tetrachloroethene	8	10	7
TPH (mg/kg)	350	1,000	41
O&G (mg/kg)	750	1,600	110
Metals (mg/kg)			
Aluminum	8,100	5,330	1,330
Arsenic	0.942	1.29	ND
Beryllium	ND	0.322	ND
Chromium	10.4	16.3	3.91
Copper	14.5	15.0	ND
Lead	16.4	48.1	ND
Nickel	2.95	2.36	ND
Selenium	0.377	ND	ND
Zinc	463	77.8	5.83
*Only compounds present above their detection limits are reported. ND = Not detected.			

Note: CH_2MHill also obtained a sediment sample, SD1, from a ditch east of the facility. TETC evaluated analytical data associated with this sample and found that the TPH and metals levels in the sample were less than the proposed cleanup standards (see Section 3.0). Therefore, TETC recommends no further action in regards to this area.

2.2.2 Solvent Contamination in Soil and Groundwater in the Waste Solvent UST Piping Area.

According to Reynolds' representatives, during operations to remove a waste solvent UST, a leak in the piping leading to the UST was discovered. Impacted soil was subsequently removed, the pipe was capped, and the area backfilled with clean soil.

CH_2MHill installed one boring in the vicinity of the former waste solvent UST piping and converted the boring into a temporary monitor well. One soil sample was obtained from the boring (GA-TW-10-S) at a depth of 6 to 8 feet. This sample was analyzed for VOCs, TPH and O&G.

The analytical results associated with this sample are summarized below:

ANALYTICAL PARAMETER*	GA-TW-10-S
VOCs (ug/l)	
Methylene chloride	9
Acetone	430
1,1-Dichloroethane	17
Total 1,2-Dichloroethene	22
1,1,1-Trichloroethane	29
Trichloroethene	20
Tetrachloroethene	55
Toluene	16
Ethylbenzene	8
Total Xylenes	48
TENTATIVELY IDENTIFIED VOCs[1]:	
2-Propanol	19
Unknown (13.62)	38
Unknown (14.55)	16
Unknown hydrocarbon (15.36)	19

ANALYTICAL PARAMETER*	GA-TW-10-S
Unknown hydrocarbon (16.09)	6
Unknown hydrocarbon (18.49)	8
Unknown alkane (20.08)	120
Unknown (20.73)	22
Unknown (21.43)	6
Unknown (20.73)	22
Dimethyl pentane	28
Methyl hexane	110
Unknown (26.35)	12
TPH (mg/kg)	88
O&G (mg/kg)	200

*Only compounds present above their detection limits are reported.

(1) Concentrations of tentatively identified compounds are estimated. Retention times of unknown compounds are given in parenthesis.

One groundwater sample (GA-TW-10-GW) was also obtained and analyzed for VOCs, TPH, O&G and butyl cellusolve.

The analytical results associated with this sample are summarized below:

ANALYTICAL PARAMETER*	GA-TW-10-GW
VOCs (ug/l):	
Chloroethane	2,900
Methylene Chloride	19[2]
Acetone	14,000
1,1-Dichloroethene	600
1,1-Dichloroethane	14,000
Total 1,2-Dichloroethene	14,000
1,2-Dichloroethane	45

ANALYTICAL PARAMETER*	GA-TW-10-GW
1,1,1-Trichloroethane	4,300
Trichloroethene	12,000
Benzene	88
4-Methyl-2-pentanone	160
2-Hexanone	250
Tetrachloroethene	2,100
1,1,2,2-Tetrachloroethane	37
Toluene	1,300
Ethylbenzene	130
Total Xylenes	680
TENTATIVELY IDENTIFIED VOCs[1]:	
Methyl butanone	49
Hexane	61
Unknown (23.59)	130
Unknown (25.10)	32
TPH (mg/l)	1.2
O&G (mg/l)	8.5
Butyl Cellusolve (ug/l)	1,700

(1) Concentrations of tentatively identified compounds are estimated. Retention times of unknown compounds are given in parenthesis.

(2) Indicates that the analyte was found in the method blank as well as the sample.

*Only compounds present above their detection limits are reported.

3.0 REGULATORY REQUIREMENTS

The regulatory requirements associated with addressing impacts noted at the site are summarized below:

3.1 Soil.

In discussions with representatives of the GEPD, the state is in the process of developing cleanup standards for soil. Currently, cleanup is approached on a case-by-case basis and normally background levels are established as the cleanup goals.

The proposed cleanup levels for soils that are currently under review and are of interest at this site are presented below:

COMPOUND	CLEANUP CONCENTRATION (mg/kg)
VOCs:	
Acetone	2.74
Trichloroethene	0.13
Tetrachloroethylene	0.18
1,1,1-Trichloroethane	5.44
1,1-Dichloroethane	0.36
1,1-Dichloroethene	0.03
TPH	100
Metals:	
Arsenic	41
Beryllium	2.8
Chromium (+3)	1,200
Lead	300
Mercury	17
Nickel	420
Selenium	36
Thallium	Background
Zinc	2,800

3.2 Groundwater.

GEPD representatives indicated that the state normally applies the federal maximum contaminant levels (MCLs) as the cleanup criteria for groundwater. The representatives stated that new state-specific cleanup guidelines for groundwater were being drafted but had not been promulgated.

The MCLs for the compounds detected in the groundwater at the site are listed below:

COMPOUND	MCL (ug/l)
Chloroethane	NA
Methylene Chloride	NA
Acetone	NA
1,1-Dichloroethene	7
1,1-Dichloroethane	NA
cis 1,2-Dichloroethene	70
trans 1,2-Dichloroethene	100
1,2-Dichloroethane	5
Trichloroethene	5
Benzene	5
4-Methyl-2-pentanone	NA
2-Hexanone	NA
Tetrachloroethene	5
1,1,2,2-Tetrachloroethane	NA
Toluene	1,000
Ethylbenzene	700
Total Xylenes	10,000
TPH	NA
O&G	NA
Butyl Cellusolve	NA
NA = MCL not established.	

4.0 PROPOSED ACTION

The proposed actions for each "Schedule B" issue are discussed below:

4.1 Hydrocarbon and Metals Contamination in the Stormwater Drainage Area Northeast of the Facility.

TETC believes that the elevated levels of hydrocarbons in the surface water and sediments in the drainage ditch/stream are a result of the spill from the waste oil tank and/or de minimis losses from vehicles. The source of the VOCs is unknown but could be leaks from the former drum storage area.

TETC proposes to conduct the following activities to effectively delineate the impacts in this area:

- Delineate the extent (horizontal and vertical) of TPH impacts by obtaining samples of the ditch/stream sediment at the surface and a 1-foot depth. Samples will be collected at approximately 50-foot intervals.

- Sequentially analyze the samples, i.e., samples from areas with the highest probability of impacts analyzed first, for TPH, O&G and VOCs. (Note: Metals detected in sediment samples are within ranges normally occurring in soils.)

Depending on the analytical results, TETC will coordinate with the GEPD to determine the requirement, if any, to remediate this area. If remediation is required, a cleanup level will be negotiated with the regulatory authorities, remedial options evaluated, appropriate remedial plans prepared and implemented.

Based upon the CH_2MHill results, remediation will likely be required. Due to the site setting--meandering ditch/stream flowing through a wooded/swampy area--trafficability/access will be a concern during a remediation involving removal of the impacted sediments. Nevertheless, removal can be accomplished either using properly equipped heavy equipment (would require building a road to accommodate equipment and trucks) or, potentially, through use of hand labor and remotely located high volume vacuum equipment to transfer the material to a staging area.

Depending on the compounds present in the material, treatment and/or disposal could be accomplished in an on-site landfarm area or the material could be transported to an off-site landfill.

4.2 Solvent Contamination in the Soil and Groundwater in the Waste Solvent UST Piping Area.

Impacts from this area are likely related to the former waste solvent UST and associated piping.

TETC proposes the following activities to delineate impacts in this area:

- Install a 4-inch diameter monitor well in the impacted area.
- Install two 2-inch diameter monitor wells in the proximity of the impacted area (one well should be located in the interior of the building in the former solvent [red label] storage area).
- Field screen soil boring samples for VOCs. Two samples per borings will be analyzed for VOCs. One soil boring sample (from the 4-inch monitor well location) will be analyzed for geotechnical characteristics.
- Develop, purge and sample each well. Analyze the samples for VOCs. Determine groundwater flow direction and conduct an in-situ slug test.

Based on the existing data, TETC anticipates that since levels in soils are less than the proposed cleanup criteria, this media will not require remediation. However, since contaminants in the groundwater exceed MCLs, TETC anticipates that groundwater remediation will be required. The following activities are anticipated:

- Coordinate with GEPD representatives to determine cleanup objectives.
- Design of extraction/treatment system (identified potentially as air stripping followed by carbon adsorption with release of the treated effluent to the Publicly Owned Treatment Works [POTW]).
- Prepare appropriate remedial plans for Miller, Reynolds and GEPD approval.
- Coordinate with local POTW to determine discharge limits/obtain required permits.
- Convert the 4-inch monitor well into a recovery well.
- Install/start-up/operate the system.
- System operations and maintenance activities.

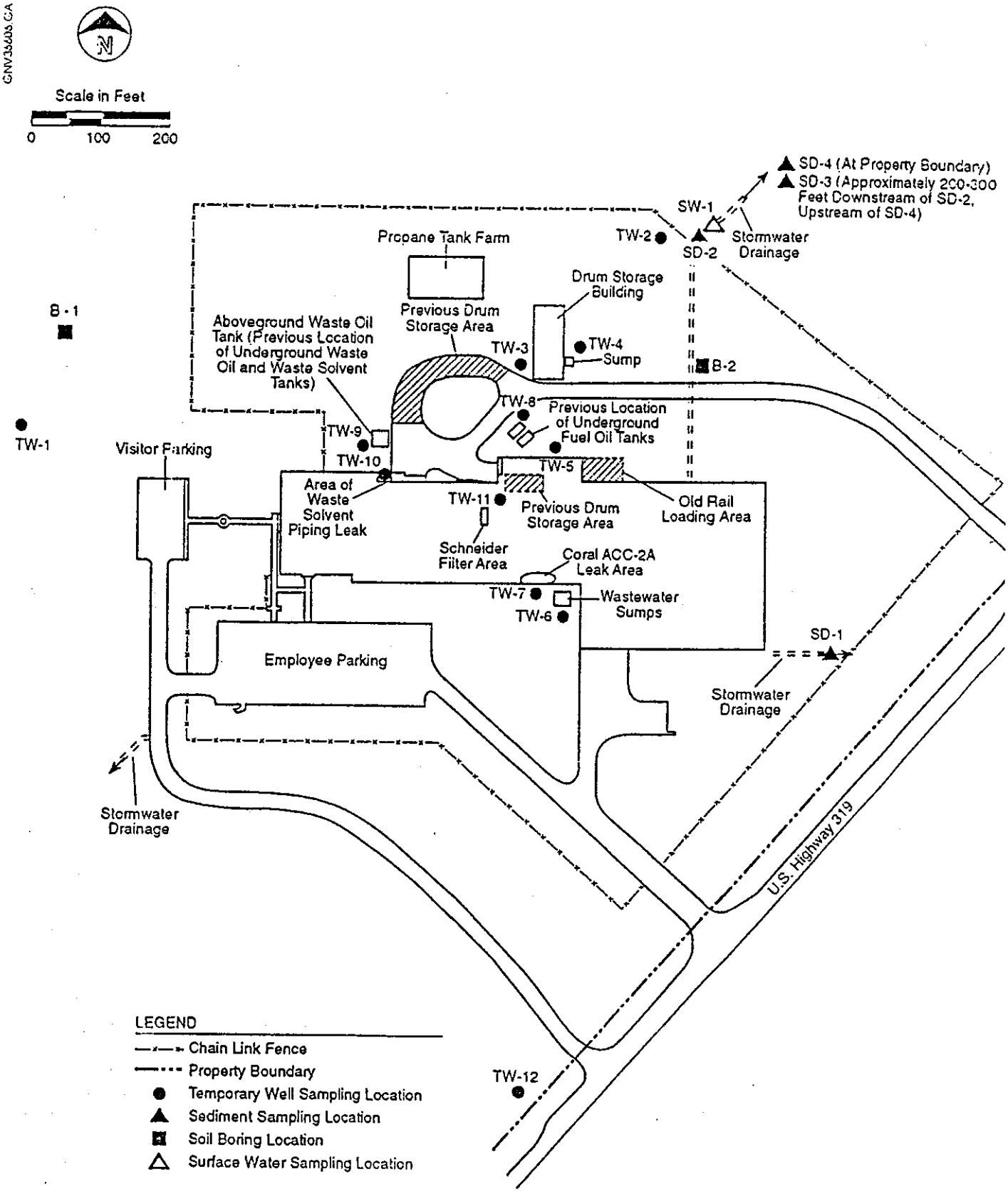


Figure 1. Sampling Locations, Miller Container Plant Moultrie, GA.

CH2M HILL

Site Investigation Report
prepared by: Earth Tech
March 22, 1994

94-4130

PROJECT FILE

THE EARTH TECHNOLOGY CORPORATION

SITE INVESTIGATION REPORT FOR THE FORMER MILLER BREWING COMPANY MOULTRIE CONTAINER DIVISION FACILITY

Prepared for:

Miller Brewing Company
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TETC Project Number 94-4130-04

March 22, 1994

TABLE OF CONTENTS

PAGE

EXECUTIVE SUMMARY 1

1.0 INTRODUCTION 2

2.0 BACKGROUND 3

2.1 Hydrocarbon Impacts in the Stormwater Drainage Area Northeast of the Facility . . 3
2.2 Solvent Impacts in Soil and Groundwater in the Waste Solvent UST Piping Area . . . 3
2.3 Regulatory Requirements 5

2.3.1 Soil 5
2.3.2 Groundwater 5

3.0 INVESTIGATIVE 6

3.1 General 6
3.2 Summary of Sampling Activities 6

4.0 INVESTIGATION RESULTS 10

4.1 Site Geology 10
4.2 Site Hydrogeology and Hydrology 10
4.3 Analytical Results 10

4.3.1 General 10
4.3.2 Leaking Solvent Pipe Area 11
4.3.3 Stormwater Drainage Area 11

5.0 CONCLUSIONS/RECOMMENDATIONS 15

5.1 Leaking Solvent Pipe Area 15

5.1.1 Conclusions 15
5.1.2 Recommendations 15

5.2 Stormwater Drainage Area 15

5.2.1 Conclusions 15
5.2.2 Recommendations 16

LIST OF FIGURES

FIGURE 1 GENERAL SITE MAP 4

FIGURE 2 SOIL BORING AND MONITOR WELL LOCATIONS 8

FIGURE 3 SEDIMENT SAMPLING LOCATIONS 9

LIST OF TABLES

TABLE 2-1 MCLs FOR COMPOUNDS DETECTED IN GROUNDWATER 5

TABLE 4-1 FORMER MILLER BREWING COMPANY--MOULTRIE CONTAINER DIVISION JANUARY 17-21, 1994 SOIL AND GROUNDWATER SAMPLE RESULTS 12

TABLE 4-2 FORMER MILLER BREWING COMPANY--MOULTRIE CONTAINER DIVISION JANUARY 17-21, 1994 SEDIMENT SAMPLE RESULTS 13

TABLE 4-2 FORMER MILLER BREWING COMPANY--MOULTRIE CONTAINER DIVISION JANUARY 17-21, 1994 SEDIMENT SAMPLE RESULTS STORMWATER DRAINAGE AREA (Continued) 14

LIST OF APPENDICES

APPENDIX A BORING LOGS AND WELL CONSTRUCTION LOGS

APPENDIX B TETC'S FIELD NOTES

APPENDIX C PHOTOGRAPHS

APPENDIX D CHAIN-OF-CUSTODY FORMS/CONTAINER SHIPPING RECEIPTS

APPENDIX E LABORATORY REPORTS

SITE INVESTIGATION REPORT FOR THE FORMER MILLER BREWING COMPANY MOULTRIE CONTAINER DIVISION FACILITY

EXECUTIVE SUMMARY

The Earth Technology Corporation (TETC) was retained by the Miller Brewing Company to provide technical assistance related to environmental issues identified in a Phase II investigation. This investigation had preceded acquisition of their Moultrie Container Division Facility by Reynolds Metals Company.

To evaluate the results of the Phase II investigation and obtain data to evaluate requirements for further action, during January 1994, TETC obtained sediment samples from a stormwater drainage area and installed three monitor wells in the vicinity of a former waste solvent underground storage tank piping area. Laboratory testing of sediment, soil and groundwater samples collected during the investigation confirmed the presence of low levels of oil and grease and volatile organic compounds in the drainage area sediments. A number of volatile organic compounds were also found to be present in a range of concentrations in the soil and groundwater under the floor and in close proximity to the building. Several of the volatile organic compounds exceed the federal maximum contaminant levels which are generally applied by Georgia authorities as groundwater cleanup standards.

1.0 INTRODUCTION

The Moultrie Container Division Facility was acquired by Reynolds Metals Company (Reynolds) from Miller Brewing Company (Miller) in November 1993. During a preacquisition Phase II investigation at the facility, Reynolds' environmental consultant, CH_2M Hill, identified several potentially impacted areas which were documented in their October 25, 1993, "Field Investigation Report." The following areas were subsequently identified as requiring further evaluation/resolution:

- Potential hydrocarbon impacts in the stormwater drainage area northeast of the facility.
- Potential solvent impacts in the soil and groundwater in the waste solvent underground storage tank (UST) piping area.

The Earth Technology Corporation (TETC) was retained by Miller to provide technical assistance to evaluate the areas. Specifically, TETC's objective was to verify the findings of CH_2M Hill through a field investigative program, compare the investigation results with the applicable state and federal regulatory requirements, and evaluate the requirements for additional action.

This document is organized into five sections plus appendices. Section 1.0 provides general introductory remarks. Section 2.0 provides a summary of the site background, and Section 3.0 provides a narrative of TETC's investigative activities. Section 4.0 documents the investigation results. Section 5.0 presents a summary of the conclusions and recommendations for future actions regarding the site.

Appendix A contains copies of boring logs and well construction logs. A copy of TETC's field notes are contained in Appendix B. Photographs documenting TETC's investigation activities are contained in Appendix C. Appendix D contains copies of the completed Chain-of-Custody Forms and sample container shipping receipts and Appendix E contains copies of the laboratory reports.

2.0 BACKGROUND

Background information relating to the two areas identified as requiring additional investigation due to potential impacts are discussed below:

2.1 Hydrocarbon Impacts in the Stormwater Drainage Area Northeast of the Facility.

In October 1993 as part of their Phase II investigation, CH_2M Hill obtained samples of surface water and sediments from the ditch/stream located northwest of the plant building (Figure 1). All samples were analyzed for volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), and oil and grease (O&G). In addition, the sediment samples were analyzed for total metals.

Evaluation of the analytical results indicated impacts to both surface water and sediments. Specifically, two VOCs, dibromochloromethane and bromoform, were detected in the surface water at concentrations of 7 ug/l and 350 ug/l, respectively. In addition, TPH was detected at 34 mg/l and O&G at 60.6 mg/l.

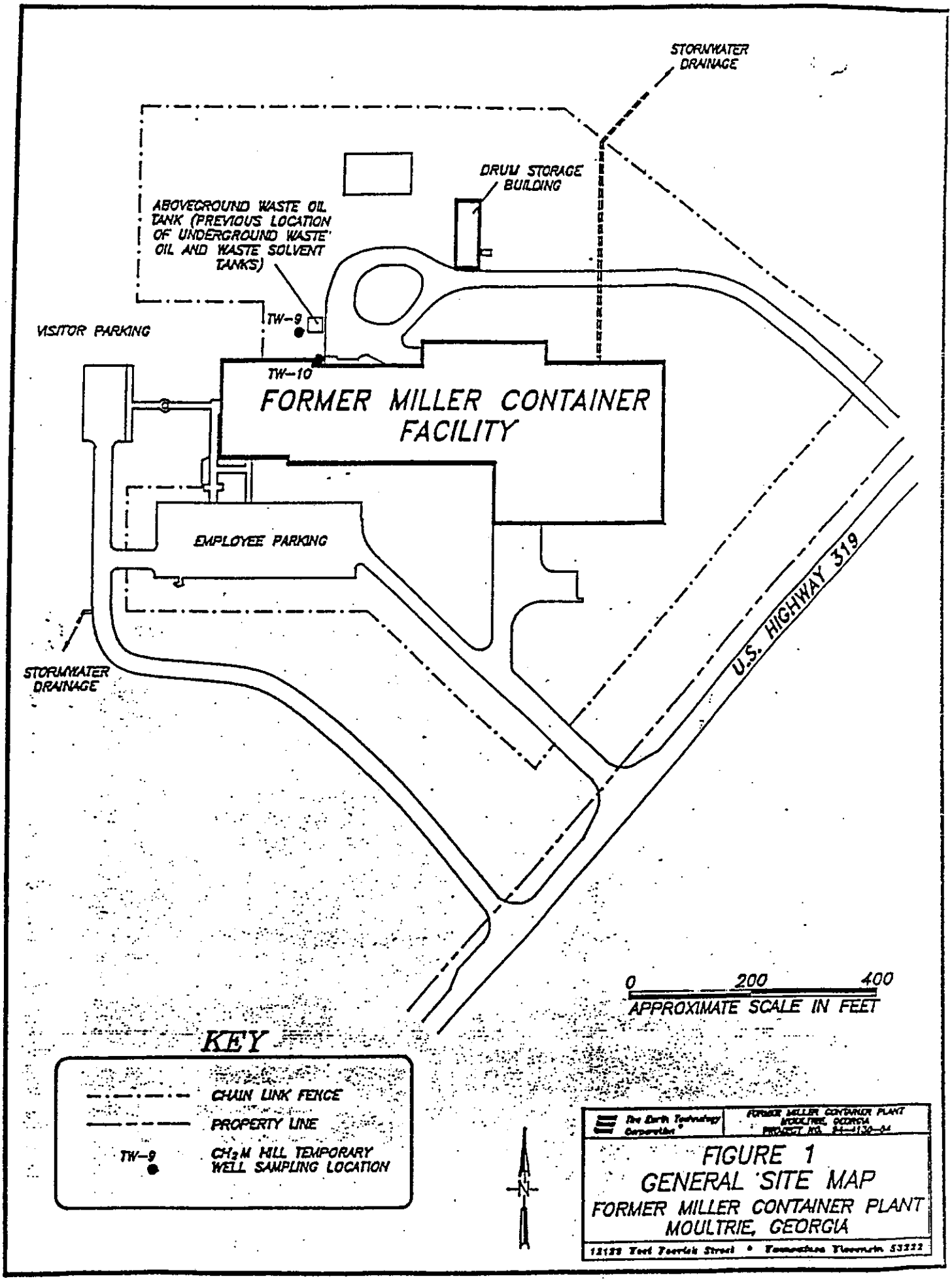
In the sediment samples, tetrachloroethane was detected at concentrations ranging from 7 ug/kg to 10 ug/kg while concentrations of TPH ranged from 41 mg/kg to 1,000 mg/kg and O&G concentrations ranged from 110 mg/kg to 1,600 mg/kg. Concentrations of metals were within ranges reported for soils and other surficial materials (USGS, 1984).

2.2 Solvent Impacts in Soil and Groundwater in the Waste Solvent UST Piping Area.

CH_2M Hill installed one boring in the vicinity of the former waste solvent UST piping and converted the boring into a temporary monitor well. One soil sample was obtained from the boring at a depth of 6 to 8 feet. This sample was analyzed for VOCs, TPH and O&G.

Evaluation of the analytical results for the soil sample indicated impacts from a number of chlorinated and nonchlorinated VOCs. The VOCs present in the highest concentrations included tetrachloroethene (55 ug/kg), 1,1,1-trichloroethane (29 ug/kg), acetone (430 ug/kg), and total xylenes (48 ug/kg). In addition, TPH and O&G were detected in the soil sample at a concentration of 88 mg/kg and 200 mg/kg, respectively.

A groundwater sample was obtained from the temporary well and subsequently analyzed for VOCs, TPH, O&G, and butyl cellusolve. Evaluation of the analytical results indicated impacts to groundwater from a number of VOCs. VOCs found in the highest concentrations included acetone (14,000 ug/l), 1,1-dichloroethane (14,000 ug/l), total 1,2-dichloroethene (14,000 ug/l), trichloroethylene (12,000 ug/l) and 1,1,1 trichloroethane (4,300 ug/l). TPH was detected at a concentration of 1.2 mg/l and O&G was detected at 8.5 mg/l. Butyl cellusolve was detected at a concentration of 1,700 ug/l.


STORMWATER DRAINAGE
DRUM STORAGE BUILDING
ABOVEGROUND WASTE OIL TANK (PREVIOUS LOCATION OF UNDERGROUND WASTE OIL AND WASTE SOLVENT TANKS)
TW-9
VISITOR PARKING
TW-10
FORMER MILLER CONTAINER FACILITY
EMPLOYEE PARKING
STORMWATER DRAINAGE
U.S. HIGHWAY 319
0
200
400
APPROXIMATE SCALE IN FEET
KEY
CHAIN LINK FENCE
PROPERTY LINE
TW-9
CH2M HILL TEMPORARY WELL SAMPLING LOCATION
The Earth Technology Corporation
FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA
FIGURE 1
GENERAL SITE MAP
FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA

2.3 Regulatory Requirements.

2.3.1 Soil.

In discussions with representatives of the GEPD, the state is in the process of developing cleanup standards for soil. Currently, cleanup is approached on a case-by-case basis and normally background levels are established as the cleanup goals.

2.3.2 Groundwater.

GEPD representatives indicated that the state normally applies the federal maximum contaminant levels (MCLs) as the cleanup criteria for groundwater. The representatives stated that new state-specific cleanup guidelines for groundwater were being drafted but had not been promulgated.

The MCLs for the compounds detected in the groundwater at the site are listed in Table 2-1 below:

TABLE 2-1
MCLs FOR COMPOUNDS DETECTED IN GROUNDWATER

COMPOUND	MCL (ug/l)
Chloroethane	NA
Methylene Chloride	NA
Acetone	NA
1,1-Dichloroethene	7
1,1-Dichloroethane	NA
cis 1,2-Dichloroethene	70
trans 1,2-Dichloroethene	100
1,2-Dichloroethane	5
Trichloroethene	5
Benzene	5
4-Methyl-2-pentanone	NA
2-Hexanone	NA
Tetrachloroethene	5
1,1,2,2-Tetrachloroethane	NA
Toluene	1,000
Ethylbenzene	700
Total Xylenes	10,000
TPH	NA
O&G	NA
Butyl Cellusolve	NA

NA = MCL not established.

3.0 INVESTIGATIVEE ACTIVITIES

3.1 General.

During the period of January 17-21, 1994, TETC implemented on-site investigative activities at the Moultrie Container Division facility.

The purpose of this investigation was to 1) confirm the results of the Field Investigation Report prepared by CH2M Hill in October 1993 using more definitive analytical protocol; and 2) evaluate the need for additional action.

The scope of the site investigation consisted of the installation of shallow soil borings and groundwater monitoring wells; acquisition of soil, sediment and groundwater samples; laboratory analysis for selected volatile organic compounds (VOCs) and O&G (O&G); aquifer performance testing and general observation of site conditions. The specific areas investigated and the associated environmental media which were sampled are summarized below:

AREA	ENVIRONMENTAL MEDIA SAMPLED
Area of waste solvent pipe leak.	• Subsurface soil. • Groundwater.
Stormwater drainage area.	• Sediments.

These areas are shown on Figure 1.

3.2 Summary of Sampling Activities.

The site investigation was initiated on Monday, January 17, 1994, with the arrival of TETC representative Mr. Jack Dowden. Mr. Dowden met with Mr. Robert Jones of Reynolds Metals Company to review the approved scope-of-work and obtain clearance of the proposed boring locations for utility and other subsurface interferences. The drilling crew from Ardaman & Associates of Tallahassee, Florida, arrived later in the afternoon and evaluated drilling site accessibility and began coring and installation of the boring/monitor well in the area of the Red Label Room.

The site investigation and sampling activities were completed on Friday, January 21, 1994. The work was completed in general conformance with TETC's Work Plan with the following exceptions:

- Boring SB-113 could not be drilled in the Red Label Room as originally planned due to plant safety rules governing the use of electric equipment in explosive areas. After consultation with plant personnel, it was decided to relocate this boring immediately outside of the Red Label Room along the estimated route of the drain line. Due to access problems, this boring was drilled with a hand auger rather than a drill rig as originally planned.

- Monitor well MW-115 did not produce measurable levels of water during the period of the investigation. Therefore, this well was not developed, sampled or performance-tested. In addition, the water level in MW-114 did not reach static equilibrium during the period of investigation.

- TETC opted not to survey the well elevations. The monitor well inside the plant was finished at floor grade, which is a known elevation. Monitor well MW-114 was located at the same site of previous temporary well TW-10 which is also a known elevation. Finally, since MW-115 was dry it was not possible to obtain the three-points required to establish the hydraulic gradient.

Monitor well MW-114 was completed as a 4-inch diameter, stainless steel well. The other monitor wells were completed as standard 2-inch diameter wells, using PVC materials.

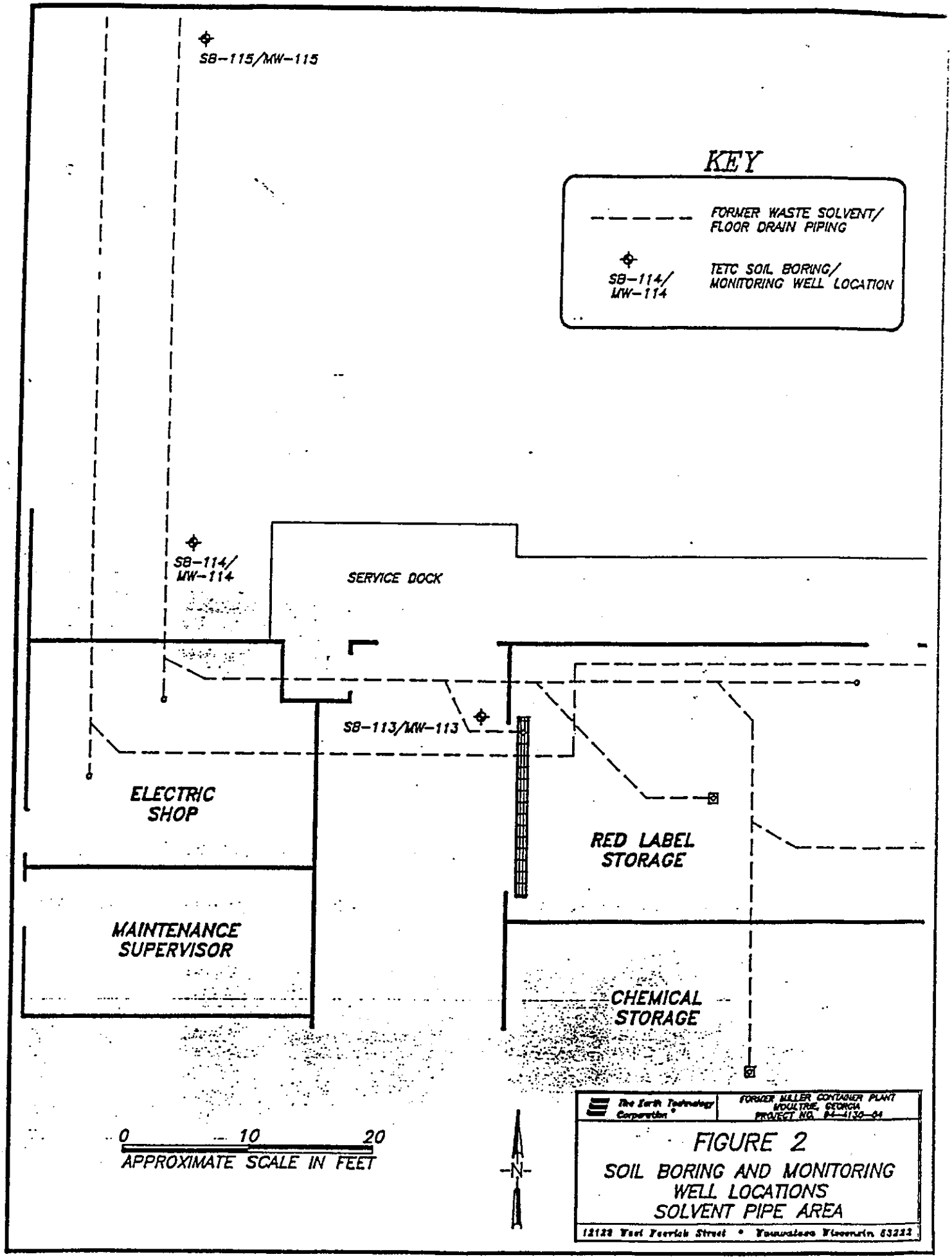
All environmental soil, sediment and groundwater samples, and trip and field blanks were submitted to ACTS Testing Labs in Buffalo, New York. All the samples were analyzed for VOCs using U. S. EPA Method 8240. The sediment samples from the stormwater drainage area were also analyzed for O&G by U. S. EPA Method 9071. A soil sample was also obtained and submitted to Wisconsin Testing Laboratories in Menomonee Falls, Wisconsin, for analysis of moisture content, dry density and permeability.

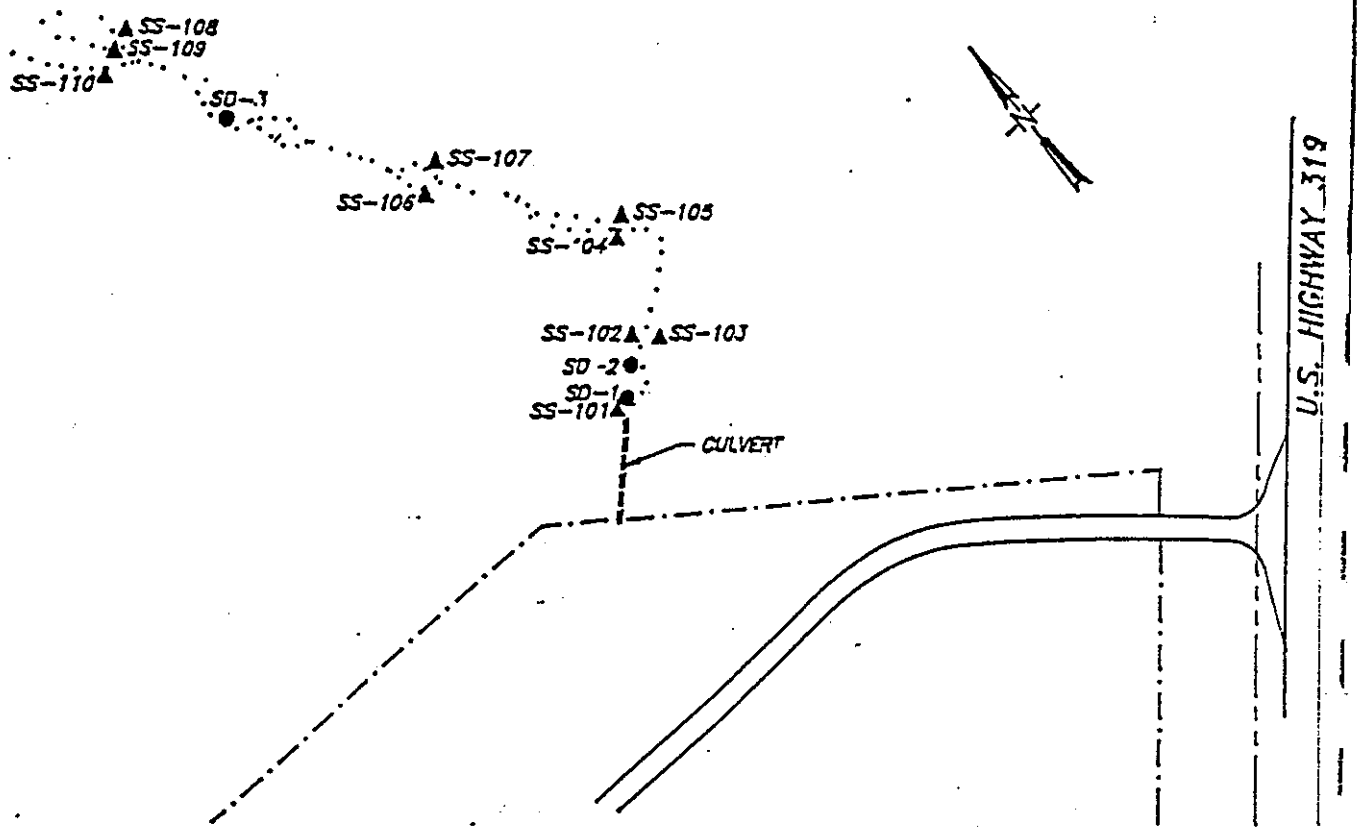
The borings logs from borings SB-113 through SB-115 and the corresponding monitor well construction logs are presented in Appendix A. The location of these borings are shown on Figure 2. The boring depths and sample intervals are summarized in Table 3-1.

A sketch map of the stormwater drainage area and the associated sample locations is provided as Figure 3. The sediment samples from this area were obtained from the channel banks immediately adjacent to the water line. Samples were obtained from the surface and from a depth of 6-12 inches below the surface at each sample location. The locations were generally laid out in pairs with a location on each bank of the channel. At a distance of 350-400 feet the channel lost definition and diverged into a number of smaller channels. Beyond this point, the land slope decreased and the water ran overland over a wide area. In this area, three sample locations (SS-107 through SS-110) were designated and sampled.

Field notes and observations, photo documentation, chain-of-custody documentation and the analytical laboratory reports are presented in appendices to this report. The detected compounds are summarized in tables located in Section 4.0.

The site investigation resulted in the generation of six drums of investigative wastes. These wastes consisted of soil cuttings (four drums); decontamination and purge water (1 drum); and protective clothing, plastic sheeting and sampling wastes (1 drum). The drums were labeled and transported to the drum storage building north of the plant where they were stored with the drums from the previous investigation performed by CH2M Hill.


SB-115/MW-115
KEY
FORMER WASTE SOLVENT/ FLOOR DRAIN PIPING
SB-114/ MW-114
TETC SOIL BORING/ MONITORING WELL LOCATION
SB-114/ MW-114
SERVICE DOCK
SB-113/MW-113
ELECTRIC SHOP
RED LABEL STORAGE
MAINTENANCE SUPERVISOR
CHEMICAL STORAGE
0
10
20
APPROXIMATE SCALE IN FEET
N
The Earth Technology Corporation
FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA
PROJECT NO. 84-4130-04
FIGURE 2
SOIL BORING AND MONITORING WELL LOCATIONS
SOLVENT PIPE AREA
12123 West Feerick Street • Youngstown Wisconsin 53233



APPROXIMATE DISTANCE FROM CULVERT

TETC SAMPLE POINT LOCATIONS	CH_2M HILL SAMPLE POINT LOCATIONS
SS-101 – 5 ft.	SD-1 – 5 ft.
SS-102/103 – 35 ft.	SD-2 – 20 ft.
SS-104/105 – 120 ft.	SD-3 – 348 ft.
SS-106/107 – 240 ft.	
SS-108 THRU 110 – 400 ft.	

KEY

- DRAINAGE CHANNEL
- CHAIN LINK FENCE
- PROPERTY LINE
- SD-3 — CH_2M HILL SEDIMENT SAMPLING LOCATION
- SS-103 — TETC SEDIMENT SAMPLING LOCATION

NOTE:
DRAWING NOT TO SCALE

The Earth Technology Corporation

FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA
PROJECT NO. 94-4139-64

FIGURE 3
SEDIMENT SAMPLING LOCATIONS
FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA

13133 West Feerick Street • Wauwatosa Wisconsin 53222

4.0 INVESTIGATION RESULTS

4.1 Site Geology.

The soil borings installed by TETC were restricted to the near surface soils in areas of the plant that have been significantly disturbed by the site development. The native soils that were encountered were hard, massive sandy clays of very low permeability. The near-surface soils contained more sand than the subsoils, but are still classified as sandy clay. These clays are typically dry except in areas where excavated substructures have been backfilled with more permeable materials. Such materials were encountered in soil borings SB-113 and 114.

4.2 Site Hydrogeology and Hydrology.

The only groundwater encountered in the shallow borings was in the borings immediately adjacent to the building (borings SB-113 and SB-114). This is interpreted to be perched water that occurs in the backfill of the facility's substructure (i.e., building footings and underground utilities). The first signs of notable moisture in the borings were observed at an elevation of approximately 302 feet above mean sea level (MSL) in the inside boring (SB-113) and 301 feet above MSL in boring SB-114. Therefore it is assumed that this was a perched zone common to both locations.

A slug test was performed on MW-114. The data for this test is presented in Appendix B. Using the Bouwer and Rice (1976) method for analyzing this data, as administered by the AQTASOLV (copyright 1989) software, TETC estimated a hydraulic conductivity value of 7.5 E-6 cm/sec. This value is consistent with the laboratory falling head analysis of the native soil which was reported as 1.4E-7 cm/sec. It should be noted that since MW-114 was screened across a sandy fill layer and the native clays, the basic assumptions in the Bouwer and Rice solution are not directly applicable and the resulting solution may be a slight underestimation of the actual net hydraulic conductivity.

The low permeability of the native soils surrounding the facility restricts the infiltration of precipitation to those areas where the native soils have been replaced by coarser-grained fill. The perched water moves very slowly along partings, fractures, and sandy seams and lenses in the clay. In general, the hydraulic gradient of the shallow aquifer is believed to conform to the surface topography. However, localized groundwater flow oblique to the hydraulic gradient is common in this type of geologic setting.

Surface water runoff is controlled by the storm water system and site grading. In the northern portion of the plant, runoff water generally flows towards the wooded, swampy area north of the plant via drainage control structures or sheet runoff.

4.3 Analytical Results.

4.3.1 General.

The analytical laboratory results from each area are discussed in the following sections. Please note that low levels of methylene chloride were detected in the method blanks analyzed concurrently with the submitted samples. In addition to use as a common industrial solvent, methylene chloride is commonly used in analytical laboratories for sample preparation. Therefore, concentrations of methylene chloride which are reported cannot be reliably interpreted to exist in the investigative samples.

4.3.2 Leaking Solvent Pipe Area.

The soil and groundwater analytical results from the leaking solvent pipe area are presented in Table 4-1. Boring SB-113 is located inside of the plant immediately adjacent to the Red Label Room. The soil sample from a 40-46-inch depth exhibited detectable levels of ketones (acetone and 2-butanone), isobutyl alcohol, trichloroethylene, vinyl acetate and dibromomethane. The deeper soil sample from this location was reported to contain only acetone at levels slightly above the method detection limit (120 ug/l). The groundwater sample obtained from the monitor well subsequently installed at this location contained only halogenated hydrocarbons (trichloroethane, tetrachloroethylene, 1,1-dichloroethane and 1,1-dichloroethene).

Boring SB-114 was located outside the building, immediately west of the service loading dock. The shallow soil sample (24-48-inch depth interval) from this boring had no reported VOCs. The deeper soil sample from the 72-84-inch depth interval reportedly contained elevated concentrations of ketones (acetone and 2-butanone) and vinyl acetate. The groundwater sample from MW-114 and the sample duplicate both contained elevated concentration of ketones, halogenated hydrocarbons, vinyl acetate and aromatic hydrocarbons (m,p and o-xylene, benzene, ethylbenzene and toluene).

Acetone, 2-butanone (methyl ethyl ketone), halogenated hydrocarbons and vinyl acetate were the most commonly occurring VOCs and were also reported in the highest concentrations in the solvent pipe area. Chloroform was reported in field blanks from the sampling in this area but were not reported in any of the sample results.

There were no VOCs detected in the soil samples from boring SB-115. As noted earlier, the monitor well completed in this boring was dry despite the presence of a moist zone at the 2-3-foot depth.

4.3.3 Stormwater Drainage Area.

The results of the VOC and O&G analysis are summarized in Table 4-2. Methylene chloride was reported in all of the samples and in all respective method blanks. Consequently, it is believed that methylene chloride concentrations can be attributed to laboratory cross-contamination.

Low concentrations of m,p,-xylenes were reported in both the surface and subsurface samples from the east bank of the drainage channel, approximately 35 feet north of the storm drain culvert pipe (SS-103). M,p-xylenes were not reported in any of the other samples from the stormwater drainage channel.

No other VOCs were reported in the samples from this area.

The O&G results were reported separately for the animal and mineral fractions and totals. The animal fraction ranged from a low of less than 2 ug/g (ppm) at location SS-103B to a high of 53.6 ug/g at SS-109B. The range of reported mineral O&G varied from 2 ug/g at SS-103B to 37.3 ug/g at SS-107B. Although the highest reported values were for the animal fraction, there does not appear to any consistency in the ratio of animal to mineral fractions of O&G. This ratio varied from 0.21 to 13.28. There is no apparent correlation of O&G concentration as a function of depth. However, the concentrations were generally higher at the sample points farthest from the outlet point.

TABLE 4-1
FORMER MILLER BREWING COMPANY–MOULTRIE CONTAINER DIVISION
JANUARY 17-21, 1994
SOIL AND GROUNDWATER SAMPLE RESULTS[1]
LEAKING SOLVENT PIPE AREA

SAMPLE NUMBER		SOIL (ug/kg)							GROUNDWATER (ug/l)			FIELD BLANKS	
		SB-113A	SB-113B	SB-114A	SB-114A (DUP)	SB-114B	SB-115A	SB-115B	GW-113	GW-114	GW-114 (DUP)	FB-01	FB-02
DEPTH INTERVAL (inches)		40"-48"	72"-76"	24"-48"	24"-48"	72"-84"	18"-24"	60"-66"	118"-144"	15"-136"	15"-148"	SOIL	GROUNDWATER
ANALYTE	METHOD DETECTION LIMIT												
VOLATILE ORGANICS													
Acetone	100	130	120	<110	<120	570	<110	<120	ND	3,300	2,300	ND	ND
2-Butanone (MEK)	100	510	<120	<110	<120	860	<110	<120	ND	2,800	1,500	ND	ND
Isobutyl Alcohol	100	600	<120	<110	<120	<120	<110	<120	ND	310	330	ND	ND
4-Methyl-2-pentanone (MIBK)	50	<53	<58	<57	<58	<61	<53	<62	ND	77	80	ND	ND
Chloroform	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	ND	ND	11	11
Trichloroethane	5	23	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	280	420	870	ND	ND
Tetrachloroethane	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	28	35	120	ND	ND
1,1,1-Trichloroethane	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	41	170	ND	ND
1,1-Dichloroethane	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	63	690	1,200	ND	ND
1,1,-Dichloroethane	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	17	18	110	ND	ND
1,2-Dichloroethane	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	11	15	ND	ND
Methylene Chloride	5	118	178	198	188	108	148	228	ND	6.8	5.2	7.4	7.6
Chloroethane	10	<5.3	<5.8	<11	<12	<12	<11	<12	ND	410	1,300	ND	ND
Vinyl Acetate	100	750	<120	<110	<120	810	<110	<120	ND	3,900	3,600	ND	ND
Dibromomethane	5	10	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	ND	ND	ND	ND
M,P, Xylenes	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	30	88	ND	ND
O, Xylenes	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	16	28	ND	ND
Benzene	5	<5.3	<5.8	<5.8	<5.7	<6.1	<5.3	<6.2	ND	7.5	18	ND	ND
Ethylbenzene	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	8.5	20	ND	ND
Toluene	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	72	160	ND	ND

Key:

1) Summary of detected compounds only.
B Detected in the method blank at 6.1 ug/kg.
ND Not detected in concentrations greater than the method detection limit.
< Less than designation was used for the soil samples to indicate that background interference in the sample precluded quantification below the method detection limit. These can be interpreted to be nondetections (ND).

TABLE 4-2
FORMER MILLER BREWING COMPANY--MOULTRIE CONTAINER DIVISION
JANUARY 17-21, 1994
SEDIMENT SAMPLE RESULTS[1]
STORMWATER DRAINAGE AREA

SAMPLE NUMBER	SS101A	SS101 DUP	SS101B	SS102A	SS102B	SS103A	SS103B	SS104A	SS104B	SS105A	SS105B	SS106A	S106B
DEPTH INTERVAL (inches)	0-6	0-6	6-12	0-6	6-12	0-6	6-12	0-6	6-12	0-6	6-12	0-6	6-12
ANALYTE													
VOLATILE ORGANICS (ug/kg)													
Methylene Chloride	358	340	9.30C	14C	16C	14C	8.2C	13C	16C	16C	20C	17C	17C
M,P, Xylenes	<6.8	<7.3	<5.8	<6.7	<6.6	12	8.5	<6.6	<6.5	<6.6	<6.6	<7.1	<7.3
OIL & GREASE (ug/g)													
Animal	10.8	10.2	23.5	17.7	22.6	5.0	<2.0	5.1	42.5	<2.0	7.0	<2.0	2.5
Mineral	9.0	10.4	2.3	3.7	10.0	15.5	2.0	13.8	3.2	8.6	2.4	4.3	2.6
Total	19.8	20.6	25.8	21.4	32.6	20.5	3.4	18.9	45.7	10.2	9.4	5.0	5.1

1) Detected compounds only.
B Reported in Method Blank at 6.1 ug/kg.
C Reported in Method Blank at 5.1 ug/kg.
D Reported in Method Blank at 8.9 ug/kg.

TABLE 4-2 (Continued)
FORMER MILLER BREWING COMPANY--MOULTRIE CONTAINER DIVISION
JANUARY 17-21, 1994
SEDIMENT SAMPLE RESULTS[1]
STORMWATER DRAINAGE AREA

SAMPLE NUMBER	SS107A	SS107B	SS108A	SS108B	SS108B (DUP)	SS109A	SS109B	SS110A	SS110B	FB03
DEPTH INTERVAL (Inches)	0-6	6-12	0-6	6-12	6-12	0-6	6-12	0-6	6-12	NA
ANALYTE										
VOLATILE ORGANICS (ug/kg)										
Methylene Chloride	35C	44D	52D	26D	30D	40D	52D	100D	32D	14
M,P, Xylenes	<6.7	<6.7	<9.6	<6.5	<6.5	<7.8	<6.3	<11	<6.4	<5.0
OIL & GREASE (ug/g)										
Animal	23.4	22.9	32.7	2.6	NA	20.4	53.6	50.6	27.0	NA
Mineral	17.3	37.3	25.4	2.1	NA	17.5	13.0	36.0	10.8	NA
Total	40.7	60.2	58.1	4.7	NA	37.9	66.6	86.6	37.8	NA

1) Detected compounds only.
B Reported in Method Blank at 8.1 ug/kg.
C Reported in Method Blank at 5.1 ug/kg.
D Reported in Method Blank at 8.9 ug/kg.

5.0 CONCLUSIONS/RECOMMENDATIONS

5.1 Leaking Solvent Pipe Area.

5.1.1 Conclusions.

Based on the chemical and geological data collected from this area, the following observations are presented:

- Monitor wells MW-113 and MW-114 contain concentrations of certain VOCs which exceed the MCLs. Those VOCs exceeding the MCLs include 1,1-dichloroethene, 1,2-dichloroethane, trichloroethene, benzene, and tetrachloroethane.

- The extent of impacts to soil and groundwater have not been completely defined.

- The presence of low permeability soils at the property are anticipated to inhibit the downward migration of contaminants and restrict the magnitude of groundwater flow. It seems likely, however, that preferential flow through utility and building footings may be a pathway.

5.1.2 Recommendations.

Based upon the above observations, TETC recommends the following:

- That investigation data for this area be submitted to the GEPD to satisfy agency notification requirements and facilitate discussion for purposes of determining whether additional investigation and/or remediation are required.

- That an investigation Work Plan be prepared for submission to GEPD designed to determine the nature and extent of impacts in this area and obtain information required to screen and evaluate potential remedial options.

5.2 Stormwater Drainage Area.

5.2.1 Conclusions.

Based on the chemical data collected from this area, the following observations are presented:

- Low concentrations of methylene chloride were detected in all sediment samples from this area. These concentrations are partly attributable to laboratory operations.

- The distribution and occurrence of the m,p-xylenes (one location, low concentration) suggests that the significance of this occurrence may be negligible.

- O&G impacts were detected in all sediment samples at concentrations ranging from 3.4-86.6 ug/g (ppm) (mean concentration--30.5 ppm). Somewhat higher concentrations were observed at sample points furthest from the storm drain system outlet.

5.2.2 Recommendations.

Based on the above observations, TETC recommends the following:

- That investigation data for this area be submitted to GEPD to satisfy agency notification requirements and facilitate discussions for the purpose of determining whether additional investigation or remediation is required.

- That submission of this data include a recommendation that the residual impacts remain in place and be allowed to attenuate by natural fate and transport process (such as biodegradation) and that this area be considered for a nondetrimental closure with no further action required.

Wisconsin
TESTING LABORATORIES

Testing and Inspection of:
Soils
Concrete
Asphalt
Geotechnical Reports
Soil Borings
Rock Coring

February 14, 1994

The Earth Technology Corporation
12129 West Feerick Street
Wauwatosa, Wisconsin 53222

Attention: David Wheelis

Re: Soil Samples
Miller - GA
Project No. 94-4130-04
(L-9407)

Gentlemen:

We are submitting the results of the laboratory tests performed on the Shelby tube sample from the referenced project, as directed and authorized under Purchase Order No. WI2113. The results of a falling head permeability test are listed below. The results of the grain size analysis test and liquid limit and plastic limit tests are listed on the attached curve sheet. We wish to point out that the sample tested was taken from 12 in. to 18 in. from the bottom of the Shelby tube.

Sample From	Sample Depth, Ft.	Initial Moisture Content, %	Initial Dry Density, PCF	Permeability
Near Waste oil Tank	Not Given	19.9	106.5	$1.4X10^{-7}$ cm./sec.

If there are any questions, please call. We appreciate the opportunity to be of service.

Respectfully submitted,

Allan F. Huseth, P.E.

AFH/jlt

Copies (3) Client

The Earth Technology Corporation

Borehole Log

Project Name: Miller Brewing / Reynolds Metal - Moultrie, GA		Project Number: 94-4130-04	
Borehole Location: outside of the Red Label Storage Room	Borehole No. SB-113	Sheet 1 of 1	
Drilling Agency: Law Engineering & Associates	Driller: Carl Bodison		
Drilling Equipment:	Date Started: 1430hrs 1/17/94	Total Depth (feet):	
Drilling Method: Coring & hand auger	Date Finished:	Depth to Bedrock (feet):	
Drilling Fluid: clean tap water for coring from outside tap	Number of Soil/Gas Samples: VOA - 3240	Depth to Water (feet):	
Completion Information:	Borehole Diameter (in):	Elevation and Datum:	
	Logged by: D. Sutton		
	Checked by:	Date:	

Depth (feet)	Sample: Number	Sample: Interval	Sample: Blow Count	Sample: Recovery	Sample: Time	Field Analysis: FID (ppm) S/B*	Field Analysis: PID (ppm) S/B*	LOG: Graphic	LOG: USCS or Rock Type	Lithologic Description	Remarks
0										Concrete 26" stone @ 4" light brn to white medium sand - fill	
							0				slight organic odors sampled @ 40'-46"-A, 72"-78"-B.
5										some rounded white gravel white to light gray sandy clay @ 6' - inclusions of dark red clay, very stiff, cohesive.	
							0				wet @ 8' feet
10										minor sand inclusions below 8' - all white to light gray clay w/ red - purple inclusions	
							0			color changes to light brn - tan at 11' banding between tan and white w/purple and red streaks.	
15											
20											
25											
30											

Key * S/B = Sample reading / background reading; NA = not analyzed

Form F-1009 9/1/91

The Earth Technology Corporation

Borehole Log

Project Name: Miller Brewing / Reynolds Metal - Southside Ct		Project Number: 94-4130-04	
Borehole Location: Former Wash Solvent UST Piping		Borehole No. SB-114	Sheet 1 of 1
Drilling Agency: Andaman & Assoc.		Driller: Carl Bechtel	
Drilling Equipment: CME-55		Date Started: 0900 1/18/94	Total Depth (feet): 12
Drilling Method: HSA 4.25" x 8" reamed w/ 6.25" x 10"		Date Finished: 1120 1/18/94	Depth to Bedrock (feet): —
Drilling Fluid: NONE		Number of Samples: 2	Depth to Water (feet):
Completion Information: Completed as MW-114 near former TW-10 monitor well.		Borehole Diameter (in): 8" reamed to 10"	Elevation and Datum:
		Logged by: D. Bowden	
		Checked by:	Date:

Depth (feet)	Sample Number	Sample Interval	Sample Blow Count	Sample Recovery	Sample Time	Field Analysis FID (ppm) S/B*	Field Analysis PID (ppm) S/B*	LOG Graphic	LOG USCS or Rock Type	Lithologic Description	Remarks
0	1	2/4/3/1		20"						0-3.5' tan to light brn medium sand, minor clay and med. subrnd gravel	Fill(?)
	2	1/1/1/4		18"			0 @ 3'			Gray sandy clay, clayey sand - wet	
5	3	25/31/40/42		20"			144 @ 5'			5.5-6.3' Sandy clay white w/ reddish brown to purple streaks + inclusions	
	4	35/31/69/60		24"			160 @ 7.5'			6.3-7.5' light brn to gray clayey sand, w/ minor gravel - wet.	
	5	19/12/12/23		22"			240 @ 9'			7.5-8.3' soft sandy clay, gray to light tan - wet	
10	6	12/12/24/30		0"						8.3-9.7' soft sandy clay gray to tan, minor sm. gravel, subrounded. - wet	
										9.7-10.3' light brn to white sandy clay, v. stiff, red and purple streaks	
										10.3'-11.0' No recovery, probably sand	
										11-12 light brn to white clay, stiff, minor purple staining	
										END OF BORING @ 12'	
15											
20											
25											
30											

Key * S/B = Sample reading / background reading; NA = not analyzed

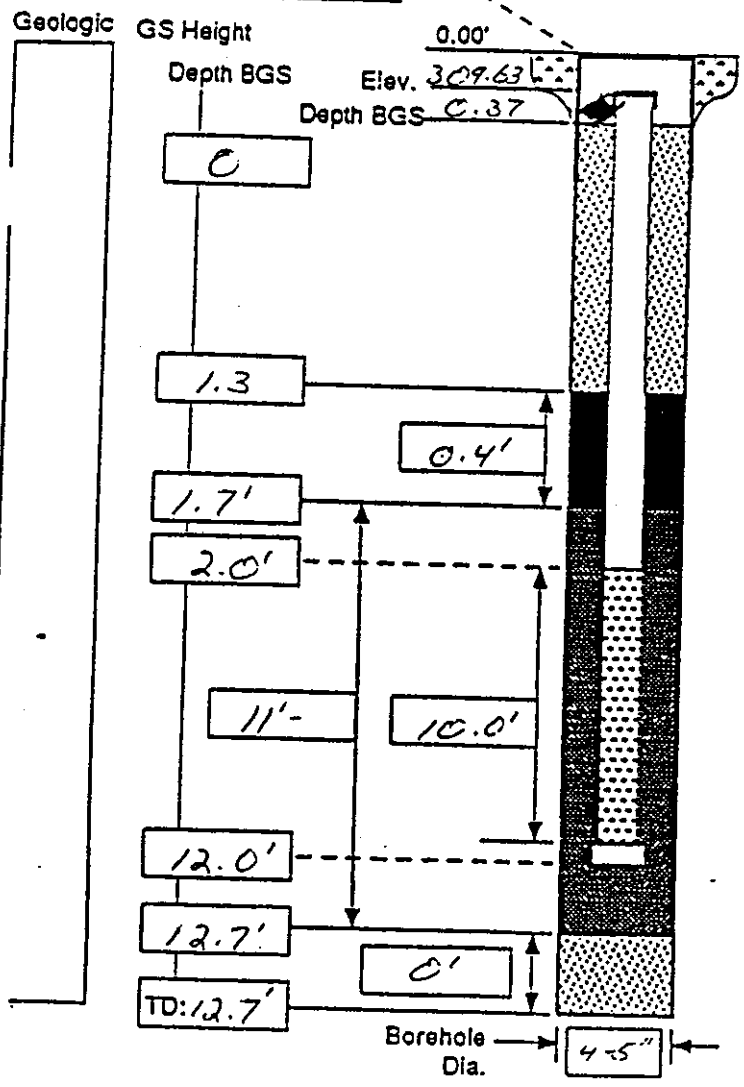
Form F-1009
9/1/91

The Earth Technology Corporation

Monitoring Well Construction Log - Flush Mount

Project Name: Former Miller Brewing Co. Mountain Container Division	Project Number: 94-413C-04	Date: 1/17-18/94
Well	Well ID: MW-113	Sheet 1 of 1
Driller: Carl Bedson	Borehole Diameter (in): 4-5"	Total Depth (ft): 12.7'
Drilling Agency: Andaman & Associates Tallahassee Florida	Date Started: 1/17/94	Depth to Water (ft): ~8 ft
Drilling Equipment: Electric Coring + hand auger	Date Finished: 1/18/94	Elevation and Datum: 310.0'
Drilling Method: hand dug	Logged by: J Dowden	Checked by:
Drilling Fluid: none	Number of Samples: 2	Date:

Elev. —
Height —
GS Elev. 310.0



PROTECTIVE CSG
Material / Type:
Diameter: 12" Cast Rim / Aluminum Sheath
Depth BGS: ~2.5' Weep Hole (Y (N))

GUARD POSTS (Y (N))
No.: Type:

SURFACE PAD
Composition and Size: Concrete

RISER PIPE
Type: Schedule 40 PVC
Diameter: 2"
Total Length (TOC to TOS): 1'
Vented Cap (Y/N)

GROUT
Composition and Proportions: Vibrac Paut #11 non shrinking cement
Tremied (Y/N)
Interval BGS: 0-1.3

CENTRALIZERS
Depth(s): n/a

SEAL
Type: bentonite pellets
Source: Volclay 1/4" Pureguld
Setup / Hydration Time: 30 min Vol. Fluid Added 5 gal
Tremied (Y (N))

FILTER PACK
Type: Silica Quartz Sand
Amt. Used: ~75 lbs
Tremied (Y (N))
Source: Store Container Corp
Gr. Size Dist.:

SCREEN
Type: 2" PVC Schedule 40
Diameter: 2"
Slot Size and Type: 0.010 machine slot
Interval BGS: 2-12'

WELL FOOT (Y (N))
Interval BGS: Length
Bottom Cap (Y (N))

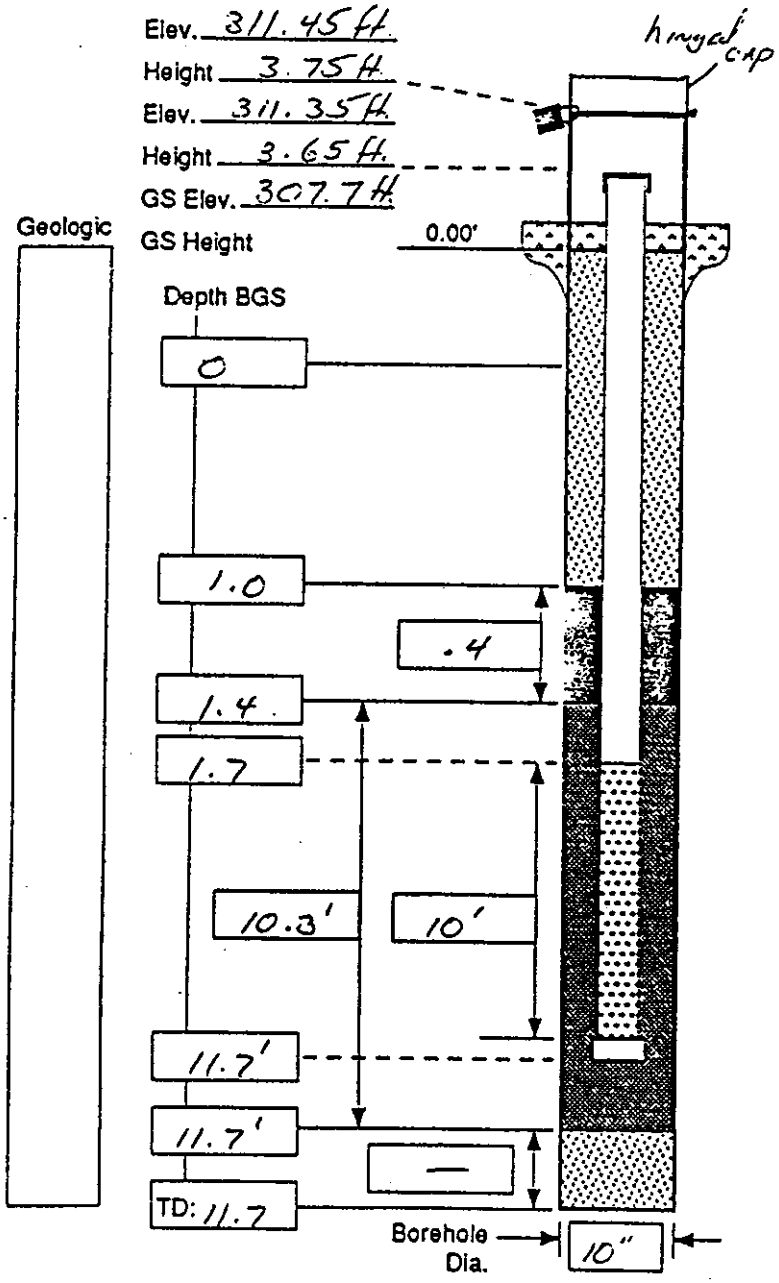
BACKFILL PLUG
Material:
Setup / Hydration Time:
Tremied (Y / N)

Form F-1023
9/1.91

The Earth Technology Corporation

Monitoring Well Construction Log - Above Ground

Project Name: Former Miller Brewing Co. Moultrie Container Division	Project Number: 94-4130-04	Date: 1/18/94
Well	Well ID: MW-114	Sheet 1 of 1
Driller: Carl Beelsoe	Borehole Diameter (in): 10	Total Depth (ft): 11.7 ft
Drilling Agency: Ardaman - Associates Tallahassee, Fla	Date Started: 1/18/94	Depth to Water (ft): ~7-7.5 ft
Drilling Equipment: CME-55	Date Finished: 1/18/94	Elevation and Datum: 307.7
Drilling Method: Hollow Stem Auger 4.25" x 8" reamed to 6.25" x 10"	Logged by: J. Dowden	Checked by:
Drilling Fluid: None	Number of Samples: 2	Date:



PROTECTIVE CSG
Material / Type: Box steel - 5" square
Diameter: 5" square - 56" long @ hinge
Depth BGS: 1.02 ft. Weep Hole (Y / N)

GUARD POSTS (Y / N)
No.: Type:

SURFACE PAD
Composition and Size: Concrete 2' x 2'

RISER PIPE
Type: Trilock Stainless Steel
Diameter: 4"
Total Length (TOC to TOS): 5.35
Ventilated Cap (Y / N)

GROUT
Composition and Proportions: 94 lbs Portland Type I, 5 gal. water, 25 lbs sand
Tremied (Y / N)
Interval BGS: 0-1'

CENTRALIZERS
Depth(s) None

SEAL
Type: bentonite pellets
Source: Volclay 1/4" Puregold
Setup / Hydration Time: ~20 min Vol. Fluid Added 5 gal
Tremied (Y / N)

FILTER PACK
Type: Silica Quartz Sand
Amt. Used: 550 lbs
Tremied (Y / N)
Source: Stone Container Corp
Gr. Size Dist.:

SCREEN
Type: Trilock Stainless Steel
Diameter: 4"
Slot Size and Type: 0.010 - Machine cut
Interval BGS: 1.7 - 11.7

WELL FOOT (Y / N)
Interval BGS: Length
Bottom Cap (Y / N)

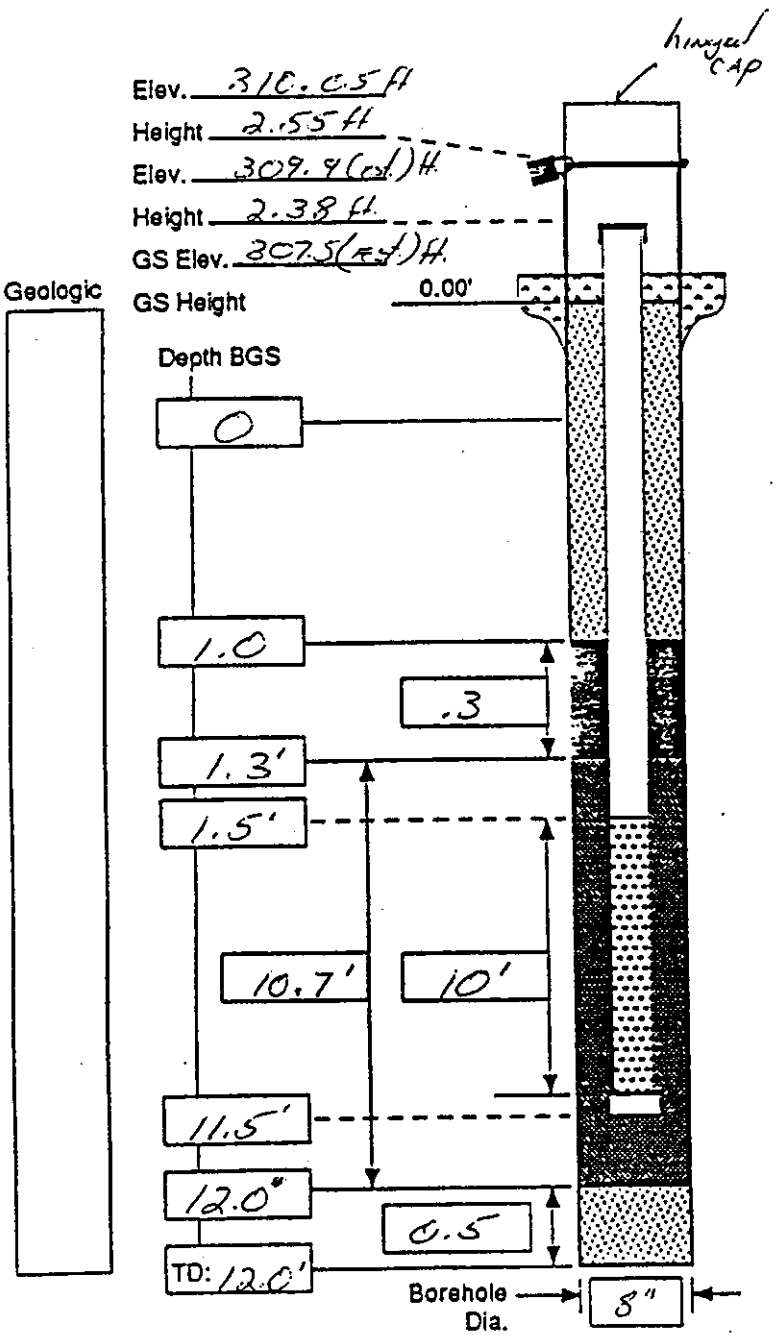
BACKFILL PLUG
Material: —
Setup / Hydration Time:
Tremied (Y / N)

Form F-1024
9/1/91

The Earth Technology Corporation

Monitoring Well Construction Log - Above Ground

Project Name: Former Miller Brewing Co. Moultrie Container Division	Project Number: 94-4130-04	Date: 1/18/94
Well	Well ID: MW-115	Sheet 1 of 1
Driller: Carl Beelsoc	Borehole Diameter (in): 8"	Total Depth (ft): 12
Drilling Agency: Andrews & Associates Tallahassee, Fla	Date Started: 1/18/94	Depth to Water (ft): Dry
Drilling Equipment: CME-55	Date Finished: 1/18/94	Elevation and Datum: 307.5(est.)
Drilling Method: Hollow Stem Auger, 4.25" x 8"	Logged by: J. Dowden	Checked by:
Drilling Fluid: None	Number of Samples: 2	Date:



PROTECTIVE CSG
Material / Type: BCR steel - 5" square
Diameter: 5" square - 56" long @ hinge
Depth BGS: 2.12 Weep Hole (Y / N)

GUARD POSTS (Y / N)
No.: Type:

SURFACE PAD
Composition and Size: Concrete 2' x 2'

RISER PIPE
Type: Trilock PVC Schedule 40
Diameter: 2"
Total Length (TOC to TOS): 3.4
Vented Cap (Y / N)

GROUT
Composition and Proportions: 94 lbs Portland Type I, 5 gal. water, 25 lbs sand
Tremied (Y / N)
Interval BGS: 0 - 1'

CENTRALIZERS
Depth(s): None

SEAL
Type: bentonite pellets
Source: Volclay 1/4" Puregold
Setup / Hydration Time: ~20 min Vol. Fluid Added 5 gal
Tremied (Y / N)

FILTER PACK
Type: Silica Quartz Sand
Amt. Used: 350 lbs
Tremied (Y / N)
Source: Stone Container Corp
Gr. Size Dist.:

SCREEN
Type: Trilock Schedule 40 PVC
Diameter: 2"
Slot Size and Type: 0.010 - Machine cut
Interval BGS: 1.5'-11.5'

WELL FOOT (Y / N)
Interval BGS: Length
Bottom Cap (Y / N)

BACKFILL PLUG
Material:
Setup / Hydration Time:
Tremied (Y / N)

Form F-1024
9/1/91

B

The Earth Technology Corporation

Well Development/Purge Log

Page 1 of 1

Project Name Former Miller Brewing Co Moultrie Container Division Project No. 94-4130-04
PID/FID Readings 0 - 15 ppm (Ambient) _____ (Well Mouth)
Static Levels ≈ 303.9 ft msl (Product) none (Water)
Pump ☐ /Bail ☒ Rate _____ Total Gal. Extracted 5.3 gal.
Water Column Length 5.9' Well Volumes Extracted 5.6 volumes
Disposition of Discharge Water Barreled and moved to Dawn Storage Building
Specific Capacity _____ (gpm/ft. drawdown) After _____ Hrs.

Well Information
Number MW-113
Location Outside Red Label Rm
Datum Finish Floor
Elev. Datum Point 310.0
Ground Elev. 310.0
Well Diameter 2"
Well Depth 12.7
Well Material PVC

Equipment Information
Bailer No. Stainless Steel 1.8
Pump No. —
Interface Probe No. _____
Sounder No. Tape w/ Plopper
pH Meter No. HAZCo rental
Conductivity Meter No. " "
Thermometer No. " "

Date Time (24 hr.)	Total Purge Flow Rate (gpm)	Water Temp. In C°	pH	Cond. µmhos/cm	Dissolved Oxygen mg/l	Turbidity NTU	Settleable Solids (ml)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
1/19/94 1130	1.45/5.8 gpm	52	5.2	1125	NA	NA	NA	NA	bailed Dry	Very cloudy - visible f. sand
1/19/94 1750	1.3/7.8 gpm	50.5	5.7	560	↓	↓	↓	↓	bailed Dry	cloudy - no visible sand
1/20/94 0810	1.3/8 gpm	51	5.1	475	↓	↓	↓	↓	"	slightly cloudy - clearing up
1/20/94 1720	1.25/7 gpm	51.5	5.3	540	↓	↓	↓	↓		milky - no visible sand

Notes: 1 ft length of 4" = 0.087 ft3 or 0.65 gal
1 ft length of 2" = 0.022 ft 3 or 0.16 gal

Recorded By J. Dowden Date 1/19-20/94
Checked By _____ Date _____

Form F-1003 3/15/92

The Earth Technology Corporation

Well Development/Purge Log

Page 1 of 1

Project Name Former Miller Brewing Co Moultrie Container Division Project No. 94-4130-04

PID/FID Readings 150 - 215 ppm (Ambient) _____ (Well Mouth)

Static Levels ≈ 304.2 ft msl (Product) _____ (Water)

Pump ☐ /Bail ☒ Rate _____ Total Gal. Extracted 29.75 gal.

Water Column Length 6.4' Well Volumes Extracted 7.15 volumes

Disposition of Discharge Water Barreled and moved to Drum Storage Building

Specific Capacity NA (gpm/ft. drawdown) After NA Hrs.

Well Information

Number MW-114

Location West of Loading Dock

Datum ~~307.7~~ Finished Floor

Elev. Datum Point 310.

Ground Elev. 307.7

Well Diameter 4"

Well Depth 11.7

Well Material Stainless Steel

Equipment Information

Bailer No. Stainless Steel 1.5'

Pump No. —

Interface Probe No. _____

Sounder No. Tape w/ Popper

pH Meter No. HAZCO Rental/Mint

Conductivity Meter No. " "

Thermometer No. " "

Date Time (24 hr.)	Total Purge Flow Rate (gpm)	Water Temp. in C°	pH	Cond. µmhos/cm	Dissolved Oxygen mg/l	Turbidity NTU	Settleable Solids (ml)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
1/19/94 1800	13 gal / 31 gpm	50	6.4	480	NA	NA	NA	NA	bailed Dry	slightly cloudy
1/20/94 0835	10.5 / 27 gpm	52	6.15	530	↓	↓	↓	↓	"	nearly clear
1/20/94 1650	6.25 gal / 25	51.5	6.3	580	↓	↓	↓	↓	"	clear

Notes: 1 ft length of 4" = 0.087 ft3 or 0.65 gal

1 ft length of 2" = 0.022 ft 3 or 0.16 gal

Recorded By J. Dowden Date 1/19-20/94

Checked By _____ Date _____

Form [illegible]

The Earth Technology Corporation

Groundwater Sampling Record

Project Name: Former Miller Brewing Co. Moultrie Container Division

Project Number: 94-4130-04

Location: MW 113 - inside plant - near door to Red Label Room

Site:

Recorded By: J Dowden

Sample Number: MW-113

Date: 1/21/94

Duplicate Number: — none —

Checked By:

Date:

Aquifer Parameters

Before Sampling: pH 5.63 EC * Temperature 51

After Sampling: pH 5.5 EC * Temperature 53

Sampling Information

Analytical Parameter	Sampling Depth	√ If Field Filtered	Preservation Method	Volume Required	Sample Bottle I.D.s
VOCs U.S EPA Method 8260		—	none	40 ml	MW 113

Form F-100S 9/1/91

* Conductivity readings were not consistent with purge readings and meter is not responsive

The Earth Technology Corporation

Groundwater Sampling Record

Project Name Formax Miller Brewing Co. Mountain Container Division
Location MW-114 - west of service loading dock on north side of plant
Sample Number MW114
Duplicate Number MW114 (Dup)

Project Number 94-4130-04
Site
Recorded By J. Dowden
Date 1/21/94
Checked By
Date

Aquifer Parameters

Before Sampling: pH 6.2 EC * Temperature 50
After Sampling: pH 6.3 EC * Temperature 54

Sampling Information

Analytical Parameter	Sampling Depth	√ If Field Filtered	Preservation Method	Volume Required	Sample Bottle I.D.s
VOCs U.S EPA Method		—	none	40ml	MW114
8260					MW114(Dup)

* Conductivity readings were not consistant with purge reading and meter is not responding well.

Form F-1005
9/1/91

January 17, 1994 Monday

Moultrie GA Can Plant

Arrive @ 10^{25} am Met w/ Bob Jones and looked at the drilling sites. The inside location is not accessible with a drill rig. Can't get a rig up on this level or maneuver through the plant. We will core through the floor and take soil samples as deep as we can go. May attempt to install a short screen in this hole.

11^{20} - 1^{15} Calibrate meters, get logs ready - unpack equipment

1^{15} - 2^{30} p Adamann arrived on site Carl Bedson. Drillers set up & deconned until ≈ 2^{30} p. I went to get films. We cannot core concrete in the Red Label Storage Room because of the presence of low flash chemicals. Since the coring

Photo Photolog

Photo #	
1,2	Coring SB113 Outside the Red Label Storage Room
3	Hand Augering SB-113
4,5,6,7	Completion of MW-113
8,9	Drilling SB-114
10	Completion of SB-113
11,12,13,14	Drilling SB-115
16	SS-101 near culvert
17	SS-104 & 105

Machine is electric. Bob Jones is concerned about flashing.

Started coring @ $2^{30}p$ (1430 hrs) Collected water will mop & a bucket. Source of water is the tap near the trash compactor. Concrete was 6" thick - punched through at 1450 - began to overream by installing peripheral - slice hole. After the first hole all water lost drains back into the stone under the concrete with the exception of minor amounts sprayed on the surface at the start. A sheet of ~40mil clear plastic underlays the concrete. Finished coring @ 1535

Dig with post holed until 3' Convert to hand auger after that. According to Carl they hit a gravel @ 11' last time when they

drilled with CH2M-Hill on the inside. Drilled to ~~[illegible]~~ 12.9 with no sign of water bearing units. Released the drillers from the site @ 1645. Heavy rain start at 1650. Driving rain from southwest.

Finished notes while van was defogging. Left site @ 1700.

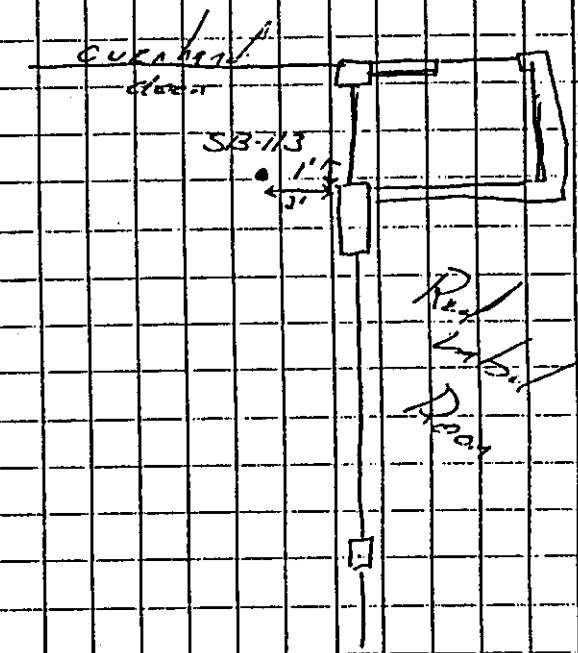
Reviewed the CH2M Hill report again last night. Based on the TW-10 log I will sample @ 3'-4' and @ 5'-6'. The upper sand layer which is the perched water aquifer extends to ~4'. Therefore we will sample on both sides of this interface @ SB-114 & SB-115.

Tuesday 1/18/94

Clear cool day fairly windy
Arrived on-site @ 0742.
Check water level in SB-113.
Water at ~~6'~~ 6.4' below (ISD)
concrete. Approximately 3" of
cave-in. Total depth is
(14P) now ~~12'~~ 12.7' & ~~6'~~ 6.3'
column of water stands in
the hole. Note that ~
50-60 gallons was lost to the
sand beneath the concrete
slab during coring activities

Drillers arrived at 0810
Started with the construction
of MW-113. Set screen
from ~~3'~~ 2'-12' (10) and filter
pack to ≈ 18" below floor
level. Had a 3-man crew
again today. Set cement
to top of inside riser
until 0900. Will wait
for this to set before
finishing

SB-113 Sketch Map



Set up on SB-114 @ 0900
Began drilling @ 0915
Moved over to S ~3'
after hitting electrical
conduit where it was not
suppose to be

Finished split spooning @ 1020
SB114 was alternating layers of
soft clayey sand with hard
stiff layers of clay. Appears
to be fill to ~5 feet.

Began over reaming with
the large augers at 1025
Large augers are 6¼" x 10"

Summary of Samples - SB 114

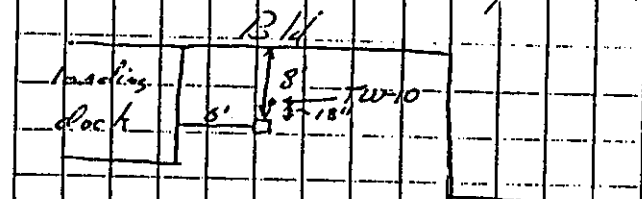
SB-114-A ~~[illegible]~~ 2'-4'
SB-114-A-Dup ~~2'-4'~~ 2.4' Matrix Dup. 2.4'
SB-114-B 6'-7
FB-01 Field Blank -
water poured through
decoured split spoon
between intervals 3 + 4

Alternating sands & clays may
cause smearing of sidewall
on SB-114. This will be
minimized with the large augers

Finished reaming @ 1120. Set
screen & riser. Some minor
surface ground caving during
reaming - probable sands running
into the borehole.

Finished sand packing at 1220
Drillers set the protection
cover on the well and went
to lunch. I called in to the
office and then went to
grab a quick bit to eat

Returned @ 1310
MW-114 Sketch map



Start SB115 @ 1350 Several shallow obstructions. Given all the utilities in the area we opt to be safe. Finally start for real @ 1420
Split spoon sampled until 1525. Completed at 12'.
Stiff clay from 3' to 12'

Well Construction of MW 115 from 1540 till 1630

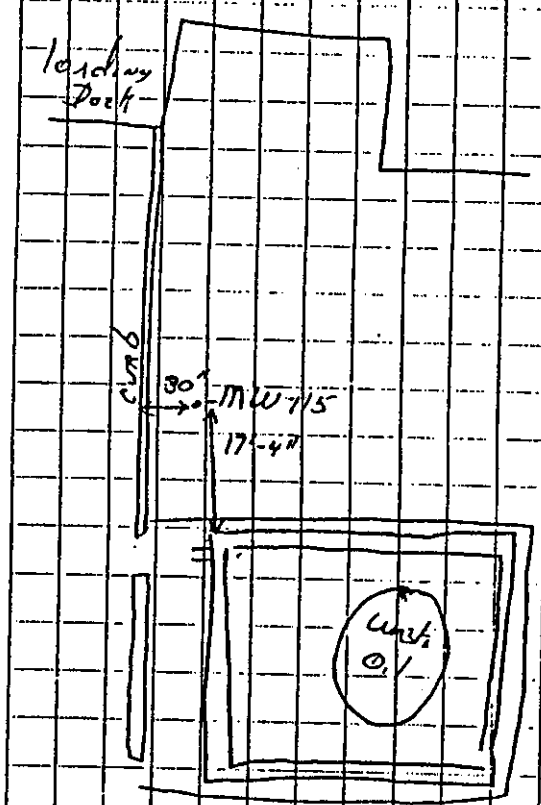
Water level in MW 113 @ 1420 ~~6'~~ 6.1' Below floor @ 1508.

MW114 & 115 were dry at 1710
Filter pack is filling up

Left site @ 1725

Will allow MW113 & MW114 water levels equilibrate before purging since recovery time is unknown but appears slow

Sketch of MW 115



Wednesday January 19, 1994

Agenda:
- Measure water levels
- stake out sediment sampling locations
- purge wells @ least SB/MW113
- Arrange for drillers
- sediment sampling
- ship samples - prep for shipment tomorrow.

Purchase disposable water
: wrench
: single keyed locks

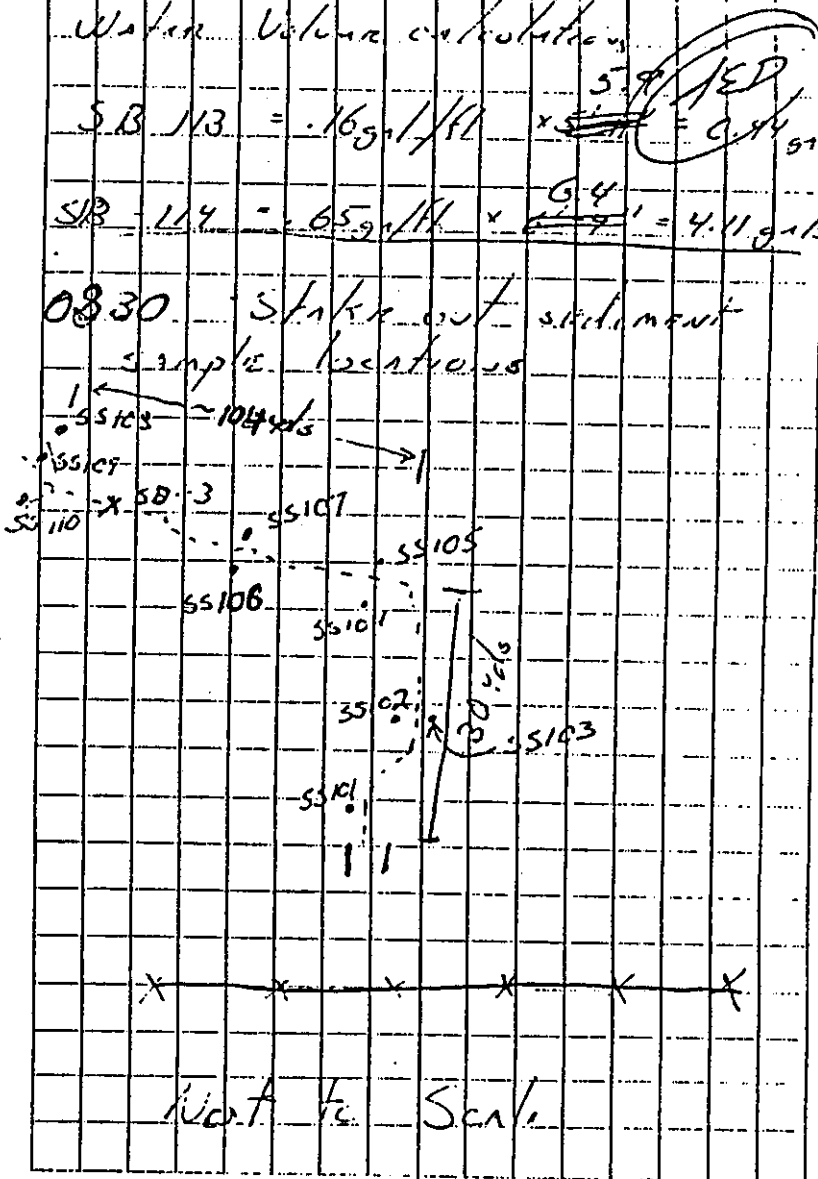
Arrive on site @ 0740

Water levels from TOC

0805 SB-115 dry
0810 SB-114 ~~9'~~ 9.1'± w.l.
0820 SB-113 ~~6'~~ 6.1'± w.l.
Water Column height
SB114 15'-5" - 9'-1" = 6'.4 ×
SB110 12'-0 - 6'.1 × = 5'.9 ×

Water Column calculations
SB 113 = .16 gal/ft × 5' = 0.8 gals
SB 114 = .65 gal/ft × 6.4' = 4.16 gals

0830 Stake out sediment sample locations



SS 101 — next to SD-1
SS 108-110 ~ 18 yds past SD-3
SS 102-103 ~ 12 yds N of Culvert
SS 104-105 ~ 10 yds W of bend in creek
SS 106-107 ~ 40 yds W of 104-105
~ 35 yds E of SD-3
~ 53 yds E of 108-110

Finish staking out sediment locations and mapping the same @ 10:00 am - back to motel & WalMart for supplies

Called Looney @ office to discuss sediment sampling locations. Went to Walmart to purchase supplies. Returned to the site @ 1105

Water levels from TOC

SB/MW 113 ~~6'-1/2"~~ 6.05' @ 1115
SB/MW 114 ~~8'-1/2"~~ 8.15 @ 1120 JED

1130-1150 - Bailed MW 113 dry. Removed ~ 2 gallons (1.45 gallons to be exact). Water is light brown w/ ~ 1/8 of silty fine sand in bottom of a 5 gallon bucket

Left for lunch @ 1210 after looking for Bob Jones. Returned to the plant @ 1250

Water level in MW 114 is ~~[illegible]~~ 7.65' @ 1255 JED

Meet with Bob Jones to discuss sediment sampling locations.

Sediment sampling
SS 101 A @ 1345
SS 101 B @ 1350
SS-102 A @ 1405
SS-102 B @ 1410
SS-103 A @ 1420
SS-103 B @ 1425
SS-104 A @ 1440
SS-104 B @ 1445

Thursday January 20, 1994

SS 105A @ 1455
SS 105B @ 1505
SS 106A @ 1520
SS 106B @ 1525
SS 107A @ 1535
SS 107B @ 1540 40mL clear glass
SS 108A @ 1600 " " "
SS 108B @ 1605 " " "
SS 109A @ 1615 " " "
SS 108 B @ 1620 " " "
SS 110A @ 1640 " " "
SS 110B @ 1645 " " "
SS 100 Dup @ 1700 " " "
surface
FB 02 @ 1710

Finished sediment samples @ 1720

Water level @ MW14 @ 1730 was ~~7.2~~ 6.4' ED

Bailed 1.3 gal from MW13
~13. gal from MW14

Left site @ 1830

Arrived @ plant @ 0810

Water level in MW13 - ~~6.4'~~ 6.4' ED
bailed 1.3 gallons
Water level in MW14 - ~~8.15'~~ 8.15' ED
bailed ~ 10.5 gallons from MW14

At 0915 a total of ~4 gallons from MW13 and 2.35 gallons from MW14
MW13 water is milky brown with fine sand sediment
MW14 is much clear

Approximately 4.4 well volumes have been removed from MW13. Nearly 6 well volumes have been removed from MW14. Will purge again tonight and sample in the morning.

MW13 recovered almost completely in 14 hrs. MW14 recovered ~ 78% in 14 hrs.

MW 115 Remains dry - this is puzzling since there was a very wet zone above the clay.

Returned to motel to do paperwork and call into the office. Went to Walmart to purchase another cooler, padlocks and ice. Completed COC forms and air bills. Called Fed Ex

1345 Returned to the plant to meet the Representative of Southland Surveying Company, Mr Charles Kilgore. Mr Kilgore's address is:

19 1st Street S.W.
Moultrie, GA. 31768
912/985-4373
985-9392 fax.

Mr Kilgore will fax me a statement and we will issue a purchase request. He will provide vertical elevations based on mean sea level. X-Y is needed. Require a long traverse so we will not get close coordinates.

Packed up the samples in cooler.

Water levels:

MW 114	~~14.25~~ 6.45'	@ 1450
MW 113	~~14.5~~ 6.45'	@ 1455
MW 115	dry	@ 1458

Consolidated constituents and marked - labeled monitor wells from 1500 - 1530.

Reported leak in used oil tank piping to plant engr. 3-4 inches of used oil had collected in the secondary containment

Friday, January 21, 1994

Water level in SB/MW114
was ~~10~~ 10.45' @ 1650
bailed dry ≈ 6.25 gallons

MW-113 ~~6.35~~" @ 1720
6.35'/ft

Left plant @ 1740

Arrive @ plant @ 0740

Water level in MW113 @ 0755
was ~~6~~ 6.45 ft/ft

Bailed ≈ 1.3 gallons @ 0805
Field measurements for
final boil were

	before	after
Temp	51.5	53
* Cond.	1.33 ×100	145×100
pH	5.63	5.5

Water level in MW114 @ 0835
~~[illegible]~~ 8.45 ft

	before	after
Temp	≈50	54
* Cond	1.30 ×100	135×100
pH	6.21	6.3

Litmus paper between 6-7

* Cond. readings not consistent
w/ previous readings - not
sure meter is accurate

Slug test on MW114

bailed ~ 9 gals 0835-0846

0847	12' ~ 9"
0855	12' ~ 7.5"
0901	12' ~ 6.5"
0907	12' ~ 5.5"
0913	12' ~ 5"
0919	12' ~ 4.5"
0925	12' ~ 4"
0934	12' ~ 3.5
0942	12' ~ 2.5
0950	12' ~ 1.5
1001	12' ~ 0.25"
1012	11' ~ 95
1018	11.9"
1025	11.85
1031	11.81
1034	11.78

Sampled MW113 @ 0928

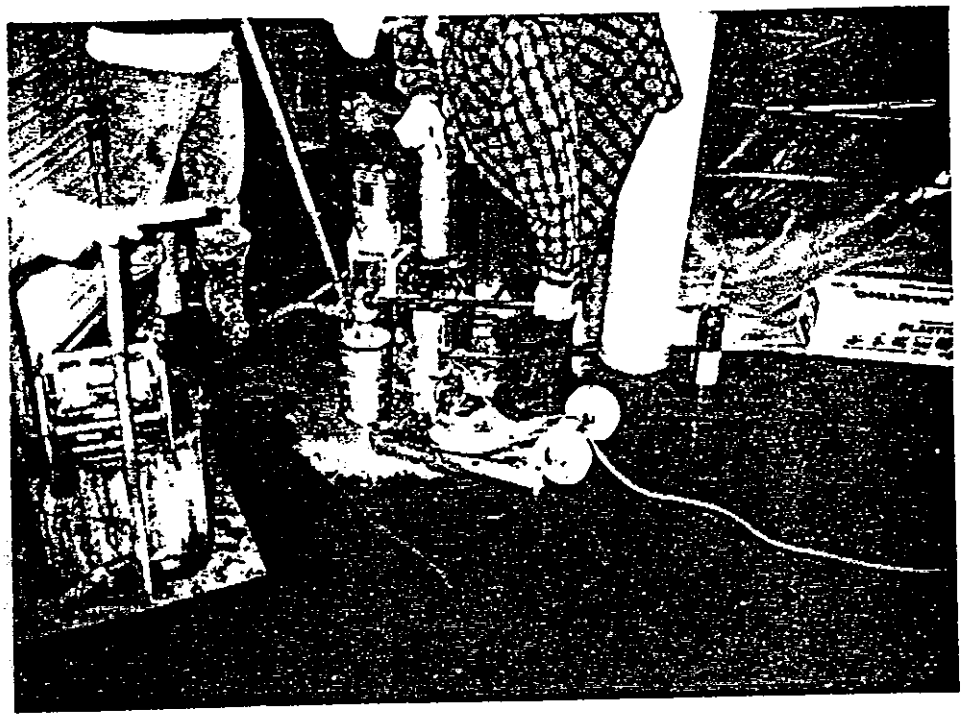
Temp 51.5
pH 5.45
cond 1.32 × 100 umhos
pH litmus between 5-6

Sampled MW114 @ 1035
temp. ≈ 51
ph = 6.23
cond ~ 1.33
ph (litmus) = between 6-7

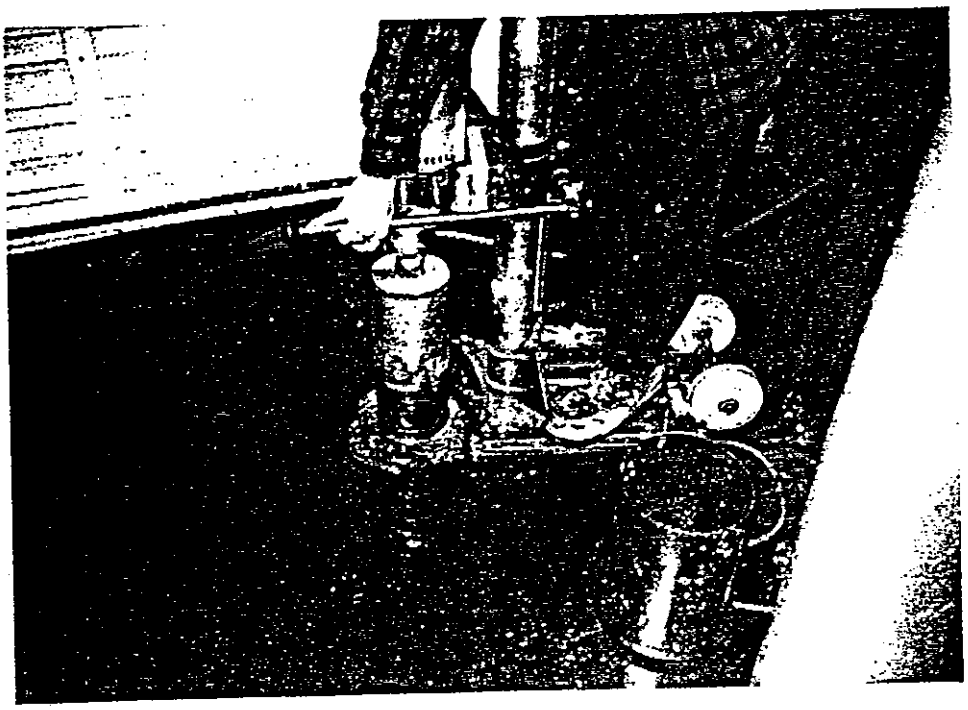
Debriefed w/ Bob Jones from ~1055-1115.
Collected duplicate from MW115 @ 1115.

Pack up + called office + Fed Ex

Left plant @ 1200



Photograph #1 - Coring through concrete floor at SB-113. Note the Red Label Room has been sealed off in the background for safety purposes.



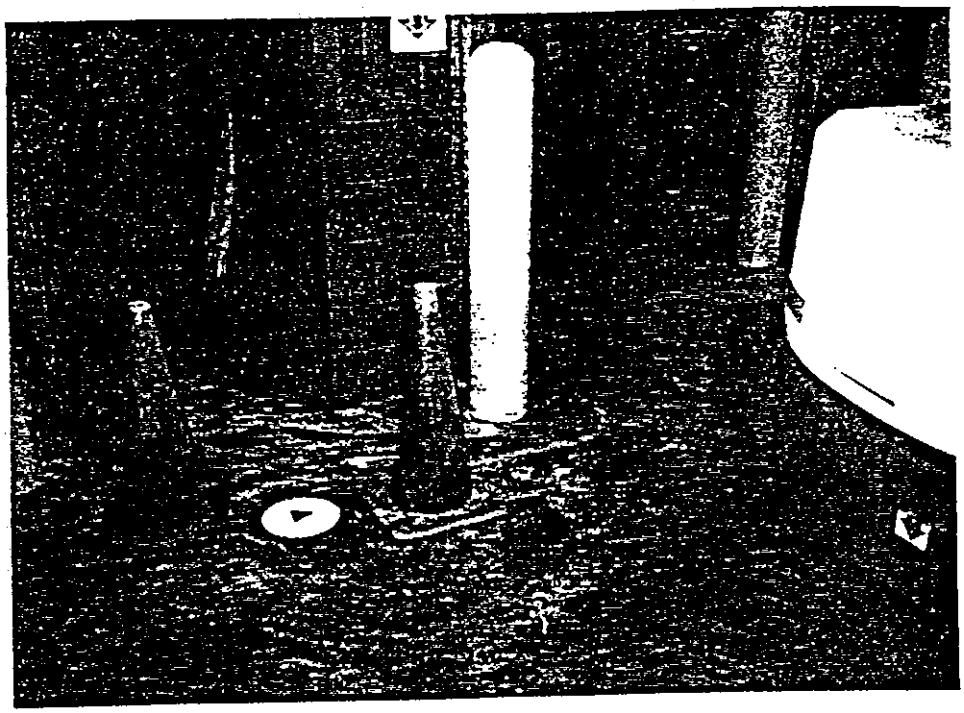
Photograph #2 - Daisy cutting of concrete to accommodate the protective, flush-mount casing in the lower right foreground.



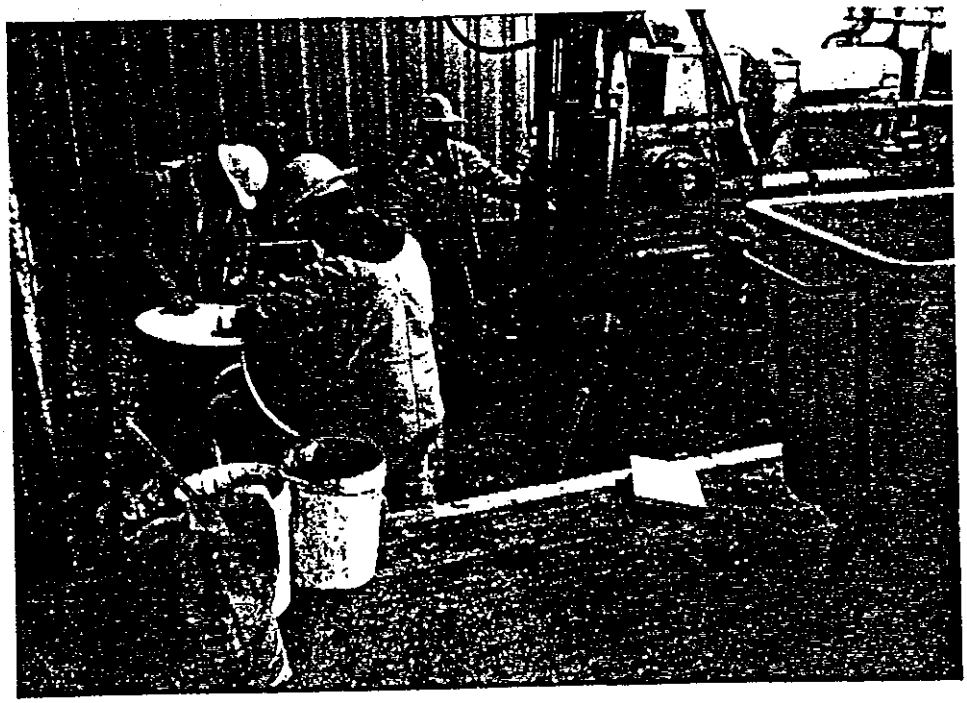
Photograph #3 - Installation of MW-113 by hand augering. Soil cuttings were transferred to 55-gallon drum via 5-gallon pails.



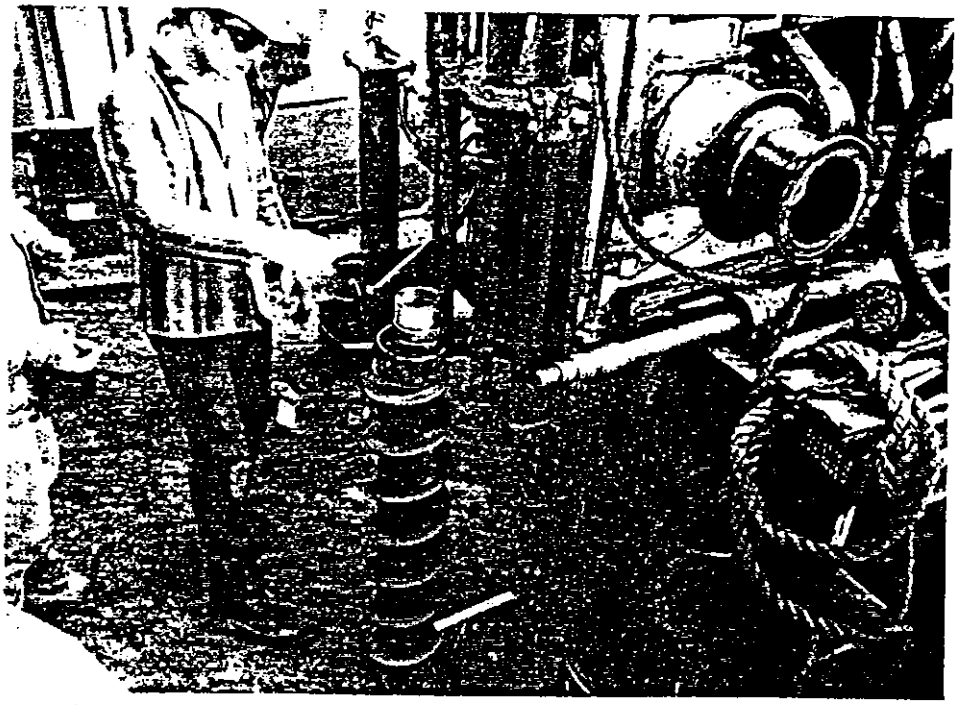
Photograph #4 - Setting flush-mount protective casing at MW-113.



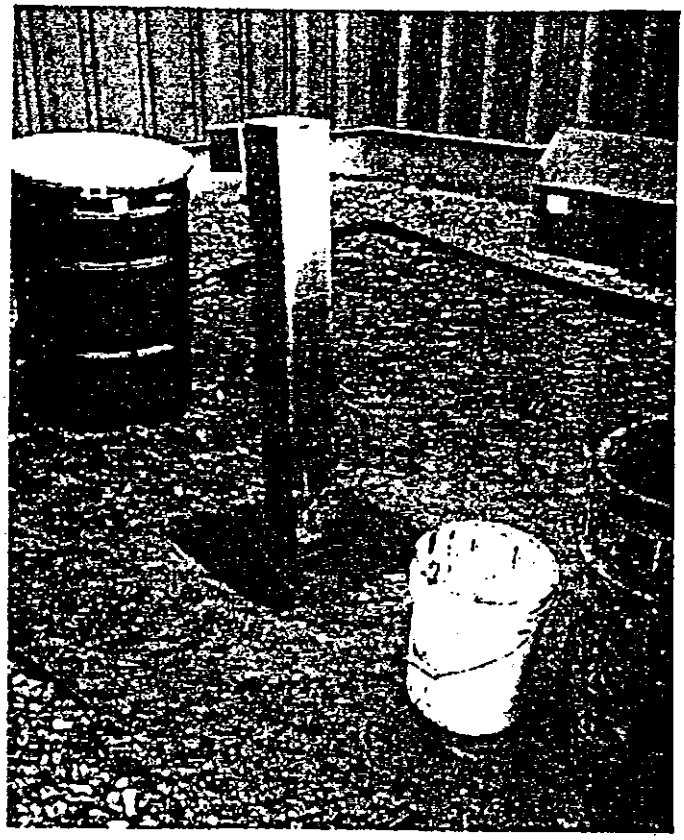
Photograph #5 - Completed installation of MW-114. Note the location relative to the Red Label storage room.



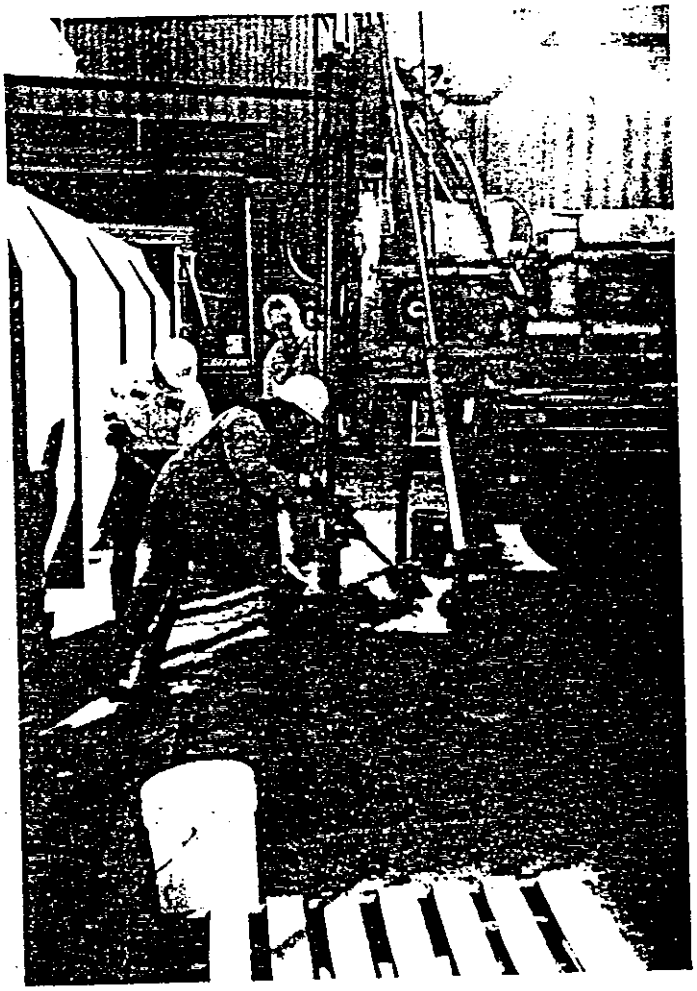
Photograph #6 - Installation of SB-114 west of service loading dock.



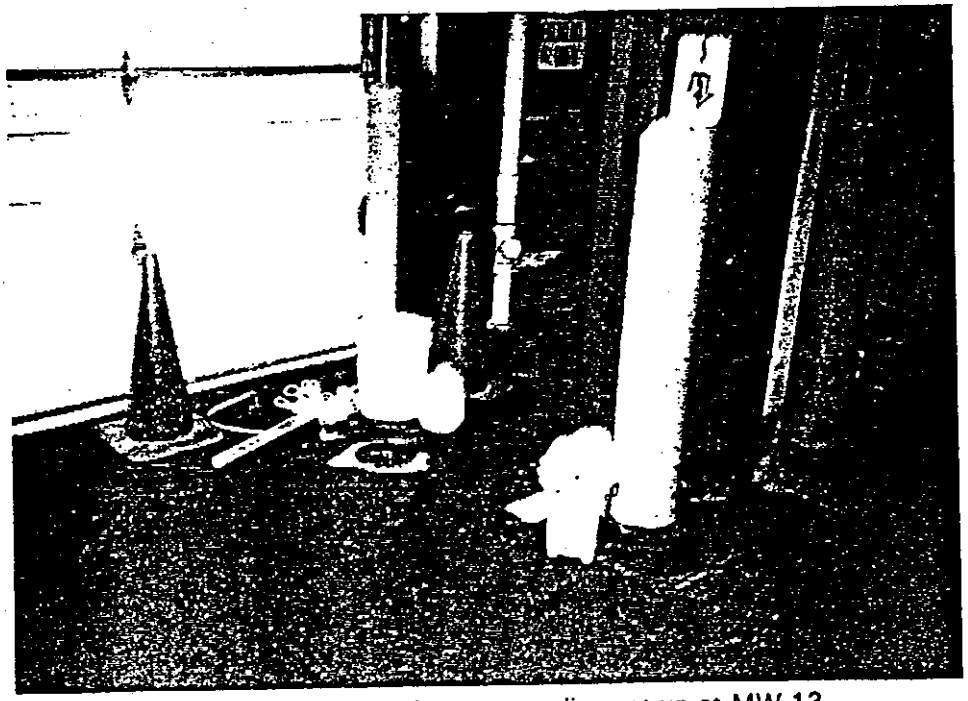
Photograph # 7 - Installation of stainless steel casing in MW-114.



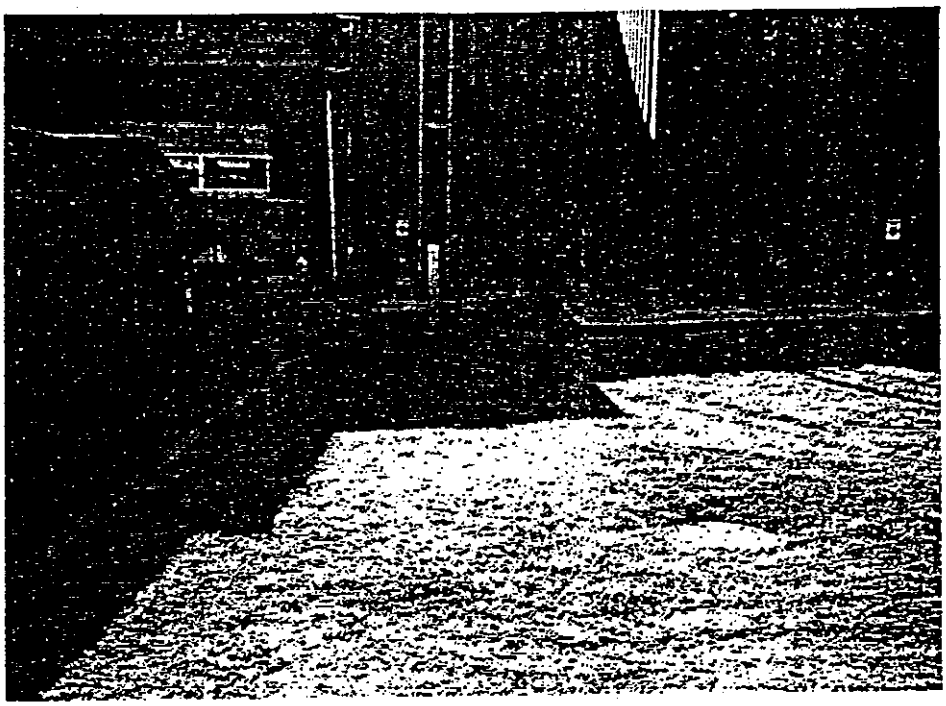
Photograph #8 - Completed installation of SB-114.



Photograph #9 - Installation of SB-115.



Photograph #10 - Groundwater sampling set-up at MW-13



Photograph #11 - View of MW-114 after installation and site restoration.



Photograph #12 - View of stormwater outlet and sampling location SS-101.



Photograph #13 - View of sampling locations SS-102 and SS-103, looking west across the drainage channel.



Photograph #14 - View of sampling locations SS-104 and SS-105, looking south across the drainage channel.



Photograph #15 - View of sampling locations SS-106 and SS-107, looking southwest. Note that the channel bifurcates around a small "island" at this location.



Photograph #16 - Sampling locations SS-108, SS-109 and SS-110. Note that the channel definition is less pronounced in this area and the channel is changing to overland flow.

D

The Earth Technology Corporation

Chain of Custody Record

Lab Job no.: _____
Date 1/21/94
Page 1 of 1

Laboratory ACTS Testing Labs
Address 3916 Broadway
Buffalo, N.Y. 14227

Method of Shipment Fed. Express
Shipment No. _____
Airbill No. 878510685 3
Cooler No. _____
Project Manager Rick Smith
Telephone No. 414/466-9266
Fax. No. 414/466-4446
Samplers: (Signature) [signature]

Client Miller Brewing Co.
Address 3939 Highland Ave
Milwaukee, WI

Project Name Reynolds Metal - Moulding
Project Number 94-4130-04

Field Sample Number	Location/ Depth	Date	Time	Sample Type	Type/Size of Container	Preservation: Temp.	Preservation: Chemical	Filtered Y	No. of Containers	Analysis Required: VOCs 8240	Remarks
1B-0277E TB-02	.....	.....	.....	H_2O	40ml glass	4°C	none		2	X	Trip blank
1B-0278E FB-03	—	1/21/94	0528						2	X	Field blank
1B-0279E GW-113	—	1/21/94	0928						2	X	monitor well
1B-0280E GW-114		1/21/94	0935						2	X	" "
1B-0281E GW-114 Dup		1/21/94	1115						2	X	Duplicate

Relinquished by:	Date	Received by:	Date
Signature [signature]	1/21/94	Signature Charles E. Hartke	1/22
Printed Jack Dowdan	Time	Printed Charles E. Hartke	Time
Company TETC	1100	Company ACTS Testing Labs	
Reason Lab Analysis			

Relinquished by:	Date	Received by:	Date
Signature		Signature	
Printed	Time	Printed	Time
Company		Company	
Reason			

Comments: _____

Relinquished by:	Date	Received by:	Date
Signature		Signature	
Printed	Time	Printed	Time
Company		Company	
Reason			

DISTRIBUTION: White to Laboratory, Canary to Earth Technology Project File, Pink to Courier, Golden to Field File

F-1000
10/25/92

The Earth Technology Corporation

Chain of Custody Record

Lab job no.: _____
Date 1/17-18/94
Page 1 of 3

Laboratory ACTS Testing Labs
Address 3916 Broadway
Buffalo, NY 14227

Client Miller Brauer
Address 3939 Highland Ave
Milwaukee Wisc.

Project Name Reynolds Metal - Manitowoc
Project Number 94-4130-204

Method of Shipment Federal Express
Shipment No. _____
Airbill No. 878510684 2
Cooler No. _____
Project Manager Rick Smith
Telephone No. (414) 466-9266
Fax No. (414) - 466 - 9446
Samplers: (Signature)

Field Sample Number	Location/ Depth	Date	Time	Sample Type	Type/Size of Container	Preservation: Temp.	Preservation: Chemical	Filtered Y/N	No. of Containers	Analysis Required: VOCs - Method 8240	Remarks
SB-113-A	40"-46"	1/13/94	1550	Soil	120ml-amber	4°C	—		2	X	4B-0238E
SB-113-B	72"-78"	1/17/94	1610	Soil	120ml-amber	4°C	—		2	X	4B-0239E
SB-114-A	2'-4'	1/14/94	0933						2	X	4B-0236E
SB-114-A Dup	2'-4'	1/14/94	0932						2	X	4B-0231E
SB-114-B	6'-7'	1/14/94	0945						2	X	4B-0232E
TB-01	—	1/14/94	0945	Water	40ml-glass				2	X	4B-0239C
SB-115-A	18"-24"	1/18/94	1425	Soil	120ml amber				2	X	4B-0234E
SB-115-B	60"-66"	1/18/94	1500						2	X	4B-0235E

Relinquished by:	Date	Received by:	Date	Relinquished by:	Date	Received by:	Date
Signature	1/20/94	Signature		Signature		Signature	
Printed Jack Douglas	Time 1000	Printed	Time	Printed	Time	Printed	Time
Company TETC		Company		Company		Company	
Reason Lab Analysis				Reason			

Comments: _____

Relinquished by:	Date	Received by:	Date
Signature		Signature Shari Johnson	1/21/94
Printed	Time	Printed Shari Johnson	Time
Company		Company ACTS Testing	2:00 pm
Reason			

DISTRIBUTION: White to Laboratory, Canary to Earth Technology Project File, Pink to Courier, Golden to Field File

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10/25/92

The Earth Technology Corporation

Chain of Custody Record

Lab job no.: _____
Date 1/18/94
Page 3 of 3

Laboratory ACTS Testing Labs
Address 3916 Broadway
Buffalo, N.Y. 14227

Method of Shipment Federal Express
Shipment No. _____
Airbill No. 878510684 2
Cooler No. _____
Project Manager Rick Smith
Telephone No. 414/466-9266
Fax No. 414/466-9446
Samplers: (Signature)

Client Miller Brewing
Address 3939 Highway Ave.
Milwaukee, Wisc.
Project Name Reynolds Metals - Mouthrie
Project Number 94-4130-04

Field Sample Number	Location/ Depth-X	Date	Time	Sample Type	Type/Size of Container	Preservation: Temp.	Preservation: Chemical	Filtered Y	No. of Containers	Analysis Required: VOC 8240	TPH 413.1	Oil/Grease 9071								Remarks
SS-107-A	240 ft	1/19/94	1535	Soil	1qt glass 120ml amber	4°C	NONE		2	X	X	X					4B-02456			Surface
SS-107-B	240 ft		1540		1qt glass 40ml glass				2	X	X	X					4B-02466			
SS-108-A	400 ft		1600						2	X	X	X					4B-02506			Surface
SS-108-B	400 ft		1605						2	X	X	X					4B-02516			
SS-109-A	400 ft		1615						2	X	X	X					4B-02526			Surface
SS-109-B	400 ft		1620						2	X	X	X					4B-02536			
SS-110-A	400 ft		1640						2	X	X	X					4B-02546			Surface
SS-110-B	400 ft		1645						2	X	X	X					4B-02556			
SS-101 Dup	~5 ft		1700						2	X	X	X					4B-02566			Surface
FB-02	—		1710	H_2O	1qt glass 40ml glass				2	X	X	X					4B-02576			Equip. Blank
TB-01	—		—	H_2O	40ml glass				2	X							4B-02586			Trip Blank

Relinquished by:	Date	Received by:	Date
Signature	1/20/94	Signature	
Printed Jack Douglas	Time 1600	Printed	Time
Company TETC		Company	
Reason Lab Analysis			

Relinquished by:	Date	Received by:	Date
Signature		Signature	
Printed	Time	Printed	Time
Company		Company	
Reason			

Comments: X Location is approximate distance from the culvert at the head of the creek.

Relinquished by:	Date	Received by:	Date
Signature		Signature Shari Johnson	1/21/94
Printed	Time	Printed Shari Johnson	Time 9:00 am
Company		Company Mcls Testing	
Reason			

DISTRIBUTION: White to Laboratory, Canary to Earth Technology Project File, Pink to Courier, Golden to Field File

F-1000
10/25/92

EXPR

QUESTIONS? CALL 800-238-5355 TOLL FREE.

TRACKING NUMBER

4CC6M 8785106842

SENDER'S COPY

1 SENDER'S FEDERAL EXPRESS ACCOUNT NUMBER: 1367-3529-2 Date: 1/21/14

From (Your Name) Please Print: Jay Dudek Your Phone Number (Very Important): (716) 961-7111

2 To (Recipient's Name) Please Print: Will Galewski Recipient's Phone Number (Ver): (716) 674-

Company: EARTH TECHNOLOGY CORP Department/Floor No.:

Company: ACTS Test Labs Department/Floor:

Street Address: 12129 W FERRICK ST

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 396 Ensminger

City: WALWATOSA State: WI ZIP Required: 53222

City: Buffalo State: NY ZIP Required: 14207

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): 74-4130-C4

H IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here: Street Address / City / State / ZIP Required

3 PAYMENT: 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card
$ [ ] Cash/Check Acct./Credit Card No. Exp. Date

4 SERVICES (Check only one box)

Priority Overnight: 11 [X] OTHER PACKAGING; 16 [ ] FEDEX LETTER*; 12 [ ] FEDEX PAK*; 13 [ ] FEDEX BOX; 14 [ ] FEDEX TUBE

Standard Overnight: 51 [ ] OTHER PACKAGING; 56 [ ] FEDEX LETTER*; 52 [ ] FEDEX PAK*; 53 [ ] FEDEX BOX; 54 [ ] FEDEX TUBE

Economy Two-Day: 30 [ ] ECONOMY** (*Economy Letter Rate not available. Minimum charge: One pound Economy rate.)

Government Overnight: 46 [ ] GOVT LETTER; 41 [ ] GOVT PACKAGE

Freight Service (for packages over 150 lbs.): 70 [ ] OVERNIGHT FREIGHT** (Commitment required); 80 [ ] TWO-DAY FREIGHT**

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Special Handling: 4 [ ] DANGEROUS GOODS (Extra charge); 6 [ ] DRY ICE (Dangerous Goods Shipper's Declaration not required) Dry ice, 9 UN 1845, ____ X ____ kg, $94.81; [ ] DESCRIPTION; 12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6

PACKAGES	WEIGHT In Pounds Only	YOUR DECLARED VALUE (See right)
Total 1	Total	Total

DIM SHIPMENT (Chargeable Weight) [ ] ____ lbs. L x W x H

Received At: 1 [ ] Regular Stop 2 [ ] On-Call Stop 3 [ ] Drop Box 4 [ ] B.S.C. 5 [ ] Station

7 Release Signature:

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Use of this airbill constitutes your agreement to the service conditions in our current Service Guide, available upon request. See back of sender's copy of this airbill for information. Service conditions may vary for Government Overnight Service. See U.S. Government Service Guide for details.

We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, and document your actual loss for a timely claim. Limitations found in the current Federal Express Service Guide apply. Your right to recover from Federal Express for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the declared value specified to the left. Recovery cannot exceed actual documented loss. The maximum Declared Value for FedEx Letter and FedEx Pak packages is $500.

In the event of untimely delivery, Federal Express will at your request and with some limitations refund all transportation charges paid. See Service Guide for further information.

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REVISION DATE 12/ PART #137204 FXE FORMAT #158

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AIRBILL PACKAGE TRACKING NUMBER 8785106853

4CC6M 8785106853

SENDER'S COPY

1 SENDER'S FEDERAL EXPRESS ACCOUNT NUMBER: 1367-3529-2 Date: 1/21/14

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Company: EARTH TECHNOLOGY CORP Department/Floor No.:

Company: ACTS Test Labs Department/Floor:

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City: WALWATOSA State: WI ZIP Required: 53222

City: Buffalo State: NY ZIP Required: 14207

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3 PAYMENT: 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card
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Priority Overnight: 11 [X] OTHER PACKAGING; 16 [ ] FEDEX LETTER*; 12 [ ] FEDEX PAK*; 13 [ ] FEDEX BOX; 14 [ ] FEDEX TUBE

Standard Overnight: 51 [ ] OTHER PACKAGING; 56 [ ] FEDEX LETTER*; 52 [ ] FEDEX PAK*; 53 [ ] FEDEX BOX; 54 [ ] FEDEX TUBE

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†Delivery commitment may be later in some areas. *Declared Value Limit $500. **Call for delivery schedule.

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Special Handling: 4 [ ] DANGEROUS GOODS (Extra charge); 6 [ ] DRY ICE (Dangerous Goods Shipper's Declaration not required) Dry ice, 9 UN 1845, ____ X ____ kg, $94.81; [ ] DESCRIPTION; 12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6

PACKAGES	WEIGHT In Pounds Only	YOUR DECLARED VALUE (See right)
Total 1	Total	Total

DIM SHIPMENT (Chargeable Weight) [ ] ____ lbs. L x W x H

Received At: 1 [ ] Regular Stop 2 [ ] On-Call Stop 3 [ ] Drop Box 4 [ ] B.S.C. 5 [ ] Station

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ACTS TESTING LABS, INC.
25 Anderson Road
Buffalo, NY 14225-4928
Tel (716) 897-3300
Fax (716) 897-0876

RECEIVED MAR 7 1994

Technical Report 4B-0228ER
REVISED REPORT

March 2, 1994

Mr. Richard Smith
EARTH TECHNOLOGY CORPORATION

SUBJECT:

Analyses of twenty-nine (29) soil samples, three (3) water samples, one (1) Field Blank, two (2) Trip Blanks and one (1) Equipment Blank for various parameters. The samples were received on January 21 and 24, 1994.

RESULTS:

See Pages Two through Forty-five.

EXPERIMENTAL:

Volatile Organics in soil and water were determined according to United States Environmental Protection Agency Method 8240: Volatile Organics.

The remaining analyses were conducted according to procedures listed in "Standard Methods for the Examination of Water and Wastewater," 16th Edition, 1985.

ACTS TESTING LABS, INC.

Charles E. Hartke
Manager, Chemistry Laboratory

ACTS TESTING LABS, INC.

Elizabeth R. Hausler, Supervisor
Gas Chromatography Laboratory

ACTS TESTING LABS, INC.

Patricia M. Johnson
Quality Assurance Officer

cme

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ACTS TESTING LABS, INC.
25 Anderson Road
Buffalo, NY 14225-4928
Tel (716) 897-3300
Fax (716) 897-0876

Technical Report 4B-0228E

Mr. Richard Smith
EARTH TECHNOLOGY CORPORATION

SUBJECT:

Analyses of twenty-nine (29) soil samples, three (3) water samples, one (1) Field Blank, two (2) Trip Blanks and one (1) Equipment Blank for various parameters. The samples were received on January 21 and 24, 1994.

RESULTS:

See Pages Two through Forty-four.

EXPERIMENTAL:

Volatile Organics in soil and water were determined according to United States Environmental Protection Agency Method 8240: Volatile Organics.

The remaining analyses were conducted according to procedures listed in "Standard Methods for the Examination of Water and Wastewater," 16th Edition, 1985.

ACTS TESTING LABS, INC.

Charles E. Hartke
Manager, Chemistry Laboratory

ACTS TESTING LABS, INC.

Elizabeth R. Hausler, Supervisor
Gas Chromatography Laboratory

ACTS TESTING LABS, INC.

Patricia M. Johnson
Quality Assurance Officer

cme

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EPA 8240:	ACTS # 4B-0228E SB-113-A	ACTS # 4B-0229E SB-113-B
Dichlorodifluoromethane	LT 5.3	LT 5.8
Chloromethane	LT 5.3	LT 5.8
Vinyl Chloride	LT 1.1	LT 1.2
Bromomethane	LT 11	LT 12
Chloroethane	LT 11	LT 12
1,1-Dichloroethene	LT 5.3	LT 5.8
Acetone	130	120
Methyl Iodide	LT 5.3	LT 5.8
Carbon Disulfide	LT 110	LT 120
Acetonitrile	LT 110	LT 120
Allyl Chloride	LT 5.3	LT 5.8
Methylene Chloride	11B	17B
trans-1,2-Dichloroethene	LT 5.3	LT 5.8
1,1-Dichloroethane	LT 5.3	LT 5.8
Chloroprene	LT 11	LT 12
Propionitrile	LT 110	LT 120
Methacrylonitrile	LT 110	LT 120
Chloroform	LT 5.3	LT 5.8
1,2-Dichloroethane	LT 5.3	LT 5.8
2-Butanone	510	LT 120
1,1,1-Trichloroethane	LT 5.3	LT 5.8
Carbon Tetrachloride	LT 5.3	LT 5.8
Benzene	LT 5.3	LT 5.8
Vinyl Acetate	750	LT 120
Trichloroethene	23	LT 5.8
Isobutyl Alcohol	600	LT 120
1,2-Dichloropropane	LT 5.3	LT 5.8
Methyl methacrylate	LT 5.3	LT 5.8
Dibromomethane	10	LT 5.8
Bromodichloromethane	LT 5.3	LT 5.8
2-Chloroethylvinyl ether	LT 11	LT 12
cis-1,3-Dichloropropene	LT 5.3	LT 5.8
4-Methyl-2-pentanone	LT 53	LT 58
2-Hexanone	LT 53	LT 58
Toluene	LT 5.3	LT 5.8
trans-1,3-Dichloropropene	LT 5.3	LT 5.8
Ethyl methacrylate	LT 5.3	LT 5.8
1,1,2-Trichloroethane	LT 5.3	LT 5.8
Tetrachloroethene	LT 5.3	LT 5.8
Dibromochloromethane	LT 5.3	LT 5.8
1,2-Dibromoethane	LT 5.3	LT 5.8
Chlorobenzene	LT 5.3	LT 5.8
1,1,1,2-Tetrachloroethane	LT 5.3	LT 5.8
Ethylbenzene	LT 5.3	LT 5.8
M,P- Xylenes	LT 5.3	LT 5.8
O-Xylene	LT 5.3	LT 5.8
Styrene	LT 5.3	LT 5.8
Bromoform	LT 5.3	LT 5.8
1,1,2,2-Tetrachloroethane	LT 5.3	LT 5.8
1,4-Dichloro-2-butene	LT 11	LT 12
1,2,3-Trichloropropane	LT 5.3	LT 5.8
Pentachloroethane	LT 11	LT 12
Benzyl chloride	LT 11	LT 12
1,2-Dibromo-3-chloropropane	LT 11	LT 12

B = Found in the Method Blank at 6.1 ug/Kg

EPA 8240:		
Dichlorodifluoromethane	LT 6.1	LT 5.3
Chloromethane	LT 6.1	LT 5.3
Vinyl Chloride	LT 1.2	LT 1.1
Bromomethane	LT 12	LT 11
Chloroethane	LT 12	LT 11
1,1-Dichloroethene	LT 6.1	LT 5.3
Acetone	570	LT 110
Methyl Iodide	LT 6.1	LT 5.3
Carbon Disulfide	LT 120	LT 110
Acetonitrile	LT 120	LT 110
Allyl Chloride	LT 6.1	LT 5.3
Methylene Chloride	10B	14B
trans-1,2-Dichloroethene	LT 6.1	LT 5.3
1,1-Dichloroethane	LT 6.1	LT 5.3
Chloroprene	LT 12	LT 11
Propionitrile	LT 120	LT 110
Methacrylonitrile	LT 120	LT 110
Chloroform	LT 6.1	LT 5.3
1,2-Dichloroethane	LT 6.1	LT 5.3
2-Butanone	650	LT 110
1,1,1-Trichloroethane	LT 6.1	LT 5.3
Carbon Tetrachloride	LT 6.1	LT 5.3
Benzene	LT 6.1	LT 5.3
Vinyl Acetate	810	LT 110
Trichloroethene	LT 6.1	LT 5.3
Isobutyl Alcohol	LT 120	LT 110
1,2-Dichloropropane	LT 6.1	LT 5.3
Methyl methacrylate	LT 6.1	LT 5.3
Dibromomethane	LT 6.1	LT 5.3
Bromodichloromethane	LT 6.1	LT 5.3
2-Chloroethylvinyl ether	LT 12	LT 11
cis-1,3-Dichloropropene	LT 6.1	LT 5.3
4-Methyl-2-pentanone	LT 61	LT 53
2-Hexanone	LT 61	LT 53
Toluene	LT 6.1	LT 5.3
trans-1,3-Dichloropropene	LT 6.1	LT 5.3
Ethyl methacrylate	LT 6.1	LT 5.3
1,1,2-Trichloroethane	LT 6.1	LT 5.3
Tetrachloroethene	LT 6.1	LT 5.3
Dibromochloromethane	LT 6.1	LT 5.3
1,2-Dibromoethane	LT 6.1	LT 5.3
Chlorobenzene	LT 6.1	LT 5.3
1,1,1,2-Tetrachloroethane	LT 6.1	LT 5.3
Ethylbenzene	LT 6.1	LT 5.3
M,P- Xylenes	LT 6.1	LT 5.3
O-Xylene	LT 6.1	LT 5.3
Styrene	LT 6.1	LT 5.3
Bromoform	LT 6.1	LT 5.3
1,1,2,2-Tetrachloroethane	LT 6.1	LT 5.3
1,4-Dichloro-2-butene	LT 12	LT 11
1,2,3-Trichloropropane	LT 6.1	LT 5.3
Pentachloroethane	LT 12	LT 11
Benzyl chloride	LT 12	LT 11
1,2-Dibromo-3-chloropropane	LT 12	LT 11

B = Found in the Method Blank at 6.1 ug/Kg

	ACTS # 4B-0235E SB-115-B	ACTS # 4B-0237E SS-101-B
EPA 8240:		
Dichlorodifluoromethane	LT 6.2	LT 5.8
Chloromethane	LT 6.2	LT 5.8
Vinyl Chloride	LT 1.2	LT 1.2
Bromomethane	LT 12	LT 12
Chloroethane	LT 12	LT 12
1,1-Dichloroethene	LT 6.2	LT 5.8
Acetone	LT 120	LT 120
Methyl Iodide	LT 6.2	LT 5.8
Carbon Disulfide	LT 120	LT 120
Acetonitrile	LT 120	LT 120
Allyl Chloride	LT 6.2	LT 5.8
Methylene Chloride	22B	9.3C
trans-1,2-Dichloroethene	LT 6.2	LT 5.8
1,1-Dichloroethane	LT 6.2	LT 5.8
Chloroprene	LT 12	LT 12
Propionitrile	LT 120	LT 120
Methacrylonitrile	LT 120	LT 120
Chloroform	LT 6.2	LT 5.8
1,2-Dichloroethane	LT 6.2	LT 5.8
2-Butanone	LT 120	LT 120
1,1,1-Trichloroethane	LT 6.2	LT 5.8
Carbon Tetrachloride	LT 6.2	LT 5.8
Benzene	LT 6.2	LT 5.8
Vinyl Acetate	LT 120	LT 120
Trichloroethene	LT 6.2	LT 5.8
Isobutyl Alcohol	LT 120	LT 120
1,2-Dichloropropane	LT 6.2	LT 5.8
Methyl methacrylate	LT 6.2	LT 5.8
Dibromomethane	LT 6.2	LT 5.8
Bromodichloromethane	LT 6.2	LT 5.8
2-Chloroethylvinyl ether	LT 12	LT 12
cis-1,3-Dichloropropene	LT 6.2	LT 5.8
4-Methyl-2-pentanone	LT 62	LT 58
2-Hexanone	LT 62	LT 58
Toluene	LT 6.2	LT 5.8
trans-1,3-Dichloropropene	LT 6.2	LT 5.8
Ethyl methacrylate	LT 6.2	LT 5.8
1,1,2-Trichloroethane	LT 6.2	LT 5.8
Tetrachloroethene	LT 6.2	LT 5.8
Dibromochloromethane	LT 6.2	LT 5.8
1,2-Dibromoethane	LT 6.2	LT 5.8
Chlorobenzene	LT 6.2	LT 5.8
1,1,1,2-Tetrachloroethane	LT 6.2	LT 5.8
Ethylbenzene	LT 6.2	LT 5.8
M,P- Xylenes	LT 6.2	LT 5.8
O-Xylene	LT 6.2	LT 5.8
Styrene	LT 6.2	LT 5.8
Bromoform	LT 6.2	LT 5.8
1,1,2,2-Tetrachloroethane	LT 6.2	LT 5.8
1,4-Dichloro-2-butene	LT 12	LT 12
1,2,3-Trichloropropane	LT 6.2	LT 5.8
Pentachloroethane	LT 12	LT 12
Benzyl chloride	LT 12	LT 12
1,2-Dibromo-3-chloropropane	LT 12	LT 12

B = Found in the Method Blank at 6.1 ug/Kg
C = Found in the Method Blank at 5.1 ug/Kg

EPA 8240:		
Dichlorodifluoromethane	LT 6.7	LT 6.6
Chloromethane	LT 6.7	LT 6.6
Vinyl Chloride	LT 1.3	LT 1.3
Bromomethane	LT 13	LT 13
Chloroethane	LT 13	LT 13
1,1-Dichloroethene	LT 6.7	LT 6.6
Acetone	LT 130	LT 130
Methyl Iodide	LT 6.7	LT 6.6
Carbon Disulfide	LT 130	LT 130
Acetonitrile	LT 130	LT 130
Allyl Chloride	LT 6.7	LT 6.6
Methylene Chloride	14C	16C
trans-1,2-Dichloroethene	LT 6.7	LT 6.6
1,1-Dichloroethane	LT 6.7	LT 6.6
Chloroprene	LT 13	LT 13
Propionitrile	LT 130	LT 130
Methacrylonitrile	LT 130	LT 130
Chloroform	LT 6.7	LT 6.6
1,2-Dichloroethane	LT 6.7	LT 6.6
2-Butanone	LT 130	LT 130
1,1,1-Trichloroethane	LT 6.7	LT 6.6
Carbon Tetrachloride	LT 6.7	LT 6.6
Benzene	LT 6.7	LT 6.6
Vinyl Acetate	LT 130	LT 130
Trichloroethene	LT 6.7	LT 6.6
Isobutyl Alcohol	LT 130	LT 130
1,2-Dichloropropane	LT 6.7	LT 6.6
Methyl methacrylate	LT 6.7	LT 6.6
Dibromomethane	LT 6.7	LT 6.6
Bromodichloromethane	LT 6.7	LT 6.6
2-Chloroethylvinyl ether	LT 13	LT 13
cis-1,3-Dichloropropene	LT 6.7	LT 6.6
4-Methyl-2-pentanone	LT 67	LT 66
2-Hexanone	LT 67	LT 66
Toluene	LT 6.7	LT 6.6
trans-1,3-Dichloropropene	LT 6.7	LT 6.6
Ethyl methacrylate	LT 6.7	LT 6.6
1,1,2-Trichloroethane	LT 6.7	LT 6.6
Tetrachloroethene	LT 6.7	LT 6.6
Dibromochloromethane	LT 6.7	LT 6.6
1,2-Dibromoethane	LT 6.7	LT 6.6
Chlorobenzene	LT 6.7	LT 6.6
1,1,1,2-Tetrachloroethane	LT 6.7	LT 6.6
Ethylbenzene	LT 6.7	LT 6.6
M,P- Xylenes	LT 6.7	LT 6.6
O-Xylene	LT 6.7	LT 6.6
Styrene	LT 6.7	LT 6.6
Bromoform	LT 6.7	LT 6.6
1,1,2,2-Tetrachloroethane	LT 6.7	LT 6.6
1,4-Dichloro-2-butene	LT 13	LT 13
1,2,3-Trichloropropane	LT 6.7	LT 6.6
Pentachloroethane	LT 13	LT 13
Benzyl chloride	LT 13	LT 13
1,2-Dibromo-3-chloropropane	LT 13	LT 13

C = Found in the Method Blank at 5.1 ug/Kg

	ACTS # 4B-0240E SS-103-A	ACTS # 4B-0241E SS-103-B
EPA 8240:		
Dichlorodifluoromethane	LT 6.5	LT 6.3
Chloromethane	LT 6.5	LT 6.3
Vinyl Chloride	LT 1.3	LT 1.3
Bromomethane	LT 13	LT 13
Chloroethane	LT 13	LT 13
1,1-Dichloroethene	LT 6.5	LT 6.3
Acetone	LT 130	LT 130
Methyl Iodide	LT 6.5	LT 6.3
Carbon Disulfide	LT 130	LT 130
Acetonitrile	LT 130	LT 130
Allyl Chloride	LT 6.5	LT 6.3
Methylene Chloride	14C	8.2C
trans-1,2-Dichloroethene	LT 6.5	LT 6.3
1,1-Dichloroethane	LT 6.5	LT 6.3
Chloroprene	LT 13	LT 13
Propionitrile	LT 130	LT 130
Methacrylonitrile	LT 130	LT 130
Chloroform	LT 6.5	LT 6.3
1,2-Dichloroethane	LT 6.5	LT 6.3
2-Butanone	LT 130	LT 130
1,1,1-Trichloroethane	LT 6.5	LT 6.3
Carbon Tetrachloride	LT 6.5	LT 6.3
Benzene	LT 6.5	LT 6.3
Vinyl Acetate	LT 130	LT 130
Trichloroethene	LT 6.5	LT 6.3
Isobutyl Alcohol	LT 130	LT 130
1,2-Dichloropropane	LT 6.5	LT 6.3
Methyl methacrylate	LT 6.5	LT 6.3
Dibromomethane	LT 6.5	LT 6.3
Bromodichloromethane	LT 6.5	LT 6.3
2-Chloroethylvinyl ether	LT 13	LT 13
cis-1,3-Dichloropropene	LT 6.5	LT 6.3
4-Methyl-2-pentanone	LT 65	LT 63
2-Hexanone	LT 65	LT 63
Toluene	LT 6.5	LT 6.3
trans-1,3-Dichloropropene	LT 6.5	LT 6.3
Ethyl methacrylate	LT 6.5	LT 6.3
1,1,2-Trichloroethane	LT 6.5	LT 6.3
Tetrachloroethene	LT 6.5	LT 6.3
Dibromochloromethane	LT 6.5	LT 6.3
1,2-Dibromoethane	LT 6.5	LT 6.3
Chlorobenzene	LT 6.5	LT 6.3
1,1,1,2-Tetrachloroethane	LT 6.5	LT 6.3
Ethylbenzene	LT 6.5	LT 6.3
M,P- Xylenes	12	8.5
O-Xylene	LT 6.5	LT 6.3
Styrene	LT 6.5	LT 6.3
Bromoform	LT 6.5	LT 6.3
1,1,2,2-Tetrachloroethane	LT 6.5	LT 6.3
1,4-Dichloro-2-butene	LT 13	LT 13
1,2,3-Trichloropropane	LT 6.5	LT 6.3
Pentachloroethane	LT 13	LT 13
Benzyl chloride	LT 13	LT 13
1,2-Dibromo-3-chloropropane	LT 13	LT 13

C = Found in the Method Blank at 5.1 ug/Kg

EPA 8240:		
Dichlorodifluoromethane	LT 6.6	LT 6.5
Chloromethane	LT 6.6	LT 6.5
Vinyl Chloride	LT 1.3	LT 1.3
Bromomethane	LT 13	LT 13
Chloroethane	LT 13	LT 13
1,1-Dichloroethene	LT 6.6	LT 6.5
Acetone	LT 130	LT 130
Methyl Iodide	LT 6.6	LT 6.5
Carbon Disulfide	LT 130	LT 130
Acetonitrile	LT 130	LT 130
Allyl Chloride	LT 6.6	LT 6.5
Methylene Chloride	13C	16C
trans-1,2-Dichloroethene	LT 6.6	LT 6.5
1,1-Dichloroethane	LT 6.6	LT 6.5
Chloroprene	LT 13	LT 13
Propionitrile	LT 130	LT 130
Methacrylonitrile	LT 130	LT 130
Chloroform	LT 6.6	LT 6.5
1,2-Dichloroethane	LT 6.6	LT 6.5
2-Butanone	LT 130	LT 130
1,1,1-Trichloroethane	LT 6.6	LT 6.5
Carbon Tetrachloride	LT 6.6	LT 6.5
Benzene	LT 6.6	LT 6.5
Vinyl Acetate	LT 130	LT 130
Trichloroethene	LT 6.6	LT 6.5
Isobutyl Alcohol	LT 130	LT 130
1,2-Dichloropropane	LT 6.6	LT 6.5
Methyl methacrylate	LT 6.6	LT 6.5
Dibromomethane	LT 6.6	LT 6.5
Bromodichloromethane	LT 6.6	LT 6.5
2-Chloroethylvinyl ether	LT 13	LT 13
cis-1,3-Dichloropropene	LT 6.6	LT 6.5
4-Methyl-2-pentanone	LT 66	LT 65
2-Hexanone	LT 66	LT 65
Toluene	LT 6.6	LT 6.5
trans-1,3-Dichloropropene	LT 6.6	LT 6.5
Ethyl methacrylate	LT 6.6	LT 6.5
1,1,2-Trichloroethane	LT 6.6	LT 6.5
Tetrachloroethene	LT 6.6	LT 6.5
Dibromochloromethane	LT 6.6	LT 6.5
1,2-Dibromoethane	LT 6.6	LT 6.5
Chlorobenzene	LT 6.6	LT 6.5
1,1,1,2-Tetrachloroethane	LT 6.6	LT 6.5
Ethylbenzene	LT 6.6	LT 6.5
M,P- Xylenes	LT 6.6	LT 6.5
O-Xylene	LT 6.6	LT 6.5
Styrene	LT 6.6	LT 6.5
Bromoform	LT 6.6	LT 6.5
1,1,2,2-Tetrachloroethane	LT 6.6	LT 6.5
1,4-Dichloro-2-butene	LT 13	LT 13
1,2,3-Trichloropropane	LT 6.6	LT 6.5
Pentachloroethane	LT 13	LT 13
Benzyl chloride	LT 13	LT 13
1,2-Dibromo-3-chloropropane	LT 13	LT 13

C = Found in the Method Blank at 5.1 ug/Kg

EPA 8240:		
Dichlorodifluoromethane	LT 6.6	LT 6.6
Chloromethane	LT 6.6	LT 6.6
Vinyl Chloride	LT 1.3	LT 1.3
Bromomethane	LT 13	LT 13
Chloroethane	LT 13	LT 13
1,1-Dichloroethene	LT 6.6	LT 6.6
Acetone	LT 130	LT 130
Methyl Iodide	LT 6.6	LT 6.6
Carbon Disulfide	LT 130	LT 130
Acetonitrile	LT 130	LT 130
Allyl Chloride	LT 6.6	LT 6.6
Methylene Chloride	16C	20C
trans-1,2-Dichloroethene	LT 6.6	LT 6.6
1,1-Dichloroethane	LT 6.6	LT 6.6
Chloroprene	LT 13	LT 13
Propionitrile	LT 130	LT 130
Methacrylonitrile	LT 130	LT 130
Chloroform	LT 6.6	LT 6.6
1,2-Dichloroethane	LT 6.6	LT 6.6
2-Butanone	LT 130	LT 130
1,1,1-Trichloroethane	LT 6.6	LT 6.6
Carbon Tetrachloride	LT 6.6	LT 6.6
Benzene	LT 6.6	LT 6.6
Vinyl Acetate	LT 130	LT 130
Trichloroethene	LT 6.6	LT 6.6
Isobutyl Alcohol	LT 130	LT 130
1,2-Dichloropropane	LT 6.6	LT 6.6
Methyl methacrylate	LT 6.6	LT 6.6
Dibromomethane	LT 6.6	LT 6.6
Bromodichloromethane	LT 6.6	LT 6.6
2-Chloroethylvinyl ether	LT 13	LT 13
cis-1,3-Dichloropropene	LT 6.6	LT 6.6
4-Methyl-2-pentanone	LT 66	LT 66
2-Hexanone	LT 66	LT 66
Toluene	LT 6.6	LT 6.6
trans-1,3-Dichloropropene	LT 6.6	LT 6.6
Ethyl methacrylate	LT 6.6	LT 6.6
1,1,2-Trichloroethane	LT 6.6	LT 6.6
Tetrachloroethene	LT 6.6	LT 6.6
Dibromochloromethane	LT 6.6	LT 6.6
1,2-Dibromoethane	LT 6.6	LT 6.6
Chlorobenzene	LT 6.6	LT 6.6
1,1,1,2-Tetrachloroethane	LT 6.6	LT 6.6
Ethylbenzene	LT 6.6	LT 6.6
M,P- Xylenes	LT 6.6	LT 6.6
O-Xylene	LT 6.6	LT 6.6
Styrene	LT 6.6	LT 6.6
Bromoform	LT 6.6	LT 6.6
1,1,2,2-Tetrachloroethane	LT 6.6	LT 6.6
1,4-Dichloro-2-butene	LT 13	LT 13
1,2,3-Trichloropropane	LT 6.6	LT 6.6
Pentachloroethane	LT 13	LT 13
Benzyl chloride	LT 13	LT 13
1,2-Dibromo-3-chloropropane	LT 13	LT 13

C = Found in the Method Blank at 5.1 ug/Kg

EPA 8240:		
Dichlorodifluoromethane	LT 7.1	LT 7.3
Chloromethane	LT 7.1	LT 7.3
Vinyl Chloride	LT 1.4	LT 1.5
Bromomethane	LT 14	LT 15
Chloroethane	LT 14	LT 15
1,1-Dichloroethene	LT 7.1	LT 7.3
Acetone	LT 140	LT 150
Methyl Iodide	LT 7.1	LT 7.3
Carbon Disulfide	LT 140	LT 150
Acetonitrile	LT 140	LT 150
Allyl Chloride	LT 7.1	LT 7.3
Methylene Chloride	17C	17C
trans-1,2-Dichloroethene	LT 7.1	LT 7.3
1,1-Dichloroethane	LT 7.1	LT 7.3
Chloroprene	LT 14	LT 15
Propionitrile	LT 140	LT 150
Methacrylonitrile	LT 140	LT 150
Chloroform	LT 7.1	LT 7.3
1,2-Dichloroethane	LT 7.1	LT 7.3
2-Butanone	LT 170	LT 150
1,1,1-Trichloroethane	LT 7.1	LT 7.3
Carbon Tetrachloride	LT 7.1	LT 7.3
Benzene	LT 7.1	LT 7.3
Vinyl Acetate	LT 170	LT 150
Trichloroethene	LT 7.1	LT 7.3
Isobutyl Alcohol	LT 170	LT 150
1,2-Dichloropropane	LT 7.1	LT 7.3
Methyl methacrylate	LT 7.1	LT 7.3
Dibromomethane	LT 7.1	LT 7.3
Bromodichloromethane	LT 7.1	LT 7.3
2-Chloroethylvinyl ether	LT 14	LT 15
cis-1,3-Dichloropropene	LT 7.1	LT 7.3
4-Methyl-2-pentanone	LT 71	LT 73
2-Hexanone	LT 71	LT 73
Toluene	LT 7.1	LT 7.3
trans-1,3-Dichloropropene	LT 7.1	LT 7.3
Ethyl methacrylate	LT 7.1	LT 7.3
1,1,2-Trichloroethane	LT 7.1	LT 7.3
Tetrachloroethene	LT 7.1	LT 7.3
Dibromochloromethane	LT 7.1	LT 7.3
1,2-Dibromoethane	LT 7.1	LT 7.3
Chlorobenzene	LT 7.1	LT 7.3
1,1,1,2-Tetrachloroethane	LT 7.1	LT 7.3
Ethylbenzene	LT 7.1	LT 7.3
M,P- Xylenes	LT 7.1	LT 7.3
O-Xylene	LT 7.1	LT 7.3
Styrene	LT 7.1	LT 7.3
Bromoform	LT 7.1	LT 7.3
1,1,2,2-Tetrachloroethane	LT 7.1	LT 7.3
1,4-Dichloro-2-butene	LT 14	LT 15
1,2,3-Trichloropropane	LT 7.1	LT 7.3
Pentachloroethane	LT 14	LT 15
Benzyl chloride	LT 14	LT 15
1,2-Dibromo-3-chloropropane	LT 14	LT 15

C = Found in the Method Blank at 5.1 ug/Kg

	ACTS # 4B-0248E SS-107-A	ACTS # 4B-0249E SS-107-B
EPA 8240:		
Dichlorodifluoromethane	LT 6.7	LT 6.7
Chloromethane	LT 6.7	LT 6.7
Vinyl Chloride	LT 1.3	LT 1.3
Bromomethane	LT 13	LT 13
Chloroethane	LT 13	LT 13
1,1-Dichloroethene	LT 6.7	LT 6.7
Acetone	LT 130	LT 130
Methyl Iodide	LT 6.7	LT 6.7
Carbon Disulfide	LT 130	LT 130
Acetonitrile	LT 130	LT 130
Allyl Chloride	LT 6.7	LT 6.7
Methylene Chloride	35C	44D
trans-1,2-Dichloroethene	LT 6.7	LT 6.7
1,1-Dichloroethane	LT 6.7	LT 6.7
Chloroprene	LT 13	LT 13
Propionitrile	LT 130	LT 130
Methacrylonitrile	LT 130	LT 130
Chloroform	LT 6.7	LT 6.7
1,2-Dichloroethane	LT 6.7	LT 6.7
2-Butanone	LT 130	LT 130
1,1,1-Trichloroethane	LT 6.7	LT 6.7
Carbon Tetrachloride	LT 6.7	LT 6.7
Benzene	LT 6.7	LT 6.7
Vinyl Acetate	LT 130	LT 130
Trichloroethene	LT 6.7	LT 6.7
Isobutyl Alcohol	LT 130	LT 130
1,2-Dichloropropane	LT 6.7	LT 6.7
Methyl methacrylate	LT 6.7	LT 6.7
Dibromomethane	LT 6.7	LT 6.7
Bromodichloromethane	LT 6.7	LT 6.7
2-Chloroethylvinyl ether	LT 13	LT 13
cis-1,3-Dichloropropene	LT 6.7	LT 6.7
4-Methyl-2-pentanone	LT 67	LT 67
2-Hexanone	LT 67	LT 67
Toluene	LT 6.7	LT 6.7
trans-1,3-Dichloropropene	LT 6.7	LT 6.7
Ethyl methacrylate	LT 6.7	LT 6.7
1,1,2-Trichloroethane	LT 6.7	LT 6.7
Tetrachloroethene	LT 6.7	LT 6.7
Dibromochloromethane	LT 6.7	LT 6.7
1,2-Dibromoethane	LT 6.7	LT 6.7
Chlorobenzene	LT 6.7	LT 6.7
1,1,1,2-Tetrachloroethane	LT 6.7	LT 6.7
Ethylbenzene	LT 6.7	LT 6.7
M,P- Xylenes	LT 6.7	LT 6.7
O-Xylene	LT 6.7	LT 6.7
Styrene	LT 6.7	LT 6.7
Bromoform	LT 6.7	LT 6.7
1,1,2,2-Tetrachloroethane	LT 6.7	LT 6.7
1,4-Dichloro-2-butene	LT 13	LT 13
1,2,3-Trichloropropane	LT 6.7	LT 6.7
Pentachloroethane	LT 13	LT 13
Benzyl chloride	LT 13	LT 13
1,2-Dibromo-3-chloropropane	LT 13	LT 13

C = Found in the Method Blank at 5.1 ug/Kg
D = Found in the Method Blank at 8.9 ug/Kg

EPA 8240:

Dichlorodifluoromethane	LT 9.6
Chloromethane	LT 9.6
Vinyl Chloride	LT 1.9
Bromomethane	LT 19
Chloroethane	LT 19
1,1-Dichloroethene	LT 9.6
Acetone	LT 190
Methyl Iodide	LT 9.6
Carbon Disulfide	LT 190
Acetonitrile	LT 190
Allyl Chloride	LT 9.6
Methylene Chloride	52D
trans-1,2-Dichloroethene	LT 9.6
1,1-Dichloroethane	LT 9.6
Chloroprene	LT 19
Propionitrile	LT 190
Methacrylonitrile	LT 190
Chloroform	LT 9.6
1,2-Dichloroethane	LT 9.6
2-Butanone	LT 190
1,1,1-Trichloroethane	LT 9.6
Carbon Tetrachloride	LT 9.6
Benzene	LT 9.6
Vinyl Acetate	LT 190
Trichloroethene	LT 9.6
Isobutyl Alcohol	LT 190
1,2-Dichloropropane	LT 9.6
Methyl methacrylate	LT 9.6
Dibromomethane	LT 9.6
Bromodichloromethane	LT 9.6
2-Chloroethylvinyl ether	LT 19
cis-1,3-Dichloropropene	LT 9.6
4-Methyl-2-pentanone	LT 96
2-Hexanone	LT 96
Toluene	LT 9.6
trans-1,3-Dichloropropene	LT 9.6
Ethyl methacrylate	LT 9.6
1,1,2-Trichloroethane	LT 9.6
Tetrachloroethene	LT 9.6
Dibromochloromethane	LT 9.6
1,2-Dibromoethane	LT 9.6
Chlorobenzene	LT 9.6
1,1,1,2-Tetrachloroethane	LT 9.6
Ethylbenzene	LT 9.6
M,P- Xylenes	LT 9.6
O-Xylene	LT 9.6
Styrene	LT 9.6
Bromoform	LT 9.6
1,1,2,2-Tetrachloroethane	LT 9.6
1,4-Dichloro-2-butene	LT 19
1,2,3-Trichloropropane	LT 9.6
Pentachloroethane	LT 19
Benzyl chloride	LT 19
1,2-Dibromo-3-chloropropane	LT 19

D = Found in the Method Blank at 8.9 ug/Kg

	ACTS # 4B-0252E SS-109-A	ACTS # 4B-0253E SS-109-B
EPA 8240:		
Dichlorodifluoromethane	LT 7.8	LT 6.3
Chloromethane	LT 7.8	LT 6.3
Vinyl Chloride	LT 1.6	LT 1.3
Bromomethane	LT 16	LT 13
Chloroethane	LT 16	LT 13
1,1-Dichloroethene	LT 7.8	LT 6.3
Acetone	LT 160	LT 130
Methyl Iodide	LT 7.8	LT 6.3
Carbon Disulfide	LT 160	LT 130
Acetonitrile	LT 160	LT 130
Allyl Chloride	LT 7.8	LT 6.3
Methylene Chloride	40D	52D
trans-1,2-Dichloroethene	LT 7.8	LT 6.3
1,1-Dichloroethane	LT 7.8	LT 6.3
Chloroprene	LT 16	LT 13
Propionitrile	LT 160	LT 130
Methacrylonitrile	LT 160	LT 130
Chloroform	LT 7.8	LT 6.3
1,2-Dichloroethane	LT 7.8	LT 6.3
2-Butanone	LT 160	LT 130
1,1,1-Trichloroethane	LT 7.8	LT 6.3
Carbon Tetrachloride	LT 7.8	LT 6.3
Benzene	LT 7.8	LT 6.3
Vinyl Acetate	LT 160	LT 130
Trichloroethene	LT 7.8	LT 6.3
Isobutyl Alcohol	LT 160	LT 130
1,2-Dichloropropane	LT 7.8	LT 6.3
Methyl methacrylate	LT 7.8	LT 6.3
Dibromomethane	LT 7.8	LT 6.3
Bromodichloromethane	LT 7.8	LT 6.3
2-Chloroethylvinyl ether	LT 16	LT 13
cis-1,3-Dichloropropene	LT 7.8	LT 6.3
4-Methyl-2-pentanone	LT 78	LT 63
2-Hexanone	LT 78	LT 63
Toluene	LT 7.8	LT 6.3
trans-1,3-Dichloropropene	LT 7.8	LT 6.3
Ethyl methacrylate	LT 7.8	LT 6.3
1,1,2-Trichloroethane	LT 7.8	LT 6.3
Tetrachloroethene	LT 7.8	LT 6.3
Dibromochloromethane	LT 7.8	LT 6.3
1,2-Dibromoethane	LT 7.8	LT 6.3
Chlorobenzene	LT 7.8	LT 6.3
1,1,1,2-Tetrachloroethane	LT 7.8	LT 6.3
Ethylbenzene	LT 7.8	LT 6.3
M,P- Xylenes	LT 7.8	LT 6.3
O-Xylene	LT 7.8	LT 6.3
Styrene	LT 7.8	LT 6.3
Bromoform	LT 7.8	LT 6.3
1,1,2,2-Tetrachloroethane	LT 7.8	LT 6.3
1,4-Dichloro-2-butene	LT 16	LT 13
1,2,3-Trichloropropane	LT 7.8	LT 6.3
Pentachloroethane	LT 16	LT 13
Benzyl chloride	LT 16	LT 13
1,2-Dibromo-3-chloropropane	LT 16	LT 13

D = Found in the Method Blank at 8.9 ug/Kg

EPA 8240:		
Dichlorodifluoromethane	LT 11	LT 6.4
Chloromethane	LT 11	LT 6.4
Vinyl Chloride	LT 2.1	LT 1.3
Bromomethane	LT 21	LT 13
Chloroethane	LT 21	LT 13
1,1-Dichloroethene	LT 11	LT 6.4
Acetone	LT 210	LT 130
Methyl Iodide	LT 11	LT 6.4
Carbon Disulfide	LT 210	LT 130
Acetonitrile	LT 210	LT 130
Allyl Chloride	LT 11	LT 6.4
Methylene Chloride	100D	32D
trans-1,2-Dichloroethene	LT 11	LT 6.4
1,1-Dichloroethane	LT 11	LT 6.4
Chloroprene	LT 21	LT 13
Propionitrile	LT 210	LT 130
Methacrylonitrile	LT 210	LT 130
Chloroform	LT 11	LT 6.4
1,2-Dichloroethane	LT 11	LT 6.4
2-Butanone	LT 210	LT 130
1,1,1-Trichloroethane	LT 11	LT 6.4
Carbon Tetrachloride	LT 11	LT 6.4
Benzene	LT 11	LT 6.4
Vinyl Acetate	LT 210	LT 130
Trichloroethene	LT 11	LT 6.4
Isobutyl Alcohol	LT 210	LT 130
1,2-Dichloropropane	LT 11	LT 6.4
Methyl methacrylate	LT 11	LT 6.4
Dibromomethane	LT 11	LT 6.4
Bromodichloromethane	LT 11	LT 6.4
2-Chloroethylvinyl ether	LT 21	LT 13
cis-1,3-Dichloropropene	LT 11	LT 6.4
4-Methyl-2-pentanone	LT 110	LT 64
2-Hexanone	LT 110	LT 64
Toluene	LT 11	LT 6.4
trans-1,3-Dichloropropene	LT 11	LT 6.4
Ethyl methacrylate	LT 11	LT 6.4
1,1,2-Trichloroethane	LT 11	LT 6.4
Tetrachloroethene	LT 11	LT 6.4
Dibromochloromethane	LT 11	LT 6.4
1,2-Dibromoethane	LT 11	LT 6.4
Chlorobenzene	LT 11	LT 6.4
1,1,1,2-Tetrachloroethane	LT 11	LT 6.4
Ethylbenzene	LT 11	LT 6.4
M,P- Xylenes	LT 11	LT 6.4
O-Xylene	LT 11	LT 6.4
Styrene	LT 11	LT 6.4
Bromoform	LT 11	LT 6.4
1,1,2,2-Tetrachloroethane	LT 11	LT 6.4
1,4-Dichloro-2-butene	LT 21	LT 13
1,2,3-Trichloropropane	LT 11	LT 6.4
Pentachloroethane	LT 21	LT 13
Benzyl chloride	LT 21	LT 13
1,2-Dibromo-3-chloropropane	LT 21	LT 13

D = Found in the Method Blank at 8.9 ug/Kg

EPA 8240:

Dichlorodifluoromethane	LT 5.0
Chloromethane	LT 5.0
Vinyl Chloride	LT 1.0
Bromomethane	LT 10.0
Chloroethane	LT 10.0
1,1-Dichloroethene	17
Acetone	LT 100.0
Methyl Iodide	LT 5.0
Carbon Disulfide	LT 100.0
Acetonitrile	LT 100.0
Allyl Chloride	LT 5.0
Methylene Chloride	LT 5.0
trans-1,2-Dichloroethene	LT 5.0
1,1-Dichloroethane	63
Chloroprene	LT 10.0
Propionitrile	LT 100.0
Methacrylonitrile	LT 100.0
Chloroform	LT 5.0
1,2-Dichloroethane	LT 5.0
2-Butanone	LT 100.0
1,1,1-Trichloroethane	LT 5.0
Carbon Tetrachloride	LT 5.0
Benzene	LT 5.0
Vinyl Acetate	LT 100.0
Trichloroethene	290
Isobutyl Alcohol	LT 100.0
1,2-Dichloropropane	LT 5.0
Methyl methacrylate	LT 5.0
Dibromomethane	LT 5.0
Bromodichloromethane	LT 5.0
2-Chloroethylvinyl ether	LT 10.0
cis-1,3-Dichloropropene	LT 5.0
4-Methyl-2-pentanone	LT 50.0
2-Hexanone	LT 50.0
Toluene	LT 5.0
trans-1,3-Dichloropropene	LT 5.0
Ethyl methacrylate	LT 5.0
1,1,2-Trichloroethane	LT 5.0
Tetrachloroethene	28
Dibromochloromethane	LT 5.0
1,2-Dibromoethane	LT 5.0
Chlorobenzene	LT 5.0
1,1,1,2-Tetrachloroethane	LT 5.0
Ethylbenzene	LT 5.0
M,P- Xylenes	LT 5.0
O-Xylene	LT 5.0
Styrene	LT 5.0
Bromoform	LT 5.0
1,1,2,2-Tetrachloroethane	LT 5.0
1,4-Dichloro-2-butene	LT 10.0
1,2,3-Trichloropropane	LT 5.0
Pentachloroethane	LT 10.0
Benzyl chloride	LT 10.0
1,2-Dibromo-3-chloropropane	LT 10.0

EPA 8240:		
Dichlorodifluoromethane	LT 5.0	LT 5.0
Chloromethane	LT 5.0	LT 5.0
Vinyl Chloride	LT 1.0	LT 1.0
Bromomethane	LT 10.0	LT 10.0
Chloroethane	LT 10.0	LT 10.0
1,1-Dichloroethene	LT 5.0	LT 5.0
Acetone	LT 100.0	LT 100.0
Methyl Iodide	LT 5.0	LT 5.0
Carbon Disulfide	LT 100.0	LT 100.0
Acetonitrile	LT 100.0	LT 100.0
Allyl Chloride	LT 5.0	LT 5.0
Methylene Chloride	7.4	14
trans-1,2-Dichloroethene	LT 5.0	LT 5.0
1,1-Dichloroethane	LT 5.0	LT 5.0
Chloroprene	LT 10.0	LT 10.0
Propionitrile	LT 100.0	LT 100.0
Methacrylonitrile	LT 100.0	LT 100.0
Chloroform	11	LT 5.0
1,2-Dichloroethane	LT 5.0	LT 5.0
2-Butanone	LT 100.0	LT 100.0
1,1,1-Trichloroethane	LT 5.0	LT 5.0
Carbon Tetrachloride	LT 5.0	LT 5.0
Benzene	LT 5.0	LT 5.0
Vinyl Acetate	LT 100.0	LT 100.0
Trichloroethene	LT 5.0	LT 5.0
Isobutyl Alcohol	LT 100.0	LT 100.0
1,2-Dichloropropane	LT 5.0	LT 5.0
Methyl methacrylate	LT 5.0	LT 5.0
Dibromomethane	LT 5.0	LT 5.0
Bromodichloromethane	LT 5.0	LT 5.0
2-Chloroethylvinyl ether	LT 10.0	LT 10.0
cis-1,3-Dichloropropene	LT 5.0	LT 5.0
4-Methyl-2-pentanone	LT 50.0	LT 50.0
2-Hexanone	LT 50.0	LT 50.0
Toluene	LT 5.0	LT 5.0
trans-1,3-Dichloropropene	LT 5.0	LT 5.0
Ethyl methacrylate	LT 5.0	LT 5.0
1,1,2-Trichloroethane	LT 5.0	LT 5.0
Tetrachloroethene	LT 5.0	LT 5.0
Dibromochloromethane	LT 5.0	LT 5.0
1,2-Dibromoethane	LT 5.0	LT 5.0
Chlorobenzene	LT 5.0	LT 5.0
1,1,1,2-Tetrachloroethane	LT 5.0	LT 5.0
Ethylbenzene	LT 5.0	LT 5.0
M,P- Xylenes	LT 5.0	LT 5.0
O-Xylene	LT 5.0	LT 5.0
Styrene	LT 5.0	LT 5.0
Bromoform	LT 5.0	LT 5.0
1,1,2,2-Tetrachloroethane	LT 5.0	LT 5.0
1,4-Dichloro-2-butene	LT 10.0	LT 10.0
1,2,3-Trichloropropane	LT 5.0	LT 5.0
Pentachloroethane	LT 10.0	LT 10.0
Benzyl chloride	LT 10.0	LT 10.0
1,2-Dibromo-3-chloropropane	LT 10.0	LT 10.0

EPA 8240:	
Dichlorodifluoromethane	LT 5.0
Chloromethane	LT 5.0
Vinyl Chloride	LT 1.0
Bromomethane	LT 10.0
Chloroethane	LT 10.0
1,1-Dichloroethene	LT 5.0
Acetone	LT 100.0
Methyl Iodide	LT 5.0
Carbon Disulfide	LT 100.0
Acetonitrile	LT 100.0
Allyl Chloride	LT 5.0
Methylene Chloride	7.6
trans-1,2-Dichloroethene	LT 5.0
1,1-Dichloroethane	LT 5.0
Chloroprene	LT 10.0
Propionitrile	LT 100.0
Methacrylonitrile	LT 100.0
Chloroform	11
1,2-Dichloroethane	LT 5.0
2-Butanone	LT 100.0
1,1,1-Trichloroethane	LT 5.0
Carbon Tetrachloride	LT 5.0
Benzene	LT 5.0
Vinyl Acetate	LT 100.0
Trichloroethene	LT 5.0
Isobutyl Alcohol	LT 100.0
1,2-Dichloropropane	LT 5.0
Methyl methacrylate	LT 5.0
Dibromomethane	LT 5.0
Bromodichloromethane	LT 5.0
2-Chloroethylvinyl ether	LT 10.0
cis-1,3-Dichloropropene	LT 5.0
4-Methyl-2-pentanone	LT 50.0
2-Hexanone	LT 50.0
Toluene	LT 5.0
trans-1,3-Dichloropropene	LT 5.0
Ethyl methacrylate	LT 5.0
1,1,2-Trichloroethane	LT 5.0
Tetrachloroethene	LT 5.0
Dibromochloromethane	LT 5.0
1,2-Dibromoethane	LT 5.0
Chlorobenzene	LT 5.0
1,1,1,2-Tetrachloroethane	LT 5.0
Ethylbenzene	LT 5.0
M,P- Xylenes	LT 5.0
O-Xylene	LT 5.0
Styrene	LT 5.0
Bromoform	LT 5.0
1,1,2,2-Tetrachloroethane	LT 5.0
1,4-Dichloro-2-butene	LT 10.0
1,2,3-Trichloropropane	LT 5.0
Pentachloroethane	LT 10.0
Benzyl chloride	LT 10.0
1,2-Dibromo-3-chloropropane	LT 10.0

EPA 8240:

Dichlorodifluoromethane	LT 5.0	LT 5.0
Chloromethane	LT 5.0	LT 5.0
Vinyl Chloride	LT 1.0	LT 1.0
Bromomethane	LT 10.0	LT 10.0
Chloroethane	LT 10.0	LT 10.0
1,1-Dichloroethene	LT 5.0	LT 5.0
Acetone	LT 100.0	LT 100.0
Methyl Iodide	LT 5.0	LT 5.0
Carbon Disulfide	LT 100.0	LT 100.0
Acetonitrile	LT 100.0	LT 100.0
Allyl Chloride	LT 5.0	LT 5.0
Methylene Chloride	10.0	8.2
trans-1,2-Dichloroethene	LT 5.0	LT 5.0
1,1-Dichloroethane	LT 5.0	LT 5.0
Chloroprene	LT 10.0	LT 10.0
Propionitrile	LT 100.0	LT 100.0
Methacrylonitrile	LT 100.0	LT 100.0
Chloroform	LT 5.0	LT 5.0
1,2-Dichloroethane	LT 5.0	LT 5.0
2-Butanone	LT 100.0	LT 100.0
1,1,1-Trichloroethane	LT 5.0	LT 5.0
Carbon Tetrachloride	LT 5.0	LT 5.0
Benzene	LT 5.0	LT 5.0
Vinyl Acetate	LT 100.0	LT 100.0
Trichloroethene	LT 5.0	LT 5.0
Isobutyl Alcohol	LT 100.0	LT 100.0
1,2-Dichloropropane	LT 5.0	LT 5.0
Methyl methacrylate	LT 5.0	LT 5.0
Dibromomethane	LT 5.0	LT 5.0
Bromodichloromethane	LT 5.0	LT 5.0
2-Chloroethylvinyl ether	LT 10.0	LT 10.0
cis-1,3-Dichloropropene	LT 5.0	LT 5.0
4-Methyl-2-pentanone	LT 50.0	LT 50.0
2-Hexanone	LT 50.0	LT 50.0
Toluene	LT 5.0	LT 5.0
trans-1,3-Dichloropropene	LT 5.0	LT 5.0
Ethyl methacrylate	LT 5.0	LT 5.0
1,1,2-Trichloroethane	LT 5.0	LT 5.0
Tetrachloroethene	LT 5.0	LT 5.0
Dibromochloromethane	LT 5.0	LT 5.0
1,2-Dibromoethane	LT 5.0	LT 5.0
Chlorobenzene	LT 5.0	LT 5.0
1,1,1,2-Tetrachloroethane	LT 5.0	LT 5.0
Ethylbenzene	LT 5.0	LT 5.0
M,P- Xylenes	LT 5.0	LT 5.0
O-Xylene	LT 5.0	LT 5.0
Styrene	LT 5.0	LT 5.0
Bromoform	LT 5.0	LT 5.0
1,1,2,2-Tetrachloroethane	LT 5.0	LT 5.0
1,4-Dichloro-2-butene	LT 10.0	LT 10.0
1,2,3-Trichloropropane	LT 5.0	LT 5.0
Pentachloroethane	LT 10.0	LT 10.0
Benzyl chloride	LT 10.0	LT 10.0
1,2-Dibromo-3-chloropropane	LT 10.0	LT 10.0

EPA 8240:		
Dichlorodifluoromethane	LT 5.7	LT 5.8
Chloromethane	LT 5.7	LT 5.8
Vinyl Chloride	LT 1.1	LT 1.2
Bromomethane	LT 11	LT 12
Chloroethane	LT 11	LT 12
1,1-Dichloroethene	LT 5.7	LT 5.8
Acetone	LT 110	LT 120
Methyl Iodide	LT 5.7	LT 5.8
Carbon Disulfide	LT 110	LT 120
Acetonitrile	LT 110	LT 120
Allyl Chloride	LT 5.7	LT 5.8
Methylene Chloride	16B	19B
trans-1,2-Dichloroethene	LT 5.7	LT 5.8
1,1-Dichloroethane	LT 5.7	LT 5.8
Chloroprene	LT 11	LT 12
Propionitrile	LT 110	LT 120
Methacrylonitrile	LT 110	LT 120
Chloroform	LT 5.7	LT 5.8
1,2-Dichloroethane	LT 5.7	LT 5.8
2-Butanone	LT 110	LT 120
1,1,1-Trichloroethane	LT 5.7	LT 5.8
Carbon Tetrachloride	LT 5.7	LT 5.8
Benzene	LT 5.7	LT 5.8
Vinyl Acetate	LT 110	LT 120
Trichloroethene	LT 5.7	LT 5.8
Isobutyl Alcohol	LT 110	LT 120
1,2-Dichloropropane	LT 5.7	LT 5.8
Methyl methacrylate	LT 5.7	LT 5.8
Dibromomethane	LT 5.7	LT 5.8
Bromodichloromethane	LT 5.7	LT 5.8
2-Chloroethylvinyl ether	LT 11	LT 12
cis-1,3-Dichloropropene	LT 5.7	LT 5.8
4-Methyl-2-pentanone	LT 57	LT 58
2-Hexanone	LT 57	LT 58
Toluene	LT 5.7	LT 5.8
trans-1,3-Dichloropropene	LT 5.7	LT 5.8
Ethyl methacrylate	LT 5.7	LT 5.8
1,1,2-Trichloroethane	LT 5.7	LT 5.8
Tetrachloroethene	LT 5.7	LT 5.8
Dibromochloromethane	LT 5.7	LT 5.8
1,2-Dibromoethane	LT 5.7	LT 5.8
Chlorobenzene	LT 5.7	LT 5.8
1,1,1,2-Tetrachloroethane	LT 5.7	LT 5.8
Ethylbenzene	LT 5.7	LT 5.8
M,P- Xylenes	LT 5.7	LT 5.8
O-Xylene	LT 5.7	LT 5.8
Styrene	LT 5.7	LT 5.8
Bromoform	LT 5.7	LT 5.8
1,1,2,2-Tetrachloroethane	LT 5.7	LT 5.8
1,4-Dichloro-2-butene	LT 11	LT 12
1,2,3-Trichloropropane	LT 5.7	LT 5.8
Pentachloroethane	LT 11	LT 12
Benzyl chloride	LT 11	LT 12
1,2-Dibromo-3-chloropropane	LT 11	LT 12

B = Found in the Method Blank at 6.1 ug/Kg

	RPD	QC LIMITS*
EPA 8240:		
Dichlorodifluoromethane	0	0 - 15
Chloromethane	0	0 - 15
Vinyl Chloride	0	0 - 15
Bromomethane	0	0 - 15
Chloroethane	0	0 - 15
1,1-Dichloroethene	0	0 - 15
Acetone	0	0 - 15
Methyl Iodide	0	0 - 15
Carbon Disulfide	0	0 - 15
Acetonitrile	0	0 - 15
Allyl Chloride	0	0 - 15
Methylene Chloride	1.74	0 - 15
trans-1,2-Dichloroethene	0	0 - 15
1,1-Dichloroethane	0	0 - 15
Chloroprene	0	0 - 15
Propionitrile	0	0 - 15
Methacrylonitrile	0	0 - 15
Chloroform	0	0 - 15
1,2-Dichloroethane	0	0 - 15
2-Butanone	0	0 - 15
1,1,1-Trichloroethane	0	0 - 15
Carbon Tetrachloride	0	0 - 15
Benzene	0	0 - 15
Vinyl Acetate	0	0 - 15
Trichloroethene	0	0 - 15
Isobutyl Alcohol	0	0 - 15
1,2-Dichloropropane	0	0 - 15
Methyl methacrylate	0	0 - 15
Dibromomethane	0	0 - 15
Bromodichloromethane	0	0 - 15
2-Chloroethylvinyl ether	0	0 - 15
cis-1,3-Dichloropropene	0	0 - 15
4-Methyl-2-pentanone	0	0 - 15
2-Hexanone	0	0 - 15
Toluene	0	0 - 15
trans-1,3-Dichloropropene	0	0 - 15
Ethyl methacrylate	0	0 - 15
1,1,2-Trichloroethane	0	0 - 15
Tetrachloroethene	0	0 - 15
Dibromochloromethane	0	0 - 15
1,2-Dibromoethane	0	0 - 15
Chlorobenzene	0	0 - 15
1,1,1,2-Tetrachloroethane	0	0 - 15
Ethylbenzene	0	0 - 15
M,P- Xylenes	0	0 - 15
O-Xylene	0	0 - 15
Styrene	0	0 - 15
Bromoform	0	0 - 15
1,1,2,2-Tetrachloroethane	0	0 - 15
1,4-Dichloro-2-butene	0	0 - 15
1,2,3-Trichloropropane	0	0 - 15
Pentachloroethane	0	0 - 15
Benzyl chloride	0	0 - 15
1,2-Dibromo-3-chloropropane	0	0 - 15

* QC Limits are provisional
RPD = Relative Percent Difference

	ACTS # 4B-0236E SS-101-A	ACTS # 4B-0256E SB-101-A DUP
EPA 8240:		
Dichlorodifluoromethane	LT 6.8	LT 7.3
Chloromethane	LT 6.8	LT 7.3
Vinyl Chloride	LT 1.4	LT 1.5
Bromomethane	LT 14	LT 15
Chloroethane	LT 14	LT 15
1,1-Dichloroethene	LT 6.8	LT 7.3
Acetone	LT 140	LT 150
Methyl Iodide	LT 6.8	LT 7.3
Carbon Disulfide	LT 140	LT 150
Acetonitrile	LT 140	LT 150
Allyl Chloride	LT 6.8	LT 7.3
Methylene Chloride	35B	34D
trans-1,2-Dichloroethene	LT 6.8	LT 7.3
1,1-Dichloroethane	LT 6.8	LT 7.3
Chloroprene	LT 14	LT 15
Propionitrile	LT 140	LT 150
Methacrylonitrile	LT 140	LT 150
Chloroform	LT 6.8	LT 7.3
1,2-Dichloroethane	LT 6.8	LT 7.3
2-Butanone	LT 140	LT 150
1,1,1-Trichloroethane	LT 6.8	LT 7.3
Carbon Tetrachloride	LT 6.8	LT 7.3
Benzene	LT 6.8	LT 7.3
Vinyl Acetate	LT 140	LT 150
Trichloroethene	LT 6.8	LT 7.3
Isobutyl Alcohol	LT 140	LT 150
1,2-Dichloropropane	LT 6.8	LT 7.3
Methyl methacrylate	LT 6.8	LT 7.3
Dibromomethane	LT 6.8	LT 7.3
Bromodichloromethane	LT 6.8	LT 7.3
2-Chloroethylvinyl ether	LT 14	LT 15
cis-1,3-Dichloropropene	LT 6.8	LT 7.3
4-Methyl-2-pentanone	LT 68	LT 73
2-Hexanone	LT 68	LT 73
Toluene	LT 6.8	LT 7.3
trans-1,3-Dichloropropene	LT 6.8	LT 7.3
Ethyl methacrylate	LT 6.8	LT 7.3
1,1,2-Trichloroethane	LT 6.8	LT 7.3
Tetrachloroethene	LT 6.8	LT 7.3
Dibromochloromethane	LT 6.8	LT 7.3
1,2-Dibromoethane	LT 6.8	LT 7.3
Chlorobenzene	LT 6.8	LT 7.3
1,1,1,2-Tetrachloroethane	LT 6.8	LT 7.3
Ethylbenzene	LT 6.8	LT 7.3
M,P- Xylenes	LT 6.8	LT 7.3
O-Xylene	LT 6.8	LT 7.3
Styrene	LT 6.8	LT 7.3
Bromoform	LT 6.8	LT 7.3
1,1,2,2-Tetrachloroethane	LT 6.8	LT 7.3
1,4-Dichloro-2-butene	LT 14	LT 15
1,2,3-Trichloropropane	LT 6.8	LT 7.3
Pentachloroethane	LT 14	LT 15
Benzyl chloride	LT 14	LT 15
1,2-Dibromo-3-chloropropane	LT 14	LT 15

B = Found in the Method Blank at 6.1 ug/Kg
D = Found in the Method Blank at 8.9 ug/Kg

	RPD	QC LIMITS*
EPA 8240:		
Dichlorodifluoromethane	0	0 - 15
Chloromethane	0	0 - 15
Vinyl Chloride	0	0 - 15
Bromomethane	0	0 - 15
Chloroethane	0	0 - 15
1,1-Dichloroethene	0	0 - 15
Acetone	0	0 - 15
Methyl Iodide	0	0 - 15
Carbon Disulfide	0	0 - 15
Acetonitrile	0	0 - 15
Allyl Chloride	0	0 - 15
Methylene Chloride	2.9	0 - 15
trans-1,2-Dichloroethene	0	0 - 15
1,1-Dichloroethane	0	0 - 15
Chloroprene	0	0 - 15
Propionitrile	0	0 - 15
Methacrylonitrile	0	0 - 15
Chloroform	0	0 - 15
1,2-Dichloroethane	0	0 - 15
2-Butanone	0	0 - 15
1,1,1-Trichloroethane	0	0 - 15
Carbon Tetrachloride	0	0 - 15
Benzene	0	0 - 15
Vinyl Acetate	0	0 - 15
Trichloroethene	0	0 - 15
Isobutyl Alcohol	0	0 - 15
1,2-Dichloropropane	0	0 - 15
Methyl methacrylate	0	0 - 15
Dibromomethane	0	0 - 15
Bromodichloromethane	0	0 - 15
2-Chloroethylvinyl ether	0	0 - 15
cis-1,3-Dichloropropene	0	0 - 15
4-Methyl-2-pentanone	0	0 - 15
2-Hexanone	0	0 - 15
Toluene	0	0 - 15
trans-1,3-Dichloropropene	0	0 - 15
Ethyl methacrylate	0	0 - 15
1,1,2-Trichloroethane	0	0 - 15
Tetrachloroethene	0	0 - 15
Dibromochloromethane	0	0 - 15
1,2-Dibromoethane	0	0 - 15
Chlorobenzene	0	0 - 15
1,1,1,2-Tetrachloroethane	0	0 - 15
Ethylbenzene	0	0 - 15
M,P- Xylenes	0	0 - 15
O-Xylene	0	0 - 15
Styrene	0	0 - 15
Bromoform	0	0 - 15
1,1,2,2-Tetrachloroethane	0	0 - 15
1,4-Dichloro-2-butene	0	0 - 15
1,2,3-Trichloropropane	0	0 - 15
Pentachloroethane	0	0 - 15
Benzyl chloride	0	0 - 15
1,2-Dibromo-3-chloropropane	0	0 - 15

* QC Limits are provisional
RPD = Relative Percent Difference

EPA 8240:	ACTS # 4B-0251E SS-108-B	ACTS # 4B-0251E SS-108-B DUP In-house dup
Dichlorodifluoromethane	LT 6.5	LT 6.5
Chloromethane	LT 6.5	LT 6.5
Vinyl Chloride	LT 1.3	LT 1.3
Bromomethane	LT 13	LT 13
Chloroethane	LT 13	LT 13
1,1-Dichloroethene	LT 6.5	LT 6.5
Acetone	LT 130	LT 130
Methyl Iodide	LT 6.5	LT 6.5
Carbon Disulfide	LT 130	LT 130
Acetonitrile	LT 130	LT 130
Allyl Chloride	LT 6.5	LT 6.5
Methylene Chloride	26D	30D
trans-1,2-Dichloroethene	LT 6.5	LT 6.5
1,1-Dichloroethane	LT 6.5	LT 6.5
Chloroprene	LT 13	LT 13
Propionitrile	LT 130	LT 130
Methacrylonitrile	LT 130	LT 130
Chloroform	LT 6.5	LT 6.5
1,2-Dichloroethane	LT 6.5	LT 6.5
2-Butanone	LT 130	LT 130
1,1,1-Trichloroethane	LT 6.5	LT 6.5
Carbon Tetrachloride	LT 6.5	LT 6.5
Benzene	LT 6.5	LT 6.5
Vinyl Acetate	LT 130	LT 130
Trichloroethene	LT 6.5	LT 6.5
Isobutyl Alcohol	LT 130	LT 130
1,2-Dichloropropane	LT 6.5	LT 6.5
Methyl methacrylate	LT 6.5	LT 6.5
Dibromomethane	LT 6.5	LT 6.5
Bromodichloromethane	LT 6.5	LT 6.5
2-Chloroethylvinyl ether	LT 13	LT 13
cis-1,3-Dichloropropene	LT 6.5	LT 6.5
4-Methyl-2-pentanone	LT 65	LT 65
2-Hexanone	LT 65	LT 65
Toluene	LT 6.5	LT 6.5
trans-1,3-Dichloropropene	LT 6.5	LT 6.5
Ethyl methacrylate	LT 6.5	LT 6.5
1,1,2-Trichloroethane	LT 6.5	LT 6.5
Tetrachloroethene	LT 6.5	LT 6.5
Dibromochloromethane	LT 6.5	LT 6.5
1,2-Dibromoethane	LT 6.5	LT 6.5
Chlorobenzene	LT 6.5	LT 6.5
1,1,1,2-Tetrachloroethane	LT 6.5	LT 6.5
Ethylbenzene	LT 6.5	LT 6.5
M,P- Xylenes	LT 6.5	LT 6.5
O-Xylene	LT 6.5	LT 6.5
Styrene	LT 6.5	LT 6.5
Bromoform	LT 6.5	LT 6.5
1,1,2,2-Tetrachloroethane	LT 6.5	LT 6.5
1,4-Dichloro-2-butene	LT 13	LT 13
1,2,3-Trichloropropane	LT 6.5	LT 6.5
Pentachloroethane	LT 13	LT 13
Benzyl chloride	LT 13	LT 13
1,2-Dibromo-3-chloropropane	LT 13	LT 13

D = Found in the Method Blank at 8.9 ug/Kg

	RPD	QC LIMITS*
EPA 8240:		
Dichlorodifluoromethane	0	0 - 15
Chloromethane	0	0 - 15
Vinyl Chloride	0	0 - 15
Bromomethane	0	0 - 15
Chloroethane	0	0 - 15
1,1-Dichloroethene	0	0 - 15
Acetone	0	0 - 15
Methyl Iodide	0	0 - 15
Carbon Disulfide	0	0 - 15
Acetonitrile	0	0 - 15
Allyl Chloride	0	0 - 15
Methylene Chloride	14.3	0 - 15
trans-1,2-Dichloroethene	0	0 - 15
1,1-Dichloroethane	0	0 - 15
Chloroprene	0	0 - 15
Propionitrile	0	0 - 15
Methacrylonitrile	0	0 - 15
Chloroform	0	0 - 15
1,2-Dichloroethane	0	0 - 15
2-Butanone	0	0 - 15
1,1,1-Trichloroethane	0	0 - 15
Carbon Tetrachloride	0	0 - 15
Benzene	0	0 - 15
Vinyl Acetate	0	0 - 15
Trichloroethene	0	0 - 15
Isobutyl Alcohol	0	0 - 15
1,2-Dichloropropane	0	0 - 15
Methyl methacrylate	0	0 - 15
Dibromomethane	0	0 - 15
Bromodichloromethane	0	0 - 15
2-Chloroethylvinyl ether	0	0 - 15
cis-1,3-Dichloropropene	0	0 - 15
4-Methyl-2-pentanone	0	0 - 15
2-Hexanone	0	0 - 15
Toluene	0	0 - 15
trans-1,3-Dichloropropene	0	0 - 15
Ethyl methacrylate	0	0 - 15
1,1,2-Trichloroethane	0	0 - 15
Tetrachloroethene	0	0 - 15
Dibromochloromethane	0	0 - 15
1,2-Dibromoethane	0	0 - 15
Chlorobenzene	0	0 - 15
1,1,1,2-Tetrachloroethane	0	0 - 15
Ethylbenzene	0	0 - 15
M,P- Xylenes	0	0 - 15
O-Xylene	0	0 - 15
Styrene	0	0 - 15
Bromoform	0	0 - 15
1,1,2,2-Tetrachloroethane	0	0 - 15
1,4-Dichloro-2-butene	0	0 - 15
1,2,3-Trichloropropane	0	0 - 15
Pentachloroethane	0	0 - 15
Benzyl chloride	0	0 - 15
1,2-Dibromo-3-chloropropane	0	0 - 15

	ACTS # 4B-0280E GW-114 MONITOR WELL	ACTS #4B-0281E DUPLICATE GW-114 MONITOR WELL-DUPLICATE
EPA 8240:		
Dichlorodifluoromethane	LT 5.0	LT 5.0
Chloromethane	LT 5.0	LT 5.0
Vinyl Chloride	LT 1.0	LT 1.0
Bromomethane	LT 10.0	LT 10.0
Chloroethane	410	1300
1,1-Dichloroethene	19	110
Acetone	3300	2300
Methyl Iodide	LT 5.0	LT 5.0
Carbon Disulfide	LT 100.0	LT 100.0
Acetonitrile	LT 100.0	LT 100.0
Allyl Chloride	LT 5.0	LT 5.0
Methylene Chloride	8.8	5.2
trans-1,2-Dichloroethene	LT 5.0	LT 5.0
1,1-Dichloroethane	690	1200
Chloroprene	LT 10.0	LT 10.0
Propionitrile	LT 100.0	LT 100.0
Methacrylonitrile	LT 100.0	LT 100.0
Chloroform	LT 5.0	LT 5.0
1,2-Dichloroethane	11	15
2-Butanone	2600	1500
1,1,1-Trichloroethane	41	170
Carbon Tetrachloride	LT 5.0	LT 5.0
Benzene	7.5	18
Vinyl Acetate	3800	3600
Trichloroethene	420	670
Isobutyl Alcohol	310	330
1,2-Dichloropropane	LT 5.0	LT 5.0
Methyl methacrylate	LT 5.0	LT 5.0
Dibromomethane	LT 5.0	LT 5.0
Bromodichloromethane	LT 5.0	LT 5.0
2-Chloroethylvinyl ether	LT 10.0	LT 10.0
cis-1,3-Dichloropropene	LT 5.0	LT 5.0
4-Methyl-2-pentanone	77	80
2-Hexanone	LT 50.0	LT 50.0
Toluene	72	150
trans-1,3-Dichloropropene	LT 5.0	LT 5.0
Ethyl methacrylate	LT 5.0	LT 5.0
1,1,2-Trichloroethane	LT 5.0	LT 5.0
Tetrachloroethene	39	120
Dibromochloromethane	LT 5.0	LT 5.0
1,2-Dibromoethane	LT 5.0	LT 5.0
Chlorobenzene	LT 5.0	LT 5.0
1,1,1,2-Tetrachloroethane	LT 5.0	LT 5.0
Ethylbenzene	8.5	20
M,P- Xylenes	30	66
O-Xylene	15	29
Styrene	LT 5.0	LT 5.0
Bromoform	LT 5.0	LT 5.0
1,1,2,2-Tetrachloroethane	LT 5.0	LT 5.0
1,4-Dichloro-2-butene	LT 10.0	LT 10.0
1,2,3-Trichloropropane	LT 5.0	LT 5.0
Pentachloroethane	LT 10.0	LT 10.0
Benzyl chloride	LT 10.0	LT 10.0
1,2-Dibromo-3-chloropropane	LT 10.0	LT 10.0

The samples 4B-0280E and 4B-0281E were analyzed more than once and contained headspace.

	RPD	QC LIMITS*
EPA 8240:		
Dichlorodifluoromethane	0	0 - 15
Chloromethane	0	0 - 15
Vinyl Chloride	0	0 - 15
Bromomethane	0	0 - 15
Chloroethane	104	0 - 15
1,1-Dichloroethene	141	0 - 15
Acetone	35.7	0 - 15
Methyl Iodide	0	0 - 15
Carbon Disulfide	0	0 - 15
Acetonitrile	0	0 - 15
Allyl Chloride	0	0 - 15
Methylene Chloride	51.4	0 - 15
trans-1,2-Dichloroethene	0	0 - 15
1,1-Dichloroethane	53.97	0 - 15
Chloroprene	0	0 - 15
Propionitrile	0	0 - 15
Methacrylonitrile	0	0 - 15
Chloroform	0	0 - 15
1,2-Dichloroethane	30.77	0 - 15
2-Butanone	53.66	0 - 15
1,1,1-Trichloroethane	122.7	0 - 15
Carbon Tetrachloride	0	0 - 15
Benzene	82.45	0 - 15
Vinyl Acetate	5.41	0 - 15
Trichloroethene	45.87	0 - 15
Isobutyl Alcohol	3.13	0 - 15
1,2-Dichloropropane	0	0 - 15
Methyl methacrylate	0	0 - 15
Dibromomethane	0	0 - 15
Bromodichloromethane	0	0 - 15
2-Chloroethylvinyl ether	0	0 - 15
cis-1,3-Dichloropropene	0	0 - 15
4-Methyl-2-pentanone	3.82	0 - 15
2-Hexanone	0	0 - 15
Toluene	70.27	0 - 15
trans-1,3-Dichloropropene	0	0 - 15
Ethyl methacrylate	0	0 - 15
1,1,2-Trichloroethane	0	0 - 15
Tetrachloroethene	101.9	0 - 15
Dibromochloromethane	0	0 - 15
1,2-Dibromoethane	0	0 - 15
Chlorobenzene	0	0 - 15
1,1,1,2-Tetrachloroethane	0	0 - 15
Ethylbenzene	80.70	0 - 15
M,P- Xylenes	75.0	0 - 15
O-Xylene	63.64	0 - 15
Styrene	0	0 - 15
Bromoform	0	0 - 15
1,1,2,2-Tetrachloroethane	0	0 - 15
1,4-Dichloro-2-butene	0	0 - 15
1,2,3-Trichloropropane	0	0 - 15
Pentachloroethane	0	0 - 15
Benzyl chloride	0	0 - 15
1,2-Dibromo-3-chloropropane	0	0 - 15

* QC limits are provisional.
RPD = Relative Percent Difference

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

	ACTS # 4B-0281E GW-114 MONITOR WELL	ACTS #4B-0281E MATRIX SPIKE GW-114 MONITOR WELL	ACTS #4B-0281EMSD MATRIX SPIKE DUPLICATE
1,1-Dichloroethene	110	120	100
Benzene	18	37	34
Trichloroethene	670	680	630
Toluene	150	160	140
Chlorobenzene	0	20	19

	MATRIX SPIKE % RECOVERY	MATRIX SPIKE DUPLICATE % RECOVERY	ACTS # 4B-0281E RPD
1,1-Dichloroethene	50	77	42
Benzene	95	89	6
Trichloroethene	50	91	58
Toluene	50	82	49
Chlorobenzene	100	95	5

	QC LIMITS-WATER	
	RPD	% RECOVERY
1,1-Dichloroethene	≤ 14	61 - 145
Benzene	≤ 14	76 - 127
Trichloroethene	≤ 14	71 - 120
Toluene	≤ 13	76 - 125
Chlorobenzene	≤ 13	75 - 130

≤ = Less Than or Equal To
RPD = Relative Percent Difference

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

	ACTS # 4B-0243E SS-104-B	ACTS #4B-0243E MATRIX SPIKE SS-104-B	ACTS #4B-0243EMSD MATRIX SPIKE DUPLICATE
1,1-Dichloroethene	0	5	20
Benzene	0	21	22
Trichloroethene	0	14	20
Toluene	0	19	22
Chlorobenzene	0	18	23

	MATRIX SPIKE % RECOVERY	MATRIX SPIKE DUPLICATE % RECOVERY	ACTS # 4B-0243E RPD
1,1-Dichloroethene	30	111	115
Benzene	117	122	5
Trichloroethene	78	111	35
Toluene	106	122	15
Chlorobenzene	100	128	24

	ACTS # 4B-0252E SS-109-A	ACTS #4B-0252E MATRIX SPIKE SS-109-A	ACTS #4B-0252EMSD MATRIX SPIKE DUPLICATE
1,1-Dichloroethene	0	29	25
Benzene	0	27	27
Trichloroethene	0	24	25
Toluene	0	25	27
Chlorobenzene	0	25	29

	MATRIX SPIKE % RECOVERY	MATRIX SPIKE DUPLICATE % RECOVERY	ACTS # 4B-0252E RPD
1,1-Dichloroethene	121	104	15
Benzene	113	113	0
Trichloroethene	100	104	4
Toluene	104	113	8
Chlorobenzene	104	121	15

	QC LIMITS	
	RPD	% RECOVERY
1,1-Dichloroethene	22	59 - 172
Benzene	21	66 - 142
Trichloroethene	24	62 - 137
Toluene	21	59 - 139
Chlorobenzene	21	60 - 133

≤ = Less Than or Equal To
RPD = Relative Percent Difference

	METHOD BLANK MB020394	QC LIMITS
EPA 8240:		
Dichlorodifluoromethane	LT 5.0	10.0
Chloromethane	LT 5.0	10.0
Vinyl Chloride	LT 1.0	2.0
Bromomethane	LT 10.0	20.0
Chloroethane	LT 10.0	20.0
1,1-Dichloroethene	LT 5.0	10.0
Acetone	LT 100.0	200.0
Methyl Iodide	LT 5.0	10.0
Carbon Disulfide	LT 100.0	200.0
Acetonitrile	LT 100.0	200.0
Allyl Chloride	LT 5.0	10.0
Methylene Chloride	LT 5.0	10.0
trans-1,2-Dichloroethene	LT 5.0	10.0
1,1-Dichloroethane	LT 5.0	10.0
Chloroprene	LT 10.0	20.0
Propionitrile	LT 100.0	200.0
Methacrylonitrile	LT 100.0	200.0
Chloroform	LT 5.0	10.0
1,2-Dichloroethane	LT 5.0	10.0
2-Butanone	LT 100.0	200.0
1,1,1-Trichloroethane	LT 5.0	10.0
Carbon Tetrachloride	LT 5.0	10.0
Benzene	LT 5.0	10.0
Vinyl Acetate	LT 100.0	200.0
Trichloroethene	LT 5.0	10.0
Isobutyl Alcohol	LT 100.0	200.0
1,2-Dichloropropane	LT 5.0	10.0
Methyl methacrylate	LT 5.0	10.0
Dibromomethane	LT 5.0	10.0
Bromodichloromethane	LT 5.0	10.0
2-Chloroethylvinyl ether	LT 10.0	20.0
cis-1,3-Dichloropropene	LT 5.0	10.0
4-Methyl-2-pentanone	LT 50.0	100.0
2-Hexanone	LT 50.0	100.0
Toluene	LT 5.0	10.0
trans-1,3-Dichloropropene	LT 5.0	10.0
Ethyl methacrylate	LT 5.0	10.0
1,1,2-Trichloroethane	LT 5.0	10.0
Tetrachloroethene	LT 5.0	10.0
Dibromochloromethane	LT 5.0	10.0
1,2-Dibromoethane	LT 5.0	10.0
Chlorobenzene	LT 5.0	10.0
1,1,1,2-Tetrachloroethane	LT 5.0	10.0
Ethylbenzene	LT 5.0	10.0
M,P- Xylenes	LT 5.0	10.0
O-Xylene	LT 5.0	10.0
Styrene	LT 5.0	10.0
Bromoform	LT 5.0	10.0
1,1,2,2-Tetrachloroethane	LT 5.0	10.0
1,4-Dichloro-2-butene	LT 10.0	20.0
1,2,3-Trichloropropane	LT 5.0	10.0
Pentachloroethane	LT 10.0	20.0
Benzyl chloride	LT 10.0	20.0
1,2-Dibromo-3-chloropropane	LT 10.0	20.0

EPA 8240:	METHOD BLANK MB020494	QC LIMITS
Dichlorodifluoromethane	LT 5.0	10.0
Chloromethane	LT 5.0	10.0
Vinyl Chloride	LT 1.0	2.0
Bromomethane	LT 10.0	20.0
Chloroethane	LT 10.0	20.0
1,1-Dichloroethene	LT 5.0	10.0
Acetone	LT 100.0	200.0
Methyl Iodide	LT 5.0	10.0
Carbon Disulfide	LT 100.0	200.0
Acetonitrile	LT 100.0	200.0
Allyl Chloride	LT 5.0	10.0
Methylene Chloride	6.1	10.0
trans-1,2-Dichloroethene	LT 5.0	10.0
1,1-Dichloroethane	LT 5.0	10.0
Chloroprene	LT 10.0	20.0
Propionitrile	LT 100.0	200.0
Methacrylonitrile	LT 100.0	200.0
Chloroform	LT 5.0	10.0
1,2-Dichloroethane	LT 5.0	10.0
2-Butanone	LT 100.0	200.0
1,1,1-Trichloroethane	LT 5.0	10.0
Carbon Tetrachloride	LT 5.0	10.0
Benzene	LT 5.0	10.0
Vinyl Acetate	LT 100.0	200.0
Trichloroethene	LT 5.0	10.0
Isobutyl Alcohol	LT 100.0	200.0
1,2-Dichloropropane	LT 5.0	10.0
Methyl methacrylate	LT 5.0	10.0
Dibromomethane	LT 5.0	10.0
Bromodichloromethane	LT 5.0	10.0
2-Chloroethylvinyl ether	LT 10.0	20.0
cis-1,3-Dichloropropene	LT 5.0	10.0
4-Methyl-2-pentanone	LT 50.0	100.0
2-Hexanone	LT 50.0	100.0
Toluene	LT 5.0	10.0
trans-1,3-Dichloropropene	LT 5.0	10.0
Ethyl methacrylate	LT 5.0	10.0
1,1,2-Trichloroethane	LT 5.0	10.0
Tetrachloroethene	LT 5.0	10.0
Dibromochloromethane	LT 5.0	10.0
1,2-Dibromoethane	LT 5.0	10.0
Chlorobenzene	LT 5.0	10.0
1,1,1,2-Tetrachloroethane	LT 5.0	10.0
Ethylbenzene	LT 5.0	10.0
M,P- Xylenes	LT 5.0	10.0
O-Xylene	LT 5.0	10.0
Styrene	LT 5.0	10.0
Bromoform	LT 5.0	10.0
1,1,2,2-Tetrachloroethane	LT 10.0	20.0
1,4-Dichloro-2-butene	LT 5.0	10.0
1,2,3-Trichloropropane	LT 10.0	20.0
Pentachloroethane	LT 10.0	20.0
Benzyl chloride	LT 10.0	20.0
1,2-Dibromo-3-chloropropane		

	METHOD BLANK MB020694	QC LIMITS
EPA 8240:		
Dichlorodifluoromethane	LT 5.0	10.0
Chloromethane	LT 5.0	10.0
Vinyl Chloride	LT 1.0	2.0
Bromomethane	LT 10.0	20.0
Chloroethane	LT 10.0	20.0
1,1-Dichloroethene	LT 5.0	10.0
Acetone	LT 100.0	200.0
Methyl Iodide	LT 5.0	10.0
Carbon Disulfide	LT 100.0	200.0
Acetonitrile	LT 100.0	200.0
Allyl Chloride	LT 5.0	10.0
Methylene Chloride	8.9	10.0
trans-1,2-Dichloroethene	LT 5.0	10.0
1,1-Dichloroethane	LT 5.0	10.0
Chloroprene	LT 10.0	20.0
Propionitrile	LT 100.0	200.0
Methacrylonitrile	LT 100.0	200.0
Chloroform	LT 5.0	10.0
1,2-Dichloroethane	LT 5.0	10.0
2-Butanone	LT 100.0	200.0
1,1,1-Trichloroethane	LT 5.0	10.0
Carbon Tetrachloride	LT 5.0	10.0
Benzene	LT 5.0	10.0
Vinyl Acetate	LT 100.0	200.0
Trichloroethene	LT 5.0	10.0
Isobutyl Alcohol	LT 100.0	200.0
1,2-Dichloropropane	LT 5.0	10.0
Methyl methacrylate	LT 5.0	10.0
Dibromomethane	LT 5.0	10.0
Bromodichloromethane	LT 5.0	10.0
2-Chloroethylvinyl ether	LT 10.0	20.0
cis-1,3-Dichloropropene	LT 5.0	10.0
4-Methyl-2-pentanone	LT 50.0	100.0
2-Hexanone	LT 50.0	100.0
Toluene	LT 5.0	10.0
trans-1,3-Dichloropropene	LT 5.0	10.0
Ethyl methacrylate	LT 5.0	10.0
1,1,2-Trichloroethane	LT 5.0	10.0
Tetrachloroethene	LT 5.0	10.0
Dibromochloromethane	LT 5.0	10.0
1,2-Dibromoethane	LT 5.0	10.0
Chlorobenzene	LT 5.0	10.0
1,1,1,2-Tetrachloroethane	LT 5.0	10.0
Ethylbenzene	LT 5.0	10.0
M,P- Xylenes	LT 5.0	10.0
O-Xylene	LT 5.0	10.0
Styrene	LT 5.0	10.0
Bromoform	LT 5.0	10.0
1,1,2,2-Tetrachloroethane	LT 5.0	10.0
1,4-Dichloro-2-butene	LT 10.0	20.0
1,2,3-Trichloropropane	LT 5.0	10.0
Pentachloroethane	LT 10.0	20.0
Benzyl chloride	LT 10.0	20.0
1,2-Dibromo-3-chloropropane	LT 10.0	20.0

	AMOUNT ADDED, (ug/L) SB020394	SPIKE BLANK SB020394 CONCENTRATION (ug/L)
EPA 8240:		
Dichlorodifluoromethane	20.0	22.0
Chloromethane	20.0	21.0
Vinyl Chloride	20.0	21.0
Bromomethane	20.0	21.0
Chloroethane	20.0	21.0
1,1-Dichloroethene	20.0	21.0
Acetone	20.0	-
Methyl Iodide	20.0	24.0
Carbon Disulfide	20.0	-
Acetonitrile	20.0	-
Allyl Chloride	20.0	21.0
Methylene Chloride	20.0	17.0
trans-1,2-Dichloroethene	20.0	21.0
1,1-Dichloroethane	20.0	20.0
Chloroprene	20.0	-
Propionitrile	20.0	-
Methacrylonitrile	20.0	-
Chloroform	20.0	20.0
1,2-Dichloroethane	20.0	20.0
2-Butanone	20.0	-
1,1,1-Trichloroethane	20.0	20.0
Carbon Tetrachloride	20.0	20.0
Benzene	20.0	20.0
Vinyl Acetate	20.0	-
Trichloroethene	20.0	20.0
Isobutyl Alcohol	20.0	-
1,2-Dichloropropane	20.0	20.0
Methyl methacrylate	20.0	18.0
Dibromomethane	20.0	20.0
Bromodichloromethane	20.0	20.0
2-Chloroethylvinyl ether	20.0	18.0
cis-1,3-Dichloropropene	20.0	19.0
4-Methyl-2-pentanone	20.0	-
2-Hexanone	20.0	-
Toluene	20.0	20.0
trans-1,3-Dichloropropene	20.0	19.0
Ethyl methacrylate	20.0	18.0
1,1,2-Trichloroethane	20.0	19.0
Tetrachloroethene	20.0	21.0
Dibromochloromethane	20.0	19.0
1,2-Dibromoethane	20.0	19.0
Chlorobenzene	20.0	20.0
1,1,1,2-Tetrachloroethane	20.0	20.0
Ethylbenzene	20.0	20.0
M,P- Xylenes	40.0	40.0
O-Xylene	20.0	20.0
Styrene	20.0	20.0
Bromoform	20.0	18.0
1,1,2,2-Tetrachloroethane	20.0	19.0
1,4-Dichloro-2-butene	20.0	19.0
1,2,3-Trichloropropane	20.0	19.0
Pentachloroethane	20.0	16.0
Benzyl chloride	20.0	17.0
1,2-Dibromo-3-chloropropane	20.0	18.0

	% RECOVERY	QC LIMITS*
EPA 8240:		
Dichlorodifluoromethane	110	ND
Chloromethane	105	F - 273
Vinyl Chloride	105	F - 251
Bromomethane	105	F - 242
Chloroethane	105	ND
1,1-Dichloroethene	105	F - 234
Acetone	HD	ND
Methyl Iodide	120	ND
Carbon Disulfide	100	ND
Acetonitrile	105	ND
Allyl Chloride	105	ND
Methylene Chloride	85	F - 221
trans-1,2-Dichloroethene	105	54 - 156
1,1-Dichloroethane	100	59 - 155
Chloroprene	HD	ND
Propionitrile	HD	ND
Methacrylonitrile	HD	ND
Chloroform	100	51 - 138
1,2-Dichloroethane	100	49 - 155
2-Butanone	HD	ND
1,1,1-Trichloroethane	100	52 - 162
Carbon Tetrachloride	100	70 - 140
Benzene	100	37 - 151
Vinyl Acetate	HD	ND
Trichloroethene	100	71 - 157
Isobutyl Alcohol	HD	ND
1,2-Dichloropropane	100	F - 210
Methyl methacrylate	90	ND
Dibromomethane	100	ND
Bromodichloromethane	100	35 - 155
2-Chloroethylvinyl ether	90	F - 305
cis-1,3-Dichloropropene	105	F - 227
4-Methyl-2-pentanone	HD	ND
2-Hexanone	HD	ND
Toluene	100	47 - 150
trans-1,3-Dichloropropene	95	17 - 183
Ethyl methacrylate	90	ND
1,1,2-Trichloroethane	95	52 - 150
Tetrachloroethene	105	64 - 148
Dibromochloromethane	95	53 - 149
1,2-Dibromoethane	95	ND
Chlorobenzene	100	37 - 160
1,1,1,2-Tetrachloroethane	100	ND
Ethylbenzene	100	37 - 162
M,P- Xylenes	100	ND
O-Xylene	100	ND
Styrene	100	ND
Bromoform	90	45 - 169
1,1,2,2-Tetrachloroethane	95	46 - 157
1,4-Dichloro-2-butene	95	ND
1,2,3-Trichloropropane	95	ND
Pentachloroethane	80	ND
Benzyl chloride	85	ND
1,2-Dibromo-3-chloropropane	90	ND

HD = High Detection Limit (greater than Spike Blank concentration).
F = Detected
ND = Not Determined
* = QC Limits are taken from SW-846 and are provisional

	AMOUNT ADDED, (ug/Kg) SB020494	SPIKE BLANK SB020494 CONCENTRATION (ug/Kg)
EPA 8240:		
Dichlorodifluoromethane	20.0	18.0
Chloromethane	20.0	19.0
Vinyl Chloride	20.0	19.0
Bromomethane	20.0	19.0
Chloroethane	20.0	20.0
1,1-Dichloroethene	20.0	19.0
Acetone	20.0	-
Methyl Iodide	20.0	19.0
Carbon Disulfide	20.0	-
Acetonitrile	20.0	-
Allyl Chloride	20.0	18.0
Methylene Chloride	20.0	24.0
trans-1,2-Dichloroethene	20.0	19.0
1,1-Dichloroethane	20.0	21.0
Chloroprene	20.0	-
Propionitrile	20.0	-
Methacrylonitrile	20.0	-
Chloroform	20.0	20.0
1,2-Dichloroethane	20.0	21.0
2-Butanone	20.0	-
1,1,1-Trichloroethane	20.0	19.0
Carbon Tetrachloride	20.0	18.0
Benzene	20.0	20.0
Vinyl Acetate	20.0	-
Trichloroethene	20.0	23.0
Isobutyl Alcohol	20.0	-
1,2-Dichloropropane	20.0	20.0
Methyl methacrylate	20.0	19.0
Dibromomethane	20.0	21.0
Bromodichloromethane	20.0	20.0
2-Chloroethylvinyl ether	20.0	22.0
cis-1,3-Dichloropropene	20.0	18.0
4-Methyl-2-pentanone	20.0	-
2-Hexanone	20.0	-
Toluene	20.0	20.0
trans-1,3-Dichloropropene	20.0	18.0
Ethyl methacrylate	20.0	21.0
1,1,2-Trichloroethane	20.0	20.0
Tetrachloroethene	20.0	27.0
Dibromochloromethane	20.0	20.0
1,2-Dibromoethane	20.0	20.0
Chlorobenzene	20.0	20.0
1,1,1,2-Tetrachloroethane	20.0	19.0
Ethylbenzene	20.0	19.0
M,P- Xylenes	40.0	39.0
O-Xylene	20.0	20.0
Styrene	20.0	19.0
Bromoform	20.0	18.0
1,1,2,2-Tetrachloroethane	20.0	19.0
1,4-Dichloro-2-butene	20.0	19.0
1,2,3-Trichloropropane	20.0	19.0
Pentachloroethane	20.0	10.0
Benzyl chloride	20.0	15.0
1,2-Dibromo-3-chloropropane	20.0	19.0

	% RECOVERY	QC LIMITS*
EPA 8240:		
Dichlorodifluoromethane	90	ND
Chloromethane	95	F - 273
Vinyl Chloride	95	F - 251
Bromomethane	95	F - 242
Chloroethane	100	ND
1,1-Dichloroethene	95	F - 234
Acetone	HD	ND
Methyl Iodide	95	ND
Carbon Disulfide	90	ND
Acetonitrile	115	ND
Allyl Chloride	90	ND
Methylene Chloride	120	F - 221
trans-1,2-Dichloroethene	95	54 - 156
1,1-Dichloroethane	105	59 - 155
Chloroprene	HD	ND
Propionitrile	HD	ND
Methacrylonitrile	HD	ND
Chloroform	100	51 - 138
1,2-Dichloroethane	105	49 - 155
2-Butanone	HD	ND
1,1,1-Trichloroethane	95	52 - 162
Carbon Tetrachloride	90	70 - 140
Benzene	100	37 - 151
Vinyl Acetate	HD	ND
Trichloroethene	115	71 - 157
Isobutyl Alcohol	HD	ND
1,2-Dichloropropane	100	F - 210
Methyl methacrylate	95	ND
Dibromomethane	105	ND
Bromodichloromethane	100	35 - 155
2-Chloroethylvinyl ether	110	F - 305
cis-1,3-Dichloropropene	90	F - 227
4-Methyl-2-pentanone	HD	ND
2-Hexanone	HD	ND
Toluene	100	47 - 150
trans-1,3-Dichloropropene	90	17 - 183
Ethyl methacrylate	105	ND
1,1,2-Trichloroethane	100	52 - 150
Tetrachloroethene	135	64 - 148
Dibromochloromethane	100	53 - 149
1,2-Dibromoethane	100	ND
Chlorobenzene	100	37 - 160
1,1,1,2-Tetrachloroethane	95	ND
Ethylbenzene	95	37 - 162
M,P- Xylenes	97.5	ND
O-Xylene	100	ND
Styrene	95	ND
Bromoform	90	45 - 169
1,1,2,2-Tetrachloroethane	95	46 - 157
1,4-Dichloro-2-butene	95	ND
1,2,3-Trichloropropane	95	ND
Pentachloroethane	50	ND
Benzyl chloride	75	ND
1,2-Dibromo-3-chloropropane	95	ND

HD = High Detection Limit (greater than Spike Blank concentration).
F = Detected
ND = Not Determined
* = QC Limits are taken from SW-846 and are provisional

	AMOUNT ADDED, (ug/Kg) SB020594	SPIKE BLANK SB020594 CONCENTRATION (ug/Kg)
EPA 8240:		
Dichlorodifluoromethane	20.0	21.0
Chloromethane	20.0	20.0
Vinyl Chloride	20.0	20.0
Bromomethane	20.0	18.0
Chloroethane	20.0	20.0
1,1-Dichloroethene	20.0	21.0
Acetone	20.0	-
Methyl Iodide	20.0	20.0
Carbon Disulfide	20.0	-
Acetonitrile	20.0	-
Allyl Chloride	20.0	19.0
Methylene Chloride	20.0	21.0
trans-1,2-Dichloroethene	20.0	20.0
1,1-Dichloroethane	20.0	20.0
Chloroprene	20.0	-
Propionitrile	20.0	-
Methacrylonitrile	20.0	-
Chloroform	20.0	20.0
1,2-Dichloroethane	20.0	20.0
2-Butanone	20.0	20.0
1,1,1-Trichloroethane	20.0	20.0
Carbon Tetrachloride	20.0	20.0
Benzene	20.0	20.0
Vinyl Acetate	20.0	-
Trichloroethene	20.0	20.0
Isobutyl Alcohol	20.0	-
1,2-Dichloropropane	20.0	20.0
Methyl methacrylate	20.0	20.0
Dibromomethane	20.0	21.0
Bromodichloromethane	20.0	20.0
2-Chloroethylvinyl ether	20.0	19.0
cis-1,3-Dichloropropene	20.0	18.0
4-Methyl-2-pentanone	20.0	-
2-Hexanone	20.0	-
Toluene	20.0	20.0
trans-1,3-Dichloropropene	20.0	18.0
Ethyl methacrylate	20.0	18.0
1,1,2-Trichloroethane	20.0	20.0
Tetrachloroethene	20.0	22.0
Dibromochloromethane	20.0	19.0
1,2-Dibromoethane	20.0	19.0
Chlorobenzene	20.0	20.0
1,1,1,2-Tetrachloroethane	20.0	19.0
Ethylbenzene	20.0	20.0
M,P- Xylenes	40.0	39.0
O-Xylene	20.0	20.0
Styrene	20.0	19.0
Bromoform	20.0	18.0
1,1,2,2-Tetrachloroethane	20.0	20.0
1,4-Dichloro-2-butene	20.0	20.0
1,2,3-Trichloropropane	20.0	20.0
Pentachloroethane	20.0	13.0
Benzyl chloride	20.0	16.0
1,2-Dibromo-3-chloropropane	20.0	19.0

	% RECOVERY	QC LIMITS*
EPA 8240:		
Dichlorodifluoromethane	105	ND
Chloromethane	100	F - 273
Vinyl Chloride	100	F - 251
Bromomethane	90	F - 242
Chloroethane	100	ND
1,1-Dichloroethene	105	F - 234
Acetone	HD	ND
Methyl Iodide	100	ND
Carbon Disulfide	HD	ND
Acetonitrile	HD	ND
Allyl Chloride	95	ND
Methylene Chloride	105	F - 221
trans-1,2-Dichloroethene	100	54 - 156
1,1-Dichloroethane	100	59 - 155
Chloroprene	HD	ND
Propionitrile	HD	ND
Methacrylonitrile	HD	ND
Chloroform	100	51 - 138
1,2-Dichloroethane	100	49 - 155
2-Butanone	HD	ND
1,1,1-Trichloroethane	100	52 - 162
Carbon Tetrachloride	100	70 - 140
Benzene	100	37 - 151
Vinyl Acetate	HD	ND
Trichloroethene	100	71 - 157
Isobutyl Alcohol	HD	ND
1,2-Dichloropropane	100	F - 210
Methyl methacrylate	100	ND
Dibromomethane	105	ND
Bromodichloromethane	100	35 - 155
2-Chloroethylvinyl ether	95	F - 305
cis-1,3-Dichloropropene	90	F - 227
4-Methyl-2-pentanone	HD	ND
2-Hexanone	HD	ND
Toluene	100	47 - 150
trans-1,3-Dichloropropene	90	17 - 183
Ethyl methacrylate	90	ND
1,1,2-Trichloroethane	100	52 - 150
Tetrachloroethene	110	64 - 148
Dibromochloromethane	95	53 - 149
1,2-Dibromoethane	95	ND
Chlorobenzene	100	37 - 160
1,1,1,2-Tetrachloroethane	95	ND
Ethylbenzene	100	37 - 162
M,P- Xylenes	97.5	ND
O-Xylene	100	ND
Styrene	95	ND
Bromoform	90	45 - 169
1,1,2,2-Tetrachloroethane	100	46 - 157
1,4-Dichloro-2-butene	100	ND
1,2,3-Trichloropropane	100	ND
Pentachloroethane	65	ND
Benzyl chloride	80	ND
1,2-Dibromo-3-chloropropane	95	ND

HD = High Detection Limit (greater than Spike Blank concentration).
F = Detected
ND = Not Determined
* = QC Limits are taken from SW-846 and are provisional

	AMOUNT ADDED, (ug/Kg) SB020694	SPIKE BLANK SB020694 CONCENTRATION (ug/Kg)
EPA 8240:		
Dichlorodifluoromethane	20.0	19.0
Chloromethane	20.0	19.0
Vinyl Chloride	20.0	19.0
Bromomethane	20.0	22.0
Chloroethane	20.0	20.0
1,1-Dichloroethene	20.0	20.0
Acetone	20.0	-
Methyl Iodide	20.0	20.0
Carbon Disulfide	20.0	-
Acetonitrile	20.0	-
Allyl Chloride	20.0	19.0
Methylene Chloride	20.0	23.0
trans-1,2-Dichloroethene	20.0	19.0
1,1-Dichloroethane	20.0	19.0
Chloroprene	20.0	-
Propionitrile	20.0	-
Methacrylonitrile	20.0	-
Chloroform	20.0	20.0
1,2-Dichloroethane	20.0	21.0
2-Butanone	20.0	20.0
1,1,1-Trichloroethane	20.0	20.0
Carbon Tetrachloride	20.0	20.0
Benzene	20.0	21.0
Vinyl Acetate	20.0	-
Trichloroethene	20.0	20.0
Isobutyl Alcohol	20.0	-
1,2-Dichloropropane	20.0	20.0
Methyl methacrylate	20.0	20.0
Dibromomethane	20.0	21.0
Bromodichloromethane	20.0	21.0
2-Chloroethylvinyl ether	20.0	21.0
cis-1,3-Dichloropropene	20.0	20.0
4-Methyl-2-pentanone	20.0	-
2-Hexanone	20.0	-
Toluene	20.0	20.0
trans-1,3-Dichloropropene	20.0	21.0
Ethyl methacrylate	20.0	19.0
1,1,2-Trichloroethane	20.0	21.0
Tetrachloroethene	20.0	21.0
Dibromochloromethane	20.0	20.0
1,2-Dibromoethane	20.0	20.0
Chlorobenzene	20.0	20.0
1,1,1,2-Tetrachloroethane	20.0	20.0
Ethylbenzene	20.0	19.0
M,P- Xylenes	40.0	38.0
O-Xylene	20.0	20.0
Styrene	20.0	19.0
Bromoform	20.0	20.0
1,1,2,2-Tetrachloroethane	20.0	21.0
1,4-Dichloro-2-butene	20.0	22.0
1,2,3-Trichloropropane	20.0	22.0
Pentachloroethane	20.0	13.0
Benzyl chloride	20.0	17.0
1,2-Dibromo-3-chloropropane	20.0	20.0

DATE ANALYZED:	METHOD BLANK	SPIKE BLANK	SAMPLES
2/3/94	MB020394	SB020394	4B-0233E, 4B-0257E, 4B-0258E, 4B-0277E, 4B-0278E, 4B-0279E, 4B-0280E, 4B-0281E 4B-0281E Matrix Spike 4B-0281E Matrix Spike Duplicate
2/4/94	MB020494	SB020494	4B-0228E, 4B-0229E, 4B-0230E, 4B-0231E 4B-0232E, 4B-0234E, 4B-0235E, 4B-0236E
2/5/94	MB020594	SB020594	4B-0239E, 4B-0238E, 4B-0237E, 4B-0240E 4B-0241E, 4B-0242E, 4B-0243E 4B-0243E Matrix Spike 4B-0243E Matrix Spike Duplicate 4B-0244E, 4B-0245E, 4B-0246E, 4B-0247E 4B-0248E
2/6/94	MB020694	SB020694	4B-0249E, 4B-0250E, 4B-0251E 4B-0251E Duplicate, 4B-0252E 4B-0252E Matrix Spike 4B-0252E Matrix Spike Duplicate 4B-0253E, 4B-0254E, 4B-0255E,4B-0256E

Wisconsin
TESTING LABORATORIES

Testing and Inspection of:
Soils
Concrete
Asphalt
Geotechnical Reports
Soil Borings
Rock Coring

February 14, 1994

The Earth Technology Corporation
12129 West Feerick Street
Wauwatosa, Wisconsin 53222

Attention: David Wheelis

Re: Soil Samples
Miller - GA
Project No. 94-4130-04
(L-9407)

Gentlemen:

We are submitting the results of the laboratory tests performed on the Shelby tube sample from the referenced project, as directed and authorized under Purchase Order No. WI2113. The results of a falling head permeability test are listed below. The results of the grain size analysis test and liquid limit and plastic limit tests are listed on the attached curve sheet. We wish to point out that the sample tested was taken from 12 in. to 18 in. from the bottom of the Shelby tube.

Sample From	Sample Depth, Ft.	Initial Moisture Content, %	Initial Dry Density, PCF	Permeability
Near Waste Oil Tank	Not Given	19.9	106.5	$1.4X10^{-7}$ cm./sec.

If there are any questions, please call. We appreciate the opportunity to be of service.

Respectfully submitted,

Allan F. Huseth, P.E.

AFH/jlt

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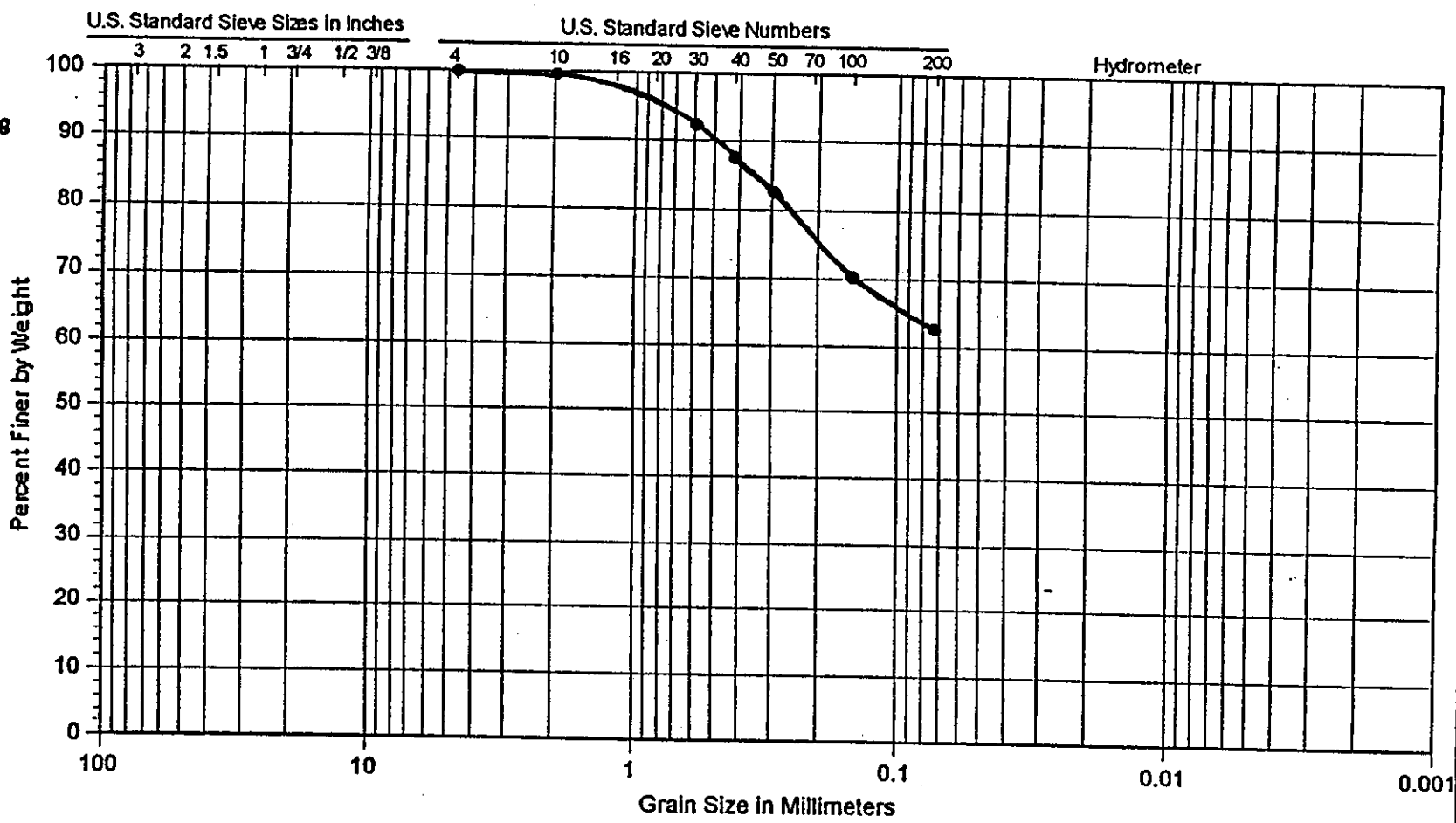
Wisconsin TESTING LABORATORIES

GRAIN SIZE ANALYSIS



Sieve Size	Percent Passing
No.4	100.0
No. 10	99.6
No. 30	92.6
No. 40	87.8
No. 50	82.5
No. 100	70.4
No. 200	62.7

UNIFIED	GRAVEL	SAND	SILT AND CLAY
AASHTO	GRAVEL	SAND	SILT AND CLAY

NUMBER	DEPTH	w	w_L	w_P		CLASSIFICATION
			57	20		Sandy Fat Clay (CH)

Project: Miller - GA
Client Project No.: 94-4130-04
WTL Job No.: L-9407
Client: The Earth Technology Corporation
Date: February 8, 1994

Wisconsin
TESTING LABORATORIES

Testing and Inspection of:
Soils
Concrete
Asphalt
Geotechnical Reports
Soil Borings
Rock Coring

February 14, 1994

The Earth Technology Corporation
12129 West Feerick Street
Wauwatosa, Wisconsin 53222

Attention: David Wheelis

Re: Soil Samples
Miller - GA
Project No. 94-4130-04
(L-9407)

Gentlemen:

We are submitting the results of the laboratory tests performed on the Shelby tube sample from the referenced project, as directed and authorized under Purchase Order No. WI2113. The results of a falling head permeability test are listed below. The results of the grain size analysis test and liquid limit and plastic limit tests are listed on the attached curve sheet. We wish to point out that the sample tested was taken from 12 in. to 18 in. from the bottom of the Shelby tube.

Sample From	Sample Depth, Ft.	Initial Moisture Content, %	Initial Dry Density, PCF	Permeability
Near Waste Oil Tank	Not Given	19.9	106.5	$1.4X10^{-7}$ cm./sec.

If there are any questions, please call. We appreciate the opportunity to be of service.

Respectfully submitted,

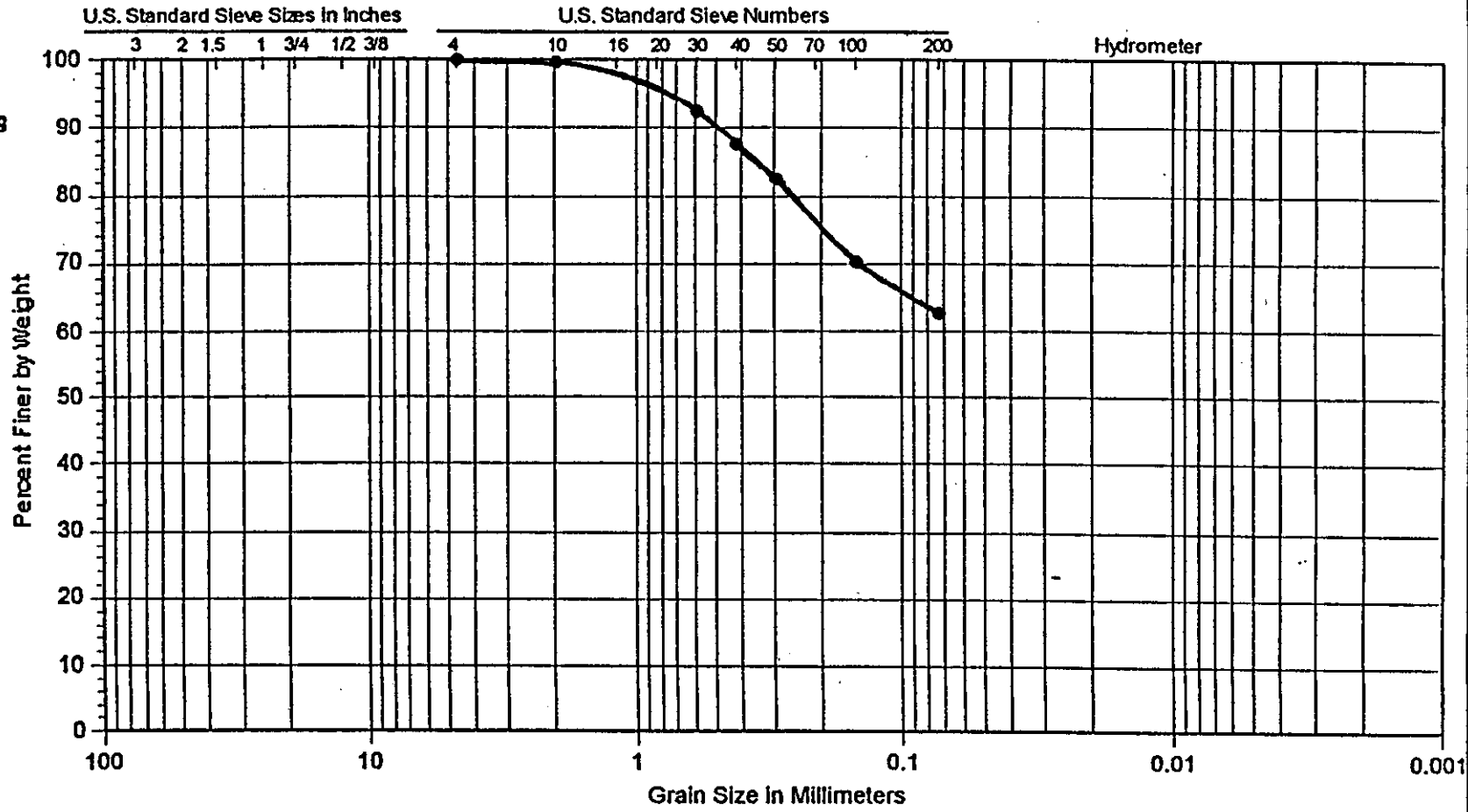
Allan F. Huseth, P.E.

AFH/jlt

Copies (3) Client

Wisconsin TESTING LABORATORIES

GRAIN SIZE ANALYSIS



Sieve Size	Percent Passing
No.4	100.0
No. 10	99.6
No. 30	92.6
No. 40	87.8
No. 50	82.5
No. 100	70.4
No. 200	62.7

UNIFIED	GRAVEL	SAND	SILT AND CLAY
AASHTO	GRAVEL	SAND	SILT AND CLAY

NUMBER	DEPTH	w	w_L	w_P		CLASSIFICATION
			57	20		Sandy Fat Clay (CH)

Project: Miller - GA
Client Project No.: 94-4130-04
WTL Job No.: L-9407
Client: The Earth Technology Corporation
Date: February 8, 1994

Appendix G – Section 5

Supplemental Site Investigation Report prepared by: Earth Tech August 1995

SUPPLEMENTAL SITE INVESTIGATION REPORT
of the
Former Miller Brewing Company
Container Plant
in
Moultrie, Georgia

prepared for:

Miller Brewing Company
3939 West Highland Blvd.
Milwaukee, WI 53201

prepared by:

EARTH TECH
5555 Glenwood Hills Parkway, SE
Grand Rapids, MI 49588

August 1995

23052

TABLE OF CONTENTS

	EXECUTIVE SUMMARY	i
1.0	INTRODUCTION	1
2.0	BACKGROUND	2
	2.1 Physical Setting	2
	2.1.1 Topography	2
	2.1.2 Surface Water Runoff	2
	2.1.3 Regional Geology	2
	2.1.4 Regional Hydrogeology	4
	2.2 Facility Operations	4
	2.3 Previous Investigations	4
3.0	FIELD ACTIVITIES	7
	3.1 Test Pits	7
	3.2 Soil Borings and Monitoring Wells	11
	3.2.1 Soil Borings	11
	3.2.2 Well Construction	14
	3.2.2.1 Well Development	14
	3.2.2.2 Well Survey	14
	3.3 Groundwater Sampling	15
	3.3.1 Initial Sampling Event	15
	3.3.2 Supplemental Groundwater Sampling Event	16
4.0	RESULTS	17
	4.1 Site Geology	17
	4.2 Site Hydrogeology	17
	4.3 Analytical Results	18
	4.3.1 Soil	18
	4.3.2 Groundwater	26
	4.3.2.1 Initial Sampling Event	26
	4.3.2.2 Supplemental Sampling Event	29
	4.3.2.3 Extent of Groundwater Impacts	29
	4.4 Reporting	29
5.0	CONCLUSIONS AND RECOMMENDATIONS	34
	5.1 Conclusions	34
	5.2 Recommendations	35
	REFERENCES	36

ATTACHMENTS

Attachment A	Excavation Logs
Attachment B	Soil Boring Logs
Attachment C	Well Construction Logs
Attachment D	Supplemental Sampling Event Purge Logs
Attachment E	Analytical Reports for Soil Samples
Attachment F	Analytical Reports for the Initial 1994 Groundwater Sampling Event
Attachment G	Analytical Reports for the March 1995 Groundwater Sampling Event

APPENDIX

EARTH TECH's March 1994 Site Investigation Report

EXECUTIVE SUMMARY

EARTH TECH (The Earth Technology Corporation) conducted this supplemental site investigation at the former Miller Brewing Company (Miller) Container Plant in Moultrie, Georgia to define the extent of VOC impacts to soil and groundwater. These impacts were detected during previous studies conducted by CH2M Hill and EARTH TECH. This report presents the findings and conclusions of the supplemental site investigation, incorporates the results of previous investigations, and makes recommendations regarding any further action.

The soil borings and backhoe excavations show that the Moultrie site is underlain by fill and native soil. The fill material is a medium grained sand that ranges in thickness across the site from approximately 1.3 feet to 6 feet. The fill material is thickest at locations nearest the buildings and is thinner at locations away from the buildings. Coarse grained backfill materials are also present near the buildings' foundations and a buried utility corridor. Native soil was encountered immediately beneath the fill material and adjacent to the backfill. The native soil was visually classified as a stiff to hard, white brownish yellow or red, mottled, sandy clay. This native soil was encountered in each of the soil borings across the site. Bedrock was not encountered in any of the borings which extended to approximately 12 feet below land surface.

The native sandy clay soil has a very low hydraulic conductivity. For example, field testing showed that this soil had a hydraulic conductivity of 7.5×10^{-6} cm/sec. This value was supported by laboratory testing which showed the soil had a hydraulic conductivity of 1.4×10^{-7} cm/sec. These values indicate that the native soil is very "tight" and that groundwater will typically move very slowly through this material.

Fine grained soils, such as the sandy clay at the Moultrie site, typically contain groundwater at shallower depths than coarser grained materials. Regional geologic reports for the Moultrie area indicate that groundwater occurs at depths approximately 5 feet below the land surface. The depth to groundwater measurements collected from the Moultrie site showed that groundwater occurs at about 2.5 feet below land surface. In addition to confirming that groundwater occurs at shallow depths, these measurements were used to calculate groundwater surface elevations. These elevation values indicate that groundwater flows in a general south-southwesterly direction over the site. However, at certain site locations, the direction of groundwater flow is influenced by the coarser grained materials.

The observations that the Moultrie site is underlain by "tight" sandy clay and that groundwater occurs at shallow depths, suggest that groundwater quality is likely to be affected by surface releases. These observations also suggest that migration of any affected groundwater would be restricted by the soil, but that affected groundwater may preferentially move through the coarser grained materials near the buildings and in the buried utility corridor. These conclusions are supported by the groundwater quality data.

The groundwater quality data show the presence of volatile organic compounds (VOCs) within the test pit collection sumps and at monitoring wells in the northwestern portion of the site. TCE was detected more frequently and at higher concentrations than other VOCs. The highest concentrations of TCE occur within the collection sump and monitoring wells located near the buried utility corridor and the building foundations. For example, the concentration of TCE within the collection sump (250 ppb) and at MW-114 (140 ppb), MW-115 (170 ppb) and MW-116 (560 ppb) were approximately twice the concentration detected at monitoring wells further away from these areas of higher permeability (e.g., MW-118 at 69 ppb and MW-120 at < 5 ppb).

The supplemental investigation confirmed that groundwater quality at the Moultrie site has been affected and that VOC concentrations are highest near areas containing higher permeability backfill. The investigation also suggested that migration of contaminated groundwater is generally restricted by the low permeability soils and that overall impacts may remain limited. However, since certain VOC concentrations, particularly TCE, significantly exceed GEPD's drinking water standard, Miller Brewing Company (Miller) submitted release notification terms to GEPD.

The GEPD will make a determination as to whether the groundwater contamination at the Moultrie site constitutes a significant threat to human health and the environment. Subsequent actions at this site must be based on that independent determination. However, based on the observations that the extent of groundwater contamination and that the potential for further contaminant migration are restricted, EARTH TECH recommends that Miller propose to conduct periodic monitoring (e.g., bi-annual sampling) to provide information to verify that the Moultrie site does not constitute a significant threat to human health and the environment.

1.0 INTRODUCTION

EARTH TECH completed this supplemental site investigation to define the extent of VOC impacts to soil and groundwater previously detected at the site by CH2M Hill and confirmed during previous sampling completed by EARTH TECH. During the supplemental investigation, additional soil borings and monitoring wells were installed to evaluate the horizontal extent of impacts to soil and groundwater. In addition, test pits were completed near the building foundation to assess the type and extent of backfill present along the building foundation. Previous investigations by EARTH TECH concluded that the foundation backfill acted as the preferential migration pathway for contaminants in the subsurface. The information obtained through the supplemental investigation was anticipated to provide information useful in evaluating and identifying remedial options, if necessary.

This report presents the results of the supplemental investigation and, where applicable, incorporates the results of EARTH TECH's previous investigation to provide information useful in evaluating the extent of impacts and to assess potential remedial options. The report is structured to provide a logical framework to present the site information obtained to date. Section 1 is this introduction. Section 2 presents the background of the site including a general description of the physical setting and operational history of the site. Section 3 describes the field activities complete during the supplemental investigation. Section 4 summarizes the results of the site investigation including site geology, site hydrogeology and analytical results for soil and groundwater. Extent of contamination assessments are included in Section 4. Section 5 presents the conclusions of the supplemental site investigation and includes recommendations for future action.

2.0 BACKGROUND

2.1 PHYSICAL SETTING

2.1.1 TOPOGRAPHY

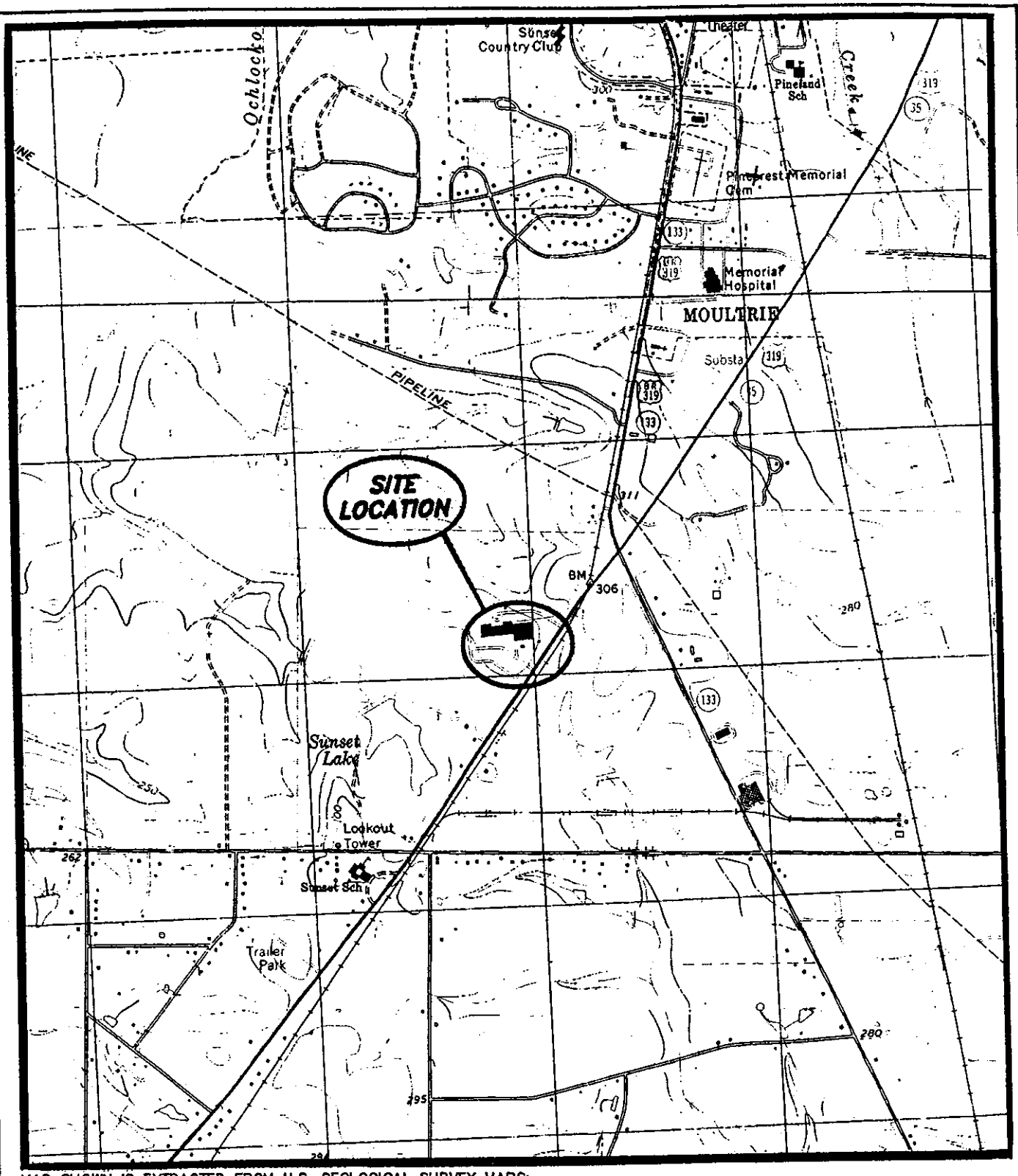
The location of the former Miller Brewing Company (Miller) Container Plant is shown in Figure 2-1. The plant is located in an area of gently sloping topography at an elevation of approximately 300 to 310 feet above mean sea level (msl). The topography in the vicinity of the north side of the facility slopes towards an intermittent drainageway north of the facility.

2.1.2 SURFACE-WATER DRAINAGE

Precipitation falling on the site either enters the subsurface as infiltration or flows off-site as surface-water runoff. Runoff from the facility flows north to enter the intermittent drainageway approximately 3,000 feet north of the facility. At the site, surface water drainage is controlled by grading and the site storm-water system. Water not entering the storm-water system leaves the site as uncontrolled sheet runoff.

2.1.3 REGIONAL GEOLOGY

Moultrie is located in Coliquitt County which has been mapped to be in the Coastal Plain Hydrologic Province. The Coastal Plain Province is characterized by bedrock units of sedimentary origin (limestone, dolomite, silt stone and shale). Unconsolidated units above competent bedrock are derived from the differential weathering of the various sedimentary bedrock lithologies. Differences in the degree of weathering commonly result in vertical stratification of unconsolidated deposits. Moving upwards from competent bedrock unconsolidated units in the province include weathered bedrock, saprolite, residium and surficial soil/topsoil. In general, this stratification is characterized by a fining upwards in the particle size distribution of the deposits. Surficial soil units are generally thin and poorly developed. Soil in the vicinity of the site are mapped as belonging to the Tifton series. The Tifton series is characterized as sandy clay or silty clay (SC or SM-SC)(USDA, 1975).



MAP SHOWN IS EXTRACTED FROM U.S. GEOLOGICAL SURVEY MAPS:
MOULTRIE AND COOLIDGE QUADRANGLES
GEORGIA–COLQUITT CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
PHOTOREVISED 1988 AND 1987 RESPECTIVELY

0 SCALE 5000
FEET

NORTH

EARTH TECH

MOULT–SL
VR061595

FIGURE 2–1

SITE LOCATION & VICINITY MAP

FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA

JUNE, 1995

23052

2.1.4 REGIONAL HYDROGEOLOGY

The water table in the vicinity of the site occurs at depths of less than 5 feet (USGS, 1975). Southern Coliquitt County is not considered to be an area of significant groundwater recharge. Areas considered to be significant recharge areas are those where precipitation is actively recharging the groundwater system. The quality of infiltration in significant areas directly influences the quality of groundwater (EPD, 1994). The low hydraulic conductivity of unconsolidated deposits in Coliquitt County is responsible for inhibiting the infiltration of precipitation.

Surface water and groundwater are utilized as water supplies in Coliquitt County. Deep wells provide water to the City of Moultrie. The closest residences to the site are located approximately 1,500 feet northeast and southwest of the facility. The water supply for these residences is not known. The facility obtains its water from the City of Moultrie.

2.1 FACILITY OPERATIONS

The site was developed by the Miller Brewing Company (Miller) in 1980 for the manufacture, storage and distribution of aluminum containers for the beverage industry. The facility was owned and operated by the Miller until November 1993 at which time it was purchased by the Reynolds Metal Company (Reynolds). Reynolds currently owns and operates the facility. Operations at the facility have remained consistent at the facility during ownership by Miller and Reynolds. Figure 2-2 shows a general site layout of the facility.

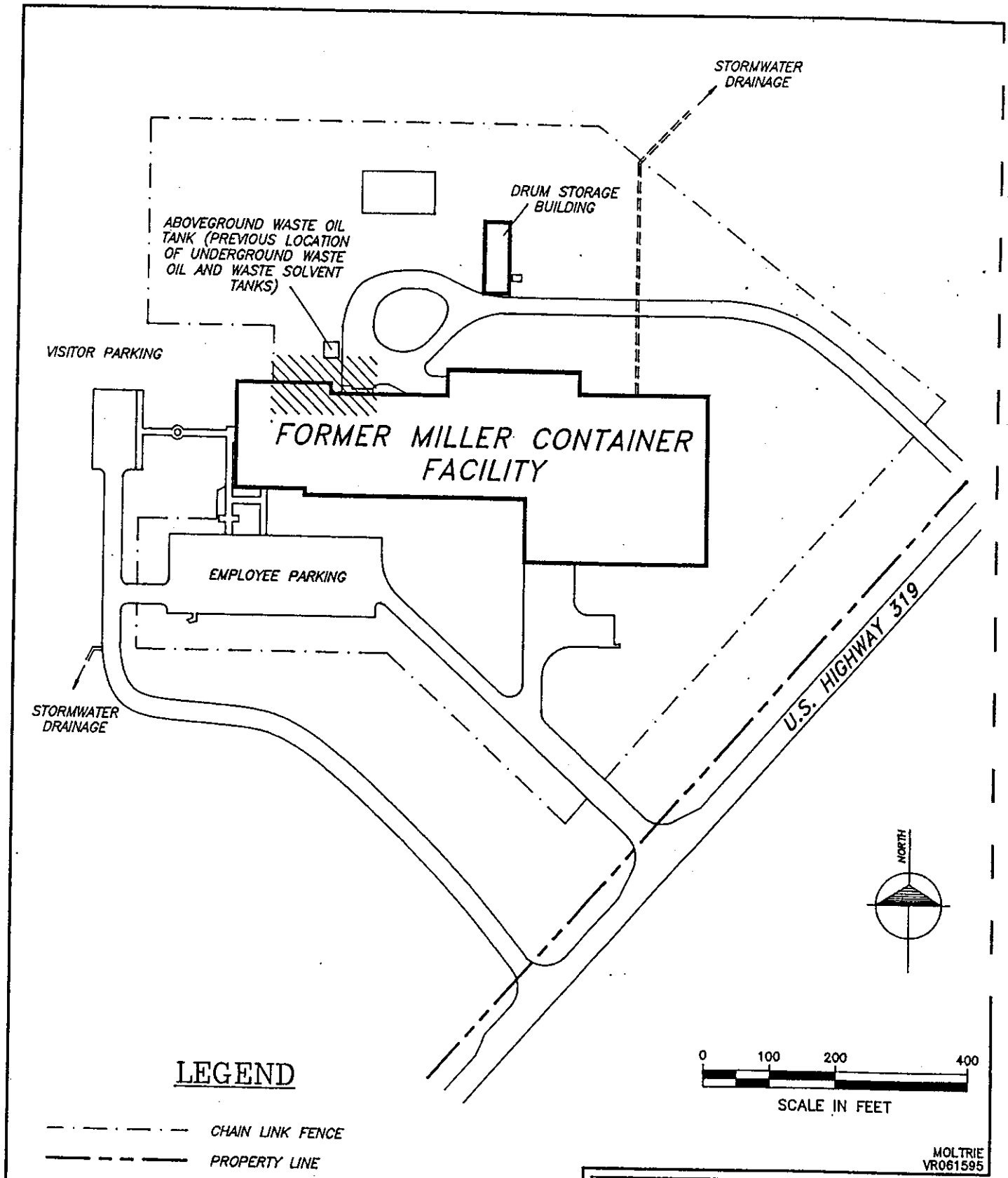
2.2 PREVIOUS INVESTIGATIONS

As part of the property transfer, CH2M Hill Incorporated (CH2M Hill) completed a site investigation at the facility on behalf of Reynolds in October 1993. During CH2M Hill's investigation a boring was installed in the vicinity of the former waste solvent UST which was located near the northwest corner of the facility. The boring was subsequently converted to a temporary monitoring well. Elevated levels of volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH) and oil and grease (O&G) were detected in soil samples recovered from the boring. A groundwater sample collected from the temporary monitoring wells installed at this location indicated significant VOC impacts to exist as well as detectable concentrations of TPH and O&G.

As a follow up to the CH2M Hill investigation, EARTH TECH was retained by Miller to provide technical assistance to evaluate the need for further action in association with the impacts identified. To evaluate the need for further action EARTH TECH completed a limited site investigation. During the investigation, samples were obtained to verify the impacts identified by CH2M Hill and to facilitate comparison of the concentrations present in soil and groundwater to applicable regulatory requirements. According to on-site

interviews with facility personnel, during removal of the waste solvent UST a leak was discovered in the piping leading to the UST. The UST and impacted soil were subsequently removed, the piping capped and the area backfilled with clean soil. To evaluate conditions along the piping run EARTH TECH installed three soil borings which were subsequently converted to monitoring wells (MW-113, MW-114 and MW-115). Soil and groundwater samples collected during EARTH TECH's investigation were submitted for laboratory VOC analysis. Analytical results showed concentrations of VOCs to be present in soil and groundwater. Several VOCs (benzene, 1,1-dichloroethene, 1,2-dichloroethane, tetrachloroethene and trichloroethene) were present in groundwater at concentrations exceeding federal maximum contaminant levels (MCLs).

Based on these results EARTH TECH recommended that Miller notify the Georgia Environmental Protection Division (GEPD) of the investigation results and prepare a Work Plan for an investigation to evaluate the nature and extent of impacts. Geologic information obtained during EARTH TECH's investigation showed low hydraulic conductivity soil to be present at the site. This soil was anticipated to limit the migration of contaminants through native materials. However, filling associated with the construction of the facility and installation of buried utilities was considered to have created a pathway which may increase the potential for contaminants to migrate. A copy of EARTH TECH's March 1994 Site Investigation Report is included in Appendix A.



EARTH TECH

MOLTRIE
VR061595

FIGURE 2-2

GENERAL SITE MAP

FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA

JUNE, 1995

23052

3.0 FIELD ACTIVITIES

3.1 TEST PITS

Two test pits were excavated adjacent to the north side of the building, near the north loading dock (Figure 3-1). Excavation logs are included in Attachment A. The test pits were completed to: 1) determine the extent of fill materials adjacent to the building foundation; 2) collect soil samples to evaluate the extent of contamination; and 3) install sumps to collect groundwater from the foundation backfill material.

Test pit one was dug in the area of known soil and groundwater contamination near MW-114 which was installed during EARTH TECH's previous investigation. Soil in test pit one appeared to have been disturbed several times for the installation of underground piping. Four buried pipelines were uncovered in test pit one. The buried pipelines appeared to have been installed in a north-south direction from the building. The pipes were used to transfer materials to the exterior above -ground storage tanks (ASTs) which historically have contained waste oil and waste solvent. Currently, a waste solvent AST is present in the containment area at the north end of the area evaluated during this investigation. In addition, one of the pipes reportedly housed power lines which extended to the containment area. Near the building the pipes were approximately five feet deep, but at 20 feet away from the building, they were four feet deep.

During the excavation of test pit one, fill materials were encountered adjacent to the building extending north 20 feet to a minimum depth of four feet. Near the building, fill materials extended beneath the buried pipelines, but the extent could not be determined because of the presence of the pipes. The fill materials consisted of a soft, loose, silty, sand and gravel. Water was encountered approximately five feet below ground surface.

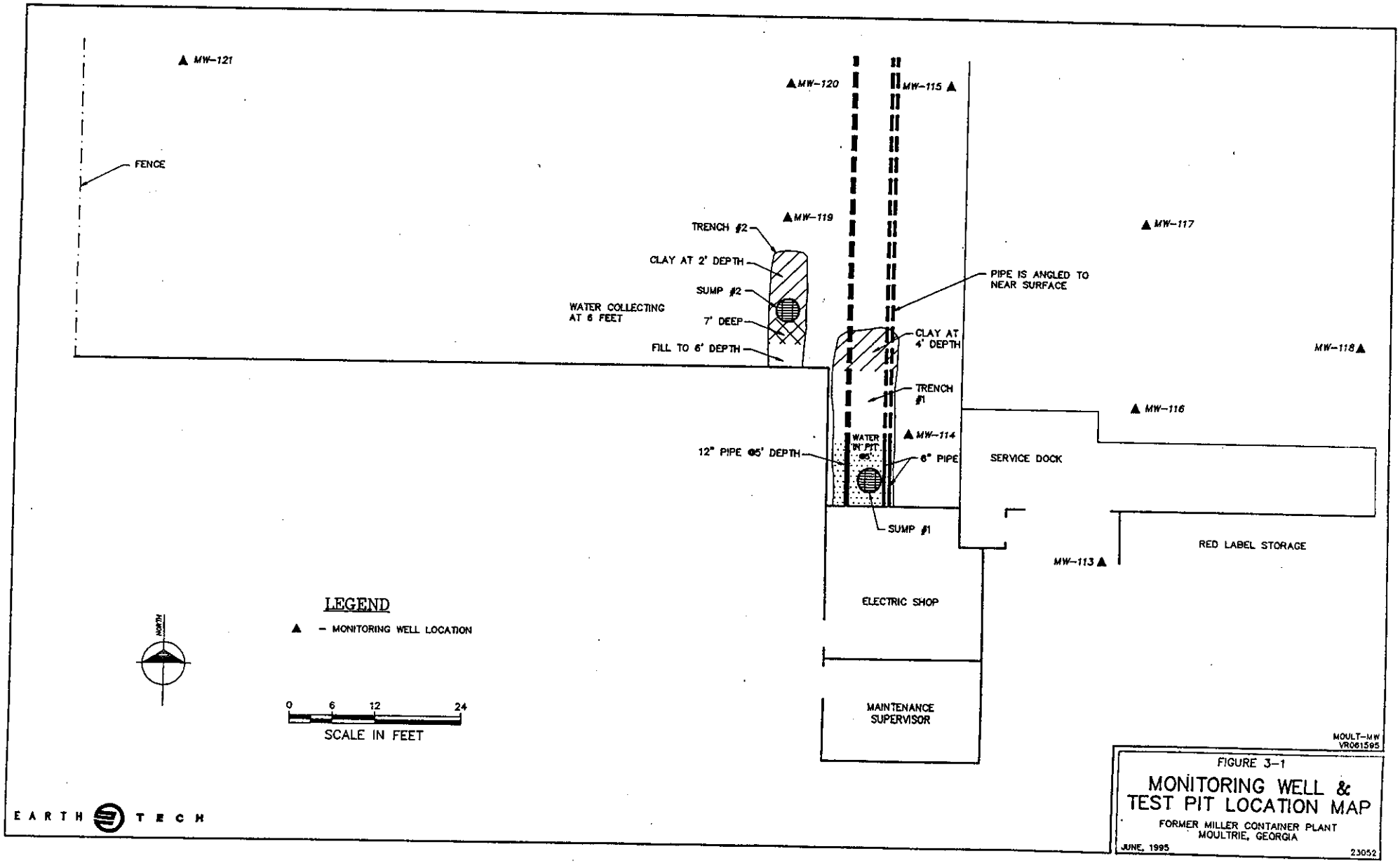


FIGURE 3-1

MONITORING WELL & TEST PIT LOCATION MAP

FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA

JUNE, 1995

23052

EARTH TECH

Test pit two was dug four feet west of test pit one, adjacent to the building. This area had not been previously disturbed, except for the area directly adjacent to the building foundation. The fill materials encountered in test pit two were present to approximately three feet north of the building foundation. Fill materials were present to a depth of 7 feet. Native materials were encountered at the limits of the fill. The native materials encountered beyond the fill consisted of a fine-grained, hard, dense clay. Groundwater was encountered approximately six feet below ground surface.

Due to the wet, soft, and loose nature of the fill materials in test pit one, the walls of the excavation continuously collapsed. Water was observed in the pit, but was repeatedly buried each time the pit collapsed. Test pit two, excavated predominantly in native materials, stayed open allowing water to collect in the pit at approximately six feet below ground surface. Both pits were left open overnight to allow groundwater levels in them to stabilize.

Soil samples were collected from the excavation test pits and field screened using a photoionization detector (PID) calibrated to a 100 parts per million (ppm) isobutylene standard. PID responses are reported in instrument units (IUs) correlated to the calibration standard. Sampling locations and peak PID readings are presented in Table 3-1. With the exception a discolored, odoriferous sample collected adjacent to the building in test pit one, evidence of soil contamination was not observed during test pit excavation activities.

TABLE 3-1

Test Pit Sample Locations and PID Screening Results
Former Miller Container Plant
Moultrie, Georgia

Test Pit No.	Location	Depth	PID Reading	Comments
Test Pit 1	8 ft. east/ 1 ft. north	6 ft	0.0	
Test Pit 1	9 ft. east/ 2 ft. north	6 ft.	175.0	Black, sandy, with strong petroleum odor. Submitted for laboratory analysis.
Test Pit 1	4 ft. east/ 21 ft. north	4 ft.	0.0	
Test Pit 2	3 ft. west/ 1 ft. north	6 ft.	0.4	Submitted for laboratory analysis.
Test Pit 2	3 ft. west/ 6 ft. north	6 ft.	1.2	
Test Pit 2	3 ft west/ 5 ft. north	6 ft.	0.0	

Sample locations were measured from the north exterior wall of the building starting where each excavation was begun, and east/west from the Electric Shop west exterior wall (Figure 3-1). Sample depths were from the approximate depth that groundwater was encountered, or at the interface between fill and native materials.

Background readings ranging from 1 to 4 instrument units (IUs) were recorded during test pit sampling.

One sample from each test pit was selected for laboratory analysis. From test pit one, the sample selected had field evidence of the presence of contamination. The sample was discolored, had a petroleum-type odor, and the PID exhibited an elevated reading. The sample was submitted for analysis of USEPA/SW-846 Methods 8240 for volatiles and 8270 for semi-volatiles. The additional semi-volatile analysis was conducted to evaluate the potential presence of less volatile compounds within the sample for which a strong odor was noted which would not have been detected using USEPA/SW-846 Method 8240 for VOCs. Permission to analyze the sample using the 8270 method was requested from and approved by Miller.

Evidence of contamination was not observed or indicated in field screening results for test pit 2. Nevertheless, a sample from test pit 2 was submitted for laboratory VOC analysis (USEPA/SW-846 Method 8240) to confirm the absence of contamination. The sample submitted for laboratory analysis was selected for its location at the approximate interface of the unsaturated and saturated zones.

Upon completion of the excavation and sampling activities and prior to backfilling the test pits, a groundwater sump was installed in each test pit. Each sump was constructed of a six-inch diameter, ten-foot long, section of Schedule 40 PVC,).010-inch slot, factory-cut well screen. A slip-on cap was installed at the top and bottom of each sump installation. In test pit one, the presence of the buried piping interfered with the excavation to install the sump. Therefore, a small 12 inch by 12 inch pit was hand-dug to approximately six feet deep between two of the buried pipes. The PVC screen was set in the hand-dug hole. In test pit two, the PVC screen was set approximately eight feet deep. After installation of the sumps, the test pits were backfilled with the excavated soil. The sumps were constructed to facilitate potential future removal of the groundwater.

3.2 SOIL BORINGS AND MONITORING WELLS

3.2.1 SOIL BORINGS

Six soil borings were also installed to 11 feet deep (below ground surface) near the north side of the building and converted to monitoring wells during the period November 1 through November 2, 1994. The locations of the soil borings/monitoring wells are shown in Figure 3-1. The soil borings and monitoring wells were installed using hollow stem auger techniques, and continuous soil sampling methods. The purpose of the soil borings and monitoring wells was to evaluate the vertical and horizontal extent of soil and groundwater contamination in the vicinity of the loading dock.

Three monitoring wells were installed directly north of the north side loading dock (MW-116, MW-117, and MW-118). These wells were installed through the concrete driveway and were completed as flush mount wells. The original work plan stated that test pits would be dug in four areas along the north side

of the building, including two pits adjacent to the loading dock. However, excavation adjacent to the loading dock would have significantly disrupted plant operations. Therefore, test pits were not dug adjacent to the loading dock. Instead, three soil borings, converted to monitoring wells, were installed. MW-116 was constructed as a four-inch diameter well which could be used as a groundwater extraction well, if necessary (the five other wells were constructed as two-inch diameter wells). Two additional monitoring wells were installed north of the test pits in a grassy area (MW-119 and MW-120). These locations were chosen to evaluate the extent of soil and groundwater contamination to the north.

The final well (MW-121) was installed to the west of the test pit area. This location was chosen because site representatives stated that it was possible that MW-119 and MW-120 were installed within a former underground storage tank excavation. Although soil samples collected during the drilling of MW-119 and MW-120 did not indicate the presence of fill or disturbed materials, MW-121 was installed about 90 feet west to insure that a well existed outside of any possible excavation area and to evaluate the extent of soil and groundwater contamination to the west. This location was also selected because its installation at this location would not interfere with operations at the facility.

Samples recovered from the soil borings were field screened using a PID and logged by EARTH TECH's on-site geologist. Boring logs are included in Attachment B. Field screening results are summarized in Table 2-2. Samples exhibiting elevated field screening readings or physical evidence of impact were selected for submittal for laboratory analysis. Two samples were selected from each boring and submitted to the laboratory for analysis of volatile organic compounds using U.S. EPA/SW-846 Method 8240.

TABLE 3-2

Soil Boring Field Screening Results
Former Miller Container Plant
Moultrie, Georgia

Boring No.	Sample Depth	PID Reading	Comments
MW-116	0-3 ft.	0.0	Discolored fill material
	3-5 ft.	1.2	
	5-7 ft.	0.8	
	7-9 ft.	0.0	
	9-11 ft.	0.8	
MW-117	0-3 ft.	0.0	Fill material
	3-5 ft.	0.0	
	5-7 ft.	0.8	
	7-9 ft.	0.0	
	9-11 ft.	0.8	
MW-118	0-3 ft.	1.2	Fill material
	3-5 ft.	0.4	
	5-7 ft.	1.2	Duplicate sample submitted to laboratory
	7-9 ft.	0.8	
	9-11 ft.	0.4	
MW-119	0-2 ft.	7.5	
	2-4 ft.	1.6	
	4-6 ft.	1.2	
	6-8 ft.	0.4	
	8-10 ft.	1.2	
	10-12 ft.	0.4	
MW-120	0-2 ft.	0.4	
	2-4 ft.	0.8	
	4-6 ft.	2.5	
	6-8 ft.	4.6	
	8-10 ft.	2.1	
	10-12 ft.	0.8	
MW-121	0-2 ft.	6.3	
	2-4 ft.	0.4	
	4-6 ft.	0.4	
	6-8 ft.	1.2	
	8-10 ft.	0.8	
	10-12 ft.	1.6	

A shaded cell identify samples submitted for laboratory analysis. PID readings are in instrument units (IUs). The PID was calibrated to a 100 ppm isobutylene standard. Background measurements of 0 to 4 IUs were recorded during the investigation.

3.2.2 WELL CONSTRUCTION

Six monitoring wells were installed during the period November 1-2, 1994. All of the wells were installed at a depth of 11 feet below ground surface. The three wells installed in the concrete driveway area were completed as flush mounts. The remaining three wells installed in the grassy area were completed as above-ground wells.

The depths of the new wells were based upon water level measurements from the existing wells (measured on 10-31-94). Water levels in the three existing wells were: MW-113 @ 4.74 ft; MW-114 @ 6.63 ft.; and MW-115 @ 4.86 ft. These measurements were taken from the top of the well riser pipe. The riser pipes were approximately 2½ to 3 feet above the ground surface. Therefore, the measured groundwater table was approximately 2½ feet below the ground surface. Based on the shallow water table, and using 10-foot screens for the wells, the screened interval necessary was determined to be 1 to 11 feet below ground surface.

Upon completion of drilling each borehole to 11 feet below ground surface, the wells were installed. Well construction logs are included in Attachment C. Well materials included flush-threaded Schedule 40 PVC, with 10-foot screens, and 0.010-inch factory cut slots. The sand filter pack was installed to approximately one foot above the screened interval and the surface seal was Portland cement installed to the ground surface (or approximately 0.4 feet below ground surface in the flush mount wells).

3.2.2.1 Well Development

During the period December 20-21, 1994, the newly installed wells (MW-116, MW-117, MW-118, MW-119, MW-120, and MW-121) were developed and sampled. Each well was developed by bailing dry once. In general, each well produced about 2½ gallons of water before being bailed dry. New, dedicated PVC bailers were used for each well for development and subsequent sampling. After development, each well was allowed to recharge for one to two hours. After recharging, the wells were sampled. Purge water was containerized in a 55-gallon drum.

3.2.2.2 Well Survey

The ground surface elevation and top of riser elevations of existing monitoring wells, newly installed monitoring wells and the sumps were surveyed using mean sea level (msl) data by South Land Surveying

Company of Moultrie, Georgia. The finished concrete floor of the facility was used as a bench mark using an elevation of 310 ft msl reported on the facility building plans. The locations of monitoring wells and borings were measured in reference to the building.

3.3 GROUNDWATER SAMPLING

3.3.1 INITIAL SAMPLING EVENT

Upon completion of the well installation activities, groundwater samples were collected from the three previously installed wells (MW-113, MW-114 and MW-115) and the two sumps (Sump-1 and Sump-2). The newly installed wells (MW-116, MW-117, MW-118, MW-119, MW-120 and MW-121) did not recharge sufficiently after installation to permit development at that time. As a result, well development was postponed until the wells had recharged. During the period December 21-22, 1994, the new wells were developed and sampled.

Prior to sampling the three existing wells (MW-113, MW-114 and MW-115), one well volume was purged from each well. Small well volumes were purged because of the extremely slow recharge rate of the wells. Each well was purged and sampled using dedicated disposable PVC bailers. A field blank (MB-FB-1) was collected from a randomly selected bailer as a quality assurance/quality control (QA/QC) measure. Purge water was containerized in a 55-gallon drum.

Water samples were transferred to 40 milliliter vials provided by the laboratory, pre-preserved with hydrochloric acid (HCl) (two vials per well). The vials were labeled, stored and shipped on ice in insulated containers. Shipment was via overnight courier to the laboratory under chain-of-custody procedures.

During the period December 21-22, 1994, the new wells were sampled. Water level measurements and depth of well measurements were collected to calculate the water column in each well. The height of the water column was multiplied by the volume of water based on the diameter of the well to calculate the volume (gallons) of water in each well equal to one well volume. Because of the low recharge rate of the aquifer, the wells were bailed dry quickly. After allowing the wells to recharge for one to two hours, groundwater samples were collected from each well. Because of the extremely slow recharge rate of the wells, bailing the wells dry more than once was considered impractical and would not permit collection of water samples during the time allocated for this sampling event.

Water samples were transferred to 40 milliliter vials provided by the laboratory, pre-preserved with hydrochloric acid (HCl) (two vials per well). Each vial was filled so that headspace was eliminated. The vials were labeled, stored and shipped on ice in insulated containers. Shipment was via overnight courier to the laboratory under chain-of-custody procedures.

3.3.2 SUPPLEMENTAL GROUNDWATER SAMPLING EVENT

A supplemental groundwater sampling event was completed to confirm the results obtained for sampling completed in late 1994 and to provide a set of contiguous sampling results for all monitoring wells at the site. On March 30 and 31, 1995, the monitoring wells at the site were purged and samples collected for laboratory VOC analyses. Upon arriving at the site, the water levels in the wells were measured and used to calculate the volume of water present in each well accounting for the volume of water in the well casing and saturated borehole. Using the calculated well volumes a purge volume equivalent to four well volumes was calculated for each well. Once the purge volumes were calculated, EARTH TECH initiated purging. During purging, field parameters including pH, temperature and conductivity were periodically measured. Information obtained during well purging was recorded on EARTH TECH purge logs which are included in Attachment D. In general, the wells were purged dry on the first day of the sampling event and allowed to recharge overnight prior to sampling. Immediately before sampling, additional water was purged from the well to the point that only a volume of water sufficient to fill the sample containers remained in the well. Based on the calculated well volumes, the actual well volumes purged prior to sampling ranged from 0.7 (MW-117) to 3.5 (MW-114). Groundwater samples were not collected from the test pit sumps (Sump 1 and Sump 2) during the supplemental sampling event due to the potential for surface water to have entered the sumps as a result of the rain which fell during the sampling event. The screen sections of the sumps extend to the ground surface.

Subsequent to purging, the wells were sampled for VOCs using the same dedicated bailer used to purge each individual well. The samples were collected in pre-preserved containers provided by the analytical laboratory. A field blank was collected by running distilled water through a disposable bailer as a field QA/QC measure. After collection, the samples were labeled and placed in an ice filled cooler for shipment to the laboratory. A single shipment of samples was made to EARTH TECH's analytical laboratory using overnight carrier service under chain-of-custody procedures. A trip blank was included with the sample shipment as a QA/QC measure to allow the evaluation of the integrity of the samples during shipment. The samples were analyzed for VOCs using USEPA/SW-846 Method 8240.

4.0 RESULTS

4.1 SITE GEOLOGY

The geology of the site was evaluated using the information obtained from test pits and soil borings completed at the site. The information obtained from borings completed at the site was used to construct geologic cross sections Figures 4-1 through 4-3. The cross sections show that the site is underlain by 1.3 feet to 6 feet of fill. In general the fill encountered was described as tan to greenish-gray, medium-grained sand with traces of small to medium gravel, or brown sandy clay. Fill materials are underlain by stiff to hard, white, brownish yellow or red, mottled, sandy clay. Bedrock was not encountered in the borings completed at the site.

In general, fill materials are thickest close to the building (a maximum of 7 feet of fill was encountered in Test Pit 1). The fill encountered across the site is assumed to have been placed during grading operations to construct the facility. The underlying natural clay deposits (saprolites or residium) have been formed by the weathering of the underlying bedrock units.

4.2 SITE HYDROGEOLOGY

Site hydrogeology was evaluated using the groundwater measurements obtained during the March 1995 sampling event. Groundwater measurements made during previous sampling events were not evaluated because these measurements may have been influenced by temporal changes which could potentially impact the accuracy of the groundwater flow evaluation.

Groundwater elevations calculated from water level measurements made during the March 1995 sampling event are summarized in Table 4-1. The calculated elevations were used to construct the groundwater contours shown in Figure 4-4. Based on the groundwater contour map, groundwater flows south-southwest at the site. The direction of groundwater flow at the site is potentially influenced by the high hydraulic conductivity backfill materials present beneath the foundation of the facility and the collection sump which removes groundwater from the foundation. The potential influence of these features is increased due to the precipitation which occurred the evening prior to and during the collection of water level measurements. The horizontal hydraulic gradient depicted in the flow map is 0.025.

The hydraulic conductivity of the unconsolidated materials was evaluated during EARTH TECH's previous site investigation (see Appendix). The hydraulic conductivity estimated through a slug test at MW-114 was 7.5 E-6 cm/sec. Laboratory falling head permeability for a sample collected from MW-114 was 1.4 E-7 cm/sec. The details of previous hydraulic conductivity testing are provided in EARTH TECH's March 22, 1994 Site Investigation Report for the Former Miller Container Brewing Company Moultrie Container Division Facility.

4.3 ANALYTICAL RESULTS

4.3.1 SOIL

During the Phase II site investigation, a total of 18 soil samples were submitted for laboratory analysis (collected 10-31-94 to 11-2-94). The samples included 14 soil samples, two soil duplicates (co-located samples), and two soil field blanks (equipment blanks). All of the samples were analyzed for USEPA/SW-846 Method 8240 for volatiles, except for the sample collected from test pit one which was also analyzed for USEPA/SW-846 Method 8270 for semi-volatiles.

A summary of the laboratory results from the soil samples is presented in Table 4.2. Complete analytical reports and chain-of-custody forms for soil samples are included in Attachment E. Trace concentrations of acetone were detected in samples collected from MW-117, MW-118 and MW-120.

Somewhat greater concentrations of acetone were detected in the soil sample and duplicate sample collected from test pit one. Detectable concentrations of VOCs were not observed in the remaining soil samples. Soil detects are were graphically plotted on the site map (Figure 4-5) and cross sections (Figures 4-2 and 4-3) to evaluate the distribution and extent of soil impacts. Impacts by VOCs with the exception of acetone are restricted to the fill materials in the vicinity of MW-113. Soil impacts by methyl ethyl ketone (MEK), isobutyl alcohol, TCE and vinyl acetate were not detected below a depth of 6 feet at MW-113. Nevertheless, the impacts detected are present in soil below the water table based on water level measurements made in MW-113. The low concentration of acetone detects and the random distribution of these detects suggests that the acetone detects are the result of laboratory contamination. EARTH TECH, however, was not able to confirm potential laboratory contamination by reviewing the laboratory QA/QC samples. Based on available information, soil in the vicinity of MW-113 appears to be a source of contamination; however, the extent of impacts by MEK, isobutyl alcohol, TCE and vinyl acetate were not defined beneath the building.

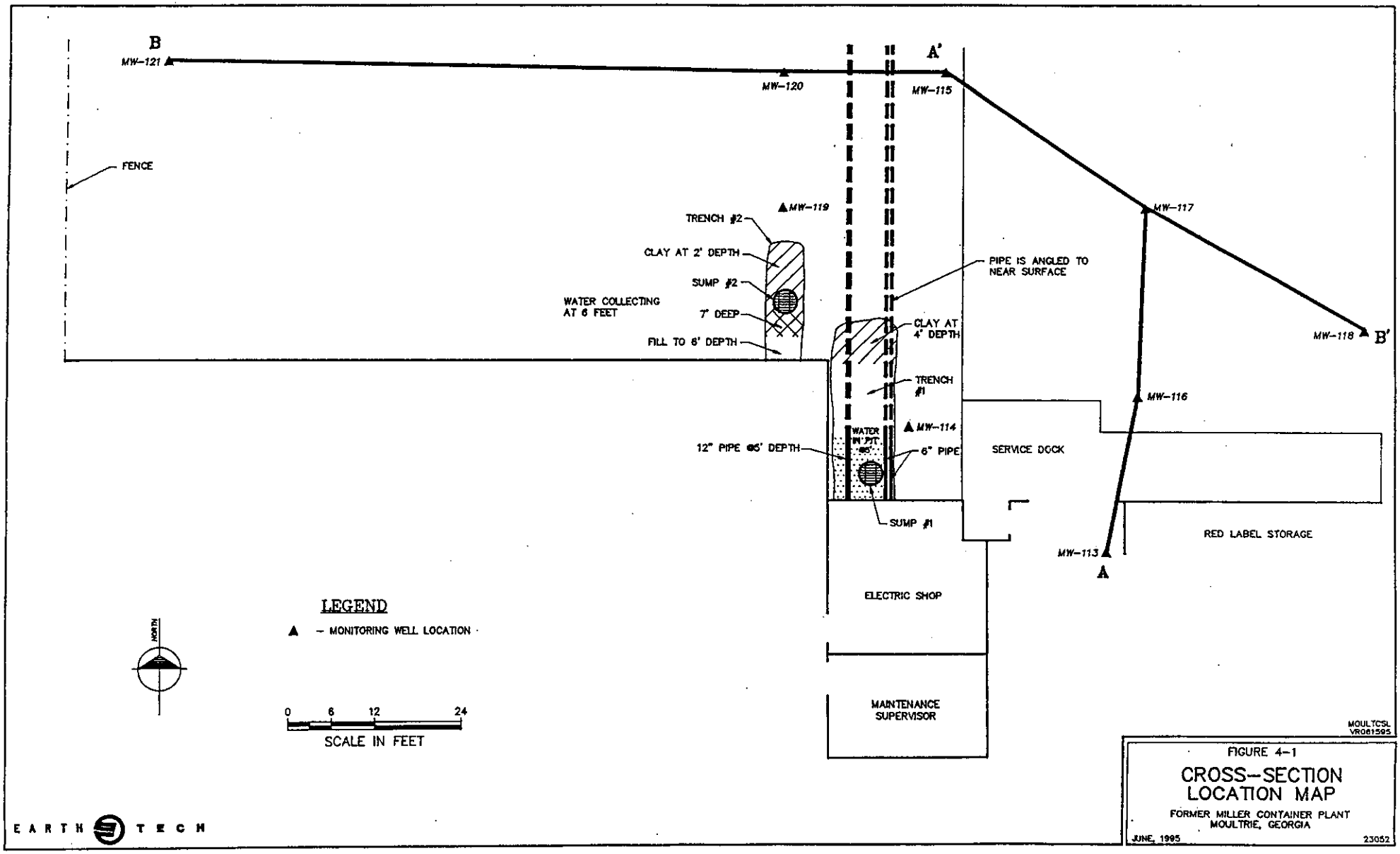


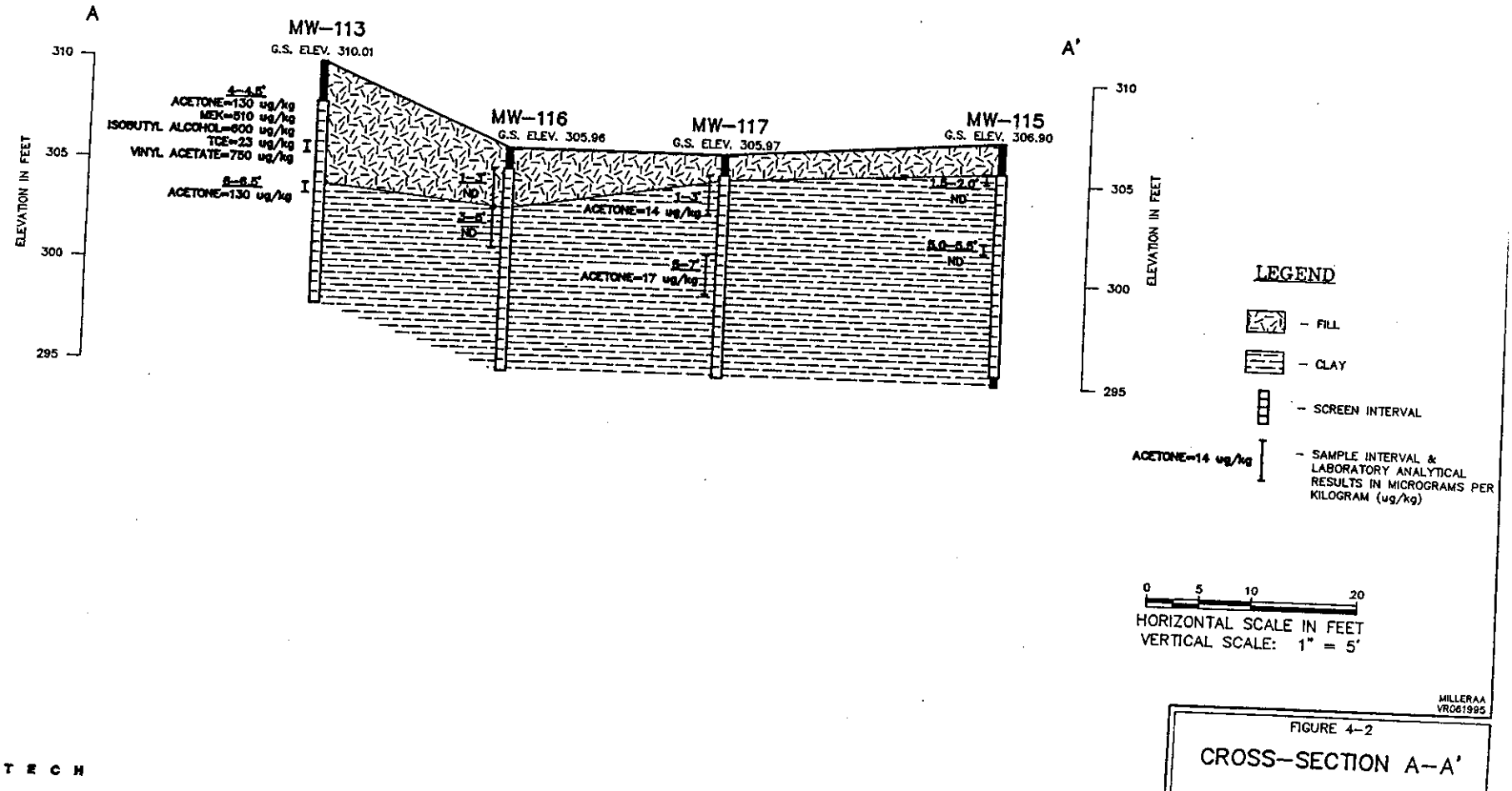
FIGURE 4-1

CROSS-SECTION LOCATION MAP

FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA

JUNE, 1995 23052

EARTH TECH



EARTH TECH

MILLERAA
VR061995

FIGURE 4–2

CROSS–SECTION A–A'

FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA

JUNE, 1995

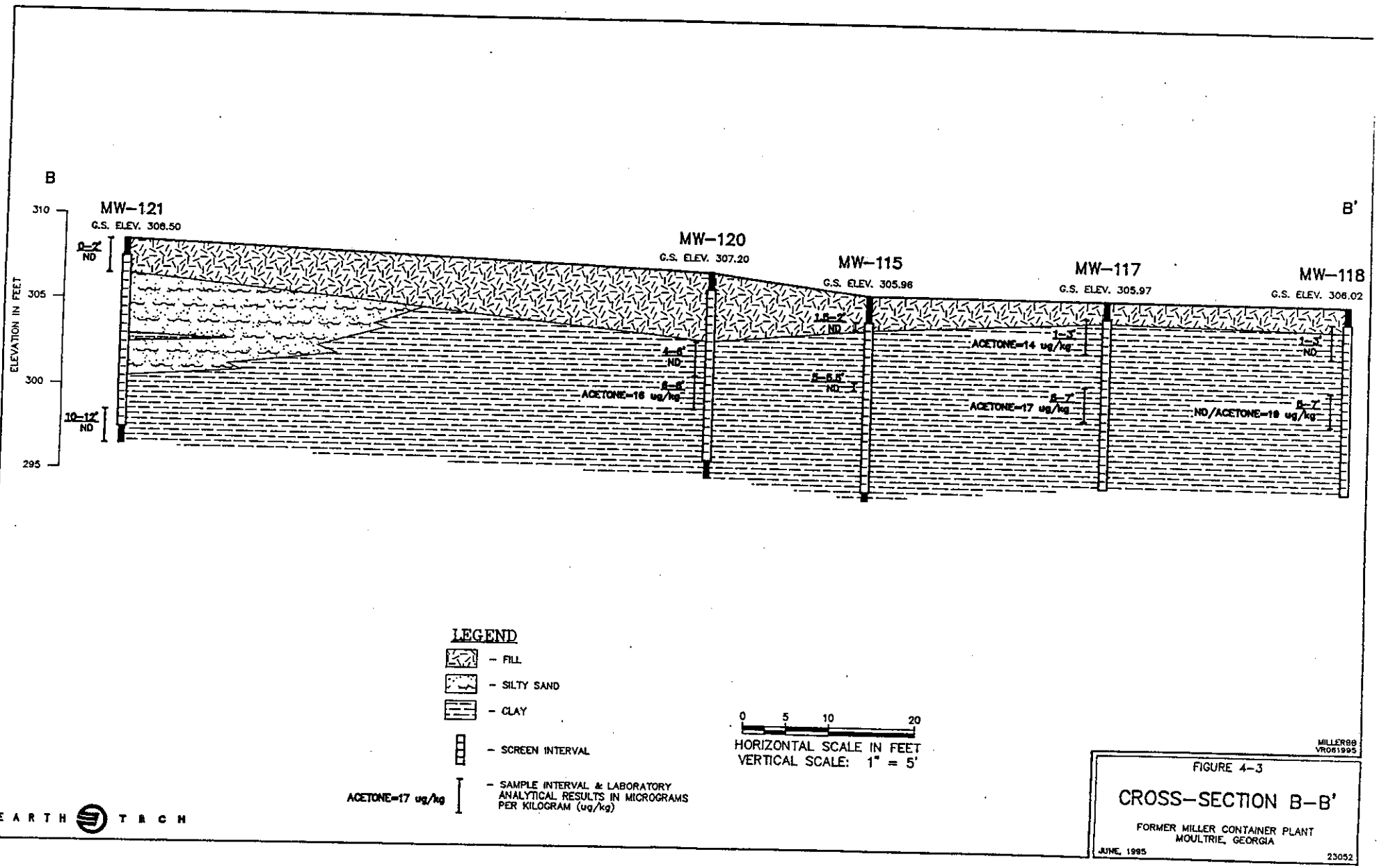

B
B'
310
305
300
295
ELEVATION IN FEET
MW-121
G.S. ELEV. 308.50
MW-120
G.S. ELEV. 307.20
MW-115
G.S. ELEV. 305.96
MW-117
G.S. ELEV. 305.97
MW-118
G.S. ELEV. 306.02
0-2'
ND
10-12'
ND
4-6'
ND
8-8'
ACETONE=16 ug/kg
1.5-2'
ND
4-5.5'
ND
1-3'
ACETONE=14 ug/kg
8-7'
ACETONE=17 ug/kg
1-3'
ND
8-7'
ND/ACETONE=19 ug/kg
LEGEND
- FILL
- SILTY SAND
- CLAY
- SCREEN INTERVAL
ACETONE=17 ug/kg
- SAMPLE INTERVAL & LABORATORY ANALYTICAL RESULTS IN MICROGRAMS PER KILOGRAM (ug/kg)
0 5 10 20
HORIZONTAL SCALE IN FEET
VERTICAL SCALE: 1" = 5'
MILLER99
VR061995
EARTH TECH
FIGURE 4-3
CROSS-SECTION B-B'
FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA
JUNE, 1995
23052

TABLE 4-1

Groundwater Elevations
March 1995 Sampling Event
Former Miller Container Plant
Moultrie, Georgia

Well Number	Ground Surface Elevation (ft msl)	Top of Riser Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
MW-113	310.01	309.04	5.11	303.93
MW-114	307.50	310.98	7.04	303.94
MW-115	306.90	309.20	5.10	304.10
MW-116	305.96	305.75	1.23	304.52
MW-117	305.97	305.63	0.65	304.98
MW-118	306.02	310.35	0.63	305.18
MW-119	307.40	310.06	5.93	304.42
MW-120	307.20	311.14	5.49	304.57
MW-121	308.50	310.06	6.09	305.05
Sump 1	307.70	310.55	6.20	303.86
Sump 2	308.40		6.25	304.30

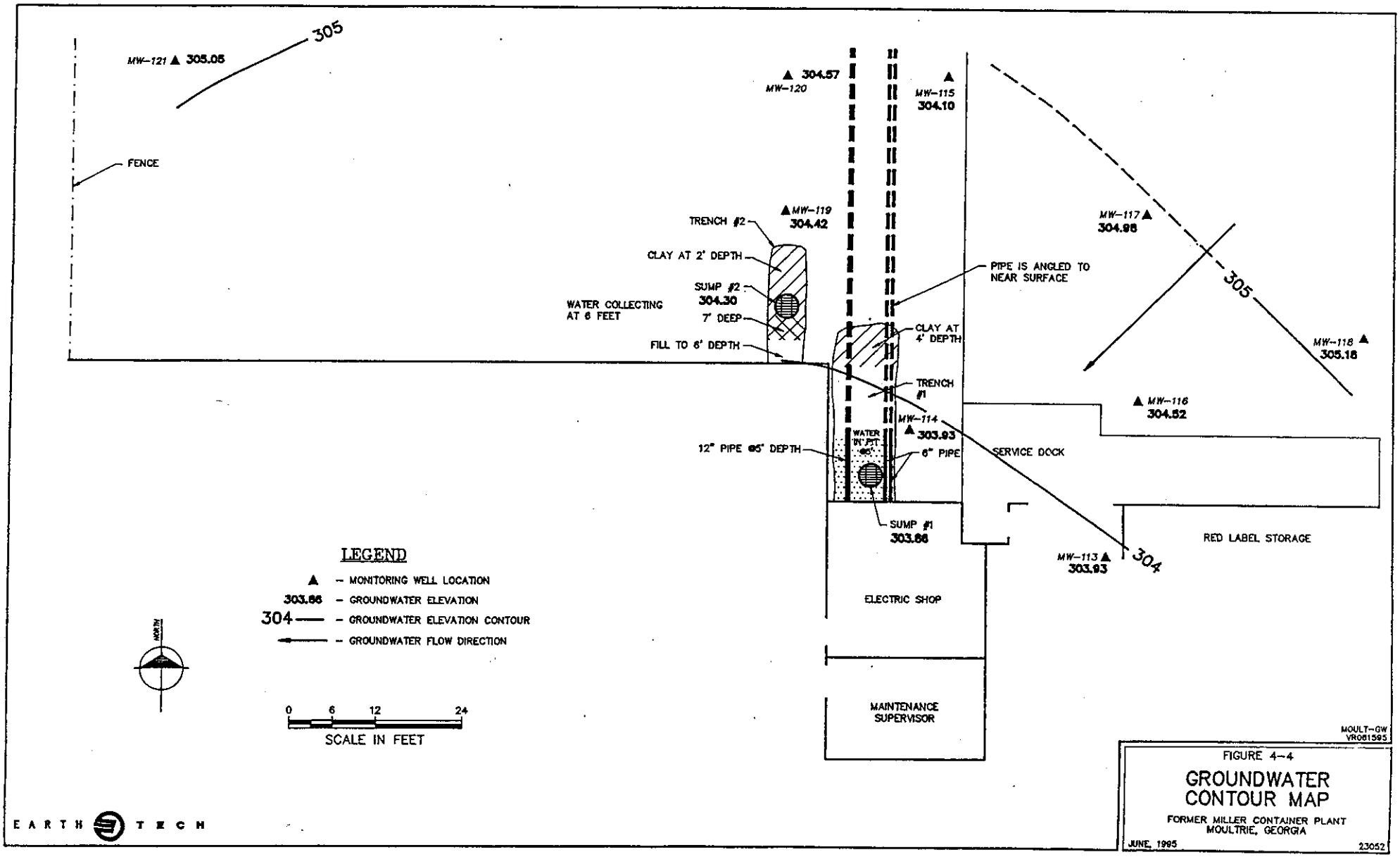
Notes:
Elevations reference a bench mark elevation of 310 feet above mean sea level (msl) for the floor of the facility as reported in as-built drawings.

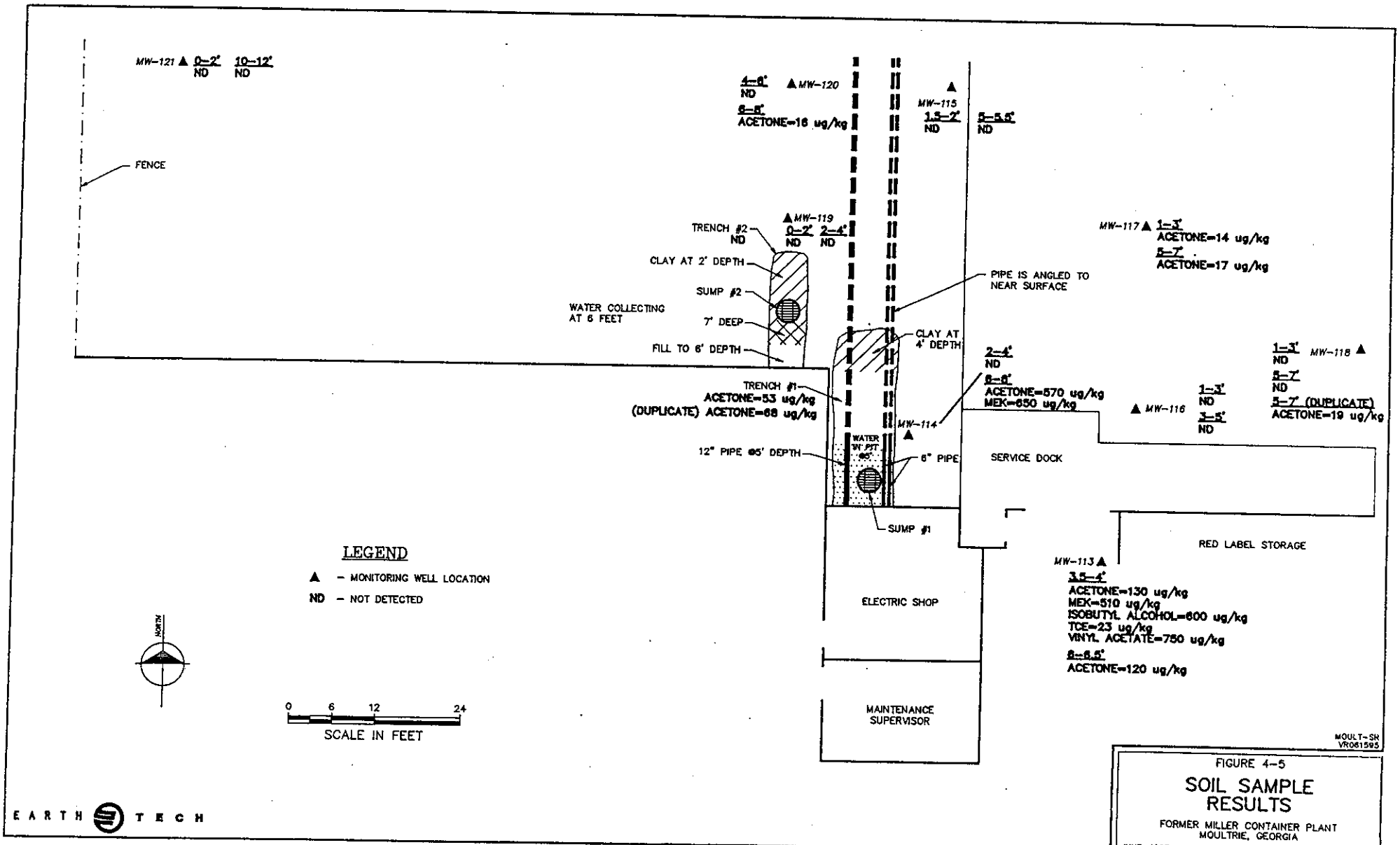
TABLE 4-2

Laboratory Soil Sample Results
Former Miller Container Plant
Moultrie, Georgia

Sample Location	Depth	Acetone (µg/kg)*
Trench-1 (9E2N)	6 ft.	53
Trench-2 (3W1N)	6 ft.	<11
MW-116	1-3 ft.	<11
MW-116	3-5 ft.	<12
MW-117	1-3 ft.	14
MW-117	5-7 ft.	17
MW-118	1-3 ft.	<11
MW-118	5-7 ft.	<12
MW-119	0-2 ft.	<11
MW-119	2-4 ft.	<11
MW-120	4-6 ft.	<11
MW-120	6-8 ft.	16
MW-121	0-2 ft.	<11
MW-121	10-12 ft.	<11
Field duplicate-1 (MW-118)	5-7 ft.	19
Field duplicate-2 (Trench-1)	6 ft.	68

* Acetone was the only compound detected in any of the soil samples analyzed by the laboratory.


305
MW-121 ▲ 305.05
FENCE
▲ 304.57
MW-120
MW-115
304.10
MW-119
304.42
TRENCH #2
CLAY AT 2' DEPTH
SUMP #2
304.30
7' DEEP
WATER COLLECTING AT 6 FEET
FILL TO 6' DEPTH
PIPE IS ANGLED TO NEAR SURFACE
CLAY AT 4' DEPTH
TRENCH #1
MW-114
▲ 303.93
WATER IN PIT @6'
12" PIPE @5' DEPTH
6" PIPE
SUMP #1
303.66
MW-117 ▲
304.98
305
MW-118 ▲
305.18
▲ MW-116
304.52
SERVICE DOCK
RED LABEL STORAGE
MW-113 ▲
303.93
304
ELECTRIC SHOP
MAINTENANCE SUPERVISOR
LEGEND
▲ – MONITORING WELL LOCATION
303.66 – GROUNDWATER ELEVATION
304 – GROUNDWATER ELEVATION CONTOUR
– GROUNDWATER FLOW DIRECTION
NORTH
0 6 12 24
SCALE IN FEET
EARTH TECH
MOULT-GW
VR061595
FIGURE 4-4
GROUNDWATER CONTOUR MAP
FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA
JUNE, 1995
23052



MOULT-SR
VR081595

FIGURE 4-5

SOIL SAMPLE RESULTS

FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA

JUNE, 1995

23052

EARTH TECH

4.3.2 GROUNDWATER

4.3.2.1 Initial Sampling Event

During the period October 31 through November 2, 1994, seven groundwater samples were collected and submitted for laboratory analysis for Method 8240 volatiles. The samples included groundwater samples from monitoring wells MW-113, MW-114, MW-115, Sump-1, Sump-2, as well as a duplicate sample from MW-114 and a field blank (equipment blank). One trip blank was also included in the soil and groundwater sample shipment and was analyzed for Method 8240 volatiles.

During the period December 21-22, 1994, the groundwater monitoring wells installed during November, 1994 were developed and sampled. A total of six groundwater samples were submitted for laboratory analysis of Method 8240 volatiles.

Analytical results obtained for the initial 1994 sampling events are summarized in Table 4-2. Complete analytical reports and chain-of-custody forms for the event are included in Attachment F. The concentrations of 1,1-dichloroethene (DCE), trichloroethene (TCE), benzene, tetrachloroethene (PCE), and cis-1,2-DCE exceeded the federal maximum contaminant levels (MCLs) and/or Georgia Department of Environmental Protection's (GDEP) drinking water quality standards in one or more of the monitoring wells. Based on the number and magnitude of exceedances, impacts appear to be most significant at MW-114. Exceedances were not detected at MW-119, MW-120 and MW-121. Impacts by TCE are considered to be the most significant because of exceedance of the MCL for TCE affected the greatest number of wells. Exceedances resulting from impacts by cis-1,2-DCE and 1,1-DCE are considered significant due to the magnitude of the exceedances (as great as great as 81 times and 214 times the MCL, respectively).

Table 4-3
Analytical Results for Groundwater
October, November and December, 1994
Former Miller Container Plant
Moultrie, Georgia

Compound (MDL)	Sample Locations						Action Levels	
	Sump 1	Sump 2	MW-113	MW-114	MW-114D	MW-115	Federal MCL	GEPD Drinking Water Standard
Chloromethane (10 µg/l)	1,300			1,200	1,100		-	-
Acetone (10 µg/l)	790			60			-	-
1,1-dichloroethene (5 µg/l)	46			570	260		7	7
1,1-dichloroethane (5 µg/l)	240		35	710	580	42	-	-
2-butanone (10 µg/l)	420			30	20		-	-
1,1,1-trichloroethene (5 µg/l)	140						200	200
Trichloroethene (5 µg/l)	250	16	62	140	120	170	5	5
Benzene (5 µg/l)				11	8		5	5
4-methyl-2-pentanone (10 µg/l)				18	15		-	-
Tetrachloroethene (5 µg/l)	77		14	13	12		5	5
Toluene (5 µg/l)	18			57	49		1,000	1,000
Ethylbenzene (5 µg/l)				7	5		700	700
Xylenes (total) (5 µg/l)				24	20		10,000	10,000
cis-1,2-dichloroethene (5 µg/l)	1,500		17	15,000	12,000	210	70	70

Notes:
All units are µg/l (approximately equal to parts per billion).
A blank cell indicates the compound was not detected above the method detection limit.
Shaded cells highlight concentrations which exceed May 1994 Federal Maximum contaminant levels (MCLs) and/or March 1994 Georgia Environmental Protection Division (GEPD) drinking water standards
- Final action standard not available
MDL = Method detection limit

Table 4-3 (continued)
Analytical Results for Groundwater
October, November and December, 1994
Former Miller Container Plant
Moultrie, Georgia

Compound (MDL)	Sample Locations						Action Levels	
	MW-116	MW-117	MW-118	MW-119	MW-120	MW-121	Federal MCLs	GEPD Drinking Water Standards
Chloromethane (10 µg/l)							-	-
Acetone (10 µg/l)							-	-
1,1-dichloroethene (5 µg/l)	8						7	7
1,1-dichloroethane (5 µg/l)	62	12	14				-	-
2-butanone (10 µg/l)							-	-
1,1,1-trichloroethene (5 µg/l)							200	200
Trichloroethene (5 µg/l)	560	130	69				5	5
Benzene (5 µg/l)							5	5
4-methyl-2-pentanone (10 µg/l)							-	-
Tetrachloroethene (5 µg/l)	34						5	5
Toluene (5 µg/l)							1,000	1,000
Ethylbenzene (5 µg/l)							700	700
Xylenes (total) (5 µg/l)							10,000	10,000
cis-1,2-dichloroethene (5 µg/l)	85	14	12				70	70

Notes:

All units are µg/l (approximately equal to parts per billion).
A blank cell indicates the compound was not detected above the method detection limit.
Shaded Cells highlight concentrations which exceed May 1994 Federal maximum contaminant levels (MCLs) and/or March 1994 Georgia Environmental Protection Division (GEPD) Drinking Water Standards.
- = Final action standards are not available
MDL = Method detection limit

4.3.2.2 Supplemental Sampling Event

Analytical results obtained for the March 1995 groundwater sampling event are summarized in Table 4-4. Complete analytical reports and Chain-of-Custody information for the March 1995 groundwater sampling event are included in Attachment G. Similar to the results of the previous sampling event, TCE was the most frequently detected compound which exceeded the MCLs, therefore, TCE impacts are responsible for the largest area of groundwater impacts at the site. Exceedances by cis-1,2-DCE and 1,1-DCE are also considered significant due to the magnitude of the MCL exceedances by these compounds (171 times the MCL to 47 times the MCL, respectively). Impacts were greatest at MW-114 in terms of the frequency and magnitude of MCL exceedances.

4.3.2.3 Extent of Groundwater Impacts

Based on the magnitude and frequency of detects in groundwater samples, TCE is considered to be the most significant VOC detected in groundwater. The concentrations of TCE detected in groundwater during both sampling events are similar. Isoconcentration plots of analytical results obtained for the initial sampling event and March 1995 sampling event are shown in Figures 4-6 and 4-7, respectively. The isoconcentration plots reveal that the horizontal extent of groundwater impacts has not been defined. The concentrations of TCE detected indicate that the TCE present in groundwater occurs in the dissolved phase. The greatest impacts detected occur adjacent to the building near areas disturbed to construct footings and roadways. Considering the groundwater flow direction estimated from the water levels obtained during sampling, outward migration of the contaminants is unlikely. In addition, the low hydraulic conductivity of the native unconsolidated deposits at the site is anticipated to inhibit the migration of groundwater impacts.

4.4 REPORTING

Based on the results obtained during the initial and supplemental investigations, Miller verbally reported a release to GEPD on May 5, 1995. Miller is pursuring formal reporting requirements to coincide the submission of this report.

Table 4-4
Analytical Results for Groundwater
March 31, 1995 Sampling Event
Former Miller Container Plant
Moultrie, Georgia

Compound (MDL)	Sample Locations					Action Standards	
	MW-113	MW-114	MW-114D	MW-115	MW-116	Federal MCLs	GEPD Drinking Water Standards
Chloroethane (1 µg/l)		930	1200			-	-
1,1-dichloroethene (5 µg/l)	3	310	330		12	7	7
1,1-dichloroethane (5 µg/l)	26	400	450	25	45	-	-
1,1,1-trichloroethene (5 µg/l)						200	200
Trichloroethene (5 µg/l)	72	400	440	120	420	5	5
Tetrachloroethene (5 µg/l)	8.4				22	5	5
cis-1,2-dichloroethene (5 µg/l)	22	11000	1200	120	74	70	70

Notes:

Units are in micrograms per liter (µg/l) which are approximately equal to parts per billion).
A blank cell indicates the compound was not detected above the method detection limit.
Shaded cells highlight concentrations which are above applicable action levels.
* = Denotes samples which were analyzed at elevated detection limits due to interference from compounds in the sample.
- = Final action level was not available
MDL = Method detection limit

Table 4-4 (continued)
Analytical Results for Groundwater
March 31, 1995 Sampling Event
Former Miller Container Plant
Moultrie, Georgia

Compound (MDL)	Sample Locations					Action Standards	
	MW-117	MW-118	MW-119	MW-120	MW-121	Federal MCLs	GEPD Drinking Water Standards
Chloroethane (1 µg/l)						-	-
1,1-dichloroethene (5 µg/l)	5	4.6				7	7
1,1-dichloroethane (5 µg/l)	25	21				-	-
1,1,1-trichloroethene (5 µg/l)				1.8		200	200
Trichloroethene (5 µg/l)	210	110	3.4	1.7		5	5
Tetrachloroethene (5 µg/l)	7.5	8.5				5	5
cis-1,2-dichloroethene (5 µg/l)	37	23	1.6	4.8		70	70

Notes:

Units are in micrograms per liter (µg/l) which are approximately equal to parts per billion).
A blank cell indicates the compound was not detected above the method detection limit.
Shaded cells highlight concentrations which are above applicable action levels.
* = Denotes samples which were analyzed at elevated detection limits due to interference from compounds in the sample.
- = Final action level was not available
MDL = Method detection limit

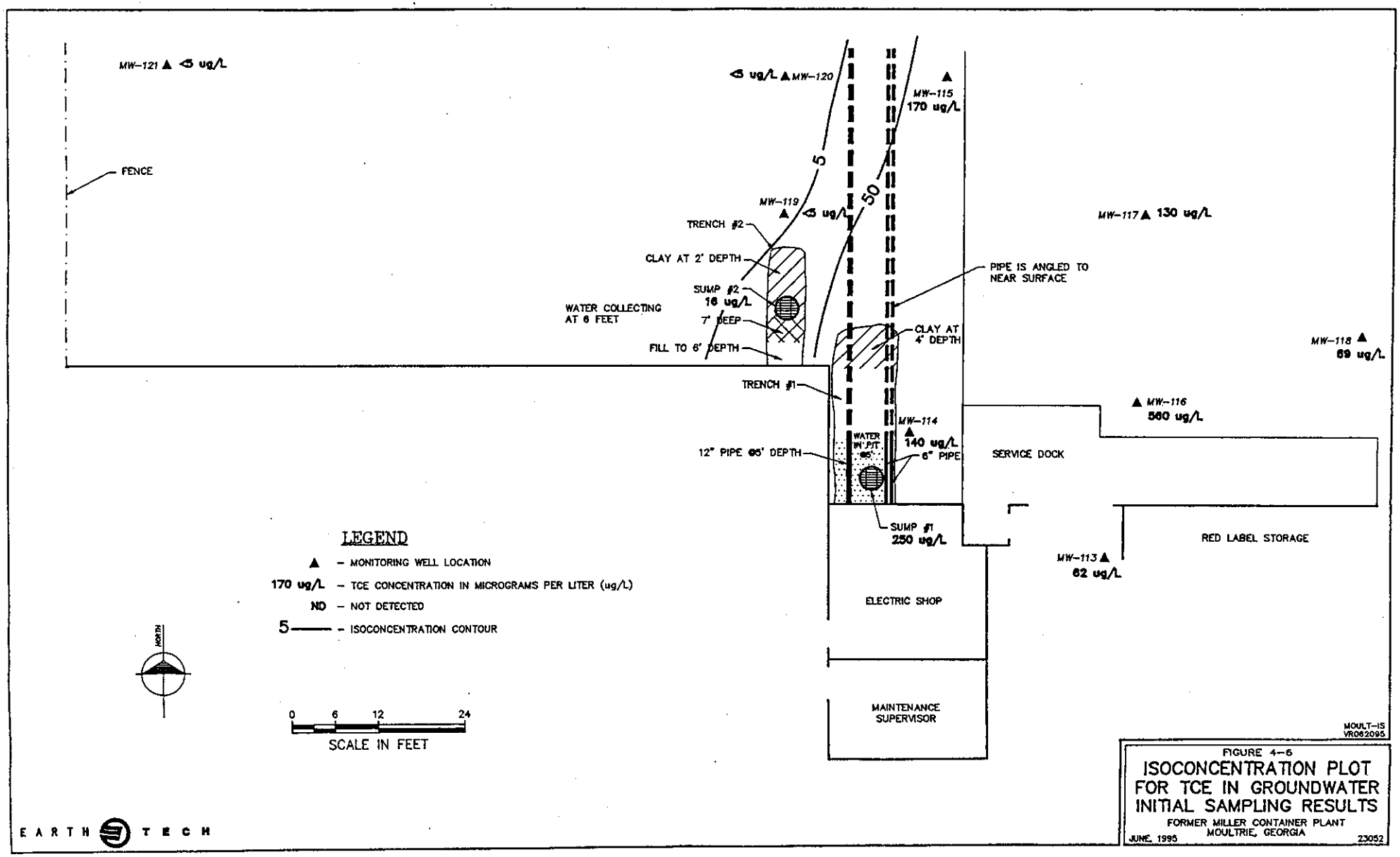


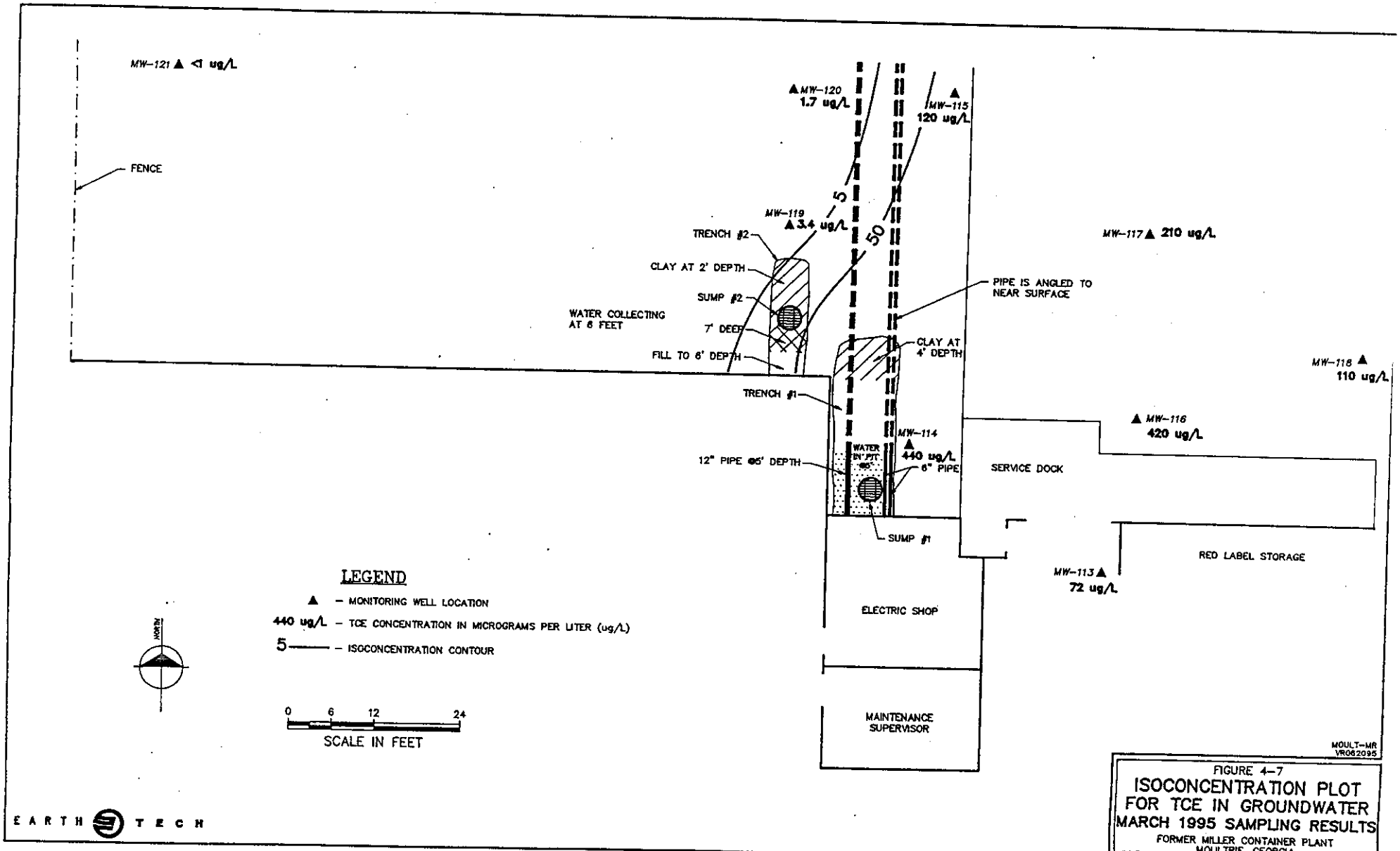
FIGURE 4-6

ISOCONCENTRATION PLOT FOR TCE IN GROUNDWATER INITIAL SAMPLING RESULTS

FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA

JUNE, 1995 23052

EARTH TECH


MW-121 ▲ <1 ug/L
FENCE
▲MW-120
1.7 ug/L
▲MW-115
120 ug/L
5
50
MW-119
▲3.4 ug/L
TRENCH #2
CLAY AT 2' DEPTH
SUMP #2
7' DEEP
FILL TO 6' DEPTH
WATER COLLECTING AT 6 FEET
MW-117▲ 210 ug/L
PIPE IS ANGLED TO NEAR SURFACE
CLAY AT 4' DEPTH
MW-118 ▲
110 ug/L
TRENCH #1
▲MW-116
420 ug/L
MW-114
▲
440 ug/L
WATER IN PIT @6'
12" PIPE @5' DEPTH
6" PIPE
SERVICE DOCK
SUMP #1
RED LABEL STORAGE
MW-113▲
72 ug/L
ELECTRIC SHOP
MAINTENANCE SUPERVISOR
LEGEND
▲ – MONITORING WELL LOCATION
440 ug/L – TCE CONCENTRATION IN MICROGRAMS PER LITER (ug/L)
5 – ISOCONCENTRATION CONTOUR
NORTH
0 6 12 24
SCALE IN FEET
MOULT-MR
VR062095
FIGURE 4-7
ISOCONCENTRATION PLOT FOR TCE IN GROUNDWATER
MARCH 1995 SAMPLING RESULTS
FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA
JUNE, 1995
23052
EARTH TECH

The Earth Technology Corporation

Borehole Log

Project Name: Miller Brewing Company			Project Number: 94-4167-01
Borehole Location: See Figure 3-1		Borehole No. MW-116	Sheet 1 of 1
Drilling Agency: Ardaman and Associates		Driller: K. Bedsole	
Drilling Equipment: CME-55		Date Started: 11/01/94	Total Depth (feet): 11.0
Drilling Method: Hollow stem 4.25" ID + S.S		Date Finished: 11/01/94	Depth to Bedrock(feet): ---
Drilling Fluid: Not Used		Number of Samples: 5	Depth to Water (feet):
Completion Information: Set well at 11.0 feet.		Borehole Diameter (in): 8.25	Elevation and Datum: 306.0 MSL
		Logged by: D. Stillings	Signature: RBC
		Checked by: R. Cannestra	Date: 6/10/95

Depth (feet)	Sample Number	Sample Type	Sample Attempted	Sample Recovered "	Blow Counts	N	LOG Graphic	LOG USCS or Rock Type	Lithologic Description	PID (ppm) S/B*	Remarks
	COR			NA					9" Concrete		Cored concrete 0-9". Blind drill 9"-1'.
				NA					Fill/Sand, dark greenish-gray, (5GY 4/1), moist		
	1	SS		5	3 5 5 10	10		SP-SM		0/0	Sampling initiated at 1.0 ft. below ground surface.
	2	SS		24	13 15 17 18	32			Tr oxidation and mottling at 7.0 ft.	1.2/0	
5	3	SS		10	13 17 20 20	37		CL		0.8/0	
	4	SS		10	19 22 29 32	51				0/0	
10	5	SS		11	18 20 26 30	46				0.8/0	
									End of Boring @ 11.0 feet.		
15											

Key S/B* = Sample reading / background reading; NA = not applicable
N = Sum of blows between 6 and 18" penetration

The Earth Technology Corporation

Borehole Log

Project Name: Miller Brewing Company			Project Number: 94-4167-01
Borehole Location: See Figure 3-1		Borehole No. MW-117	Sheet 1 of 1
Drilling Agency: Ardaman and Associates		Driller: K. Bedsole	
Drilling Equipment: CME-55		Date Started: 11/01/94	Total Depth (feet): 11.0
Drilling Method: Hollow stem 2.25" ID + S.S		Date Finished: 11/01/94	Depth to Bedrock(feet): ---
Drilling Fluid: Not Used		Number of Samples: 5	Depth to Water (feet):
Completion Information: Set well at 11.0 feet.		Borehole Diameter (in): 5.5	Elevation and Datum: 306.0 MSL
		Logged by: D. Stillings	Signature:
		Checked by: R. Cannestra	Date: 6/10/95

Depth (feet)	Sample Number	Type	Attempted	Recovered"	Blow Counts	N	LOG Graphic	USCS or Rock Type	Lithologic Description	PID (ppm) S/B*	Remarks
		COR			NA				8" Concrete		Cored concrete 0-8". Blind drill 8"-1'.
					NA			SM-SW	Fill/Sand, dark greenish-gray		
	1	SS		7	10 10 17 21	27			Clay, white, hard, dense, with orange, dark red, purple mottling, (10R 3/6), slightly moist	0/0	Sampling initiated at 1.0 ft. below ground surface.
	2	SS		18	27 29 21 27	50				0/0	
5	3	SS		15	32 32 20 24	52		CL		0.8/0	
	4	SS		16	27 31 19 21	50				0/0	Color change to brownish-yellow (10YR 6/6) at 7.5-8.5 ft.
10	5	SS		14	20 22 20 21	42				0.8/0	
									End of Boring @ 11.0 feet.		
15											

Key

S/B* = Sample reading / background reading; NA = not applicable
N = Sum of blows between 6 and 18" penetration

Form F-1009
9/1/91

The Earth Technology Corporation

Borehole Log

Project Name: Miller Brewing Company			Project Number: 94-4167-01
Borehole Location: See Figure 3-1		Borehole No. MW-118	Sheet 1 of 1
Drilling Agency: Ardaman and Associates		Driller: K. Bedsole	
Drilling Equipment: CME-55		Date Started: 11/02/94	Total Depth (feet): 11.0
Drilling Method: Hollow stem 2.25" ID + S.S		Date Finished: 11/02/94	Depth to Bedrock(feet): ---
Drilling Fluid: Not Used		Number of Samples: 5	Depth to Water (feet):
Completion Information: Set well at 11.0 feet.		Borehole Diameter (in): 5.5	Elevation and Datum: 306.0 MSL
		Logged by: D. Stillings	Signature: DBC
		Checked by: R. Cannestra	Date: 12/1/95

Depth (feet)	Sample Number	Type	Attempted	Recovered"	Blow Counts	N	LOG Graphic	USCS or Rock Type	Lithologic Description	PID (ppm) S/B*	Remarks
		COR			NA				10" Concrete		Cored concrete 0-10". Blind drill 10"-1'.
					NA			SP-SM	Fill/Sand, dark greenish-gray, slightly moist		
	1	SS	12	12	12 8 12 17	20			Clay, white, dense, hard, with trace of red and brownish mottling, slightly moist	1.2/0	Sampling initiated at 1.0 ft. below ground surface.
	2	SS	12	12	21 25 29 32	54				0.4/0	
5	3	SS	12	12	20 20 28 29	48		CL		1.2/0	
	4	SS	12	12	19 21 24 26	45				0.8/0	
10	5	SS	12	12	18 20 21 24	41				0.4/0	
									End of Boring @ 11.0 feet.		
15											

Key: S/B* = Sample reading / background reading; NA = not applicable
N = Sum of blows between 6 and 18" penetration

Form F-1009
9/1/91

The Earth Technology Corporation

Borehole Log

Project Name: Miller Brewing Company			Project Number: 94-4167-01
Borehole Location: See Figure 3.-1		Borehole No. MW-119	Sheet 1 of 1
Drilling Agency: Ardaman and Associates		Driller: K. Bedsole	
Drilling Equipment: CME-55		Date Started: 11/02/94	Total Depth (feet): 12.0
Drilling Method: Hollow stem 2.25" ID + S.S		Date Finished: 11/02/94	Depth to Bedrock(feet): ---
Drilling Fluid: Not Used		Number of Samples: 6	Depth to Water (feet):
Completion Information: Set well at 11.0 feet.		Borehole Diameter (in): 5.5	Elevation and Datum: 307.4 MSL
		Logged by: D. Stillings	Signature: FBC
		Checked by: R. Cannestra	Date: 12/10/95

Depth (feet)	Sample Number	Sample Type	Sample Attempted	Sample Recovered"	Blow Counts	N	LOG Graphic	LOG USCS or Rock Type	Lithologic Description	PID (ppm) S/B*	Remarks
	1	SS	12		4 5 5 6	10			6" Fill/Sandy Clay, dark brown, roots, fill, moist 6" Fill/Sandy Clay, brown 1" Clay, white, soft, moist Fill, Sandy Clay to Clay, white to dark brown, moist	7.5/0	Organics from 0-0.5 ft.
	2	SS	12		4 3 3 4	6		SC-CL		1.6/0	
5	3	SS	18		12 17 17 21	34			Clay, dense, hard, white, with brownish-yellow, light grey, dark red, and purple mottling, slightly moist	1.2/0	Trace to little pebbles at 4.0-4.5 ft.
	4	SS	16		17 19 21 23	40				0.4/0	
	5	SS	12		19 24 30 31	54		CL		1.2/0	
10	6	SS	20		18 21 29 26	50				0.4/0	
									End of Boring @ 12.0 feet.		
15											

Key

S/B* = Sample reading / background reading; NA = not applicable
N = Sum of blows between 6 and 18" penetration

Form F-1009
9/1/91

The Earth Technology Corporation

Borehole Log

Project Name: Miller Brewing Company			Project Number: 94-4167-01
Borehole Location: See Figure 3-1		Borehole No. MW-120	Sheet 1 of 1
Drilling Agency: Ardaman and Associates		Driller: K. Bedsole	
Drilling Equipment: CME-55		Date Started: 11/02/94	Total Depth (feet): 12.0
Drilling Method: Hollow stem 2.25" ID + S.S		Date Finished: 11/02/94	Depth to Bedrock(feet): ---
Drilling Fluid: Not Used		Number of Samples: 6	Depth to Water (feet):
Completion Information: Set well at 11.0 feet.		Borehole Diameter (in): 5.5	Elevation and Datum: 307.2 MSL
		Logged by: D. Stillings	Signature: JBC
		Checked by: R. Cannestra	Date: 10/10/95

Depth (feet)	Sample Number	Sample Type	Sample Attempted	Sample Recovered *	Blow Counts	N	LOG Graphic	LOG USCS or Rock Type	Lithologic Description	PID (ppm) S/B*	Remarks
	1	SS	24	20	7 9 12 14	21		SC-CL	Fill, Sandy to Silty Clay, white to dark brown, moist	0.4/0	
	2	SS	24	20	9 9 12 13	21				0.8/0	
5	3	SS	24	23	12 12 14 19	26		CL	Clay, white, dense, hard, with trace of pebbles (1/4"), slightly moist	2.5/0	
	4	SS	24	7	12 16 19 19	35				4.6/0	
	5	SS	24	18	17 19 21 23	40				2.1/0	Color change to purple at 8.0 ft.
10	6	SS	24	24	21 24 27 30	51				0.8/0	
									End of Boring @ 12.0 feet.		
15											

Key

S/B* = Sample reading / background reading; NA = not applicable
N = Sum of blows between 6 and 18" penetration

Form F-1009
9/1/91

The Earth Technology Corporation

Borehole Log

Project Name: Miller Brewing Company			Project Number: 94-4167-01
Borehole Location: See Figure 3-1		Borehole No. MW-121	Sheet 1 of 1
Drilling Agency: Ardaman and Associates		Driller: K. Bedsole	
Drilling Equipment: CME-55		Date Started: 11/02/94	Total Depth (feet): 12.0
Drilling Method: Hollow stem 2.25" ID + S.S		Date Finished: 11/02/94	Depth to Bedrock(feet): ---
Drilling Fluid: Not Used		Number of Samples: 6	Depth to Water (feet):
Completion Information: Set well at 11.0 feet.		Borehole Diameter (in): 5.5	Elevation and Datum: 308.5 MSL
		Logged by: D. Stillings	Signature: RSC
		Checked by: R. Cannestra	Date: 4/10/95

Depth (feet)	Sample Number	Sample Type	Sample Attempted	Sample Recovered "	Blow Counts	N	LOG Graphic	LOG USCS or Rock Type	Lithologic Description	PID (ppm) S/B*	Remarks
					5 9 5 5			SC-CL	Sandy Silty Clay, dark brown, roots, moist		
	1	SS		16		13		SW	Sand, reddish-yellow, (7.5YR 6/8), trace silt, fine grain, well sorted, moist	6.3/0	
	2	SS		20	5 6 5 6	11		SM	Sandy Silt, white, trace clay, with reddish-yellow mottling, moist	0.4/0	
5	3	SS		23	7 9 13 13	22				0.4/0	
								CL	Clay, white, hard, dense, trace sand, slightly moist		
	4	SS		20	9 11 14 10	25		SM	Silty Sand, white, fine grain, soft, moist	1.2/0	
	5	SS		16	11 12 15 18	27		CL	Clay, white, dense, hard, dark red and brownish-yellow mottling, slightly moist	0.8/0	
10	6	SS		12	12 15 17 17	32		CL	Clay, white, dense, firm, trace sand, slightly moist to moist	1.6/0	
									End of Boring @ 12.0 feet.		
15											

Key

S/B* = Sample reading / background reading; NA = not applicable

N = Sum of blows between 6 and 18" penetration

Form F-1009
9/1/91

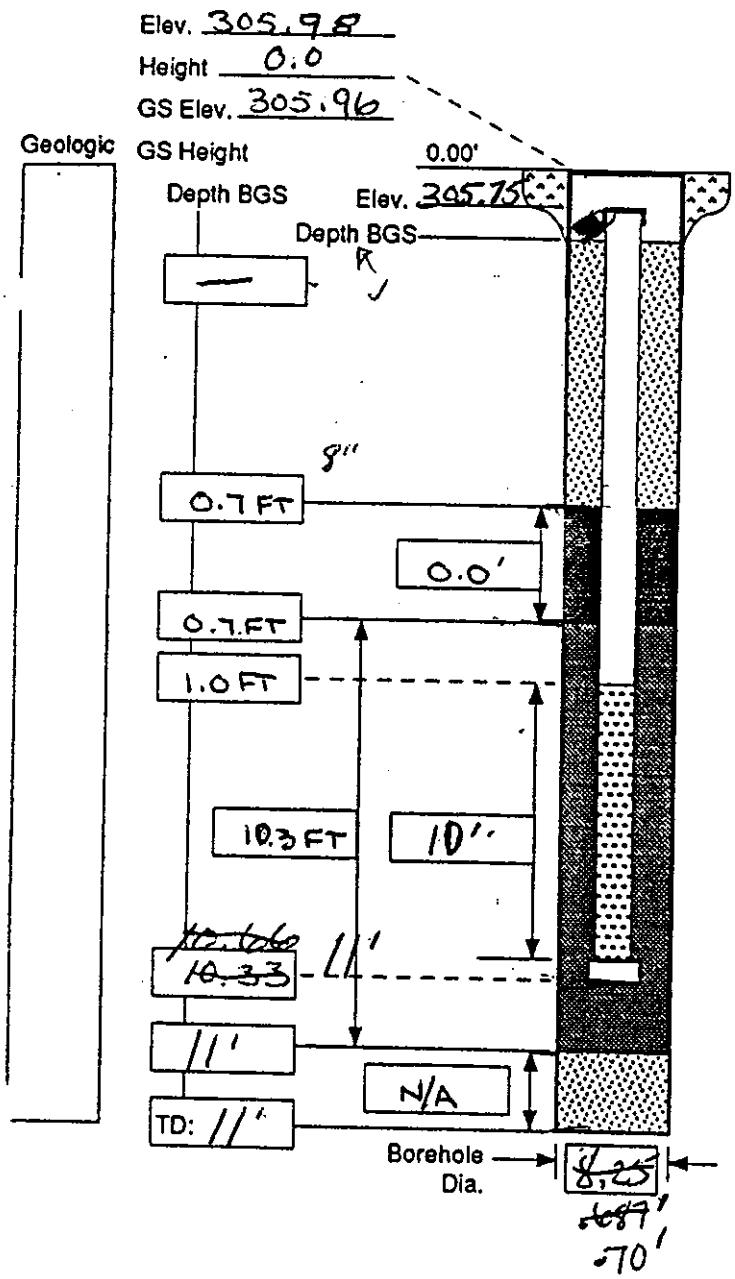
ATTACHMENT C

Well Construction Logs

The Earth Technology Corporation

Monitoring Well Construction Log - Flush Mount

Project Name: MILLER - FORMER MOULTRIE CONT. PLANT	Project Number: 94-4167-01	Date: 11-01-94
Well: MW-116	Well ID: MW-116	Sheet 1 of 1
Driller: K. BEDSOLE	Borehole Diameter (in): 8.25 IN	Total Depth (ft): 11.0 FT
Drilling Agency: ARDAMAN & ASSOCIATES	Date Started: 11-01-94	Depth to Water (ft):
Drilling Equipment: CME-55	Date Finished: 11-01-94	Elevation and Datum: G.S = 305.96msl TOC = 305.75msl
Drilling Method: HOLLOW STEM AUGERS	Logged by: DUANE STILLINGS	Checked by:
Drilling Fluid: NOT APPLICABLE	Number of Samples:	Date:



PROTECTIVE CSG
Material / Type:
Diameter: Flush Mt Iron
Depth BGS: .02' Weep Hole (Y / N)

GUARD POSTS (Y / N)
No.: Type:

SURFACE PAD
Composition and Size: Asphalt

RISER PIPE
Type: Sch 40 PVC
Diameter: 4"
Total Length (TOC to TOS): 1'
Ventilated Cap (Y / N)

GROUT
Composition and Proportions: Cement
Tremied (Y / N)
Interval BGS:

CENTRALIZERS
Depth(s): None

SEAL
Type: Cement
Source:
Setup / Hydration Time: Vol. Fluid Added
Tremied (Y / N)

FILTER PACK
Type: Blasting Sand 16-40"
Amt. Used: 225 lbs
Tremied (Y / N)
Source: Scruggs Co Valdosta Ga
Gr. Size Dist.:

SCREEN
Type: 4" PVC
Diameter: 4"
Slot Size and Type: 0.010 slot
Interval BGS: 1 - 11'

WELL FOOT (Y / N)
Interval BGS: Length
Bottom Cap (Y / N)

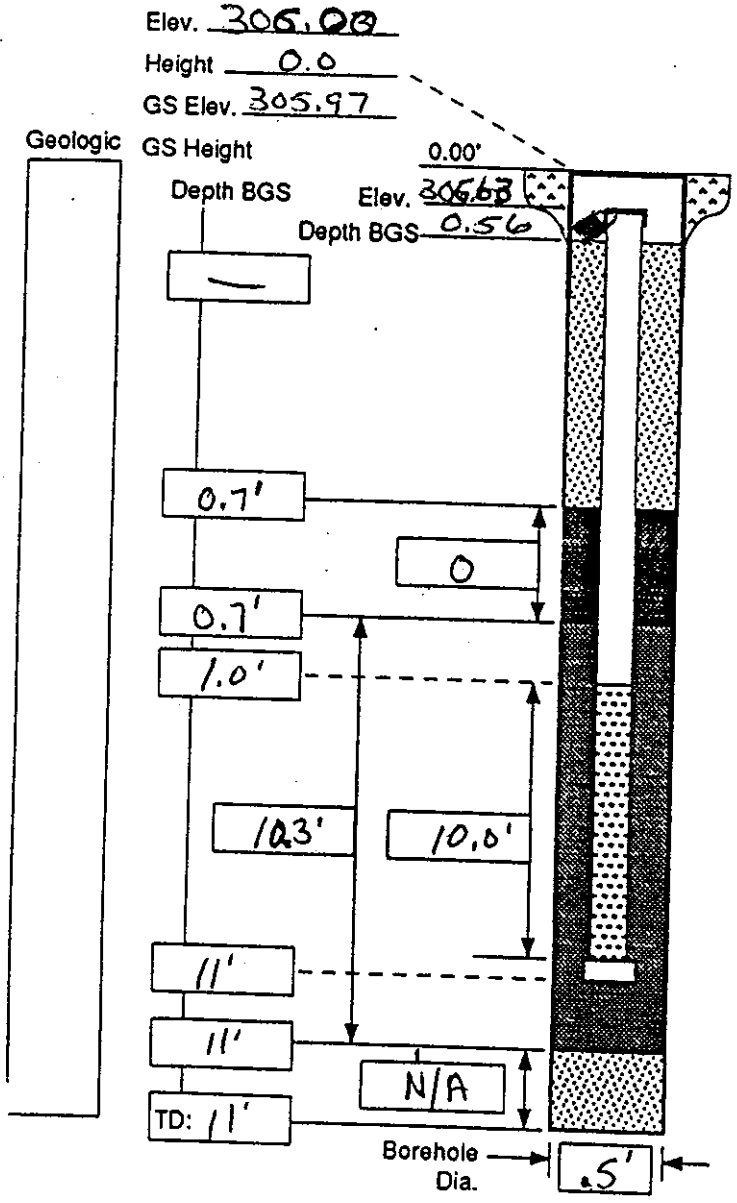
BACKFILL PLUG
Material:
Setup / Hydration Time:
Tremied (Y / N)

Form F-1023
9/1/91

The Earth Technology Corporation

Monitoring Well Construction Log - Flush Mount

Project Name: Miller - Former Moultrie Cont.	Project Number: 94-4167-01	Date: 11-1-94
Well	Well ID: MW-117	Sheet 1 of 1
Driller: K Bedsole	Borehole Diameter (in): 5.5	Total Depth (ft): 11Ft
Drilling Agency: Ardaman & Associates	Date Started: 11-1-94	Depth to Water (ft):
Drilling Equipment: CME 55	Date Finished: 11-1-94	Elevation and Datum: 305.97 GS: 0.56 BGS ~~TOC: 305.63~~
Drilling Method: HSA	Logged by: Duane Stillings	Checked by:
Drilling Fluid: N/A	Number of Samples:	Date:



PROTECTIVE CSG
Material / Type:
Diameter: Flush Mt. Iron
Depth BGS: Weep Hole (Y / N)

GUARD POSTS (Y (N))
No.: Type:

SURFACE PAD
Composition and Size: Asphalt

RISER PIPE
Type: Sch 40 PVC
Diameter: 2"
Total Length (TOC to TOS): 1'
Ventilated Cap (Y / N)

GROUT
Composition and Proportions: Cement
Tremied (Y / N)
Interval BGS:

CENTRALIZERS
Depth(s) None

SEAL
Type: Cement
Source:
Setup / Hydration Time: Vol. Fluid Added
Tremied (Y / N)

FILTER PACK
Type: Blasting Sand 16-40'
Amt. Used: 200 lbs
Tremied (Y / N)
Source: Scruggs Co Valdosta Ga
Gr. Size Dist.:

SCREEN
Type: 2" PVC
Diameter: 2"
Slot Size and Type: 0.010 Slot
Interval BGS: 1 - 11'

WELL FOOT (Y / N)
Interval BGS: Length
Bottom Cap (Y / N)

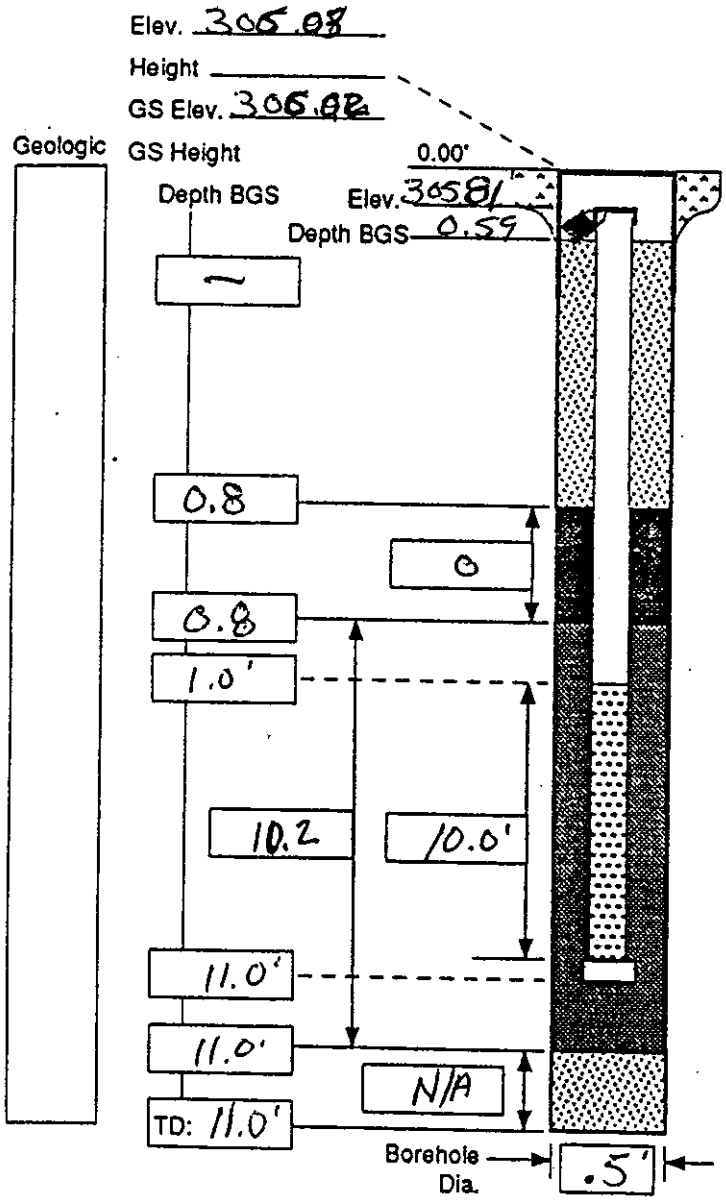
BACKFILL PLUG
Material:
Setup / Hydration Time:
Tremied (Y / N)

Form F-1023
9/1/91

The Earth Technology Corporation

Monitoring Well Construction Log - Flush Mount

Project Name: Miller-Moultrie Cont. Plt.	Project Number: 94-4167-01	Date: 11-2-94
Well	Well ID: MW 118	Sheet 1 of 1
Driller: K Bedsole	Borehole Diameter (in): 5.5	Total Depth (ft): 11ft
Drilling Agency: Ardaman & Associates	Date Started: 11-2-94	Depth to Water (ft):
Drilling Equipment: CME 55	Date Finished: 11-2-94	Elevation and Datum: 306.02 TOC 305.41
Drilling Method: HSA	Logged by: Duane Stillings	Checked by:
Drilling Fluid: N/A	Number of Samples:	Date:



PROTECTIVE CSG
Material / Type:
Diameter: Flush Mt. Iron
Depth BGS: Weep Hole (Y / N)

GUARD POSTS (Y (N))
No.: Type:

SURFACE PAD
Composition and Size: Asphalt Concrete

RISER PIPE
Type: PVC Sch 40
Diameter: 2"
Total Length (TOC to TOS): 1'
Ventilated Cap (Y / N)

GROUT
Composition and Proportions: Cement
Tremied (Y / N)
Interval BGS:

CENTRALIZERS
Depth(s): None

SEAL
Type: Cement
Source:
Setup / Hydration Time: Vol. Fluid Added
Tremied (Y / N)

FILTER PACK
Type: Blasting Sand 16-40#
Amt. Used: 150#
Tremied (Y / N)
Source: Scruggs Co Valdosta Ga
Gr. Size Dist.:

SCREEN
Type: 2" PVC
Diameter: 2"
Slot Size and Type: 0.010 Slot
Interval BGS: 1-11'

WELL FOOT (Y / N)
Interval BGS: Length
Bottom Cap (Y / N)

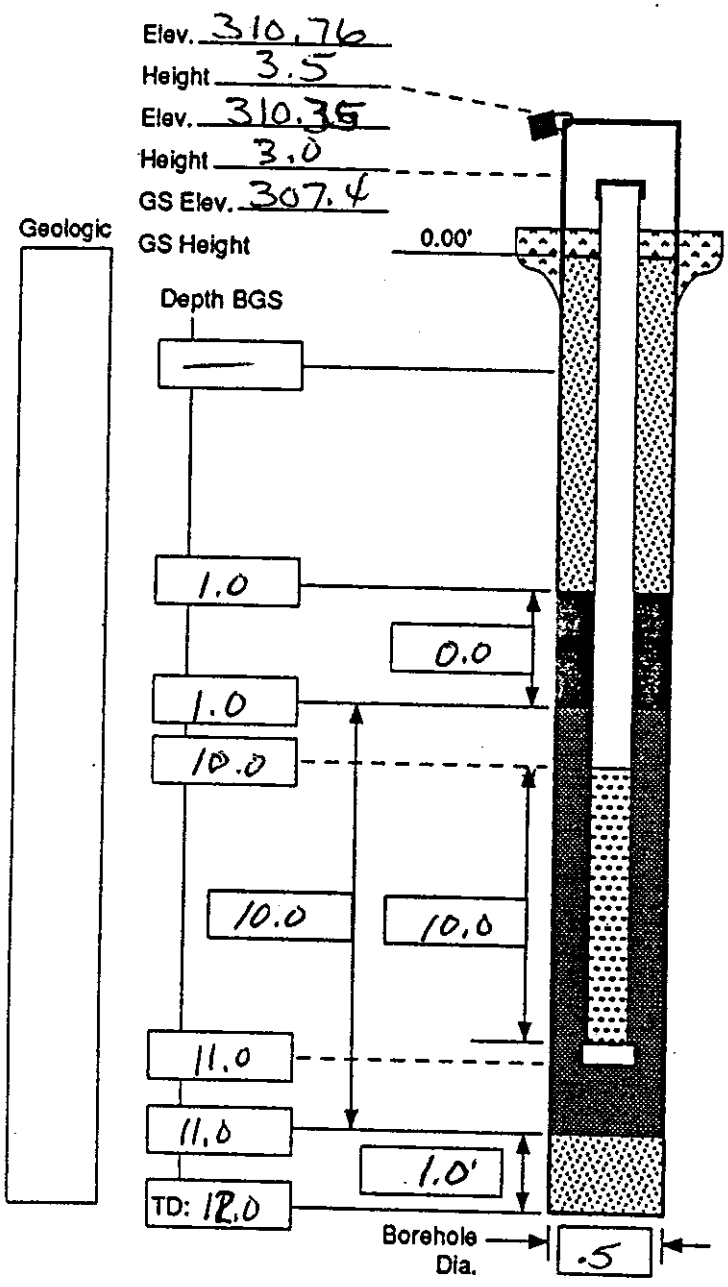
BACKFILL PLUG
Material:
Setup / Hydration Time:
Tremied (Y / N)

Form F-1023
9/1/91

The Earth Technology Corporation

Monitoring Well Construction Log - Above Ground

Project Name: Miller Moultrie Cont. Pit	Project Number: 94-4167-04	Date: 11-2-94
Well	Well ID: MW-119	Sheet 1 of 1
Driller: K. Bedsole	Borehole Diameter (in): 5.5	Total Depth (ft): 11 Ft
Drilling Agency: Ardaman & Associates	Date Started: 11-2-94	Depth to Water (ft):
Drilling Equipment: CME-55	Date Finished: 11-2-94	Elevation and Datum: GS 307.40 ~~TOC 310.35~~
Drilling Method: HSA	Logged by: Duane Stillings	Checked by:
Drilling Fluid: N/A	Number of Samples:	Date:



PROTECTIVE CSG
Material / Type:
Diameter: 4"x4"x5' SS
Depth BGS: 1.5' Weep Hole (Y (N))

GUARD POSTS (Y (N))
No.: Type:

SURFACE PAD
Composition and Size: Concrete 18"x18"

RISER PIPE
Type: Sch 40 PVC
Diameter: 2"
Total Length (TOC to TOS): ~~34'~~
Ventilated Cap (Y / N)

GROUT
Composition and Proportions: Concrete
Tremied (Y / N)
Interval BGS:

CENTRALIZERS
Depth(s): None

SEAL
Type: Concrete 1'
Source:
Setup / Hydration Time: Vol. Fluid Added
Tremied (Y / N)

FILTER PACK
Type: Blasting Sand 16-40"
Amt. Used: 200#
Tremied (Y / N)
Source: Scruggs Co. Valdosta Ga
Gr. Size Dist.:

SCREEN
Type: Sch 40 PVC
Diameter: 2"
Slot Size and Type: 0.010 Slot
Interval BGS:

WELL FOOT (Y / N)
Interval BGS: Length
Bottom Cap (Y / N)

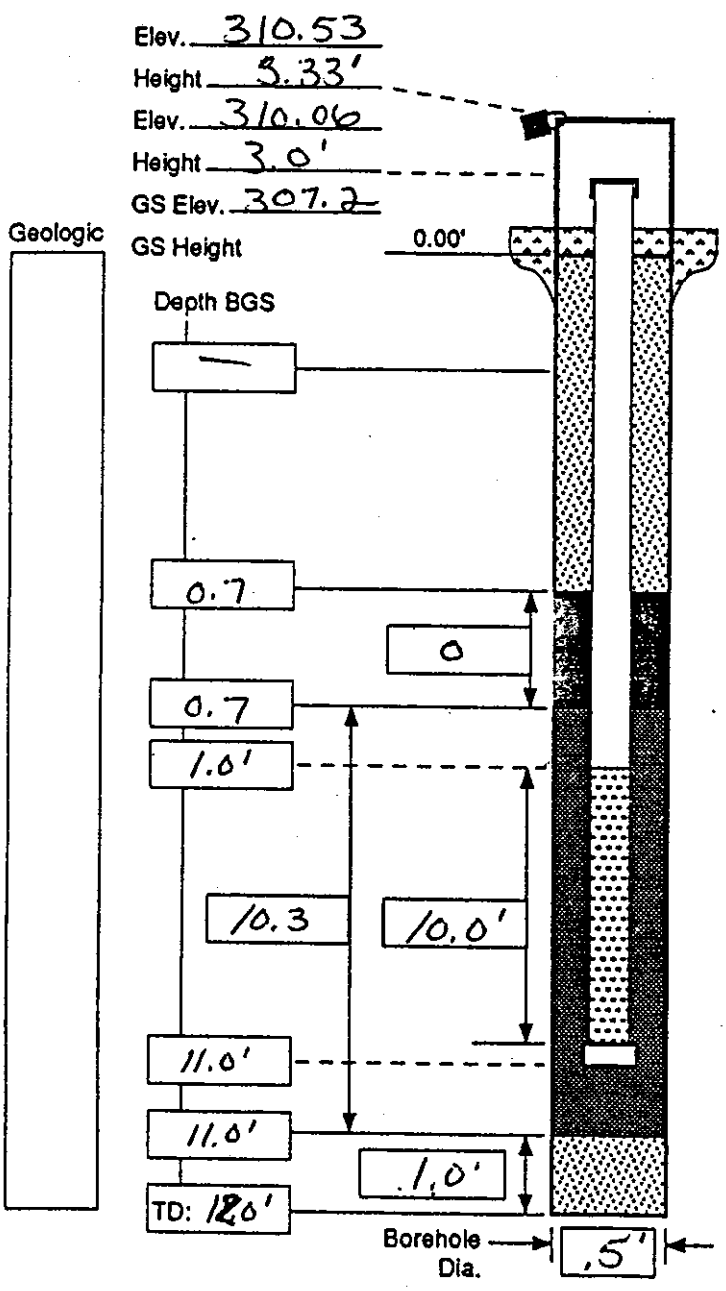
BACKFILL PLUG
Material:
Setup / Hydration Time:
Tremied (Y / N)

Form F-1024
9/1/91

The Earth Technology Corporation

Monitoring Well Construction Log - Above Ground

Project Name: Miller - Former Moultrie Plt	Project Number: 94-4167-01	Date: 11-2-94
Well	Well ID: MW-120	Sheet 1 of 1
Driller: K. Bedsole	Borehole Diameter (in): 5.5	Total Depth (ft): 11ft
Drilling Agency: Ardaman & Associates	Date Started: 11-2-94	Depth to Water (ft):
Drilling Equipment: CME-55	Date Finished: 11-2-94	Elevation and Datum: GS 307.2 TOC 310.06
Drilling Method: HSA	Logged by: Duane Stillings	Checked by:
Drilling Fluid: N/A	Number of Samples:	Date:



PROTECTIVE CSG
Material / Type:
Diameter: 4" x 4" x 5' SS
Depth BGS: 2.0' Weep Hole (Y / N)

GUARD POSTS (Y (N))
No.: Type:

SURFACE PAD
Composition and Size: Concrete 18" x 18"

RISER PIPE
Type: Sch 40 PVC
Diameter: 2"
Total Length (TOC to TOS): 4'
Ventilated Cap (Y / N)

GROUT
Composition and Proportions: Concrete
Tremied (Y / N)
Interval BGS:

CENTRALIZERS
Depth(s): None

SEAL
Type: Concrete 0.7'
Source:
Setup / Hydration Time: Vol. Fluid Added
Tremied (Y / N)

FILTER PACK
Type: Blasting Sand 16-40"
Amt. Used: 200#
Tremied (Y / N)
Source: Scruggs Co. Valdosta Ga.
Gr. Size Dist.:

SCREEN
Type: Sch 40 PVC
Diameter: 2"
Slot Size and Type: 0.010 slot
Interval BGS: 1-11'

WELL FOOT (Y / N)
Interval BGS: Length
Bottom Cap (Y / N)

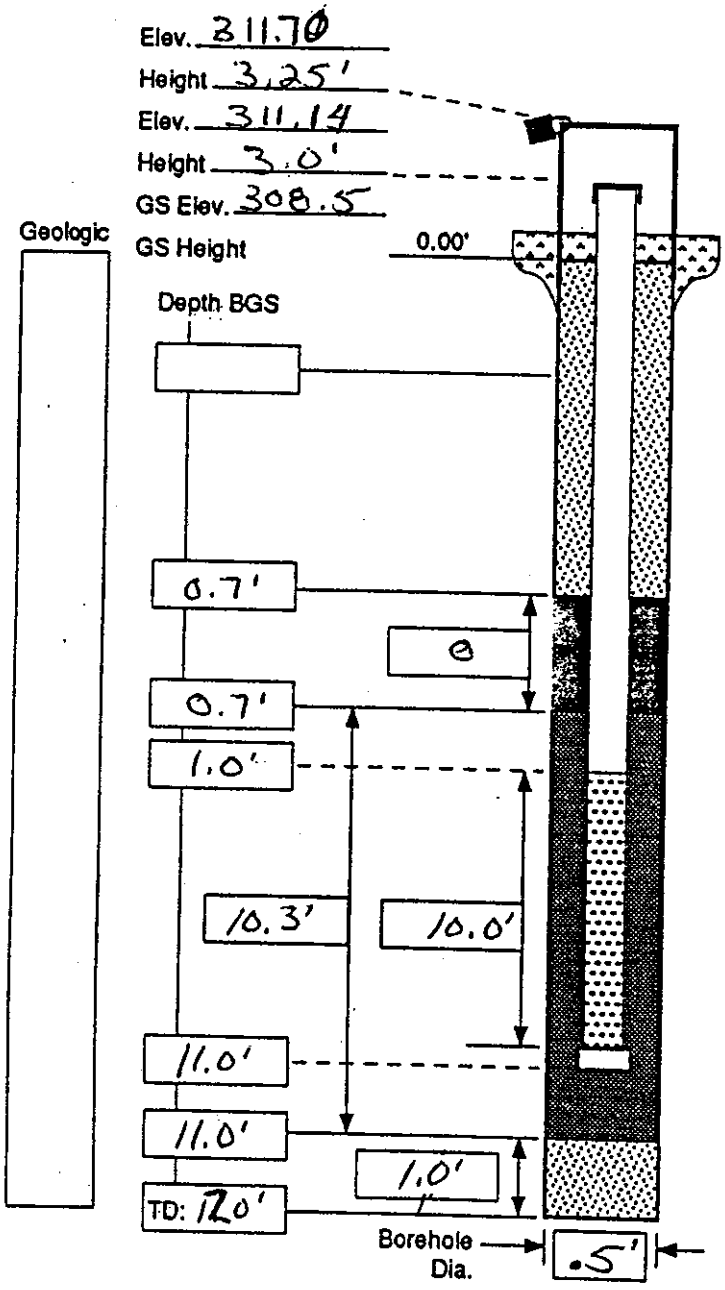
BACKFILL PLUG
Material:
Setup / Hydration Time:
Tremied (Y / N)

Form F-1024
9/1/91

The Earth Technology Corporation

Monitoring Well Construction Log - Above Ground

Project Name: Miller - Former Moultrie Pit	Project Number: 94-4167-01	Date: 11-2-94
Well	Well ID: MW-121	Sheet 1 of 1
Driller: K. Bedsole	Borehole Diameter (in): 5.5	Total Depth (ft): 11Ft
Drilling Agency: Ardaman & Associates	Date Started: 11-2-94	Depth to Water (ft):
Drilling Equipment: CME-55	Date Finished: 11-2-94	Elevation and Datum: GS 308.50 TOC 311.14
Drilling Method: HSA	Logged by: Duane Stillings	Checked by:
Drilling Fluid: N/A	Number of Samples:	Date:



PROTECTIVE CSG
Material / Type:
Diameter: 4" x 4" x 5' SS
Depth BGS: 20" Weep Hole (Y / N)

GUARD POSTS (Y / (N))
No.: Type:

SURFACE PAD
Composition and Size: 18" x 18" Concrete

RISER PIPE
Type: Sch 40 PVC
Diameter: 2"
Total Length (TOC to TOS): 4'
Ventilated Cap (Y / N)

GROUT
Composition and Proportions: Concrete
Tremied (Y / N)
Interval BGS:

CENTRALIZERS
Depth(s): Non

SEAL
Type: Concrete 0.7'
Source:
Setup / Hydration Time: Vol. Fluid Added
Tremied (Y / N)

FILTER PACK
Type: Blasting Sand 16-40"
Amt. Used: 200#
Tremied (Y / N)
Source: Scruggs Co. Valdosta Ga.
Gr. Size Dist.:

SCREEN
Type: Sch 40 PVC
Diameter: 2"
Slot Size and Type: 0.010 Slot
Interval BGS: 1-11'

WELL FOOT (Y / N)
Interval BGS: Length
Bottom Cap (Y / N)

BACKFILL PLUG
Material:
Setup / Hydration Time:
Tremied (Y / N)

Form F-1024
9/1/91

ATTACHMENT D

Supplemental Sampling Event Purge Logs

EARTH TECH

Well ~~Development~~/Purge Log

Page 1 of 1

Project Name Miller Moultrie Project No. 94-4167-02
PID/FID Readings N/A (Ambient) N/A (Well Mouth)
Static Levels N/A (Product) 5.11 (Water)
Pump ☐ /Bail ☒ Rate Total Gal. Extracted 2.5
Water Column Length 5.92 Well Volumes Extracted 0.8
Disposition of Discharge Water DRUMMED & STAGED ON SITE
Specific Capacity ~ (gpm/ft. drawdown) After ~ Hrs.

Well Information
Number MW-113
Location
Datum
Elev. Datum Point
Ground Elev.
Well Diameter 2"
Well Depth 11.03
Well Material PVC

Equipment Information
Bailer No. Disposable
Pump No. N/A
Interface Probe No. N/A
Sounder No. Popper
pH Meter No. Paper
Conductivity Meter No. YSI
Thermometer No. YSI

Time (24 hr.)	Flow Rate (gpm)	Water Temp. In C°	pH	Cond. µmhos/cm	Turbidity NTU	Settleable Solids (ml)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
13:50		21	6.0	490			0		.48 or .5 gal/ft
13:55		20	5.5	400			1		
14:10		20	5.5	260			1.5		11.03
									5.11
3/31 10:25		17.5	5.0	310			1.0		5.92 x .5 = 3 gal purge x 4 = 12
		Sample	MMC-MW	113-01		Sampled @		10:30	Purged dry twice in 1 gal & 1.5 gal
									TOTAL VOLUME PURGED 2.5 GALLONS

Notes: 1 ft length of 4" = 0.087 ft³ or 0.65 gal
1 ft length of 2" = 0.022 ft 3 or 0.16 gal

Recorded By M. Vogel Date 3-30-95
Checked By RBC Date 5-30-95

Form F-1003 9/1/91

EARTH TECH

Well ~~Development~~/Purge Log

Project Name Miller Mountain Project No. 94-4167-02
PID/FID Readings NA (Ambient) NA (Well Mouth)
Static Levels NA (Product) 7.04 (Water)
Pump ☐ /Ball ☒ Rate ~ Total Gal. Extracted 23
Water Column Length 8.22 Well Volumes Extracted 3.5
Disposition of Discharge Water DRUMMED & STAGED ON SITE
Specific Capacity ~ (gpm/ft. drawdown) After ~ Hrs.

Well Information
Number MW-114
Location
Datum
Elev. Datum Point
Ground Elev.
Well Diameter 4"
Well Depth 15.26
Well Material SS

Equipment Information
Bailer No. DISPOSABLE
Pump No. NA
Interface Probe No. NA
Sounder No. PAPER
pH Meter No. PAPER
Conductivity Meter No. YSI
Thermometer No.

Time (24 hr.)	Flow Rate (gpm)	Water Temp. In C°	pH	Cond. µmhos/cm	Turbidity NTU	Settleable Solids (ml)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
16:35		20.0	5.5	350			0	Black Smelly Organic	5.5 in Borehole
16:45		19.5	5.5	355			5		4" well = .65 gal/ft
		21.0	5.5	330			10		= .8 gal/ft
17:15		—	—	—			13		15.26
									7.04
3/31 9:15		17.0	5.5	370			0		8.22 x .8 x 4 (26 gal)
9:25		17.0	—	410			5		
9:36		16.5	5.5	320			10		Sampled @ 9:40 RBC
9:45	SAMPLED FOR VOCs SAMPLES COLLECTED: 11								9:45
	MMC - MW-114-02 (2 VIALS)								3/31/95
	MMC - MW-114D-02 (DUPLICATE 2 VIALS)								TOTAL VOLUME PURGED

Notes: 1 ft length of 4" = 0.087 ft3 or 0.65 gal
1 ft length of 2" = 0.022 ft 3 or 0.16 gal

Recorded By J. Vogel Date 3-30-95
Checked By RBC Date 5-20-95

Form F-1003 9/1/91

EARTH TECH

Well ~~Development~~/Purge Log

Project Name Miller Mountain Project No. 94-4167-02
PID/FID Readings NA (Ambient) NA (Well Mouth)
Static Levels NA (Product) 1.23 (Water)
Pump ☐ /Bail ☒ Rate ~ Total Gal. Extracted 10.5
Water Column Length 9.57 Well Volumes Extracted 0.9
Disposition of Discharge Water DRUMMED AND STAGED ON SITE
Specific Capacity ~ (gpm/ft. drawdown) After ~ Hrs.

Well Information
Number MW-116
Location
Datum
Elev. Datum Point
Ground Elev.
Well Diameter 4"
Well Depth 10.6
Well Material PVC

Equipment Information
Baller No. DISPOSABLE
Pump No. N/A
Interface Probe No. N/A
Sounder No. Popper
pH Meter No. Paper
Conductivity Meter No. 451
Thermometer No.

Time (24 hr.)	Flow Rate (gpm)	Water Temp. In C°	pH	Cond. µmhos/cm	Turbidity NTU	Settleable Solids (ml)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
14:15		19.0	5.0	190			0		1.27 gal/ft
14:25		19.0	5.0	190			5		
14:55		19.5	4.5	120			9		10.60
							9.5 Total		1.23
									9.37 x 1.27 x 4 = 47.5
3/31 ~~4/1~~									Purged Dry
10:05		17.0	5.0	135			1.0		
		Sample MMC-MW116-01 @ 10:15							

Notes: 1 ft length of 4" = 0.087 ft³ or 0.65 gal
1 ft length of 2" = 0.022 ft 3 or 0.16 gal

Recorded By J. Vogl Date 3-30-95
Checked By RBC Date 5-30-95

Form F-1003 9/1/91

EARTH TECH

Well ~~Development~~/Purge Log

Page 1 of ____

Project Name Miller Moultrie Project No. 94-4167-02
PID/FID Readings N/A (Ambient) N/A (Well Mouth)
Static Levels N/A (Product) 0.65 (Water)
Pump ☐ /Bail ☒ Rate ~ Total Gal. Extracted 4.0
Water Column Length 10.88 FT Well Volumes Extracted 0.7
Disposition of Discharge Water DRUMMED & STAGED ON SITE

Specific Capacity ~ (gpm/ft. drawdown) After ~ Hrs.

Well Information
Number MW117
Location
Datum
Elev. Datum Point
Ground Elev.
Well Diameter 2"
Well Depth 11.53
Well Material PVC

Equipment Information
Bailer No. DISPOSABLE
Pump No. N/A
Interface Probe No. N/A
Sounder No. popper
pH Meter No. paper
Conductivity Meter No. YSI
Thermometer No. ↓

Time (24 hr.)	Flow Rate (gpm)	Water Temp. In C°	pH	Cond. µmhos/cm	Turbidity NTU	Settleable Solids (ml)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
15:05		20	5.5	270			0		.5 gal/ft see MW113
15:10		20	5.0	230			2		
15:20		20	4.5	155			3.5		11.53
									- 0.65
									10.88 × .5 × 4 = 22gal
3/31		18.5	5.0	155			0.5		
									Purged Dry
							TOTAL		
							PURGE		Sampled @ 9:45
							4.0 GAL		

Notes: 1 ft length of 4" = 0.087 ft3 or 0.65 gal
1 ft length of 2" = 0.022 ft 3 or 0.16 gal

Recorded By D. Vogel Date 3-30-95
Checked By DBC Date 5-9-

Form F-1003
9/1/91

EARTH TECH

Well ~~Development~~/Purge Log

Page 1 of 1

Project Name Miller Moultrie Project No. 94-4167-02
PID/FID Readings N/A (Ambient) N/A (Well Mouth)
Static Levels N/A (Product) 0.603 (Water)
Pump ☐ /Bail ☒ Rate ~ Total Gal. Extracted 4.0
Water Column Length 10.17 FT Well Volumes Extracted .6
Disposition of Discharge Water DRUMMED & STAGED ON SITE

Specific Capacity _____ (gpm/ft. drawdown) After _____ Hrs.

Well Information
Number MW-118
Location
Datum
Elev. Datum Point
Ground Elev.
Well Diameter 2"
Well Depth 10.80
Well Material PVC

Equipment Information
Bailer No. DISPOSABLE
Pump No. N/A
Interface Probe No. N/A
Sounder No. Popper
pH Meter No. Pepper
Conductivity Meter No. YSI
Thermometer No. ↓

Time (24 hr.)	Flow Rate (gpm)	Water Temp. in C°	pH	Cond. µmhos/cm	Turbidity NTU	Settleable Solids (ml)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
15:35		22.0	5.0	135			0		.5 gal/ft see MW113
15:45		21.0	4.5	125			3		
									10.80
									0.63
8/31 09:50		18.0	5.0	130	Clear	0	.6		10.17 × .5 × 4 = 20.34
10:00	SAMPLE FOR VOCs COLLECTED						1.0		
	MMC-MW118-02 (2 VIALS)								Sampled @ 10:00
	RBC								
							TOTAL		
							PURGE		
							4.0 GAL		

Notes: 1 ft length of 4" = 0.087 ft³ or 0.65 gal
1 ft length of 2" = 0.022 ft 3 or 0.16 gal

Recorded By N. Vogel Date 3-30-95
Checked By RBC Date 5-30-95

Form F-1003
9/1/91

EARTH TECH

Well ~~Development~~/Purge Log

Project Name Miller Mountain Project No. 94-4167-07
PID/FID Readings N/A (Ambient) NA (Well Mouth)
Static Levels N/A (Product) 5.93 (Water)
Pump ☐ /Bail ☒ Rate ~ Total Gal. Extracted 5.7
Water Column Length 7.91 FT Well Volumes Extracted 1.4
Disposition of Discharge Water DRUMMED AND STAGED ON SITE
Specific Capacity _____ (gpm/ft. drawdown) After _____ Hrs.

Well Information
Number MW-119
Location _____
Datum _____
Elev. Datum Point _____
Ground Elev. _____
Well Diameter 2"
Well Depth 13.84
Well Material PVC

Equipment Information
Bailer No. DISPOSABLE
Pump No. N/A
Interface Probe No. N/A
Sounder No. Popper
pH Meter No. Popper
Conductivity Meter No. YSI
Thermometer No. V

Time (24 hr.)	Flow Rate (gpm)	Water Temp. In C°	pH	Cond. µmhos/cm	Turbidity NTU	Settleable Solids (ml)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
16:00		20.5	5.5	340			0		.5gal/ft
16:10		20.0	5.0	225			2.7	Purged Dry	
									13.84
									5.93
									7.91 x .5 x 4 = 15.82gal
3:31									
09:05		15.5	5.0	275	CLEAR		3.0		NO ODOR
									Sampled @ 9:20
									MMC-MW119-01
							TOTAL PURGE		
							5.7 GAL		

Notes: 1 ft length of 4" = 0.087 ft³ or 0.65 gal
1 ft length of 2" = 0.022 ft 3 or 0.16 gal

Recorded By J. Vogel Date 3-30-95
Checked By RBC Date 5-30-95

Form F-1003
9/1/91

EARTH TECH

Well ~~Development~~/Purge Log

Project Name Miller Moultrie Project No. 94-4167-02
PID/FID Readings N/A (Ambient) N/A (Well Mouth)
Static Levels N/A (Product) 5.49 (Water)
Pump ☐ /Bail ☒ Rate ~ Total Gal. Extracted 5.0 GAL
Water Column Length 8.31 Well Volumes Extracted 1.2
Disposition of Discharge Water DRUMMED AND STAGED ON SITE
Specific Capacity _____ (gpm/ft. drawdown) After _____ Hrs.

Well Information
Number MW-120
Location _____
Datum _____
Elev. Datum Point _____
Ground Elev. _____
Well Diameter 2"
Well Depth 13.8
Well Material PVC

Equipment Information
Bailer No. DISPOSABLE
Pump No. NA
Interface Probe No. NA
Sounder No. popper
pH Meter No. paper
Conductivity Meter No. YSI
Thermometer No. _____

Time (24 hr.)	Flow Rate (gpm)	Water Temp. In C°	pH	Cond. µmhos/cm	Turbidity ~~NTU~~	Settleable Solids (ml)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
17:05		22°C	5	215	CLEAR LT TAN COLOR		0		.5 gal/ft
17:15		19°	5	125	"		4.0		
						BAILED DRY			13.80
									3.49
									~~8.31~~ x .5 x 4 = 17 gal
08:45		17.0	6.0	155			1.0		Sampled 0845
									Field Blank
									Sampled @ 0830
							TOTAL PURGE 5.0 GAL		

Notes: 1 ft length of 4" = 0.087 ft³ or 0.65 gal
1 ft length of 2" = 0.022 ft 3 or 0.16 gal

Recorded By J. Vogel Date 5-26-95
Checked By RBC Date 5-30-95

Form F-1003
9/1/91

EARTH TECH

Well ~~Development~~/Purge Log

Project Name Miller Mountain Project No. 94-4167-02
PID/FID Readings NA (Ambient) NA (Well Mouth)
Static Levels N/A (Product) 6.09 (Water)
Pump ☐ /Bail ☒ Rate ~ Total Gal. Extracted 3.5
Water Column Length 7.71 FT Well Volumes Extracted 0.9
Disposition of Discharge Water DRUMMED & STAGED ON SITE
Specific Capacity ~ (gpm/ft. drawdown) After ~ Hrs.

Well Information
Number MW-121
Location
Datum
Elev. Datum Point
Ground Elev.
Well Diameter 2"
Well Depth 13.80
Well Material PVC

Equipment Information
Bailer No. DISPOSABLE
Pump No. N/A
Interface Probe No. N/A
Sounder No. popper
pH Meter No. paper
Conductivity Meter No. YSI
Thermometer No. ↓

Time (24 hr.)	Flow Rate (gpm)	Water Temp. In C°	pH	Cond. µmhos/cm	Turbidity NTU	Settleable Solids (ml)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
16:15		20	5.0	280			0		.5gal/ft
16:30		20	5.0	185			2.5		Trickle! Purged Dry
									13.80
									6.09
									7.71 x.5 x 4=
855		17	5.0	170			1.0		Sampled 855
							TOTAL PURGE		
							3.5 gal		

Notes: 1 ft length of 4" = 0.087 ft3 or 0.65 gal
1 ft length of 2" = 0.022 ft 3 or 0.16 gal

Recorded By H. Vogel Date 3-30-95
Checked By RBC Date 5-30-95

Form F-1003 9/1/91

ATTACHMENT E

Analytical Reports for Soil Samples

Environmental Science & Engineering, Inc.
8901 North Industrial Road Peoria, IL 61615-1589
Phone (309) 692-4422 Lab Fax (309) 692-5232

An IEPA Contract Laboratory

TO: EARTH TECH
12129 W. FEERICK STREET
MILWAUKEE, WI 53222
ATTN: MR. DUANE STILLINGS

PAGE NUMBER: 1
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE		19411*1	19411*2	19411*3	19411*4			
SAMPLE DATE		10/31/94	10/31/94	11/01/94	11/01/94			
DESCRIPTION	UNITS	TRENCH-1 SOIL	TRENCH-2 SOIL	MW-116-1-3 SOIL	MW-116-3-5 SOIL	METHOD NO.	DATE ANALYZED	ANALYST
VOLATILE ORGANIC COMPOUNDS								
Chloromethane	UG/KG-DRY	< 11	< 11	< 11	< 12	8240	11-13-94	LDM
Bromomethane	UG/KG-DRY	< 11	< 11	< 11	< 12	8240	11-13-94	LDM
Vinyl Chloride	UG/KG-DRY	< 11	< 11	< 11	< 12	8240	11-13-94	LDM
Chloroethane	UG/KG-DRY	< 11	< 11	< 11	< 12	8240	11-13-94	LDM
Methylene Chloride	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
Acetone	UG/KG-DRY	53	< 11	< 11	< 12	8240	11-13-94	LDM
Carbon Disulfide	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
1,1-Dichloroethene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
1,1-Dichloroethane	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
trans-1,2-Dichloroethene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
Chloroform	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
1,2-Dichloroethane	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
2-Butanone	UG/KG-DRY	< 11	< 11	< 11	< 12	8240	11-13-94	LDM
1,1,1-Trichloroethane	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
Carbon Tetrachloride	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
Vinyl Acetate	UG/KG-DRY	< 11	< 11	< 11	< 12	8240	11-13-94	LDM
Bromodichloromethane	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
1,2-Dichloropropane	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM

Report Approved by: Barbara G. Raya-Hash
Barbara G. Raya-Hash
Senior Project Manager

Environmental Science & Engineering, Inc.
8901 North Industrial Road Peoria, IL 61615-1589
Phone (309) 692-4422 Lab Fax (309) 692-5232

An IEPA Contract Laboratory

TO: EARTH TECH
12129 W. FEERICK STREET
MILWAUKEE, WI 53222
ATTN: MR. DUANE STILLINGS

PAGE NUMBER: 2
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE		19411*1	19411*2	19411*3	19411*4			
SAMPLE DATE		10/31/94	10/31/94	11/01/94	11/01/94			
DESCRIPTION	UNITS	TRENCH-1 SOIL	TRENCH-2 SOIL	MW-116-1-3 SOIL	MW-116-3-5 SOIL	METHOD NO.	DATE ANALYZED	ANALYST
VOLATILE ORGANIC COMPOUNDS (Cont'd)								
cis-1,3-Dichloropropene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
Trichloroethene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
Dibromochloromethane	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
1,1,2-Trichloroethane	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
Benzene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
trans-1,3-Dichloropropene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
Bromoform	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
4-Methyl-2-pentanone	UG/KG-DRY	< 11	< 11	< 11	< 12	8240	11-13-94	LDM
2-Hexanone	UG/KG-DRY	< 11	< 11	< 11	< 12	8240	11-13-94	LDM
Tetrachloroethene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
1,1,2,2-Tetrachloroethane	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
Toluene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
Chlorobenzene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
Ethylbenzene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
Styrene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
Xylenes (total)	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
cis-1,2-Dichloroethene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-13-94	LDM
Moisture	%	11.4	11.6	9.2	15.9	160.3	11-07-94	FTJ

Report Approved by: Barbara G. Ray-Nash
Barbara G. Ray-Nash
Senior Project Manager

Environmental Science & Engineering, Inc.
8901 North Industrial Road Peoria, IL 61615-1589
Phone (309) 692-4422 Lab Fax (309) 692-5232

An IEPA Contract Laboratory

TO: EARTH TECH
12129 W. FEERICK STREET
MILWAUKEE, WI 53222
ATTN: MR. DUANE STILLINGS

PAGE NUMBER: 3
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE		19411*5	19411*6	19411*7	19411*8			
SAMPLE DATE		11/01/94	11/01/94	11/02/94	11/02/94			
DESCRIPTION	UNITS	MW-117-1-3 SOIL	MW-117-5-7 SOIL	MW-118-1-3 SOIL	MW-118-5-7 SOIL	METHOD NO.	DATE ANALYZED	ANALYST
VOLATILE ORGANIC COMPOUNDS								
Chloromethane	UG/KG-DRY	< 12	< 12	< 11	< 12	8240	11-14-94	LDM
Bromomethane	UG/KG-DRY	< 12	< 12	< 11	< 12	8240	11-14-94	LDM
Vinyl Chloride	UG/KG-DRY	< 12	< 12	< 11	< 12	8240	11-14-94	LDM
Chloroethane	UG/KG-DRY	< 12	< 12	< 11	< 12	8240	11-14-94	LDM
Methylene Chloride	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
Acetone	UG/KG-DRY	14	17	< 11	< 12	8240	11-14-94	LDM
Carbon Disulfide	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
1,1-Dichloroethene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
1,1-Dichloroethane	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
trans-1,2-Dichloroethene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
Chloroform	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
1,2-Dichloroethane	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
2-Butanone	UG/KG-DRY	< 12	< 12	< 11	< 12	8240	11-14-94	LDM
1,1,1-Trichloroethane	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
Carbon Tetrachloride	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
Vinyl Acetate	UG/KG-DRY	< 12	< 12	< 11	< 12	8240	11-14-94	LDM
Bromodichloromethane	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
1,2-Dichloropropane	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM

Report Approved by: Barbara G Raya-Hash
Barbara G. Raya-Hash
Senior Project Manager

Environmental Science & Engineering, Inc.
8901 North Industrial Road Peoria, IL 61615-1589
Phone (309) 692-4422 Lab Fax (309) 692-5232

An IEPA Contract Laboratory

TO: EARTH TECH
12129 W. FEERICK STREET
MILWAUKEE, WI 53222
ATTN: MR. DUANE STILLINGS

PAGE NUMBER: 4
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE SAMPLE DATE		19411*5 11/01/94	19411*6 11/01/94	19411*7 11/02/94	19411*8 11/02/94			
DESCRIPTION	UNITS	MW-117-1-3 SOIL	MW-117-5-7 SOIL	MW-118-1-3 SOIL	MW-118-5-7 SOIL	METHOD NO.	DATE ANALYZED	ANALYST
VOLATILE ORGANIC COMPOUNDS (Cont'd)								
cis-1,3-Dichloropropene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
Trichloroethene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
Dibromochloromethane	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
1,1,2-Trichloroethane	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
Benzene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
trans-1,3-Dichloropropene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
Bromoform	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
4-Methyl-2-pentanone	UG/KG-DRY	< 12	< 12	< 11	< 12	8240	11-14-94	LDM
2-Hexanone	UG/KG-DRY	< 12	< 12	< 11	< 12	8240	11-14-94	LDM
Tetrachloroethene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
1,1,2,2-Tetrachloroethane	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
Toluene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
Chlorobenzene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
Ethylbenzene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
Styrene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
Xylenes (total)	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
cis-1,2-Dichloroethene	UG/KG-DRY	< 6	< 6	< 6	< 6	8240	11-14-94	LDM
Moisture	%	13.4	13.6	10.2	14.2	160.3	11-07-94	FTJ

NOTE: Sample MW-117-1-3 analyzed on 11/13/94.

Report Approved by: Barbara G. Raya-Hash
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ATTN: MR. DUANE STILLINGS

PAGE NUMBER: 5
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE		19411*9	19411*10	19411*11	19411*12			
SAMPLE DATE		11/02/94	11/02/94	11/02/94	11/02/94			
DESCRIPTION	UNITS	MW-119-0-2 SOIL	MW-119-2-4 SOIL	MW-120-4-6 SOIL	MW-120-6-8 SOIL	METHOD NO.	DATE ANALYZED	ANALYST
VOLATILE ORGANIC COMPOUNDS								
Chloromethane	UG/KG-DRY	< 11	< 11	< 11	< 11	8240	11-14-94	LDM
Bromomethane	UG/KG-DRY	< 11	< 11	< 11	< 11	8240	11-14-94	LDM
Vinyl Chloride	UG/KG-DRY	< 11	< 11	< 11	< 11	8240	11-14-94	LDM
Chloroethane	UG/KG-DRY	< 11	< 11	< 11	< 11	8240	11-14-94	LDM
Methylene Chloride	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
Acetone	UG/KG-DRY	< 11	< 11	< 11	16	8240	11-14-94	LDM
Carbon Disulfide	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
1,1-Dichloroethene	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
1,1-Dichloroethane	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
trans-1,2-Dichloroethene	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
Chloroform	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
1,2-Dichloroethane	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
2-Butanone	UG/KG-DRY	< 11	< 11	< 11	< 11	8240	11-14-94	LDM
1,1,1-Trichloroethane	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
Carbon Tetrachloride	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
Vinyl Acetate	UG/KG-DRY	< 11	< 11	< 11	< 11	8240	11-14-94	LDM
Bromodichloromethane	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
1,2-Dichloropropane	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM

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PAGE NUMBER: 6
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE SAMPLE DATE		19411*9 11/02/94	19411*10 11/02/94	19411*11 11/02/94	19411*12 11/02/94			
DESCRIPTION	UNITS	MW-119-0-2 SOIL	MW-119-2-4 SOIL	MW-120-4-6 SOIL	MW-120-6-8 SOIL	METHOD NO.	DATE ANALYZED	ANALYST
VOLATILE ORGANIC COMPOUNDS (Cont'd)								
cis-1,3-Dichloropropene	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
Trichloroethene	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
Dibromochloromethane	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
1,1,2-Trichloroethane	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
Benzene	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
trans-1,3-Dichloropropene	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
Bromoform	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
4-Methyl-2-pentanone	UG/KG-DRY	< 11	< 11	< 11	< 11	8240	11-14-94	LDM
2-Hexanone	UG/KG-DRY	< 11	< 11	< 11	< 11	8240	11-14-94	LDM
Tetrachloroethene	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
1,1,2,2-Tetrachloroethane	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
Toluene	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
Chlorobenzene	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
Ethylbenzene	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
Styrene	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
Xylenes (total)	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
cis-1,2-Dichloroethene	UG/KG-DRY	< 5	< 5	< 6	< 6	8240	11-14-94	LDM
Moisture	%	7.0	8.1	10.3	11.0	160.3	11-07-94	FTJ

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REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE / SAMPLE DATE		19411*13 11/02/94	19411*14 11/02/94	19411*15 11/02/94	19411*16 11/02/94			
DESCRIPTION	UNITS	MW-121-0-2 SOIL	MW-121-10-12 SOIL	MB-FD-1 SOIL	MB-FB-1 SOIL	METHOD NO.	DATE ANALYZED	ANALYST
VOLATILE ORGANIC COMPOUNDS								
Chloromethane	UG/KG-DRY	< 11	< 11	< 12	< 10	8240	11-15-94	LDM
Bromomethane	UG/KG-DRY	< 11	< 11	< 12	< 10	8240	11-15-94	LDM
Vinyl Chloride	UG/KG-DRY	< 11	< 11	< 12	< 10	8240	11-15-94	LDM
Chloroethane	UG/KG-DRY	< 11	< 11	< 12	< 10	8240	11-15-94	LDM
Methylene Chloride	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
Acetone	UG/KG-DRY	< 11	< 11	19	< 10	8240	11-15-94	LDM
Carbon Disulfide	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
1,1-Dichloroethene	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
1,1-Dichloroethane	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
trans-1,2-Dichloroethene	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
Chloroform	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
1,2-Dichloroethane	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
2-Butanone	UG/KG-DRY	< 11	< 11	< 12	< 10	8240	11-15-94	LDM
1,1,1-Trichloroethane	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
Carbon Tetrachloride	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
Vinyl Acetate	UG/KG-DRY	< 11	< 11	< 12	< 10	8240	11-15-94	LDM
Bromodichloromethane	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
1,2-Dichloropropane	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM

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PAGE NUMBER: 8
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE		19411*13	19411*14	19411*15	19411*16			
SAMPLE DATE		11/02/94	11/02/94	11/02/94	11/02/94			
DESCRIPTION	UNITS	MW-121-0-2 SOIL	MW-121-10-12 SOIL	MB-FD-1 SOIL	MB-FB-1 SOIL	METHOD NO.	DATE ANALYZED	ANALYST
VOLATILE ORGANIC COMPOUNDS (Cont'd)								
cis-1,3-Dichloropropene	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
Trichloroethene	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
Dibromochloromethane	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
1,1,2-Trichloroethane	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
Benzene	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
trans-1,3-Dichloropropene	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
Bromoform	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
4-Methyl-2-pentanone	UG/KG-DRY	< 11	< 11	< 12	< 10	8240	11-15-94	LDM
2-Hexanone	UG/KG-DRY	< 11	< 11	< 12	< 10	8240	11-15-94	LDM
Tetrachloroethene	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
1,1,2,2-Tetrachloroethane	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
Toluene	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
Chlorobenzene	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
Ethylbenzene	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
Styrene	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
Xylenes (total)	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
cis-1,2-Dichloroethene	UG/KG-DRY	< 6	< 6	< 6	< 5	8240	11-15-94	LDM
Moisture	%	10.7	11.5	17.1	0.2	160.3	11-07-94	FTJ

NOTE: Samples MW-121-0-2 and MW-121-10-12 analyzed on 11/14/94.

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PAGE NUMBER: 9
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE		19411*17	19411*18			
SAMPLE DATE		11/02/94	11/02/94			
DESCRIPTION	UNITS	MB-FB-2 SOIL	MB-FD-2 SOIL	METHOD NO.	DATE ANALYZED	ANALYST
VOLATILE ORGANIC COMPOUNDS						
Chloromethane	UG/KG-DRY	< 10	< 11	8240	11-15-94	LDM
Bromomethane	UG/KG-DRY	< 10	< 11	8240	11-15-94	LDM
Vinyl Chloride	UG/KG-DRY	< 10	< 11	8240	11-15-94	LDM
Chloroethane	UG/KG-DRY	< 10	< 11	8240	11-15-94	LDM
Methylene Chloride	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
Acetone	UG/KG-DRY	< 10	68	8240	11-15-94	LDM
Carbon Disulfide	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
1,1-Dichloroethene	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
1,1-Dichloroethane	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
trans-1,2-Dichloroethene	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
Chloroform	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
1,2-Dichloroethane	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
2-Butanone	UG/KG-DRY	< 10	< 11	8240	11-15-94	LDM
1,1,1-Trichloroethane	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
Carbon Tetrachloride	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
Vinyl Acetate	UG/KG-DRY	< 10	< 11	8240	11-15-94	LDM
Bromodichloromethane	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
1,2-Dichloropropane	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM

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PAGE NUMBER: 10
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE		19411*17	19411*18			
SAMPLE DATE		11/02/94	11/02/94			
DESCRIPTION	UNITS	MB-FB-2 SOIL	MB-FD-2 SOIL	METHOD NO.	DATE ANALYZED	ANALYST
VOLATILE ORGANIC COMPOUNDS (Cont'd)						
cis-1,3-Dichloropropene	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
Trichloroethene	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
Dibromochloromethane	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
1,1,2-Trichloroethane	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
Benzene	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
trans-1,3-Dichloropropene	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
Bromoform	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
4-Methyl-2-pentanone	UG/KG-DRY	< 10	< 11	8240	11-15-94	LDM
2-Hexanone	UG/KG-DRY	< 10	< 11	8240	11-15-94	LDM
Tetrachloroethene	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
1,1,2,2-Tetrachloroethane	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
Toluene	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
Chlorobenzene	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
Ethylbenzene	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
Styrene	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
Xylenes (total)	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
cis-1,2-Dichloroethene	UG/KG-DRY	< 5	< 6	8240	11-15-94	LDM
Moisture	%	0.1	11.8	160.3	11-07-94	FTJ

Report Approved by: Barbara G. Rajja-Hash
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PAGE NUMBER: 17
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

DESCRIPTION	UNITS	TRENCH 1 SOIL	METHOD NO.	DATE ANALYZED	ANALYST
ESE SAMPLE		19411*28			
SAMPLE DATE		11/02/94			
SEMIVOLATILE ORGANIC COMPOUNDS					
bis(2-Chloroethyl) Ether	UG/KG-DRY	< 380	8270	11-18-94	LDM
1,3-Dichlorobenzene	UG/KG-DRY	< 380	8270	11-18-94	LDM
1,4-Dichlorobenzene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Benzyl Alcohol	UG/KG-DRY	< 380	8270	11-18-94	LDM
1,2-Dichlorobenzene	UG/KG-DRY	< 380	8270	11-18-94	LDM
2,2'-oxybis(1-Chloropropane)	UG/KG-DRY	< 380	8270	11-18-94	LDM
n-Nitrosodi-n-propylamine	UG/KG-DRY	< 380	8270	11-18-94	LDM
Hexachloroethane	UG/KG-DRY	< 380	8270	11-18-94	LDM
Nitrobenzene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Isophorone	UG/KG-DRY	< 380	8270	11-18-94	LDM
bis(2-Chloroethoxy) methane	UG/KG-DRY	< 380	8270	11-18-94	LDM
1,2,4-Trichlorobenzene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Naphthalene	UG/KG-DRY	< 380	8270	11-18-94	LDM
4-Chloroaniline	UG/KG-DRY	< 380	8270	11-18-94	LDM
Hexachlorobutadiene	UG/KG-DRY	< 380	8270	11-18-94	LDM
2-Methylnaphthalene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Hexachlorocyclopentadiene	UG/KG-DRY	< 380	8270	11-18-94	LDM
2-Chloronaphthalene	UG/KG-DRY	< 380	8270	11-18-94	LDM

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PAGE NUMBER: 18
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE		19411*28			
SAMPLE DATE		11/02/94			
DESCRIPTION	UNITS	TRENCH 1 SOIL	METHOD NO.	DATE ANALYZED	ANALYST
SEMIVOLATILE ORGANIC COMPOUNDS (Cont'd)					
2-Nitroaniline	UG/KG-DRY	< 1,800	8270	11-18-94	LDM
Dimethyl Phthalate	UG/KG-DRY	< 380	8270	11-18-94	LDM
Acenaphthylene	UG/KG-DRY	< 380	8270	11-18-94	LDM
2,6-Dinitrotoluene	UG/KG-DRY	< 380	8270	11-18-94	LDM
3-Nitroaniline	UG/KG-DRY	< 1,800	8270	11-18-94	LDM
Acenaphthene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Dibenzofuran	UG/KG-DRY	< 380	8270	11-18-94	LDM
2,4-Dinitrotoluene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Diethyl Phthalate	UG/KG-DRY	< 380	8270	11-18-94	LDM
4-Chlorophenylphenyl Ether	UG/KG-DRY	< 380	8270	11-18-94	LDM
Fluorene	UG/KG-DRY	< 380	8270	11-18-94	LDM
4-Nitroaniline	UG/KG-DRY	< 1,800	8270	11-18-94	LDM
n-Nitrosodiphenylamine	UG/KG-DRY	< 380	8270	11-18-94	LDM
4-Bromophenyl-phenylether	UG/KG-DRY	< 380	8270	11-18-94	LDM
Hexachlorobenzene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Phenanthrene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Anthracene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Di-n-butyl Phthalate	UG/KG-DRY	< 380	8270	11-18-94	LDM
Fluoranthene	UG/KG-DRY	< 380	8270	11-18-94	LDM

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PAGE NUMBER: 19
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE		19411*28			
SAMPLE DATE		11/02/94			
DESCRIPTION	UNITS	TRENCH 1 SOIL	METHOD NO.	DATE ANALYZED	ANALYST
SEMIVOLATILE ORGANIC COMPOUNDS (Cont'd)					
Pyrene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Butylbenzylphthalate	UG/KG-DRY	< 380	8270	11-18-94	LDM
3,3'-Dichlorobenzidine	UG/KG-DRY	< 750	8270	11-18-94	LDM
Benzo(a)anthracene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Chrysene	UG/KG-DRY	< 380	8270	11-18-94	LDM
bis(2-Ethylhexyl) Phthalate	UG/KG-DRY	< 380	8270	11-18-94	LDM
Di-n-octyl Phthalate	UG/KG-DRY	< 380	8270	11-18-94	LDM
Benzo(b)fluoranthene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Benzo(k)fluoranthene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Benzo(a)pyrene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Indeno(1,2,3-cd) Pyrene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Dibenz(a,h)anthracene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Benzo(ghi)perylene	UG/KG-DRY	< 380	8270	11-18-94	LDM
Phenol	UG/KG-DRY	< 380	8270	11-18-94	LDM
2-Chlorophenol	UG/KG-DRY	< 380	8270	11-18-94	LDM
2-Methylphenol	UG/KG-DRY	< 380	8270	11-18-94	LDM
4-Methylphenol	UG/KG-DRY	< 380	8270	11-18-94	LDM
2-Nitrophenol	UG/KG-DRY	< 380	8270	11-18-94	LDM

Report Approved by: Barbara G. Raya-Hash
Barbara G. Raya-Hash
Senior Project Manager

Environmental Science & Engineering, Inc.
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An IEPA Contract Laboratory

TO: EARTH TECH
12129 W. FEERICK STREET
MILWAUKEE, WI 53222
ATTN: MR. DUANE STILLINGS

PAGE NUMBER: 20
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

DESCRIPTION	UNITS	TRENCH 1 SOIL	METHOD NO.	DATE ANALYZED	ANALYST
ESE SAMPLE		19411*28			
SAMPLE DATE		11/02/94			
SEMIVOLATILE ORGANIC COMPOUNDS (Cont'd)					
2,4-Dimethylphenol	UG/KG-DRY	< 380	8270	11-18-94	LDM
Benzoic Acid	UG/KG-DRY	< 1,820	8270	11-18-94	LDM
2,4-Dichlorophenol	UG/KG-DRY	< 380	8270	11-18-94	LDM
4-Chloro-3-methylphenol	UG/KG-DRY	< 380	8270	11-18-94	LDM
2,4,6-Trichlorophenol	UG/KG-DRY	< 380	8270	11-18-94	LDM
2,4,5-Trichlorophenol	UG/KG-DRY	< 380	8270	11-18-94	LDM
2,4-Dinitrophenol	UG/KG-DRY	< 1,800	8270	11-18-94	LDM
4-Nitrophenol	UG/KG-DRY	< 1,800	8270	11-18-94	LDM
4,6-Dinitro-2-methylphenol	UG/KG-DRY	< 1,800	8270	11-18-94	LDM
Pentachlorophenol	UG/KG-DRY	< 1,800	8270	11-18-94	LDM
Moisture	%	12.3	160.3	11-18-94	FTJ

Report Approved by: Barbara G. Raya-Hash
Barbara G. Raya-Hash
Senior Project Manager

Engineering, Inc. [illegible] Phone (309) 692-4422 [illegible] Lab Fax (309) 692-5232

Environmental Science and Engineering, Inc.
Table of Definitions for QC Reports
Columnar Terms

Item	Title	Definition
FOUND	Sample Concentration	
FOUND #1	Concentration of UNSPIKED Sample	SPIKE SAMPLE CONC - LESS THE UNSPIKED SAMPLE CONC
FOUND #2	Concentration of Replicate Sample	
%RECV	Percent Recovery:	100*(FOUND/TARGET) displayed in appropriate signi figures.
RECV CRIT	Recovery Criteria	Criteria for Percent Recovery set in the parameter
UNSPIKED	Unspiked Sample Concentration	Concentration of the DA or UN sample.
M*BLK	Concentration of Method Blank	
R.P.D.	Relative Percent Difference (Matrix Spikes)	100*(ABS (%RECV SPMn - %RECV SPMn-1)/(%RECV SPMn + %RECV SPMn-1)/2).
R.P.D.	Replicate Percent Difference (Control Spikes)	100*(ABS (%RECV SPn - %RECV SP1)/(%RECV SPn + %REC
R.P.D.	Replicate Percent Difference (Replicate Samples)	100*(ABS (Conc Rep #2 - Conc Rep #1)/(Conc Rep #2 Conc Rep #1)/2).
MAX % REPL DIFF	Maximum value of Replicate Difference	
C.D.L.	Calibration Curve Detection Limit	
NA	Not Analyzed	
N/A	Not Available	
UNSPIKED = 0		
MIN.REC	Minimum Recovery Limit	If the parameter is reported as a "LESS THAN", the converted to 0 for calculation purposes.
MAX.REC	Maximum Recovery Limit	Average Recovery - Recovery Limit.
DA		Average Recovery + Recovery Limit.
UN		Refers to sample.
SP		Refers to second analysis of sample for QC purposes
SPM1,SPM2		Spike of reagent (blank) water or soil.
SPM		Duplicate Matrix Spikes of a sample.
MB		Matrix Spike of a sample.
		Refers to Method Blank.

Environmental
Science &
Engineering, Inc.

8901 North Industrial Road -- Peoria, Illinois 61615
Telephone: (309) 692-4422 -- Fax: (309) 692-5232

FOR LAB USE ONLY
Project Number: 194-5658
Due Date: 11-16-94

Chain of Custody Record

№ 09439

Company: Earth Tech
Address: 12129 W. Feerick St
Milwaukee, WI 53222
Phone #: (414) 466-5266 Fax #: (414) 466-9446
P.O. #:
Client Contact: Duane Stillings
Project # / Location: 94-4167-01

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue
Other :

Container Type:
P - Plastic
G - Glass
V - VOC

Preservative:
1. None
3. HNO3
2. H2SO4
4. NaOH

Analyses: 8240

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	8240	Comments
Trench-1	Soil	8 oz 2oz	Glass plastic	1 1	10-31-94		none	19411-1	X	
Trench-2					10-31-94			-2	X	
MW-116-1-3					11-1-94			-3	X	
MW-116-3-5					11-1-94			-4	X	
MW-117-1-3					11-1-94			-5	X	
MW-117-5-7					11-1-94			-6	X	
MW-118-1-3					11-2-94			-7	X	
MW-118-5-7					11-2-94			-8	X	
MW-119-0-2					11-2-94			-9	X	
MW-119-2-4					11-2-94			-10	X	
MW-120-4-6					11-2-94			-11	X	
MW-120-6-8					11-2-94			-12	X	

Relinquished By: D. Stillings
Date: 11-3-94
Time:

Received By:
Date: - -
Time: :

Relinquished By:
Date: - -
Time: :

Received For Lab By: Alan R. Hogan
Date: 11-4-94
Time: 9:00am

TURNAROUND TIME:
☐ RUSH: _____ day turnaround
☒ ROUTINE

FOR LAB USE ONLY
Samples Received Chilled
☒ Yes
☐ No
5C

SPECIAL INSTRUCTIONS:

Copies: White - Client Canary - Lab Receiving Pink - Lab File Goldenrod - Retained by Sampler

Environmental Science & Engineering, Inc.
8901 North Industrial Road -- Peoria, Illinois 61615
Telephone: (309) 692-4422 -- Fax: (309) 692-5232

FOR LAB USE ONLY
Project Number: 194-2058
Due Date: 11-16-94

Chain of Custody Record

№ 09295

Company: Earth Tech
Address: 12129 W. Feerick St.
Milwaukee, WI 53222
Phone #: (414) 466-9266 Fax #: (414) 466-9446
P.O. #:
Client Contact: Duane Stillings
Project # / Location: 54-4167-01

Sample Type: 1. Water 2. Soil 3. Sludge 4. Oil 5. Tissue Other:
Container Type: P - Plastic G - Glass V - VOC
Preservative: 1. None 2. H2SO4 3. HNO3 4. NaOH

Analyses: 8240, 8270

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	8240	8270	Comments
MW-121-0-2	Soil	2oz 2oz	glass plastic	1 1	11-2-94		None	19411-13	X		
MW-121-0-12	"	"	"	"	11-2-94		"	-14	X		
MB-FD-1	"	"	"	"	11-2-94		"	-15	X		
MB-FB-1	"	"	"	"	11-2-94		"	-16	X		
MB-FB-2	"	"	"	"	11-2-94		"	-17	X		
MB-FD-2	"	"	"	"	11-2-94		"	-18	X		
Trench-1	"	"	glass	3	11-2-94		"	~~-20~~		X	Do not analyze without permission
Trip blank	water	40ml			—		HCl	-19	X		

Relinquished By: D. Stillings
Date: 11 - 3 -94
Time:
Received By:
Date: -- --
Time:

Relinquished By:
Date: -- --
Time:
Received For Lab By: Alan R. Hogan
Date: 11 - 4 -94
Time: 9:00 am

TURNAROUND TIME:
☐ RUSH: _____ day turnaround
☐ ROUTINE

FOR LAB USE ONLY
Samples Received Chilled
☐ Yes ☐ No 5C

Copies: White - Client Canary - Lab Receiving Pink - Lab File Goldenrod - Retained by Sampler

SPECIAL INSTRUCTIONS:

Environmental Science & Engineering, Inc.
8901 North Industrial Road Peoria, IL 61615-1589
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An IEPA Contract Laboratory

TO: EARTH TECH
12129 W. FEERICK STREET
MILWAUKEE, WI 53222
ATTN: MR. DUANE STILLINGS

PAGE NUMBER: 12
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE		19411*19	19411*20	19411*21	19411*22			
SAMPLE DATE		11/02/94	11/03/94	11/03/94	11/03/94			
DESCRIPTION	UNITS	TRIP BLK WATER	MB-113 WATER	MB-114 WATER	MB-115 WATER	METHOD NO.	DATE ANALYZED	ANALYST
VOLATILE ORGANIC COMPOUNDS (Cont'd)								
cis-1,3-Dichloropropene	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Trichloroethene	UG/L	< 5	62	140	170	8240	11-17-94	LDM
Dibromochloromethane	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
1,1,2-Trichloroethane	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Benzene	UG/L	< 5	< 5	11	< 5	8240	11-17-94	LDM
trans-1,3-Dichloropropene	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Bromoform	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
4-Methyl-2-pentanone	UG/L	< 10	< 10	18	< 10	8240	11-17-94	LDM
2-Hexanone	UG/L	< 10	< 10	< 10	< 10	8240	11-17-94	LDM
Tetrachloroethene	UG/L	< 5	14	13	< 5	8240	11-17-94	LDM
1,1,2,2-Tetrachloroethane	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Toluene	UG/L	< 5	< 5	57	< 5	8240	11-17-94	LDM
Chlorobenzene	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Ethylbenzene	UG/L	< 5	< 5	7	< 5	8240	11-17-94	LDM
Styrene	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Xylenes (total)	UG/L	< 5	< 5	24	< 5	8240	11-17-94	LDM
cis-1,2-Dichloroethene	UG/L	< 5	17	15,000	210	8240	11-17-94	LDM

NOTE: Samples Trip Blk and MB-114 analyzed on 11/16/94.

Report Approved by: Barbara G. Raya-Hash
Barbara G. Raya-Hash
Senior Project Manager

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An IEPA Contract Laboratory

TO: EARTH TECH
12129 W. FEERICK STREET
MILWAUKEE, WI 53222
ATTN: MR. DUANE STILLINGS

PAGE NUMBER: 11
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE		19411*19	19411*20	19411*21	19411*22			
SAMPLE DATE		11/02/94	11/03/94	11/03/94	11/03/94			
DESCRIPTION	UNITS	TRIP BLK WATER	MB-113 WATER	MB-114 WATER	MB-115 WATER	METHOD NO.	DATE ANALYZED	ANALYST
VOLATILE ORGANIC COMPOUNDS								
Chloromethane	UG/L	< 10	< 10	< 10	< 10	8240	11-17-94	LDM
Bromomethane	UG/L	< 10	< 10	< 10	< 10	8240	11-17-94	LDM
Vinyl Chloride	UG/L	< 10	< 10	< 10	< 10	8240	11-17-94	LDM
Chloroethane	UG/L	< 10	< 10	1,200	< 10	8240	11-17-94	LDM
Methylene Chloride	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Acetone	UG/L	< 10	< 10	60	< 10	8240	11-17-94	LDM
Carbon Disulfide	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
1,1-Dichloroethene	UG/L	< 5	< 5	570	< 5	8240	11-17-94	LDM
1,1-Dichloroethane	UG/L	< 5	35	710	42	8240	11-17-94	LDM
trans-1,2-dichloroethene	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Chloroform	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
1,2-Dichloroethane	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
2-Butanone	UG/L	< 10	< 10	30	< 10	8240	11-17-94	LDM
1,1,1-Trichloroethane	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Carbon Tetrachloride	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Vinyl Acetate	UG/L	< 10	< 10	< 10	< 10	8240	11-17-94	LDM
Bromodichloromethane	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
1,2-Dichloropropane	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM

Report Approved by: Barbara G. Raya-Hash
Barbara G. Raya-Hash
Senior Project Manager

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An IEPA Contract Laboratory

TO: EARTH TECH
12129 W. FEERICK STREET
MILWAUKEE, WI 53222
ATTN: MR. DUANE STILLINGS

PAGE NUMBER: 13
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE		19411*23	19411*24	19411*25	19411*26			
SAMPLE DATE		11/03/94	11/03/94	11/03/94	11/03/94			
DESCRIPTION	UNITS	SUMP-1 WATER	SUMP-2 WATER	DUP-1 WATER	BLK-1 WATER	METHOD NO.	DATE ANALYZED	ANALYST
VOLATILE ORGANIC COMPOUNDS								
Chloromethane	UG/L	1,300	< 10	1,100	< 10	8240	11-17-94	LDM
Bromomethane	UG/L	< 10	< 10	< 10	< 10	8240	11-17-94	LDM
Vinyl Chloride	UG/L	< 10	< 10	< 10	< 10	8240	11-17-94	LDM
Chloroethane	UG/L	< 10	< 10	< 10	< 10	8240	11-17-94	LDM
Methylene Chloride	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Acetone	UG/L	790	< 10	< 10	< 10	8240	11-17-94	LDM
Carbon Disulfide	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
1,1-Dichloroethene	UG/L	46	< 5	260	< 5	8240	11-17-94	LDM
1,1-Dichloroethane	UG/L	240	< 5	580	< 5	8240	11-17-94	LDM
trans-1,2-dichloroethene	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Chloroform	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
1,2-Dichloroethane	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
2-Butanone	UG/L	420	< 10	20	< 10	8240	11-17-94	LDM
1,1,1-Trichloroethane	UG/L	140	< 5	< 5	< 5	8240	11-17-94	LDM
Carbon Tetrachloride	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Vinyl Acetate	UG/L	< 10	< 10	< 10	< 10	8240	11-17-94	LDM
Bromodichloromethane	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
1,2-Dichloropropane	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM

Report Approved by: Barbara G. Raya-Hash
Barbara G. Raya-Hash
Senior Project Manager

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An IEPA Contract Laboratory

TO: EARTH TECH
12129 W. FEERICK STREET
MILWAUKEE, WI 53222
ATTN: MR. DUANE STILLINGS

PAGE NUMBER: 14
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE		19411*23	19411*24	19411*25	19411*26			
SAMPLE DATE		11/03/94	11/03/94	11/03/94	11/03/94			
DESCRIPTION	UNITS	SUMP-1 WATER	SUMP-2 WATER	DUP-1 WATER	BLK-1 WATER	METHOD NO.	DATE ANALYZED	ANALYST
VOLATILE ORGANIC COMPOUNDS (Cont'd)								
cis-1,3-Dichloropropene	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Trichloroethene	UG/L	250	16	120	< 5	8240	11-17-94	LDM
Dibromochloromethane	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
1,1,2-Trichloroethane	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Benzene	UG/L	< 5	< 5	8	< 5	8240	11-17-94	LDM
trans-1,3-Dichloropropene	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Bromoform	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
4-Methyl-2-pentanone	UG/L	< 10	< 10	15	< 10	8240	11-17-94	LDM
2-Hexanone	UG/L	< 10	< 10	< 10	< 10	8240	11-17-94	LDM
Tetrachloroethene	UG/L	77	< 5	12	< 5	8240	11-17-94	LDM
1,1,2,2-Tetrachloroethane	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Toluene	UG/L	18	< 5	49	< 5	8240	11-17-94	LDM
Chlorobenzene	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Ethylbenzene	UG/L	< 5	< 5	5	< 5	8240	11-17-94	LDM
Styrene	UG/L	< 5	< 5	< 5	< 5	8240	11-17-94	LDM
Xylenes (total)	UG/L	< 5	< 5	20	< 5	8240	11-17-94	LDM
cis-1,2-Dichloroethene	UG/L	1,500	< 5	12,000	< 5	8240	11-17-94	LDM

NOTE: Samples Dup-1 and Blk-1 analyzed on 11/16/94.

Report Approved by: Barbara G. Raya-Nash
Barbara G. Raya-Nash
Senior Project Manager

Environmental Science & Engineering, Inc.
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An IEPA Contract Laboratory

TO: EARTH TECH
12129 W. FEERICK STREET
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ATTN: MR. DUANE STILLINGS

PAGE NUMBER: 15
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

DESCRIPTION	UNITS	TRIP BLK WATER	METHOD NO.	DATE ANALYZED	ANALYST
ESE SAMPLE		19411*27			
SAMPLE DATE		11/03/94			
VOLATILE ORGANIC COMPOUNDS					
Chloromethane	UG/L	< 10	8240	11-17-94	LDM
Bromomethane	UG/L	< 10	8240	11-17-94	LDM
Vinyl Chloride	UG/L	< 10	8240	11-17-94	LDM
Chloroethane	UG/L	< 10	8240	11-17-94	LDM
Methylene Chloride	UG/L	< 5	8240	11-17-94	LDM
Acetone	UG/L	< 10	8240	11-17-94	LDM
Carbon Disulfide	UG/L	< 5	8240	11-17-94	LDM
1,1-Dichloroethene	UG/L	< 5	8240	11-17-94	LDM
1,1-Dichloroethane	UG/L	< 5	8240	11-17-94	LDM
trans-1,2-dichloroethene	UG/L	< 5	8240	11-17-94	LDM
Chloroform	UG/L	< 5	8240	11-17-94	LDM
1,2-Dichloroethane	UG/L	< 5	8240	11-17-94	LDM
2-Butanone	UG/L	< 10	8240	11-17-94	LDM
1,1,1-Trichloroethane	UG/L	< 5	8240	11-17-94	LDM
Carbon Tetrachloride	UG/L	< 5	8240	11-17-94	LDM
Vinyl Acetate	UG/L	< 10	8240	11-17-94	LDM
Bromodichloromethane	UG/L	< 5	8240	11-17-94	LDM
1,2-Dichloropropane	UG/L	< 5	8240	11-17-94	LDM

Report Approved by: Barbara G. Raya-Hash
Barbara G. Raya-Hash
Senior Project Manager

Environmental Science & Engineering, Inc.
8901 North Industrial Road Peoria, IL 61615-1589
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TO: EARTH TECH
12129 W. FEERICK STREET
MILWAUKEE, WI 53222
ATTN: MR. DUANE STILLINGS

PAGE NUMBER: 16
REPORT DATE: 12-01-94
DATE RECEIVED: 11-04-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE		19411*27			
SAMPLE DATE		11/03/94			
DESCRIPTION	UNITS	TRIP BLK WATER	METHOD NO.	DATE ANALYZED	ANALYST
VOLATILE ORGANIC COMPOUNDS (Cont'd)					
cis-1,3-Dichloropropene	UG/L	< 5	8240	11-17-94	LDM
Trichloroethene	UG/L	< 5	8240	11-17-94	LDM
Dibromochloromethane	UG/L	< 5	8240	11-17-94	LDM
1,1,2-Trichloroethane	UG/L	< 5	8240	11-17-94	LDM
Benzene	UG/L	< 5	8240	11-17-94	LDM
trans-1,3-Dichloropropene	UG/L	< 5	8240	11-17-94	LDM
Bromoform	UG/L	< 5	8240	11-17-94	LDM
4-Methyl-2-pentanone	UG/L	< 10	8240	11-17-94	LDM
2-Hexanone	UG/L	< 10	8240	11-17-94	LDM
Tetrachloroethene	UG/L	< 5	8240	11-17-94	LDM
1,1,2,2-Tetrachloroethane	UG/L	< 5	8240	11-17-94	LDM
Toluene	UG/L	< 5	8240	11-17-94	LDM
Chlorobenzene	UG/L	< 5	8240	11-17-94	LDM
Ethylbenzene	UG/L	< 5	8240	11-17-94	LDM
Styrene	UG/L	< 5	8240	11-17-94	LDM
Xylenes (total)	UG/L	< 5	8240	11-17-94	LDM
cis-1,2-Dichloroethene	UG/L	< 5	8240	11-17-94	LDM

Report Approved by: Barbara G. Raya-Hash
Barbara G. Raya-Hash
Senior Project Manager

Environmental Science & Engineering, Inc.
8901 North Industrial Road Peoria, IL 61615-1589
Phone (309) 692-4422 Lab Fax (309) 692-5232

An IEPA Contract Laboratory

TO: EARTH TECH
12129 W. FEERICK STREET
WAUWATOSA, WI 53222
ATTN: MR. ROB CANNESTRA

PAGE NUMBER: 1
REPORT DATE: 01-06-95
DATE RECEIVED: 12-22-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

DESCRIPTION	UNITS	MW-117 WATER	METHOD NO.	DATE ANALYZED	ANALYST
ESE SAMPLE		19935*1			
SAMPLE DATE		12/21/94			
Volatile Organic Compounds					
Chloromethane	UG/L	< 10	8240	01-03-95	RMM
Bromomethane	UG/L	< 10	8240	01-03-95	RMM
Vinyl Chloride	UG/L	< 10	8240	01-03-95	RMM
Chloroethane	UG/L	< 10	8240	01-03-95	RMM
Methylene Chloride	UG/L	< 5	8240	01-03-95	RMM
Acetone	UG/L	< 10	8240	01-03-95	RMM
Carbon Disulfide	UG/L	< 5	8240	01-03-95	RMM
1,1-Dichloroethene	UG/L	< 5	8240	01-03-95	RMM
1,1-Dichloroethane	UG/L	12	8240	01-03-95	RMM
trans-1,2-dichloroethene	UG/L	< 5	8240	01-03-95	RMM
Chloroform	UG/L	< 5	8240	01-03-95	RMM
1,2-Dichloroethane	UG/L	< 5	8240	01-03-95	RMM
2-Butanone	UG/L	< 10	8240	01-03-95	RMM
1,1,1-Trichloroethane	UG/L	< 5	8240	01-03-95	RMM
Carbon Tetrachloride	UG/L	< 5	8240	01-03-95	RMM
Vinyl Acetate	UG/L	< 10	8240	01-03-95	RMM
Bromodichloromethane	UG/L	< 5	8240	01-03-95	RMM

Report Approved by: Barbara G. Raya-Hash
Barbara G. Raya-Hash
Senior Project Manager

Environmental Science & Engineering, Inc.
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TO: EARTH TECH
12129 W. FEERICK STREET
WAUWATOSA, WI 53222
ATTN: MR. ROB CANNESTRA

REPORT DATE: 01-06-95
DATE RECEIVED: 12-22-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

DESCRIPTION	UNITS	ESE SAMPLE 19935*1 SAMPLE DATE 12/21/94 MW-117 WATER	METHOD NO.	DATE ANALYZED	ANALYST
Volatile Organic Compounds (Cont'd)					
1,2-Dichloropropane	UG/L	< 5	8240	01-03-95	RMM
cis-1,3-Dichloropropene	UG/L	< 5	8240	01-03-95	RMM
Trichloroethene	UG/L	130	8240	01-03-95	RMM
Dibromochloromethane	UG/L	< 5	8240	01-03-95	RMM
1,1,2-Trichloroethane	UG/L	< 5	8240	01-03-95	RMM
Benzene	UG/L	< 5	8240	01-03-95	RMM
trans-1,3-Dichloropropene	UG/L	< 5	8240	01-03-95	RMM
Bromoform	UG/L	< 5	8240	01-03-95	RMM
4-Methyl-2-pentanone	UG/L	< 10	8240	01-03-95	RMM
2-Hexanone	UG/L	< 10	8240	01-03-95	RMM
Tetrachloroethene	UG/L	< 5	8240	01-03-95	RMM
1,1,2,2-Tetrachloroethane	UG/L	< 5	8240	01-03-95	RMM
Toluene	UG/L	< 5	8240	01-03-95	RMM
Chlorobenzene	UG/L	< 5	8240	01-03-95	RMM
Ethylbenzene	UG/L	< 5	8240	01-03-95	RMM
Styrene	UG/L	< 5	8240	01-03-95	RMM
Xylenes (total)	UG/L	< 5	8240	01-03-95	RMM
cis-1,2-Dichloroethene	UG/L	14	8240	01-03-95	RMM

Report Approved by: Barbara G. Raya-Hash
Barbara G. Raya-Hash
Senior Project Manager

Environmental Science and Engineering, Inc.
Table of Definitions for QC Reports
Columnar Terms

Item	Title	Definition
FOUND	Sample Concentration	SPIKE SAMPLE CONC - LESS THE UNSPIKED SAMPLE CO
FOUND #1	Concentration of UNSPIKED Sample	
FOUND #2	Concentration of Replicate Sample	
%RECV	Percent Recovery:	100*(FOUND/TARGET) displayed in appropriate sig figures.
RECV CRIT	Recovery Criteria	Criteria for Percent Recovery set in the parame
UNSPIKED	Unspiked Sample Concentration	Concentration of the DA or UN sample.
M*BLK	Concentration of Method Blank	
R.P.D.	Relative Percent Difference (Matrix Spikes)	100*(ABS (%RECV SPMn - %RECV SPMn-1)/(%RECV SPM %RECV SPMn-1)/2).
R.P.D.	Replicate Percent Difference (Control Spikes)	100*(ABS (%RECV SPn - %RECV SP1)/(%RECV SPn + %
R.P.D.	Replicate Percent Difference (Replicate Samples)	100*(ABS (Conc Rep #2 - Conc Rep #1)/(Conc Rep Conc Rep #1)/2).
MAX % REPL DIFF	Maximum value of Replicate Difference	
C.D.L.	Calibration Curve Detection Limit	
NA	Not Analyzed	
N/A	Not Available	
UNSPIKED = 0		If the parameter is reported as a "LESS THAN", converted to 0 for calculation purposes.
MIN.REC	Minimum Recovery Limit	Average Recovery - Recovery Limit.
MAX.REC	Maximum Recovery Limit	Average Recovery + Recovery Limit.
DA		Refers to sample.
UN		Refers to second analysis of sample for QC pur
SP		Spike of reagent (blank) water or soil.
SPM1,SPM2		Duplicate Matrix Spikes of a sample.
SPM		Matrix Spike of a sample.
MB		Refers to Method Blank.

EARTH TECH 19935

Method Blank (MB) Sample Summary

NAME	UNITS	STOR*METH	BATCH	SAMPLE	DATE	FOUND	DET LMT
Chloromethane	UG/L	34418*8240-P	P25849	MB*NONE*1	01/03/95	0.0	10
Bromomethane	UG/L	34413*8240-P		MB*NONE*1		0.0	10
Vinyl Chloride	UG/L	39175*8240-P		MB*NONE*1		0.0	10
Chloroethane	UG/L	34311*8240-P		MB*NONE*1		0.0	10
Methylene Chloride	UG/L	34423*8240-P		MB*NONE*1		0.0	5
Acetone	UG/L	81552*8240-P		MB*NONE*1		0.0	10
Carbon Disulfide	UG/L	77041*8240-P		MB*NONE*1		0.0	5
1,1-Dichloroethene	UG/L	34501*8240-P		MB*NONE*1		0.0	5
1,1-Dichloroethane	UG/L	34496*8240-P		MB*NONE*1		0.0	5
trans-1,2-dichloroethene	UG/L	34546*8240-P		MB*NONE*1		0.0	5
Chloroform	UG/L	32106*8240-P		MB*NONE*1		0.0	5
1,2-Dichloroethane	UG/L	34531*8240-P		MB*NONE*1		0.0	5
2-Butanone	UG/L	81595*8240-P		MB*NONE*1		0.0	10
1,1,1-Trichloroethane	UG/L	34506*8240-P		MB*NONE*1		0.0	5
Carbon Tetrachloride	UG/L	32102*8240-P		MB*NONE*1		0.0	5
Vinyl Acetate	UG/L	77057*8240-P		MB*NONE*1		0.0	10
Bromodichloromethane	UG/L	32101*8240-P		MB*NONE*1		0.0	5
1,2-Dichloropropane	UG/L	34541*8240-P		MB*NONE*1		0.0	5
cis-1,3-Dichloropropene	UG/L	34704*8240-P		MB*NONE*1		0.0	5
Trichloroethene	UG/L	39180*8240-P		MB*NONE*1		0.0	5
Dibromochloromethane	UG/L	32105*8240-P		MB*NONE*1		0.0	5
1,1,2-Trichloroethane	UG/L	34511*8240-P		MB*NONE*1		0.0	5
Benzene	UG/L	34030*8240-P		MB*NONE*1		0.0	5
trans-1,3-Dichloropropene	UG/L	34699*8240-P		MB*NONE*1		0.0	5
Bromoform	UG/L	32104*8240-P		MB*NONE*1		0.0	5
4-Methyl-2-pentanone	UG/L	81596*8240-P		MB*NONE*1		0.0	10
2-Hexanone	UG/L	77103*8240-P		MB*NONE*1		0.0	10
Tetrachloroethene	UG/L	34475*8240-P		MB*NONE*1		0.0	5
1,1,2,2-Tetrachloroethane	UG/L	34516*8240-P		MB*NONE*1		0.0	5
Toluene	UG/L	34010*8240-P		MB*NONE*1		0.0	5
Chlorobenzene	UG/L	34301*8240-P		MB*NONE*1		0.0	5
Ethylbenzene	UG/L	34371*8240-P		MB*NONE*1		0.0	5
Styrene	UG/L	77128*8240-P		MB*NONE*1		0.0	5
Xylenes (total)	UG/L	81551*8240-P		MB*NONE*1		0.0	5
cis-1,2-Dichloroethene	UG/L	77093*8240-P		MB*NONE*1		0.0	5

EARTH TECH 19935

Standard Matrix Spike (SP) Recovery and Replicate Summary

NAME	UNITS	STOR*METH	BATCH	SAMPLE	DATE	TARGET	FOUND	%RECV	RECV CRIT	R.P.D.
1,1-Dichloroethene	UG/L	34501*8240-P	P25849	SP*NONE*1	01/03/95	50	41	82.0	61-145	
Trichloroethene	UG/L	39180*8240-P		SP*NONE*1		50	59	118.0	71-120	
Benzene	UG/L	34030*8240-P		SP*NONE*1		50	53	106.0	76-127	
Toluene	UG/L	34010*8240-P		SP*NONE*1		50	51	102.0	76-125	
Chlorobenzene	UG/L	34301*8240-P		SP*NONE*1		50	59	118.0	75-130	

EARTH TECH 19935

Sample Matrix Spike (SPM) Recovery Summary

NAME	UNITS	STOR*METH	BATCH	SAMPLE	DATE	TARGET	FOUND	%RECV	RECV CRIT	UNSPIKED	R.P.D.	R.P.D. CRIT.
1,1-Dichloroethene	UG/L	34501*8240-P	P25849	SPM1*19935*1	01/03/95	50	39	78.0	61-145	0.0		14
1,1-Dichloroethene	UG/L			SPM2*19935*1		50	39	78.0	61-145	0.0	0.0	14
Trichloroethene	UG/L	39180*8240-P		SPM1*19935*1		50	40	80.0	71-120	130		14
Trichloroethene	UG/L			SPM2*19935*1		50	40	80.0	71-120	130	0.0	14
Benzene	UG/L	34030*8240-P		SPM1*19935*1		50	36	*72.0	76-127	0.0		11
Benzene	UG/L			SPM2*19935*1		50	37	*74.0	76-127	0.0	2.7	11
Toluene	UG/L	34010*8240-P		SPM1*19935*1		50	36	*72.0	76-125	0.0		13
Toluene	UG/L			SPM2*19935*1		50	34	*68.0	76-125	0.0	5.7	13
Chlorobenzene	UG/L	34301*8240-P		SPM1*19935*1		50	43	86.0	75-130	0.0		13
Chlorobenzene	UG/L			SPM2*19935*1		50	41	82.0	75-130	0.0	4.8	13

*COMMENTS: POSSIBLE MATRIX INTERFERENCE; METHOD IN CONTROL, SEE SP DATA.

EARTH TECH 19935

Surrogate (SUR) Spike Recovery Summary

NAME	UNITS	STOR*METH	BATCH	SAMPLE	DATE	TARGET	FOUND	%RECV	RECV CRIT
TOLUENE-D(8)	UG/L	98810*SUR	P25849	MB*NONE*1	01/03/95	50	49	98.0	88-110
TOLUENE-D(8)	UG/L			SP*NONE*1		50	46	92.0	88-110
TOLUENE-D(8)	UG/L			DA*19935*1		50	46	92.0	88-110
TOLUENE-D(8)	UG/L			SPM1*19935*1		50	46	92.0	88-110
TOLUENE-D(8)	UG/L			SPM2*19935*1		50	45	90.0	88-110
BROMOFLUOROBENZENE	UG/L	98402*SUR		MB*NONE*1		50	48	96.0	86-115
BROMOFLUOROBENZENE	UG/L			SP*NONE*1		50	46	92.0	86-115
BROMOFLUOROBENZENE	UG/L			DA*19935*1		50	47	94.0	86-115
BROMOFLUOROBENZENE	UG/L			SPM1*19935*1		50	46	92.0	86-115
BROMOFLUOROBENZENE	UG/L			SPM2*19935*1		50	44	88.0	86-115
1,2-DICHLOROETHANE-D4	UG/L	98812*SUR		MB*NONE*1		50	43	86.0	76-114
1,2-DICHLOROETHANE-D4	UG/L			SP*NONE*1		50	45	90.0	76-114
1,2-DICHLOROETHANE-D4	UG/L			DA*19935*1		50	44	88.0	76-114
1,2-DICHLOROETHANE-D4	UG/L			SPM1*19935*1		50	43	86.0	76-114
1,2-DICHLOROETHANE-D4	UG/L			SPM2*19935*1		50	45	90.0	76-114

Environmental Science and Engineering, Inc.
Table of Definitions for QC Reports
Columnar Terms

Item	Title	Definition
FOUND	Sample Concentration	SPIKE SAMPLE CONC - LESS THE UNSPIKED SAMPLE C
FOUND #1	Concentration of UNSPIKED Sample	
FOUND #2	Concentration of Replicate Sample	
%RECV	Percent Recovery:	100*(FOUND/TARGET) displayed in appropriate si figures.
RECV CRIT	Recovery Criteria	Criteria for Percent Recovery set in the parar
UNSPIKED	Unspiked Sample Concentration	Concentration of the DA or UN sample.
M*BLK	Concentration of Method Blank	
R.P.D.	Relative Percent Difference (Matrix Spikes)	100*(ABS (%RECV SPMn - %RECV SPMn-1)/(%RECV SI %RECV SPMn-1)/2).
R.P.D.	Replicate Percent Difference (Control Spikes)	100*(ABS (%RECV SPn - %RECV SP1)/(%RECV SPn +
R.P.D.	Replicate Percent Difference (Replicate Samples)	100*(ABS (Conc Rep #2 - Conc Rep #1)/(Conc Rep Conc Rep #1)/2).
MAX % REPL DIFF	Maximum value of Replicate Difference	
C.D.L.	Calibration Curve Detection Limit	
NA	Not Analyzed	
N/A	Not Available	
UNSPIKED = 0		If the parameter is reported as a "LESS THAN" converted to 0 for calculation purposes.
MIN.REC	Minimum Recovery Limit	Average Recovery - Recovery Limit.
MAX.REC	Maximum Recovery Limit	Average Recovery + Recovery Limit.
DA		Refers to sample.
UN		Refers to second analysis of sample for QC pu
SP		Spike of reagent (blank) water or soil.
SPM1,SPM2		Duplicate Matrix Spikes of a sample.
SPM		Matrix Spike of a sample.
MB		Refers to Method Blank.

The Earth Technology Corporation

Chain of Custody Record

Lab job no.: _____
Date _____
Page _____ of _____

Laboratory ESE
Address 8901 W. Industrial Rd
Peoria, IL

Method of Shipment UPS
Shipment No. _____
Airbill No. _____
Cooler No. _____

Client Earth Tech
Address 12129 W. Feerick St
Milwaukee, WI 53222

Project Manager D. Stillings
Telephone No. 414-466-9266
Fax. No. 414-466-9446

Project Name _____
Project Number 74-4167.01

Samplers: (Signature) D. Stillings

Field Sample Number	Location/ Depth	Date	Time	Sample Type	Type/Size of Container	Preservation: Temp.	Preservation: Chemical	Analysis Required: Filtered (Y)	Analysis Required: No. of Containers	Analysis Required: 8240	Remarks
MW-117		12/6/94	1130	water	40ml glass		HCl		2	X	19935-1

Relinquished by:	Date	Received by:	Date	Relinquished by:	Date	Received by:	Date
Signature D. Stillings	12/21/94	Signature SReining	122994	Signature		Signature	
Printed D. Stillings	Time 1300	Printed SReining	Time 1100	Printed	Time	Printed	Time
Company Earth Tech		Company ESE Peoria		Company		Company	
Reason Ship to lab via UPS				Reason			

Comments: _____

Relinquished by:	Date	Received by:	Date
Signature		Signature	
Printed	Time	Printed	Time
Company		Company	
Reason			

DISTRIBUTION: White to Laboratory, Canary to Earth Technology Project File, Pink to Courier, Golden to Field File

F-1000
10/25/92

Environmental
Science &
Engineering, Inc.
8901 North Industrial Road -- Peoria, Illinois 61615
Telephone: (309) 692-4422 -- Fax: (309) 692-5232

FOR LAB USE ONLY
Project Number: 94-5058
Due Date: 11-16-94

Chain of Custody Record

№ 09440

Company: Earth Tech
Address: 12629 W. Feerick St.
Milwaukee, WI 53222
Phone #: (414) 466-9266 Fax #: (414) 466-8446
P.O. #:
Client Contact: Duane Stillings
Project # / Location: 94-4161-01

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue
Other :

Container Type:
P - Plastic
G - Glass
V - VOC

Preservative:
1. None 3. HNO3
2. H2SO4 4. NaOH

Analyses: 8240

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	8240	Comments
MB-113	1	40ml	Amber glass	2	11-3-94	1330	HCl	19411-20	X	
MB-114	1	"	"	"	"	1330	"	-21	X	
MB-115	1	"	"	"	"	1345	"	-22	X	
Sump-1	1	"	"	"	"	1345	"	-23	X	
Sump-2	1	"	"	"	"	1400	"	-24	X	
Dup-1	1	"	"	"	"	1415	"	-25	X	
Blank-1	1	"	"	"	"	1415	"	-26	X	
Trip Blank	1	"	"	"	"	—	"	-27	X	

Relinquished By: D. Stillings	Date: 11-3-94 Time: :	Received By:	Date: -- -- Time: :
Relinquished By:	Date: -- -- Time: :	Received For Lab By: Allen R. Hagen	Date: 11-4-94 Time: 9:00 am

TURNAROUND TIME:
☐ RUSH: _____ day turnaround
☒ ROUTINE

FOR LAB USE ONLY
Samples Received Chilled
☐ Yes ☐ No 9C

SPECIAL INSTRUCTIONS:

Copies: White - Client Canary - Lab Receiving Pink - Lab File Goldenrod - Retained by Sampler

ATTACHMENT F

Analytical Reports for the Initial 1994 Groundwater Sampling Event

ATTACHMENT E

Analytical Reports for the Initial 1994 Groundwater Sampling Event

Environmental Science & Engineering, Inc.
8901 North Industrial Road Peoria, IL 61615-1589
Phone (309) 692-4422 Lab Fax (309) 692-5232

An IEPA Contract Laboratory

TO: EARTH TECH
12129 W. FEERICK STREET
WAUWATOSA, WI 53222
ATTN: MR. ROB CANNESTRA

PAGE NUMBER: 1
REPORT DATE: 01-06-95
DATE RECEIVED: 12-21-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE		19916*1	19916*2	19916*3	19916*4			
SAMPLE DATE		12/20/94	12/20/94	12/20/94	12/20/94			
DESCRIPTION	UNITS	MW-116 WATER	MW-118 WATER	MW-119 WATER	MW-120 WATER	METHOD NO.	DATE ANALYZED	ANALYST
Volatile Organic Compounds								
Chloromethane	UG/L	< 10	< 10	< 10	< 10	8240	01-01-95	RMM
Bromomethane	UG/L	< 10	< 10	< 10	< 10	8240	01-01-95	RMM
Vinyl Chloride	UG/L	< 10	< 10	< 10	< 10	8240	01-01-95	RMM
Chloroethane	UG/L	< 10	< 10	< 10	< 10	8240	01-01-95	RMM
Methylene Chloride	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
Acetone	UG/L	< 10	< 10	< 10	< 10	8240	01-01-95	RMM
Carbon Disulfide	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
1,1-Dichloroethene	UG/L	8	< 5	< 5	< 5	8240	01-01-95	RMM
1,1-Dichloroethane	UG/L	62	14	< 5	< 5	8240	01-01-95	RMM
trans-1,2-dichloroethene	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
Chloroform	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
1,2-Dichloroethane	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
2-Butanone	UG/L	< 10	< 10	< 10	< 10	8240	01-01-95	RMM
1,1,1-Trichloroethane	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
Carbon Tetrachloride	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
Vinyl Acetate	UG/L	< 10	< 10	< 10	< 10	8240	01-01-95	RMM
Bromodichloromethane	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM

Report Approved by: Barbara G. Raya-Hash
Barbara G. Raya-Hash
Senior Project Manager

Environmental Science & Engineering, Inc.
8901 North Industrial Road Peoria, IL 61615-1589
Phone (309) 692-4422 Lab Fax (309) 692-5232

An IEPA Contract Laboratory

TO: EARTH TECH
12129 W. FEERICK STREET
WAUWATOSA, WI 53222
ATTN: MR. ROB CANNESTRA

REPORT DATE: 01-06-95
DATE RECEIVED: 12-21-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE SAMPLE DATE		19916*1 12/20/94	19916*2 12/20/94	19916*3 12/20/94	19916*4 12/20/94			
DESCRIPTION	UNITS	MW-116 WATER	MW-118 WATER	MW-119 WATER	MW-120 WATER	METHOD NO.	DATE ANALYZED	ANALYST
Volatile Organic Compounds (Cont'd)								
1,2-Dichloropropane	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
cis-1,3-Dichloropropene	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
Trichloroethene	UG/L	560	69	< 5	< 5	8240	01-01-95	RMM
Dibromochloromethane	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
1,1,2-Trichloroethane	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
Benzene	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
trans-1,3-Dichloropropene	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
Bromoform	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
4-Methyl-2-pentanone	UG/L	< 10	< 10	< 10	< 10	8240	01-01-95	RMM
2-Hexanone	UG/L	< 10	< 10	< 10	< 10	8240	01-01-95	RMM
Tetrachloroethene	UG/L	34	< 5	< 5	< 5	8240	01-01-95	RMM
1,1,2,2-Tetrachloroethane	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
Toluene	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
Chlorobenzene	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
Ethylbenzene	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
Styrene	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
Xylenes (total)	UG/L	< 5	< 5	< 5	< 5	8240	01-01-95	RMM
cis-1,2-Dichloroethene	UG/L	85	12	< 5	< 5	8240	01-01-95	RMM

Report Approved by: Barbara G. Raya-Hash
Barbara G. Raya-Hash
Senior Project Manager

Environmental Science & Engineering, Inc.
8901 North Industrial Road Peoria, IL 61615-1589
Phone (309) 692-4422 Lab Fax (309) 692-5232

An IEPA Contract Laboratory

TO: EARTH TECH
12129 W. FEERICK STREET
WAUWATOSA, WI 53222
ATTN: MR. ROB CANNESTRA

PAGE NUMBER: 3
REPORT DATE: 01-06-95
DATE RECEIVED: 12-21-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

ESE SAMPLE		19916*5			
SAMPLE DATE		12/20/94			
DESCRIPTION	UNITS	MW-121 WATER	METHOD NO.	DATE ANALYZED	ANALYST
Volatile Organic Compounds					
Chloromethane	UG/L	< 10	8240	12-30-94	RMM
Bromomethane	UG/L	< 10	8240	12-30-94	RMM
Vinyl Chloride	UG/L	< 10	8240	12-30-94	RMM
Chloroethane	UG/L	< 10	8240	12-30-94	RMM
Methylene Chloride	UG/L	< 5	8240	12-30-94	RMM
Acetone	UG/L	< 10	8240	12-30-94	RMM
Carbon Disulfide	UG/L	< 5	8240	12-30-94	RMM
1,1-Dichloroethene	UG/L	< 5	8240	12-30-94	RMM
1,1-Dichloroethane	UG/L	< 5	8240	12-30-94	RMM
trans-1,2-dichloroethene	UG/L	< 5	8240	12-30-94	RMM
Chloroform	UG/L	< 5	8240	12-30-94	RMM
1,2-Dichloroethane	UG/L	< 5	8240	12-30-94	RMM
2-Butanone	UG/L	< 10	8240	12-30-94	RMM
1,1,1-Trichloroethane	UG/L	< 5	8240	12-30-94	RMM
Carbon Tetrachloride	UG/L	< 5	8240	12-30-94	RMM
Vinyl Acetate	UG/L	< 10	8240	12-30-94	RMM
Bromodichloromethane	UG/L	< 5	8240	12-30-94	RMM

Report Approved by: Barbara G. Raya-Hash
Barbara G. Raya-Hash
Senior Project Manager

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TO: EARTH TECH
12129 W. FEERICK STREET
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PAGE NUMBER: 4
REPORT DATE: 01-06-95
DATE RECEIVED: 12-21-94
PROJECT NUMBER: 194-5058

CLIENT PROJECT NUMBER: 94-4167-01

DESCRIPTION	UNITS	ESE SAMPLE 19916*5 SAMPLE DATE 12/20/94 MW-121 WATER	METHOD NO.	DATE ANALYZED	ANALYST
Volatile Organic Compounds (Cont'd)					
1,2-Dichloropropane	UG/L	< 5	8240	12-30-94	RMM
cis-1,3-Dichloropropene	UG/L	< 5	8240	12-30-94	RMM
Trichloroethene	UG/L	< 5	8240	12-30-94	RMM
Dibromochloromethane	UG/L	< 5	8240	12-30-94	RMM
1,1,2-Trichloroethane	UG/L	< 5	8240	12-30-94	RMM
Benzene	UG/L	< 5	8240	12-30-94	RMM
trans-1,3-Dichloropropene	UG/L	< 5	8240	12-30-94	RMM
Bromoform	UG/L	< 5	8240	12-30-94	RMM
4-Methyl-2-pentanone	UG/L	< 10	8240	12-30-94	RMM
2-Hexanone	UG/L	< 10	8240	12-30-94	RMM
Tetrachloroethene	UG/L	< 5	8240	12-30-94	RMM
1,1,2,2-Tetrachloroethane	UG/L	< 5	8240	12-30-94	RMM
Toluene	UG/L	< 5	8240	12-30-94	RMM
Chlorobenzene	UG/L	< 5	8240	12-30-94	RMM
Ethylbenzene	UG/L	< 5	8240	12-30-94	RMM
Styrene	UG/L	< 5	8240	12-30-94	RMM
Xylenes (total)	UG/L	< 5	8240	12-30-94	RMM
cis-1,2-Dichloroethene	UG/L	< 5	8240	12-30-94	RMM

Report Approved by: Barbara G. Raya-Hash
Barbara G. Raya-Hash
Senior Project Manager

Environmental Science and Engineering, Inc.
Table of Definitions for QC Reports
Columnar Terms

Item	Title	Definition
FOUND	Sample Concentration	SPIKE SAMPLE CONC - LESS THE UNSPIKED SAMPLE CO
FOUND #1	Concentration of UNSPIKED Sample	
FOUND #2	Concentration of Replicate Sample	
%RECV	Percent Recovery:	100*(FOUND/TARGET) displayed in appropriate sig figures.
RECV CRIT	Recovery Criteria	Criteria for Percent Recovery set in the parame
UNSPIKED	Unspiked Sample Concentration	Concentration of the DA or UN sample.
M*BLK	Concentration of Method Blank	
R.P.D.	Relative Percent Difference (Matrix Spikes)	100*(ABS (%RECV SPMn - %RECV SPMn-1)/(%RECV SPM %RECV SPMn-1)/2).
R.P.D.	Replicate Percent Difference (Control Spikes)	100*(ABS (%RECV SPn - %RECV SP1)/(%RECV SPn + %
R.P.D.	Replicate Percent Difference (Replicate Samples)	100*(ABS (Conc Rep #2 - Conc Rep #1)/(Conc Rep Conc Rep #1)/2).
MAX % REPL DIFF	Maximum value of Replicate Difference	
C.D.L.	Calibration Curve Detection Limit	
NA	Not Analyzed	
N/A	Not Available	
UNSPIKED = 0		If the parameter is reported as a "LESS THAN", converted to 0 for calculation purposes.
MIN.REC	Minimum Recovery Limit	Average Recovery - Recovery Limit.
MAX.REC	Maximum Recovery Limit	Average Recovery + Recovery Limit.
DA		Refers to sample.
UN		Refers to second analysis of sample for QC purp
SP		Spike of reagent (blank) water or soil.
SPM1,SPM2		Duplicate Matrix Spikes of a sample.
SPM		Matrix Spike of a sample.
MB		Refers to Method Blank.

Environmental Science & Engineering, Inc.
EARTH TECH 19916
Method Blank (MB) Sample Summary

NAME	UNITS	STOR*METH	BATCH	SAMPLE	DATE	FOUND	DET LMT
Chloromethane	UG/L	34418*8240-P	P25808	MB*NONE*1	01/01/95	0.0	10
Chloromethane	UG/L			MB*NONE*2	12/30/94	0.0	10
Bromomethane	UG/L	34413*8240-P		MB*NONE*1	01/01/95	0.0	10
Bromomethane	UG/L			MB*NONE*2	12/30/94	0.0	10
Vinyl Chloride	UG/L	39175*8240-P		MB*NONE*1	01/01/95	0.0	10
Vinyl Chloride	UG/L			MB*NONE*2	12/30/94	0.0	10
Chloroethane	UG/L	34311*8240-P		MB*NONE*1	01/01/95	0.0	10
Chloroethane	UG/L			MB*NONE*2	12/30/94	0.0	10
Methylene Chloride	UG/L	34423*8240-P		MB*NONE*1	01/01/95	0.0	5
Methylene Chloride	UG/L			MB*NONE*2	12/30/94	0.0	5
Acetone	UG/L	81552*8240-P		MB*NONE*1	01/01/95	0.0	10
Acetone	UG/L			MB*NONE*2	12/30/94	0.0	10
Carbon Disulfide	UG/L	77041*8240-P		MB*NONE*1	01/01/95	0.0	5
Carbon Disulfide	UG/L			MB*NONE*2	12/30/94	0.0	5
1,1-Dichloroethene	UG/L	34501*8240-P		MB*NONE*1	01/01/95	0.0	5
1,1-Dichloroethene	UG/L			MB*NONE*2	12/30/94	0.0	5
1,1-Dichloroethane	UG/L	34496*8240-P		MB*NONE*1	01/01/95	0.0	5
1,1-Dichloroethane	UG/L			MB*NONE*2	12/30/94	0.0	5
trans-1,2-dichloroethene	UG/L	34546*8240-P		MB*NONE*1	01/01/95	0.0	5
trans-1,2-dichloroethene	UG/L			MB*NONE*2	12/30/94	0.0	5
Chloroform	UG/L	32106*8240-P		MB*NONE*1	01/01/95	0.0	5
Chloroform	UG/L			MB*NONE*2	12/30/94	0.0	5
1,2-Dichloroethane	UG/L	34531*8240-P		MB*NONE*1	01/01/95	0.0	5
1,2-Dichloroethane	UG/L			MB*NONE*2	12/30/94	0.0	5
2-Butanone	UG/L	81595*8240-P		MB*NONE*1	01/01/95	0.0	10
2-Butanone	UG/L			MB*NONE*2	12/30/94	0.0	10
1,1,1-Trichloroethane	UG/L	34506*8240-P		MB*NONE*1	01/01/95	0.0	5
1,1,1-Trichloroethane	UG/L			MB*NONE*2	12/30/94	0.0	5
Carbon Tetrachloride	UG/L	32102*8240-P		MB*NONE*1	01/01/95	0.0	5
Carbon Tetrachloride	UG/L			MB*NONE*2	12/30/94	0.0	5
Vinyl Acetate	UG/L	77057*8240-P		MB*NONE*1	01/01/95	0.0	10
Vinyl Acetate	UG/L			MB*NONE*2	12/30/94	0.0	10
Bromodichloromethane	UG/L	32101*8240-P		MB*NONE*1	01/01/95	0.0	5
Bromodichloromethane	UG/L			MB*NONE*2	12/30/94	0.0	5
1,2-Dichloropropane	UG/L	34541*8240-P		MB*NONE*1	01/01/95	0.0	5
1,2-Dichloropropane	UG/L			MB*NONE*2	12/30/94	0.0	5
cis-1,3-Dichloropropene	UG/L	34704*8240-P		MB*NONE*1	01/01/95	0.0	5
cis-1,3-Dichloropropene	UG/L			MB*NONE*2	12/30/94	0.0	5
Trichloroethene	UG/L	39180*8240-P		MB*NONE*1	01/01/95	0.0	5
Trichloroethene	UG/L			MB*NONE*2	12/30/94	0.0	5
Dibromochloromethane	UG/L	32105*8240-P		MB*NONE*1	01/01/95	0.0	5
Dibromochloromethane	UG/L			MB*NONE*2	12/30/94	0.0	5
1,1,2-Trichloroethane	UG/L	34511*8240-P		MB*NONE*1	01/01/95	0.0	5
1,1,2-Trichloroethane	UG/L			MB*NONE*2	12/30/94	0.0	5
Benzene	UG/L	34030*8240-P		MB*NONE*1	01/01/95	0.0	5
Benzene	UG/L			MB*NONE*2	12/30/94	0.0	5
trans-1,3-Dichloropropene	UG/L	34699*8240-P		MB*NONE*1	01/01/95	0.0	5
trans-1,3-Dichloropropene	UG/L			MB*NONE*2	12/30/94	0.0	5
Bromoform	UG/L	32104*8240-P		MB*NONE*1	01/01/95	0.0	5
Bromoform	UG/L			MB*NONE*2	12/30/94	0.0	5
4-Methyl-2-pentanone	UG/L	81596*8240-P		MB*NONE*1	01/01/95	0.0	10
4-Methyl-2-pentanone	UG/L			MB*NONE*2	12/30/94	0.0	10
2-Hexanone	UG/L	77103*8240-P		MB*NONE*1	01/01/95	0.0	10

EARTH TECH 19916

Method Blank (MB) Sample Summary

NAME	UNITS	STOR*METH	BATCH	SAMPLE	DATE	FOUND	DET LMT
2-Hexanone	UG/L	77103*8240-P	P25808	MB*NONE*2	12/30/94	0.0	10
Tetrachloroethene	UG/L	34475*8240-P		MB*NONE*1	01/01/95	0.0	5
Tetrachloroethene	UG/L			MB*NONE*2	12/30/94	0.0	5
1,1,2,2-Tetrachloroethane	UG/L	34516*8240-P		MB*NONE*1	01/01/95	0.0	5
1,1,2,2-Tetrachloroethane	UG/L			MB*NONE*2	12/30/94	0.0	5
Toluene	UG/L	34010*8240-P		MB*NONE*1	01/01/95	0.0	5
Toluene	UG/L			MB*NONE*2	12/30/94	0.0	5
Chlorobenzene	UG/L	34301*8240-P		MB*NONE*1	01/01/95	0.0	5
Chlorobenzene	UG/L			MB*NONE*2	12/30/94	0.0	5
Ethylbenzene	UG/L	34371*8240-P		MB*NONE*1	01/01/95	0.0	5
Ethylbenzene	UG/L			MB*NONE*2	12/30/94	0.0	5
Styrene	UG/L	77128*8240-P		MB*NONE*1	01/01/95	0.0	5
Styrene	UG/L			MB*NONE*2	12/30/94	0.0	5
Xylenes (total)	UG/L	81551*8240-P		MB*NONE*1	01/01/95	0.0	5
Xylenes (total)	UG/L			MB*NONE*2	12/30/94	0.0	5
cis-1,2-Dichloroethene	UG/L	77093*8240-P		MB*NONE*1	01/01/95	0.0	5
cis-1,2-Dichloroethene	UG/L			MB*NONE*2	12/30/94	0.0	5

EARTH TECH 19916

Standard Matrix Spike (SP) Recovery and Replicate Summary

NAME	UNITS	STOR*METH	BATCH	SAMPLE	DATE	TARGET	FOUND	%RECV	RECV CRIT
1,1-Dichloroethene	UG/L	34501*8240-P	P25808	SP*NONE*1	01/01/95	50	49	98.0	61-145
1,1-Dichloroethene	UG/L			SP*NONE*2	12/30/94	50	50	100.0	61-145
Trichloroethene	UG/L	39180*8240-P		SP*NONE*1	01/01/95	50	59	118.0	71-120
Trichloroethene	UG/L			SP*NONE*2	12/30/94	50	58	116.0	71-120
Benzene	UG/L	34030*8240-P		SP*NONE*1	01/01/95	50	55	110.0	76-127
Benzene	UG/L			SP*NONE*2	12/30/94	50	56	112.0	76-127
Toluene	UG/L	34010*8240-P		SP*NONE*1	01/01/95	50	57	114.0	76-125
Toluene	UG/L			SP*NONE*2	12/30/94	50	55	110.0	76-125
Chlorobenzene	UG/L	34301*8240-P		SP*NONE*1	01/01/95	50	65	130.0	75-130
Chlorobenzene	UG/L			SP*NONE*2	12/30/94	50	59	118.0	75-130

EARTH TECH 19916

Sample Matrix Spike (SPM) Recovery Summary

NAME	UNITS	STOR*METH	BATCH	SAMPLE	DATE	TARGET	FOUND	%RECV	RECV CRIT	UNSPIKED	R.P.D.	R.P.D. CRIT.
1,1-Dichloroethene	UG/L	34501*8240-P	P25808	SPM1*19916*3	12/30/94	50	31	62.0	61-145	0.0		14
1,1-Dichloroethene	UG/L			SPM2*19916*3		50	31	62.0	61-145	0.0	0.0	14
Trichloroethene	UG/L	39180*8240-P		SPM1*19916*3		50	56	112.0	71-120	0.0		14
Trichloroethene	UG/L			SPM2*19916*3		50	58	116.0	71-120	0.0	3.5	14
Benzene	UG/L	34030*8240-P		SPM1*19916*3		50	53	106.0	76-127	0.0		11
Benzene	UG/L			SPM2*19916*3		50	55	110.0	76-127	0.0	3.7	11
Toluene	UG/L	34010*8240-P		SPM1*19916*3		50	52	104.0	76-125	0.0		13
Toluene	UG/L			SPM2*19916*3		50	55	110.0	76-125	0.0	5.6	13
Chlorobenzene	UG/L	34301*8240-P		SPM1*19916*3		50	54	108.0	75-130	0.0		13
Chlorobenzene	UG/L			SPM2*19916*3		50	57	114.0	75-130	0.0	5.4	13

EARTH TECH 19916

Surrogate (SUR) Spike Recovery Summary

NAME	UNITS	STOR*METH	BATCH	SAMPLE	DATE	TARGET	FOUND	%RECV	RECV CRIT
TOLUENE-D(8)	UG/L	98810*SUR	P25808	MB*NONE*1	01/01/95	50	55	110.0	88-110
TOLUENE-D(8)	UG/L			SP*NONE*1		50	51	102.0	88-110
TOLUENE-D(8)	UG/L			DA*19916*1	12/30/94	50	54	108.0	88-110
TOLUENE-D(8)	UG/L			DA*19916*3		50	55	110.0	88-110
TOLUENE-D(8)	UG/L			SPM1*19916*3		50	49	98.0	88-110
TOLUENE-D(8)	UG/L			SPM2*19916*3		50	49	98.0	88-110
TOLUENE-D(8)	UG/L			DA*19916*5		50	45	90.0	88-110
TOLUENE-D(8)	UG/L			DA*19916*2	01/01/95	50	51	102.0	88-110
TOLUENE-D(8)	UG/L			DA*19916*4		50	49	98.0	88-110
TOLUENE-D(8)	UG/L			MB*NONE*2	12/30/94	50	49	98.0	88-110
TOLUENE-D(8)	UG/L			SP*NONE*2		50	47	94.0	88-110
BROMOFLUOROBENZENE	UG/L	98402*SUR		MB*NONE*1	01/01/95	50	53	106.0	86-115
BROMOFLUOROBENZENE	UG/L			SP*NONE*1		50	50	100.0	86-115
BROMOFLUOROBENZENE	UG/L			DA*19916*1	12/30/94	50	55	110.0	86-115
BROMOFLUOROBENZENE	UG/L			DA*19916*3		50	54	108.0	86-115
BROMOFLUOROBENZENE	UG/L			SPM1*19916*3		50	48	96.0	86-115
BROMOFLUOROBENZENE	UG/L			SPM2*19916*3		50	47	94.0	86-115
BROMOFLUOROBENZENE	UG/L			DA*19916*5		50	46	92.0	86-115
BROMOFLUOROBENZENE	UG/L			DA*19916*2	01/01/95	50	50	100.0	86-115
BROMOFLUOROBENZENE	UG/L			DA*19916*4		50	48	96.0	86-115
BROMOFLUOROBENZENE	UG/L			MB*NONE*2	12/30/94	50	52	104.0	86-115
BROMOFLUOROBENZENE	UG/L			SP*NONE*2		50	50	100.0	86-115
1,2-DICHLOROETHANE-D4	UG/L	98812*SUR		MB*NONE*1	01/01/95	50	45	90.0	76-114
1,2-DICHLOROETHANE-D4	UG/L			SP*NONE*1		50	48	96.0	76-114
1,2-DICHLOROETHANE-D4	UG/L			DA*19916*1	12/30/94	50	61	*122.0	76-114
1,2-DICHLOROETHANE-D4	UG/L			DA*19916*3		50	64	*128.0	76-114
1,2-DICHLOROETHANE-D4	UG/L			SPM1*19916*3		50	62	*124.0	76-114
1,2-DICHLOROETHANE-D4	UG/L			SPM2*19916*3		50	62	*124.0	76-114
1,2-DICHLOROETHANE-D4	UG/L			DA*19916*5		50	51	102.0	76-114
1,2-DICHLOROETHANE-D4	UG/L			DA*19916*2	01/01/95	50	47	94.0	76-114
1,2-DICHLOROETHANE-D4	UG/L			DA*19916*4		50	49	98.0	76-114
1,2-DICHLOROETHANE-D4	UG/L			MB*NONE*2	12/30/94	50	53	106.0	76-114
1,2-DICHLOROETHANE-D4	UG/L			SP*NONE*2		50	55	110.0	76-114

*COMMENTS: POSSIBLE MATRIX INTERFERENCE; METHOD IN CONTROL, SEE SP DATA.

The Earth Technology Corporation

Chain of Custody Record

Lab job no.: 194-5058

Date

Page of

Laboratory ES+E

Address 8901 N. Industrial Rd
Peoria, IL 61615

Client Earth Tech

Address 12129 W. Feerick St.
Milwaukee, WI 53222

Project Name

Project Number 94-4167-01

Method of Shipment UPS

Shipment No.

Airbill No.

Cooler No.

Project Manager D. Stillings

Telephone No. 414-466-9266

Fax. No. 414-466-9446

Samplers: (Signature) D. Stillings

Field Sample Number	Location/ Depth	Date	Time	Sample Type	Type/Size of Container	Preservation Temp.	Preservation Chemical	Filtered V	No. of Containers	Analysis Required 8240										Remarks
MW-116		12/20/94	1530	H_2O	40 ml glass		HCl		2	X										19916-1
MW-118		↓	↓	↓	↓		↓		2	X										-2
MW-119		↓	↓	↓	↓		↓		2	X										-3
MW-120		↓	↓	↓	↓		↓		2	X										-4
MW-121		↓	↓	↓	↓		↓		2	X										-5

Relinquished by:	Date	Received by:	Date	Relinquished by:	Date	Received by:	Date
Signature D. Stillings	12/20/94	Signature SReining	12-21-94	Signature		Signature	
Printed D. Stillings	Time	Printed SReining	Time	Printed		Printed	
Company Earth Tech	1700	Company ESE Peoria	1100	Company		Company	
Reason Shipped via UPS				Reason			

Comments:

Relinquished by:	Date	Received by:	Date
Signature		Signature	
Printed		Printed	
Company		Company	
Reason			

DISTRIBUTION: White to Laboratory, Canary to Earth Technology Project File, Pink to Courier, Golden to Field File

F-1000
10/25/92

1°C

ATTACHMENT G

Analytical Reports for the March 1995 Groundwater Sampling Event

ANALYTICAL REPORT

EARTH TECH - Wauwatosa
Proj: VOC 8240 Analysis
Miller Brewing Container
Subm: March 31, 1995 Samples

Submittal Number: 32717- 1
Location:
Contact: Anthony J. Obermeyer
Phone: (616) 942-9600

	MMC-MW113-01	MMC-MW114-01	MMC-MW114D-01	Reporting Limit	Units
Lab Sample No:	114036	114037	114038		
Project Specific Fraction USEPA 8240	Enclosed	Enclosed	Enclosed		
Sampled by:	G.R.	G.R.	G.R.		
Date Sampled:	03/31/95	03/31/95	03/31/95		
Time Sampled:	10:30	09:45	09:45		
Date Received:	04/04/95	04/04/95	04/04/95		
Time Received:	10:30	10:30	10:30		

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ANALYTICAL REPORT

EARTH TECH - Wauwatosa
Proj: VOC 8240 Analysis
Miller Brewing Container
Subm: March 31, 1995 Samples

Submittal Number: 32717- 1
Location:
Contact: Anthony J. Obermeyer
Phone: (616) 942-9600

	MMC-MW115-01	MMC-MW116-01	MMC-MW117-01	Reporting Units Limit
Lab Sample No:	114039	114040	114041	
Project Specific Fraction USEPA 8240	Enclosed	Enclosed	Enclosed	
Sampled by:	G.R.	G.R.	G.R.	
Date Sampled:	03/31/95	03/31/95	03/31/95	
Time Sampled:	09:00	10:15	09:45	
Date Received:	04/04/95	04/04/95	04/04/95	
Time Received:	10:30	10:30	10:30	

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ANALYTICAL REPORT

EARTH TECH - Wauwatosa
Proj: VOC 8240 Analysis
Miller Brewing Container
Subm: March 31, 1995 Samples

Submittal Number: 32717- 1
Location:
Contact: Anthony J. Obermeyer
Phone: (616) 942-9600

	MMC-MW118-01	MMC-MW119-01	MMC-MW120-01	Reporting Units Limit
Lab Sample No:	114042	114043	114044	
Project Specific Fraction USEPA 8240	Enclosed	Enclosed	Enclosed	
Sampled by:	G.R.	G.R.	G.R.	
Date Sampled:	03/31/95	03/31/95	03/31/95	
Time Sampled:	10:00	09:20	08:45	
Date Received:	04/04/95	04/04/95	04/04/95	
Time Received:	10:30	10:30	10:30	

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ANALYTICAL REPORT

EARTH TECH - Wauwatosa
Proj: VOC 8240 Analysis
Miller Brewing Container
Subm: March 31, 1995 Samples

Submittal Number: 32717- 1
Location:
Contact: Anthony J. Obermeyer
Phone: (616) 942-9600

	MMC-MW121-01	MMC-FB-01	Trip Blank	Reporting Units Limit
Lab Sample No:	114045	114046	114047	
Project Specific Fraction USEPA 8240	Enclosed	Enclosed	Enclosed	
Sampled by:	G.R.	G.R.	G.R.	
Date Sampled:	03/31/95	03/31/95	04/04/95	
Time Sampled:	08:55	08:30	10:30	
Date Received:	04/04/95	04/04/95	04/04/95	
Time Received:	10:30	10:30	10:30	

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PROJECT SPECIFIC FRACTION
USEPA 8240

EARTH TECH - Wauwatosa
Proj: VOC 8240 Analysis
Miller Brewing Container
Subm: March 31, 1995 Samples
Sample: MMC-MW113-01

Submittal Number 32717- 1
Date Sampled: 03/31/95 Time: 10:30
Date Received: 04/04/95 Time: 10:30
Analysis Date: 04/10/95
Lab Sample No: 114036

Parameter	Result ug/l	Parameter	Result ug/l
1,1-Dichloroethylene	**3.0**	Chloroethane	<1.0
1,1-Dichloroethane	**26**	Chloroform	<1.0
1,1,1-Trichloroethane	<1.0	Chloromethane	<1.0
1,2-Dichloroethane	<1.0	cis-1,3-Dichloropropylene	<1.0
1,2-Dichloropropane	<1.0	Dibromochloromethane	<1.0
1,1,2,2-Tetrachloroethane	<1.0	Ethylbenzene	<1.0
1,1,2-Trichloroethane	<1.0	2-Butanone (MEK)	<50
2-Chloroethyl Vinyl Ether	<10	Methylene Chloride	<1.0
2-Hexanone	<50	Styrene	<1.0
4-Methyl-2-Pentanone	<50	Tetrachloroethylene	**8.4**
Acetone	<50	Toluene	<1.0
Benzene	<1.0	trans-1,3-Dichloropropene	<1.0
Bromomethane	<1.0	Trichloroethylene	**72**
Bromodichloromethane	<1.0	Vinyl Acetate	<10
Bromoform	<1.0	Vinyl Chloride	<1.0
Carbon Disulfide	<5.0	Xylene, Total	<3.0
Carbon Tetrachloride	<1.0	cis-1,2-Dichloroethylene	**22**
Chlorobenzene	<1.0	trans-1,2-Dichloroethene	<1.0

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PROJECT SPECIFIC FRACTION
USEPA 8240

EARTH TECH - Wauwatosa
Proj: VOC 8240 Analysis
Miller Brewing Container
Subm: March 31, 1995 Samples
Sample: MMC-MW114-01

Submittal Number 32717- 1
Date Sampled: 03/31/95 Time: 09:45
Date Received: 04/04/95 Time: 10:30
Analysis Date: 04/11/95
Lab Sample No: 114037

Parameter	Result ug/l	Parameter	Result ug/l
1,1-Dichloroethylene	**310**	Chloroethane	**930**
1,1-Dichloroethane	**400**	Chloroform	<100
1,1,1-Trichloroethane	<100	Chloromethane	<100
1,2-Dichloroethane	<100	cis-1,3-Dichloropropylene	<100
1,2-Dichloropropane	<100	Dibromochloromethane	<100
1,1,2,2-Tetrachloroethane	<100	Ethylbenzene	<100
1,1,2-Trichloroethane	<100	2-Butanone (MEK)	<5000
2-Chloroethyl Vinyl Ether	<1000	Methylene Chloride	<100
2-Hexanone	<5000	Styrene	<100
4-Methyl-2-Pentanone	<5000	Tetrachloroethylene	<100
Acetone	<5000	Toluene	<100
Benzene	<100	trans-1,3-Dichloropropene	<100
Bromomethane	<100	Trichloroethylene	**400**
Bromodichloromethane	<100	Vinyl Acetate	<1000
Bromoform	<100	Vinyl Chloride	<100
Carbon Disulfide	<500	Xylene, Total	<300
Carbon Tetrachloride	<100	cis-1,2-Dichloroethylene	**11000**
Chlorobenzene	<100	trans-1,2-Dichloroethene	<100

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PROJECT SPECIFIC FRACTION
USEPA 8240

EARTH TECH - Wauwatosa
Proj: VOC 8240 Analysis
Miller Brewing Container
Subm: March 31, 1995 Samples
Sample: MMC-MW114D
-01

Submittal Number 32717- 1
Date Sampled: 03/31/95 Time: 09:45
Date Received: 04/04/95 Time: 10:30
Analysis Date: 04/11/95
Lab Sample No: 114038

Parameter	Result ug/l	Parameter	Result ug/l
1,1-Dichloroethylene	**330**	Chloroethane	**1200**
1,1-Dichloroethane	**450**	Chloroform	<100
1,1,1-Trichloroethane	<100	Chloromethane	<100
1,2-Dichloroethane	<100	cis-1,3-Dichloropropylene	<100
1,2-Dichloropropane	<100	Dibromochloromethane	<100
1,1,2,2-Tetrachloroethane	<100	Ethylbenzene	<100
1,1,2-Trichloroethane	<100	2-Butanone (MEK)	<5000
2-Chloroethyl Vinyl Ether	<1000	Methylene Chloride	<100
2-Hexanone	<5000	Styrene	<100
4-Methyl-2-Pentanone	<5000	Tetrachloroethylene	<100
Acetone	<5000	Toluene	<100
Benzene	<100	trans-1,3-Dichloropropene	<100
Bromomethane	<100	Trichloroethylene	**440**
Bromodichloromethane	<100	Vinyl Acetate	<1000
Bromoform	<100	Vinyl Chloride	<100
Carbon Disulfide	<500	Xylene, Total	<300
Carbon Tetrachloride	<100	cis-1,2-Dichloroethylene	**12000**
Chlorobenzene	<100	trans-1,2-Dichloroethene	<100

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PROJECT SPECIFIC FRACTION
USEPA 8240

EARTH TECH - Wauwatosa
Proj: VOC 8240 Analysis
Miller Brewing Container
Subm: March 31, 1995 Samples
Sample: MMC-MW115-01

Submittal Number 32717- 1
Date Sampled: 03/31/95 Time: 09:00
Date Received: 04/04/95 Time: 10:30
Analysis Date: 04/11/95
Lab Sample No: 114039

Parameter	Result ug/l	Parameter	Result ug/l
1,1-Dichloroethylene	<1.0	Chloroethane	<1.0
1,1-Dichloroethane	**25**	Chloroform	<1.0
1,1,1-Trichloroethane	<1.0	Chloromethane	<1.0
1,2-Dichloroethane	<1.0	cis-1,3-Dichloropropylene	<1.0
1,2-Dichloropropane	<1.0	Dibromochloromethane	<1.0
1,1,2,2-Tetrachloroethane	<1.0	Ethylbenzene	<1.0
1,1,2-Trichloroethane	<1.0	2-Butanone (MEK)	<50
2-Chloroethyl Vinyl Ether	<10	Methylene Chloride	<1.0
2-Hexanone	<50	Styrene	<1.0
4-Methyl-2-Pentanone	<50	Tetrachloroethylene	<1.0
Acetone	<50	Toluene	<1.0
Benzene	<1.0	trans-1,3-Dichloropropene	<1.0
Bromomethane	<1.0	Trichloroethylene	**120**
Bromodichloromethane	<1.0	Vinyl Acetate	<10
Bromoform	<1.0	Vinyl Chloride	<1.0
Carbon Disulfide	<5.0	Xylene, Total	<3.0
Carbon Tetrachloride	<1.0	cis-1,2-Dichloroethylene	**120**
Chlorobenzene	<1.0	trans-1,2-Dichloroethene	<1.0

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PROJECT SPECIFIC FRACTION
USEPA 8240

EARTH TECH - Wauwatosa
Proj: VOC 8240 Analysis
Miller Brewing Container
Subm: March 31, 1995 Samples
Sample: MMC-MW116-01

Submittal Number 32717- 1
Date Sampled: 03/31/95 Time: 10:15
Date Received: 04/04/95 Time: 10:30
Analysis Date: 04/11/95
Lab Sample No: 114040

Parameter	Result ug/l	Parameter	Result ug/l
1,1-Dichloroethylene	**12**	Chloroethane	<5.0
1,1-Dichloroethane	**45**	Chloroform	<5.0
1,1,1-Trichloroethane	<5.0	Chloromethane	<5.0
1,2-Dichloroethane	<5.0	cis-1,3-Dichloropropylene	<5.0
1,2-Dichloropropane	<5.0	Dibromochloromethane	<5.0
1,1,2,2-Tetrachloroethane	<5.0	Ethylbenzene	<5.0
1,1,2-Trichloroethane	<5.0	2-Butanone (MEK)	<250
2-Chloroethyl Vinyl Ether	<50	Methylene Chloride	<5.0
2-Hexanone	<250	Styrene	<5.0
4-Methyl-2-Pentanone	<250	Tetrachloroethylene	**22**
Acetone	<250	Toluene	<5.0
Benzene	<5.0	trans-1,3-Dichloropropene	<5.0
Bromomethane	<5.0	Trichloroethylene	**420**
Bromodichloromethane	<5.0	Vinyl Acetate	<50
Bromoform	<5.0	Vinyl Chloride	<5.0
Carbon Disulfide	<25	Xylene, Total	<15
Carbon Tetrachloride	<5.0	cis-1,2-Dichloroethylene	**74**
Chlorobenzene	<5.0	trans-1,2-Dichloroethene	<5.0

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PROJECT SPECIFIC FRACTION
USEPA 8240

EARTH TECH - Wauwatosa
Proj: VOC 8240 Analysis
Miller Brewing Container
Subm: March 31, 1995 Samples
Sample: MMC-MW117-01

Submittal Number 32717- 1
Date Sampled: 03/31/95 Time: 09:45
Date Received: 04/04/95 Time: 10:30
Analysis Date: 04/11/95
Lab Sample No: 114041

Parameter	Result ug/l	Parameter	Result ug/l
1,1-Dichloroethylene	**5.0**	Chloroethane	<2.0
1,1-Dichloroethane	**25**	Chloroform	<2.0
1,1,1-Trichloroethane	<2.0	Chloromethane	<2.0
1,2-Dichloroethane	<2.0	cis-1,3-Dichloropropylene	<2.0
1,2-Dichloropropane	<2.0	Dibromochloromethane	<2.0
1,1,2,2-Tetrachloroethane	<2.0	Ethylbenzene	<2.0
1,1,2-Trichloroethane	<2.0	2-Butanone (MEK)	<100
2-Chloroethyl Vinyl Ether	<20	Methylene Chloride	<2.0
2-Hexanone	<100	Styrene	<2.0
4-Methyl-2-Pentanone	<100	Tetrachloroethylene	**7.5**
Acetone	<100	Toluene	<2.0
Benzene	<2.0	trans-1,3-Dichloropropene	<2.0
Bromomethane	<2.0	Trichloroethylene	**210**
Bromodichloromethane	<2.0	Vinyl Acetate	<20
Bromoform	<2.0	Vinyl Chloride	<2.0
Carbon Disulfide	<10	Xylene, Total	<6.0
Carbon Tetrachloride	<2.0	cis-1,2-Dichloroethylene	**37**
Chlorobenzene	<2.0	trans-1,2-Dichloroethene	<2.0

5555 Glenwood Hills Parkway SE, PO Box 874, Grand Rapids, MI 49588-0874, 616/942-9600 Fax 942-6499

PROJECT SPECIFIC FRACTION
USEPA 8240

EARTH TECH - Wauwatosa
Proj: VOC 8240 Analysis
Miller Brewing Container
Subm: March 31, 1995 Samples
Sample: MMC-MW118-01

Submittal Number 32717- 1
Date Sampled: 03/31/95 Time: 10:00
Date Received: 04/04/95 Time: 10:30
Analysis Date: 04/10/95
Lab Sample No: 114042

Parameter	Result ug/l	Parameter	Result ug/l
1,1-Dichloroethylene	**4.6**	Chloroethane	<1.0
1,1-Dichloroethane	**21**	Chloroform	<1.0
1,1,1-Trichloroethane	<1.0	Chloromethane	<1.0
1,2-Dichloroethane	<1.0	cis-1,3-Dichloropropylene	<1.0
1,2-Dichloropropane	<1.0	Dibromochloromethane	<1.0
1,1,2,2-Tetrachloroethane	<1.0	Ethylbenzene	<1.0
1,1,2-Trichloroethane	<1.0	2-Butanone (MEK)	<50
2-Chloroethyl Vinyl Ether	<10	Methylene Chloride	<1.0
2-Hexanone	<50	Styrene	<1.0
4-Methyl-2-Pentanone	<50	Tetrachloroethylene	**8.5**
Acetone	<50	Toluene	<1.0
Benzene	<1.0	trans-1,3-Dichloropropene	<1.0
Bromomethane	<1.0	Trichloroethylene	**110**
Bromodichloromethane	<1.0	Vinyl Acetate	<10
Bromoform	<1.0	Vinyl Chloride	<1.0
Carbon Disulfide	<5.0	Xylene, Total	<3.0
Carbon Tetrachloride	<1.0	cis-1,2-Dichloroethylene	**23**
Chlorobenzene	<1.0	trans-1,2-Dichloroethene	<1.0

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PROJECT SPECIFIC FRACTION
USEPA 8240

EARTH TECH - Wauwatosa
Proj: VOC 8240 Analysis
Miller Brewing Container
Subm: March 31, 1995 Samples
Sample: MMC-MW119-01

Submittal Number 32717- 1
Date Sampled: 03/31/95 Time: 09:20
Date Received: 04/04/95 Time: 10:30
Analysis Date: 04/11/95
Lab Sample No: 114043

Parameter	Result ug/l	Parameter	Result ug/l
1,1-Dichloroethylene	<1.0	Chloroethane	<1.0
1,1-Dichloroethane	<1.0	Chloroform	<1.0
1,1,1-Trichloroethane	<1.0	Chloromethane	<1.0
1,2-Dichloroethane	<1.0	cis-1,3-Dichloropropylene	<1.0
1,2-Dichloropropane	<1.0	Dibromochloromethane	<1.0
1,1,2,2-Tetrachloroethane	<1.0	Ethylbenzene	<1.0
1,1,2-Trichloroethane	<1.0	2-Butanone (MEK)	<50
2-Chloroethyl Vinyl Ether	<10	Methylene Chloride	<1.0
2-Hexanone	<50	Styrene	<1.0
4-Methyl-2-Pentanone	<50	Tetrachloroethylene	<1.0
Acetone	<50	Toluene	<1.0
Benzene	<1.0	trans-1,3-Dichloropropene	<1.0
Bromomethane	<1.0	Trichloroethylene	**3.4**
Bromodichloromethane	<1.0	Vinyl Acetate	<10
Bromoform	<1.0	Vinyl Chloride	<1.0
Carbon Disulfide	<5.0	Xylene, Total	<3.0
Carbon Tetrachloride	<1.0	cis-1,2-Dichloroethylene	**1.6**
Chlorobenzene	<1.0	trans-1,2-Dichloroethene	<1.0

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PROJECT SPECIFIC FRACTION
USEPA 8240

EARTH TECH - Wauwatosa
Proj: VOC 8240 Analysis
Miller Brewing Container
Subm: March 31, 1995 Samples
Sample: MMC-MW120-01

Submittal Number 32717- 1
Date Sampled: 03/31/95 Time: 08:45
Date Received: 04/04/95 Time: 10:30
Analysis Date: 04/10/95
Lab Sample No: 114044

Parameter	Result ug/l	Parameter	Result ug/l
1,1-Dichloroethylene	<1.0	Chloroethane	<1.0
1,1-Dichloroethane	<1.0	Chloroform	<1.0
1,1,1-Trichloroethane	**1.8**	Chloromethane	<1.0
1,2-Dichloroethane	<1.0	cis-1,3-Dichloropropylene	<1.0
1,2-Dichloropropane	<1.0	Dibromochloromethane	<1.0
1,1,2,2-Tetrachloroethane	<1.0	Ethylbenzene	<1.0
1,1,2-Trichloroethane	<1.0	2-Butanone (MEK)	<50
2-Chloroethyl Vinyl Ether	<10	Methylene Chloride	<1.0
2-Hexanone	<50	Styrene	<1.0
4-Methyl-2-Pentanone	<50	Tetrachloroethylene	<1.0
Acetone	<50	Toluene	<1.0
Benzene	<1.0	trans-1,3-Dichloropropene	<1.0
Bromomethane	<1.0	Trichloroethylene	**1.7**
Bromodichloromethane	<1.0	Vinyl Acetate	<10
Bromoform	<1.0	Vinyl Chloride	<1.0
Carbon Disulfide	<5.0	Xylene, Total	<3.0
Carbon Tetrachloride	<1.0	cis-1,2-Dichloroethylene	**4.8**
Chlorobenzene	<1.0	trans-1,2-Dichloroethene	<1.0

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PROJECT SPECIFIC FRACTION
USEPA 8240

EARTH TECH - Wauwatosa
Proj: VOC 8240 Analysis
Miller Brewing Container
Subm: March 31, 1995 Samples
Sample: MMC-MW121-01

Submittal Number 32717- 1
Date Sampled: 03/31/95 Time: 08:55
Date Received: 04/04/95 Time: 10:30
Analysis Date: 04/10/95
Lab Sample No: 114045

Parameter	Result ug/l	Parameter	Result ug/l
1,1-Dichloroethylene	<1.0	Chloroethane	<1.0
1,1-Dichloroethane	<1.0	Chloroform	<1.0
1,1,1-Trichloroethane	<1.0	Chloromethane	<1.0
1,2-Dichloroethane	<1.0	cis-1,3-Dichloropropylene	<1.0
1,2-Dichloropropane	<1.0	Dibromochloromethane	<1.0
1,1,2,2-Tetrachloroethane	<1.0	Ethylbenzene	<1.0
1,1,2-Trichloroethane	<1.0	2-Butanone (MEK)	<50
2-Chloroethyl Vinyl Ether	<10	Methylene Chloride	<1.0
2-Hexanone	<50	Styrene	<1.0
4-Methyl-2-Pentanone	<50	Tetrachloroethylene	<1.0
Acetone	<50	Toluene	<1.0
Benzene	<1.0	trans-1,3-Dichloropropene	<1.0
Bromomethane	<1.0	Trichloroethylene	<1.0
Bromodichloromethane	<1.0	Vinyl Acetate	<10
Bromoform	<1.0	Vinyl Chloride	<1.0
Carbon Disulfide	<5.0	Xylene, Total	<3.0
Carbon Tetrachloride	<1.0	cis-1,2-Dichloroethylene	<1.0
Chlorobenzene	<1.0	trans-1,2-Dichloroethene	<1.0

5555 Glenwood Hills Parkway SE, PO Box 874, Grand Rapids, MI 49588-0874, 616/942-9600 Fax 942-6499

PROJECT SPECIFIC FRACTION
USEPA 8240

EARTH TECH - Wauwatosa
Proj: VOC 8240 Analysis
Miller Brewing Container
Subm: March 31, 1995 Samples
Sample: MMC-FB-01

Submittal Number 32717- 1
Date Sampled: 03/31/95 Time: 08:30
Date Received: 04/04/95 Time: 10:30
Analysis Date: 04/10/95
Lab Sample No: 114046

Parameter	Result ug/l	Parameter	Result ug/l
1,1-Dichloroethylene	<1.0	Chloroethane	<1.0
1,1-Dichloroethane	<1.0	Chloroform	<1.0
1,1,1-Trichloroethane	<1.0	Chloromethane	<1.0
1,2-Dichloroethane	<1.0	cis-1,3-Dichloropropylene	<1.0
1,2-Dichloropropane	<1.0	Dibromochloromethane	<1.0
1,1,2,2-Tetrachloroethane	<1.0	Ethylbenzene	<1.0
1,1,2-Trichloroethane	<1.0	2-Butanone (MEK)	<50
2-Chloroethyl Vinyl Ether	<10	Methylene Chloride	<1.0
2-Hexanone	<50	Styrene	<1.0
4-Methyl-2-Pentanone	<50	Tetrachloroethylene	<1.0
Acetone	<50	Toluene	<1.0
Benzene	<1.0	trans-1,3-Dichloropropene	<1.0
Bromomethane	<1.0	Trichloroethylene	<1.0
Bromodichloromethane	<1.0	Vinyl Acetate	<10
Bromoform	<1.0	Vinyl Chloride	<1.0
Carbon Disulfide	<5.0	Xylene, Total	<3.0
Carbon Tetrachloride	<1.0	cis-1,2-Dichloroethylene	<1.0
Chlorobenzene	<1.0	trans-1,2-Dichloroethene	<1.0

5555 Glenwood Hills Parkway SE, PO Box 874, Grand Rapids, MI 49588-0874, 616/942-9600 Fax 942-6499

PROJECT SPECIFIC FRACTION
USEPA 8240

EARTH TECH - Wauwatosa
Proj: VOC 8240 Analysis
Miller Brewing Container
Subm: March 31, 1995 Samples
Sample: Trip Blank

Submittal Number 32717- 1
Date Sampled: 04/04/95 Time: 10:30
Date Received: 04/04/95 Time: 10:30
Analysis Date: 04/10/95
Lab Sample No: 114047

Parameter	Result ug/l	Parameter	Result ug/l
1,1-Dichloroethylene	<1.0	Chloroethane	<1.0
1,1-Dichloroethane	<1.0	Chloroform	<1.0
1,1,1-Trichloroethane	<1.0	Chloromethane	<1.0
1,2-Dichloroethane	<1.0	cis-1,3-Dichloropropylene	<1.0
1,2-Dichloropropane	<1.0	Dibromochloromethane	<1.0
1,1,2,2-Tetrachloroethane	<1.0	Ethylbenzene	<1.0
1,1,2-Trichloroethane	<1.0	2-Butanone (MEK)	<50
2-Chloroethyl Vinyl Ether	<10	Methylene Chloride	<1.0
2-Hexanone	<50	Styrene	<1.0
4-Methyl-2-Pentanone	<50	Tetrachloroethylene	<1.0
Acetone	<50	Toluene	<1.0
Benzene	<1.0	trans-1,3-Dichloropropene	<1.0
Bromomethane	<1.0	Trichloroethylene	<1.0
Bromodichloromethane	<1.0	Vinyl Acetate	<10
Bromoform	<1.0	Vinyl Chloride	<1.0
Carbon Disulfide	<5.0	Xylene, Total	<3.0
Carbon Tetrachloride	<1.0	cis-1,2-Dichloroethylene	<1.0
Chlorobenzene	<1.0	trans-1,2-Dichloroethene	<1.0

5555 Glenwood Hills Parkway SE, PO Box 874, Grand Rapids, MI 49588-0874, 616/942-9600 Fax 942-6499

METHODS PAGE

Parameter: Project Specific Fraction USEPA 8240
Method: Volatiles Purge & Trap-GC/MS
Application: WTR Reference Citation: USEPA-8240
Analyst: Phuong K. Tran (PKT) Date Analyzed: 04/10/95

Sample Number	Sample Description	Analytical Batch	QC Batch
114036	MMC-MW113- 01	82795	6971
114042	MMC-MW118- 01	82795	6971
114044	MMC-MW120- 01	82795	6971
114045	MMC-MW121- 01	82795	6971
114046	MMC-FB-01	82795	6971
114047	Trip Blank	82795	6971

Parameter: Project Specific Fraction USEPA 8240
Method: Volatiles Purge & Trap-GC/MS
Application: WTR Reference Citation: USEPA-8240
Analyst: Phuong K. Tran (PKT) Date Analyzed: 04/11/95

Sample Number	Sample Description	Analytical Batch	QC Batch
114037	MMC-MW114- 01	82876	6971
114038	MMC-MW114D -01	82876	6971
114039	MMC-MW115- 01	82876	6971
114040	MMC-MW116- 01	82876	6971
114041	MMC-MW117- 01	82876	6971
114043	MMC-MW119- 01	82876	6971

Page 1 - **End of Methods Page**

32717- 1

STATEMENT OF DATA QUALIFICATIONS

All analyses have been validated and comply with our Quality Control Program. No qualifications required.

Page 1 - **End of Statement of Data Qualifications**

Note: This document is included as a part of the analytical report for the above referenced project and submittal, and should be retained as a permanent record thereof.

The Earth Technology Corporation

Chain of Custody Record

407-R-12

Lab job no.: _____
Date 3-31-95
Page 1 of 1

Laboratory Earth Tech
Address 5555 Glenwood Hills
Grand Rapids Mi 49588

Client Earth Tech
Address 12129 W Feerick
Wauwatosa Wi 53222
Project Name Miller-Moultrie Cont
Project Number 94-4167-02

Method of Shipment UPS
Shipment No. _____
Airbill No. _____
Cooler No. _____
Project Manager Rob Cannestra
Telephone No. 414 466-9266
Fax. No. 414-466-9446
Samplers: (Signature) Gregory S. Vogel

Field Sample Number	Location/ Depth	Date	Time	Sample Type	Type/Size of Container	Preservation Temp.	Preservation Chemical	Filtered Y/N	No. of Containers	VOC 8240	Remarks
MMC-MW113-01		3/31	10:30	GW	40ml vial	4°C	HCL		2	X	114036
MMC-MW114-01			9:45							X	114037
MMC-MW114D-01			9:45							X	114038
MMC-MW115-01			9:00							X	114039
MMC-MW116-01			10:15							X	114040
MMC-MW117-01			9:45							X	114041
MMC-MW118-01			10:00							X	114042
MMC-MW119-01			9:20							X	114043
MMC-MW120-01			8:45							X	114044
MMC-MW121-01			8:55							X	114045
MMC-FB-01			8:30							X	114046
Trip Blank		—	—	—						X	114047

Analysis Required

32717-1

Relinquished by:	Date	Received by:	Date	Relinquished by:	Date	Received by:	Date
Signature Gregory S. Vogel	4/3	Signature		Signature		Signature	4/4/95
Printed Gregory S. Vogel	Time 1700	Printed	Time	Printed	Time	Printed K. Krieger	Time 1030
Company Earth Tech		Company		Company		Company EARTH TECH	
Reason Lab				Reason			

Comments: _____

Relinquished by:	Date	Received by:	Date
Signature		Signature Sheedy	4/4/95
Printed	Time	Printed Sheedy	Time 1340
Company		Company EARTH TECH	
Reason			

DISTRIBUTION: White to Laboratory, Canary to Earth Technology Project File, Pink to Courier, Golden to Field File

F-1000
10/25/92

APPENDIX

EARTH TECH's March 1994 Site Investigation Report

SEE APPENDIX H SECTION 4

Phase II Subsurface Investigation
prepared by: McLaren/Hart, Inc.
May 21, 2004

PHASE II SUBSURFACE INVESTIGATION

REYNOLDS METALS COMPANY
MOULTRIE CAN PLANT
MOULTRIE, GEORGIA 31768

Prepared for:

Ball Corporation
P.O. Box 2407
Muncie, Indiana 47307-0407

Prepared by:

McLaren/Hart, Inc.
28 Madison Avenue Extension
Albany, New York 12203

May 21, 1998

May 21, 1998

Mr. Kent Bickell
Ball Corporation
P.O. Box 2407
Muncie, Indiana 47307-0407

Re: ***Phase II Subsurface Investigation***
Reynolds Metals Company
Moultrie Can Plant
Moultrie, Georgia 31768
McLaren/Hart Project Nº 14-0805740-001-008

Dear Kent:

On May 4, 1998, McLaren/Hart, Inc. (McLaren/Hart) completed a Limited Sampling Program at the Reynolds Metals Company's Moultrie Can Plant located on Highway 319 South in Moultrie, Georgia, herein after referred to as the Property (see Figures 1 and 2 for a site location map and site map, respectively). The purpose of the Limited Sampling Program was to evaluate potential soil and/or surface water/sediment contamination related to environmental issues discussed in McLaren/Hart's *Phase II Subsurface Investigation Activities Proposal* (McLaren/Hart Proposal Nº AB98-0028, dated February 27, 1998). The Limited Sampling Program was implemented as specified in the aforementioned Proposal with the exception of some sample location modifications that were requested by Ball Corporation during this site visit.

BACKGROUND

McLaren/Hart was contracted by Ball Corporation on December 28, 1997 to perform a Phase I Environmental Site Assessment (Phase I) of the Property in anticipation of Ball Corporation's impending acquisition of the Reynolds Beverage Can Division. Based on the information obtained through the site visit observations, interviews with knowledgeable site representatives and historical research, McLaren/Hart and Ball Corporation identified the following potential environmental concerns associated with the Property:

1. Potential contamination in the building's sub-floor soils associated with various conveyance systems (*e.g.*, floor trenches/pits) within the briquetter room, Draw & Iron (D&I) process area, Schneider filter room, and waste water treatment plant (WWTP);

2. Surface soil staining immediately south of the main building near an exhaust fan;

28 Madison Avenue Extension, Albany, NY 12203-5326 (518) 869-6192 FAX (518) 869-3971

recycled paper

3. Whether surface water/sediment within the facility's north stormwater outfall/intermittent stream draining the Property have been adversely affected by potential historical releases and existing oil staining and pooled oils associated with the roof of the main production building and the briquetter room.

FIELD ACTIVITIES

Subsurface Soil Sampling

During the subsurface investigation, a truck-mounted, hydraulically driven Geoprobe drilling/ sampling unit was used to collect soil samples from select areas of the Property. McLaren/Hart utilized the services of Zebra Environmental Corporation of Tampa, Florida to perform the Geoprobe subsurface sampling under the supervision of McLaren/Hart. Sampling locations were selected collectively by Ball Corporation and McLaren/Hart during this subsurface investigation.

A concrete drill bit attached to the Geoprobe unit was used to access the soils beneath the concrete floors. McLaren/Hart utilized the Geoprobe sampling unit to collect representative sub-floor soil samples and exterior subsurface soil samples for analysis. McLaren/Hart collected two to three soil samples from each boring location (shallow and deep). In cases where samples were being collected to evaluate the integrity of a sump, trench or other sub-grade structure, McLaren/Hart advanced the sampling device to the invert (i.e., lowest liquid level) of the structure. Subsequent to sample collection, each boring location was backfilled with soil and was patched with concrete (interior locations).

An attempt was made to evaluate the quality of subsurface soils beneath the concrete floor adjacent to trenches between the D&I units. However, the Geoprobe unit was unable to access the two proposed locations within the D&I area. An electrically driven concrete core drill was utilized to access the soils beneath the concrete slab floor in the D&I area. Upon removal of the concrete core, McLaren/Hart attempted to sample soil beneath the concrete flooring at the abandoned SB-02 location as shown on Figure 3. However, a gravel subbase (greater than 12 inches) was encountered beneath the concrete floor and McLaren/Hart was unable to hand auger through the gravel to collect a soil sample from this location.

All soil borings were screened in the field visually and/or with an organic vapor analyzer photoionization detector (PID) as a basis for selection of samples for laboratory analysis. In general, McLaren/Hart initially submitted shallow soil samples for laboratory analysis; deep samples were archived pending the receipt of analytical results for the shallow samples. However, due to the depth to the invert of the pit in which the Schneider filter equipment is situated (6-8 feet), two deeper soil samples from soil boring SB-03 were submitted for analysis and the shallow sample was archived.

Soil sample intervals collected for analysis and/or archived are summarized below. Interior soil samples were collected and analyzed from soil intervals directly beneath the concrete flooring and/or at the invert of the adjacent floor trench system or pit.

recycled paper

Soil Boring I.D.	Soil Interval Depth (ft. bgs)	Sample Location
SB-01	0-2* 5-7	Briquetter Room
SB-02	5-7* 8-10	Adjacent to Control Room
SB-03	1-3 6-8* 10-12*	Schneider filter Area
SB-04	0-2* 5-7	D&I Process Area
SB-05	0-2* 5-7	Wastewater Treatment Plant
SB-06	0-1* 3-4	Stained area observed immediately south of the Main Building
* Samples analyzed.		

During the subsurface soil sampling program, a total of seven soil samples plus six archived soil samples were collected from five interior building locations (SB-01 through SB-05) and one exterior location (SB-06) immediately south of the main building. Seven soil samples were analyzed for VOCs using EPA Method 8260, Oil & Grease using EPA Method 1664, and RCRA Metals using EPA Method 6010/7000.

Surface Water/Sediment Sampling

The surface water/sediment sampling program was designed to evaluate whether the surface water/sediment in the northern outfall draining the Property has been adversely affected by potential historical discharges and existing oil staining and pooled oils associated with the roof of the main production building and the briquetter room at the Property.

Surface water/sediment sampling was conducted along the drainage channel/intermittent stream which drains the surface water from the northern portion of the Property. Surface water/sediment samples (SW-01/SD-01 and SW-02/SD-02) were collected at the Property boundary's northern outfall and downstream, respectively, as shown on Figure 2.

Surface water samples were collected prior to sediment sampling. Surface water samples were collected directly into the sample containers by holding the side of the container parallel to the water surface with the opening positioned in an upstream direction.

recycled paper

Sediment samples were obtained from the upstream side of the sampling personnel by using latex gloves and the sample container. Sediment samples were collected from the side of the stream-bed at an approximate depth of 0 to 6 inches below ground surface (bgs).

During the surface water/sediment sampling program, a total of two surface water and two sediment samples were collected from two areas of the intermittent stream discharging the Property. Surface water sample SW-01 was analyzed for Oil & Grease using EPA Method 1664 and RCRA Metals using EPA Method 6010/7000. Sediment sample SD-01 was analyzed for VOCs using EPA Method 8260, Oil & Grease using EPA Method 1664, and RCRA Metals using EPA Method 6010/7000. McLaren/Hart initially submitted surface water/sediment samples SW-01/SD-01 for laboratory analysis; surface water/sediment samples SW-02/SD-02 were archived pending the receipt of analytical results for the upgradient samples.

Sample Handling Procedures

Samples for all of the abovementioned sampling events were collected in laboratory-supplied sample containers, wrapped and stored on ice in a field cooler for transport under chain-of-custody to California Laboratory Services (CLS) located in Rancho Cordova, California.

SAMPLING FINDINGS/ANALYTICAL RESULTS

As previously discussed, seven soil samples were collected from six soil boring locations on the Property. Seven soil samples were collected for laboratory analysis of VOCs using EPA Method 8260, Oil & Grease using EPA Method 1664, and RCRA Metals using EPA Method 6010/7000. The remaining soil and surface water/sediment samples were archived and not analyzed. Laboratory analytical results are summarized in Table 1. Laboratory-supplied analytical results are attached.

Subsurface soils in soil borings SB-01 through SB-03 consisted of a tan fine sand beneath the concrete/gravel subbase to a depth of approximately seven feet bgs and a moderately dense silty fine sand and clay from seven to twelve feet bgs at SB-03. Subsurface soils in soil borings SB-04 and SB-05 consisted of tan fine sand and a dense brown to reddish-brown silty sand beneath the concrete/gravel subbase to a depth of approximately seven feet bgs. Subsurface soils in soil boring SB-06 consisted of tan fine sand from the surface to a depth of four feet bgs. Groundwater was not encountered during this investigation.

In addition, two surface water/sediment samples were collected from two locations of the north outfall discharging the Property. Surface water sample SW-01 was analyzed for Oil & Grease using EPA Method 1664 and RCRA Metals using EPA Method 6010/7000. Sediment sample SD-01 was analyzed for VOCs using EPA Method 8260, Oil & Grease using EPA Method 1664, and RCRA Metals using EPA Method 6010/7000.

No visual or olfactory evidence of contamination was evident in the soil, surface water, or sediment samples collected at the Property. Soils beneath the stained surface soil observed at the SB-06 soil boring location, immediately south of the main building, did not reveal visual or olfactory evidence of contamination.

recycled paper

One to two detectable RCRA Metal concentrations (barium and/or chromium) were found in all the subsurface soil samples submitted for laboratory analysis. Table 1 summarizes the detectable analytical results for RCRA Metals detected in one or more of the samples. Detectable concentrations of barium and chromium in the soil samples were below the Georgia soil concentrations that trigger notification as shown on summary Table 1. VOCs and Oil & Grease concentrations were not detected in the subsurface soil samples collected for laboratory analysis. Finally, it should be noted that neither VOCs, Oil & Grease, nor RCRA Metal concentrations were detected in the surface water or sediment samples collected for laboratory analysis.

CONCLUSIONS

Overall, the results of the limited Phase II sampling program indicate that the subsurface soil conditions and surface water/sediment in the areas investigated on the Property have not been adversely impacted by on-site operations. Therefore, McLaren/Hart believes no further action is required at this time.

McLaren/Hart appreciates the opportunity to be of service to you on this project. If there are any questions regarding this letter report, please contact either of the undersigned at (518) 869-6192.

Sincerely,

McLAREN/HART INC.

Jon E. Klink
Senior Geoscientist

Frederick V. Loneker
Senior Associate Environmental Scientist

recycled paper

FIGURES

FIGURES

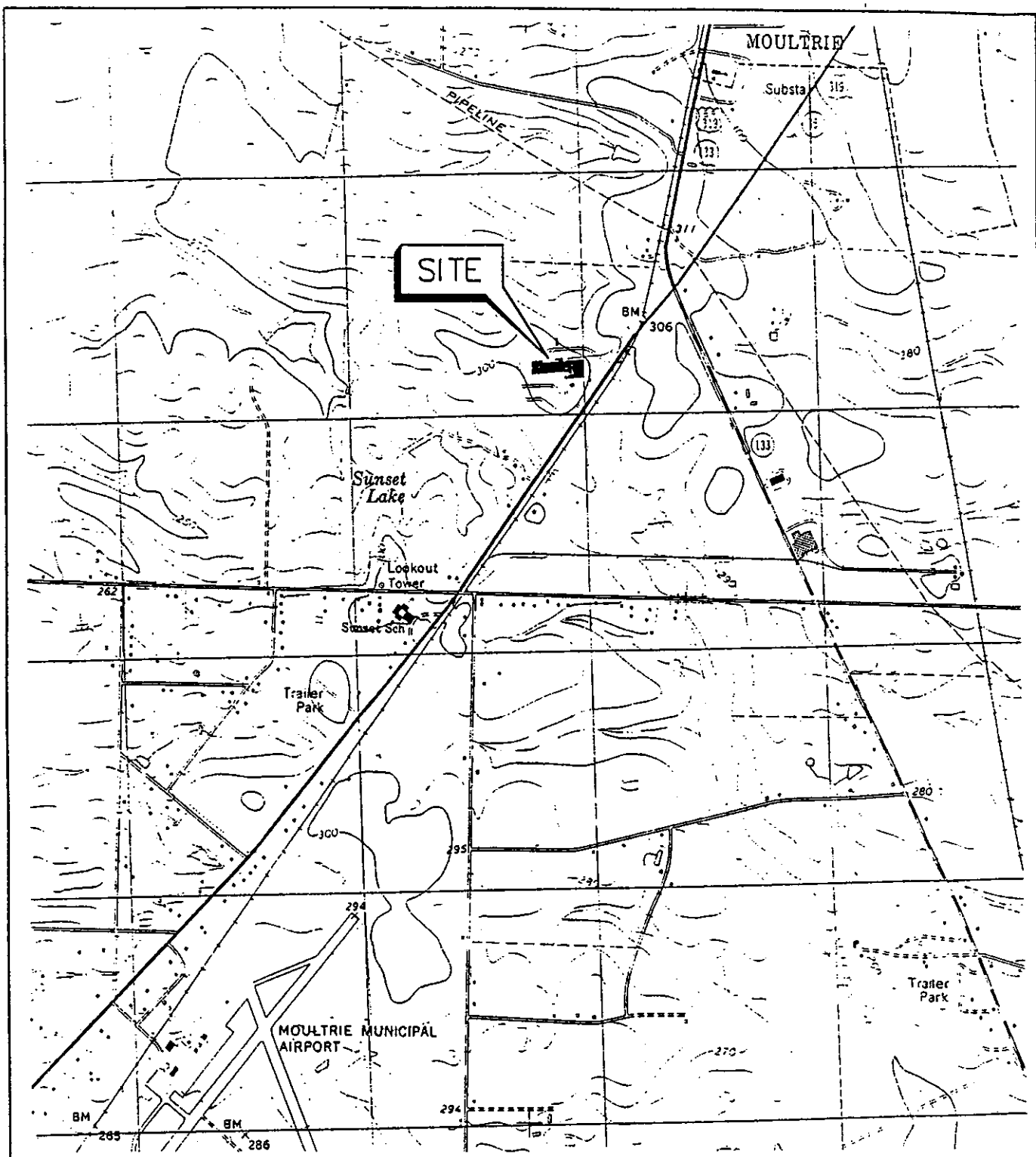


FIGURE 1

N

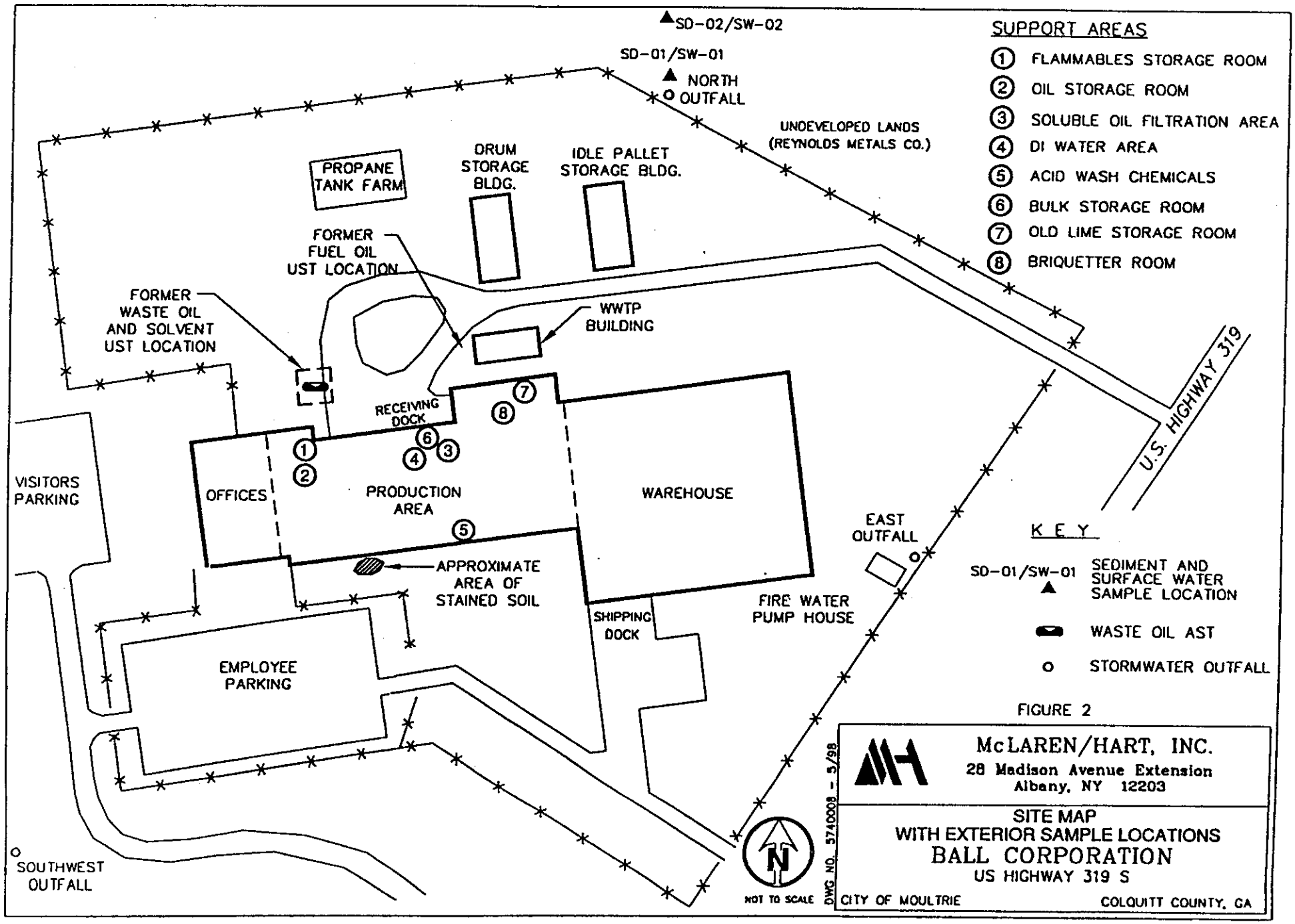
0 1000' 2000'

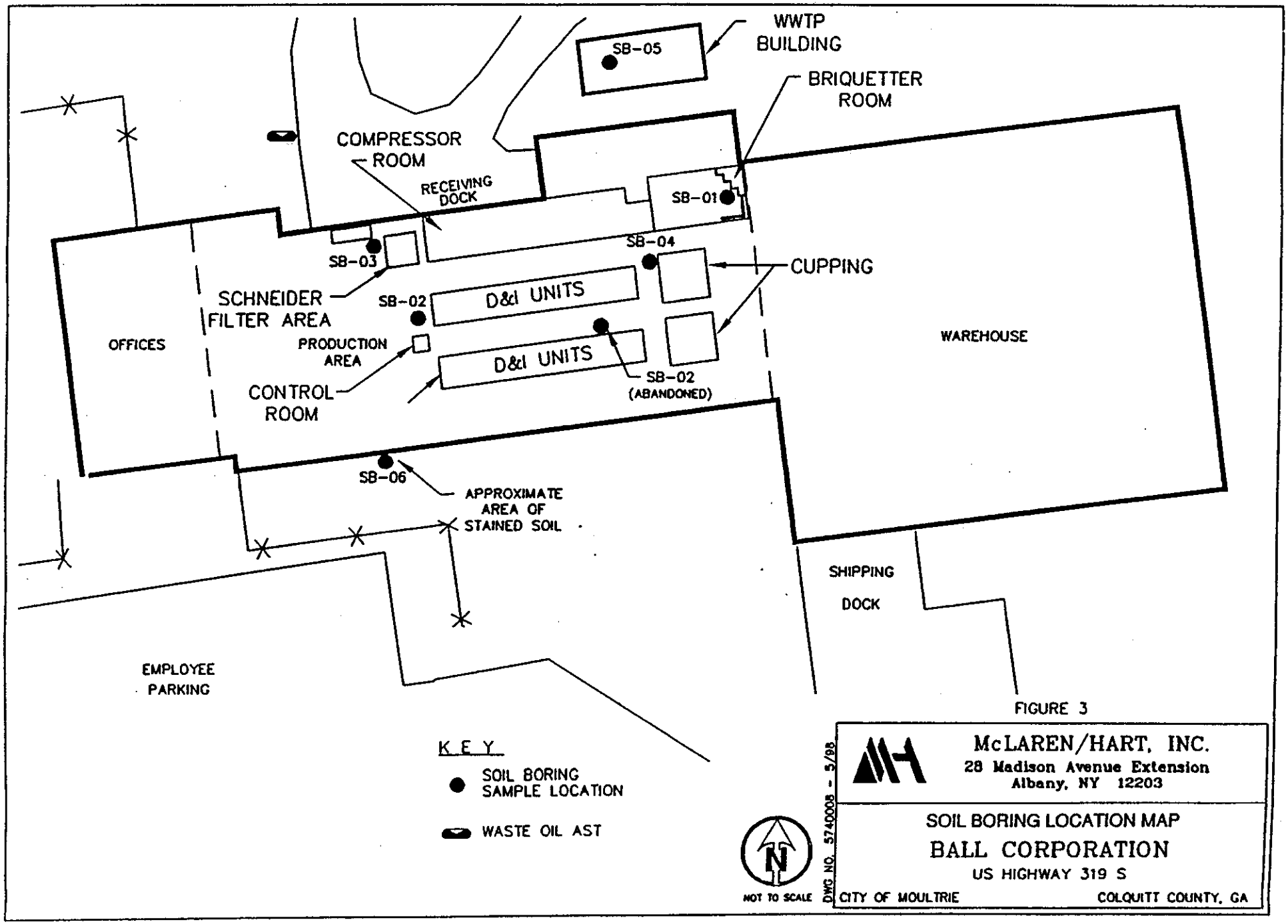
7.5 MIN. QUADRANGLE:
COOLIDGE, GA

McLAREN/HART, INC.
28 Madison Avenue Extension
Albany, NY 12203

SITE LOCATION MAP
BALL CORPORATION
US HIGHWAY 319 S
CITY OF MOULTRIE COLQUITT COUNTY, GA

DWG NO. 5550008 - 1/98


SD-02/SW-02
SD-01/SW-01
NORTH OUTFALL
UNDEVELOPED LANDS (REYNOLDS METALS CO.)
PROPANE TANK FARM
DRUM STORAGE BLDG.
IDLE PALLET STORAGE BLDG.
FORMER FUEL OIL UST LOCATION
FORMER WASTE OIL AND SOLVENT UST LOCATION
WWTP BUILDING
RECEIVING DOCK
VISITORS PARKING
OFFICES
PRODUCTION AREA
WAREHOUSE
APPROXIMATE AREA OF STAINED SOIL
SHIPPING DOCK
FIRE WATER PUMP HOUSE
EAST OUTFALL
EMPLOYEE PARKING
SOUTHWEST OUTFALL
U.S. HIGHWAY 319
SUPPORT AREAS
1 FLAMMABLES STORAGE ROOM
2 OIL STORAGE ROOM
3 SOLUBLE OIL FILTRATION AREA
4 DI WATER AREA
5 ACID WASH CHEMICALS
6 BULK STORAGE ROOM
7 OLD LIME STORAGE ROOM
8 BRIQUETTER ROOM
KEY
SD-01/SW-01 SEDIMENT AND SURFACE WATER SAMPLE LOCATION
WASTE OIL AST
STORMWATER OUTFALL
N
NOT TO SCALE
DWG NO. 5740008 - 5/98
FIGURE 2
McLAREN/HART, INC.
28 Madison Avenue Extension
Albany, NY 12203
SITE MAP
WITH EXTERIOR SAMPLE LOCATIONS
BALL CORPORATION
US HIGHWAY 319 S
CITY OF MOULTRIE
COLQUITT COUNTY, GA


WWTP BUILDING
SB-05
BRIQUETTER ROOM
COMPRESSOR ROOM
RECEIVING DOCK
SB-01
SB-04
SB-03
CUPPING
SCHNEIDER FILTER AREA
SB-02
D&I UNITS
OFFICES
PRODUCTION AREA
WAREHOUSE
D&I UNITS
CONTROL ROOM
SB-02 (ABANDONED)
SB-06
APPROXIMATE AREA OF STAINED SOIL
SHIPPING DOCK
EMPLOYEE PARKING
KEY
SOIL BORING SAMPLE LOCATION
WASTE OIL AST
NOT TO SCALE
FIGURE 3
McLAREN/HART, INC.
28 Madison Avenue Extension
Albany, NY 12203
SOIL BORING LOCATION MAP
BALL CORPORATION
US HIGHWAY 319 S
CITY OF MOULTRIE
COLQUITT COUNTY, GA
DWG NO. 5740008 - 5/88

TABLE

Table 1
Metal Concentrations in Soil

Reynolds Metals Company
Moultrie Can Plant
Moultrie, Georgia

May 4, 1998
(Concentrations in mg/kg [ppm])

Sample I.D. and Depth Interval	SB-01 (0-2')	SB-02 (5-7')	SB-03 (6-8')	SB-03 (10-12')	SB-04 (0-2')	SB-05 (0-2')	SB-06 (0-1')	Georgia Soil Concentrations that Trigger Notification*
Location	Sub-floor Soil-Briquetter Room	Sub-floor Soil-Adjacent to Control Room	Sub-floor Soil-Schneider Filter Area	Sub-floor Soil-Schneider Filter Area	Sub-floor Soil-D&I Process Area	Sub-floor Soil-Wastewater Treatment Plant	Stained Surface Soil-South Side of Bldg.	
Compound								
Barium	5.2	8.1	5.5	11	11	7.1	5.1	500/BG
Chromium	< 5	< 5	< 5	8.4	8.4	160	9.4	1,200

Note: This Table shows only parameters detected in one or more of the samples.

< Less than the reporting limit

* GA/Control Nº 391 - Division 3, Chapter 19.391-3-19, Appendix I - *Regulated Substances and Soil Concentrations that Trigger Notification*, dated February 20, 1994.

BG Background

LABORATORY-SUPPLIED ANALYTICAL RESULTS

CLS – La

CHAIN OF CUSTODY

CLS ID No.: P3837

1 of 2

LOG NO. 55863

REPORT TO:

NAME AND ADDRESS: McLAREN/HART
28 MADISON AVE EXT.
ALBANY, N.Y. 12203

PROJECT MANAGER: FRED LONEKER
PHONE#: (518) 869-6192

PROJECT NAME: REYNOLDS METALS COMPANY

SAMPLED BY: JON KLINK / FRED LONEKER

JOB DESCRIPTION:

SITE LOCATION: MOULTRIE, GA

CLIENT JOB NUMBER:

DESTINATION LABORATORY:
☒ CLS (916) 638-7301
3249 FITZGERALD RD.
RANCHO CORDOVA, CA 95742

☐ OTHER

FIELD CONDITIONS:

COMPOSITE:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	VOCs 8260	RCRA METALS	OIL & GREASE 1664					TURN AROUND TIME 1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS
5/4/98	0915	SB-01 (0-2')	SOIL	1	G		X	X	X							X		
	0920	SB-01 changes per client (2) ~~SB-02~~ (5-7')	SOIL	1	G	ARCHIVE										~~X~~		
	1030	SB-02 (5-7')		1			X	X	X							X		
	1045	SB-02 (8-10')		1		ARCHIVE										X		
	1110	SB-03 (1-3')		1			~~X~~	~~X~~	~~X~~	ARCHIVE						~~X~~		
	1120	SB-03 (6-8')		1			X	X	X							X		
	1125	SB-03 (10-12')		1			X	X	X							X		
	1145	SB-04 (0-2')		1			X	X	X							X		
	1150	SB-04 (5-7')		1			~~X~~	~~X~~	~~X~~	ARCHIVE						~~X~~		INVOICE TO:
	1240	SB-05 (0-2')		1			X	X	X							X		
	1300	SB-05 (5-7')		1			~~X~~	~~X~~	~~X~~	ARCHIVE						~~X~~		
	1410	SB-06 (0-1')		1			X	X	X							X		P.O. #
	1415	SB-06 (3-4')		1						ARCHIVE						~~X~~		QUOTE #

SUSPECTED CONSTITUENTS

SAMPLE RETENTION TIME

PRESERVATIVES: (1) HCL (2) HNO3 (3) = COLD (4)

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
[signature]	JON KLINK / McLAREN/HART	5/4/98 / 1600		

REC'D AT LAB BY: [signature]

DATE / TIME: 5-5-98 930

CONDITIONS / COMMENTS:

SHIPPED VIA ☒ FED X ☐ UPS ☐ OTHER _____ AIR BILL #

CLS – Lab

CHAIN OF CUSTODY

CLS ID No.: P3837 2062 LOG NO. 55862

REPORT TO:

NAME AND ADDRESS: McLAREN/HART
28 MADISON AVE. EXT.
ALBANY, N.Y. 12203

PROJECT MANAGER: FRED LONEKER PHONE# (518) 869-6192

PROJECT NAME: REYNOLDS METALS CO.

SAMPLED BY: JON KLINK

JOB DESCRIPTION:

SITE LOCATION: MOULTRIE, GA

CLIENT JOB NUMBER:

DESTINATION LABORATORY:
☒ CLS (916) 638-7301
3249 FITZGERALD RD.
RANCHO CORDOVA, CA
95742

☐ OTHER

PRESERVATIVES

ANALYSIS REQUESTED

FIELD CONDITIONS:

COMPOSITE:

TURN AROUND TIME

SPECIAL INSTRUCTIONS

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	VOCs 8260	TCLP Metals	Oil & Grease		1 DAY	2 DAY	5 DAY	10 DAY
5/4/98	1445	SW-01	WATER	3	P&A		X	X				X	
	1445	SD-01	SEDIMENT	1	G	X	X	X				X	
	1450	SW-02	WATER	3	P&A	~~X~~	~~X~~	~~X~~	ARCHIVE			~~X~~	
	1450	SD-02	SEDIMENT	1	G	~~X~~	~~X~~	~~X~~	ARCHIVE			~~X~~	

INVOICE TO:

P.O. #:

QUOTE #:

SUSPECTED CONSTITUENTS:

SAMPLE RETENTION TIME:

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4)

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
[signature]	JON KLINK	5/4/98 / 1600		

RECEIVED BY: [signature]

DATE / TIME: 5-5-98 930

CONDITIONS / COMMENTS:

SHIPPED VIA: ☒ FED X ☐ UPS ☐ OTHER _____ AIR BILL #

QA/QC Review of Volatiles
Data for CLS Labs Job# 813837

May 18, 1998

Holding Times: Samples were analyzed within holding times.

Blanks: Method blanks reported target volatiles as not detected.

Surrogate Recovery: Samples SB-02(5-7') and SD-01 had 1 of 3 surrogate recoveries outside control limits. Results for sample SB-(5-7') and SD-01 should be considered estimates (J).

Matrix Sample/Matrix Spike Duplicate (MS/MSD): The soil MS/MSD sample had all relative percent differences and percent recoveries within control limits.

Laboratory Control Sample (LCS): All percent recoveries were within control limits for the soil LCS.

QA/QC Review of Metals
Data for CLS Labs Job# 813837

May 18, 1998

Holding Times: Samples were analyzed within holding times.

Blanks: Method blanks reported target metals as not detected.

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD): All percent recoveries were within control limits (80-120%) for the soil LCS/LCSD. All percent recoveries were within control limits (80-120%) for the water LCS/LCSD.

Duplicates: All relative percent differences were below the allowable maximum (35%) for the soil LCS/LCSD. All relative percent differences were below the allowable maximum (20%) for the water LCS/LCSD.

QA/QC Review of Oil & Grease (O&G)
Data for CLS Labs Job# 813837

May 18, 1998

Holding Times: Samples were analyzed within holding times.

Blanks: Method blanks reported O&G as not detected.

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD): O&G (96% and 96%) had percent recoveries within control limits (80-120%) for the soil LCS/LCSD. O&G (99% and 96%) had percent recoveries within control limits (80-120%) for the water LCS/LCSD.

Duplicates: O&G (0%) had a relative percent difference below the allowable maximum (35%) for the soil LCS/LCSD. O&G (3%) had a relative percent difference below the allowable maximum (20%) for the water LCS/LCSD.

CLS Labs

McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

05/13/98

Attention: **Fred Loneker**

Reference: **Analytical Results**

Project Name: **Reynolds Metals Company**
Project No.: **Moultrie GA**
Date Received: **05/05/98**
Chain Of Custody: **55863,862**

CLS ID No.: **P3837**
CLS Job No.: **813837**

The following analyses were performed on the above referenced project:

No. of Samples	*Turnaround Time*	*Analysis Description*
9	5 Days	Oil & Grease
9	5 Days	RCRA Metals
8	5 Days	EPA Method 8260

These samples were received by CLS Labs in a chilled, intact state and accompanied by a valid chain of custody document.

Calibrations for analytical testing have been performed in accordance to and pass the EPA's criteria for acceptability.

Analysis: EPA Method 8260
Surrogate recoveries did not meet Quality Control acceptance criteria for the following samples: SB-02 (5-7'), SB-03 (6-8'), SB-03 (10-12'), SB-06 (0-1'), and SD-01.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

George Hampton
Laboratory Director

3249 Fitzgerald Road Rancho Cordova, CA 95742 (916) 638-7301 Fax (916) 638-4510

CLS Labs

Analysis Report: N-Hexane Extractable Material (HEM) by EPA Method 1664

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/06/98
Date Analyzed: 05/07/98
Date Reported: 05/12/98

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 22319
Instrument ID: BA002
Analyst ID: ANHENGS
Matrix: SOIL

ANALYTICAL RESULTS

Lab / Client ID Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution (factor)
1A / SB-01(0-2') N-Hexane Extractable Material	N/A	ND	50	1.0
3A / SB-02(5-7') N-Hexane Extractable Material	N/A	ND	50	1.0
6A / SB-03(6-8') N-Hexane Extractable Material	N/A	ND	50	1.0
7A / SB-03(10-12') N-Hexane Extractable Material	N/A	ND	50	1.0
8A / SB-04(0-2') N-Hexane Extractable Material	N/A	ND	50	1.0
10A / SB-05(0-2') N-Hexane Extractable Material	N/A	ND	50	1.0
12A / SB-06(0-1') N-Hexane Extractable Material	N/A	ND	50	1.0
15A / SD-01 N-Hexane Extractable Material	N/A	ND	50	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: N-Hexane Extractable Material (HEM) by EPA Method 1664

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Extracted: 05/06/98
Date Analyzed: 05/07/98
Date Reported: 05/12/98

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 22319
Instrument ID: BA002
Analyst ID: ANHENGS
Matrix: (SOIL)

METHOD BLANK

Analyte	CAS No.	Results (mg/kg)	Reporting Limit (mg/kg)
N-Hexane Extractable Material	N/A	ND	50

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: N-Hexane Extractable Material (HEM) by EPA Method 1664

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Extracted: 05/06/98
Date Analyzed: 05/07/98
Date Reported: 05/12/98

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 22319
Instrument ID: BA002
Analyst ID: ANHENGS
Matrix: (SOIL)

LAB CONTROL SAMPLE

Analyte	CAS No.	LCS Conc. (mg/kg)	LCS Recovery (percent)
N-Hexane Extractable Material	N/A	1000	96

LAB CONTROL SAMPLE DUPLICATE

Analyte	CAS No.	LCS Conc. (mg/kg)	LCSD Recovery (percent)
N-Hexane Extractable Material	N/A	1000	96

LCS RPD

Analyte	CAS No.	LCS Relative Percent Difference (percent)
N-Hexane Extractable Material	N/A	0

CLS Labs

Analysis Report: N-Hexane Extractable Material (HEM) by EPA Method 1664

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/06/98
Date Analyzed: 05/07/98
Date Reported: 05/12/98
Client ID No.: SW-01

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-14B
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 22320
Instrument ID: BA002
Analyst ID: ANHRNGS
Matrix: WATER

SW-01

Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)	Dilution (factor)
N-Hexane Extractable Material	N/A	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: N-Hexane Extractable Material (HEM) by EPA Method 1664

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Extracted: 05/06/98
Date Analyzed: 05/07/98
Date Reported: 05/12/98

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 22320
Instrument ID: BA002
Analyst ID: ANHENGS
Matrix: WATER

METHOD BLANK

Analyte	CAS No.	Results (mg/L)	Reporting Limit (mg/L)
N-Hexane Extractable Material	N/A	ND	5.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: N-Hexane Extractable Material (HEM) by EPA Method 1664

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Extracted: 05/06/98
Date Analyzed: 05/07/98
Date Reported: 05/12/98

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 22320
Instrument ID: BA002
Analyst ID: ANHENGS
Matrix: WATER

LAB CONTROL SAMPLE

Analyte	CAS No.	LCS Conc. (mg/L)	LCS Recovery (percent)
N-Hexane Extractable Material	N/A	40.0	99

LAB CONTROL SAMPLE DUPLICATE

Analyte	CAS No.	LCS Conc. (mg/L)	LCSD Recovery (percent)
N-Hexane Extractable Material	N/A	40.0	96

LCS RPD

Analyte	CAS No.	LCS Relative Percent Difference (percent)
N-Hexane Extractable Material	N/A	3

CLS Labs

Analysis Report: **RCRA Metals, EPA Methods 6010/7000**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/07/98**
Date Analyzed: **05/08/98**
Date Reported: **05/12/98**
Client ID No.: **SB-01(0-2')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-1A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **M980507A**
Instrument ID: **INMIX**
Analyst ID: **PONGC**
Matrix: **SOIL**

SB-01(0-2')

Analyte	HW No.	Results (mg/kg)	Rep. Limit (mg/kg)	Method	Dilution (factor)
Arsenic	01002	ND	2.5	7060	5.0
Barium	01007	5.2	5.0	6010	1.0
Cadmium	01027	ND	1.0	6010	1.0
Chromium	01034	ND	5.0	6010	1.0
Mercury	71900	ND	0.10	7471	1.0
Lead	01051	ND	5.0	6010	1.0
Selenium	01147	ND	0.50	7740	1.0
Silver	01077	ND	2.5	6010	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **RCRA Metals, EPA Methods 6010/7000**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/07/98**
Date Analyzed: **05/08/98**
Date Reported: **05/12/98**
Client ID No.: **SB-02(5-7')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-3A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **M980507A**
Instrument ID: **INMIX**
Analyst ID: **PONGC**
Matrix: **(SOIL)**

SB-02(5-7')

Analyte	HW No.	Results (mg/kg)	Rep. Limit (mg/kg)	Method	Dilution (factor)
Arsenic	01002	ND	2.5	7060	5.0
Barium	01007	8.1	5.0	6010	1.0
Cadmium	01027	ND	1.0	6010	1.0
Chromium	01034	ND	5.0	6010	1.0
Mercury	71900	ND	0.10	7471	1.0
Lead	01051	ND	5.0	6010	1.0
Selenium	01147	ND	0.50	7740	1.0
Silver	01077	ND	2.5	6010	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **RCRA Metals, EPA Methods 6010/7000**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/07/98**
Date Analyzed: **05/08/98**
Date Reported: **05/12/98**
Client ID No.: **SB-03(6-8')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-6A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **M980507A**
Instrument ID: **INMIX**
Analyst ID: **PONGC**
Matrix: **SOIL**

SB-03(6-8')

Analyte	HW No.	Results (mg/kg)	Rep. Limit (mg/kg)	Method	Dilution (factor)
Arsenic	01002	ND	2.5	7060	5.0
Barium	01007	5.5	5.0	6010	1.0
Cadmium	01027	ND	1.0	6010	1.0
Chromium	01034	ND	5.0	6010	1.0
Mercury	71900	ND	0.10	7471	1.0
Lead	01051	ND	5.0	6010	1.0
Selenium	01147	ND	0.50	7740	1.0
Silver	01077	ND	2.5	6010	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **RCRA Metals, EPA Methods 6010/7000**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/07/98**
Date Analyzed: **05/08/98**
Date Reported: **05/12/98**
Client ID No.: **SB-03(10-12')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-7A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **M980507A**
Instrument ID: **INMIX**
Analyst ID: **PONGC**
Matrix: **SOIL**

SB-03(10-12')

Analyte	HW No.	Results (mg/kg)	Rep. Limit (mg/kg)	Method	Dilution (factor)
Arsenic	01002	ND	2.5	7060	5.0
Barium	01007	11	5.0	6010	1.0
Cadmium	01027	ND	1.0	6010	1.0
Chromium	01034	8.4	5.0	6010	1.0
Mercury	71900	ND	0.10	7471	1.0
Lead	01051	ND	5.0	6010	1.0
Selenium	01147	ND	0.50	7740	1.0
Silver	01077	ND	2.5	6010	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: RCRA Metals, EPA Methods 6010/7000

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/07/98
Date Analyzed: 05/08/98
Date Reported: 05/12/98
Client ID No.: SB-04(0-2')

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-8A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: M980507A
Instrument ID: INMIX
Analyst ID: PONGC
Matrix: (SOIL)

SB-04(0-2')

Analyte	HW No.	Results (mg/kg)	Rep. Limit (mg/kg)	Method	Dilution (factor)
Arsenic	01002	ND	2.5	7060	5.0
Barium	01007	11	5.0	6010	1.0
Cadmium	01027	ND	1.0	6010	1.0
Chromium	01034	8.4	5.0	6010	1.0
Mercury	71900	ND	0.10	7471	1.0
Lead	01051	ND	5.0	6010	1.0
Selenium	01147	ND	0.50	7740	1.0
Silver	01077	ND	2.5	6010	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **RCRA Metals, EPA Methods 6010/7000**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/07/98**
Date Analyzed: **05/08/98**
Date Reported: **05/12/98**
Client ID No.: **SB-05(0-2')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-10A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **M980507A**
Instrument ID: **INMIX**
Analyst ID: **PONGC**
Matrix: **SOIL**

SB-05(0-2')

Analyte	HW No.	Results (mg/kg)	Rep. Limit (mg/kg)	Method	Dilution (factor)
Arsenic	01002	7.1	2.5	7060	5.0
Barium	01007	ND	25	6010	5.0
Cadmium	01027	ND	5.0	6010	5.0
Chromium	01034	160	25	6010	5.0
Mercury	71900	ND	0.10	7471	1.0
Lead	01051	ND	25	6010	5.0
Selenium	01147	ND	0.50	7740	1.0
Silver	01077	ND	13	6010	5.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **RCRA Metals, EPA Methods 6010/7000**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/07/98**
Date Analyzed: **05/08/98**
Date Reported: **05/12/98**
Client ID No.: **SB-06(0-1')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-12A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **M980507A**
Instrument ID: **INMIX**
Analyst ID: **PONGC**
Matrix: **(SOIL)**

SB-06(0-1')

Analyte	HW No.	Results (mg/kg)	Rep. Limit (mg/kg)	Method	Dilution (factor)
Arsenic	01002	ND	2.5	7060	5.0
Barium	01007	5.1	5.0	6010	1.0
Cadmium	01027	ND	1.0	6010	1.0
Chromium	01034	9.4	5.0	6010	1.0
Mercury	71900	ND	0.10	7471	1.0
Lead	01051	ND	5.0	6010	1.0
Selenium	01147	ND	0.50	7740	1.0
Silver	01077	ND	2.5	6010	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **RCRA Metals, EPA Methods 6010/7000**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/07/98**
Date Analyzed: **05/08/98**
Date Reported: **05/12/98**
Client ID No.: **SD-01**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-15A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **M980507A**
Instrument ID: **INMIX**
Analyst ID: **PONGC**
Matrix: **(SOIL)**

SD-01

Analyte	HW No.	Results (mg/kg)	Rep. Limit (mg/kg)	Method	Dilution (factor)
Arsenic	01002	ND	2.5	7060	5.0
Barium	01007	ND	5.0	6010	1.0
Cadmium	01027	ND	1.0	6010	1.0
Chromium	01034	ND	5.0	6010	1.0
Mercury	71900	ND	0.10	7471	1.0
Lead	01051	ND	5.0	6010	1.0
Selenium	01147	ND	0.50	7740	1.0
Silver	01077	ND	2.5	6010	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **RCRA Metals, EPA Methods 6010/7000**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Extracted: **05/07/98**
Date Analyzed: **05/08/98**
Date Reported: **05/12/98**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **M980507A**
Instrument ID: **INMIX**
Analyst ID: **PONGC**
Matrix: **(SOIL)**

METHOD BLANK

Analyte	HW No.	Results (mg/kg)	Reporting Limit (mg/kg)	Method
Arsenic	01002	ND	0.50	7060
Barium	01007	ND	5.0	6010
Cadmium	01027	ND	1.0	6010
Chromium	01034	ND	5.0	6010
Mercury	71900	ND	0.10	7471
Lead	01051	ND	5.0	6010
Selenium	01147	ND	0.50	7740
Silver	01077	ND	2.5	6010

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: RCRA Metals, EPA Methods 6010/7000

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Extracted: 05/07/98
Date Analyzed: 05/08/98
Date Reported: 05/12/98

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837
Job No.: 813837
COC Log No.: 55863,862
Batch No.: M980507A
Instrument ID: INMIX
Analyst ID: PONGC
Matrix: (SOIL)

LAB CONTROL SAMPLE

Analyte	HW No.	LCS Conc. (mg/kg)	LCS Recovery (percent)
Arsenic	01002	2.00	83
Barium	01007	100	104
Cadmium	01027	2.50	97
Chromium	01034	10.0	105
Mercury	71900	0.525	108
Lead	01051	25.0	103
Selenium	01147	2.00	93
Silver	01077	2.50	85

LAB CONTROL SAMPLE DUPLICATE

Analyte	HW No.	LCS Conc. (mg/kg)	LCSD Recovery (percent)
Arsenic	01002	2.00	101
Barium	01007	100	103
Cadmium	01027	2.50	98
Chromium	01034	10.0	105
Mercury	71900	0.525	108
Lead	01051	25.0	101
Selenium	01147	2.00	96
Silver	01077	2.50	84

LCS RPD

Analyte	HW No.	LCS Relative Percent Difference (percent)
Arsenic	01002	20
Barium	01007	1
Cadmium	01027	1
Chromium	01034	0
Mercury	71900	0
Lead	01051	2
Selenium	01147	3
Silver	01077	1

CLS Labs

Analysis Report: **RCRA Metals, EPA Method 200**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/08/98**
Date Analyzed: **05/08/98**
Date Reported: **05/12/98**
Client ID No.: **SW-01**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-14A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **M980508A**
Instrument ID: **INMIX**
Analyst ID: **PONGC**
Matrix: **(WATER)**

SW-01

Analyte	HW No.	Results (mg/L)	Rep. Limit (mg/L)	Method	Dilution (factor)
Arsenic	01002	ND	0.0050	200.8	1.0
Barium	01007	ND	0.050	200.7	1.0
Cadmium	01027	ND	0.010	200.7	1.0
Chromium	01034	ND	0.050	200.7	1.0
Mercury	71900	ND	0.00050	245.1	1.0
Lead	01051	ND	0.10	200.7	1.0
Selenium	01147	ND	0.0050	200.8	1.0
Silver	01077	ND	0.050	200.7	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **RCRA Metals, EPA Method 200**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Extracted: **05/08/98**
Date Analyzed: **05/08/98**
Date Reported: **05/12/98**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **M980508A**
Instrument ID: **INMIX**
Analyst ID: **PONGC**
Matrix: **(WATER)**

METHOD BLANK

Analyte	HW No.	Results (mg/L)	Reporting Limit (mg/L)	Method
Arsenic	01002	ND	0.0050	200.8
Barium	01007	ND	0.050	200.7
Cadmium	01027	ND	0.010	200.7
Chromium	01034	ND	0.050	200.7
Mercury	71900	ND	0.00050	245.1
Lead	01051	ND	0.10	200.7
Selenium	01147	ND	0.0050	200.8
Silver	01077	ND	0.050	200.7

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: RCRA Metals, EPA Method 200

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Extracted: 05/08/98
Date Analyzed: 05/08/98
Date Reported: 05/12/98

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837
Job No.: 813837
COC Log No.: 55863,862
Batch No.: M980508A
Instrument ID: INMIX
Analyst ID: PONGC
Matrix: (WATER)

LAB CONTROL SAMPLE

Analyte	HW No.	LCS Conc. (mg/L)	LCS Recovery (percent)
Arsenic	01002	0.0400	83
Barium	01007	2.00	98
Cadmium	01027	0.0500	95
Chromium	01034	0.200	104
Mercury	71900	0.00300	110
Lead	01051	0.500	97
Selenium	01147	0.0400	84
Silver	01077	0.0500	100

LAB CONTROL SAMPLE DUPLICATE

Analyte	HW No.	LCS Conc. (mg/L)	LCSD Recovery (percent)
Arsenic	01002	0.0400	85
Barium	01007	2.00	98
Cadmium	01027	0.0500	89
Chromium	01034	0.200	104
Mercury	71900	0.00300	102
Lead	01051	0.500	100
Selenium	01147	0.0400	87
Silver	01077	0.0500	99

LCS RPD

Analyte	HW No.	LCS Relative Percent Difference (percent)
Arsenic	01002	2
Barium	01007	0
Cadmium	01027	7
Chromium	01034	0
Mercury	71900	8
Lead	01051	3
Selenium	01147	4
Silver	01077	1

CA DOHS ELAP Accreditation/Registration Number 1233

CLS Labs

Analysis Report: Volatile Organics by Capillary GC/MS, EPA Method 8260

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/11/98
Date Analyzed: 05/11/98
Date Reported: 05/12/98
Client ID No.: SB-01(0-2')

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-1A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	92
Toluene-d8	N/A	50.0	103
p-Bromofluorobenzene	460-00-4	50.0	106

SB-01(0-2')

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Acetone	67-64-1	ND	100	1.0
Benzene	71-43-2	ND	5.0	1.0
Bromobenzene	108-86-1	ND	5.0	1.0
Bromochloromethane	74-97-5	ND	5.0	1.0
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	10	1.0
2-Butanone	78-93-3	ND	100	1.0
n-Butylbenzene	104-51-8	ND	5.0	1.0
sec-Butylbenzene	135-98-8	ND	5.0	1.0
tert-Butylbenzene	98-06-6	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	10	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	10	1.0
o-Chlorotoluene	95-49-8	ND	5.0	1.0
p-Chlorotoluene	106-43-4	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
Dibromomethane	74-95-3	ND	5.0	1.0
1,2-Dibromo-3-chloropropane	96-12-8	ND	10	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	10	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
cis-1,2-Dichloroethene	156-59-2	ND	5.0	1.0
trans-1,2-Dichloroethene	156-60-5	ND	5.0	1.0
1,3-Dichloropropane	142-28-9	ND	5.0	1.0
2,2-Dichloropropane	574-20-7	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/11/98
Date Analyzed: 05/11/98
Date Reported: 05/12/98
Client ID No.: SB-01(0-2')

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-1A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

SB-01(0-2')(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
1,1-Dichloropropene	563-58-6	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Ethylene dibromide	106-93-4	ND	5.0	1.0
Hexachlorobutadiene	87-68-3	ND	5.0	1.0
2-Hexanone	591-78-6	ND	50	1.0
Isopropylbenzene	98-82-8	ND	5.0	1.0
p-Isopropyltoluene	99-87-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
4-Methyl-2-pentanone	108-10-1	ND	50	1.0
Naphthalene	91-20-3	ND	5.0	1.0
n-Propylbenzene	103-65-1	ND	5.0	1.0
Styrene	100-42-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1,2-Tetrachloroethane	630-20-6	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
1,2,3-Trichlorobenzene	87-61-6	ND	5.0	1.0
1,2,4-Trichlorobenzene	120-82-1	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,2,3-Trichloropropane	96-18-4	ND	5.0	1.0
1,2,4-Trimethylbenzene	95-63-6	ND	5.0	1.0
1,3,5-Trimethylbenzene	108-67-8	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	10	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/11/98**
Date Analyzed: **05/11/98**
Date Reported: **05/12/98**
Client ID No.: **SB-02(5-7')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-3A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	20(MA)
Toluene-d8	N/A	50.0	102
p-Bromofluorobenzene	460-00-4	50.0	104

MA = Recovery data is outside standard QC limits due to matrix interference. LCS recovery data validates methodology.

SB-02(5-7')

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Acetone	67-64-1	ND	100	1.0
Benzene	71-43-2	ND	5.0	1.0
Bromobenzene	108-86-1	ND	5.0	1.0
Bromochloromethane	74-97-5	ND	5.0	1.0
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	10	1.0
2-Butanone	78-93-3	ND	100	1.0
n-Butylbenzene	104-51-8	ND	5.0	1.0
sec-Butylbenzene	135-98-8	ND	5.0	1.0
tert-Butylbenzene	98-06-6	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	10	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	10	1.0
o-Chlorotoluene	95-49-8	ND	5.0	1.0
p-Chlorotoluene	106-43-4	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
Dibromomethane	74-95-3	ND	5.0	1.0
1,2-Dibromo-3-chloropropane	96-12-8	ND	10	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	10	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
cis-1,2-Dichloroethene	156-59-2	ND	5.0	1.0
trans-1,2-Dichloroethene	156-60-5	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: Volatile Organics by Capillary GC/MS, EPA Method 8260

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/11/98
Date Analyzed: 05/11/98
Date Reported: 05/12/98
Client ID No.: SB-02(5-7')

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-3A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

SB-02(5-7')(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
1,3-Dichloropropane	142-28-9	ND	5.0	1.0
2,2-Dichloropropane	574-20-7	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0
1,1-Dichloropropene	563-58-6	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Ethylene dibromide	106-93-4	ND	5.0	1.0
Hexachlorobutadiene	87-68-3	ND	5.0	1.0
2-Hexanone	591-78-6	ND	50	1.0
Isopropylbenzene	98-82-8	ND	5.0	1.0
p-Isopropyltoluene	99-87-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
4-Methyl-2-pentanone	108-10-1	ND	50	1.0
Naphthalene	91-20-3	ND	5.0	1.0
n-Propylbenzene	103-65-1	ND	5.0	1.0
Styrene	100-42-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1,2-Tetrachloroethane	630-20-6	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
1,2,3-Trichlorobenzene	87-61-6	ND	5.0	1.0
1,2,4-Trichlorobenzene	120-82-1	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,2,3-Trichloropropane	96-18-4	ND	5.0	1.0
1,2,4-Trimethylbenzene	95-63-6	ND	5.0	1.0
1,3,5-Trimethylbenzene	108-67-8	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	10	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: Volatile Organics by Capillary GC/MS, EPA Method 8260

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/11/98
Date Analyzed: 05/11/98
Date Reported: 05/12/98
Client ID No.: SB-03(6-8')

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-6A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	106
Toluene-d8	N/A	50.0	110
p-Bromofluorobenzene	460-00-4	50.0	107

SB-03(6-8')

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Acetone	67-64-1	ND	100	1.0
Benzene	71-43-2	ND	5.0	1.0
Bromobenzene	108-86-1	ND	5.0	1.0
Bromochloromethane	74-97-5	ND	5.0	1.0
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	10	1.0
2-Butanone	78-93-3	ND	100	1.0
n-Butylbenzene	104-51-8	ND	5.0	1.0
sec-Butylbenzene	135-98-8	ND	5.0	1.0
tert-Butylbenzene	98-06-6	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	10	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	10	1.0
o-Chlorotoluene	95-49-8	ND	5.0	1.0
p-Chlorotoluene	106-43-4	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
Dibromomethane	74-95-3	ND	5.0	1.0
1,2-Dibromo-3-chloropropane	96-12-8	ND	10	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	10	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
cis-1,2-Dichloroethene	156-59-2	ND	5.0	1.0
trans-1,2-Dichloroethene	156-60-5	ND	5.0	1.0
1,3-Dichloropropane	142-28-9	ND	5.0	1.0
2,2-Dichloropropane	574-20-7	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/11/98
Date Analyzed: 05/11/98
Date Reported: 05/12/98
Client ID No.: SB-03(6-8')

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-6A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

SB-03(6-8')(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
1,1-Dichloropropene	563-58-6	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Ethylene dibromide	106-93-4	ND	5.0	1.0
Hexachlorobutadiene	87-68-3	ND	5.0	1.0
2-Hexanone	591-78-6	ND	50	1.0
Isopropylbenzene	98-82-8	ND	5.0	1.0
p-Isopropyltoluene	99-87-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
4-Methyl-2-pentanone	108-10-1	ND	50	1.0
Naphthalene	91-20-3	ND	5.0	1.0
n-Propylbenzene	103-65-1	ND	5.0	1.0
Styrene	100-42-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1,2-Tetrachloroethane	630-20-6	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
1,2,3-Trichlorobenzene	87-61-6	ND	5.0	1.0
1,2,4-Trichlorobenzene	120-82-1	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,2,3-Trichloropropane	96-18-4	ND	5.0	1.0
1,2,4-Trimethylbenzene	95-63-6	ND	5.0	1.0
1,3,5-Trimethylbenzene	108-67-8	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	10	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: Volatile Organics by Capillary GC/MS, EPA Method 8260

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/11/98
Date Analyzed: 05/11/98
Date Reported: 05/12/98
Client ID No.: SB-03(10-12')

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-7A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	102
Toluene-d8	N/A	50.0	107
p-Bromofluorobenzene	460-00-4	50.0	112

SB-03(10-12')

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Acetone	67-64-1	ND	100	1.0
Benzene	71-43-2	ND	5.0	1.0
Bromobenzene	108-86-1	ND	5.0	1.0
Bromochloromethane	74-97-5	ND	5.0	1.0
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	10	1.0
2-Butanone	78-93-3	ND	100	1.0
n-Butylbenzene	104-51-8	ND	5.0	1.0
sec-Butylbenzene	135-98-8	ND	5.0	1.0
tert-Butylbenzene	98-06-6	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	10	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	10	1.0
o-Chlorotoluene	95-49-8	ND	5.0	1.0
p-Chlorotoluene	106-43-4	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
Dibromomethane	74-95-3	ND	5.0	1.0
1,2-Dibromo-3-chloropropane	96-12-8	ND	10	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	10	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
cis-1,2-Dichloroethene	156-59-2	ND	5.0	1.0
trans-1,2-Dichloroethene	156-60-5	ND	5.0	1.0
1,3-Dichloropropane	142-28-9	ND	5.0	1.0
2,2-Dichloropropane	574-20-7	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: Volatile Organics by Capillary GC/MS, EPA Method 8260

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/11/98
Date Analyzed: 05/11/98
Date Reported: 05/12/98
Client ID No.: SB-03(10-12')

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-7A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

SB-03(10-12')(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
1,1-Dichloropropene	563-58-6	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Ethylene dibromide	106-93-4	ND	5.0	1.0
Hexachlorobutadiene	87-68-3	ND	5.0	1.0
2-Hexanone	591-78-6	ND	50	1.0
Isopropylbenzene	98-82-8	ND	5.0	1.0
p-Isopropyltoluene	99-87-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
4-Methyl-2-pentanone	108-10-1	ND	50	1.0
Naphthalene	91-20-3	ND	5.0	1.0
n-Propylbenzene	103-65-1	ND	5.0	1.0
Styrene	100-42-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1,2-Tetrachloroethane	630-20-6	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
1,2,3-Trichlorobenzene	87-61-6	ND	5.0	1.0
1,2,4-Trichlorobenzene	120-82-1	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,2,3-Trichloropropane	96-18-4	ND	5.0	1.0
1,2,4-Trimethylbenzene	95-63-6	ND	5.0	1.0
1,3,5-Trimethylbenzene	108-67-8	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	10	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: Volatile Organics by Capillary GC/MS, EPA Method 8260

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/11/98
Date Analyzed: 05/11/98
Date Reported: 05/12/98
Client ID No.: SB-04(0-2')

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-8A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	93
Toluene-d8	N/A	50.0	103
p-Bromofluorobenzene	460-00-4	50.0	112

SB-04(0-2')

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Acetone	67-64-1	ND	100	1.0
Benzene	71-43-2	ND	5.0	1.0
Bromobenzene	108-86-1	ND	5.0	1.0
Bromochloromethane	74-97-5	ND	5.0	1.0
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	10	1.0
2-Butanone	78-93-3	ND	100	1.0
n-Butylbenzene	104-51-8	ND	5.0	1.0
sec-Butylbenzene	135-98-8	ND	5.0	1.0
tert-Butylbenzene	98-06-6	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	10	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	10	1.0
o-Chlorotoluene	95-49-8	ND	5.0	1.0
p-Chlorotoluene	106-43-4	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
Dibromomethane	74-95-3	ND	5.0	1.0
1,2-Dibromo-3-chloropropane	96-12-8	ND	10	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	10	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
cis-1,2-Dichloroethene	156-59-2	ND	5.0	1.0
trans-1,2-Dichloroethene	156-60-5	ND	5.0	1.0
1,3-Dichloropropane	142-28-9	ND	5.0	1.0
2,2-Dichloropropane	574-20-7	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/11/98**
Date Analyzed: **05/11/98**
Date Reported: **05/12/98**
Client ID No.: **SB-04(0-2')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-8A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

SB-04(0-2')(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
1,1-Dichloropropene	563-58-6	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Ethylene dibromide	106-93-4	ND	5.0	1.0
Hexachlorobutadiene	87-68-3	ND	5.0	1.0
2-Hexanone	591-78-6	ND	50	1.0
Isopropylbenzene	98-82-8	ND	5.0	1.0
p-Isopropyltoluene	99-87-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
4-Methyl-2-pentanone	108-10-1	ND	50	1.0
Naphthalene	91-20-3	ND	5.0	1.0
n-Propylbenzene	103-65-1	ND	5.0	1.0
Styrene	100-42-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1,2-Tetrachloroethane	630-20-6	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
1,2,3-Trichlorobenzene	87-61-6	ND	5.0	1.0
1,2,4-Trichlorobenzene	120-82-1	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,2,3-Trichloropropane	96-18-4	ND	5.0	1.0
1,2,4-Trimethylbenzene	95-63-6	ND	5.0	1.0
1,3,5-Trimethylbenzene	108-67-8	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	10	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/11/98
Date Analyzed: 05/11/98
Date Reported: 05/12/98
Client ID No.: SB-05(0-2')

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-10A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	93
Toluene-d8	N/A	50.0	105
p-Bromofluorobenzene	460-00-4	50.0	116

SB-05(0-2')

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Acetone	67-64-1	ND	100	1.0
Benzene	71-43-2	ND	5.0	1.0
Bromobenzene	108-86-1	ND	5.0	1.0
Bromochloromethane	74-97-5	ND	5.0	1.0
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	10	1.0
2-Butanone	78-93-3	ND	100	1.0
n-Butylbenzene	104-51-8	ND	5.0	1.0
sec-Butylbenzene	135-98-8	ND	5.0	1.0
tert-Butylbenzene	98-06-6	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	10	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	10	1.0
o-Chlorotoluene	95-49-8	ND	5.0	1.0
p-Chlorotoluene	106-43-4	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
Dibromomethane	74-95-3	ND	5.0	1.0
1,2-Dibromo-3-chloropropane	96-12-8	ND	10	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	10	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
cis-1,2-Dichloroethene	156-59-2	ND	5.0	1.0
trans-1,2-Dichloroethene	156-60-5	ND	5.0	1.0
1,3-Dichloropropane	142-28-9	ND	5.0	1.0
2,2-Dichloropropane	574-20-7	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/11/98**
Date Analyzed: **05/11/98**
Date Reported: **05/12/98**
Client ID No.: **SB-05(0-2')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-10A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

SB-05(0-2')(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
1,1-Dichloropropene	563-58-6	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Ethylene dibromide	106-93-4	ND	5.0	1.0
Hexachlorobutadiene	87-68-3	ND	5.0	1.0
2-Hexanone	591-78-6	ND	50	1.0
Isopropylbenzene	98-82-8	ND	5.0	1.0
p-Isopropyltoluene	99-87-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
4-Methyl-2-pentanone	108-10-1	ND	50	1.0
Naphthalene	91-20-3	ND	5.0	1.0
n-Propylbenzene	103-65-1	ND	5.0	1.0
Styrene	100-42-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1,2-Tetrachloroethane	630-20-6	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
1,2,3-Trichlorobenzene	87-61-6	ND	5.0	1.0
1,2,4-Trichlorobenzene	120-82-1	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,2,3-Trichloropropane	96-18-4	ND	5.0	1.0
1,2,4-Trimethylbenzene	95-63-6	ND	5.0	1.0
1,3,5-Trimethylbenzene	108-67-8	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	10	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/11/98**
Date Analyzed: **05/11/98**
Date Reported: **05/12/98**
Client ID No.: **SB-06(0-1')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-12A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	93
Toluene-d8	N/A	50.0	106
p-Bromofluorobenzene	460-00-4	50.0	112

SB-06(0-1')

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Acetone	67-64-1	ND	100	1.0
Benzene	71-43-2	ND	5.0	1.0
Bromobenzene	108-86-1	ND	5.0	1.0
Bromochloromethane	74-97-5	ND	5.0	1.0
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	10	1.0
2-Butanone	78-93-3	ND	100	1.0
n-Butylbenzene	104-51-8	ND	5.0	1.0
sec-Butylbenzene	135-98-8	ND	5.0	1.0
tert-Butylbenzene	98-06-6	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	10	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	10	1.0
o-Chlorotoluene	95-49-8	ND	5.0	1.0
p-Chlorotoluene	106-43-4	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
Dibromomethane	74-95-3	ND	5.0	1.0
1,2-Dibromo-3-chloropropane	96-12-8	ND	10	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	10	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
cis-1,2-Dichloroethene	156-59-2	ND	5.0	1.0
trans-1,2-Dichloroethene	156-60-5	ND	5.0	1.0
1,3-Dichloropropane	142-28-9	ND	5.0	1.0
2,2-Dichloropropane	574-20-7	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: Volatile Organics by Capillary GC/MS, EPA Method 8260

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/11/98
Date Analyzed: 05/11/98
Date Reported: 05/12/98
Client ID No.: SB-06(0-1')

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-12A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

SB-06(0-1')(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
1,1-Dichloropropene	563-58-6	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Ethylene dibromide	106-93-4	ND	5.0	1.0
Hexachlorobutadiene	87-68-3	ND	5.0	1.0
2-Hexanone	591-78-6	ND	50	1.0
Isopropylbenzene	98-82-8	ND	5.0	1.0
p-Isopropyltoluene	99-87-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
4-Methyl-2-pentanone	108-10-1	ND	50	1.0
Naphthalene	91-20-3	ND	5.0	1.0
n-Propylbenzene	103-65-1	ND	5.0	1.0
Styrene	100-42-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1,2-Tetrachloroethane	630-20-6	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
1,2,3-Trichlorobenzene	87-61-6	ND	5.0	1.0
1,2,4-Trichlorobenzene	120-82-1	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,2,3-Trichloropropane	96-18-4	ND	5.0	1.0
1,2,4-Trimethylbenzene	95-63-6	ND	5.0	1.0
1,3,5-Trimethylbenzene	108-67-8	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	10	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/11/98
Date Analyzed: 05/11/98
Date Reported: 05/12/98
Client ID No.: SD-01

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-15A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL north outfall

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	79(QC)
Toluene-d8	N/A	50.0	81
p-Bromofluorobenzene	460-00-4	50.0	89

QC = Recovery data is not within standard QC limits. LCS recovery data validates methodology.

SD-01

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Acetone	67-64-1	ND	100	1.0
Benzene	71-43-2	ND	5.0	1.0
Bromobenzene	108-86-1	ND	5.0	1.0
Bromochloromethane	74-97-5	ND	5.0	1.0
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	10	1.0
2-Butanone	78-93-3	ND	100	1.0
n-Butylbenzene	104-51-8	ND	5.0	1.0
sec-Butylbenzene	135-98-8	ND	5.0	1.0
tert-Butylbenzene	98-06-6	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	10	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	10	1.0
o-Chlorotoluene	95-49-8	ND	5.0	1.0
p-Chlorotoluene	106-43-4	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
Dibromomethane	74-95-3	ND	5.0	1.0
1,2-Dibromo-3-chloropropane	96-12-8	ND	10	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	10	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
cis-1,2-Dichloroethene	156-59-2	ND	5.0	1.0
trans-1,2-Dichloroethene	156-60-5	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/11/98**
Date Analyzed: **05/11/98**
Date Reported: **05/12/98**
Client ID No.: **SD-01**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-15A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

SD-01(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
1,3-Dichloropropane	142-28-9	ND	5.0	1.0
2,2-Dichloropropane	574-20-7	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0
1,1-Dichloropropene	563-58-6	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Ethylene dibromide	106-93-4	ND	5.0	1.0
Hexachlorobutadiene	87-68-3	ND	5.0	1.0
2-Hexanone	591-78-6	ND	50	1.0
Isopropylbenzene	98-82-8	ND	5.0	1.0
p-Isopropyltoluene	99-87-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
4-Methyl-2-pentanone	108-10-1	ND	50	1.0
Naphthalene	91-20-3	ND	5.0	1.0
n-Propylbenzene	103-65-1	ND	5.0	1.0
Styrene	100-42-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1,2-Tetrachloroethane	630-20-6	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
1,2,3-Trichlorobenzene	87-61-6	ND	5.0	1.0
1,2,4-Trichlorobenzene	120-82-1	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,2,3-Trichloropropane	96-18-4	ND	5.0	1.0
1,2,4-Trimethylbenzene	95-63-6	ND	5.0	1.0
1,3,5-Trimethylbenzene	108-67-8	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	10	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Extracted: **05/11/98**
Date Analyzed: **05/11/98**
Date Reported: **05/12/98**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

MB SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	MB Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	105
Toluene-d8	N/A	50.0	103
p-Bromofluorobenzene	460-00-4	50.0	102

METHOD BLANK

Analyte	CAS No.	Results (ug/kg)	Reporting Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5.0
Bromobenzene	108-86-1	ND	5.0
Bromochloromethane	74-97-5	ND	5.0
Bromodichloromethane	75-27-4	ND	5.0
Bromoform	75-25-2	ND	5.0
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
n-Butylbenzene	104-51-8	ND	5.0
sec-Butylbenzene	135-98-8	ND	5.0
tert-Butylbenzene	98-06-6	ND	5.0
Carbon tetrachloride	56-23-5	ND	5.0
Chlorobenzene	108-90-7	ND	5.0
Chloroethane	75-00-3	ND	10
Chloroform	67-66-3	ND	5.0
Chloromethane	74-87-3	ND	10
o-Chlorotoluene	95-49-8	ND	5.0
p-Chlorotoluene	106-43-4	ND	5.0
Dibromochloromethane	124-48-1	ND	5.0
Dibromomethane	74-95-3	ND	5.0
1,2-Dibromo-3-chloropropane	96-12-8	ND	10
1,2-Dichlorobenzene	95-50-1	ND	5.0
1,3-Dichlorobenzene	541-73-1	ND	5.0
1,4-Dichlorobenzene	106-46-7	ND	5.0
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5.0
1,2-Dichloroethane	107-06-2	ND	5.0
1,1-Dichloroethene	75-35-4	ND	5.0
cis-1,2-Dichloroethene	156-59-2	ND	5.0
trans-1,2-Dichloroethene	156-60-5	ND	5.0

ND = Not detected at or above indicated Reporting Limit

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Analysis Report: Volatile Organics by Capillary GC/MS, EPA Method 8260

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Albany, NY 12203

Project: Reynolds Metals Company

Date Extracted: 05/11/98
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Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

METHOD BLANK(cont.)

Analyte	CAS No.	Results (ug/kg)	Reporting Limit (ug/kg)
1,3-Dichloropropane	142-28-9	ND	5.0
2,2-Dichloropropane	574-20-7	ND	5.0
1,2-Dichloropropane	78-87-5	ND	5.0
1,1-Dichloropropene	563-58-6	ND	5.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0
Ethylbenzene	100-41-4	ND	5.0
Ethylene dibromide	106-93-4	ND	5.0
Hexachlorobutadiene	87-68-3	ND	5.0
2-Hexanone	591-78-6	ND	50
Isopropylbenzene	98-82-8	ND	5.0
p-Isopropyltoluene	99-87-6	ND	5.0
Methylene chloride	75-09-2	ND	5.0
4-Methyl-2-pentanone	108-10-1	ND	50
Naphthalene	91-20-3	ND	5.0
n-Propylbenzene	103-65-1	ND	5.0
Styrene	100-42-5	ND	5.0
Tetrachloroethene	127-18-4	ND	5.0
1,1,1,2-Tetrachloroethane	630-20-6	ND	5.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0
1,2,3-Trichlorobenzene	87-61-6	ND	5.0
1,2,4-Trichlorobenzene	120-82-1	ND	5.0
1,1,1-Trichloroethane	71-55-6	ND	5.0
1,1,2-Trichloroethane	79-00-5	ND	5.0
Trichloroethene	79-01-6	ND	5.0
Trichlorofluoromethane	75-69-4	ND	5.0
1,2,3-Trichloropropane	96-18-4	ND	5.0
1,2,4-Trimethylbenzene	95-63-6	ND	5.0
1,3,5-Trimethylbenzene	108-67-8	ND	5.0
Toluene	108-88-3	ND	5.0
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

ND = Not detected at or above indicated Reporting Limit

CLS Labs

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Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

MS SURROGATE

Analyte	CAS No.	MS Surr. Conc. (ug/kg)	MS Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	96
Toluene-d8	N/A	50.0	101
p-Bromofluorobenzene	460-00-4	50.0	101

MATRIX SPIKE

Analyte	CAS No.	MS Conc. (ug/kg)	MS Recovery (percent)
Benzene	71-43-2	50.0	104
Chlorobenzene	108-90-7	50.0	98
1,1-Dichloroethene	75-35-4	50.0	78
Toluene	108-88-3	50.0	103
Trichloroethene	79-01-6	50.0	107

MSD SURROGATE

Analyte	CAS No.	Surr. Conc. (ug/kg)	MSD Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	88
Toluene-d8	N/A	50.0	103
p-Bromofluorobenzene	460-00-4	50.0	104

MATRIX SPIKE DUPLICATE

Analyte	CAS No.	MSD Conc. (ug/kg)	MSD Recovery (percent)
Benzene	71-43-2	50.0	101
Chlorobenzene	108-90-7	50.0	101
1,1-Dichloroethene	75-35-4	50.0	70
Toluene	108-88-3	50.0	102
Trichloroethene	79-01-6	50.0	108

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
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Project: **Reynolds Metals Company**

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COC Log No.: **55863,862**
Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

RELATIVE % DIFFERENCE

Analyte	CAS No.	Relative Percent Difference (percent)
Benzene	71-43-2	3
Chlorobenzene	108-90-7	3
1,1-Dichloroethene	75-35-4	11
Toluene	108-88-3	1
Trichloroethene	79-01-6	1

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
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Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

LCS SURROGATE

Analyte	CAS No.	LCS Conc. (ug/kg)	LCS Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	96
Toluene-d8	N/A	50.0	103
p-Bromofluorobenzene	460-00-4	50.0	103

LAB CONTROL SAMPLE

Analyte	CAS No.	LCS Conc. (ug/kg)	LCS Recovery (percent)
Benzene	71-43-2	50.0	107
Chlorobenzene	108-90-7	50.0	96
1,1-Dichloroethene	75-35-4	50.0	87
Toluene	108-88-3	50.0	101
Trichloroethene	79-01-6	50.0	107

Compliance Status Report
prepared by: CH2M Hill
September 1998

Engineering Report

Compliance Status Report Former Miller Brewing Company Can Plant Moultrie, Georgia

Prepared for

Miller Brewing Company

3939 W. Highland Boulevard
Milwaukee, WI

September 1998

CH2MHILL

CH2M HILL
115 Perimeter Center Place N.E
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30346-1278
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CH2MHILL

September 15, 1998

Jim Brown
Georgia Department of Natural Resources
205 Butler Street, S.E. Suite 1462
Atlanta, Georgia 30334

Subject: Former Miller Brewing Company Can Plant
Moultrie, Georgia
HSI Site No. 10425
Compliance Status Report

Dear Mr. Brown:

On behalf of Miller Brewing Company, CH2M HILL is pleased to present this Compliance Status Report for the former Miller Brewing Company can plant located in Moultrie, Georgia. This report was prepared to fulfill the Georgia Hazardous Site Response Act (HSRA) regulations (Section 391-3-19.07) as required in your Call-in Letter dated March 13, 1998. Based on the data presented in this report, Miller proposes Type 3 risk reduction standards for soils and Type 5 risk reduction standards for groundwater.

In a memorandum dated September 4, 1996 from David Rueland of your department, the former Miller can plant was given a 10.57 score based on the Reportable Quantities Screening Method (RQSM) groundwater pathway. Since this score exceeded the threshold value for the groundwater pathway of 10.0, the site was listed on the Hazardous Site Inventory. Miller requests that Georgia EPD review the data presented in this report, including the corrective action plan, and rescore the RQSM for the groundwater pathway. If based on this rescoring, the site is below the 10.0 threshold, Miller requests that the site be removed from the Hazardous Site Inventory.

As required by HSRA, a public notice has been submitted to the Moultrie Observer for publication within the next 7 days. The notice requests that comments be directed to David Rueland.

If you have any questions concerning this report, or the requests presented in this letter, please call me at (770) 604-9182 (ext. 462), or Kathy Kinton at (414) 931-3570.

Sincerely,

CH2M HILL

Bill Zwiren, P. E.
Project Manager

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c: Kathy Kinton/Miller Brewing Company (2)
David Rueland/Georgia DNR
Stephanie Blum/CH2M HILL

Contents

CSR Certification iv

Executive Summary 1-1

Initial Abatement and Characterization Activities ES-1
CSR Investigation Findings ES-1
Corrective Action Plan ES-2

1.0 Introduction 1-1

Background 1-1
Objectives 1-1
Scope of Work 1-2
CSR Format 1-2
Site Location and Description 1-3
Initial Abatement 1-3
UST Closure 1-3
Piping Closure and Soil Excavation 1-3
Initial Site Characterization 1-4
1993 Phase II Site Assessment 1-4
1994 Site Investigation 1-4
1995 Supplemental Site Investigation 1-4
1998 Phase II Subsurface Investigation 1-5

2.0 CSR Investigation 2-1

Receptor Survey 2-1
Regional and Site Geology and Hydrogeology 2-1
Regional Geology and Hydrogeology 2-1
Site Geology and Hydrogeology 2-1
Horizontal and Vertical Extent of Contamination 2-2
Delineation of Soil Contaminated by VOCs 2-2
Delineation of Groundwater Contaminated by VOCs 2-4
Summary of Site Characterization Findings 2-10

3.0 Proposed Risk Reduction Standards 3-1

Soil Risk Reduction Standards 3-1
Groundwater Risk Reduction Standards 3-1

4.0 Corrective Action Plan 4-1

Previously Completed Corrective Action for Soil 4-1
Objectives of Proposed Corrective Action 4-1
Remedial Goals for Groundwater 4-1
Overview of Corrective Action 4-1
Groundwater Corrective Action 4-2

Intrinsic Remediation Demonstration....4-2
Evaluation of First Year's Data and Decision Point....4-2
Long-Term Intrinsic Remediation Program....4-3

5.0 Public Notice....5-1

6.0 References....6-1

Figures

1 Site Location Map
2 Site Plan
3 Water Supply Well Locations
4 Subsurface Cross-Section
5 June 1998 Potentiometric Map
6 Soil Analytical Data
7 Detected Groundwater Constituents
8 Geochemical Parameters

Tables

1 Summary of Detected Constituents in Soil
2 Summary of Detected Groundwater Constituents
3 Summary of Well Construction Details and Groundwater Elevations
4 Summary of Range of Detected Compounds and Applicable Regulatory Criteria
5 Summary of Geochemical Constituents in Groundwater

Appendices

A Regulatory Correspondence

B Historical Abatement and Characterization Data

C Boring Logs and Well Completion Diagrams

D Laboratory Data

E Sampling Data

CSR Certification

I certify under penalty of law that this report and all attachments were prepared under my direction in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Based on my review of the findings of this report with respect to the risk reduction standards of the Rules for Hazardous Site Response, Rule 391-3-19-.07, I have determined this site is in compliance with Type 3 and Type 5 risk reduction standards for soil and groundwater, respectively.

Martin J. Costello
Vice President of Engineering, Miller Brewing Company

William N. Zwiren, P. E.

Georgia Professional Engineer Registration No. 018829

Executive Summary

This Compliance Status Report (CSR) for the Former Miller Brewing Company can plant was prepared as required by the Georgia Hazardous Site Response Act (HSRA) regulations to provide additional information about the horizontal and vertical extent of soil and groundwater impacted by volatile organic compounds (VOCs), to document the current status of the facility in meeting the risk reduction standards, and to present a corrective action plan for the site. Based on the site characterization findings presented in this report, Miller proposes to certify soils as meeting the Type 3 risk reduction standards and groundwater as meeting the Type 5 risk reduction standards. A summary of the initial abatement and characterization activities, CSR Investigation findings, and the proposed corrective action plan is presented below.

Initial Abatement and Characterization Activities

The initial abatement activities performed at the site consisted of the removal of four underground storage tanks (USTs) in September 1988. Soil samples collected during UST removal indicated that no contamination existed at the location of the USTs. Four characterization studies, including two Phase II Site Assessments, a Site Investigation, and a Supplemental Site Investigation were performed between 1993 and 1998. The Site Investigation and Supplemental Site Investigation were performed to characterize the extent of impacted soil and groundwater in the vicinity of the former waste solvent UST piping. These characterization studies identified VOCs in groundwater and soil within a radius of approximately 40 feet from the source area.

CSR Investigation Findings

Investigations were performed at the site in May/June 1998 and August 1998. The primary investigation findings are summarized as follows:

- The closest downgradient receptor (a private drinking water well) is located approximately 2,100 feet from the release area. This well is believed to be obtaining water from the Floridan aquifer located 300 feet below ground surface (bgs).
- The primary drinking water source for the area is the Floridan aquifer, which is located approximately 300 feet bgs. The surficial aquifer is separated from the Floridan aquifer by the Hawthorn formation, which is a semi-confining unit that extends from ground surface to the Floridan aquifer.
- VOC-impacted soils were identified in a limited area approximately 40 feet in diameter that corresponds to the location of the former waste solvent UST piping leak and the former waste solvent UST.
- VOC-impacted groundwater is limited to the surficial aquifer (< 40 feet bgs)

- The horizontal extent of groundwater impacted by VOCs is limited to an area with an approximate radius of 200 feet from the source area.
- Analysis of selected geochemical parameters indicates that chlorinated VOCs are being degraded naturally via direct oxidation, reductive dechlorination, and co-metabolism.

Corrective Action Plan

Miller proposes intrinsic remediation as the corrective action for VOC-impacted groundwater. A one-year demonstration period followed by long-term monitoring is proposed to assure that groundwater does not impact receptors and to verify that intrinsic remediation is sufficient to limit the groundwater plume migration.

1.0 Introduction

This Compliance Status Report (CSR) presents site characterization data to document the current status of the former Miller Brewing Company (Miller) can plant located in Moultrie, Georgia (Figure 1). As required by the Hazardous Site Response Act (HSRA) Rule 391-3-19-.07, this report documents the current status of the facility in meeting the risk reduction standards. Also included with this report is a compliance status certification. This CSR was required by the Georgia Department of Natural Resources, Environmental Protection Division (Georgia EPD) in a Call-In letter dated March 13, 1998 (see Appendix A). According to the Call-In letter, this CSR is to be submitted by September 15, 1998.

Background

In September 1988, four underground storage tanks (USTs) were removed from the site. These consisted of two No. 2 fuel oil USTs, a waste oil UST, and a waste solvent UST. During the removal, a release was discovered from a portion of the piping that was connected to the waste solvent UST. In response to this release, the following investigation activities (Appendix B) were performed:

- Soils were excavated and soil samples collected in the area of the USTs and piping (Westinghouse Environmental Services, 1988)
- A Phase II Investigation was performed in October 1993 (CH2M HILL, 1993) as part of a purchase of the property from Miller by Reynolds Metals Company.
- A 1994 Site Investigation Report and a 1995 Supplemental Site Investigation Report were completed by the Earth Technology Corporation and Earth Tech respectively, to further define the extent of contaminated media.

As required by HSRA, a release notification was submitted by Miller to Georgia EPD on September 8, 1995 (see Appendix A). Following notification, the site was scored above the threshold level, placed on the Hazardous Site Inventory (HSI) list, and classified as a Class II site requiring completion of a CSR. As noted previously, the CSR Call-In letter from Georgia EPD required Miller to complete this CSR by September 15, 1998. Miller responded to this letter with a letter dated May 4, 1998 (see Appendix A), in which the schedule for completion of an investigation and the CSR was presented to Georgia EPD.

Objectives

The objectives of the CSR Investigation are as follows:

- Characterize the geology, hydrogeology, and groundwater quality at the facility.
- Assess the impact to groundwater and soil from the waste solvent release.

- Identify potential migration pathways and potential receptors of groundwater possibly affected by the volatile organic compounds (VOCs) detected in soil or groundwater.
- Assess the contribution of natural attenuation (including biodegradation) in reducing the concentrations of VOCs in the groundwater.
- Fulfill the requirements of a CSR as specified in HSRA Rule 391-3-19-.07.

Scope of Work

The following site characterization activities were performed by CH2M HILL in 1998 to meet the objectives noted above:

- Six shallow monitoring wells (MW-1, MW-1A, MW-2, MW-3, MW-5, and PP-1) and two deep monitoring wells (MW-4D and MW-114D) were installed.
- Six soil borings (SB-1 through SB-6) were performed and soil samples collected from selected depths were analyzed for VOCs.
- Groundwater samples were collected from 11 shallow monitoring wells, 1 temporary monitoring well, and 2 deep monitoring wells and were analyzed for VOCs.
- Groundwater samples were collected from 7 shallow monitoring wells and analyzed for geochemical parameters.
- A receptor survey was performed in which private wells located within a ½-mile radius of the site were identified.

CSR Format

The format of this CSR closely follows the guidelines set forth in Rule 391-3-19-.06(3). This report contains the following major sections:

- Introduction—Site location and description, initial abatement, and summary of the initial site characterization activities
- CSR Investigation—Information about the local and site hydrogeology, delineation of the horizontal and vertical extent of soil and groundwater contaminated by VOCs, and analysis of geochemical data.
- Proposed Risk Reduction Standards–Proposed risk reduction standards for soil and groundwater.
- Corrective Action Plan–Proposed corrective actions planned at the site for the first year and subsequent years of remediation
- Public Notice–Description of notice to be published in local newspaper.

Site Location and Description

The former Miller can plant is located in Colquitt County on Highway 319 South in Moultrie, Georgia. Figure 1 shows the approximate location of the facility. Miller built the facility in 1980 and owned and operated it until 1993, when the property was purchased by Reynolds Metals Company (Reynolds). Reynolds sold the property to the Ball Corporation (Ball) on August 10, 1998. Ball currently owns and operates the facility, which is used to manufacture, store, and distribute aluminum cans.

The facility previously contained four USTs:

- Two 20,000-gallon No. 2 fuel oil USTs–Stored No. 2 fuel oil used for emergency purposes during power outages.
- Waste oil UST (5,220 gallons)–Stored oily wastewater from the pretreatment plant at the facility.
- Waste solvent UST (7,500-gallon)–Stored waste solvents from the manufacturing plant. Laboratory analytical results in 1988 (see Miller letter dated October 3, 1998 in Appendix B) showed that the liquid in the tank contained methyl ethyl ketone (MEK), isopropyl alcohol, and butyl cellusolve. Based on interviews with site personnel, this UST has contained hexane, heptane, xylene, and toluene in the past.

These USTs were used from 1980 until they were removed in September 1998. The waste solvent UST was replaced with a drum storage facility, and the other three USTs were replaced with aboveground storage tanks. The waste solvent and the waste oil USTs were connected to the Red Label Room by below ground piping (Figure 2). During the UST removal, these pipes were closed in-place by filling the piping with concrete and capping the ends.

Initial Abatement

UST Closure

As noted above, the four USTs were removed in September 1988. Analytical results from soil samples collected before and after removal of the tanks indicated that no contamination existed at the location of the USTs (see October 3, 1998 letter from Miller to Georgia DNR in Appendix B). The UST excavation was backfilled with the excavated soil.

Piping Closure and Soil Excavation

During the UST removal, visual evidence of contamination was identified along the waste solvent tank piping where the piping enters the main plant metal building (see location on Figure 2). Five soil borings were completed to define the extent of contamination along the below ground piping (Westinghouse Environmental Services, 1988). Based on the analytical results from the soil borings, an area approximately 12 feet long by 10 feet wide was excavated to a depth of 8 feet , and 12 cubic yards of soil was removed and disposed of in a permitted disposal facility. The extent of the excavation was defined by field screening with an organic vapor analyzer (OVA). A section of the piping was removed and the remaining

ends were sealed. Prior to backfilling, one sample was collected from the excavation bottom and four samples were collected from the excavation walls to confirm that all contaminated soil had been removed. Analytical results indicated that low levels of 2-propanol, MEK, and butyl cellusolve were still present in the samples collected from the side walls (see October 3, 1998 Letter in Appendix B). Fill soil was imported to backfill the excavation.

Initial Site Characterization

1993 Phase II Site Assessment

A Phase II Site Assessment (CH2M HILL, 1993) was performed in 1993 as part of the property transfer from Miller to Reynolds. During this field investigation, one monitoring well was installed and one soil sample was collected at the site. VOCs and low levels of total petroleum hydrocarbons (TPH) and oil and grease (O&G) were detected in both soil and groundwater samples. Tables and figures from this report showing the soil and groundwater analytical data are included in Appendix B.

1994 Site Investigation

Based on the findings of the Phase II Site Assessment, a Site Investigation was performed in January 1994 (Earth Technology Corporation, March 1994). Three monitoring wells (MW-113, MW-114, and MW-115) were installed and soil and groundwater samples were collected (see locations on Figure 2). The monitoring wells were located in the source area (MW-114), just inside the main plant building (MW-113), and in a location believed to be upgradient of the source area (MW-115).

During well installation, VOCs were detected in a soil sample from MW-114 collected from 72 to 78 inches below ground surface (bgs). The highest levels of VOCs were detected in MW-113 at a depth of 40 to 46 inches bgs. No VOCs were detected in the soil sample collected from MW-115. Table 1 and Appendix B contain soil analytical results from the Site Investigation.

Groundwater samples were collected in January 1994 from MW-113 and MW-114 but not from MW-115 because it did not produce measurable levels of water during the Site Investigation. Groundwater samples from MW-113 and MW-114 contained measurable levels of VOCs. The following compounds were detected in levels that exceeded federal drinking water maximum contaminant levels (MCLs): tetrachloroethene (PCE), trichloroethene (TCE), 1,1-dichloroethene, 1,2-dichloroethane, and benzene. Groundwater analytical results are shown in Appendix B and Table 2.

1995 Supplemental Site Investigation

A Supplemental Site Investigation was completed in late 1994 to provide additional information needed to fully define the extent of contamination resulting from the leak in the waste solvent UST piping (Earth Tech, August 1995). As part of this investigation, two test pits were excavated, soil samples were collected, and two sumps were installed. The investigation also included the installation of six monitoring wells (MW-116 through MW-121) and the collection of soil and groundwater samples at each location. In addition, the

three monitoring wells installed during the 1994 Site Investigation (MW-113 through MW-115) were resampled.

Test pit 1 was located at the source area (see test pit locations on Figure 2). The fill material excavated from the pit was composed of soft, loose, silty sand and gravel to a minimum depth of 4 feet bgs. The horizontal extent of the excavation was approximately 24 feet by 9 feet. Test pit 2 was located 4 feet west of test pit 1, adjacent to the building foundation. Fill material was present to approximately 3 feet north of the building foundation to a depth of 7 feet bgs. Native material was encountered at an approximate depth of 6 feet bgs and consisted of fine-grained, hard, dense clay. Soil samples were collected from the test pit and were field-screened with a photoionization detector (PID). One soil sample from each test pit was analyzed for VOCs (Method 8240); the soil sample from test pit 1 was also analyzed for semi-volatile organic compounds (SVOCs) using Method 8270. In trench 1, acetone was the only VOC detected in soils. VOCs were not detected in soil samples collected from trench 2. Soil analytical results from the Supplemental Site Investigation are included in Table 1.

Soil and groundwater samples were also collected as part of the Supplemental Site Investigation. Six monitoring wells were installed and soil and groundwater samples were collected from each location. Soil from the borings was field-screened with a PID and two samples from each boring were submitted for VOC analysis using Method 8240. The only VOC detected in the soil samples was acetone (Table 1). The acetone was believed to be a result of laboratory contamination. Groundwater samples collected from MW-116, MW-117, and MW-118 exceeded MCLs for one or more of the following compounds: PCE, TCE, 1,1-DCE, cis-1,2-DCE, and benzene. Groundwater samples from MW-119, MW-120, and MW-121 did not exceed MCLs. Groundwater analytical results from the Supplemental Site Investigation report are presented in Table 2.

1998 Phase II Subsurface Investigation

A Phase II Subsurface Investigation (McLaren/Hart, Inc., 1998) was performed as part of the property transfer from Reynolds to Ball. During the investigation, 7 soil samples collected from 6 locations were analyzed for VOCs using Method 8260. VOCs were not detected in any of the samples analyzed. A figure showing the locations of the soil borings and VOC analytical data from the 1998 Phase II investigation is included in Appendix B.

2.0 CSR Investigation

A CSR Investigation was performed to further characterize the site geology and hydrogeology and to delineate the horizontal and vertical extent of groundwater and soil contaminated by VOCs. The results of this investigation are presented in this section.

Receptor Survey

A receptor survey was performed as part of the CSR Investigation. The survey was performed by contacting the local water utility for the City of Moultrie to determine which residents or businesses are being supplied water by the City, and by conducting a wind-shield survey. During the wind-shield survey, 22 private water supply wells were identified within a ½-mile radius of the site (see Figure 3). The closest private water supply wells are located approximately 2,100 feet north-northeast of the release area (Well A), and approximately 1,300 feet southwest of the release area (Well B). As discussed in the next section, the groundwater flow from the release area is to the northeast. Well A is side-gradient from the release area.

A water supply well was installed on January 1980 on the plant property (see location south of the Main Building). The well was installed by the City of Moultrie and used by the plant until a connection to the City water supply network was constructed. Following connected to the city, this well was capped and is currently not used. A drilling log for this well shows that it was completed to a depth of 420 feet.

Regional and Site Geology and Hydrogeology

Regional Geology and Hydrogeology

The former Miller can plant site is located in the Coastal Plain province. Surficial soils in Colquitt County are generally thin and poorly developed. Soils near the site belong to the Tifton series, which is characterized as sandy clay or silty clay. Underlying the surficial soils is the Miocene age Hawthorne formation, which functions as a semi-confining unit for the underlying limestone formation. The Hawthorne occurs near ground surface and extends to a depth of up to 300 feet below land surface. This formation is composed primarily of interbedded clays and similar fine-grained materials of limited permeability. The Hawthorn is underlain by limestone and the primary source of potable water for the region, the Floridan aquifer.

Site Geology and Hydrogeology

Soil samples were collected from the eight monitoring wells and five soil boring locations to characterize subsurface conditions. Samples were collected using a split-spoon sampler at approximately 5-foot intervals. Soils were field-identified in accordance with ASTM D 2488—Description and Identification of Soils. Boring logs for the monitoring wells and soil

borings installed during the Site Investigations and the CSR Investigation are contained in Appendix C.

Subsurface conditions are shown on the cross-section on Figure 4. Fill soils were identified at all locations at depths ranging from 1.5 to 8 feet bgs. The fill soils were identified as poorly graded sand. Underlying the fill material, clay, sandy clay or clayey sand soils were generally encountered in all borings to a maximum depth of 50 feet (MW-4D).

Groundwater Levels, Flow Direction, and Gradients

Groundwater was encountered at depths ranging from 4 feet (MW-117) to 11 feet bgs (PP-1). Table 3 summarizes the water level measurements and water level elevation measurements collected during the CSR Investigation. Using the groundwater level data, a potentiometric map for the site was developed (Figure 5). Throughout most of the investigation area on the north side of the plant, the groundwater flow is towards the northeast. However, southwest of MW-113, MW-114, and MW-121, a groundwater divide is present and the groundwater flow is towards the southwest. The direction of groundwater flow was previously reported to be in a general south-southwesterly direction across the site (Earth Tech, 1995).

Vertical gradients were investigated by installing deep monitoring wells MW-114D located next to MW-114, and MW-4D located next to PP-1. In well cluster MW-114/114D, a 1-foot higher head was recorded in MW-114 indicating a downward vertical gradient. In well cluster PP-1 and MW-4D, water levels did not adequately stabilize to obtain a representative groundwater level.

Aquifer Hydraulic Parameters and Aquifer Testing

Aquifer testing was not performed during the CSR Investigation. However, a slug test was performed on MW-114 as part of the 1994 Site Investigation. A hydraulic conductivity of 7.5 x 10^{-6} cm/sec was calculated based on the Bouwer and Rice method of data analysis. To confirm this value, a falling head test was performed in the laboratory and the hydraulic conductivity was reported to be 1.4 x 10^{-7} cm/sec.

The effective porosity of the clay aquifer material located below the site was estimated to be 0.50 (with a range of 0.40 to 0.70) based on the field soil classification and correlating these data to published literature (*Groundwater*, 1979).

The horizontal groundwater velocity was estimated to range from 0.053 feet/year to 0.53 feet/year using a hydraulic conductivity ranging from 1x 10^{-5} cm/sec to 1x 10^{-6} cm/sec, an effective porosity of 0.50, and a hydraulic gradient of 0.0256 foot/foot, which was calculated using MW-118 and PP-1.

Horizontal and Vertical Extent of Contamination

Delineation of Soil Contaminated by VOCs

The initial data collected during the Phase II Site Assessment and the Site Investigations indicated that soils in the vicinity of the former waste solvent tank piping contained low levels of VOCs significantly below applicable regulatory criteria or standards (see Table 1). Additional soil samples were collected as part of this CSR Investigation to delineate the

extent of VOC-contaminated soil and to confirm previous soil analytical results that indicated that acetone, MEK, and butyl cellusolve were present in soil.

Soil Sample Collection and Field Screening

Soil samples were collected from six locations (SB-1 through SB-6). Soil borings were completed by Environmental Exploration, Inc. (EEI), of Stockbridge, Georgia, in August 1998. Soil borings were observed and logged by a CH2M HILL hydrogeologist.

Soil samples were collected using a split-spoon sampler. Split-spoons were collected in accordance with ASTM D 1586—Penetration Test and Split-Barrel Sampling of Soils. Samples were collected from the intervals above the water table Samples were field-screened by recording soil headspace concentrations. Based on field screening, one sample from each of the six locations was submitted for laboratory analysis. To minimize the loss of VOCs, soil from each sample location was immediately placed in a sample container and the container was sealed. The remaining soil from each interval was placed in a plastic zip-lock bag for approximately 15 minutes. A PID was used to measure the level of organic vapors collected in the bag. Soils were field-identified in approximate accordance with ASTM D 2488. Soil classification and headspace screening data were recorded on boring logs (see Appendix C).

Samples were placed in a cooler on ice and shipped via Federal Express to Microseeps, in Pittsburgh, Pennsylvania. Proper chain-of-custody procedures were followed. Laboratory reports and a chain-of-custody form are included in Appendix D.

Soil Analytical Results

Soil samples were analyzed for total VOCs using EPA Method 8240 or 8260. Table 1 provides the depth interval of the samples and summarizes the soil analytical results for the site. Figure 6 presents a point plot of the soil analytical data collected during the CSR Investigation (SB-1 through SB-5 and MW-4D), the 1998 Phase II Investigation (SB-02 and SB-03), and the 1995 Supplemental Site Investigation (all other samples).

Laboratory Contamination

Acetone was the most frequently detected VOC. Four of the six samples collected during the CSR Investigation contained acetone in concentrations ranging from 16 micrograms per kilogram (ug/kg) to 730 ug/kg (SB-1, SB-3, SB-4, and SB-5). Acetone detected in these samples, with the exception of SB-1 (which is located in the source area), is believed to be the result of laboratory contamination. The trip blank submitted with the samples contained acetone at a concentration of 11 micrograms per liter (ug/L). Since acetone is a common laboratory contaminant, the 10X rule contained in EPA's *Functional Guidelines for Evaluating Data Quality* (EPA, 1994) may be applied to the data and acetone concentrations below 110 ug/kg may be attributable to laboratory contamination. The 10X rule therefore accounts for the acetone detected in all of the samples except SB-1. Furthermore, the concentration of acetone in SB-1 can be revised downward from 730 ug/kg to 620 ug/kg.

Methylene chloride was detected in SB-4 at a concentration of 10 ug/kg. Since methylene chloride is a common laboratory contaminant and was not detected in the source area, this detection is believed to be attributable to laboratory contamination.

VOCs Detected in Soils

Additional VOCs detected at SB-1 (3 to 5 feet bgs) at low concentrations include chloroethane, 1,1-dichlorothane, ethyl benzene, MEK, PCE, toluene, and xylenes. All concentrations were well below the regulatory limits specified in Table 1 of the GA HSRA *Guidance on Target Soil Concentrations for Type 1 and Type 3 Risk Reduction Standards* (DNR, 1995) (see Table 1). Excluding acetone, VOCs detected outside of the source area (SB-1) were limited to TCE, which was detected in SB-2 (0.5 to 2 feet bgs) at a concentration of 16 ug/kg, and methylene chloride, which was detected in SB-4 (3 to 5 feet bgs) at a concentration of 10 ug/kg. VOCs were also detected in soil samples collected from MW-113 and MW-114 during the 1994 Site Investigation. The samples were located at the source area (MW-114) and approximately 30 feet south of the source area (MW-113). The concentrations of VOCs detected were comparable to those detected in samples collected from similar depths during the CSR Investigation.

As shown on Figure 6, the horizontal extent of VOC-impacted soils is limited to the area immediately surrounding SB-1, MW-113, and MW-114, within 40 feet of the source area. The only VOCs detected outside of this area were acetone and methylene chloride. As previously discussed, these contaminants are believed to be a result of laboratory contamination.

Delineation of Groundwater Contaminated by VOCs

Well Installation

Eight additional monitoring wells (MW-1, MW-1A, MW-2, MW-3, MW-4D, MW-5, MW-114D, and PP-1) were installed as part of the CSR Investigation to further define the horizontal and vertical extent of groundwater contaminated by VOCs. A summary of the construction details for each of the wells, including monitoring wells installed during previous investigations, is provided in Table 3. Five shallow monitoring wells ranging in depth from 10 feet to 15 feet and one 22.5-foot deep monitoring well were installed in May and June 1998. A 15-foot shallow well (MW-5) and a 50-foot deep well (MW-4D) were installed in August 1998. Monitoring wells were installed by EEI, Stockbridge, Georgia, under the observation of a CH2M HILL engineer or hydrogeologist. During the May/June installation event, a Simco Earthprobe equipped with 4-inch O.D. augers was used. During the August 1998 installation event, a CME 750 rig equipped with 8 ¼ I.D. or a 4 ½ I.D. augers was used.

Shallow Monitoring Well Installation

Five shallow monitoring wells were installed in May and June 1998. A 2-inch-diameter polyvinyl chloride (PVC) casing and either a 5- or 10-foot-long screen were installed at each shallow monitoring well location except MW-1 and PP-1. A 1-inch-diameter PVC casing and a 5-foot-long screen were installed at MW-1 and PP-1. One shallow monitoring well (MW-5) was installed in August 1998. A 2-inch-diameter PVC casing and 15-foot-long screen were installed at MW-5.

Temporary Groundwater Monitoring Points

Two temporary groundwater monitoring points were completed inside the main plant building to define the horizontal extent of VOC-contaminated groundwater underneath the facility. PP-2 was hand-augured to a depth of 8 feet bgs. PP-3 was completed to a depth of

11 feet bgs. A groundwater sample was collected from PP-2. No water entered PP-3 during the CSR Investigation; therefore, no sample was collected from this location. The borings were backfilled with a cement-bentonite grout.

Deep Monitoring Wells

Two deep monitoring wells (MW-114D and MW-4D) were installed to investigate the vertical extent of groundwater contaminated by VOCs. MW-114D was installed to a total depth of 22.5 feet. Initially, a 3-inch-diameter PVC surface casing was installed to a depth of 15 feet and grouted using a Portland cement-bentonite mixture. The grout was allowed to set overnight before the borehole was advanced. Drilling resumed the following day , using 2-inch O. D. augers to advance the borehole to a total depth of 22.5 feet. A 1-inch-diameter PVC casing and a 5-foot-long screen were installed inside the 3-inch-diameter surface casing. A sand pack was installed to a depth of approximately 10 feet, followed by a bentonite seal to a depth of 8 feet.

The other deep monitoring well (MW-4D) was installed to a total depth of 50 feet. Initially, a 6-inch-diameter PVC surface casing was installed to a total depth of 20 feet and grouted using a cement-bentonite grout. The grout was allowed to set overnight before the borehole was advanced. Drilling resumed the following day using mud rotary drilling methods to advance the borehole to a total depth of 50 feet. A 2-inch-diameter PVC casing and a 10-foot-long screen were installed inside the 6-inch-diameter surface casing. A sand pack was installed to a depth of approximately 34 feet, followed by a bentonite seal to a depth of 31 feet. Well construction details are included in Appendix C.

Well Development, Purging, and Sampling

Monitoring wells were developed by pumping with a submersible pump. In June, wells MW-2 and MW-3 were pumped with a submersible pump. Four monitoring wells installed in May/June 1998 (MW-1, MW-1A, MW-114D, and PP-1) were not developed due to the low volume of water present and the low recharge rate encountered during the May/June sampling event. Monitoring wells installed in August 1998 were developed by pumping with a submersible pump.

The monitoring wells sampled included those installed as part of the CSR Investigation and existing monitoring wells. Monitoring wells were purged using a low-flow technique. A peristaltic pump was used to pump water from within the screened interval. Field parameters, particularly dissolved oxygen (DO) and oxidation-reduction potential (redox), were allowed to stabilize before samples were collected from the pump. Due to low recharge rates, samples collected from MW-1, MW-1A, PP-1,and MW-114D were collected using either a peristaltic pump (MW-1 and MW-1A) or a disposable bailer (PP-1 and MW-114D) without purging the monitoring wells. Sampling logs are included in Appendix E.

Samples were either analyzed by an on-site laboratory operated by TEG, Kennesaw, Georgia, or placed on ice in a cooler and shipped via Federal Express to Microseeps, Pittsburgh, Pennsylvania. Proper chain-of-custody procedures were followed. Laboratory reports and chain-of-custody forms are included in Appendix D.

Groundwater Analytical Results

Contaminants of Concern (COCs)

Groundwater samples were analyzed from 12 shallow monitoring wells, one temporary monitoring point (PP-2), and two deep monitoring wells for COCs. The list of COCs was determined based on waste characterization analysis performed in 1988 and analytical data from previous investigations in 1993 through 1995. As noted above, the source of contaminated groundwater is believed to be the waste solvent UST piping. According to facility records, SVOCs and metals were not stored in the UST. Therefore, groundwater samples collected from the source area during the Phase II Investigation and the Supplemental Site Investigation focused on VOCs as COCs.

The list of analytes was reduced to 7 COCs, which consisted of chlorinated compounds targeted in this CSR Investigation based on analytical results from the Supplemental Site Investigation performed in 1995. The only VOC compound detected in 1995 other than chlorinated compounds was MEK. Since MEK was detected in MW-114 located in the source area at a concentration of 30 ug/L but was not detected in any of the surrounding wells sampled (MW-115, MW-113, MW-116, MW-117, MW-118, MW-119, MW-120, and MW-121), it was not analyzed for in groundwater during this CSR Investigation. As shown on Table 3, groundwater samples collected from all monitoring wells sampled in 1998 were analyzed for the following VOCs: PCE, TCE, cis1,2-dichloroethene, TCA, 1,1-dichloroethene, 1,1-dichloroethane, and vinyl chloride.

Horizontal Extent of VOCs in Groundwater

VOC constituents were detected in 6 of the 12 monitoring wells sampled in 1998 (MW-113, MW-114, MW-116, MW-118, MW-120, and PP-1). As shown on Figure 7, these well are located in close proximity to the release area near MW-114. VOCs were not detected in MW-1A, MW-2, MW-3, PP-2, MW-121, or MW-4. Based on these non-detect wells, the horizontal limits of VOC-contaminated groundwater have been estimated as shown on Figure 7.

A summary of groundwater analytical results is presented in Table 3 along with historical analytical results from previous investigations for comparison. PCE was detected at concentrations ranging from 6.5 (MW-113) to 33 ug/L (MW-114) in 4 monitoring wells MW-113, MW-114, MW-116 and MW-118. TCE was detected at concentrations ranging from 1.4 ug/L (MW-120) to 662 ug/L (MW-114) in 5 monitoring wells (MW-113, MW-114, MW-116, MW-118, and MW-120). Cis-1,2-dichloroethene was detected in two monitoring wells, MW-1 and MW-114, at 1.07 ug/L and 4,841 ug/L, respectively. Vinyl chloride was detected in two monitoring wells at concentrations of 1.37 ug/L (MW-113) and 19.56 ug/L (MW-114). TCA was not detected in any of the monitoring wells sampled in 1988. 1,1-DCE was detected in 6 monitoring wells (MW-1, MW-113, MW-114, MW-116, MW-118, and MW-120) at concentrations ranging from 1.84 ug/L to 204.12 ug/L.

Four monitoring wells (MW-113, MW-114, MW-116, and MW-118) contained 1,1-dichloroethane at concentrations ranging from 10.06 ug/L to 93.21 ug/L. The risk reduction standards established in HSRA Appendix III were exceeded for PCE and TCE in four wells (MW-113, MW-114, MW-116, and MW-118), for vinyl chloride in one well (MW-114), and for 1,1-dichloroethene in two wells (MW-114 and MW-116). Federal drinking water MCLs

were exceeded for cis-1,2-dichloroethene in two monitoring wells (MW-114 and MW-115). Table 4 summarizes the range of VOCs detected in groundwater and the applicable criteria.

Vertical Extent of VOCs in Groundwater

The vertical extent of VOCs in groundwater was investigated by installing two monitoring wells (MW-114D and MW-4D) within the deeper portion of the shallow aquifer. MW-114D was installed at the source area with a screened interval from 17.5 to 22.5 feet, which is approximately 6 feet below the screened interval for MW-114. PCE and TCE were detected in concentrations above HSRA criteria. PCE was detected at a concentration of 11.3 ug/L and TCE was detected at 105 ug/L. Although this well is screened 6 feet below MW-114, the bentonite seal was placed at approximately 10 feet. Therefore, this well is monitoring groundwater from 10 to 22.5 feet bgs. The VOC concentrations in MW-114D are generally one to two orders of magnitude lower than the concentrations in MW-114, indicating that a significant reduction in contaminant concentration with depth occurs at the site.

The second monitoring well installed to investigate the deeper portion of the shallow aquifer, MW-5D, was installed to a depth of 50 feet bgs with a screened interval from 40 to 50 feet. VOCs were not detected in MW-4D.

Groundwater Analysis for Natural Biodegradation

As part of the CSR Investigation, groundwater samples were analyzed for geochemical parameters to evaluate the contribution of natural biodegradation to the remediation of chlorinated compounds in the groundwater. Seven groundwater samples were analyzed for the following parameters: alkalinity, chloride, ferrous iron, nitrate, nitrite, sulfate, sulfide, methane, ethane, ethylene, and soluble organic carbon. The field parameters DO and redox were also used to evaluate aerobic biodegradation. As discussed below, both the geochemical data and the presence of degradation products of chlorinated compounds indicate that both aerobic and anaerobic mechanisms of degradation are occurring at the site. The groundwater constituents used to evaluate natural biodegradation are presented in Table 5 and shown on Figure 8.

Chlorinated solvents biodegrade by several processes:

- Direct oxidation, whereby the chlorinated compound is directly used as a growth substrate and broken down to inorganic molecules such as carbon dioxide, water, and chloride;
- Reductive dechlorination; and
- Co-metabolism, whereby the chlorinated compound is converted to another chemical by microorganisms during the growth on other carbon compounds.

The most important process for the biodegradation of chlorinated compounds is reductive dechlorination, which occurs in an anaerobic environment. In reductive dechlorination, the most important naturally occurring degradation pathway, the chlorinated compound functions as an electron acceptor. The biodegradation of chlorinated compounds is an electron-donor-limited process. A brief explanation of the roles of electron donors in biodegradation of chlorinated compounds is presented below.

Dissolved Oxygen

DO levels in groundwater must be low for reductive dechlorination to occur. In general, the most favorable conditions occur when DO levels are lower than 1.0 milligrams per liter (mg/L). As shown on Figure 8 and Table 5, DO levels were found to be low (< 1.51 mg/L) in monitoring wells exhibiting the highest concentrations of VOCs (MW-114, MW-116, and MW-118). In contrast, DO levels at the edge and outside of the source area (MW-2, MW-3, MW-113, and MW-121) were greater than 4.0 mg/L. Therefore, the anaerobic conditions necessary for the natural attenuation of chlorinated compounds are occurring at the site.

Oxidation/Reduction Potential (Redox)

Redox is an indicator of the relative tendency of a solution to accept or transfer electrons. Redox is often used to confirm information obtained in DO readings. Redox readings are typically positive when DO levels are higher and are lower or negative when DO levels are very low. Redox readings were greater than 100 millivolts (mV) in all wells measured. Therefore, the redox levels measured do not corroborate the DO levels measured at the site.

Nitrate (NO_3)

Biodegradation via nitrate reduction is not a significant process at the site. Nitrate reduction occurs after oxygen sources are depleted. Nitrate and nitrite (NO_2) levels were low across the entire site. If reductive dechlorination due to nitrate reduction were occurring, higher nitrate levels would be expected upgradient and downgradient of the plume, and lower concentrations would be expected within the plume. Nitrate levels at the site ranged from 0.80 mg/L (at MW-3) to 10.2 mg/L (at MW-113).

Sulfate (SO_4)

Biodegradation via sulfate reduction does not appear to be a significant process at the site. Sulfate is used by microorganisms after oxygen and nitrate levels are depleted. Sulfate and sulfide levels were low across the entire site. As with nitrate ,if reductive dechlorination due to sulfate reduction were occurring, higher sulfate levels would be expected upgradient and downgradient of the plume, and lower levels would be expected within the plume. Sulfate levels at the site were low, ranging from 5.8 mg/L at MW-3 to 14.8 mg/L at MW-116.

Iron

Iron can be used as an electron donor in anaerobic degradation, with bacteria transforming relatively insoluble ferric iron (Fe^{3+}) to more soluble ferrous iron (Fe^{2+}). Depressed ferric iron and elevated ferrous, or dissolved, iron concentrations would be expected within the plume if microorganisms were degrading chlorinated compounds via iron reduction. However, ferrous iron concentrations were below detection limits (BDL) at all locations analyzed. Therefore, biodegradation via iron reduction is not a significant process at the site.

Methane

Carbon dioxide is used as an electron acceptor by methanogenic bacteria, with methane produced as a metabolic by-product. The methane data collected at the site indicated that biodegradation resulting from methanogenesis is occurring at the site. Methane concentrations at the source area were three orders of magnitude greater at MW-114 (129,222 nanograms per liter [ng/L]) than at the surrounding monitoring wells sampled where concentrations ranged from 149 ng/L at MW-113 to 747 ng/L at MW-2.

Alkalinity

Alkalinity is a water quality parameter that is used to measure the buffering capacity of groundwater. It can be used to estimate the amount of carbon dioxide produced during biodegradation. Elevated alkalinity corresponds to higher concentrations of carbon dioxide, and therefore an increased level of biological activity. Alkalinity was highest in the center of the plume at MW-114 (112 mg/L) and decreased at the edges of the plume. These data support the methane data presented above, indicating that biodegradation via methanogenesis is occurring at the source area.

Chloride

As organic solvents are biodegraded by reductive dechlorination, chlorine ions are replaced by hydrogen ions and the concentration of chloride ions in groundwater increase. Chloride ion concentrations were slightly elevated across the site, indicating that biodegradation via reductive dechlorination is occurring at the site. Chloride concentrations ranged from 38.5 mg/L at MW-2 to 11.5 mg/L at MW-118, which is located at the downgradient edge of the source area.

Degradation Products of Reductive Dechlorination

Degradation products are formed as chlorinated VOCs are degraded, so the presence of these compounds indicates that reductive dechlorination is occurring. The sequence of dechlorination reactions is as follows: PCE → TCE → cis-1,2-dichloroethene (DCE) → vinyl chloride. Vinyl chloride may then be converted to either carbon dioxide or to ethene, which is followed by further reduction to ethane or methane. Another sequence of daughter products involves the dechlorination of 1,1,1-trichloroethane (TCA) to 1,1-dichloroethene, to 1,1-dichloroethane, then to vinyl chloride, which follows the same pathway as discussed for PCE.

Reductive dechlorination is particularly evident in the analytical data collected from MW-114, where the degradation products of PCE (TCE, DCE, vinyl chloride, ethane, and ethylene) were detected. Although TCA was not detected, the daughter products of this compound (1,1-dichloroethene and 1,1-dichloroethane) were detected in MW-114. Similar trends were observed in other wells in close proximity to the source area (MW-113, MW-116, and MW-118). Since vinyl chloride was detected in relatively low concentrations, ranging from 1.27 ug/L (MW-113) to 19.56 ug/L (MW-114), the data indicate that vinyl chloride is biodegrading to either CO2, ethane, or ethylene. This conclusion is further supported by the fact that the highest concentrations of ethane and ethylene (249 ng/L and 205 ng/L, respectively) were detected in MW-114, where the highest vinyl chloride concentration (19.56 ug/L) was detected.

Another indication of reductive dechlorination is the presence of cis-1,2-DCE. This compound is predominantly a product of biodegradation, whereas manufactured DCE is predominantly 1,1-DCE; it typically contains only 10 to 20 percent cis-1,2-DCE. Similarly, trans-DCE is a manufactured isomer rather than a product of biodegradation. During the CSR Investigation, cis-1,2-DCE was detected in six wells (PP-1, MW-1, MW-113, MW-114, MW-116 and MW-118) at concentrations ranging from 4,841 ug/L (MW-114) to 1.07 ug/L (MW-1). 1,1-DCE was detected in five wells (MW-1, MW-113, MW-114, MW-116, and MW-118); however, the concentrations ranged from 204.12 ug/L (MW-114) to 2.84 ug/L (MW-1). In MW-114, the cis-1,2-DCE concentration was more than 10 times higher than the 1,1-DCE concentration. Trans-DCE was not detected in groundwater samples collected during

previous investigations, and laboratory analysis for this compound was therefore not performed during the CSR Investigation. The data indicate that reductive dechlorination is occurring at the site.

Summary of Site Characterization Findings

The site characterization findings are summarized as follows:

- **Source of Contamination and Source Removal**—The source of the contamination detected in soils and groundwater appears to have originated from piping connecting the Red Label Room to the waste solvent UST. The UST and leaking segments of piping were removed in September 1988 along with 12 cubic yards of contaminated soil in the vicinity of the leaking underground pipe. Additional soil excavation activities were performed in 1994 during the excavation of test pits to a depth of 11 feet, which is approximately 4 feet below the groundwater table; thus, contaminated soils above the groundwater table in the source area have been excavated and removed.

- **Regional Geology and Hydrogeology** - The uppermost geologic unit at the site is the Miocene age Hawthorn formation, which is a semi-confining unit for the underlying limestone formation. The Hawthorn occurs near ground surface and extends to a depth of up to 300 feet below land surface. This formation is composed primarily of interbedded clays and similar fine-grained materials of limited permeability. The Hawthorn is underlain by limestone and the primary drinking water aquifer for the region, the Floridan aquifer.

- **Site Geology and Hydrogeology** - Fill soils (sands) have been identified in the upper 1.5 to 8 feet of the site. These soils are predominantly underlain by silty sand or clay soils to a depth of at least 50 feet. Shallow groundwater was encountered at depths of 4 to 11 feet bgs. A groundwater divide is present at the site. On the north side of the plant, the groundwater flow is towards the northeast. On the south side of the plant, the groundwater flow is towards the southwest. The groundwater velocity is estimated to range from 0.053 to 0.53 foot/year. A downward vertical gradient was found to be present at MW-114D.

- **Groundwater Receptors** – Water supply wells were identified in most directions surrounding the site. The closest water supply well in the downgradient direction is located approximately 2,100 feet from the release area. This well is the primary drinking water source for a business for which City water is not available. Based on a drilling log for the capped well on Miller property, water supply wells in this area are obtaining water from a depth of 400 feet which is the Floridan aquifer. As previously discussed, the Floridan aquifer is separated from the surficial groundwater-bearing zone by the 300-foot-thick Hawthorn formation (a semi-confining unit).

- **Soils Contaminated by VOCs**—The horizontal extent of soils impacted by VOCs is limited to an area approximately 40 feet in diameter that corresponds to the location of the former waste solvent UST piping leak and the former waste solvent UST. Concentrations of VOCs detected in soils did not exceed regulatory limits listed in Table 1 of the GA HSRA *Guidance on Target Soil Concentrations for Type 1 and Type 3 Risk*

Reduction Standards (DNR, 1995). The highest levels of VOCs were detected at SB-1 (3 to 5 feet bgs) and MW-113 (3.5 to 4 feet bgs), which are located in the source area.

- **Groundwater Contaminated by VOCs**—The horizontal extent of groundwater contaminated by VOCs is limited to the area within an approximate radius of 200 feet of the release area (MW-114). Groundwater concentrations exceeded HSRA standards or federal MCLs in 4 of the 6 wells containing VOCs. Groundwater collected in the source area (MW-114D) from the lower portion of the shallow aquifer (15 feet bgs) contained PCE and TCE in concentrations 1 to 2 orders of magnitude lower than in the upper portion of the aquifer (MW-114). Groundwater was not contaminated by VOCs in the lower portion of the aquifer at a depth of 40 feet bgs (MW-4D).

- **Groundwater Analysis for Natural Biodegradation**—Chlorinated VOCs are being degraded at the site via direct oxidation, reductive dechlorination and co-metabolism. Analytical data including elevated chloride, alkalinity, and methane concentrations at the site and the presence of degradation products indicate that natural biodegradation is occurring.

3.0 Proposed Risk Reduction Standards

Soil Risk Reduction Standards

Based on the data presented in this CSR, Miller proposes to certify the soils as meeting the Type 3 risk reduction standards of HSRA Rule 391-3-19-.07(8). A summary of the rule and the basis for Miller certifying these risk reduction standards is presented below.

A) *All source material must be removed or decontaminated to Type 3 media criteria.* The waste oil and waste solvent USTs were removed and underground piping was grouted and capped. Soils in the area of the release were excavated to 5 feet below the groundwater table; therefore, the source material has been removed.

B) *Type 3 standards are applicable where the responsible party documents that the activities being conducted on the property satisfy the definition for non-residential property at Rule 391-3-19-.02(2).* The former Miller Brewing Company can plant is currently owned by the Ball Corporation, which continues to operate the facility for the manufacture, storage, and distribution of aluminum cans. There are no plans for the facility to be used for human habitation as described in Rule 391-3-19-02(2).

C) *Criteria for soils. Concentrations at any point above the uppermost groundwater zone in soil that has been affected by a release shall not exceed the higher of concentrations in Item 1 of Rule 391-3-19-.07(6) or those listed in Table 2 of Appendix III.* As shown in Table 4, VOCs were not detected above the groundwater table at concentrations above Item 1 of Rule 391-3-19-.07(6), as defined in Table 1 of the March 1995 HSRA *Guidance on Target Soil Concentrations for Type 1 and Type 3 Risk Reduction Standards* (DNR, 1995).

Groundwater Risk Reduction Standards

Based on the data presented in this CSR, Miller proposes to certify groundwater as meeting the Type 5 risk reduction standards. A summary of the rule and the basis for Miller certifying these risk reduction standards is presented below.

a) *Type 5 standards allow, in those instances where application of Type 1-4 standards is not appropriate under present circumstances, the use of measures to control the regulated substances or the property where the regulated substances are located.* Type 3 or 4 risk reduction standards are exceeded in four monitoring wells (MW-113, MW-114, MW-116, and MW-118) located in close proximity (within 50 feet) to the release area. The source of the release and soils in the source area have been remediated by excavation and disposal. The facility is fenced and the majority of the area contaminated by VOCs is covered by concrete or is underneath the building. It will be demonstrated that the corrective action (intrinsic remediation) discussed in the next section will effectively control the migration of contaminated groundwater within the facility's property boundaries.

b) *Compliance with Type 5 standards requires long-term monitoring and maintenance, as appropriate for all implemented remedial measures, plus a restrictive covenant in accordance with Rule 391-3-19-.08(7).* A long-term monitoring plan is presented as part of the corrective action plan (CAP). A restrictive covenant will be proposed within 90 days of approval of these proposed risk reduction standards.)

c) *Compliance with Type 5 standards requires that Type 1, 2, 3, or 4 risk reduction standards, as applicable, be met beyond the boundary of the area for which compliance with Type 5 standards are sought whenever implementation of remedial measures is complete.* Type 3 risk reduction standards are currently met approximately 100 feet downgradient of the release area (see Figure 7). Through long-term monitoring, intrinsic remediation will be shown to prevent the exceedance of the Type 3 standards 200 feet downgradient of the release area.

d) *Remedial measures designed to achieve compliance with Type 5 standards shall be consistent with the general requirements of Rule 391-3-19-.07(a) and meet all the performance criteria.* Groundwater is the only medium for which performance criteria must be met. The corrective action (intrinsic remediation) will be shown to limit the horizontal and vertical migration of groundwater contamination through a long-term monitoring program.

4.0 Corrective Action Plan

Previously Completed Corrective Action for Soil

In 1988, soil was excavated in the area of piping leading to the former waste solvent UST. Soil analytical results collected during previous investigations and confirmed by this CSR Investigation have shown that soils above the groundwater table are in compliance with the HSRA Type 3 risk reduction standards. No additional soil corrective actions are planned for this facility.

Objectives of Proposed Corrective Action

The overall objective of the corrective action presented herein is to remediate groundwater contaminated by VOCs to protect human health and the environment in a manner that is technically and economically feasible. The proposed corrective action has been developed in accordance with HSRA Rule 391-3-19-.06 to achieve compliance with Type 5 risk reduction standards. The specific objectives are as follows:

- Demonstrate that the concentrations of constituents in the dissolved plume will be reduced to applicable clean-up criteria through natural attenuation prior to reaching receptors.
- Protect groundwater receptors.

Remedial Goals for Groundwater

Miller proposes to meet the Type 4 risk reduction standards for groundwater at a point of compliance established inside the property boundaries of the facility. These risk reduction standards were presented in Table 4.

Overview of Corrective Action

Miller proposes using intrinsic remediation to meet the objectives of the CAP. Intrinsic remediation was selected for the following reasons:

- **Source Removal and Soil Remediation Has Been Completed** - The source of contamination, the former UST and piping, has been removed and soils in the area of the leaking piping have been excavated and disposed of as part of the previous soil corrective action.
- **Groundwater Receptors are Protected** - Groundwater migration is the primary pathway for contaminant migration at the site, and the only receptors for this groundwater are users of water supply wells. The closest active water supply well is located 2,100 feet side-gradient from the contaminant source. This water supply well is believed to be

obtaining water from the Floridan aquifer, which is located approximately 300 feet below the site. Vertical migration of contamination has been shown to be minimal due to the sandy clay and clay soils which comprise the Hawthorn formation. Horizontal groundwater flow is estimated to be less than 1 foot/year. At this rate of migration and precluding natural biodegradation, the travel time to the closest receptor is over 2,000 years.

- **Natural Attenuation Has Been Shown to be Occurring at the Site -** The COCs, chlorinated compounds, are biodegradable. Geochemistry data and analytical data indicate that reductive dechlorination is occurring at the site. This process is evidenced by the presence of daughter products of PCE, TCE and PCA, the presence of 1,2-DCE, and the geochemistry data which show that methanogenesis is occurring, as indicated by elevated methane concentrations in groundwater.

Groundwater Corrective Action

The VOC contamination in groundwater will be remediated to meet the remedial objectives and the remedial goals using an intrinsic remediation program. Intrinsic remediation refers to naturally occurring processes that reduce the concentration of subsurface groundwater contaminant without active remediation. The proposed corrective action will be implemented in a phased approach as follows:

Intrinsic Remediation Demonstration

Groundwater monitoring for COCs will be used to demonstrate that intrinsic remediation of VOCs is occurring at the site. Site data will be collected to demonstrate that naturally occurring biodegradation is effectively limiting the migration of the dissolved VOC plume in surficial groundwater. The demonstration will have the primary goal of providing additional data to confirm that biodegradation of VOC contaminants is occurring at the site and that the dissolved plume is stable or decreasing in size.

The intrinsic remediation demonstration program will consist of semi-annual groundwater monitoring of selected wells at the site over a one-year period. The following monitoring wells will be sampled: MW-1, MW-1A, MW-3, MW-4, MW-113, MW-114, MW-121, and PP-1. These wells were selected because they represent surficial groundwater quality in the hydraulically upgradient area (MW-121 and MW-3), downgradient area (MW-1, PP-1, MW-1A, and MW-4), and within the VOC plume (MW-113 and MW-114). In addition, the deep well MW-4D will be sampled to confirm that vertical migration of VOC-impacted groundwater is not occurring.

Groundwater samples from each well will be analyzed for the COCs identified during the CSR Investigation. Groundwater will be analyzed for the following COCs: PCE, TCE, cis-1,2-DCE, TCA, 1,1-dichloroethene, 1,1-dichloroethane, and vinyl chloride. In addition, the following field parameters will be recorded: pH, temperature, conductivity, DO, and redox.

Evaluation of First Year's Data and Decision Point

At the end of the one-year demonstration period, the two semesters of data will be evaluated to determine if intrinsic remediation can be expected to meet the remedial goals

and objectives. For each semi-annual sampling event, a VOC plume map will be developed and the future horizontal extent of the VOC plume will be estimated.

If the VOC plume is predicted to be stable within the ring of non-detect wells currently established (MW-1A, MW-4, MW-121, and MW-3), then a long-term intrinsic remediation program will be initiated. If the VOC plume is predicted to increase significantly in size, then an alternative corrective action will be implemented at the site to control the plume migration, if necessary.

Long-Term Intrinsic Remediation Program

The long-term intrinsic remediation program will consist of annual monitoring and subsequent data evaluation for the COCs. After 3 years of annual monitoring, if conditions remain consistent, this program will be reduced to monitoring every other year for 4 years (two events). The remediation program will be evaluated after 8 years to determine if continued monitoring is necessary at the site. If the monitoring data show that the VOC plume is increasing significantly in size, then a remediation program will be initiated, if necessary.

5.0 Public Notice

As required in GA HSRA Rule 391-3-19-.06(5), a notice will be placed in the local newspaper, the Moultrie Observer, by September 23,1998 indicating that a CSR has been submitted to EPD for the former Miller Brewing Company can plant.

6.0 References

CH2M HILL. *Field Investigation Report of the Miller Brewing Company Container Plant, Moultrie, Georgia.* October 1993.

Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Site Response Program. *Guidance on Target Soil Concentrations for Type 1 and Type 3 Risk Reduction Standards.* March 1995.

McLaren/Hart, Inc. *Phase II Subsurface Investigation.* May 1998

The Earth Technology Corporation. *Site Investigation Report for the Former Miller Brewing Company Moultrie Container Division Facility.* March 1994.

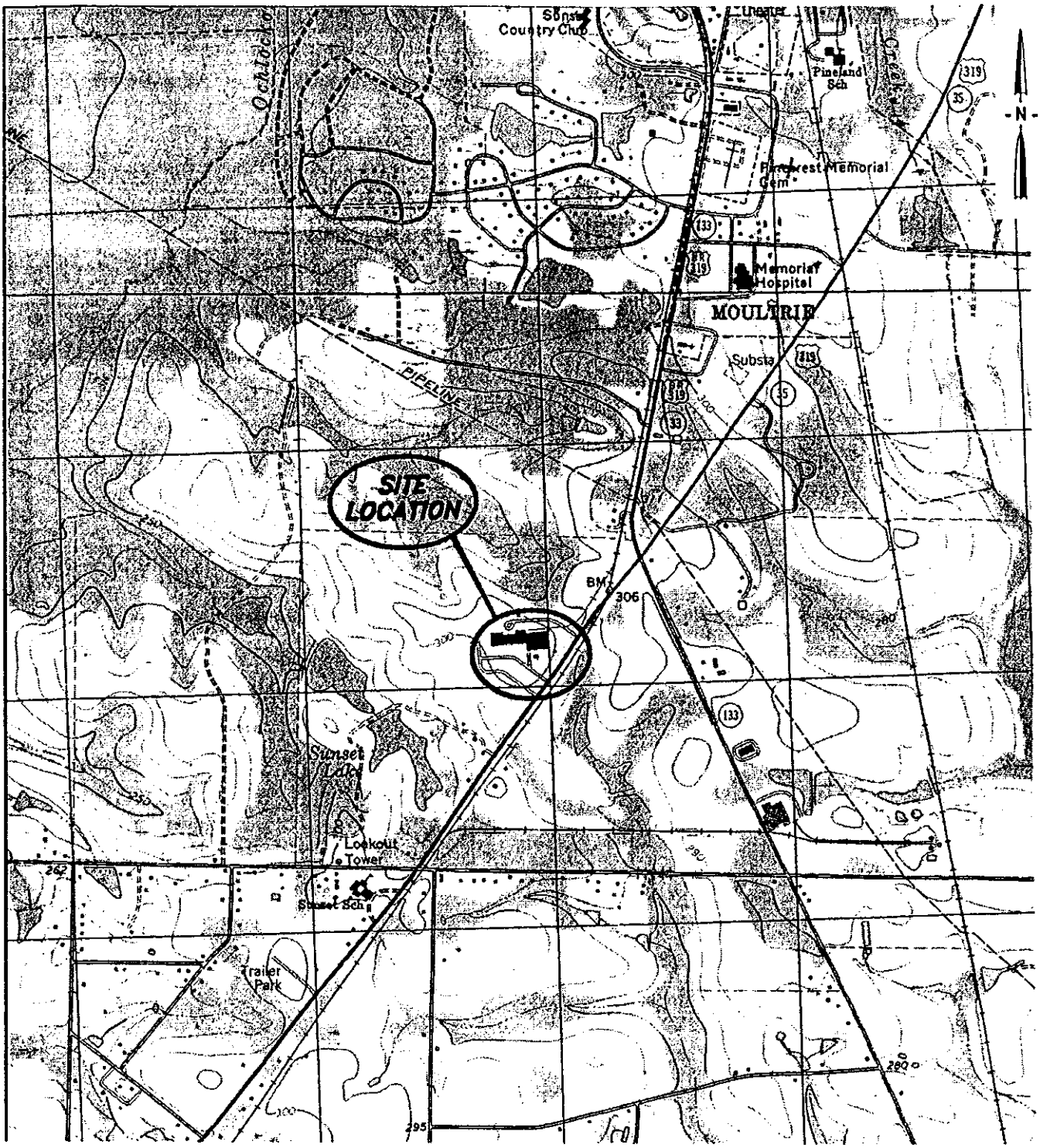
The Earth Technology Corporation. *Supplemental Site Investigation Report of the Former Miller Brewing Company Container Plant in Moultrie, Georgia.* August 1995.

U.S. Environmental Protection Agency (EPA). Contract Laboratory Program. *National Functional Guidelines for Organic and Inorganic Review.* 1994.

Westinghouse Environmental Services. *Soil Sampling and Analysis Report for Miller Brewing Company Red Label Pipe Area, Moultrie Can Plant, Moultrie, Georgia.* October 1988.

Figures

1 Site Location Map
2 Site Plan
3 Water Supply Well Locations
4 Subsurface Cross-Section
5 June 1998 Potentiometric Map
6 Soil Analytical Data
7 Detected Groundwater Constituents
8 Geochemical Parameters



Scale 1:24 000

U.S. Geological Survey Map:
Moultrie and Coolidge Quadrangles, Georgia - Colquitt Co.
7.5 Minute Series Topographic
Photorevised 1988 and 1987 respectively

Modified from a Figure Done by EarthTech in the Supplemental Site Investigation (August, 1995).

Figure 1
Site Location Map
Former Miller Brewing Company Can Plant
Moultrie, Georgia

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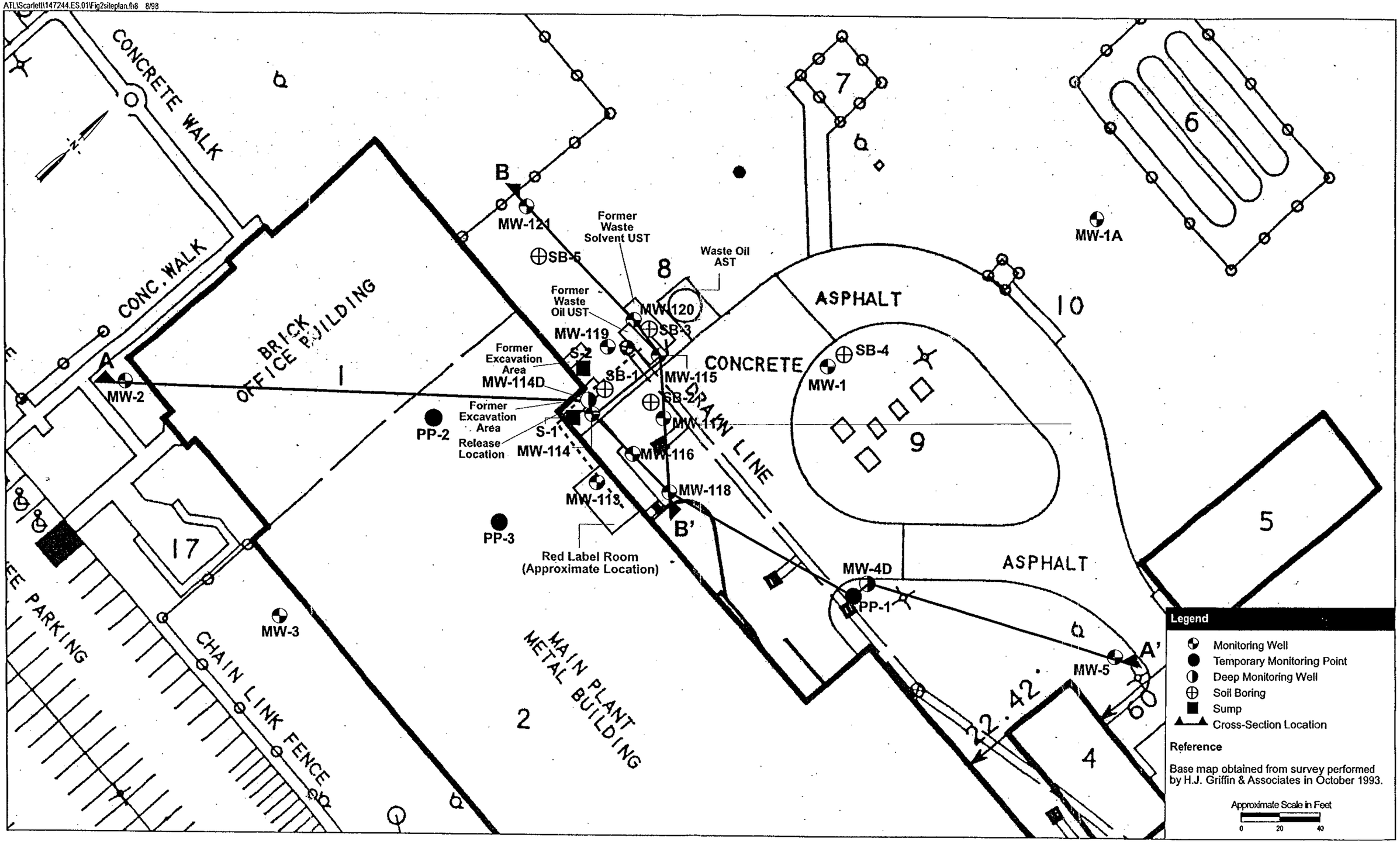
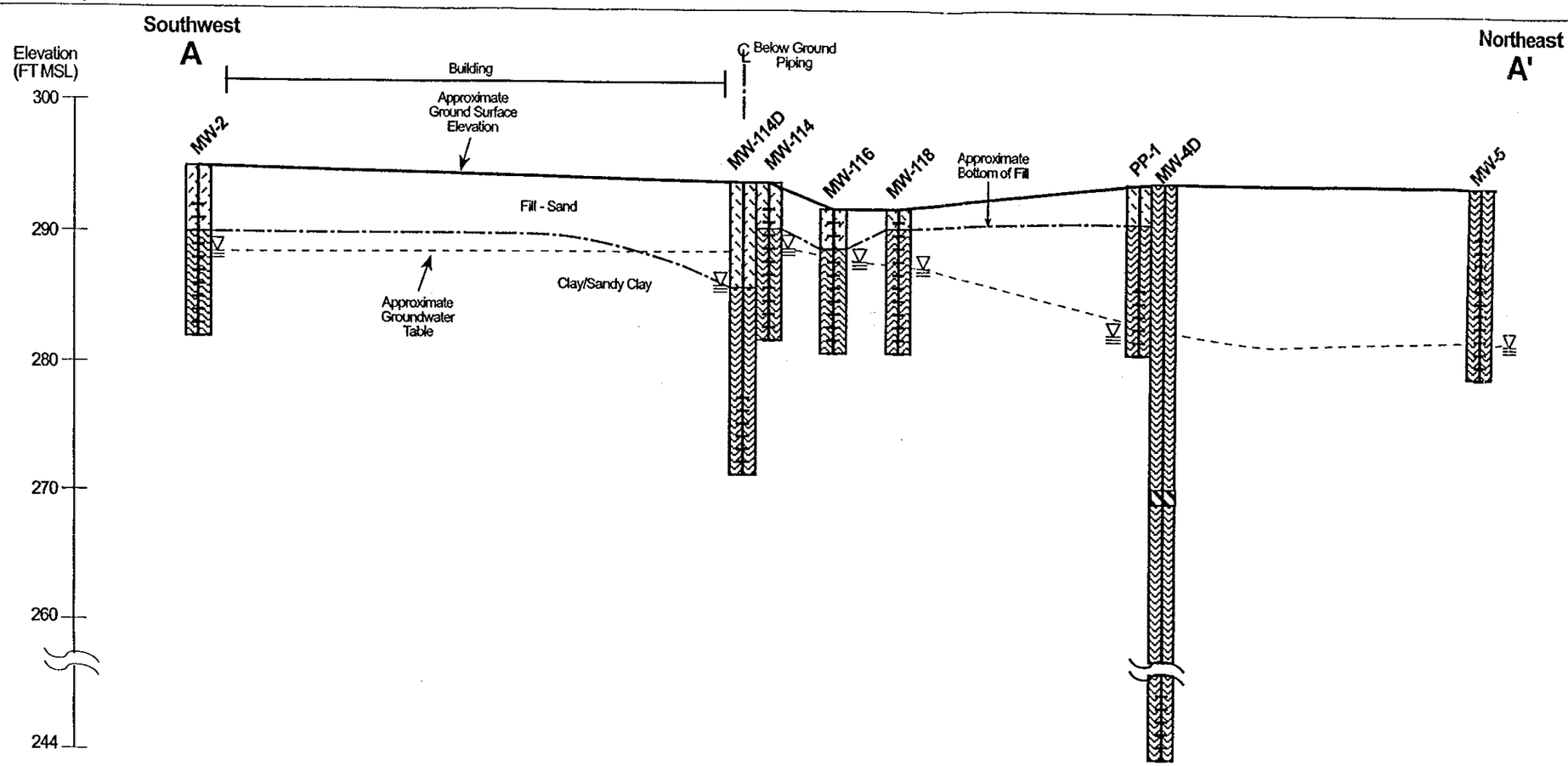
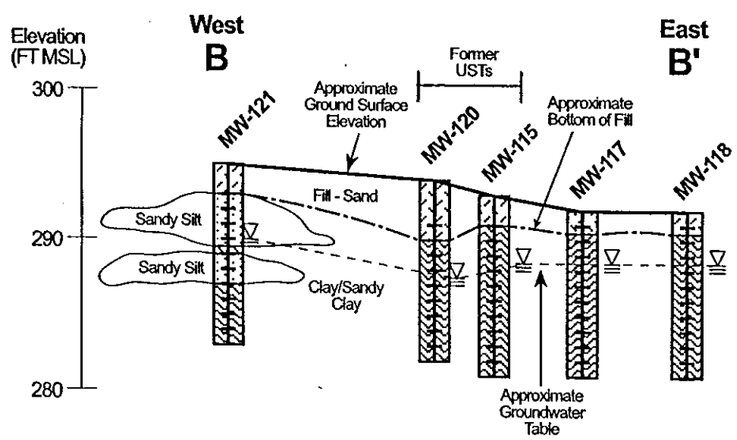


Figure 2
Site Plan
Former Miller Brewing Company Can Plant
Moultrie, Georgia





Legend

- Fill/Sand (SP-SC, SW)
- Clay/Sandy Clay (CL)
- Sandy Silt (SM)
- Clayey Sand (SC)
- Groundwater Elevation
- Screened Interval

Notes

1. The depth and thickness of the subsurface strata and affected soil limits indicated on the sections were generalized from and interpolated between test locations. Information on actual subsurface conditions exists only at the specific locations and dates indicated. Subsurface conditions and water levels at other locations may differ from conditions occurring at the indicated locations.
2. Elevations based on a study performed by H.J. Griffin & Associates in June 1998. Elevations reference a DOT benchmark.
3. Soil descriptions were taken from boring wells completed by EarthTech in 1994 and 1995 and CH2M HILL in 1998.

Figure 4
Subsurface Cross-Section
Former Miller Brewing Company Can Plant
Moultrie, Georgia

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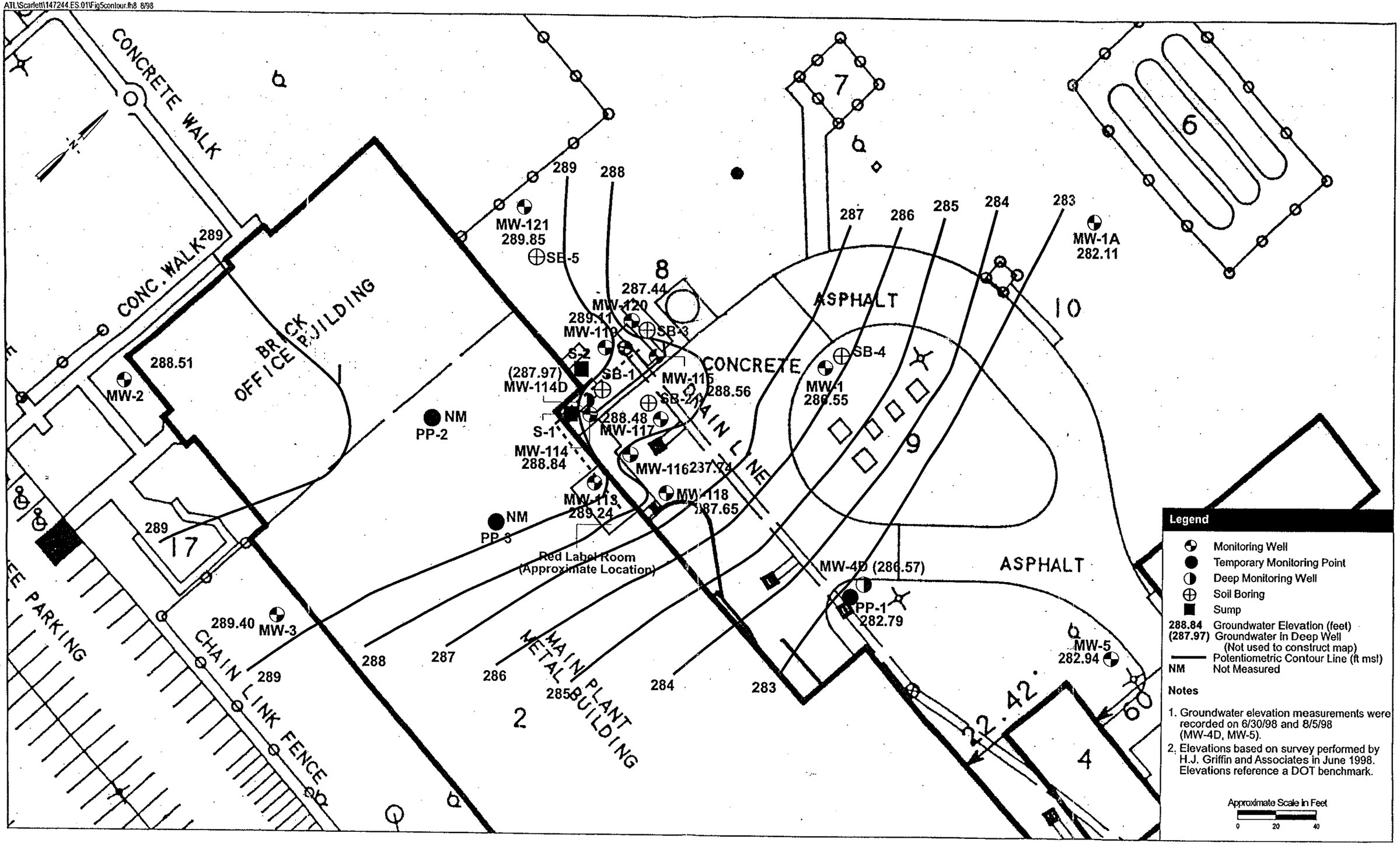

Figure 5
June 1998 Potentiometric Surface Map
Former Miller Brewing Company Can Plant
Moultrie, Georgia

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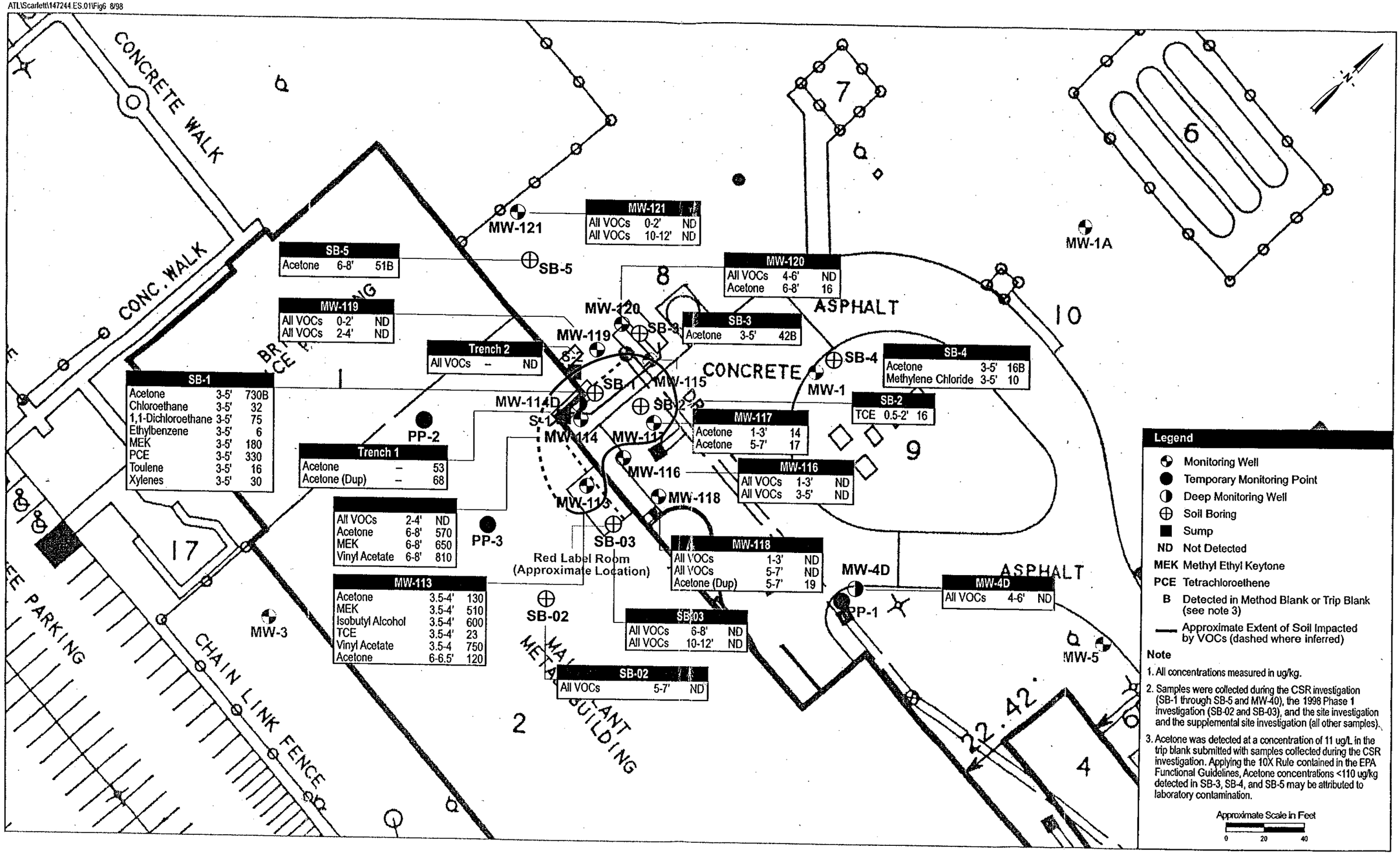

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Figure 6
Soil Analytical Data Point Plot
Former Miller Brewing Company Can Plant
Moultrie, Georgia

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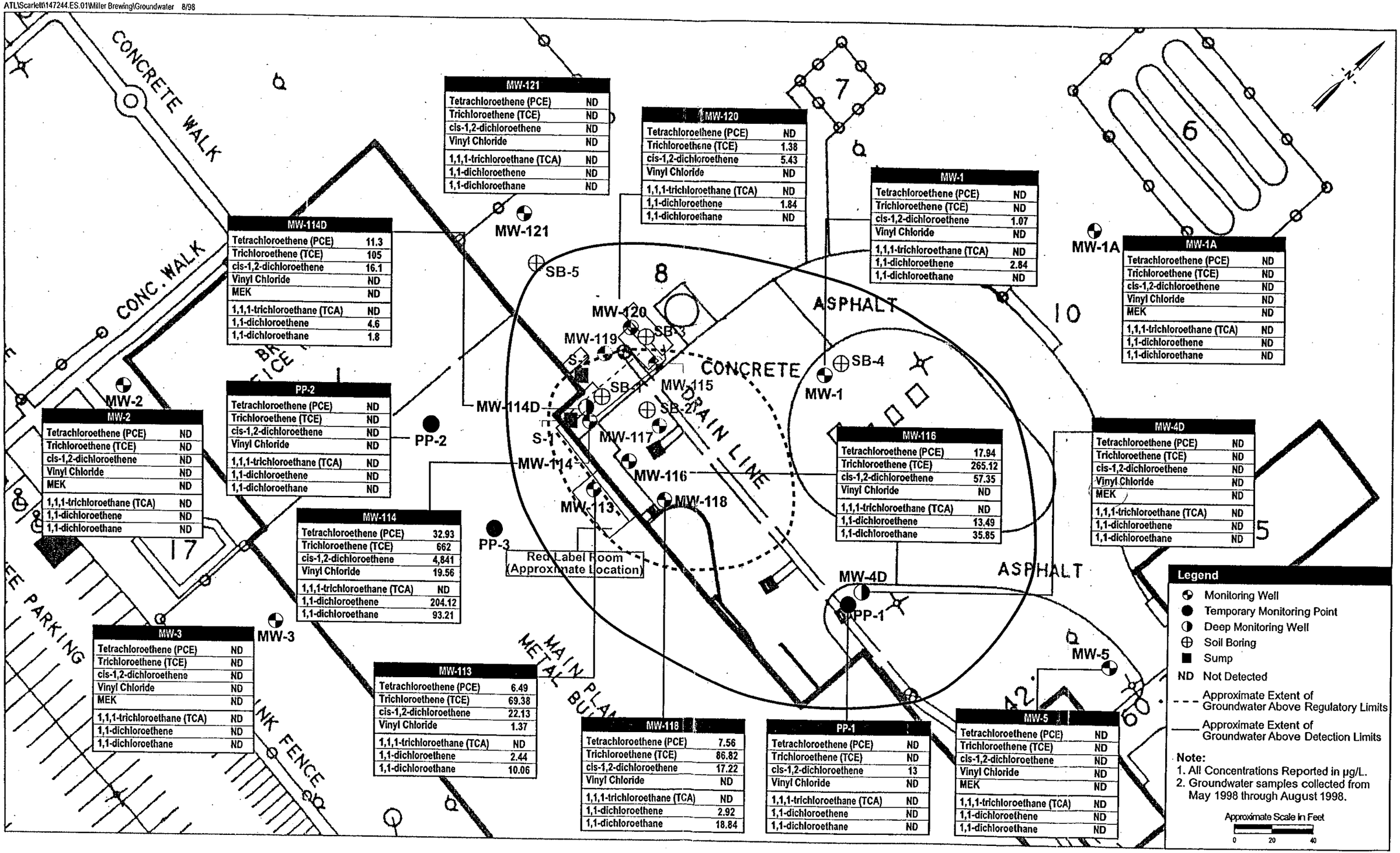

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Figure 7
Detected Groundwater Constituents
Former Miller Brewing Company Can Plant
Moultrie, Georgia

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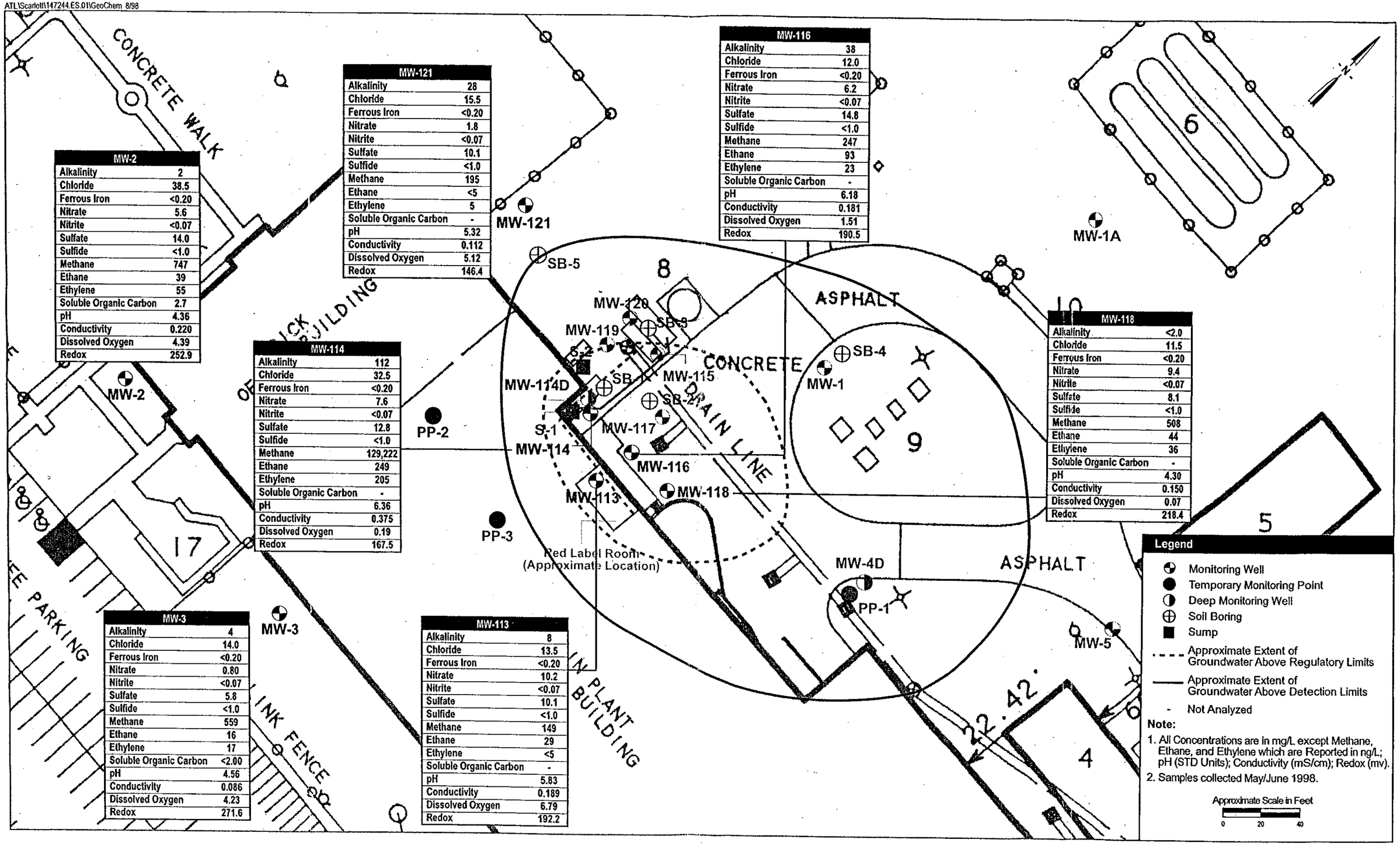

Figure 8
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

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Tables

1 Summary of Detected Constituents in Soil
2 Summary of Detected Groundwater Constituents
3 Summary of Well Construction Details and Groundwater Elevations
4 Summary of Range of Detected Compounds and Applicable Regulatory Criteria
5 Summary of Geochemical Constituents in Groundwater

Table 1

Summary of Detected Constituents in Soil

Former Miller Brewing Company Can Plant

Moultrie, Georgia

Parameters	Units	Regulatory Limit[1]	SB-1 36" - 60"	SB-2 6" - 24"	SB-3 36" - 60"	SB-4 36" - 60"	SB-5 72" - 96"	MW-4D 48" - 72"	SB-113A 40" - 46"	SB-113B 72" - 78"	SB-114A 24" - 48"	SB-114A 24" - 48" (DUP)	SB-114B 72" - 84"	SB-115A 18"-24"
Tetrachloroethene (PCE)	ug/kg	140,000	330	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	ug/kg	69,000	ND	16	ND	ND	ND	ND	23	ND	ND	ND	ND	ND
1,1-Dichloroethane	ug/kg	1,300,000	75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	ug/kg	NA	730B	ND	42B	16B	51B	ND	130	120	ND	ND	570	ND
2-Butanone (MEK)	ug/kg	5,600,000	180	ND	ND	ND	ND	ND	510	ND	ND	ND	650	ND
Isobutyl Alcohol	ug/kg	NA	-	-	-	-	-	-	600	ND	ND	ND	ND	ND
Methlyene Chloride	ug/kg	120	ND	ND	ND	10	ND	ND	11B	17B	16B	19B	10B	14B
Chloroethane	ug/kg	14,000,000	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	ug/kg	NA	-	-	-	-	-	-	750	ND	ND	ND	810	ND
Dibromomethane	ug/kg	NA	-	-	-	-	-	-	10	ND	ND	ND	ND	ND
M,P, Xylenes	ug/kg	NA	22	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
O, Xylenes	ug/kg	NA	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/kg	15,000,000	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/kg	3,500,000	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

µg/kg Micrograms per kilogram

NA Not Applicable

ND Not Detected

\- Not Analyzed

B Detected in Method Blank or Trip Blank

General Notes:

Samples were analyzed using SW-846 Method 8240 or 8260.

Samples were collected from MW-113 through MW-116 in 1994 as part of the Site Investigation. Samples were collected from MW-117 through MW-121, Trench 1, and Trench 2 in 1995 as part of the Supplemental Site Investigation.

[1]GA Hazardous Site Response Act (HSRA) Guidance on Target Soil Concentrations for Type 1 and Type 3 Risk Reduction Standards, Table 1.

Table 1
Summary of Detected Constituents in Soil
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Regulatory Limit[1]	SB-115B	Trench 1		Trench 2	MW-116		MW-117		MW-118		MW-119	
			60"-66"	6 ft.	6 ft. Dup.	6 ft.	1-3 ft.	3-5 ft.	1-3 ft.	5-7 ft.	1-3 ft.	5-7 ft.	0-2 ft.	2-4 ft.
Tetrachloroethene (PCE)	ug/kg	140,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	ug/kg	69,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ug/kg	1,300,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	ug/kg	NA	ND	53	68	ND	ND	ND	14	17	ND	ND	ND	ND
2-Butanone (MEK)	ug/kg	5,600,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isobutyl Alcohol	ug/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methlyene Chloride	ug/kg	120	22B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ug/kg	14,000,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	ug/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	ug/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
M,P, Xylenes	ug/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
O, Xylenes	ug/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ug/kg	15,000,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ug/kg	3,500,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

µg/kg Micrograms per kilogram
NA Not Applicable
ND Not Detected
- Not Analyzed
B Detected in Method Blank or Trip Blank

General Notes:

Samples were analyzed using SW-846 Method 8240 or 8260.
Samples were collected from MW-113 through MW-116 in 1994 as part of the Site Investigation. Samples were collected from MW-117 through MW-121, Trench 1, and Trench 2 in 1995 as part of the Supplemental Site Investigation.
[1]GA Hazardous Site Response Act (HSRA) Guidance on Target Soil Concentrations for Type 1 and Type 3 Risk Reduction Standards, Table 1.

Table 1
Summary of Detected Constituents in Soil
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Regulatory Limit[1]	MW-120		MW-121	
			4-6 ft.	6-8 ft.	0-2 ft.	10-12 ft.
Tetrachloroethene (PCE)	ug/kg	140,000	ND	ND	ND	ND
Trichloroethene (TCE)	ug/kg	69,000	ND	ND	ND	ND
1,1-Dichloroethane	ug/kg	1,300,000	ND	ND	ND	ND
Acetone	ug/kg	NA	ND	ND	ND	ND
2-Butanone (MEK)	ug/kg	5,600,000	ND	ND	ND	ND
Isobutyl Alcohol	ug/kg	NA	ND	ND	ND	ND
Methlyene Chloride	ug/kg	120	ND	ND	ND	ND
Chloroethane	ug/kg	14,000,000	ND	ND	ND	ND
Vinyl Acetate	ug/kg	NA	ND	ND	ND	ND
Dibromomethane	ug/kg	NA	ND	ND	ND	ND
M,P, Xylenes	ug/kg	NA	ND	ND	ND	ND
O, Xylenes	ug/kg	NA	ND	ND	ND	ND
Ethylbenzene	ug/kg	15,000,000	ND	ND	ND	ND
Toluene	ug/kg	3,500,000	ND	ND	ND	ND

Notes:

µg/kg Micrograms per kilogram
NA Not Applicable
ND Not Detected
- Not Analyzed
B Detected in Method Blank or Trip Blank

General Notes:

Samples were analyzed using SW-846 Method 8240 or 8260.
Samples were collected from MW-113 through MW-116 in 1994 as part of the Site Investigation. Samples were collected from MW-117 through MW-121, Trench 1, and Trench 2 in 1995 as part of the Supplemental Site Investigation.
[1]GA Hazardous Site Response Act (HSRA) Guidance on Target Soil Concentrations for Type 1 and Type 3 Risk Reduction Standards, Table 1.

Table 2

Summary of Detected Groundwater Constituents

Former Miller Brewing Company Can Plant

Moultrie, Georgia

Parameters	Units	Regulatory Limit*	MW-1 5/98	MW-1A 6/98	MW-2 5/98	MW-3 5/98	MW-4D 8/98	MW-5 8/98	MW-113 1/94	MW-113 11/94	MW-113 3/95	MW-113 5/98
Tetrachloroethene (PCE)	µg/L	5	ND	ND	ND	ND	ND	ND	28	14	8.4	6.49
Trichloroethene (TCE)	µg/L	5	ND	ND	ND	ND	ND	ND	290	62	72	69.38
cis-1,2-dichloroethene	µg/L	70**	1.07	ND	ND	ND	ND	ND	ND	17	22	22.13
Vinyl Chloride	µg/L	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.37
1,1,1-trichloroethane (TCA)	µg/L	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	µg/L	7	2.84	ND	ND	ND	ND	ND	17	17	3.0	2.44
1,1-Dichloroethane	µg/L	4,000	ND	ND	ND	ND	ND	ND	63	35	26	10.06
Acetone	µg/L	4,000	-	-	-	-	-	-	ND	ND	ND	-
2-butanone (MEK)	µg/L	2,000	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/L	5	-	-	-	-	-	-	ND	ND	ND	ND
Chloroethane	µg/L	NA	-	-	-	-	-	-	ND	ND	ND	-
4-methyl-2-pentanone (MIBK)	µg/L	NA	-	-	-	-	-	-	ND	ND	ND	ND
Toluene	µg/L	1,000	-	-	-	-	-	-	ND	ND	ND	ND
Ethylbenzene	µg/L	700	-	-	-	-	-	-	ND	ND	ND	ND
Xylenes (total)	µg/L	10,000	-	-	-	-	-	-	ND	ND	ND	ND

Notes:

µg/L Micrograms per liter

NA Not Applicable

ND Not Detected

- Not Analyzed

Samples were collected in 1/94 as part of the Site Investigation and between 11/94, and 3/95 as part of the Supplemental Site Investigation. Samples were collected between 5/98 and 8/98 as part of the CSR Investigation.

Samples collected in 1994 and 1995 were analyzed using SW-846 Method 8240. Samples collected in 1998 analyzed using SW-846 Method 8021B.

*GA Hazardous Site Response Act (HSRA) Appendix III, Table 1.

** Federal Drinking Water MCL

Table 2

Summary of Detected Groundwater Constituents in Monitoring Wells

Reynolds Can Plant, Moultrie, Georgia

Miller Brewing Company

Parameters	Units	Regulatory Limit*	MW-118			MW-119		MW-120			MW-121		PP-1	PP-2
			12/94	3/95	5/98	12/94	3/95	12/94	3/95	5/98	3/95	5/98	6/98	5/98
Tetrachloroethene (PCE)	µg/L	5	ND	8.5	7.56	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	µg/L	5	69	110	86.82	ND	3.4	ND	1.7	1.38	ND	ND	ND	ND
cis-1,2-dichloroethene	µg/L	70**	12	23	17.22	ND	1.6	ND	4.8	5.43	ND	ND	13	ND
Vinyl Chloride	µg/L	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane (TCA)	µg/L	200	ND	ND	ND	ND	ND	ND	1.8	ND	ND	ND	ND	ND
1,1-Dichloroethene	µg/L	7	ND	4.6	2.92	ND	ND	ND	ND	1.84	ND	ND	ND	ND
1,1-Dichloroethane	µg/L	4,000	14	21	18.84	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	µg/L	4,000	ND	ND	-	ND	ND	ND	ND	-	ND	-	-	-
2-butanone	µg/L	2,000	ND	ND	-	ND	ND	ND	ND	-	ND	-	-	-
Benzene	µg/L	5	ND	ND	-	ND	ND	ND	ND	-	ND	-	-	-
Chloroethane	µg/L	NA	ND	ND	-	ND	ND	ND	ND	-	ND	-	-	-
4-methyl-2-pentanone	µg/L	NA	ND	ND	-	ND	ND	ND	ND	-	ND	-	-	-
Toluene	µg/L	1,000	ND	ND	-	ND	ND	ND	ND	-	ND	-	-	-
Ethylbenzene	µg/L	700	ND	ND	-	ND	ND	ND	ND	-	ND	-	-	-
Xylenes (total)	µg/L	10,000	ND	ND	-	ND	ND	ND	ND	-	ND	-	-	-

Notes:

µg/L Micrograms per liter

NA Not Applicable

ND Not Detected

ND Not Detected

Samples were collected in 1/94 as part of the Site Investigation and between 11/94, and 3/95 as part of the Supplemental Site Investigation. Samples were collected between 5/98 and 8/98 as part of the CSR Investigation.

Samples collected in 1994 and 1995 were analyzed using SW-846 Method 8240. Samples collected in 1998 analyzed using SW-846 Method 8021B.

*GA Hazardous Site Response Act (HSRA) Appendix III, Table 1.

** Federal Drinking Water MCL

Table 3
Summary of Well Construction Details and Groundwater Elevations
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Well	Date	Ground Surface Elevation[a] (ft msl)	TOC Elevation[a] (ft msl)	Total Well Depth from Ground Surface (ft)	Screened Interval (ft bgs)	Well Diameter (in)	Depth to Water BTOC[b] (ft)	Water Level Elevation (ft msl)
MW-1	6/1/98	293.62	293.84	10.0	5 - 15	1	9.98	283.86
	6/30/98						7.29	286.55
MW-1A	6/4/98	292.87	293.01	15.0	5 - 10	2	14.60	278.41
	6/30/98						10.90	282.11
MW-2	6/1/98	295.34	295.43	13.5	3.5 - 13.5	2	5.32	290.11
	6/30/98						6.92	288.51
MW-3	6/1/98	295.45	295.53	13.0	3 -13	2	5.13	290.40
	6/30/98						6.13	289.40
MW-4D	8/5/98	293.65	293.54	45.9	36 - 46	2	6.97	286.57
MW-5	8/5/98	295.28	295.44	15.0	10 - 15	2	12.50	282.94
MW-113	6/1/98	296.32	296.32	12.0	2 - 12	2	5.78	290.54
	6/30/98						7.08	289.24
MW-114	6/1/98	294.02	297.66	11.7	1.7 - 11.7	4	7.78	289.88
	6/30/98						8.82	288.84
MW-114D	6/4/98	294.16	297.45	22.5	17.5 - 22.5	1	22.23	275.22
	6/30/98						9.48	287.97
MW-115	6/1/98	293.22	296.10	11.5	1.5 - 11.5	2	6.29	289.81
	6/30/98						7.54	288.56
MW-116	6/1/98	292.29	292.29	11.0	1 - 11	4	4.05	288.24
	6/30/98						4.55	287.74
MW-117	6/1/98	292.30	292.30	11.0	1 - 11	2	2.29	290.01
	6/30/98						3.82	288.48
MW-118	6/1/98	292.34	292.34	11.0	1 - 11	2	5.55	286.75
	6/30/98						4.69	287.65
MW-119	6/1/98	294.26	297.05	11.0	1 - 11	2	6.53	290.52
	6/30/98						7.94	289.11
MW-120	6/1/98	293.76	296.84	11.0	1 - 11	2	9.60	287.24
							9.40	287.44
MW-121	6/1/98	294.84	298.02	11.0	1 - 11	2	9.64	288.38
	6/30/98						8.17	289.85
PP-1	6/1/98	293.56	293.72	13.0	7 - 13	1	> 12.76	< 280.96
	6/30/98						10.93	282.79
PP-2	6/1/98	296.32	296.32	8.0	NA	NA	NM	NM
	6/30/98						NM	NM
PP-3	6/1/98	296.34	296.34	11.0	NA	NA	>11.00	< 285.34
	6/30/98						NM	NM
S-1	6/1/98					6	6.89	
	6/30/98						NM	NM
S-2	6/1/98					6	7.09	
	6/30/98						NM	NM

Notes

[a] Elevations based on a survey performed by H.J. Griffen and Associates in June 1998. Elevations reference a DOT benchmark.

[b] Water levels in wells may not have stabilized when 6/1/98 measurements were collected. Therefore water levels were remeasured on 6/30/98.

MW Monitoring Well
PP Temporary Monitoring Point
S Sump
NM Not Measured
BTOC Below Top of Casing

Table 5

Summary of Geochemical Constituents in Groundwater
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	MW-2 5/29/98	MW-3 5/29/98	MW-113 5/27/98	MW-114 5/27/98	MW-116 5/26/98	MW-118 5/26/98	MW-121 5/27/98
Alkalinity	mg/L	2	4	8	112	38	< 2.0	28
Chloride	mg/L	38.5	14.0	13.5	32.5	12.0	11.5	15.5
Ferrous Iron	mg/L	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Nitrate	mg/L	5.6	0.80	10.2	7.6	6.2	9.4	1.8
Nitrite	mg/L	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Sulfate	mg/L	14.0	5.8	10.1	12.8	14.8	8.1	10.1
Sulfide	mg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methane	ng/L	747	559	149	129,222	247	508	195
Ethane	ng/L	39	16	29	249	93	44	< 5
Ethylene	ng/L	55	17	< 5	205	23	36	5
Soluble Organic Carbon	mg/L	2.7	< 2.00	-	-	-	-	-
pH		4.36	4.56	5.83	6.36	6.18	4.30	5.32
Conductivity	mS/cm	0.220	0.086	0.169	0.375	0.181	0.150	0.112
Dissolved Oxygen	mg/L	4.39	4.23	6.79	0.19	1.51	0.07	5.12
Redox	mV	252.9	271.6	192.2	167.5	190.5	218.4	146.4

Notes:

mg/L Milligrams per liter
ng/L Nanograms per liter
- Not Analyzed

Samples were analyzed using the following methods:

Alkalinity - EPA 310.1
Chloride - SM4500C1-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethylene -

Georgia Department of Natural Resources
205 Butler Street, SE, Suite 1462, Atlanta, Georgia 30334
Lonice C. Barrett, Commissioner
Environmental Protection Division
Harold F. Reheis, Director
404/657-8600

March 13, 1998

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Kathy M. Kinton
Miller Brewing Company
3939 West Highland Boulevard
Milwaukee, Wisconsin 53208

Re: Reynolds Metals Company, Moultrie, Georgia
HSI Site No. 10425
Compliance Status Report Call-in

Dear Ms. Kinton:

As a responsible party for the above-referenced site you are required to submit a Compliance Status Report (CSR), in accordance with Section 391-3-19-06(3)(a) of the Rules for Hazardous Site Response (Rules), that documents the current status of the site with regard to the risk reduction standards of Section 391-3-19-.07 of the Rules. A copy of those Rules is enclosed. Section 391-3-19-.06(3)(a) of the Rules provides that the CSR and compliance status certification shall be submitted in accordance with a schedule to be determined by the Director. The Georgia Environmental Protection Division (EPD) requests that you submit the CSR and certification for the above referenced site by September 16, 1998.

The content of the CSR is specified in Section 391-3-19-.06(3)(b) of the Rules. As provided for in Section 391-3-19-.06(4) of the Rules, the CSR shall also include a compliance status certification regarding your own determination as to the status of the site with regard to the risk reduction standards.

Please be informed that under Section 391-3-19-.06(6)(c) of the Rules, the Director may designate this site as having a known release needing corrective action if you fail to submit the CSR by September 16, 1998. Please respond to this office in writing by May 15, 1998, and state whether you intend to submit the report by September 16, 1998. If you do not intend to submit the report by September 16, 1998, please state your basis for that decision. This site may also be designated as needing corrective action if you fail to respond by May 15, 1998, or if you respond by May 15, 1998, but fail to agree to submit the report by September 16, 1998.

According to Section O.C.G.A. 12-8-92 of the Hazardous Site Response Act and Section 391-3-19-.02 of the Rules, a "responsible party" means: (a) the current owner or operator of a facility; (b) any person who at the time of disposal of a regulated substance owned or operated the facility where disposal occurred; (c) any person who arranged for the disposal or treatment of a regulated substance at the facility where disposal occurred or who arranged for transportation to the facility; and (d) any person who accepted a regulated substance for transport to said facility.

If you believe that EPD has incorrectly identified you as a responsible party at this site, please provide sufficient documentation to support that claim. In addition, I am also requesting that you help us identify any other persons or parties whom you believe to be described by Items (a) through (d) of the previous paragraph, to describe the nature of their relationship with the site, and to provide evidence of that relationship. EPD's effectiveness in expanding the pool of responsible parties will depend on our ability to communicate with those parties; therefore, your assistance in obtaining current mailing addresses and phone numbers for appropriate contact persons is requested.

If you have any questions, please contact David Reuland at (404)657-8600.

Sincerely,

Jim Brown
Unit Coordinator
Superfund Management Unit

c: Bob Jones, Reynolds Metals Company

File: HSI # 10425

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MILLER BREWING COMPANY

September 8, 1995

Georgia Environmental Protection Division
Hazardous Sites Response Program
Floyd Towers East, Suite 1154
205 Butler St, SE
Atlanta GA 30334

RE: Site Investigation Report and Release Notification/Reporting Form
Reynolds Metals Company
Hwy 319 South, PO Box 1299
Moultrie GA 31768-1299

Dear Sirs:

Enclosed are two copies of the Site Investigation Report and the Release Notification/Reporting Form for the Reynolds Metals Company at Moultrie, Georgia. The initial reporting information was given to the Georgia Emergency Response Commission on Friday, May 5, 1995, by Kathy M. Kinton of Miller Brewing Company. The release was discovered and later confirmed during the site investigation activities completed by Earth Tech on behalf of Miller.

The site was originally owned by Miller Brewing Company and was sold to Reynolds Metals Company in October, 1993.

The Earth Tech site investigation revealed the following:

- Soil and groundwater at the site have been impacted by volatile organic compounds (VOCs).
- The horizontal extent of soil impacts has been defined on the exterior of the building.
- The extent of groundwater impacts has not been dully defined. However, based on the groundwater flow direction and low hydraulic conductivity of soil at the site, it is unlikely that on-site groundwater impacts are limited.

Based on these observations, Miller is proposing to monitoring the existing on-site monitoring wells to evaluate impacts to groundwater over time.

After reviewing the report, if you have any questions or comments, please do not hesitate to contact us. We would welcome the opportunity to meet with you to discuss this project further and discuss strategies for resolving the issues at the site.

p:\environ\kkinton\moultfm1.doc

Any correspondence regarding this site should be addressed to:

Kathy M Kinton
Miller Brewing Co
3939 W Highland Blvd
Milwaukee WI 53208-2866
Telephone: (414) 931-3570

Sincerely yours,

Kathy M. Kinton
Senior Environmental Planning Engineer

KMK:jes

Enclosures
cc: Daniel Barthold
J. M. Creel II (Reynolds Metals Company-Richmond)

21. SITE SUMMARY

The site was developed by the Miller Brewing Company (Miller) in 1980 for the manufacture, storage and distribution of aluminum containers for the beverage industry. The facility was owned and operated by Miller until November 1993 at which time it was purchased by the Reynolds Metal Company (Reynolds). Reynolds currently owns and operates the facility. Operations at the facility have remained consistent at the facility during ownership by Miller and Reynolds.

As part of the property transfer, CH2M Hill Incorporated (CH2M Hill) completed a site investigation at the facility on behalf of Reynolds in October 1993. During CH2M Hill's investigation, a boring was installed in the vicinity of a former waste solvent UST. The boring was subsequently converted to a temporary monitoring well. Elevated levels of volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH) and oil and grease (O&G) were detected in soil samples recovered from the boring. A groundwater sample collected from the temporary monitoring wells installed at this location indicated significant VOC impacts to exist as detectable concentrations of TPH and O&G.

As a follow up to CH2M Hill investigation, EARTH TECH was retained by Miller to provide technical assistance to evaluate the need for further action in association with the impacts identified. To evaluate the need for further action, EARTH TECH completed a limited site investigation. During the investigation, samples were obtained to verify the impacts identified by CH2M Hill and to facility comparison of the concentrations present in soil and groundwater to applicable regulatory requirements. According to Reynolds representatives, during removal of the waste solvent UST a leak was discovered in the piping leading to the UST. The UST and impacted soil were subsequently removed, the piping capped and the area backfilled with clean soil. To evaluate conditions along the piping run, EARTH TECH installed three soil borings which were subsequently converted to monitoring wells. Soil and groundwater samples collected during EARTH TECH's investigation were present in soil and groundwater. Several VOCs (benzene, 1,1-dichloroethene, 1,2-dichloroethene, tetrachloroethene and trichloroethene) were present in groundwater at concentrations exceeding federal maximum contaminant levels (MCLs).

RELEASE NOTIFICATION/REPORTING FORM

HAZARDOUS SITES RESPONSE PROGRAM
GEORGIA ENVIRONMENTAL PROTECTION DIVISION

(Please type or print legibly)

FOR OFFICE USE ONLY
HSRP ID

PART I – PROPERTY INFORMATION

1. The information provided in this form is for:

[X] Initial Release Notification
[ ] Reportable Quantity Release Reporting (See Question 22 on the back of this form if you check this box.)
[ ] Supplemental Information

2. Which of the following apply to this site? (check all that apply)

[X] Release to groundwater
[X] Release to soil
[ ] Other releases (e.g., discarded or abandoned substances, etc.)

3	EPA ID NUMBER (If applicable)	GAD 000771998					
4	Site or Facility Name	Reynolds Metals Co					
5	Site Street Address	Hwy 319 S, PO Box 1299					
6	Site City	Moultrie	County	Colquitt	Zip	31768-1299	
7	Property Owner	Reynolds Metals Co					
8	Property Owner Mailing Address	Hwy 319 S, PO Box 1299					
9	Property Owner City	Moultrie					
10	Property Owner Telephone No.	(912) 890-5200	County		Zip		
11	Site Contact Person	Kathy M. Kinton	Title	Sr. Environmental Plng. Engr			
12	Company Name	Miller Brewing Co					
13	Site Contact Mailing Address	3939 W Highland Blvd					
14	Site Contact City	Milwaukee	State	WI	Zip	53208	
15	Site Contact Telephone No.	(414) 931-3570					
16	Facility Owner/Operator	Reynolds Metals Co	Title				
17	Company Name	Reynolds Metals Co					
18	Facility Owner/Operator Mailing Address	Hwy 319 S, PO Box 1299					
19	Facility Owner/Operator City	Moultrie	State	GA	Zip	31768-1299	
20	Facility Owner/Operator Telephone No.	(912) 890-5200					

SITE SUMMARY – Attach a summary (no longer than one page) that gives a general description of the property, the areas affected by release both within and beyond the property boundaries, and any actions taken to investigate, clean up or otherwise remediate the property. In addition to the one page summary, other information concerning the property may also be attached.

– OVER –

REQUIRED ATTACHMENT – Along with this form, you **MUST** submit an original of a USGS topographical map (1:24000) with the geographic center of the site clearly marked. See the instructions for information on how to obtain an original of the map on which your site is located.

FOR OFFICE USE ONLY
Quadrangle Name
Latitude
Longitude

22. ADDITIONAL INFORMATION FOR REPORTABLE QUANTITY RELEASE REPORTING – If you checked the box for **Reportable Quantity Release Reporting** in Question 1 on the other side of this form, you must also attach the following information:

A. A description of the property boundaries of this site and adjacent properties, either by legal description, survey plat, tax map, or other means.

B. A **DETAILED** description of the nature and the known or estimated extent of the area contaminated, both within and beyond the site's property boundaries. Drawings or tracings on attached maps may be used.

23. CERTIFICATION – I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

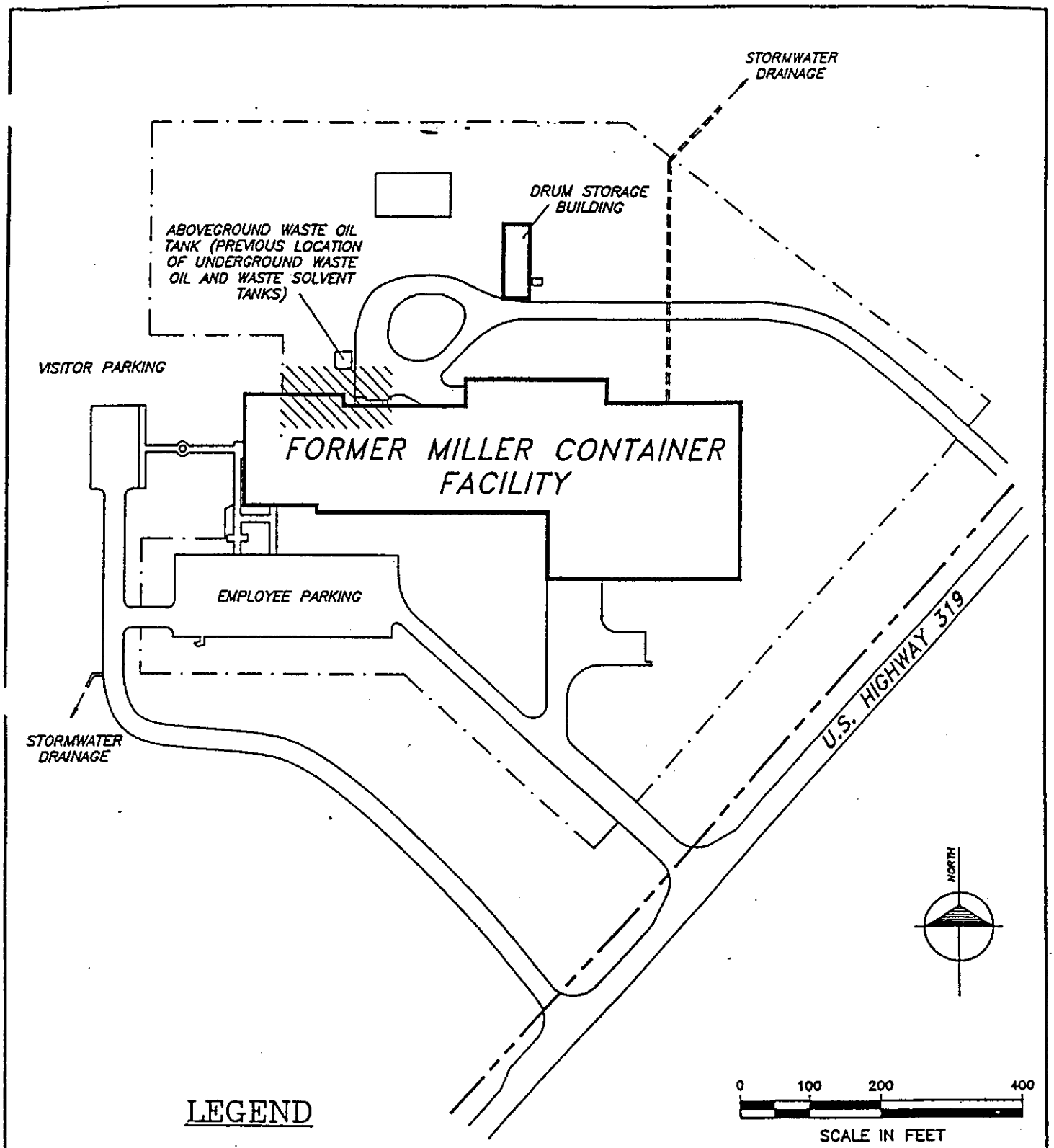
Daniel A. Barthold — Director-Envir. & Energy Engineering

NAME (Please type or print) — TITLE

David A. Barthold — 9/8/95

SIGNATURE — DATE

REV 2/94



MOLTRIE
VR061595

FIGURE 2-2

GENERAL SITE MAP

FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA

JUNE, 1995

23052

EARTH TECH

PART II -- RELEASE INFORMATION

Please provide the following information for **EACH** regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Xylenes (Total)

2. CAS Number (see instructions): 1330-20-7

3. Physical State:

[ ] Solid
[ ] Powder/Ash
[ ] Liquid/Gas/Sludge
[X] Unknown

4. Quantity of regulated substance released (lbs., cu. yd., etc.): Unknown

5. Highest known concentration (specify units): In Soil: ND In Groundwater: 24ug/l

6. Surface area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e., drums, tanks, etc.): Unknown

9. Release date(s): Unknown

10. Access to the area affected by this release:

[X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
[ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
[ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

[X] Less than 0.5 miles
[ ] 0.5 to 1 mile
[ ] 1 to 2 miles
[ ] 2 to 3 miles
[ ] Greater than 3 miles
[ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

[ ] Less than 300 feet
[ ] 301 to 1000 feet
[X] 1001 to 3000 feet
[ ] 3001 to 5280 feet
[ ] Greater than 1 mile
[ ] Unknown

13. Has a human been exposed to this release?

[ ] Yes
[ ] Suspected
[ ] No
[X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? Not Applicable

15. For soil releases, what is the type of material covering this release?

[ ] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
[ ] An engineered and maintained earthen material or compacted fill or a high density synthetic material
[ ] Loose earthen fill or native soil
[X] No cover
[ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following information for **EACH** regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Cis-1,2 - Dichloroethene (Dichloroethylene NOS)

2. CAS Number (see instructions): 25323-30-2

3. Physical State:

[ ] Solid
[ ] Powder/Ash
[ ] Liquid/Gas/Sludge
[X] Unknown

4. Quantity of regulated substance released (lbs., cu. yd., etc.): Unknown

5. Highest known concentration (specify units): In Soil: ND In Groundwater: 15,000 ug/l

6. Surface area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e., drums, tanks, etc.): Unknown

9. Release date(s): Unknown

10. Access to the area affected by this release:

[X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
[ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
[ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

[X] Less than 0.5 miles
[ ] 0.5 to 1 mile
[ ] 1 to 2 miles
[ ] 2 to 3 miles
[ ] Greater than 3 miles
[ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

[ ] Less than 300 feet
[ ] 301 to 1000 feet
[X] 1001 to 3000 feet
[ ] 3001 to 5280 feet
[ ] Greater than 1 mile
[ ] Unknown

13. Has a human been exposed to this release?

[ ] Yes
[ ] Suspected
[ ] No
[X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? Not Applicable

15. For soil releases, what is the type of material covering this release?

[ ] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
[ ] An engineered and maintained earthen material or compacted fill or a high density synthetic material
[ ] Loose earthen fill or native soil
[X] No cover
[ ] Other ___

PART II -- RELEASE INFORMATION

Please provide the following information for **EACH** regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Acetone

2. CAS Number (see instructions): 67-64-1

3. Physical State:

[ ] Solid
[ ] Powder/Ash
[ ] Liquid/Gas/Sludge
[X] Unknown

4. Quantity of regulated substance released (lbs., cu. yd., etc.): Unknown
5. Highest known concentration (specify units): In Soil: 68 ug/kg In Groundwater: 790 ug/l

6. Surface area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e., drums, tanks, etc.): Unknown

9. Release date(s): Unknown

10. Access to the area affected by this release:

[X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

[X] Less than 0.5 miles
[ ] 0.5 to 1 mile
[ ] 1 to 2 miles
[ ] 2 to 3 miles
[ ] Greater than 3 miles
[ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

[ ] Less than 300 feet
[ ] 301 to 1000 feet
[X] 1001 to 3000 feet
[ ] 3001 to 5280 feet
[ ] Greater than 1 mile
[ ] Unknown

13. Has a human been exposed to this release?

[ ] Yes
[ ] Suspected
[ ] No
[X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? Not Applicable
15. For soil releases, what is the type of material covering this release?

[ ] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
[ ] An engineered and maintained earthen material or compacted fill or a high density synthetic material
[ ] Loose earthen fill or native soil
[X] No cover
[ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following information for **EACH** regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 2 - Butanone

2. CAS Number (see instructions): 78-93-3

3. Physical State:

[ ] Solid
[ ] Powder/Ash
[ ] Liquid/Gas/Sludge
[X] Unknown

4. Quantity of regulated substance released (lbs., cu. yd., etc.): Unknown
5. Highest known concentration (specify units): In Soil: ND In Groundwater: 420 ug/l

6. Surface area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e., drums, tanks, etc.): Unknown

9. Release date(s): Unknown

10. Access to the area affected by this release:

[X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
[ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
[ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

[X] Less than 0.5 miles
[ ] 0.5 to 1 mile
[ ] 1 to 2 miles
[ ] 2 to 3 miles
[ ] Greater than 3 miles
[ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

[ ] Less than 300 feet
[ ] 301 to 1000 feet
[X] 1001 to 3000 feet
[ ] 3001 to 5280 feet
[ ] Greater than 1 mile
[ ] Unknown

13. Has a human been exposed to this release?

[ ] Yes
[ ] Suspected
[ ] No
[X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? Not Applicable
15. For soil releases, what is the type of material covering this release?

[ ] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
[ ] An engineered and maintained earthen material or compacted fill or a high density synthetic material
[ ] Loose earthen fill or native soil
[X] No cover
[ ] Other ___

PART II -- RELEASE INFORMATION

Please provide the following information for **EACH** regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 1,1,1, - Trichloroethane

2. CAS Number (see instructions): 71-55-6

3. Physical State:

[ ] Solid
[ ] Powder/Ash
[ ] Liquid/Gas/Sludge
[X] Unknown

4. Quantity of regulated substance released (lbs., cu. yd., etc.): Unknown
5. Highest known concentration (specify units): In Soil: ND In Groundwater: 140 ug/l

6. Surface area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e., drums, tanks, etc.): Unknown

9. Release date(s): Unknown

10. Access to the area affected by this release:

[X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
[ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
[ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

[X] Less than 0.5 miles
[ ] 0.5 to 1 mile
[ ] 1 to 2 miles
[ ] 2 to 3 miles
[ ] Greater than 3 miles
[ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

[ ] Less than 300 feet
[ ] 301 to 1000 feet
[X] 1001 to 3000 feet
[ ] 3001 to 5280 feet
[ ] Greater than 1 mile
[ ] Unknown

13. Has a human been exposed to this release?

[ ] Yes
[ ] Suspected
[ ] No
[X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? Not Applicable
15. For soil releases, what is the type of material covering this release?

[ ] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
[ ] An engineered and maintained earthen material or compacted fill or a high density synthetic material
[ ] Loose earthen fill or native soil
[X] No cover
[ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following information for **EACH** regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Chloromethane

2. CAS Number (see instructions): 74-87-3

3. Physical State:

[ ] Solid
[ ] Powder/Ash
[ ] Liquid/Gas/Sludge
[X] Unknown

4. Quantity of regulated substance released (lbs., cu. yd., etc.): Unknown
5. Highest known concentration (specify units): In Soil: ND In Groundwater: 1300 ug/l

6. Surface area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e., drums, tanks, etc.): Unknown

9. Release date(s): Unknown

10. Access to the area affected by this release:

[X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
[ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
[ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

[X] Less than 0.5 miles
[ ] 0.5 to 1 mile
[ ] 1 to 2 miles
[ ] 2 to 3 miles
[ ] Greater than 3 miles
[ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

[ ] Less than 300 feet
[ ] 301 to 1000 feet
[X] 1001 to 3000 feet
[ ] 3001 to 5280 feet
[ ] Greater than 1 mile
[ ] Unknown

13. Has a human been exposed to this release?

[ ] Yes
[ ] Suspected
[ ] No
[X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? Not Applicable
15. For soil releases, what is the type of material covering this release?

[ ] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
[ ] An engineered and maintained earthen material or compacted fill or a high density synthetic material
[ ] Loose earthen fill or native soil
[X] No cover
[ ] Other ___

PART II -- RELEASE INFORMATION

Please provide the following information for **EACH** regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 1,1 - Dichloroethene

2. CAS Number (see instructions): 75-35-4

3. Physical State:

[ ] Solid
[ ] Powder/Ash
[ ] Liquid/Gas/Sludge
[X] Unknown

4. Quantity of regulated substance released (lbs., cu. yd., etc.): Unknown

5. Highest known concentration (specify units): In Soil: ND In Groundwater: 570 ug/l

6. Surface area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e., drums, tanks, etc.): Unknown

9. Release date(s): Unknown

10. Access to the area affected by this release:

[X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
[ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
[ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

[X] Less than 0.5 miles
[ ] 0.5 to 1 mile
[ ] 1 to 2 miles
[ ] 2 to 3 miles
[ ] Greater than 3 miles
[ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

[ ] Less than 300 feet
[ ] 301 to 1000 feet
[X] 1001 to 3000 feet
[ ] 3001 to 5280 feet
[ ] Greater than 1 mile
[ ] Unknown

13. Has a human been exposed to this release?

[ ] Yes
[ ] Suspected
[ ] No
[X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? Not Applicable

15. For soil releases, what is the type of material covering this release?

[ ] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
[ ] An engineered and maintained earthen material or compacted fill or a high density synthetic material
[ ] Loose earthen fill or native soil
[X] No cover
[ ] Other ___

PART II -- RELEASE INFORMATION

Please provide the following information for **EACH** regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Trichloroethene

2. CAS Number (see instructions): 79-01-6

3. Physical State:

[ ] Solid
[ ] Powder/Ash
[ ] Liquid/Gas/Sludge
[X] Unknown

4. Quantity of regulated substance released (lbs., cu. yd., etc.): Unknown
5. Highest known concentration (specify units): In Soil: ND In Groundwater: 560 ug/l

6. Surface area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e., drums, tanks, etc.): Unknown

9. Release date(s): Unknown

10. Access to the area affected by this release:

[X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
[ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
[ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

[X] Less than 0.5 miles
[ ] 0.5 to 1 mile
[ ] 1 to 2 miles
[ ] 2 to 3 miles
[ ] Greater than 3 miles
[ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

[ ] Less than 300 feet
[ ] 301 to 1000 feet
[X] 1001 to 3000 feet
[ ] 3001 to 5280 feet
[ ] Greater than 1 mile
[ ] Unknown

13. Has a human been exposed to this release?

[ ] Yes
[ ] Suspected
[ ] No
[X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? Not Applicable
15. For soil releases, what is the type of material covering this release?

[ ] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
[ ] An engineered and maintained earthen material or compacted fill or a high density synthetic material
[ ] Loose earthen fill or native soil
[X] No cover
[ ] Other ___

PART II -- RELEASE INFORMATION

Please provide the following information for **EACH** regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 1,1 - Dichloroethane

2. CAS Number (see instructions): 75-34-3

3. Physical State:

[ ] Solid
[ ] Powder/Ash
[ ] Liquid/Gas/Sludge
[X] Unknown

4. Quantity of regulated substance released (lbs., cu. yd., etc.): Unknown
5. Highest known concentration (specify units): In Soil: ND In Groundwater: 710 ug/l

6. Surface area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e., drums, tanks, etc.): Unknown

9. Release date(s): Unknown

10. Access to the area affected by this release:

[ ] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
[ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

[X] Less than 0.5 miles
[ ] 0.5 to 1 mile
[ ] 1 to 2 miles
[ ] 2 to 3 miles
[ ] Greater than 3 miles
[ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

[ ] Less than 300 feet
[ ] 301 to 1000 feet
[X] 1001 to 3000 feet
[ ] 3001 to 5280 feet
[ ] Greater than 1 mile
[ ] Unknown

13. Has a human been exposed to this release?

[ ] Yes
[ ] Suspected
[ ] No
[X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? _____
15. For soil releases, what is the type of material covering this release?

[ ] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
[ ] An engineered and maintained earthen material or compacted fill or a high density synthetic material
[ ] Loose earthen fill or native soil
[X] No cover
[ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following information for **EACH** regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Benzene

2. CAS Number (see instructions): 71-43-2

3. Physical State:

[ ] Solid
[ ] Powder/Ash
[ ] Liquid/Gas/Sludge
[X] Unknown

4. Quantity of regulated substance released (lbs., cu. yd., etc.): Unknown
5. Highest known concentration (specify units): In Soil: ND In Groundwater: 11 ug/l

6. Surface area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e., drums, tanks, etc.): Unknown

9. Release date(s): Unknown

10. Access to the area affected by this release:

[X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
[ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
[ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

[X] Less than 0.5 miles
[ ] 0.5 to 1 mile
[ ] 1 to 2 miles
[ ] 2 to 3 miles
[ ] Greater than 3 miles
[ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

[ ] Less than 300 feet
[ ] 301 to 1000 feet
[X] 1001 to 3000 feet
[ ] 3001 to 5280 feet
[ ] Greater than 1 mile
[ ] Unknown

13. Has a human been exposed to this release?

[ ] Yes
[ ] Suspected
[ ] No
[X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? Not Applicable
15. For soil releases, what is the type of material covering this release?

[ ] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
[ ] An engineered and maintained earthen material or compacted fill or a high density synthetic material
[ ] Loose earthen fill or native soil
[X] No cover
[ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following information for **EACH** regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Tetrachloroethene

2. CAS Number (see instructions): 127-18-4

3. Physical State:

[ ] Solid
[ ] Powder/Ash
[ ] Liquid/Gas/Sludge
[X] Unknown

4. Quantity of regulated substance released (lbs., cu. yd., etc.): Unknown
5. Highest known concentration (specify units): In Soil: ND In Groundwater: 77 ug/l

6. Surface area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e., drums, tanks, etc.): Unknown

9. Release date(s): Unknown

10. Access to the area affected by this release:

[X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
[ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
[ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

[X] Less than 0.5 miles
[ ] 0.5 to 1 mile
[ ] 1 to 2 miles
[ ] 2 to 3 miles
[ ] Greater than 3 miles
[ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

[ ] Less than 300 feet
[ ] 301 to 1000 feet
[X] 1001 to 3000 feet
[ ] 3001 to 5280 feet
[ ] Greater than 1 mile
[ ] Unknown

13. Has a human been exposed to this release?

[ ] Yes
[ ] Suspected
[ ] No
[X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? ___
15. For soil releases, what is the type of material covering this release?

[ ] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
[ ] An engineered and maintained earthen material or compacted fill or a high density synthetic material
[ ] Loose earthen fill or native soil
[X] No cover
[ ] Other ___

PART II -- RELEASE INFORMATION

Please provide the following information for **EACH** regulated substance release at the site. Complete a separate page for ea
regulated substance released.

1. Chemical Name (see instructions): 4 - Methyl, 2 - Pentanone

2. CAS Number (see instructions): 108-10-1

3. Physical State:

[ ] Solid
[ ] Powder/Ash
[ ] Liquid/Gas/Sludge
[X] Unknown

4. Quantity of regulated substance released (lbs., cu. yd., etc.): Unknown
5. Highest known concentration (specify units): In Soil: ND In Groundwater: 18-ug/l
6. Surface area of soil affected by this release: Unknown
7. Depth of this release in soil (max./min.): Unknown
8. Source of this release (i.e., drums, tanks, etc.): Unknown
9. Release date(s): Unknown

10. Access to the area affected by this release:

[X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
[ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
[ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

[X] Less than 0.5 miles	[ ] 1 to 2 miles	[ ] Greater than 3 miles
[ ] 0.5 to 1 mile	[ ] 2 to 3 miles	[ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

[ ] Less than 300 feet	[X] 1001 to 3000 feet	[ ] Greater than 1 mile
[ ] 301 to 1000 feet	[ ] 3001 to 5280 feet	[ ] Unknown

13. Has a human been exposed to this release?

[ ] Yes
[ ] Suspected
[ ] No
[X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? Not Applicable
15. For soil releases, what is the type of material covering this release?

[ ] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
[ ] An engineered and maintained earthen material or compacted fill or a high density synthetic material
[ ] Loose earthen fill or native soil
[X] No cover
[ ] Other ___

PART II -- RELEASE INFORMATION

Please provide the following information for **EACH** regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Ethylbenzene

2. CAS Number (see instructions): 100-41-4

3. Physical State:

[ ] Solid
[ ] Powder/Ash
[ ] Liquid/Gas/Sludge
[X] Unknown

4. Quantity of regulated substance released (lbs., cu. yd., etc.): Unknown
5. Highest known concentration (specify units): In Soil: ND In Groundwater: 7 ug/l

6. Surface area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e., drums, tanks, etc.): Unknown

9. Release date(s): Unknown

10. Access to the area affected by this release:

[ ] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
[ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
[ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

[X] Less than 0.5 miles	[ ] 1 to 2 miles	[ ] Greater than 3 miles
[ ] 0.5 to 1 mile	[ ] 2 to 3 miles	[ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

[ ] Less than 300 feet	[X] 1001 to 3000 feet	[ ] Greater than 1 mile
[ ] 301 to 1000 feet	[ ] 3001 to 5280 feet	[ ] Unknown

13. Has a human been exposed to this release?

[ ] Yes
[ ] Suspected
[ ] No
[X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? _____
15. For soil releases, what is the type of material covering this release?

[ ] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
[ ] An engineered and maintained earthen material or compacted fill or a high density synthetic material
[ ] Loose earthen fill or native soil
[X] No cover
[ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following information for **EACH** regulated substance release at the site. Complete a separate page for e
gulated substance released.

1. Chemical Name (see instructions): Toluene

2. CAS Number (see instructions): 108-88-3

3. Physical State:

[ ] Solid
[ ] Powder/Ash
[ ] Liquid/Gas/Sludge
[X] Unknown

4. Quantity of regulated substance released (lbs., cu. yd., etc.): Unknown
5. Highest known concentration (specify units): In Soil: ND In Groundwater: 57 ug/l

6. Surface area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e., drums, tanks, etc.): Unknown

9. Release date(s): Unknown

10. Access to the area affected by this release:

[X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
[ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
[ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

[X] Less than 0.5 miles
[ ] 0.5 to 1 mile
[ ] 1 to 2 miles
[ ] 2 to 3 miles
[ ] Greater than 3 miles
[ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

[ ] Less than 300 feet
[ ] 301 to 1000 feet
[X] 1001 to 3000 feet
[ ] 3001 to 5280 feet
[ ] Greater than 1 mile
[ ] Unknown

13. Has a human been exposed to this release?

[ ] Yes
[ ] Suspected
[ ] No
[X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? ___
15. For soil releases, what is the type of material covering this release?

[ ] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
[ ] An engineered and maintained earthen material or compacted fill or a high density synthetic material
[ ] Loose earthen fill or native soil
[X] No cover
[ ] Other ___

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May 4, 1998

Mr. Jim Brown
Georgia Department of Natural Resources
Environmental Protection Division
Superfund Management Unit
205 Butler Street, SE, Suite 1462
Atlanta, GA 30334

Dear Mr. Brown:

Subject: Schedule to Submit Compliance Status Report
Former Miller Brewing Company Can Plant
HSI Site No. 10425
Moultrie, Georgia

This letter is in response to the Compliance Status Report (CSR) Call-In correspondence dated March 13, 1998 for HIS Site # 10425 at Moultrie, Georgia. Miller Brewing Company (Miller) plans to submit a Compliance Status Report and compliance status certification on or before the specified date of September 16, 1998.

Reynolds Metals Company currently owns this facility in Moultrie, Georgia.

CH2MHILL of Altanta, Georgia has been selected as the consultant for this project; William Zwiren is the project manager for this work.

The proposed schedule for completion of additional field activities and the CSR is provided in the table below.

Activity	Estimated Completion Date (Week of)
Field Investigation	June 8, 1998
Data Analysis and Evaluation	July 27, 1998
Submit Final CSR	September 7, 1998

If significant deviations occur from the above schedule due to unforeseen events, Miller will notify you of the change and provide you with an updated schedule.

After completion of the Field Investigation and the Data Analysis and Evaluation portions of the project, Mr. Zwiren and I would appreciate the opportunity to meet with you to

review the data and discuss the proposed approach for compliance with the Hazardous Site Response Rules. Please confirm so that we can begin to schedule a meeting date.

Any correspondence regarding the site should be addressed as follows:

Kathy Kinton
Miller Brewing Company
3939 West Highland Blvd.
Milwaukee, WI 53208-2866

Should you have any questions concerning this letter or proposed schedule, please do not hesitate to call me at (414) 931-3570.

Sincerely,

Kathy M. Kinton

Kathy M. Kinton
Senior Environmental Planning Engineer

cc: Daniel Barthold, Miller Brewing Company
Robert Jones, Reynolds Metals Company, Moultrie, GA
Robert Lenne, Reynolds Metals Company, Richmond, VA
William Zwiren, CH2M HILL, Atlanta, GA

Appendix B
Historical Abatement and Characterization Data

Miller Letter	October 3, 1988
WES Letter Report (1988)	Table & Figure
CH2M HILL Phase II Field Investigation Report (1993)	Tables & Figure
Earth Technology Corporation Site Investigation Report (1994)	Table & Figure
Earth Tech Supplemental Site Investigation Report (1995)	Tables & Figure
McLaren/Hart Phase II Subsurface Investigation (1998)	Figure and Data

Miller certified 10/7/88

MILLER BREWING COMPANY

October 3, 1988

Ms. Betty Burns, Environmental Specialist
Georgia Department of Natural Resources
205 Butler Street, S.E. Floyd Towers East
Atlanta, GA 30334

Dear Ms. Burns:

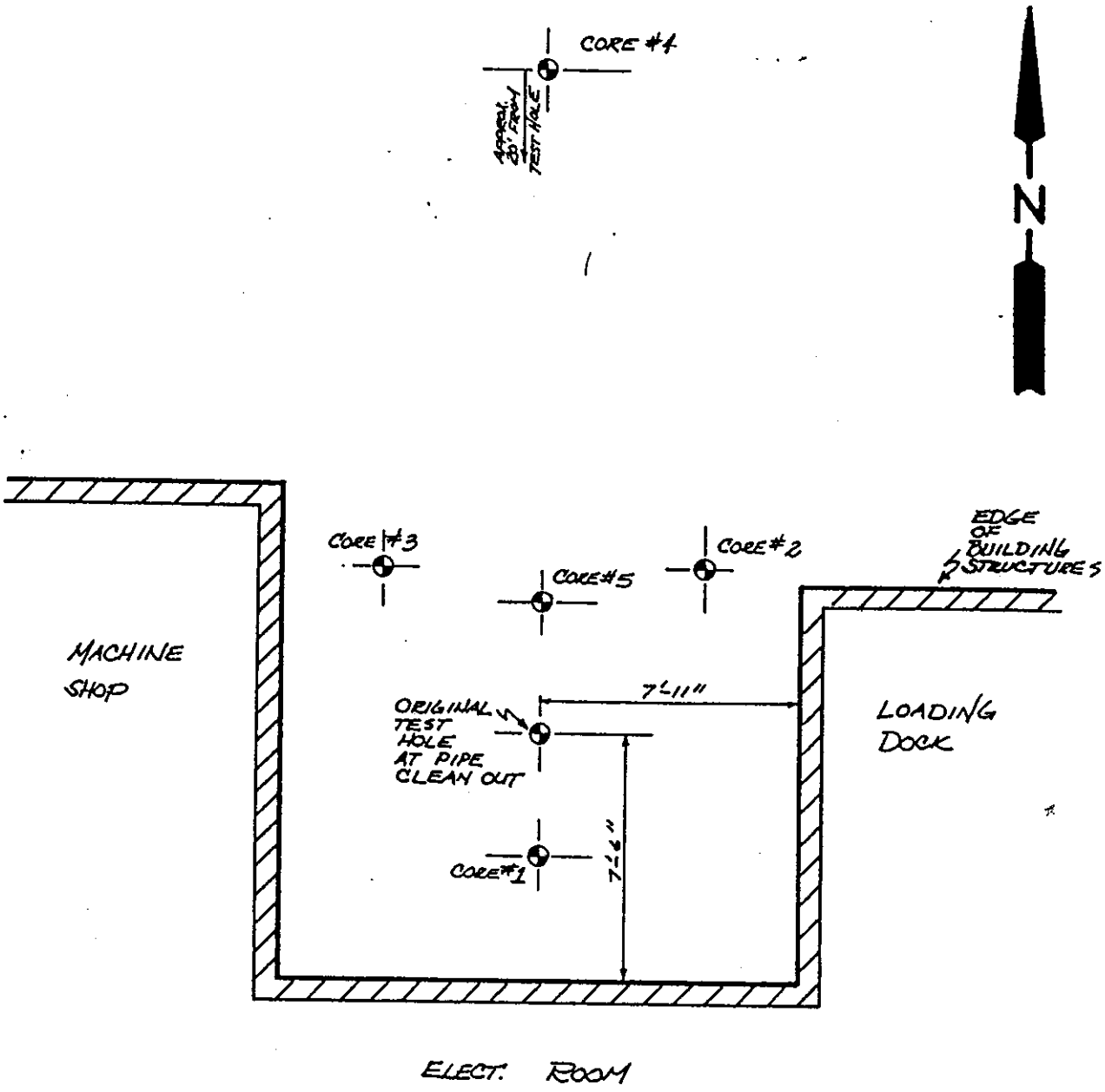
This letter is to inform you of the progress completed on the underground tank removal project at the Miller Container Division Plant in Moultrie. The waste solvent tank has been removed in the manner as described in the Waste Solvent U.G.S.T. Closure Plan that was submitted to your office. Soil borings and analysis prior to removal indicated that no contamination existed at the tank site. Soil samples taken after tank removal also verified that no contamination occurred at the solvent tank.

However, during the removal operation, a hole was dug by hand to locate the pipe feeding the tank and the clean out wye (Y) on the pipeline that was installed during the construction of the tank system. As the pipe and clean out were exposed about one half gallon of liquid was found in the ground at the clean out wye (Y). The liquid was collected and sent out for laboratory analysis. The laboratory analysis indicated that the liquid contained the following; 2.2% Methyl Ethyl Ketone, 3.3% Isopropyl Alcohol and 1.2% Butyl Cellusolve. The excavated area was lined with plastic and the removed soil was returned to the plastic lined excavation. The entire excavation was covered with plastic to prevent rain water from entering the area.

When the laboratory analysis was received, Miller contacted your office. Westinghouse Environmental Services were immediately contracted to perform soil borings and conduct gaseous hydrocarbon monitoring of the site and the borings to determine the extent of contamination. Five soil borings were completed in the area surrounding the contamination. Each boring was sampled at three different depths (see attachments). All contamination was found to be at the (#1) boring closest to the clean out wye (Y). The borings also showed that a very dense gray clay layer was found at about the 8 1/2 ft to 9 ft. boring depth.

RECEIVED
OCT 17 1988
PLANT MANAGERS OFFICE
MOULTRIE CONTAINER DIVISION

3939 WEST HIGHLAND BOULEVARD, MILWAUKEE, WISCONSIN 53201-0482 • (414) 931-2000



DESCRIPTION	REV.	CHANGED BY	DATE

MILLER BREWING COMPANY
MILWAUKEE, WISCONSIN

PLANT: MOULTRIE CAN PLANT

RED LABEL- PIPE CORE LOCATIONS

	INITIAL	DATE
DR.	JHG	10/5/88
CH.		
APPR.		
SCALE		

SUBJECT | BLDG. NO. | RELEASE NO. | SIZE

MOULTRIE CONTAINER SOIL BORINGS & TEST RESULTS

Boring No.	Depth	2-Propane (mg/Kg)	Methyl Ethyl Ketone (mg/kg)	Bulyl Cellasolve (mg/kg)
1	6 1/2'- 8'	761	962	200
1	8 1/2'-10'	206	331	113
1	11 1/2'-13'	<1	<1	2
2	3 1/2'- 8'	<1	<1	<1
2	8 1/2'-10'	<1	<1	<1
2	11 1/2'-13'	<1	<1	<1
3	3 1/2'- 5'	<1	<1	<1
3	8 1/2'-10'	<1	<1	10
3	13 1/2'-15'	<1	<1	<1
4	3 1/2'- 5'	<1	<1	<1
4	8 1/2'-10'	<1	<1	<1
4	13 1/2'-15'	<1	<1	<1
5	3 1/2'- 5'	<1	<1	<1
5	8 1/2'-10'	<1	<1	<1
5	13 1/2'-15'	<1	<1	<1

SOIL SAMPLING & ANALYSIS REPORT
For
MILLER BREWING COMPANY

Red Label Pipe Area
Moultrie Can Plant
Moultrie, Georgia

Prepared by:

WESTINGHOUSE ENVIRONMENTAL SERVICES
WES Job No. 4125-88-150

October, 1988

ACL | ADVANCED CHEMISTRY LABS, INC.

DR. STEVE N. TSOUKALAS
CHIEF CHEMIST

P.O. BOX 88610 • ATLANTA, GEORGIA 30356
TELEPHONE (404) 455-1266

Client: WESTINGHOUSE ENVIRONMENTAL/S & ME
4000 Dekalb Technology Parkway
Suite 250
Atlanta, GA 30340

Attention: Tom Lawrence

Client Project No.: #4125-88-150
ACL Project No.: #2133, #2142
Date Received: 9/22/88, 9/23/88
Report Date: 9/30/88

Station	ACL #	2-Propanol (mg/kg)	Methyl Ethyl Ketone (mg/kg)	Butyl Cellosolv (mg/kg)
1-6	8831	761	962	200
1-8	8832	206	331	113
1-11	8833	< 1	< 1	2
2-3	8834	< 1	< 1	1
2-8	8835	< 1	< 1	< 1
2-11	8836	< 1	< 1	< 1
3-3	8837	< 1	< 1	< 1
3-8	8838	< 1	< 1	10
3-13	8839	< 1	< 1	< 1
4-3	8840	< 1	< 1	< 1
4-8	8841	< 1	< 1	< 1
4-13	8842	< 1	< 1	< 1
5-3	8843	< 1	< 1	< 1
5-8	8844	< 1	< 1	< 1
5-13	8845	< 1	< 1	< 1
0901	8870	9	15	< 1
0903	8871	< 1	4	2
0906	8872	< 1	4	3
0945	8873	6	54	< 1
0948	8874	3	19	8

Steve N. Tsoukalas
Steve Tsoukalas, Ph.D.
Director of Chemistry

FIELD INVESTIGATION REPORT OF THE MILLER BREWING COMPANY CONTAINER PLANT MOULTRIE, GEORGIA

Prepared for:

Reynolds Metals Company

Prepared by:

CH2M HILL

October 1993

Revision No. 1
Date 10/25/93

Table 4
Miller Container Plant
Moultrie, Georgia
Analytical Results for Water Samples Collected October 5-18, 1993

Station Analyses (Aqueous)	GA-TW-1 -GW	GA-TW-2 -GW	GA-TW-3 -GW	GA-TW-4 -GW	GA-TW-5 -GW	GA-TW-6 -GW	GA-TW-7 -GW	GA-TW-8 -GW	GA-TW-9 -GW	GA-TW-10 -GW	GA-TW-11 -GW	GA-TW-12 -GW	GA-SW-1	GA-TW-13-GW (dupe of TW6)	Travel Blank	GA-EB-2 -AQ
VOCs Method 624, ug/l																
Chloroethane	5U	5U	5U	5U	5U	5U		5U	5U	2900		5U	5U	5U	5U	5U
Methylene Chloride	5U	5U	5U	5U	5U	5U		5U	5U	198		5U	5U	4JB	4JB	3JB
Acetone	20U	40	23	20U	20U	20U		20U	23B	14000		20U	20U	20U	20U	20U
1,1-Dichloroethene	5U	5U	5U	5U	5U	5U		5U	5U	600		5U	5U	5U	5U	5U
1,1-Dichloroethane	5U	5U	5U	2J	5U	5U		5U	5U	14000		5U	5U	5U	5U	5U
Total 1,2-Dichloroethene	5U	5U	5U	3J	5U	5U		5U	3J	14000		5U	5U	5U	5U	5U
1,2-Dichloroethane	5U	5U	5U	5U	5U	5U		5U	5U	45		5U	5U	5U	5U	5U
1,1,1-Trichloroethane	5U	5U	5U	5U	5U	5U		5U	5U	4300		5U	5U	5U	5U	5U
Dibromochloromethane	5U	5U	5U	5U	5U	5U		5U	5U	U		5U	7	5U	5U	5U
Bromoform	5U	5U	5U	5U	5U	5U		5U	5U	U		5U	350	5U	5U	5U
Trichloroethene	5U	5U	5U	5U	5U	5U		5U	5U	12000		5U	5U	5U	5U	5U
Benzene	5U	5U	5U	5U	5U	5U		5U	5U	86		5U	5U	5U	5U	5U
4-Methyl-2-pentanone	20U	20U	20U	20U	20U	20U		20U	20U	160		20U	20U	20U	20U	20U
2-Hexanone	20U	20U	20U	20U	20U	20U		20U	20U	250		20U	20U	20U	20U	20U
Tetrachloroethene	5U	5U	5U	5U	5U	5U		5U	5U	2100		5U	5U	5U	5U	5U
1,1,2,2-Tetrachloroethane	5U	5U	5U	5U	5U	5U		5U	5U	37		5U	5U	5U	5U	5U
Toluene	5U	5U	5U	5U	5U	5U		5U	5U	1300		5U	5U	5U	5U	5U
Ethylbenzene	5U	5U	5U	5U	5U	5U		5U	5U	130		5U	5U	5U	5U	5U
Total Xylenes	5U	5U	5U	5U	5U	5U		5U	5U	630		5U	5U	5U	5U	5U
Tentatively Identified Compounds (a):																
Methyl butanone	U	U	U	U	U	U		U	U	49		U	U	U	U	U
Hexane	U	U	U	U	U	U		U	U	61		U	U	U	U	U
Unknown (23.59)	U	U	U	U	U	U		U	U	130		U	U	U	U	U
Unknown (25.10)	U	U	U	U	U	U		U	U	32		U	U	U	U	U
TPH, mg/l	0.6U	2.1U	1.2	0.61U	NR	0.66U		0.57U	NR	1.2		0.63U	34	0.67U		0.6U
Oil & Grease, mg/l	5.0U	NR	5.0U	5.0U	NR	5.0U		5.0U	NA	6.5		5.0U	60.6	5.0U		5.0U
Fluoride, mg/l						0.28	1.15					0.72		0.25		0.10U
Paraquat												NR				
Butyl Cellusolve, ug/l										1700						

Note:

(a) Concentrations of tentatively identified compounds are estimated. Retention times of unknown compounds are given in parenthesis.
NR = Analysis requested but results have not been received as of 10/20/93.
NA = Not analyzed.
U = Indicates a compound was analyzed for but not detected. Number next to "U" is detection limit.
J = Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit.
B = Indicates that the analyte was found in the method blank as well as the sample. It indicates possible/probable blank contamination.
GA-TW-11-GW did not produce sufficient water to collect a sample for laboratory analysis.
GA-TW-9-GW did not produce sufficient water to collect a sample for oil and grease.

Table 5
Miller Container Plant
Moultrie, Georgia
Analytical Results for Soil Samples Collected October 4-8, 1993

Station (Depth, ft) Analyses (Soil/Sed)	GA-TW-1-S (6-8)	GA-TW-2-S (2-4)	GA-TW-3-S (4-6)	GA-TW-4-S (4-6)	GA-TW-5-S (4-6)	GA-TW-6-S (8-10)	GA-TW-7-S (12-14)	GA-TW-8-S (8-10)	GA-TW-9-S (8-12)	GA-TW-10-S (6-8)	GA-TW-11-S (10-11)	GA-TW-12-S (2-4)	GA-SD-1	GA-SD-2	GA-SD-3	GA-SD-4	GA-B2-SD (5-7)	GA-EB1-AQ
VOCs Method 624, ug/kg																		
Methylene chloride	4JB	9	6	6U	9	5J		5JB	8	9	6U	6U	7J	6JB	5U	4JB	10	5U
Acetone	20JB	23U	21J	23U	24U	27		23JB	22U	430	23U	23U	27U	25U	21U	21U	23U	20U
1,1-Dichloroethane	6U	6U	6U	6U	6U	6U		6U	6U	17	6U	6U	7U	6U	5U	5U	6U	5U
Total 1,2-Dichloroethene	6U	6U	6U	6U	6U	6U		6U	6U	22	6U	6U	7U	6U	5U	5U	6U	5U
1,1,1-Trichloroethane	6U	6U	6U	6U	6U	6U		6U	6U	29	6U	6U	7U	6U	5U	5U	6U	5U
Trichloroethene	6U	6U	6U	6U	6U	6U		6U	6U	20	6U	6U	7U	4J	5J	2J	6U	5U
Tetrachloroethene	6U	6U	6U	6U	6U	6U		6U	6U	55	6U	6U	7U	6U	5U	5U	6U	5U
Toluene	6U	6U	6U	6U	6U	6U		6U	6U	16	6U	6U	7U	6U	5U	5U	6U	5U
Ethylbenzene	6U	6U	6U	6U	6U	6U		6U	6U	8	6U	6U	7U	6U	5U	5U	6U	5U
Total Xylenes	6U	6U	6U	6U	6U	6U		6U	6U	48	6U	6U	7U	6U	5U	5U	6U	5U
Tentatively Identified Compounds (a):																		
2-Propanol	U	U	U	U	U	U		U	U	19	U	U	U	U	U	U	U	U
Unknown (13.62)	U	U	U	U	U	U		U	U	38	U	U	U	U	U	U	U	U
Unknown (14.55)	U	U	U	U	U	U		U	U	16	U	U	U	U	U	U	U	U
Unknown hydrocarbon (15.36)	U	U	U	U	U	U		U	U	19	U	U	U	U	U	U	U	U
Unknown hydrocarbon (16.09)	U	U	U	U	U	U		U	U	6	U	U	U	U	U	U	U	U
Unknown hydrocarbon (16.49)	U	U	U	U	U	U		U	U	8	U	U	U	U	U	U	U	U
Unknown alkane (20.08)	U	U	U	U	U	U		U	U	120	U	U	U	U	U	U	U	U
Unknown (20.73)	U	U	U	U	U	U		U	U	22	U	U	U	U	U	U	U	U
Unknown (21.43)	U	U	U	U	U	U		U	U	6	U	U	U	U	U	U	U	U
Dimethyl pentane	U	U	U	U	U	U		U	U	28	U	U	U	U	U	U	U	U
Methyl hexane	U	U	U	U	U	U		U	U	110	U	U	U	U	U	U	U	U
Unknown (26.35)	U	U	U	U	U	U		U	U	12	U	U	U	U	U	U	U	U
TPH, mg/kg	23	21U	32	20	26U	31		23	23	88	34	22	36	350	1000	41	23U	0.64U
Oil & Grease, mg/kg	NA	69	110	48	62	86		54	79	200	76	NA	85	750	1600	110	63	5.0U
Metals, mg/kg																		
Aluminum													4620	8100	5330	1330	NA	NA
Antimony													2.05U	1.88U	1.61U	1.61U	2.87U	0.050U
Arsenic													1.02	0.942	1.29	0.214U	3.91	0.004U
Beryllium													0.341U	0.314U	0.322	0.268U	0.287U	0.005U
Cadmium													0.682	0.314U	0.268U	0.268U	0.287U	0.005U
Chromium													7.43	10.4	16.3	3.91	6.38	0.010U
Copper													4.02	14.5	15.0	1.34U	1.44U	0.025U
Lead													12.3	16.4	48.1	2.68U	5.11	0.004U
Mercury													0.136U	0.126U	0.107U	0.107U	0.115U	0.0005U
Nickel													1.98	2.95	2.36	1.34U	1.44U	0.025U
Selenium													0.273U	0.377	0.215U	0.214U	0.230U	0.004U
Silver													0.682U	0.628U	0.537U	0.535U	0.574U	0.010U
Thallium													0.273U	0.251U	0.215U	0.214U	0.230U	0.004
Zinc													132	483	77.8	6.83	1.15U	0.020U

Table 5
Miller Container Plant
Moultrie, Georgia
Analytical Results for Soil Samples Collected October 4-8, 1993

Station (Depth, ft) Analyses (Soil/Sed)	GA-TW-1-S (6-8)	GA-TW-2-S (2-4)	GA-TW-3-S (4-6)	GA-TW-4-S (4-6)	GA-TW-5-S (4-6)	GA-TW-6-S (8-10)	GA-TW-7-S (12-14)	GA-TW-8-S (8-10)	GA-TW-9-S (8-12)	GA-TW-10-S (6-8)	GA-TW-11-S (10-11)	GA-TW-12-S (2-4)	GA-SD-1	GA-SD-2	GA-SD-3	GA-SD-4	GA-B2-SD (5-7)	GA-EB1-AQ
Fluoride, mg/kg						46.9	81.3					11.1						
Butyl Cellusolve, ug/kg										2200								
pH			4.67	5.08		7.68	4.72					5.23						

Note:

(a) Concentrations of tentatively identified compouns are estimated. Retention times of unknown compounds are given in parenthesis.
NA = Not analyzed.
U = Indicates a compound was analyzed for but not detected. Number next to "U" is the detection limit.
J = Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit.
B = Indicates that the analyte was found in the method blank as well as the sample. It indicates possible/probable blank contamination.
Equipment blank GA-EB-2-AQ is an aqueous sample. Units are ug/l for volatiles and butyl cellulosive, and mg/l for metals, TPH, oil & grease, and fluoride.

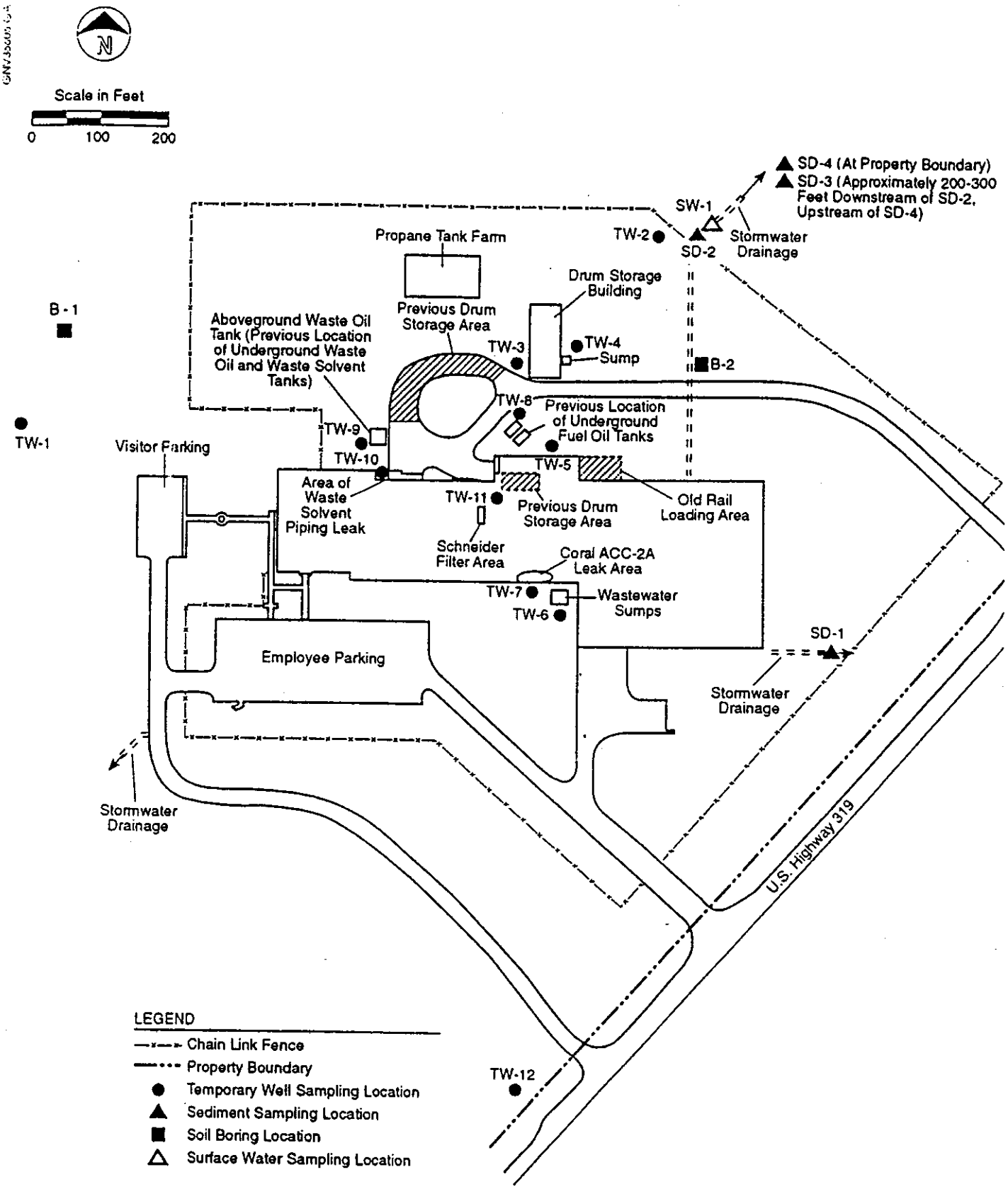


Figure 1. Sampling Locations, Miller Container Plant Moultrie, GA.

CH2MHILL

SITE INVESTIGATION REPORT FOR THE FORMER MILLER BREWING COMPANY MOULTRIE CONTAINER DIVISION FACILITY

Prepared for:

Miller Brewing Company
3939 West Highland Blvd.
Milwaukee, Wisconsin 53201

Submitted by:

The Earth Technology Corporation
12129 West Feerick Street
Wauwatosa, Wisconsin 53222
414/466-9266

TETC Project Number 94-4130-04

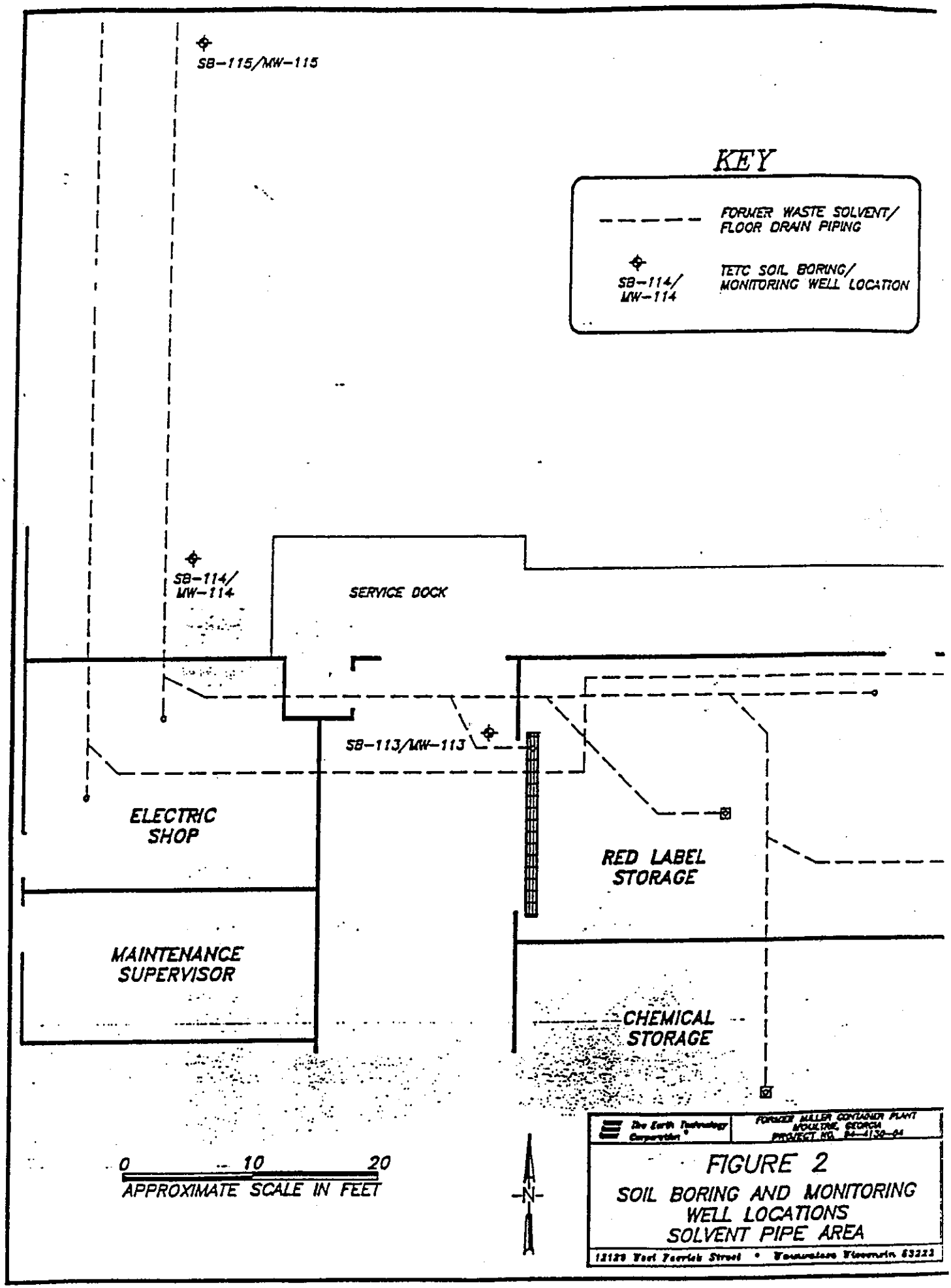
March 22, 1994

TABLE 4-1
FORMER MILLER BREWING COMPANY--MOULTRIE CONTAINER DIVISION
JANUARY 17-21, 1994
SOIL AND GROUNDWATER SAMPLE RESULTS[1]
LEAKING SOLVENT PIPE AREA

		SOIL (ug/kg)							GROUNDWATER (ug/l)			FIELD BLANKS	
SAMPLE NUMBER		SB-113A	SB-113B	SB-114A	SB-114A (DUP)	SB-114B	SB-116A	SB-116B	GW-113	GW-114	GW-114 (DUP)	FB-01	FB-02
DEPTH INTERVAL (inches)		40"-46"	72"-78"	24"-48"	24"-48"	72"-84"	18"-24"	60"-66"	118"-144"	16"-138"	16"-148"	SOIL	GROUNDWATER
ANALYTE	METHOD DETECTION LIMIT												
VOLATILE ORGANICS													
Acetone	100	130	120	<110	<120	670	<110	<120	ND	3,300	2,300	ND	ND
2-Butanone (MEK)	100	510	<120	<110	<120	660	<110	<120	ND	2,600	1,500	ND	ND
Isobutyl Alcohol	100	600	<120	<110	<120	<120	<110	<120	ND	310	330	ND	ND
4-Methyl-2-pentanone (MIBK)	50	<63	<58	<57	<58	<61	<53	<62	ND	77	80	ND	ND
Chloroform	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	ND	ND	11	11
Trichloroethane	5	23	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	290	420	670	ND	ND
Tetrachloroethane	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	28	35	120	ND	ND
1,1,1-Trichloroethane	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	41	170	ND	ND
1,1-Dichloroethane	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	63	690	1,200	ND	ND
1,1,-Dichloroethene	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	17	19	110	ND	ND
1,2-Dichloroethane	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	11	15	ND	ND
Methylene Chloride	5	116	178	168	196	108	148	228	ND	8.8	5.2	7.4	7.6
Chloroethane	10	<5.3	<5.8	<11	<12	<12	<11	<12	ND	410	1,300	ND	ND
Vinyl Acetate	100	750	<120	<110	<120	810	<110	<120	ND	3,800	3,600	ND	ND
Dibromomethane	5	10	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	ND	ND	ND	ND
M,P, Xylenes	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	30	66	ND	ND
O, Xylenes	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	15	29	ND	ND
Benzene	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	7.5	15	ND	ND
Ethylbenzene	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	8.5	20	ND	ND
Toluene	5	<5.3	<5.8	<5.7	<5.8	<6.1	<5.3	<6.2	ND	72	150	ND	ND

Key:

1) Summary of detected compounds only.
B Detected in the method blank at 6.1 ug/kg.
ND Not detected in concentrations greater than the method detection limit.
< Less than designation was used for the soil samples to indicate that background interference in the sample precluded quantification below the method detection limit. These can be interpreted to be nondetections (ND).


SB-115/MW-115
KEY
FORMER WASTE SOLVENT/ FLOOR DRAIN PIPING
SB-114/ MW-114
TETC SOIL BORING/ MONITORING WELL LOCATION
SB-114/ MW-114
SERVICE DOCK
SB-113/MW-113
ELECTRIC SHOP
RED LABEL STORAGE
MAINTENANCE SUPERVISOR
CHEMICAL STORAGE
0 10 20
APPROXIMATE SCALE IN FEET
N
The Earth Technology Corporation
FORMER MILLER CONTAINER PLANT MOULTRIE, GEORGIA PROJECT NO. 94-4130-04
FIGURE 2
SOIL BORING AND MONITORING WELL LOCATIONS SOLVENT PIPE AREA
12121 West Feerick Street • Wauwatosa Wisconsin 53222

SUPPLEMENTAL SITE INVESTIGATION REPORT
of the
Former Miller Brewing Company
Container Plant
in
Moultrie, Georgia

prepared for:

Miller Brewing Company
3939 West Highland Blvd.
Milwaukee, WI 53201

prepared by:

EARTH TECH
5555 Glenwood Hills Parkway, SE
Grand Rapids, MI 49588

August 1995

23052

TABLE 4-2

Laboratory Soil Sample Results
Former Miller Container Plant
Moultrie, Georgia

Sample Location	Depth	Acetone (µg/kg)*
Trench-1 (9E2N)	6 ft.	53
Trench-2 (3W1N)	6 ft.	<11
MW-116	1-3 ft.	<11
MW-116	3-5 ft.	<12
MW-117	1-3 ft.	14
MW-117	5-7 ft.	17
MW-118	1-3 ft.	<11
MW-118	5-7 ft.	<12
MW-119	0-2 ft.	<11
MW-119	2-4 ft.	<11
MW-120	4-6 ft.	<11
MW-120	6-8 ft.	16
MW-121	0-2 ft.	<11
MW-121	10-12 ft.	<11
Field duplicate-1 (MW-118)	5-7 ft.	19
Field duplicate-2 (Trench-1)	6 ft.	68

* Acetone was the only compound detected in any of the soil samples analyzed by the laboratory.

Table 4-3
Analytical Results for Groundwater
October, November and December, 1994
Former Miller Container Plant
Moultrie, Georgia

Compound (MDL)	Sample Locations						Action Levels	
	Sump 1	Sump 2	MW-113	MW-114	MW-114D	MW-115	Federal MCL	GEPD Drinking Water Standard
Chloromethane (10 µg/l)	1,300			1,200	1,100		-	-
Acetone (10 µg/l)	790			60			-	-
1,1-dichloroethene (5 µg/l)	46			570	260		7	7
1,1-dichloroethane (5 µg/l)	240		35	710	580	42	-	-
2-butanone (10 µg/l)	420			30	20		-	-
1,1,1-trichloroethene (5 µg/l)	140						200	200
Trichloroethene (5 µg/l)	250	16	62	140	120	170	5	5
Benzene (5 µg/l)				11	8		5	5
4-methyl-2-pentanone (10 µg/l)				18	15		-	-
Tetrachloroethene (5 µg/l)	77		14	13	12		5	5
Toluene (5 µg/l)	18			57	49		1,000	1,000
Ethylbenzene (5 µg/l)				7	5		700	700
Xylenes (total) (5 µg/l)				24	20		10,000	10,000
cis-1,2-dichloroethene (5 µg/l)	1,500		17	15,000	12,000	210	70	70

Notes:
All units are µg/l (approximately equal to parts per billion).
A blank cell indicates the compound was not detected above the method detection limit.
Shaded cells highlight concentrations which exceed May 1994 Federal Maximum contaminant levels (MCLs) and/or March 1994 Georgia Environmental Protection Division (GEPD) drinking water standards
- Final action standard not available
MDL = Method detection limit

Table 4-3 (continued)
Analytical Results for Groundwater
October, November and December, 1994
Former Miller Container Plant
Moultrie, Georgia

Compound (MDL)	Sample Locations						Action Levels	
	MW-116	MW-117	MW-118	MW-119	MW-120	MW-121	Federal MCLs	GEPD Drinking Water Standards
Chloromethane (10 µg/l)							-	-
Acetone (10 µg/l)							-	-
1,1-dichloroethene (5 µg/l)	8						7	7
1,1-dichloroethane (5 µg/l)	62	12	14				-	-
2-butanone (10 µg/l)							-	-
1,1,1-trichloroethene (5 µg/l)							200	200
Trichloroethene (5 µg/l)	560	130	69				5	5
Benzene (5 µg/l)							5	5
4-methyl-2-pentanone (10 µg/l)							-	-
Tetrachloroethene (5 µg/l)	34						5	5
Toluene (5 µg/l)							1,000	1,000
Ethylbenzene (5 µg/l)							700	700
Xylenes (total) (5 µg/l)							10,000	10,000
cis-1,2-dichloroethene (5 µg/l)	85	14	12				70	70

Notes:

All units are µg/l (approximately equal to parts per billion).
A blank cell indicates the compound was not detected above the method detection limit.
Shaded Cells highlight concentrations which exceed May 1994 Federal maximum contaminant levels (MCLs) and/or March 1994 Georgia Environmental Protection Division (GEPD) Drinking Water Standards.
- = Final action standards are not available
MDL = Method detection limit

Table 4-4
Analytical Results for Groundwater
March 31, 1995 Sampling Event
Former Miller Container Plant
Moultrie, Georgia

Compound (MDL)	Sample Locations					Action Standards	
	MW-113	MW-114	MW-114D	MW-115	MW-116	Federal MCLs	GEPD Drinking Water Standards
Chloroethane (1 µg/l)		930	1200			-	-
1,1-dichloroethene (5 µg/l)	3	310	330		12	7	7
1,1-dichloroethane (5 µg/l)	26	400	450	25	45	-	-
1,1,1-trichloroethene (5 µg/l)						200	200
Trichloroethene (5 µg/l)	72	400	440	120	420	5	5
Tetrachloroethene (5 µg/l)	8.4				22	5	5
cis-1,2-dichloroethene (5 µg/l)	22	11000	1200	120	74	70	70

Notes:

Units are in micrograms per liter (µg/l) which are approximately equal to parts per billion).
A blank cell indicates the compound was not detected above the method detection limit.
Shaded cells highlight concentrations which are above applicable action levels.
* = Denotes samples which were analyzed at elevated detection limits due to interference from compounds in the sample.
- = Final action level was not available
MDL = Method detection limit

Table 4-4 (continued)
Analytical Results for Groundwater
March 31, 1995 Sampling Event
Former Miller Container Plant
Moultrie, Georgia

Compound (MDL)	Sample Locations					Action Standards	
	MW-117	MW-118	MW-119	MW-120	MW-121	Federal MCLs	GEPD Drinking Water Standards
Chloroethane (1 µg/l)						-	-
1,1-dichloroethene (5 µg/l)	5	4.6				7	7
1,1-dichloroethane (5 µg/l)	25	21				-	-
1,1,1-trichloroethene (5 µg/l)				1.8		200	200
Trichloroethene (5 µg/l)	210	110	3.4	1.7		5	5
Tetrachloroethene (5 µg/l)	7.5	8.5				5	5
cis-1,2-dichloroethene (5 µg/l)	37	23	1.6	4.8		70	70

Notes:

Units are in micrograms per liter (µg/l) which are approximately equal to parts per billion).
A blank cell indicates the compound was not detected above the method detection limit.
Shaded cells highlight concentrations which are above applicable action levels.
* = Denotes samples which were analyzed at elevated detection limits due to interference from compounds in the sample.
- = Final action level was not available
MDL = Method detection limit

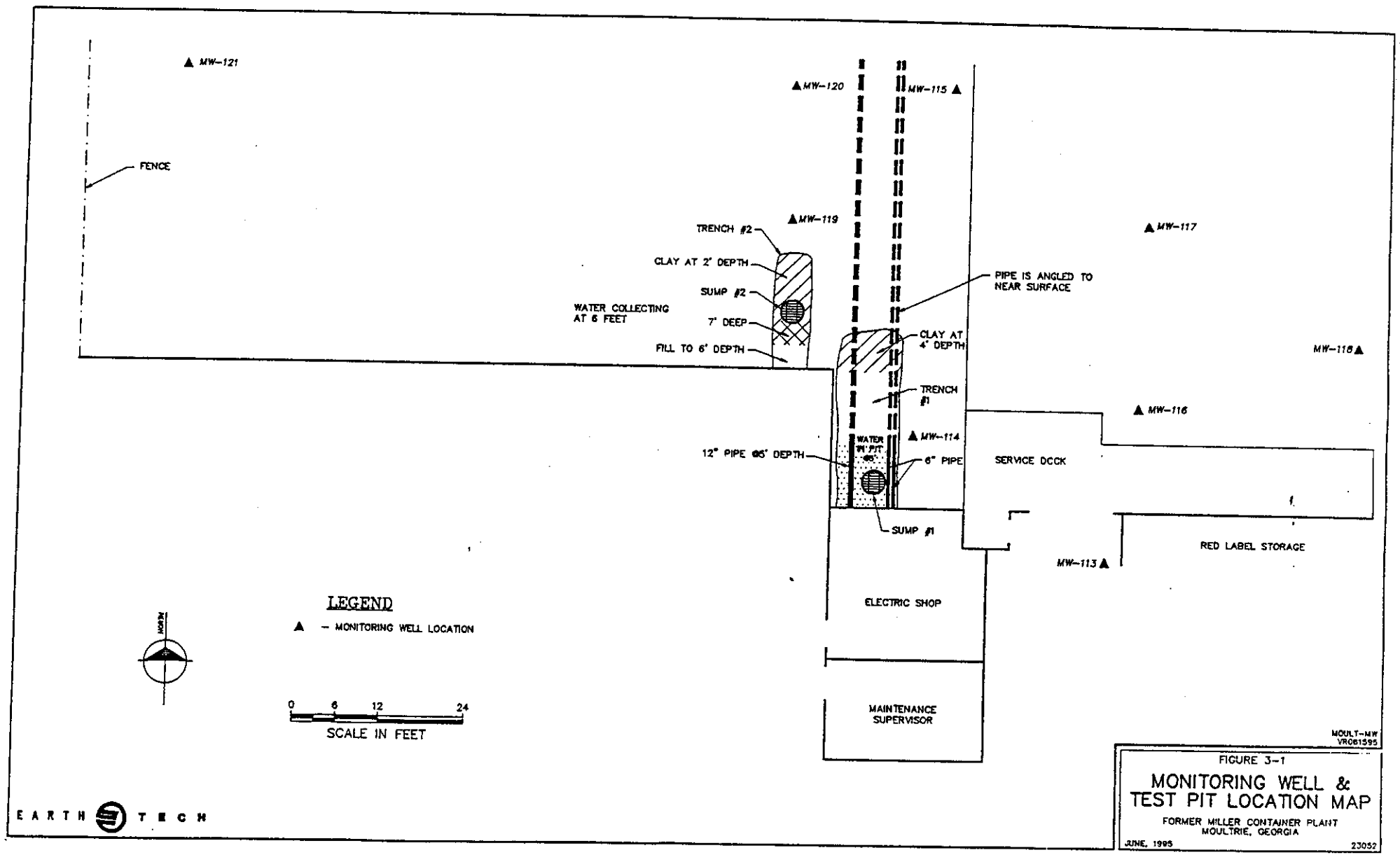


FIGURE 3-1

MONITORING WELL & TEST PIT LOCATION MAP

FORMER MILLER CONTAINER PLANT
MOULTRIE, GEORGIA

JUNE, 1995 23052

EARTH TECH

PHASE II SUBSURFACE INVESTIGATION

REYNOLDS METALS COMPANY
MOULTRIE CAN PLANT
MOULTRIE, GEORGIA 31768

Prepared for:

Ball Corporation
P.O. Box 2407
Muncie, Indiana 47307-0407

Prepared by:

McLaren/Hart, Inc.
28 Madison Avenue Extension
Albany, New York 12203

May 21, 1998

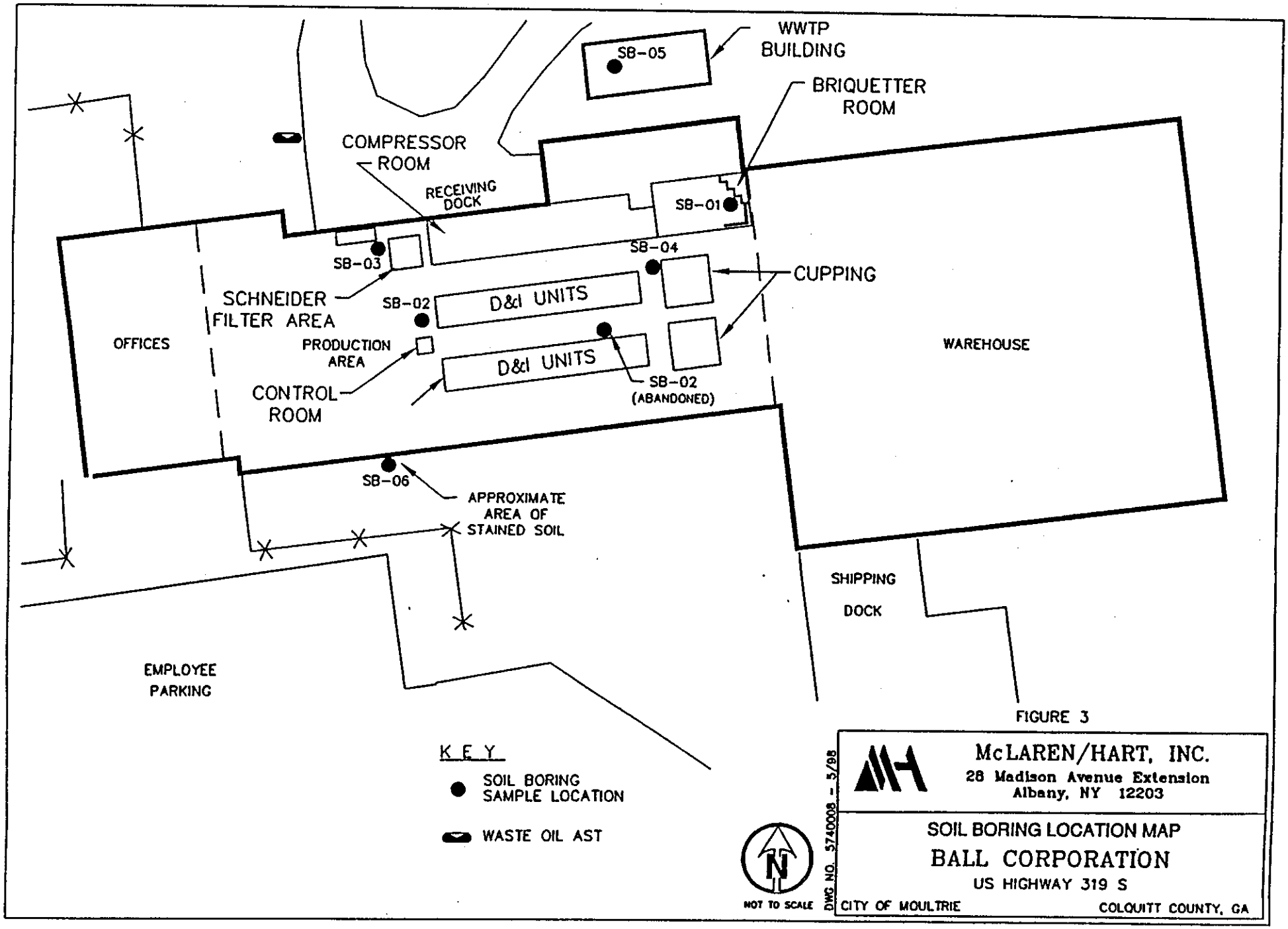


FIGURE 3

McLAREN/HART, INC.
28 Madison Avenue Extension
Albany, NY 12203

SOIL BORING LOCATION MAP
BALL CORPORATION
US HIGHWAY 319 S
CITY OF MOULTRIE COLQUITT COUNTY, GA

DWG NO. 5740008 - 5/98

CLS Labs

Analysis Report: Volatile Organics by Capillary GC/MS, EPA Method 8260

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/11/98
Date Analyzed: 05/11/98
Date Reported: 05/12/98
Client ID No. SB-01(0-2')

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-1A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	92
Toluene-d8	N/A	50.0	103
p-Bromofluorobenzene	460-00-4	50.0	106

SB-01(0-2')

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Acetone	67-64-1	ND	100	1.0
Benzene	71-43-2	ND	5.0	1.0
Bromobenzene	108-86-1	ND	5.0	1.0
Bromochloromethane	74-97-5	ND	5.0	1.0
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	10	1.0
2-Butanone	78-93-3	ND	100	1.0
n-Butylbenzene	104-51-8	ND	5.0	1.0
sec-Butylbenzene	135-98-8	ND	5.0	1.0
tert-Butylbenzene	98-06-6	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	10	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	10	1.0
o-Chlorotoluene	95-49-8	ND	5.0	1.0
p-Chlorotoluene	106-43-4	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
Dibromomethane	74-95-3	ND	5.0	1.0
1,2-Dibromo-3-chloropropane	96-12-8	ND	10	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	10	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
cis-1,2-Dichloroethene	156-59-2	ND	5.0	1.0
trans-1,2-Dichloroethene	156-60-5	ND	5.0	1.0
1,3-Dichloropropane	142-28-9	ND	5.0	1.0
2,2-Dichloropropane	574-20-7	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/11/98**
Date Analyzed: **05/11/98**
Date Reported: **05/12/98**
Client ID No.: **SB-01(0-2')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-1A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

SB-01(0-2')(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
1,1-Dichloropropene	563-58-6	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Ethylene dibromide	106-93-4	ND	5.0	1.0
Hexachlorobutadiene	87-68-3	ND	5.0	1.0
2-Hexanone	591-78-6	ND	50	1.0
Isopropylbenzene	98-82-8	ND	5.0	1.0
p-Isopropyltoluene	99-87-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
4-Methyl-2-pentanone	108-10-1	ND	50	1.0
Naphthalene	91-20-3	ND	5.0	1.0
n-Propylbenzene	103-65-1	ND	5.0	1.0
Styrene	100-42-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1,2-Tetrachloroethane	630-20-6	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
1,2,3-Trichlorobenzene	87-61-6	ND	5.0	1.0
1,2,4-Trichlorobenzene	120-82-1	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,2,3-Trichloropropane	96-18-4	ND	5.0	1.0
1,2,4-Trimethylbenzene	95-63-6	ND	5.0	1.0
1,3,5-Trimethylbenzene	108-67-8	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	10	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/11/98**
Date Analyzed: **05/11/98**
Date Reported: **05/12/98**
Client ID No.: **SB-02(5-7')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-3A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	20(MA)
Toluene-d8	N/A	50.0	102
p-Bromofluorobenzene	460-00-4	50.0	104

MA = Recovery data is outside standard QC limits due to matrix interference. LCS recovery data validates methodology.

SB-02(5-7')

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Acetone	67-64-1	ND	100	1.0
Benzene	71-43-2	ND	5.0	1.0
Bromobenzene	108-86-1	ND	5.0	1.0
Bromochloromethane	74-97-5	ND	5.0	1.0
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	10	1.0
2-Butanone	78-93-3	ND	100	1.0
n-Butylbenzene	104-51-8	ND	5.0	1.0
sec-Butylbenzene	135-98-8	ND	5.0	1.0
tert-Butylbenzene	98-06-6	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	10	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	10	1.0
o-Chlorotoluene	95-49-8	ND	5.0	1.0
p-Chlorotoluene	106-43-4	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
Dibromomethane	74-95-3	ND	5.0	1.0
1,2-Dibromo-3-chloropropane	96-12-8	ND	10	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	10	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
cis-1,2-Dichloroethene	156-59-2	ND	5.0	1.0
trans-1,2-Dichloroethene	156-60-5	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: Volatile Organics by Capillary GC/MS, EPA Method 8260

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/11/98
Date Analyzed: 05/11/98
Date Reported: 05/12/98
Client ID No.: SB-02(5-7')

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-3A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

SB-02(5-7')(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
1,3-Dichloropropane	142-28-9	ND	5.0	1.0
2,2-Dichloropropane	574-20-7	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0
1,1-Dichloropropene	563-58-6	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Ethylene dibromide	106-93-4	ND	5.0	1.0
Hexachlorobutadiene	87-68-3	ND	5.0	1.0
2-Hexanone	591-78-6	ND	50	1.0
Isopropylbenzene	98-82-8	ND	5.0	1.0
p-Isopropyltoluene	99-87-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
4-Methyl-2-pentanone	108-10-1	ND	50	1.0
Naphthalene	91-20-3	ND	5.0	1.0
n-Propylbenzene	103-65-1	ND	5.0	1.0
Styrene	100-42-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1,2-Tetrachloroethane	630-20-6	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
1,2,3-Trichlorobenzene	87-61-6	ND	5.0	1.0
1,2,4-Trichlorobenzene	120-82-1	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,2,3-Trichloropropane	96-18-4	ND	5.0	1.0
1,2,4-Trimethylbenzene	95-63-6	ND	5.0	1.0
1,3,5-Trimethylbenzene	108-67-8	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	10	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/11/98**
Date Analyzed: **05/11/98**
Date Reported: **05/12/98**
Client ID No.: **SB-03(6-8')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-6A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	106
Toluene-d8	N/A	50.0	110
p-Bromofluorobenzene	460-00-4	50.0	107

SB-03(6-8')

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Acetone	67-64-1	ND	100	1.0
Benzene	71-43-2	ND	5.0	1.0
Bromobenzene	108-86-1	ND	5.0	1.0
Bromochloromethane	74-97-5	ND	5.0	1.0
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	10	1.0
2-Butanone	78-93-3	ND	100	1.0
n-Butylbenzene	104-51-8	ND	5.0	1.0
sec-Butylbenzene	135-98-8	ND	5.0	1.0
tert-Butylbenzene	98-06-6	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	10	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	10	1.0
o-Chlorotoluene	95-49-8	ND	5.0	1.0
p-Chlorotoluene	106-43-4	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
Dibromomethane	74-95-3	ND	5.0	1.0
1,2-Dibromo-3-chloropropane	96-12-8	ND	10	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	10	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
cis-1,2-Dichloroethene	156-59-2	ND	5.0	1.0
trans-1,2-Dichloroethene	156-60-5	ND	5.0	1.0
1,3-Dichloropropane	142-28-9	ND	5.0	1.0
2,2-Dichloropropane	574-20-7	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/11/98**
Date Analyzed: **05/11/98**
Date Reported: **05/12/98**
Client ID No.: **SB-03(6-8')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-6A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

SB-03(6-8')(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
1,1-Dichloropropene	563-58-6	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Ethylene dibromide	106-93-4	ND	5.0	1.0
Hexachlorobutadiene	87-68-3	ND	5.0	1.0
2-Hexanone	591-78-6	ND	50	1.0
Isopropylbenzene	98-82-8	ND	5.0	1.0
p-Isopropyltoluene	99-87-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
4-Methyl-2-pentanone	108-10-1	ND	50	1.0
Naphthalene	91-20-3	ND	5.0	1.0
n-Propylbenzene	103-65-1	ND	5.0	1.0
Styrene	100-42-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1,2-Tetrachloroethane	630-20-6	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
1,2,3-Trichlorobenzene	87-61-6	ND	5.0	1.0
1,2,4-Trichlorobenzene	120-82-1	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,2,3-Trichloropropane	96-18-4	ND	5.0	1.0
1,2,4-Trimethylbenzene	95-63-6	ND	5.0	1.0
1,3,5-Trimethylbenzene	108-67-8	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	10	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/11/98**
Date Analyzed: **05/11/98**
Date Reported: **05/12/98**
Client ID No.: **SB-03(10-12')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-7A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	102
Toluene-d8	N/A	50.0	107
p-Bromofluorobenzene	460-00-4	50.0	112

SB-03(10-12')

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Acetone	67-64-1	ND	100	1.0
Benzene	71-43-2	ND	5.0	1.0
Bromobenzene	108-86-1	ND	5.0	1.0
Bromochloromethane	74-97-5	ND	5.0	1.0
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	10	1.0
2-Butanone	78-93-3	ND	100	1.0
n-Butylbenzene	104-51-8	ND	5.0	1.0
sec-Butylbenzene	135-98-8	ND	5.0	1.0
tert-Butylbenzene	98-06-6	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	10	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	10	1.0
o-Chlorotoluene	95-49-8	ND	5.0	1.0
p-Chlorotoluene	106-43-4	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
Dibromomethane	74-95-3	ND	5.0	1.0
1,2-Dibromo-3-chloropropane	96-12-8	ND	10	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	10	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
cis-1,2-Dichloroethene	156-59-2	ND	5.0	1.0
trans-1,2-Dichloroethene	156-60-5	ND	5.0	1.0
1,3-Dichloropropane	142-28-9	ND	5.0	1.0
2,2-Dichloropropane	574-20-7	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/11/98**
Date Analyzed: **05/11/98**
Date Reported: **05/12/98**
Client ID No.: **SB-03(10-12')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-7A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

SB-03(10-12')(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
1,1-Dichloropropene	563-58-6	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Ethylene dibromide	106-93-4	ND	5.0	1.0
Hexachlorobutadiene	87-68-3	ND	5.0	1.0
2-Hexanone	591-78-6	ND	50	1.0
Isopropylbenzene	98-82-8	ND	5.0	1.0
p-Isopropyltoluene	99-87-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
4-Methyl-2-pentanone	108-10-1	ND	50	1.0
Naphthalene	91-20-3	ND	5.0	1.0
n-Propylbenzene	103-65-1	ND	5.0	1.0
Styrene	100-42-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1,2-Tetrachloroethane	630-20-6	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
1,2,3-Trichlorobenzene	87-61-6	ND	5.0	1.0
1,2,4-Trichlorobenzene	120-82-1	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,2,3-Trichloropropane	96-18-4	ND	5.0	1.0
1,2,4-Trimethylbenzene	95-63-6	ND	5.0	1.0
1,3,5-Trimethylbenzene	108-67-8	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	10	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/11/98
Date Analyzed: 05/11/98
Date Reported: 05/12/98
Client ID No.: SB-04(0-2')

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-8A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	93
Toluene-d8	N/A	50.0	103
p-Bromofluorobenzene	460-00-4	50.0	112

SB-04(0-2')

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Acetone	67-64-1	ND	100	1.0
Benzene	71-43-2	ND	5.0	1.0
Bromobenzene	108-86-1	ND	5.0	1.0
Bromochloromethane	74-97-5	ND	5.0	1.0
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	10	1.0
2-Butanone	78-93-3	ND	100	1.0
n-Butylbenzene	104-51-8	ND	5.0	1.0
sec-Butylbenzene	135-98-8	ND	5.0	1.0
tert-Butylbenzene	98-06-6	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	10	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	10	1.0
o-Chlorotoluene	95-49-8	ND	5.0	1.0
p-Chlorotoluene	106-43-4	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
Dibromomethane	74-95-3	ND	5.0	1.0
1,2-Dibromo-3-chloropropane	96-12-8	ND	10	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	10	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
cis-1,2-Dichloroethene	156-59-2	ND	5.0	1.0
trans-1,2-Dichloroethene	156-60-5	ND	5.0	1.0
1,3-Dichloropropane	142-28-9	ND	5.0	1.0
2,2-Dichloropropane	574-20-7	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/11/98**
Date Analyzed: **05/11/98**
Date Reported: **05/12/98**
Client ID No.: **SB-04(0-2')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-8A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

SB-04(0-2')(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
1,1-Dichloropropene	563-58-6	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Ethylene dibromide	106-93-4	ND	5.0	1.0
Hexachlorobutadiene	87-68-3	ND	5.0	1.0
2-Hexanone	591-78-6	ND	50	1.0
Isopropylbenzene	98-82-8	ND	5.0	1.0
p-Isopropyltoluene	99-87-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
4-Methyl-2-pentanone	108-10-1	ND	50	1.0
Naphthalene	91-20-3	ND	5.0	1.0
n-Propylbenzene	103-65-1	ND	5.0	1.0
Styrene	100-42-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1,2-Tetrachloroethane	630-20-6	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
1,2,3-Trichlorobenzene	87-61-6	ND	5.0	1.0
1,2,4-Trichlorobenzene	120-82-1	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,2,3-Trichloropropane	96-18-4	ND	5.0	1.0
1,2,4-Trimethylbenzene	95-63-6	ND	5.0	1.0
1,3,5-Trimethylbenzene	108-67-8	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	10	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/11/98
Date Analyzed: 05/11/98
Date Reported: 05/12/98
Client ID No.: SB-05(0-2')

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-10A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	93
Toluene-d8	N/A	50.0	105
p-Bromofluorobenzene	460-00-4	50.0	116

SB-05(0-2')

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Acetone	67-64-1	ND	100	1.0
Benzene	71-43-2	ND	5.0	1.0
Bromobenzene	108-86-1	ND	5.0	1.0
Bromochloromethane	74-97-5	ND	5.0	1.0
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	10	1.0
2-Butanone	78-93-3	ND	100	1.0
n-Butylbenzene	104-51-8	ND	5.0	1.0
sec-Butylbenzene	135-98-8	ND	5.0	1.0
tert-Butylbenzene	98-06-6	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	10	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	10	1.0
o-Chlorotoluene	95-49-8	ND	5.0	1.0
p-Chlorotoluene	106-43-4	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
Dibromomethane	74-95-3	ND	5.0	1.0
1,2-Dibromo-3-chloropropane	96-12-8	ND	10	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	10	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
cis-1,2-Dichloroethene	156-59-2	ND	5.0	1.0
trans-1,2-Dichloroethene	156-60-5	ND	5.0	1.0
1,3-Dichloropropane	142-28-9	ND	5.0	1.0
2,2-Dichloropropane	574-20-7	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/11/98**
Date Analyzed: **05/11/98**
Date Reported: **05/12/98**
Client ID No.: **SB-05(0-2')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-10A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

SB-05(0-2')(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
1,1-Dichloropropene	563-58-6	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Ethylene dibromide	106-93-4	ND	5.0	1.0
Hexachlorobutadiene	87-68-3	ND	5.0	1.0
2-Hexanone	591-78-6	ND	50	1.0
Isopropylbenzene	98-82-8	ND	5.0	1.0
p-Isopropyltoluene	99-87-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
4-Methyl-2-pentanone	108-10-1	ND	50	1.0
Naphthalene	91-20-3	ND	5.0	1.0
n-Propylbenzene	103-65-1	ND	5.0	1.0
Styrene	100-42-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1,2-Tetrachloroethane	630-20-6	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
1,2,3-Trichlorobenzene	87-61-6	ND	5.0	1.0
1,2,4-Trichlorobenzene	120-82-1	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,2,3-Trichloropropane	96-18-4	ND	5.0	1.0
1,2,4-Trimethylbenzene	95-63-6	ND	5.0	1.0
1,3,5-Trimethylbenzene	108-67-8	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	10	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: Volatile Organics by Capillary GC/MS, EPA Method 8260

Client: McLaren/Hart-Albany
28 Madison Avenue Extension
Albany, NY 12203

Project: Reynolds Metals Company

Date Sampled: 05/04/98
Date Received: 05/05/98
Date Extracted: 05/11/98
Date Analyzed: 05/11/98
Date Reported: 05/12/98
Client ID No.: SB-06(0-1')

Project No.: Moultrie GA
Contact: Fred Loneker
Phone: (518)869-6192

Lab Contact: Ray Oslowski
Lab ID No.: P3837-12A
Job No.: 813837
COC Log No.: 55863,862
Batch No.: 51458
Instrument ID: MS05
Analyst ID: MARKW
Matrix: SOIL

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
Dibromofluoromethane	75-61-6	50.0	93
Toluene-d8	N/A	50.0	106
p-Bromofluorobenzene	460-00-4	50.0	112

SB-06(0-1')

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Acetone	67-64-1	ND	100	1.0
Benzene	71-43-2	ND	5.0	1.0
Bromobenzene	108-86-1	ND	5.0	1.0
Bromochloromethane	74-97-5	ND	5.0	1.0
Bromodichloromethane	75-27-4	ND	5.0	1.0
Bromoform	75-25-2	ND	5.0	1.0
Bromomethane	74-83-9	ND	10	1.0
2-Butanone	78-93-3	ND	100	1.0
n-Butylbenzene	104-51-8	ND	5.0	1.0
sec-Butylbenzene	135-98-8	ND	5.0	1.0
tert-Butylbenzene	98-06-6	ND	5.0	1.0
Carbon tetrachloride	56-23-5	ND	5.0	1.0
Chlorobenzene	108-90-7	ND	5.0	1.0
Chloroethane	75-00-3	ND	10	1.0
Chloroform	67-66-3	ND	5.0	1.0
Chloromethane	74-87-3	ND	10	1.0
o-Chlorotoluene	95-49-8	ND	5.0	1.0
p-Chlorotoluene	106-43-4	ND	5.0	1.0
Dibromochloromethane	124-48-1	ND	5.0	1.0
Dibromomethane	74-95-3	ND	5.0	1.0
1,2-Dibromo-3-chloropropane	96-12-8	ND	10	1.0
1,2-Dichlorobenzene	95-50-1	ND	5.0	1.0
1,3-Dichlorobenzene	541-73-1	ND	5.0	1.0
1,4-Dichlorobenzene	106-46-7	ND	5.0	1.0
Dichlorodifluoromethane	75-71-8	ND	10	1.0
1,1-Dichloroethane	75-34-3	ND	5.0	1.0
1,2-Dichloroethane	107-06-2	ND	5.0	1.0
1,1-Dichloroethene	75-35-4	ND	5.0	1.0
cis-1,2-Dichloroethene	156-59-2	ND	5.0	1.0
trans-1,2-Dichloroethene	156-60-5	ND	5.0	1.0
1,3-Dichloropropane	142-28-9	ND	5.0	1.0
2,2-Dichloropropane	574-20-7	ND	5.0	1.0
1,2-Dichloropropane	78-87-5	ND	5.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Volatile Organics by Capillary GC/MS, EPA Method 8260**

Client: **McLaren/Hart-Albany**
28 Madison Avenue Extension
Albany, NY 12203

Project: **Reynolds Metals Company**

Date Sampled: **05/04/98**
Date Received: **05/05/98**
Date Extracted: **05/11/98**
Date Analyzed: **05/11/98**
Date Reported: **05/12/98**
Client ID No.: **SB-06(0-1')**

Project No.: **Moultrie GA**
Contact: **Fred Loneker**
Phone: **(518)869-6192**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P3837-12A**
Job No.: **813837**
COC Log No.: **55863,862**
Batch No.: **51458**
Instrument ID: **MS05**
Analyst ID: **MARKW**
Matrix: **SOIL**

SB-06(0-1')(cont.)

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
1,1-Dichloropropene	563-58-6	ND	5.0	1.0
cis-1,3-Dichloropropene	10061-01-5	ND	5.0	1.0
trans-1,3-Dichloropropene	10061-02-6	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Ethylene dibromide	106-93-4	ND	5.0	1.0
Hexachlorobutadiene	87-68-3	ND	5.0	1.0
2-Hexanone	591-78-6	ND	50	1.0
Isopropylbenzene	98-82-8	ND	5.0	1.0
p-Isopropyltoluene	99-87-6	ND	5.0	1.0
Methylene chloride	75-09-2	ND	5.0	1.0
4-Methyl-2-pentanone	108-10-1	ND	50	1.0
Naphthalene	91-20-3	ND	5.0	1.0
n-Propylbenzene	103-65-1	ND	5.0	1.0
Styrene	100-42-5	ND	5.0	1.0
Tetrachloroethene	127-18-4	ND	5.0	1.0
1,1,1,2-Tetrachloroethane	630-20-6	ND	5.0	1.0
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.0	1.0
1,2,3-Trichlorobenzene	87-61-6	ND	5.0	1.0
1,2,4-Trichlorobenzene	120-82-1	ND	5.0	1.0
1,1,1-Trichloroethane	71-55-6	ND	5.0	1.0
1,1,2-Trichloroethane	79-00-5	ND	5.0	1.0
Trichloroethene	79-01-6	ND	5.0	1.0
Trichlorofluoromethane	75-69-4	ND	5.0	1.0
1,2,3-Trichloropropane	96-18-4	ND	5.0	1.0
1,2,4-Trimethylbenzene	95-63-6	ND	5.0	1.0
1,3,5-Trimethylbenzene	108-67-8	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Vinyl chloride	75-01-4	ND	10	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

Appendix C
Boring Logs and Well Completion Diagrams

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
147244.ES.01	PP-1	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Former Miller Brewing Company CSR - Reynolds Metals — LOCATION : Moultrie, GA

TOC ELEVATION : 293.72 ft msl — DRILLING CONTRACTOR : EEI, Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Simco Earthprobe 4.0 inch O.D. auger

WATER LEVELS : 10.93 ft BTOC (6/30/98) — START : 5/28/98 — END: 5/28/98 — LOGGER : S. Blum

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (IN)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION. PID (ppm): (Borehole headspace)	(Soil headspace)
					FILL: SAND (SP), gray, dry.	T= 1445 Begin drilling	
	3-5	18	1-S		SANDY CLAY (CL), gray/tan, dry.	0.3	0.8
5							
	8-10	24	2-S		CLAY (CL), light gray/white mottled with red and tan, moist, very hard.	0.0	1.7
10							
	12.5-14.5	24	3-S		CLAY (CL), white with streaks of red and tan, moist.	0.0	0.7
15						T= 1600 End boring at 13 ft.	
						Set well (6/2/98)	
						Screen: 7.5 - 12.5 ft	
						Water level: Dry	
20							
25							
30							

LEGEND
PID Photoionization Detector
T Time

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
147244.ES.01	MW-2	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Former Miller Brewing Company CSR - Reynolds Metals — LOCATION : Moultrie, GA

TOC ELEVATION : 295.43 ft msl — DRILLING CONTRACTOR : EEI, Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Simco Earthprobe 4.0 inch O.D. auger

WATER LEVELS : 5.32 ft BTOC (6/1/98) — START : 5/29/98 — END: 5/29/98 — LOGGER : S. Blum

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (IN)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION. PID (ppm):
						T= 0950 Begin drilling *(Soil headspace)*
	3-5	24	1-S		SAND (SP), orange and light gray, moist.	*0.0*
5						
	8-8.5	6	2-S		CLAY WITH SAND (CL), tan and white, wet.	Driller says too hard to push > 0.5ft. *4.5*
10						
						T= 1040 End boring at 13.5 ft.
15						Set well: Screen: 3.5 - 13.5 ft
20						
25						
30						

LEGEND
PID Photoionization Detector
T Time

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
147244.ES.01	MW-3	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Former Miller Brewing Company CSR - Reynolds Metals LOCATION : Moultrie, GA

TOC ELEVATION : 295.53 ft msl DRILLING CONTRACTOR : EEI, Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Simco Earthprobe 4.0 inch O.D. auger

WATER LEVELS : 5.13 ft BTOC (6/1/98) START : 5/29/98 END: 5/29/98 LOGGER : S. Blum

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (IN)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION. PID (ppm):
						T= 1200 Begin drilling *(Soil headspace)*
	3-5	24	1-S		SAND WITH CLAY (SP-SC), tan and orange, moist.	*1.0*
5						
	8-10	24	2-S		CLAY (CL), white mottled with red and pink, wet.	*0.5*
10						
						T= 1305 End boring at 13.0 ft.
15						Set well: Screen: 3.0 - 13.0 ft
20						
25						
30						

LEGEND
PID Photoionization Detector
T Time

CH2MHILL

PROJECT NUMBER	BORING NUMBER		
147244.ES.AW	MW-4D	SHEET 1	OF 2

SOIL BORING LOG

PROJECT : Former Miller Brewing Company CSR - Reynolds Metals — LOCATION : Moultrie, Georgia

TOC ELEVATION : 293.72 feet — DRILLING CONTRACTOR : Environmental Exploration Inc. (EEI), Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Rig: CME 750 ATV, Hollow-Stem Augers: OD=12", ID=8 1/4" (1st 20 feet), OD=5 8/7 roller cone bit for mud rotary

WATER LEVELS : 6.97 ft BTOC (8/5/98) — START : 8/4/98 — END: 8/4/98 — LOGGER : Lillian Furlow

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (IN)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE. MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.	Soil Headspace PID (PPM)
					Posthole dig 1st 2-feet for underground utility clearance.	T=0901 Begin Drilling collect 5-ft SPT's.	
	2-4'	15"	1-S	10-10-12-17 (22)	SANDY CLAY (CL), whitish tan w/ orange-pink matting, dry, very stiff, no odor, no structures, fine grained sand.	T=0903	120
5	4-6'	16"	2-S	10-16-22-20 (38)	Same as 1-5, moist, hard, no odor, no soil structure, no odor, no soil structure, fine grained sand.	T=0913	700
						T=0930: collect soil sample 4-6 ft. EPA method 860 (MW-4D:4-6)	
	8-10'	22"	3-S	4-7-7-8 (14)	CLAY w/ SAND (CL), mottled light gray-red-pink-purple-tan, moister than 2-S, stiff, no odor, no structures, fine grained.	T=0937	290
10							
	13-15'	10"	4-S	8-9-13-8 (24)	CLAY (CL), mottled purple-tan-light gray, moist, very stiff, no odor, no structures.	T=0958	351
15							
	18-20'	17"	5-S	5-6-9-17 (15)	CLAY W/ SAND (CL), mottled tan, dark purple, gray, moist, stiff, no odor, muscovite flakes in matrix.	T=1028	638
20						T= 1039 At 20 feet. Pull 12" OD augers. Set 20' of 6" PVC isolation casing grout in place.	
	23-25'	11"	6-S	4-8-8-8 (16)	CLAYEY SAND (SC), Mottled tan-pink-yellow-brown, moist, medium dense, no odor, medium to coarse grained.	T=1057 (8/5/98) Use mud rotary drilling techniques to drill from 20 feet to total depth.	1,460
25						T=1115 Rig pump broken-stop drilling. T=1411 Continue drilling	
	28-30'	22"	7-S	4-5-5-6 (10)	CLAY (CL), light tan-gray mottled with red, moist,stiff, no odor.	T=1445	1,237
30							

LEGEND
PID Photoionization Detector
T Time
SPT Soil Penetrometer Testing

CH2MHILL

PROJECT NUMBER	BORING NUMBER		
147244.ES.AW	MW-4D	SHEET 2	OF 2

SOIL BORING LOG

PROJECT : Former Miller Brewing Company CSR - Reynolds Metals — LOCATION : Moultrie, Georgia

TOC ELEVATION : 293.72 feet — DRILLING CONTRACTOR : Environmental Exploration Inc. (EEI), Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Rig: CME 750 ATV, Hollow-Stem Augers: OD=12", ID=8 1/4" (1st 20 feet), OD=5 8/7 roller cone bit for mud rotary

WATER LEVELS : 6.97 ft BTOC (8/5/98) — START : 8/4/98 — END: 8/4/98 — LOGGER : Lillian Furlow

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (IN)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.	Soil Headspace PID (PPM)
	33-35'	14"	8-S	3-4-7-4 (11)	Same as, 7-S w/ sand, more plastic, sl. fine grained sand (<5%), muscovite flakes.	T=1549 at 33 feet T=1606 Break (due to heat) T=1628 Continue drilling	*1,147*
35						Driller says felt sandy ~36 to 38 ft.	
	38-40'	22"	9-S	3-4-5-8 (9)	Top 3": SANDY CLAY (CL), yellow moist, fine grained. Bottom 19": CLAY (CL) interbedded w/ lenses of , SANDY CLAY (SC), clay is red, sandy is fine grained tan to gray, stiff.	T=1652	*1,172*
40							
	43-45'	8"	10-S	5-6-7-7 (13)	Same as bottom of 9-S: SANDY CLAY (CL), same coloring.	T=1746	*579*
45							
	48-50'	9"	11-S	5-7-8-10 (15)	CLAY W/ SAND (CL), light gray w/ lenses of the lime-green clay, moist, stiff, no odor, less sand than 10-S.	T=1844	*567*
50						**End boring at 50 feet set well (2-inch PVC)** *boring slufted-in 48-50 feet. Screen: 36-46 feet Sand: 34-48 feet Chips: 31-34 feet Grout: ground surface to 31 feet	
55							
60							

LEGEND

PID Photolonization Detector
T Time
SPT Soil Penetrometer Testing

CH2MHILL

PROJECT NUMBER	BORING NUMBER			
147244.ES.AW	MW-5	SHEET 1	OF	1

SOIL BORING LOG

PROJECT : Former Miller Brewing Company CSR-Reynolds Metals — LOCATION : Moultrie, Georgia

TOC ELEVATION : 295.44 feet — DRILLING CONTRACTOR : Environmental Exploration Inc. (EEI), Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Rig: CME 750 ATV, Hollow-Stem Augers: OD=8", ID=4 1/4"

WATER LEVELS : 12.50 ft BTOC (8/5/98) — START : 8/4/98 — END: 8/4/98 — LOGGER : Lillian Furlow

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (IN)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.	Soil Headspace PID (PPM)
						T=1612 Begin Drilling collect 5-ft SPT's.	
	3-5'	14"	1-S	3-5-10-10 (15)	SANDY CLAY (CL), mottled : gray-tan-red-white, dry, stiff, no odor, no structures, fine grained sand.	T=1618	237
5							
	8-10'	6"	2-S	2-5-6-6 (11)	Same as 1-S, redder, less sand, no odor.	T=1626	200
10							
	13-15'	5"	3-S	3-4-5-6 (9)	Same as 2-S, sandier, moist, no odor	T=1637	416
15							
						T=1643 End boring at 17 feet. Set 2" PVC well Screen=5-15 feet Sand=4-15 1/2 feet Benonite chips=2-4 feet Grout=ground surface-2 feet	
20							
25							
30							

LEGEND
PID Photolonization Detector
T Time
SPT Soil Penetrometer Testing

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
147244.ES.01	MW-114D	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Former Miller Brewing Company CSR - Reynolds Metals — LOCATION : Moultrie, GA

TOC ELEVATION : 297.45 ft msl — DRILLING CONTRACTOR : EEI, Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Simco Earthprobe 4.0 inch O.D. auger (0-15 ft), 2.0 inch O.D. auger (15-22.5 ft)

WATER LEVELS : 22.23 ft msl (6/4/98) — START : 6/2/98 — END: 6/3/98 — LOGGER : S. Blum

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (IN)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION. PID (ppm):
						T= 1200 6/2/98 Begin drilling (Soil headspace)
	3-3.5	6	1-S		SAND WITH CLAY (SP-SC), light brown, dry.	0.0
						Hand augered to 4 ft.
5						
	8-10	4	2-S		CLAY (CL), light gray/white mottled with red and pink, hard, moist.	0.0
10						
	13-14	3	3-S		CLAY (CL), light gray/white mottled with red and pink, hard, moist.	
15						T= 1310 6/2/98 End boring at 15.0 ft.
						Set outer casing: Casing = 3 inch I.D. PVC
						T = 1350 6/3/98 Begin drilling
	18-20		4-S		CLAY (CL), orange brown streaked with red, pink, and white, hard, moist.	
20						
						T= 1610 6/3/98 End boring at 22.5 ft.
						Set well: Screen: 17.5 - 22.5 ft
25						
30						

LEGEND
PID Photoionization Detector
T Time

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
147244.ES.AW	SB-1	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Former Miller Brewing Company CSR-Reynolds Metals — LOCATION : Moultrie, Georgia

TOC ELEVATION : Not Measured — DRILLING CONTRACTOR : EEI, Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Rig: CME 750 ATV, Augers: OD=8", ID=4 1/4"

WATER LEVELS : MW-114: 8.10 ft BTOC (8/5/98) START : 8/6/98 END: 8/6/98 LOGGER : Lillian Furlow

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (IN)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION. PID (ppm):
						T=1701 Begin Drilling collect 5-ft SPT's. PID Soil Headspace (PPM)
	1-3'	13"	1-S	1-2-2-2 (4)	CLAY w/ SAND (CL) fill, tan, moist, soft, no odor. Bottom 1": SAND (SP) poorly graded medium grained, moist.	T=0838 *187*
	3-5'	11"	2-S	2-2-6-6 (8)	CLAY (CL), white to dark gray, moist, firm, very strong chemical odor (solvent), (MEK?).	*>7,200*
5						T=0844 End boring at 5 feet. Collect soil sample (SB-1: 3-5 ft) VOCs Method 8260
10						
15						
20						
25						
30						

LEGEND
PID Photoionization Detector
T Time

P:\147244\DATA\borelog.xls

9/4/98

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
147244.ES.AW	SB-2	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Former Miller Brewing Company CSR-Reynolds Metals LOCATION : Moultrie, Georgia

TOC ELEVATION : Not Measured DRILLING CONTRACTOR : EEI, Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Rig: CME 750 ATV, Augers: OD=8", ID=4 1/4"

WATER LEVELS : MW-117: 2.29 ft BTOC (8/6/98) START : 8/6/98 END: 8/6/98 LOGGER : Lillian Furlow

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (IN)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION. PID (ppm):
						T=1038 Begin Drilling collect 2-ft SPT's. PID Soil Headspace (PPM) 24
	0.5-2'	4"	1-S	10-10-5-12 (15)	CLAY w/ SAND (CL), grayish white w/ red mottling, dry, medium dense.	
						T=1043 End boring at 2 feet. Collect soil sample (SB-2: 0.5-2 ft) VOCs Method 8260
5						
10						
15						
20						
25						
30						

LEGEND
PID Photoionization Detector
T Time

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
147244.ES.AW	SB-3	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Former Miller Brewing Company CSR-Reynolds Metals — LOCATION : Moultrie, Georgia

TOC ELEVATION : Not Measured — DRILLING CONTRACTOR : EEI, Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Rig: CME 750 ATV, Augers: OD=8", ID=4 1/4"

WATER LEVELS : MW-120: 8.73 ft BTOC (8/5/98) START : 8/6/98 END: 8/6/98 LOGGER : Lillian Furlow

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (IN)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION. PID (ppm): PID Soil Headspace (PPM)
						T=0908 Begin Drilling collect 2-ft SPT's.
	1-3'	14"	1-S	12-13-17-8 (30)	CLAY w/ SAND, tan & off-white mottled, hard, dry, fine grained.	T=0906 *33*
	3-5'	18"	2-S	6-8-12-16 (20)	SANDY CLAY (CL), grayish-white, dry, fine grained, very stiff.	*41*
5						T=0931 End boring at 5 feet. Collect soil sample (SB-3: 3-5 ft) VOCs Method 8260
10						
15						
20						
25						
30						

LEGEND
PID Photoionization Detector
T Time

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
147244.ES.AW	SB-4	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Former Miller Brewing Company CSR-Reynolds Metals — LOCATION : Moultrie, Georgia

TOC ELEVATION : Not Measured — DRILLING CONTRACTOR : EEI, Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Rig: CME 750 ATV, Augers: OD=8", ID=4 1/4"

WATER LEVELS : MW-121: 11.13 ft BTOC (8/5/98) START : 8/6/98 END: 8/6/98 LOGGER : Lillian Furlow

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (IN)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.	PID (ppm): PID Soil Headspace (PPM)
						T=1002 Begin Drilling collect 2-ft SPT's.	
1	1-3'	7"	1-S	5-5-7-7 (12)	FILL: CLAYEY SAND & GRAVEL (SW), tan, sand-dark gray gravel, medium dense, dry.	T=1009	70
3	3-5'	5"	2-S	10-12-14-16 (26)	CLAY (CL), whittish gray w/ swirls of red, moist, very stiff.		72
5						T=1013 End boring at 5 feet. Backfill w/ bentonite chips. Hydrate. T=1030 collect soil sample (SB-4: 3-5 ft) VOCs Method 8260	
10							
15							
20							
25							
30							

LEGEND
PID Photoionization Detector
T Time

CH2MHILL

PROJECT NUMBER	BORING NUMBER	
147244.ES.AW	SB-5	SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Former Miller Brewing Company CSR-Reynolds Metals — LOCATION : Moultrie, Georgia

TOC ELEVATION : Not Measured — DRILLING CONTRACTOR : EEI, Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Rig: CME 750 ATV, Augers: OD=8", ID=4 1/4"

WATER LEVELS : MW-121: 11.13 ft BTOC (8/5/98) START : 8/5/98 END: 8/5/98 — LOGGER : Lillian Furlow

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (IN)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION. PID (ppm):
						T=1701 Begin Drilling collect 5-ft SPT's. PID Soil Headspace (PPM)
	2-4'	10"	1-S	3-5-7-10 (12)	Top 5": SANDY CLAY (CL), tan, dry, stiff, less sand, stiffer than bottom 7". Bottom 7": SANDY CLAY (CL), whitish-tan, moist, less consolidated than upper portion, fine grained, more sand than upper sample.	T=1713 *111*
5						
	8-10'	5"	2-5	5-7-9-13 (16)	CLAY w/ SAND (CL), tan-gray mottled, moist, very stiff, no structures.	*386*
10						T=1728 End boring at 8 feet. Backfill w/Bentonite chips. Hydrate. T=1747 collect soil sample (SB-5: 8-10 ft) VOCs Method 8260
15						
20						
25						
30						

LEGEND
PID Photoionization Detector
T Time

CH2MHILL

PROJECT NUMBER	WELL NUMBER		
147244.ES.01	PP-1	SHEET 1	OF 1

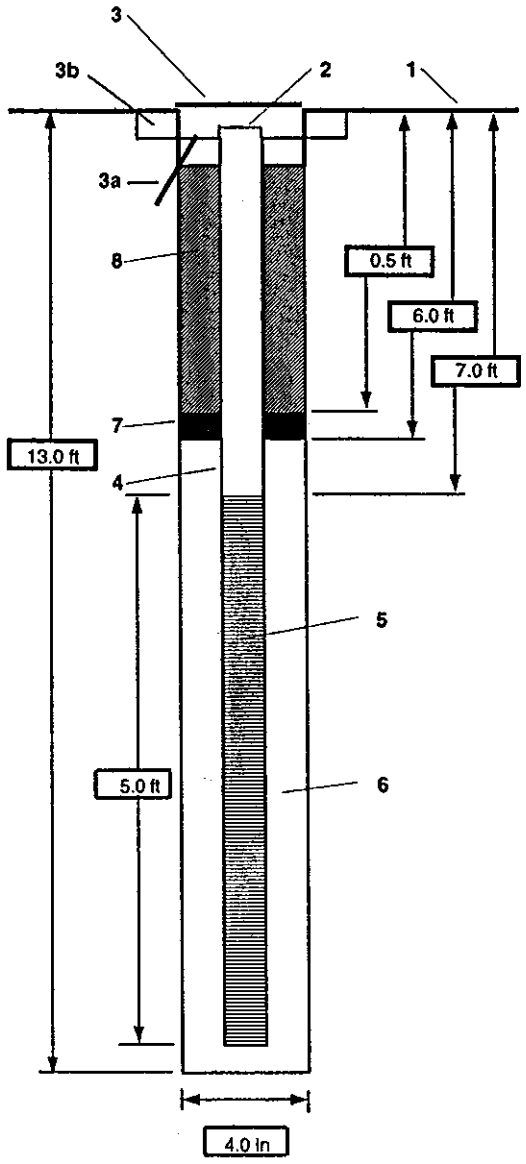
WELL COMPLETION DIAGRAM

PROJECT : Miller Brewing Company CSR LOCATION : Moultrie, GA

DRILLING CONTRACTOR : EEI - Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Simco Earthprobe 4.0 inch O.D. auger

WATER LEVELS : 10.93 ft BTOC (6/30/98) START : 06/02/98 END : 06/02/98 LOGGER : S. Blum



1- Ground elevation at well: 293.56 ft msl

2- Top of casing elevation: 293.72 ft msl

3- Wellhead protection cover type:
- a) drain tube? none
- b) concrete pad dimensions 1-ft diameter

4- Dia./type of well casing: 1-inch PVC

5- Type/slot size of screen: 10 slot PVC

6- Type screen filter: Sand (0.01 um)
- a) Quantity used 1/3 of 50 lb bag

7- Type of seal: Bentonite Chips
- a) Quantity used 5 handfulls

8- Grout
- a) Grout mix used Quickrete - 80 lb bag with 2.5 gal H_2O
- b) Method of placement Poured
- c) Vol. of well casing grout

Development method

Development time

Estimated purge volume

Comments

CH2MHILL

PROJECT NUMBER	WELL NUMBER		
147244.ES.01	MW-1	SHEET 1	OF 1

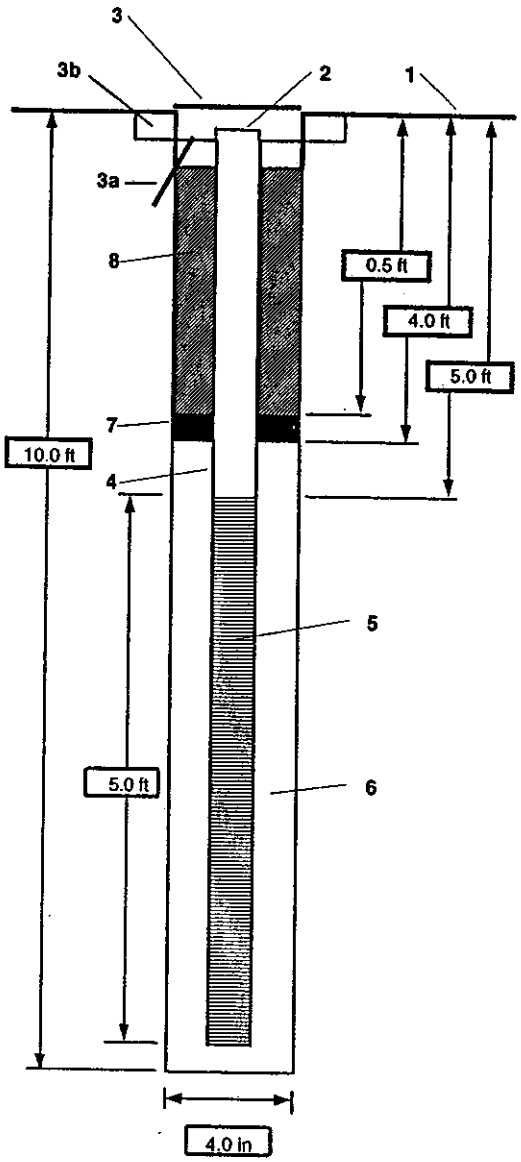
WELL COMPLETION DIAGRAM

PROJECT : Former Miller Brewing Company CSR - Reynolds Metals LOCATION : Moultrie, GA

DRILLING CONTRACTOR : EEI - Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Simco Earthprobe 4.0 inch O.D. auger

WATER LEVELS : 9.98 ft BTOC (6/1/98) START : 05/29/98 END : 05/29/98 LOGGER : S. Blum



1- Ground elevation at well: 293.62 ft msl

2- Top of casing elevation: 293.84 ft msl

3- Wellhead protection cover type:
- a) drain tube? none
- b) concrete pad dimensions 1-ft diameter

4- Dia./type of well casing: 1-inch PVC

5- Type/slot size of screen: 10 slot PVC

6- Type screen filter: Sand (0.01 um)
- a) Quantity used 3/4 of 50 lb bag

7- Type of seal: Bentonite Chips
- a) Quantity used 1/3 of 50 lb bag

8- Grout
- a) Grout mix used Quickrete - 80 lb bag with 2.5 gal H_2O
- b) Method of placement Poured
- c) Vol. of well casing grout

Development method

Development time

Estimated purge volume

Comments

CH2MHILL

PROJECT NUMBER	WELL NUMBER		
147244.ES.01	MW-1A	SHEET 1	OF 1

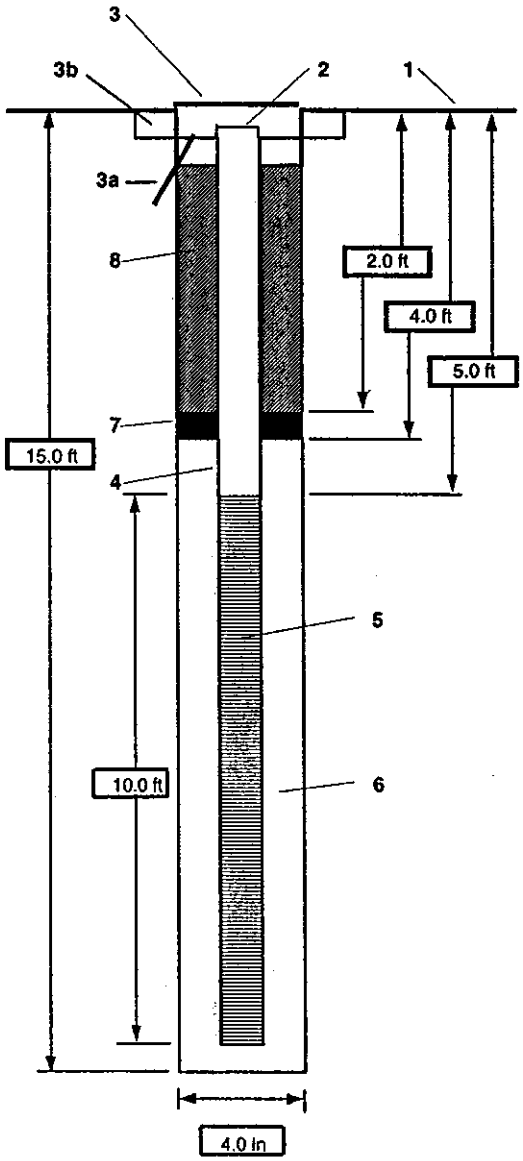
WELL COMPLETION DIAGRAM

PROJECT : Former Miller Brewing Company CSR- Reynolds Metals LOCATION : Moultrie, GA

DRILLING CONTRACTOR : EEI - Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Simco Earthprobe 4.0 inch O.D. auger

WATER LEVELS : 14.60 ft BTOC (6/4/98) START : 06/02/98 END : 06/02/98 LOGGER : S. Blum



1- Ground elevation at well: 292.87 ft msl

2- Top of casing elevation: 293.01 ft msl

3- Wellhead protection cover type:
- a) drain tube? none
- b) concrete pad dimensions: 2-ft x 2-ft

4- Dia./type of well casing: 2-inch PVC

5- Type/slot size of screen: 10 slot PVC

6- Type screen filter: Sand (0.01 um)
- a) Quantity used: 1 1/4 50 lb bags

7- Type of seal: Bentonite Chips
- a) Quantity used: 1/4 of 50 lb bag

8- Grout
- a) Grout mix used: Quickrete - 80 lb bag with 2.5 gal H_2O
- b) Method of placement: Poured
- c) Vol. of well casing grout:

Development method:

Development time:

Estimated purge volume:

Comments:

CH2MHILL

PROJECT NUMBER	WELL NUMBER		
147244.ES.01	MW-2	SHEET 1	OF 1

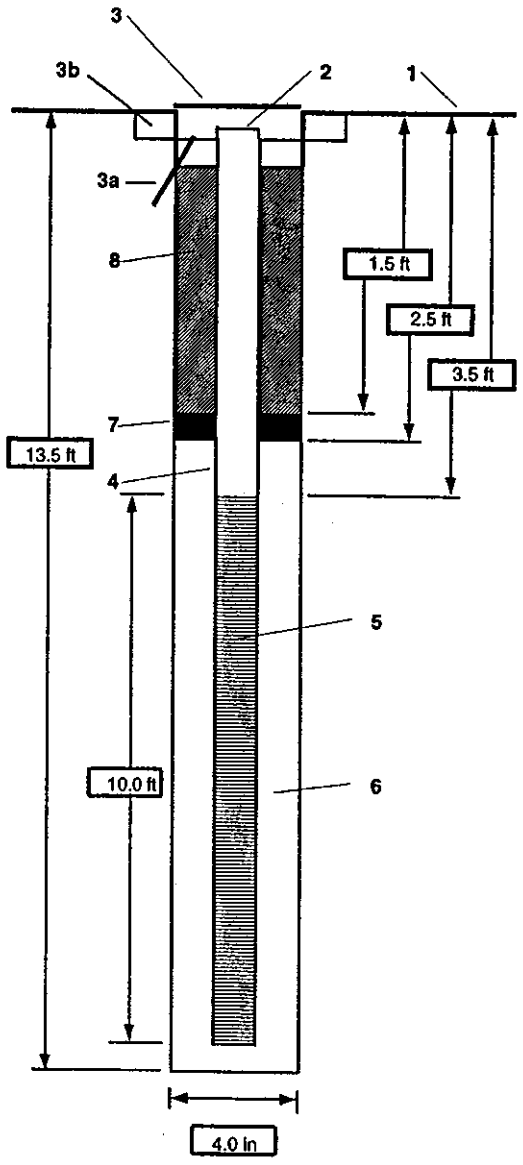
WELL COMPLETION DIAGRAM

PROJECT : Former Miller Brewing Company CSR - Reynolds Metals LOCATION : Moultrie, GA

DRILLING CONTRACTOR : EEI - Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Simco Earthprobe 4.0 inch O.D. auger

WATER LEVELS : 5.32 ft BTOC (6/1/98) START : 05/29/98 END : 05/29/98 LOGGER : S. Blum



1- Ground elevation at well: 295.34 ft msl

2- Top of casing elevation: 295.43 ft msl

3- Wellhead protection cover type:
- a) drain tube? none
- b) concrete pad dimensions 2-ft x 2-ft

4- Dia./type of well casing: 2-inch PVC

5- Type/slot size of screen: 10 slot PVC

6- Type screen filter: Sand (0.01 um)
- a) Quantity used 4/5 of 50 lb bag

7- Type of seal: Bentonite Chips
- a) Quantity used 1/4 of 50 lb bag

8- Grout
- a) Grout mix used Quickrete - 80 lb bag with 2.5 gal H_2O
- b) Method of placement Poured
- c) Vol. of well casing grout

Development method

Development time

Estimated purge volume

Comments

CH2MHILL

PROJECT NUMBER	WELL NUMBER		
147244.ES.01	MW-3	SHEET 1	OF 1

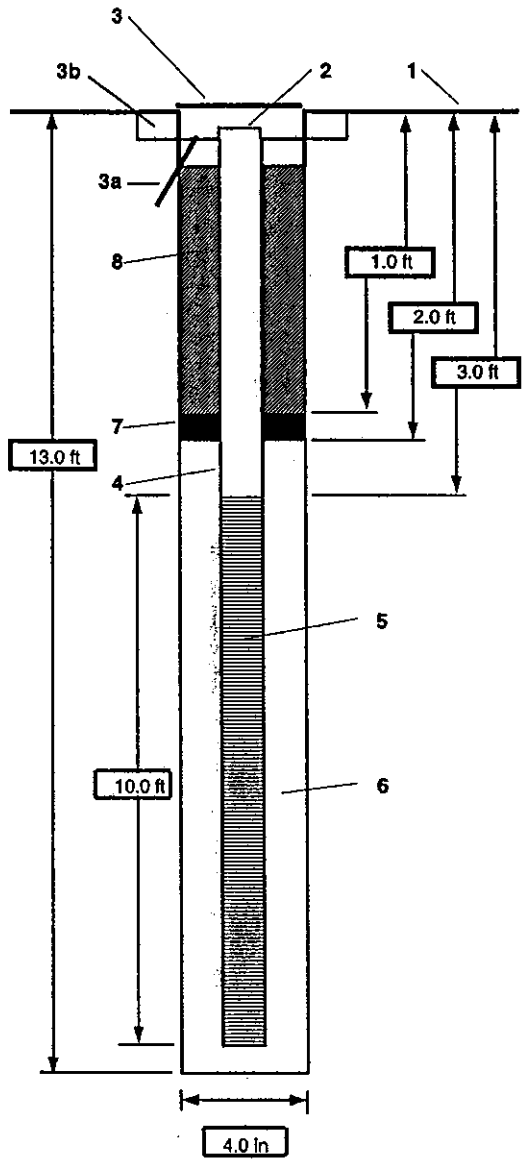
WELL COMPLETION DIAGRAM

PROJECT : Former Miller Brewing Company CSR - Reynolds Metals LOCATION : Moultrie, GA

DRILLING CONTRACTOR : EEI - Stockbridge, GA

DRILLING METHOD AND EQUIPMENT USED : Simco Earthprobe 4.0 inch O.D. auger

WATER LEVELS : 5.13 ft BTOC (6/1/98) START : 05/29/98 END : 05/29/98 LOGGER : S. Blum



1- Ground elevation at well	295.45 ft msl
2- Top of casing elevation	295.53 ft msl
3- Wellhead protection cover type	
a) drain tube?	none
b) concrete pad dimensions	2-ft x 2-ft
4- Dia./type of well casing	2-inch PVC
5- Type/slot size of screen	10 slot PVC
6- Type screen filter	Sand (0.01 um)
a) Quantity used	1-50 lb bag
7- Type of seal	Bentonite Chips
a) Quantity used	1/2 of 50 lb bag
8- Grout	
a) Grout mix used	Quickrete - 80 lb bag with 2.5 gal H_2O
b) Method of placement	Poured
c) Vol. of well casing grout	
Development method	
Development time	
Estimated purge volume	

Comments

CH2MHILL

PROJECT NUMBER	WELL NUMBER		
147244.ES.AW	MW-4D	SHEET 1	OF 1

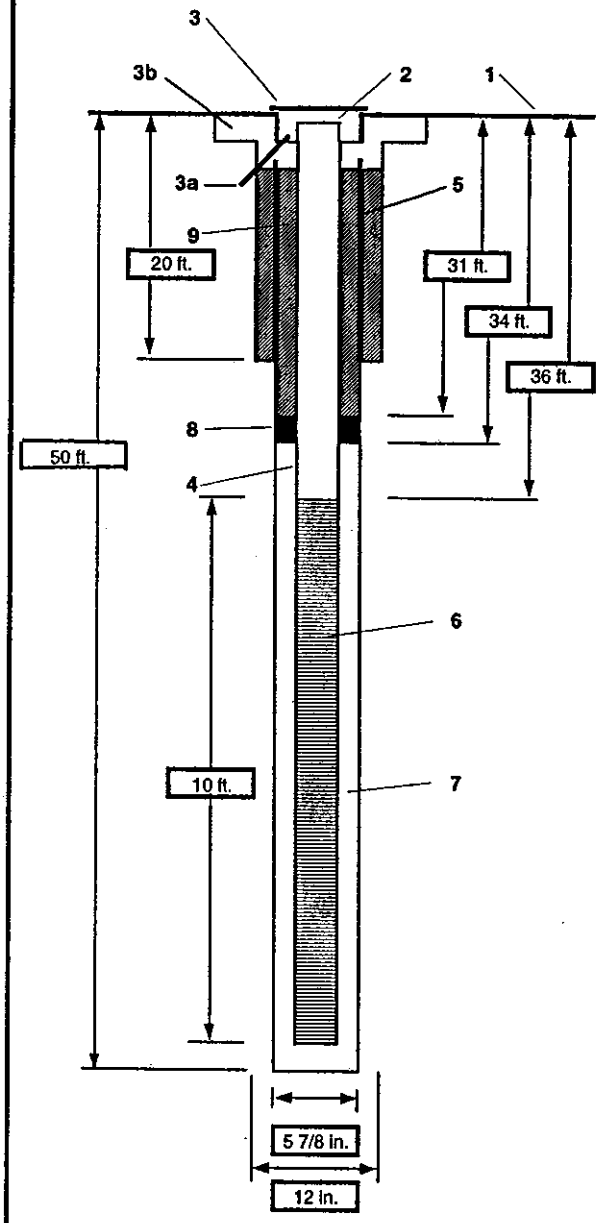
WELL COMPLETION DIAGRAM

PROJECT : Former Miller Brewing Company CSR - Reynolds Metals LOCATION : Moultrie, GA.

DRILLING CONTRACTOR : Environmental Exploration, Inc. (EEI) - Stockbridge, Georgia

DRILLING METHOD AND EQUIPMENT USED :RIG: CME 750 ATV. Hollow Stem Augers to 20 ft.6" PVC isolation set at 20 feet.20'-50': Mud-rotary technique

WATER LEVELS : 6.97 ft BTOC (8/5/98) START : 8/4/98 END : 8/5/98 LOGGER : Lillian Furlow/ATL



1- Ground elevation at well	293.65 ft.
2- Top of casing elevation	293.54 ft.
3- Wellhead protection cover type	Flush-vault
a) drain tube?	No
b) concrete pad dimensions	2' x 2'
4- Dia./type of well casing	2-inch
	PVC
5- Dia./type surface casing	6-inch
	PVC
6- Type/slot/size of screen	2-inch/0.010 slot
	PVC
7- Type screen filter	20/40 sand
a) Quantity used	4 bags
8- Type of seal	Bentonite Chips
a) Quantity used	1 bag
9- Grout	1-94 lb bag Portland Cement. Approx. 1/3
a) Grout mix used	bag Bentonite Powder, 8.5 gal. Water
b) Method of placement	tremie pipe (pumped)
c) Vol.of surface casing grout	Approx. 70 gal.
d) Vol. of well casing grout	Approx. 30 gal.
Development method	Pump-electrical submersible
Development time	2 hours
Estimated purge volume	13 gallons

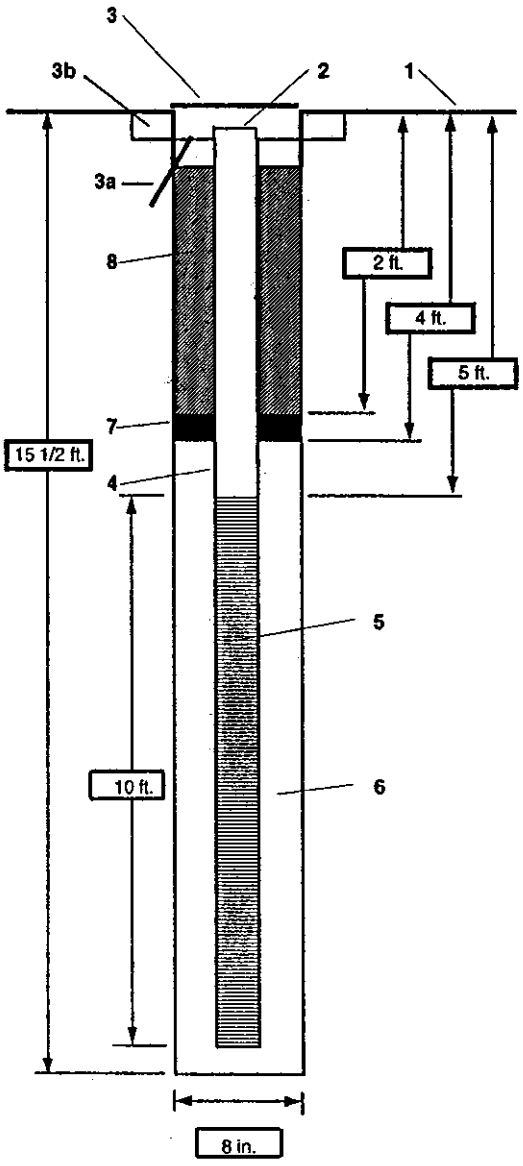
Comments Grout weight = 13.0 lbs/gallon
Total Depth (BTOC) = 45.75 ft.
pH = 11.52 (suspect grout in contact w/ groundwater)
Conductivity = 0.486 ms/cm
Temperature = 25.2° C

CH2MHILL

PROJECT NUMBER	WELL NUMBER		
147244.ES.AW	MW-5	SHEET 1	OF 1

WELL COMPLETION DIAGRAM

PROJECT : Former Miller Brewing Company CSR-Reynolds Metals LOCATION : Moultrie, GA.
DRILLING CONTRACTOR : Environmental Exploration, Inc. (EEI) - Stockbridge, Georgia
DRILLING METHOD AND EQUIPMENT USED : RIG: CME 750 ATV, Hollow-Stem Augers : OD = 8", ID = 4 1/4"
WATER LEVELS : 12.50 ft BTOC (8/5/98) START : 8/4/98 END : 8/4/98 LOGGER : Lillian Furlow/ATL



1- Ground elevation at well	295.28 ft.
2- Top of casing elevation	295.44 ft.
3- Wellhead protection cover type	Metal Locking Protective Casing
a) drain tube?	No
b) concrete pad dimensions	2' x 2'
4- Dia./type of well casing	2-inch/PVC
5- Type/slot size of screen	2-inch/0.010 slot PVC
6- Type screen filter	20/40 sand
a) Quantity used	7 bags
7- Type of seal	Bentonite Chips
a) Quantity used	2-3 bags
8- Grout	
a) Grout mix used	Poured concrete pad from 2 ft bags to g.s.
b) Method of placement	Pour
c) Vol. of well casing grout	Estimate 5 gal concrete
Development method	Bail
Development time	N/A
Estimated purge volume	1 1/2 Baller (poor groundwater recharge)

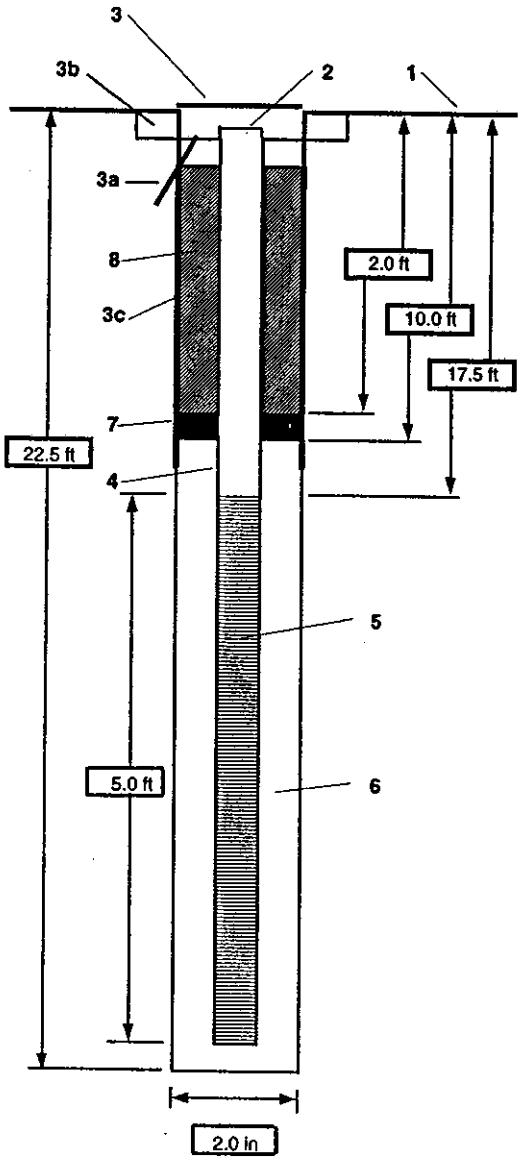
Comments Total Depth (BTOC) = 15.13 ft.
Final Field Parameters Collected During Well Development (8/5/98):
pH = 5.52
Conductivity = 0.169 µs/cm
Temperature = 25.6°C
Clear-turbidity = 92 NTU

CH2MHILL

PROJECT NUMBER	WELL NUMBER		
147244.ES.01	MW-114D	SHEET 1	OF 1

WELL COMPLETION DIAGRAM

PROJECT : Former Miller Brewing Company CSR - Reynolds Metals LOCATION : Moultrie, GA
DRILLING CONTRACTOR : EEI - Stockbridge, GA
DRILLING METHOD AND EQUIPMENT USED : Simco Earthprobe 4.0 inch O.D. auger
WATER LEVELS : 22.23 ft BTOC (6/4/98) START : 06/02/98 END : 06/03/98 LOGGER : S. Blum



1- Ground elevation at well	294.16 ft msl
2- Top of casing elevation	297.45 ft msl
3- Wellhead protection cover type	
a) drain tube?	none
b) concrete pad dimensions	2-ft x 2-ft
c) outer casing	15 ft of 3-in I.D. PVC
4- Dia./type of well casing	1-inch PVC
5- Type/slot size of screen	10 slot PVC
6- Type screen filter	Sand (0.01 um)
a) Quantity used	6 handfulls
7- Type of seal	Bentonite Chips
a) Quantity used	1/4 of 50 lb bag
8- Grout (outer casing)	
a) Grout mix used	120 lb Portland Cement, 9 gal H_2O, 8 lb Bentonite Supergel
b) Method of placement	Pumped
Development method	
Development time	
Estimated purge volume	

Comments

Appendix D
Laboratory Data

MICROSEEPS

University of Pittsburgh Applied Research Center
220 William Pitt Way, Pittsburgh, PA 15238
(412) 826-5245
FAX (412) 826-3433

June 10, 1998

Mr. Bill Zwiren
CH2M Hill
115 Perimeter Center Place NE
Suite 700
Atlanta, GA 30346

Dear Mr. Zwiren:

Attached is the final data listing for the samples we received on May 27, 1998, project #147244.ES.01.

Please give me a call if you have questions or I can be of further assistance. Thank you for using MICROSEEPS.

Sincerely,

Allan D. Sprayberry

ADS/dld

Attachments: CHM10-982653

MICROSEEPS

FILE NOTE

SUBJECT: Light Hydrocarbon Analysis of Water Samples

The VOA vials are removed from the refrigerator (4°C) and allowed to reach ambient temperature. Samples are prepared by withdrawing 30 cc of water from the bottom of the vial into a 50 cc Hamilton gas tight, locking syringe. Then 10 cc of helium is withdrawn from a reservoir and the syringe is locked. The syringe is then shaken for five minutes and allowed to equilibrate. With the syringe in a near vertical position, the headspace is injected through a septum-fitting into a 0.5 cc sample loop. The loop is allowed to equilibrate at 1 atmosphere pressure prior to switching the valve to place the sample loop into the carrier gas flow stream.

First, headspace concentrations of the analyzed gases are determined by comparison to the results of analysis of a gas standard. Subsequently, the headspace concentrations are converted to the dissolved water concentrations using Henry's Law.

Results of analysis and applicable quality control parameters are supplied on the attached data sheets.

THE RESULTS SUPPLIED ARE THE ORIGINAL DISSOLVED CONCENTRATIONS OF THE ANALYTES IN NG/L AS CALCULATED FROM DETERMINED HEADSPACE CONCENTRATIONS.

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

MICROSEEPS

CHM10-982653

----- CH2M HILL -----
----- PROJECT: 147244.ES.01 -----
----- LOCATION: MOOLTRIE, GA -----
----- CONCENTRATIONS IN NANOGRAMS/LITER WATER -----

SAMPLE NAME	METHANE (ng/l)	ETHANE (ng/l)	ETHYLENE (ng/l)	FILE NAME	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED
MW-118	508	44	36	T8A 283	05/26/98	05/27/98	06/01/98
MW-116	247	93	23	T8A 284	05/26/98	05/27/98	06/01/98
MDLs FOR ABOVE SAMPLES	15	5	5				

01-Jun-98

ANALYST INITIALS KL

REVIEW AS

MICROSEEPS

CHM10-982653

**** QUALITY CONTROL ****

----- CH2M HILL -----
----- PROJECT: 147244.ES.01 -----
----- LOCATION: MOOLTRIE, GA -----

CONTINUING CALIBRATION CHECK

STANDARD: "M"

REFERENCE: T8A 279

COMPOUND	KNOWN (ppmv)	RESULT (ppmv)	PERCENT DIFFERENCE
METHANE	10.00	9.72	2.80
ETHANE	1.00	0.98	2.00
ETHYLENE	1.00	0.97	3.00

LABORATORY BLANK RESULTS

BLANK: HE IN LOOP

REFERENCE: T8A 280

COMPOUND	BLANK (ppmv)	LOWER DETECTION LIMIT (ppmv)
METHANE	ND	0.01
ETHANE	ND	0.01
ETHYLENE	ND	0.01

01-Jun-98

ANALYST INITIALS MH

REVIEW AS

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245 | Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238 | Fax No.: (412) 826-3433

Company : CH2M HILL
Co. Address : 115 PERIMETER CENTER PLACE NE SUITE 700 ATLANTA GA 30346
Proj. Manager: BILL ZWIREN
Proj. Location: MILLER BREWING CO, MOULTRIE GA
Proj. Number: 147244.ES.01
Phone # : 770-604-9095 Fax # : 770-604-9183

Sampler's signature : [signature]

Results to : BILL ZWIREN / CH2M HILL

Invoice to : BILL ZWIREN / CH2M HILL

Cooler ID	Cooler Temp.

Parameters Requested

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	~~DISSOLVED METALS~~ LHL gw	ALKALINITY Al alkali	Cl	SO4	NO2	FERROUS / ROW	NO3	SULFIDE	Remarks
MW-118		5-26-98	1320		X	6	X	X	X	X	X	X	X	X	
MW-116		5-26-98	1510		X	6	X	X	X	X	X	X	X	X	
~~MW-114~~		~~5-26-98~~			~~X~~	~~6~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~ SB	SAMPLE NOT INCLUDED

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
[signature]	CH2M HILL	5-26-98	1700	[signature]	Microseeps	5-27-98	
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Accompany Samples YELLOW COPY : Laboratory File PINK COPY : Submitter

AUG-11-1998 10:04 FROM

MICROSEEPS

University of Pittsburgh Applied Research Center
220 William Pitt Way, Pittsburgh, PA 15238
(412) 826-5245
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FAX COVER SHEET

DATE 8-11-98

NUMBER OF PAGES (including cover sheet) 2

FAX NO.: (770) 604-9183

TO: Stephanie Blum

LOCATION: CH2M Hill

FROM: Ruth Welsh

FACSIMILE NO: (412) 826-3433

TELEPHONE NO: (412) 826-5245

IF YOU HAVE ANY PROBLEMS RECEIVING THIS MESSAGE, PLEASE NOTIFY LAURA AT THE ABOVE TELEPHONE NUMBER. THANK YOU.

Project 147244.ES.01

Client ID	Lab ID	MEK (ug/L)
MW-2	2778/13	< 5
MW-3	2778/14	< 5
MW-11D	2778/15	< 5
MW-1A	2778/16	< 5

MICROSEEPS

Client: CH2M Hill
115 Perimeter Cntr Pl NE
Suite 700
Atlanta, GA 30346

Date: 08/25/9[illegible]
Report No: 2628[illegible]
Cocid No: 148116

.ttention: Bill Zwiren

ANALYTICAL REPORT

This report contains information for the following samples:

icroseeps Sample No	Client Sample ID	Client Group ID	Microseeps Sample No	Client Sample ID	Client Group ID
778/0018	MW-4D 4-6	147244 ES.AW	2778/0019	SB-1 3-5'	147244 ES.AW
2778/0020	SB-3 3-5'	147244 ES.AW	2778/0021	SB-4 3-5'	147244 ES.AW
2778/0022	SB-2 6''2'	147244 ES.AW	2778/0023	SB-5 6-8'	147244 ES.AW

Approved: Carol A. Martin 8/26/98

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

MICROSEEPS

Samp.#: 2778/0018 Samp.ID: MW-4D 4-6 Group ID: 147244 ES.AW Date Received: 08/08/98

Field Parameters-> Date Sampled:08/04/98 Time Sampled:09:30

Parameter	Result	Units	Method Reference
In-house % Solids	80.4	%	EPA 160.3
Acetone	< 10.0	ug/kg	SW846 8260B
Benzene	< 5.0	ug/kg	SW846 8260B
Bromodichloromethane	< 5.0	ug/kg	SW846 8260B
Bromoform	< 5.0	ug/kg	SW846 8260B
Bromomethane	< 5.0	ug/kg	SW846 8260B
Carbon Disulfide	< 5.0	ug/kg	SW846 8260B
Carbon Tetrachloride	< 5.0	ug/kg	SW846 8260B
Chlorobenzene	< 5.0	ug/kg	SW846 8260B
Chlorodibromomethane	< 5.0	ug/kg	SW846 8260B
Chloroethane	< 5.0	ug/kg	SW846 8260B
Chloroform	< 5.0	ug/kg	SW846 8260B
Chloromethane	< 5.0	ug/kg	SW846 8260B
1,1-Dichloroethane	< 5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	< 5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	< 5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	< 5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	< 5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	< 5.0	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	< 5.0	ug/kg	SW846 8260B
tran-1,3-Dichloropropene	< 5.0	ug/kg	SW846 8260B
Ethylbenzene	< 5.0	ug/kg	SW846 8260B
2-Hexanone	< 10.0	ug/kg	SW846 8260B
Methyl Ethyl Ketone	< 10.0	ug/kg	SW846 8260B
4-Methyl-2-Pentanone	< 10.0	ug/kg	SW846 8260B
Methylene Chloride	< 5.0	ug/kg	SW846 8260B
Styrene	< 5.0	ug/kg	SW846 8260B
1122-Tetrachloroethane	< 5.0	ug/kg	SW846 8260B
Tetrachloroethene	< 5.0	ug/kg	SW846 8260B
Toluene	< 5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	< 5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	< 5.0	ug/kg	SW846 8260B
Trichloroethene	< 5.0	ug/kg	SW846 8260B
Vinyl Chloride	< 5.0	ug/kg	SW846 8260B
o-Xylene	< 5.0	ug/kg	SW846 8260B
m & p-Xylene	< 10.0	ug/kg	SW846 8260B

MICROSEEPS

CH2M Hill | Date:08/25/98 | Lab C-o-C No.:148116 | Report No.:26284 | Page 3 of 7

Samp.#: 2778/0019 Samp.ID: SB-1 3-5' Group ID: 147244 ES.AW Date Received: 08/08/98

ield Parameters-> Date Sampled:08/06/98 Time Sampled:08:51

Parameter	Result	Units	Method Reference
In-house % Solids	84.1	%	EPA 160.3
Acetone	730	ug/kg	SW846 8260B
Benzene	< 5.0	ug/kg	SW846 8260B
Bromodichloromethane	< 5.0	ug/kg	SW846 8260B
Bromoform	< 5.0	ug/kg	SW846 8260B
Bromomethane	< 5.0	ug/kg	SW846 8260B
Carbon Disulfide	< 5.0	ug/kg	SW846 8260B
Carbon Tetrachloride	< 5.0	ug/kg	SW846 8260B
Chlorobenzene	< 5.0	ug/kg	SW846 8260B
Chlorodibromomethane	< 5.0	ug/kg	SW846 8260B
Chloroethane	32	ug/kg	SW846 8260B
Chloroform	< 5.0	ug/kg	SW846 8260B
Chloromethane	< 5.0	ug/kg	SW846 8260B
1,1-Dichloroethane	75	ug/kg	SW846 8260B
1,2-Dichloroethane	< 5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	< 5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	< 5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	< 5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	< 5.0	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	< 5.0	ug/kg	SW846 8260B
tran-1,3-Dichloropropene	< 5.0	ug/kg	SW846 8260B
Ethylbenzene	6	ug/kg	SW846 8260B
2-Hexanone	< 10.0	ug/kg	SW846 8260B
Methyl Ethyl Ketone	180	ug/kg	SW846 8260B
4-Methyl-2-Pentanone	< 10.0	ug/kg	SW846 8260B
Methylene Chloride	< 5.0	ug/kg	SW846 8260B
Styrene	< 5.0	ug/kg	SW846 8260B
1122-Tetrachloroethane	< 5.0	ug/kg	SW846 8260B
Tetrachloroethene	330	ug/kg	SW846 8260B
Toluene	16	ug/kg	SW846 8260B
1,1,1-Trichloroethane	< 5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	< 5.0	ug/kg	SW846 8260B
Trichloroethene	< 5.0	ug/kg	SW846 8260B
Vinyl Chloride	< 5.0	ug/kg	SW846 8260B
o-Xylene	8	ug/kg	SW846 8260B
m & p-Xylene	22	ug/kg	SW846 8260B

Samp.#: 2778/0020 Samp.ID: SB-3 3-5' Group ID: 147244 ES.AW Date Received: 08/08/98

Field Parameters-> Date Sampled:08/06/98 Time Sampled:09:11

Parameter	Result	Units	Method Reference
In-house % Solids	90.5	%	EPA 160.3
Acetone	42	ug/kg	SW846 8260B
Benzene	< 5.0	ug/kg	SW846 8260B
Bromodichloromethane	< 5.0	ug/kg	SW846 8260B
Bromoform	< 5.0	ug/kg	SW846 8260B
Bromomethane	< 5.0	ug/kg	SW846 8260B
Carbon Disulfide	< 5.0	ug/kg	SW846 8260B
Carbon Tetrachloride	< 5.0	ug/kg	SW846 8260B
Chlorobenzene	< 5.0	ug/kg	SW846 8260B
Chlorodibromomethane	< 5.0	ug/kg	SW846 8260B
Chloroethane	< 5.0	ug/kg	SW846 8260B
Chloroform	< 5.0	ug/kg	SW846 8260B
Chloromethane	< 5.0	ug/kg	SW846 8260B
1,1-Dichloroethane	< 5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	< 5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	< 5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	< 5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	< 5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	< 5.0	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	< 5.0	ug/kg	SW846 8260B
tran-1,3-Dichloropropene	< 5.0	ug/kg	SW846 8260B
Ethylbenzene	< 5.0	ug/kg	SW846 8260B
2-Hexanone	< 10.0	ug/kg	SW846 8260B
Methyl Ethyl Ketone	< 10.0	ug/kg	SW846 8260B
4-Methyl-2-Pentanone	< 10.0	ug/kg	SW846 8260B
Methylene Chloride	< 5.0	ug/kg	SW846 8260B
Styrene	< 5.0	ug/kg	SW846 8260B
1122-Tetrachloroethane	< 5.0	ug/kg	SW846 8260B
Tetrachloroethene	< 5.0	ug/kg	SW846 8260B
Toluene	< 5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	< 5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	< 5.0	ug/kg	SW846 8260B
Trichloroethene	< 5.0	ug/kg	SW846 8260B
Vinyl Chloride	< 5.0	ug/kg	SW846 8260B
o-Xylene	< 5.0	ug/kg	SW846 8260B
m & p-Xylene	< 10.0	ug/kg	SW846 8260B

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Samp.#: 2778/0021 Samp.ID: SB-4 3-5' Group ID: 147244 ES.AW Date Received: 08/08/98

Field Parameters-> Date Sampled:08/06/98 Time Sampled:10:30

Parameter	Result	Units	Method Reference
In-house % Solids	83.4	%	EPA 160.3
Acetone	16	ug/kg	SW846 8260B
Benzene	< 5.0	ug/kg	SW846 8260B
Bromodichloromethane	< 5.0	ug/kg	SW846 8260B
Bromoform	< 5.0	ug/kg	SW846 8260B
Bromomethane	< 5.0	ug/kg	SW846 8260B
Carbon Disulfide	< 5.0	ug/kg	SW846 8260B
Carbon Tetrachloride	< 5.0	ug/kg	SW846 8260B
Chlorobenzene	< 5.0	ug/kg	SW846 8260B
Chlorodibromomethane	< 5.0	ug/kg	SW846 8260B
Chloroethane	< 5.0	ug/kg	SW846 8260B
Chloroform	< 5.0	ug/kg	SW846 8260B
Chloromethane	< 5.0	ug/kg	SW846 8260B
1,1-Dichloroethane	< 5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	< 5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	< 5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	< 5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	< 5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	< 5.0	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	< 5.0	ug/kg	SW846 8260B
tran-1,3-Dichloropropene	< 5.0	ug/kg	SW846 8260B
Ethylbenzene	< 5.0	ug/kg	SW846 8260B
2-Hexanone	< 10.0	ug/kg	SW846 8260B
Methyl Ethyl Ketone	< 10.0	ug/kg	SW846 8260B
4-Methyl-2-Pentanone	< 10.0	ug/kg	SW846 8260B
Methylene Chloride	10	ug/kg	SW846 8260B
Styrene	< 5.0	ug/kg	SW846 8260B
1122-Tetrachloroethane	< 5.0	ug/kg	SW846 8260B
Tetrachloroethene	< 5.0	ug/kg	SW846 8260B
Toluene	< 5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	< 5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	< 5.0	ug/kg	SW846 8260B
Trichloroethene	< 5.0	ug/kg	SW846 8260B
Vinyl Chloride	< 5.0	ug/kg	SW846 8260B
o-Xylene	< 5.0	ug/kg	SW846 8260B
m & p-Xylene	< 10.0	ug/kg	SW846 8260B

Samp.#: 2778/0022 Samp.ID: SB-2 6''2' Group ID: 147244 ES.AW Date Received: 08/08/98

Field Parameters-> Date Sampled:08/06/98 Time Sampled:10:43

Parameter	Result	Units	Method Reference
In-house % Solids	87.2	%	EPA 160.3
Acetone	< 10.0	ug/kg	SW846 8260B
Benzene	< 5.0	ug/kg	SW846 8260B
Bromodichloromethane	< 5.0	ug/kg	SW846 8260B
Bromoform	< 5.0	ug/kg	SW846 8260B
Bromomethane	< 5.0	ug/kg	SW846 8260B
Carbon Disulfide	< 5.0	ug/kg	SW846 8260B
Carbon Tetrachloride	< 5.0	ug/kg	SW846 8260B
Chlorobenzene	< 5.0	ug/kg	SW846 8260B
Chlorodibromomethane	< 5.0	ug/kg	SW846 8260B
Chloroethane	< 5.0	ug/kg	SW846 8260B
Chloroform	< 5.0	ug/kg	SW846 8260B
Chloromethane	< 5.0	ug/kg	SW846 8260B
1,1-Dichloroethane	< 5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	< 5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	< 5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	< 5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	< 5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	< 5.0	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	< 5.0	ug/kg	SW846 8260B
tran-1,3-Dichloropropene	< 5.0	ug/kg	SW846 8260B
Ethylbenzene	< 5.0	ug/kg	SW846 8260B
2-Hexanone	< 10.0	ug/kg	SW846 8260B
Methyl Ethyl Ketone	< 10.0	ug/kg	SW846 8260B
4-Methyl-2-Pentanone	< 10.0	ug/kg	SW846 8260B
Methylene Chloride	< 5.0	ug/kg	SW846 8260B
Styrene	< 5.0	ug/kg	SW846 8260B
1122-Tetrachloroethane	< 5.0	ug/kg	SW846 8260B
Tetrachloroethene	< 5.0	ug/kg	SW846 8260B
Toluene	< 5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	< 5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	< 5.0	ug/kg	SW846 8260B
Trichloroethene	16	ug/kg	SW846 8260B
Vinyl Chloride	< 5.0	ug/kg	SW846 8260B
o-Xylene	< 5.0	ug/kg	SW846 8260B
m & p-Xylene	< 10.0	ug/kg	SW846 8260B

MICROSEEPS

CH2M Hill | Date:08/25/98 | Lab C-o-C No.:148116 | Report No.:26284 | Page 7 of 7

Samp.#: 2778/0023 Samp.ID: SB-5 6-8' Group ID: 147244 ES.AW Date Received: 08/08/98

Field Parameters-> Date Sampled:08/06/98 Time Sampled:09:31

Parameter	Result	Units	Method Reference
In-house % Solids	90.9	%	EPA 160.3
Acetone	51	ug/kg	SW846 8260B
Benzene	< 5.0	ug/kg	SW846 8260B
Bromodichloromethane	< 5.0	ug/kg	SW846 8260B
Bromoform	< 5.0	ug/kg	SW846 8260B
Bromomethane	< 5.0	ug/kg	SW846 8260B
Carbon Disulfide	< 5.0	ug/kg	SW846 8260B
Carbon Tetrachloride	< 5.0	ug/kg	SW846 8260B
Chlorobenzene	< 5.0	ug/kg	SW846 8260B
Chlorodibromomethane	< 5.0	ug/kg	SW846 8260B
Chloroethane	< 5.0	ug/kg	SW846 8260B
Chloroform	< 5.0	ug/kg	SW846 8260B
Chloromethane	< 5.0	ug/kg	SW846 8260B
1,1-Dichloroethane	< 5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	< 5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	< 5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	< 5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	< 5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	< 5.0	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	< 5.0	ug/kg	SW846 8260B
tran-1,3-Dichloropropene	< 5.0	ug/kg	SW846 8260B
Ethylbenzene	< 5.0	ug/kg	SW846 8260B
2-Hexanone	< 10.0	ug/kg	SW846 8260B
Methyl Ethyl Ketone	< 10.0	ug/kg	SW846 8260B
4-Methyl-2-Pentanone	< 10.0	ug/kg	SW846 8260B
Methylene Chloride	< 5.0	ug/kg	SW846 8260B
Styrene	< 5.0	ug/kg	SW846 8260B
1122-Tetrachloroethane	< 5.0	ug/kg	SW846 8260B
Tetrachloroethene	< 5.0	ug/kg	SW846 8260B
Toluene	< 5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	< 5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	< 5.0	ug/kg	SW846 8260B
Trichloroethene	< 5.0	ug/kg	SW846 8260B
Vinyl Chloride	< 5.0	ug/kg	SW846 8260B
o-Xylene	< 5.0	ug/kg	SW846 8260B
m & p-Xylene	< 10.0	ug/kg	SW846 8260B

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

MICROSEEPS

Client: CH2M Hill
115 Perimeter Cntr Pl NE
Suite 700
Atlanta, GA 30346

Date: 08/25/98
Report No: 26285
Cocid No: 148117

ttention: Bill Zwiren

ANALYTICAL REPORT

his report contains information for the following samples:

icroseeps ample No	Client Sample ID	Client Group ID	Microseeps Sample No	Client Sample ID	Client Group ID
778/0024	MW-5	147244 ES.AW	2778/0025	MW-4D	147244 ES.AW

pproved: Carl G. Mowbray 8/26/98

MICROSEEPS

CH2M Hill | Date:08/25/98 | Lab C-o-C No.:148117 | Report No.:26285 | Page 2 of 2

Samp.#: 2778/0024 Samp.ID: MW-5 Group ID: 147244 ES.AW Date Received: 08/08/98

Field Parameters-> Date Sampled:08/05/98 Time Sampled:13:15

Parameter	Result	Units	Method Reference
1,1-Dichloroethane	< 5.0	ug/l	EPA 624/8260B
1,1-Dichloroethene	< 5.0	ug/l	EPA 624/8260B
cis-1,2-Dichloroethene	< 5.0	ug/l	EPA 624/8260B
Methyl Ethyl Ketone	< 10.0	ug/l	EPA 624/8260B
Tetrachloroethene	< 5.0	ug/l	EPA 624/8260B
1,1,1-Trichloroethane	< 5.0	ug/l	EPA 624/8260B
Trichloroethene	< 5.0	ug/l	EPA 624/8260B
Vinyl Chloride	< 5.0	ug/l	EPA 624/8260B

Samp.#: 2778/0025 Samp.ID: MW-4D Group ID: 147244 ES.AW Date Received: 08/08/98

Field Parameters-> Date Sampled:08/06/98 Time Sampled:11:13

Parameter	Result	Units	Method Reference
1,1-Dichloroethane	< 5.0	ug/l	EPA 624/8260B
1,1-Dichloroethene	< 5.0	ug/l	EPA 624/8260B
cis-1,2-Dichloroethene	< 5.0	ug/l	EPA 624/8260B
Methyl Ethyl Ketone	< 10.0	ug/l	EPA 624/8260B
Tetrachloroethene	< 5.0	ug/l	EPA 624/8260B
1,1,1-Trichloroethane	< 5.0	ug/l	EPA 624/8260B
Trichloroethene	< 5.0	ug/l	EPA 624/8260B
Vinyl Chloride	< 5.0	ug/l	EPA 624/8260B

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MICROSEEPS

Client: CH2M Hill
115 Perimeter Cntr Pl NE
Suite 700
Atlanta, GA 30346

Date: 08/25/98
Report No: 26285
Cocid No: 148117

ttention: Bill Zwiren

ANALYTICAL REPORT

his report contains information for the following samples:

icroseeps ample No	Client Sample ID	Client Group ID	Microseeps Sample No	Client Sample ID	Client Group ID
778/0024	MW-5	147244 ES.AW	2778/0025	MW-4D	147244 ES.AW

pproved: Carl G. Mastran 8/26/98

MICROSEEPS

CH2M Hill | Date:08/25/98 | Lab C-o-C No.:148117 | Report No.:26285 | Page 2 of 2

Samp.#: 2778/0024 Samp.ID: MW-5 Group ID: 147244 ES.AW Date Received: 08/08/98

Field Parameters-> Date Sampled:08/05/98 Time Sampled:13:15

Parameter	Result	Units	Method Reference
1,1-Dichloroethane	< 5.0	ug/l	EPA 624/8260B
1,1-Dichloroethene	< 5.0	ug/l	EPA 624/8260B
cis-1,2-Dichloroethene	< 5.0	ug/l	EPA 624/8260B
Methyl Ethyl Ketone	< 10.0	ug/l	EPA 624/8260B
Tetrachloroethene	< 5.0	ug/l	EPA 624/8260B
1,1,1-Trichloroethane	< 5.0	ug/l	EPA 624/8260B
Trichloroethene	< 5.0	ug/l	EPA 624/8260B
Vinyl Chloride	< 5.0	ug/l	EPA 624/8260B

Samp. #: 2778/0025 Samp.ID: MW-4D Group ID: 147244 ES.AW Date Received: 08/08/98

Field Parameters-> Date Sampled:08/06/98 Time Sampled:11:13

Parameter	Result	Units	Method Reference
1,1-Dichloroethane	< 5.0	ug/l	EPA 624/8260B
1,1-Dichloroethene	< 5.0	ug/l	EPA 624/8260B
cis-1,2-Dichloroethene	< 5.0	ug/l	EPA 624/8260B
Methyl Ethyl Ketone	< 10.0	ug/l	EPA 624/8260B
Tetrachloroethene	< 5.0	ug/l	EPA 624/8260B
1,1,1-Trichloroethane	< 5.0	ug/l	EPA 624/8260B
Trichloroethene	< 5.0	ug/l	EPA 624/8260B
Vinyl Chloride	< 5.0	ug/l	EPA 624/8260B

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MICROSEEPS

Client: CH2M Hill
115 Perimeter Cntr Pl NE
Suite 700
Atlanta, GA 30346

Date: 08/25/98
Report No: 26286
Cocid No: 148123

Attention: Bill Zwiren

ANALYTICAL REPORT

This report contains information for the following sample:

Microseeps Sample No	Client Sample ID	Client Group ID
778/0026	Trip Blk	147244 ES.AW

Approved: Carl A. Martus 8/26/98

MICROSEEPS

CH2M Hill | Date:08/25/98 | Lab C-o-C No.:148123 | Report No.:26286 | Page 2 of 2

Samp.#: 2778/0026 Samp.ID: Trip Blk Group ID: 147244 ES.AW Date Received: 08/08/98

Parameter	Result	Units	Method Reference
Acetone	11	ug/l	EPA 624/8260B
Benzene	< 5.0	ug/l	EPA 624/8260B
Bromodichloromethane	< 5.0	ug/l	EPA 624/8260B
Bromoform	< 5.0	ug/l	EPA 624/8260B
Bromomethane	< 5.0	ug/l	EPA 624/8260B
Carbon Disulfide	< 5.0	ug/l	EPA 624/8260B
Carbon Tetrachloride	< 5.0	ug/l	EPA 624/8260B
Chlorobenzene	< 5.0	ug/l	EPA 624/8260B
Chlorodibromomethane	< 5.0	ug/l	EPA 624/8260B
Chloroethane	< 5.0	ug/l	EPA 624/8260B
Chloroform	< 5.0	ug/l	EPA 624/8260B
Chloromethane	< 5.0	ug/l	EPA 624/8260B
1,1-Dichloroethane	< 5.0	ug/l	EPA 624/8260B
1,2-Dichloroethane	< 5.0	ug/l	EPA 624/8260B
1,1-Dichloroethene	< 5.0	ug/l	EPA 624/8260B
cis-1,2-Dichloroethene	< 5.0	ug/l	EPA 624/8260B
trans-1,2-Dichloroethene	< 5.0	ug/l	EPA 624/8260B
1,2-Dichloropropane	< 5.0	ug/l	EPA 624/8260B
cis-1,3-Dichloropropene	< 5.0	ug/l	EPA 624/8260B
tran-1,3-Dichloropropene	< 5.0	ug/l	EPA 624/8260B
Ethylbenzene	< 5.0	ug/l	EPA 624/8260B
2-Hexanone	< 10.0	ug/l	EPA 624/8260B
Methyl Ethyl Ketone	< 10.0	ug/l	EPA 624/8260B
4-Methyl-2-Pentanone	< 10.0	ug/l	EPA 624/8260B
Methylene Chloride	< 5.0	ug/l	EPA 624/8260B
Styrene	< 5.0	ug/l	EPA 624/8260B
1122-Tetrachloroethane	< 5.0	ug/l	EPA 624/8260B
Tetrachloroethene	< 5.0	ug/l	EPA 624/8260B
Toluene	< 5.0	ug/l	EPA 624/8260B
1,1,1-Trichloroethane	< 5.0	ug/l	EPA 624/8260B
1,1,2-Trichloroethane	< 5.0	ug/l	EPA 624/8260B
Trichloroethene	< 5.0	ug/l	EPA 624/8260B
Vinyl Chloride	< 5.0	ug/l	EPA 624/8260B
o-Xylene	< 5.0	ug/l	EPA 624/8260B
m & p-Xylene	< 10.0	ug/l	EPA 624/8260B

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

teg

TRANSGLOBAL ENVIRONMENTAL GEOCHEMISTRY, INC.

CHAIN-OF-CUSTODY RECORD

CLIENT: CH2M HILL
ADDRESS: 115 PERIMETER CENTER PLACE NE SUITE 700
CITY: ATLANTA STATE: GA ZIP: 30346
PHONE: 770-604-9095 FAX: 770-604-9183
CLIENT PROJECT #: 147244.ES.01 PROJECT MANAGER: BILL ZWIREN

DATE: 5-28-98 PAGE 1 OF 1
TEG PROJECT #:
LOCATION: MILLER BREWING CO, MILWAUKEE, GA
COLLECTOR: STEPHANIE BLUM DATE OF COLLECTION: 5-26-98 - 5-27-98

5/29/98

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	VOA 624/8240	Semi Vol 625/8270	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	HEX CHROME	ORGANIC LEAD	TOTAL LEAD	pH	ASBESTOS	MOD 8021	FIELD NOTES	Total Number Of Containers	Laboratory Note Number
MW-113	-	5-27 1445																	X			2	
MW-114	-	5-27 0850																	X			2	
MW-116	-	5-26 1510																	X			2	
MW-118	-	5-26 1320																	X			2	
MW-120	-	5-26 1830																	X			2	
MW-121	-	5-27 1115																	X			2	
MW-2	-	5-29 1130																	X			2	
MW-3	-	5-29 1355																	X			2	
PP-2	-	5-29 1440																	X			2	
MW-1	-	5-29 1530																	X			2	
Trip Blank																			X			2	

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
	5-29-98 1740		5/29/98 1740
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245 — **Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238** — Fax No. : (412) 826-3433

Company : CH2M HILL

Co. Address : 115 PERIMETER CENTER PLACE NE SUITE 700 ATLANTA GA 30346

Proj. Manager: BILL ZWIREN

Proj. Location: MILLER BREWING CO. MORRIS GA

Proj. Number: 147244.ES.01

Phone # : 770-604-9095 Fax # : 770-604-9183

Sampler's signature :

Results to : BILL ZWIREN / CH2M HILL

Invoice to : BILL ZWIREN / CH2M HILL

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	Parameters Requested: DISSOLVED METALS	ALKALINITY	Cl	SO_4	NO_2	FERROUS IRON	NO_3	SULFIDE	Remarks
MW-118		5-26-98	1320		X	6	X	X	X	X	X	X	X	X	
MW-116		5-26-98	1510		X	6	X	X	X	X	X	X	X	X	
MW-114		5-26-98			X	6	X	X	X	X	X	X	X	X	SD SAMPLE NOT INCLUDED

Cooler ID | Cooler Temp.

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
	CH2M HILL	5-26-98	1700		MICROSEEPS	5-27-98	
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Accompany Samples YELLOW COPY : Laboratory File PINK COPY : Submitter

46

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245 — Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238 — Fax No. : (412) 826-3433

Company : CH2M HILL
Co. Address : 115 PERIMETER CENTER PLACE NE, SUITE 700, ATLANTA GA 30346
Proj. Manager: BILL ZWIRELJ
Proj. Location: MILLER BREWING CO, MOULTRIE, GA
Proj. Number: 147244.ES.01
Phone # : 770-604-9095 Fax # : 770-604-9183

Sampler's signature :

Results to : BILL ZWIRELJ / CH2M HILL

Invoice to : BILL ZWIRELJ / CH2M HILL

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	Parameters Requested: Light Hydrocarbons / Dissolved Gases	Alkalinity	Cl	SO_4	NO_2	NO_3	Sulfide	Ferrous Iron	Remarks
MW-114		5-27-98	0950		X	6	X	X	X	X	X	X	X	X	
MW-121		5-27-98	1115		X	6	X	X	X	X	X	X	X	X	
MW-113		5-27-98	1445		X	6	X	X	X	X	X	X	X	X	

Cooler ID	Cooler Temp.

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
[signature]	CH2M HILL	5-27-98	1630	[signature]	Microseeps	5-28-98	
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Accompany Samples YELLOW COPY : Laboratory File PINK COPY : Submitter

CH HILL Analytical Services

☐ LMG 2567 Fairlane Drive
Montgomery, AL 36116-1622
(334) 271-1444 FAX (334) 271-3428

☐ LRD 5090 Caterpillar Road
Redding, CA 96003-1412
(916) 244-5227 FAX (916) 244-4109

☐ LKW Canviro Analytical Laboratories, Inc.
50 Bathurst, Unit 12, Waterloo, Ontario, Canada N2V 2C5
(519) 747-2575 FAX (519) 747-3808

☐ CVO 2300 NW Walnut Boulevard
Corvallis, Oregon 97330-3538
(541) 752-4271 FAX (514) 752-0276

COC #_____

Project # 147249.ES.01	**Purchase Order #**
Project Name MILLER BREWING CO. NORTH ROSE, GA	
Company Name CH2M HILL	115 PERIMETER CENTER PLACE NE SUITE 700 ATLANTA, GA 30346
Project Manager or Contact & Phone # BILL ZWIREN 770-604-9182 EXT 462	**Report Copy to:** BILL ZWIREN
Requested Completion Date:	**Site ID**
Sample Disposal: Dispose ☐ Return ☐	

Sampling Date	Sampling Time	Type COMP	Type GRAB	Matrix WATER	Matrix SOIL	Matrix AIR	CLIENT SAMPLE ID (9 CHARACTERS)	LAB QC	TOTAL # OF CONTAINERS	Preservative	cis-1,2-DICHLOROETHANE	DCE (1,1-DICHLOROETHANE)	1,1-DICHLOROETHANE	PCE (TETRACHLOROETHENE)	TCE (TRICHLOROETHENE)	VINYL CHLORIDE	1,1,1-TRICHLOROETHANE
										HCl, 4°C	HCl/4°C	HCl/4°C	HCl/4°C	HCl/4°C	HCl/4°C	HCl/4°C	HCl/4°C
6-4-98	0735		X	X			MW-11 4D		2	X	X	X	X	X	X	X	
6-4-98	0930		X	X			MW-1A		2	X	X	X	X	X	X	X	

THIS AREA FOR LAB USE ONLY

Lab #	Page / of
Lab PM	Custody Review
pH	Custody Seals Y N
	Ice Y N
QC Level 1 2 3 Other_____	
Cooler Temperature	

Alternate Description	Lab ID

Sampled By & Title STEPHANIE BLUM	(Please sign and print name)	**Date/Time** 6-4-98	**Relinquished By** STEPHANIE BLUM (Please sign and print name)	**Date/Time** 6-4-98 2000
Received By	(Please sign and print name)	**Date/Time**	**Relinquished By** (Please sign and print name)	**Date/Time**
Received By	(Please sign and print name)	**Date/Time**	**Shipped Via** UPS (FedEx) Other_____	**Shipping #** 805578928252

Special Instructions:
ANALYZE FOR VOCs LISTED ABOVE ONLY - VIA METHOD 8021

Instructions and Assessment Provisions on Reverse Side

TRIB... Orig ...AB, ...– LA ...– Cli

CH HILL Analytical Services

☐ LMG 2567 Fairlane Drive
Montgomery, AL 36116-1622
(334) 271-1444 FAX (334) 271-3428

☐ LRD 5090 Caterpillar Road
Redding, CA 96003-1412
(916) 244-5227 FAX (916) 244-4109

☐ LKW Canviro Analytical Laboratories, Inc.
50 Bathurst, Unit 12, Waterloo, Ontario, Canada N2V 2C5
(519) 747-2575 FAX (519) 747-3806

☐ CVO 2300 NW Walnut Boulevard
Corvallis, Oregon 97330-3536
(541) 752-4271 FAX (514) 752-0276

COC #_____

Project # 147244.E5.01	**Purchase Order #**
Project Name MILLER BREWING CO., MOUNTAIN, CA	
Company Name CH2M HILL	
Project Manager or Contact & Phone # BILL ZWIREN TD-604-9182 x462	**Report Copy to:** BILL ZWIREN
Requested Completion Date:	**Site ID**
Sample Disposal: Dispose ☑ Return ☐	

Sampling Date	Sampling Time	Type COMP	Type GRAB	Matrix WATER	Matrix SOIL	Matrix AIR	CLIENT SAMPLE ID (9 CHARACTERS)	LAB QC	TOTAL # OF CONTAINERS	Preservative	Alkalinity	Cl	SO4	NO2	Ferrous Iron	NO3	Sulfide	DOC	Dissolved Gases	cis 1,2-Dichloroethene	DCE (1,1-Dichloroethene)	1,1-Dichloroethane	PCE (Tetrachloroethene)	TCE (Trichloroethene)	Vinyl Chloride	1,1,1-Trichloroethane
											4oC	4oC	4oC	4oC	HCl/4oC	H2SO4/4oC	NaOH+ZnAc 4oC	H2SO4/4oC	4oC	HCl/4oC	HCl/4oC	HCl/4oC	HCl/4oC	HCl/4oC	HCl/4oC	HCl/4oC
6-3-98	0905		X	X			MW-2		9		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6-3-98	0945		X	X			MW-3		9		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Sampled By & Title STEPHANIE BLUM (Please sign and print name)	**Date/Time** 6-3-98	**Relinquished By** STEPHANIE BLUM (Please sign and print name)	**Date/Time** 6-3-98 1700
Received By (Please sign and print name)	**Date/Time**	**Relinquished By** (Please sign and print name)	**Date/Time**
Received By (Please sign and print name)	**Date/Time**	**Shipped Via** UPS Fed-Ex Other_____	**Shipping #** 805578928274

Special Instructions:
VOCs – REPORT ONLY ANALYTES LISTED ABOVE.
– METHOD 8021

THIS AREA FOR LAB USE ONLY

Lab #	**Page**	**of**
Lab PM	**Custody Review**	
pH	**Custody Seals** Y N	
	Ice Y N	
QC Level 1 2 3 Other_____		
Cooler Temperature		

Alternate Description	Lab ID

Instructions and Agreement Provisions on Reverse Side

DISTRIBUTION: Original – LAB, Yellow – LAB, Pink – Client

LAB FORM 240 11/92

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245 — **Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238** — Fax No.: (412) 826-3433

Company: CH2M HILL
Co. Address: 115 Perimeter Center Place Suite 700 Atl 30346
Proj. Manager: Bill Zwirner
Proj. Location: Moultrie Georgia
Proj. Number: 147244
Phone #: (770) 604-9095 Fax #: (770) 604-9183
Sampler's signature:

Parameters Requested: EPA Method 8021 (Select Volatiles - See Previous Analysis List)

Results to: Bill Zwirner, 115 Perimeter Center Place, Atlanta, Ga 30346
Invoice to:

Cooler ID	Cooler Temp.

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	Remarks
PP-1	40-ml VOAs (2)	6/30/98	8:55		X	2	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
	CH2M HILL	7/1/98	4:59		Microseeps	7-2-98	
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

WHITE COPY: Accompany Samples — YELLOW COPY: Laboratory File — PINK COPY: Submitter

CHAIN - OF - CUSTODY RECORD (Former) Miller Brewing CSR

Phone: (412) 826-5245 — **Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238** — Fax No. : (412) 826-3433

Company : CH2M Hill
Co. Address : 115 Perimeter Center Pl. NE, Suite 700 Atl. 30346
Proj. Manager: Bill Zwicen
Proj. Location: Reynolds Metals (former Miller Brewing) - Moultrie, GA.
Proj. Number: 147244. ES. AW
Phone # : (770) 604-9182 Bill x462 Fax # : (770) 604-9183
Sampler's signature : Lillian Furlow (Lillian Furlow) x438

Results to : Stephanie Blum, Bill Zwicen
Invoice to : Lillian Furlow

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	Parameters Requested: EPA Method 8260	Remarks
MW-4D:4-6'	soil	8/4/98	0930		X	1-2oz	X	(SB-6)
MW-5*	groundwater	8/5/98	1315		X	2-40ml	X	
SB-5:8-10'	Soil	8/5/98	1747		X	1-2 oz	X	HOLD SAMPLE.
SB-1:3-5'	Soil	8/6/98	0851		X	1-2 oz	X	Strong solvent odor.
SB-3:3-5'	Soil	8/6/98	0911		X	1-2oz	X	
SB-4:3-5	Soil	8/6/98	1030		X	1-2oz	X	
SB-2:6"-2'	Soil	8/6/98	1043		X	1-2 oz	X	
SB-5:6-8'	Soil	8/6/98	0931		X	1-4oz	X	
TRP Blk	trip Blank	8/6/98	—		—	2-40ml	X	* Abbreviated VOA list per Lillian 8/10
MW-4D*	Groundwater	8/6/98					X	

Cooler ID | Cooler Temp.

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Lillian Furlow Lillian Furlow	CH2M Hill	8/6/98	1630	Diane Holmes	Microseeps	8/8/98	
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Accompany Samples — YELLOW COPY : Laboratory File — PINK COPY : Submitter

DATA REPORT

VOLATILE HALOGENATED HYDROCARBON ANALYSIS OF WATER (EPA METHOD 8010)

CH2MHILL

115 PERIMETER CENTER PLACE NE. SUITE 700

ATLANTA, GA 30346

MILLER BREWING CO., MOULTRIE, GA

CLIENT PROJECT # 147244.ES.01

TEG PROJECT # 1-97

DATA REPORTED IN MICROGRAMS PER LITER (PPB)

DATE COLLECTED	5/29/98	5/28/98
DATE ANALYZED	5/29/98	5/29/98
SAMPLE ID	MW-1	TRIP BLANK
DICHLORODIFLUOROMETHANE	--	--
CHLOROMETHANE	--	--
VINYL CHLORIDE	ND	ND
BROMOMETHANE	--	--
CHLOROETHANE	--	--
TRICHLOROFLUOROMETHANE	--	--
1,1-DICHLOROETHENE	2.84	ND
METHYLENE CHLORIDE	--	--
TRANS-1,2-DICHLOROETHENE	--	--
1,1-DICHLOROETHANE	ND	ND
CIS-1,2-DICHLOROETHENE	1.07	ND
CHLOROFORM	--	--
1,1,1-TRICHLOROETHANE (TCA)	ND	ND
CARBON TETRACHLORIDE	--	--
1,2-DICHLOROETHANE	--	--
TRICHLOROETHENE (TCE)	ND	ND
1,2-DICHLOROPROPANE	--	--
BROMODICHLOROMETHANE	--	--
CIS-1,3-DICHLOROPROPENE	--	--
TRANS-1,3-DICHLOROPROPENE	--	--
1,1,2-TRICHLOROETHANE	--	--
TETRACHLOROETHENE (PCE)	ND	ND
DIBROMOCHLOROMETHANE	--	--
CHLOROBENZENE	--	--
1,1,1,2-TETRACHLOROETHANE	--	--
BROMOFORM	--	--
1,1,2,2-TETRACHLOROETHANE	--	--
1,3-DICHLOROBENZENE	--	--
1,4-DICHLOROBENZENE	--	--
1,2-DICHLOROBENZENE	--	--
Surrogate Recovery (%)	91.3%	78.0%
Data Qualifiers		
Practical Quantitation Limit (PQL)	1.0	1.0

"ND" INDICATES ANALYTE NOT DETECTED AT OR ABOVE LISTED PQL'S

DATA QUALIFIERS LEGEND APPEARS ON QA/QC DATA REPORT PAGE

ANALYSIS PERFORMED IN TEG'S CERTIFIED LABORATORY

ANALYSIS PERFORMED BY: Wesley Rice

DATA REVIEWED BY: T. H. Munn

3600-C KENNESAW N. IND. PKWY KENNES, GA 30144 770-919-0805 FAX 770-919-0806

QA/QC DATA REPORT

VOLATILE HALOGENATED HYDROCARBON ANALYSIS OF WATER (EPA METHOD 8010)

CH2MHILL

115 PERIMETER CENTER PLACE NE. SUITE 700

ATLANTA, GA 30346

MILLER BREWING CO., MOULTRIE, GA

CLIENT PROJECT # 147244.ES.01

TEG PROJECT # 1-97

DATA REPORTED IN MICROGRAMS PER LITER (PPB)

DATE ANALYZED: 5/29/98
SAMPLE SPIKED: MW120

	MATRIX SPIKE			MATRIX SPIKE DUPLICATE			RPD
	SPIKED (ug/L)	MEASURED (ug/L)	PERCENT	SPIKED (ug/L)	MEASURED (ug/L)	PERCENT	
VINYL CHLORIDE	20.0	14.0	69.9%	20.0	13.6	67.8%	3.0%
1,1-DICHLOROETHENE	20.0	23.6	118.0%	20.0	22.8	113.8%	3.6%
1,1-DICHLOROETHANE	20.0	20.3	101.7%	20.0	21.4	107.1%	5.2%
CIS 1,2-DICHLOROETHENE	20.0	22.9	114.4%	20.0	22.4	111.9%	2.2%
1,1,1-TRICHLOROETHANE (TCA)	20.0	18.5	92.6%	20.0	21.2	105.9%	13.4%
TRICHLOROETHENE (TCE)	20.0	19.2	96.1%	20.0	19.9	99.5%	3.5%
TETRACHLOROETHENE (PCE)	20.0	20.1	100.4%	20.0	19.5	97.5%	3.0%

ANALYSIS PERFORMED IN TEG'S CERTIFIED LABORATORY
ANALYSIS PERFORMED BY: Wesley Pate
DATA REVIEWED BY: T. Hom

MICROSEEPS

Client: CH2M Hill
115 Perimeter Cntr Pl NE
Suite 700
Atlanta, GA 30346

Date: 07/15/98
Report No: 25716
Cocid No: 147563

ttention: Bill Zwiren

ANALYTICAL REPORT

This report contains information for the following sample:

icroseeps ample No	Client Sample ID	Client Group ID
778/0017	PP-1	PROJECT 147244

pproved: Ruth Welsh

MICROSEEPS

CH2M Hill | Date:07/15/98 | Lab C-o-C No.:147563 | Report No.:25716 | Page 2 of 2

Samp.#: 2778/0017 Samp.ID: PP-1 Group ID: PROJECT 147244 Date Received: 07/02/98

Field Parameters-> Date Sampled:06/30/98 Time Sampled:08:55

Parameter	Result	Units
1,1-Dichloroethane	< 5.0	ug/l
1,1-Dichloroethene	< 5.0	ug/l
cis-1,2-Dichloroethene	13	ug/l
Tetrachloroethene	< 5.0	ug/l
1,1,1-Trichloroethane	< 5.0	ug/l
Vinyl Chloride	< 5.0	ug/l

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

MICROSEEPS

Client: CH2M Hill
115 Perimeter Cntr Pl NE
Suite 700
Atlanta, GA 30346

Date: 06/19/98
Report No: 25329
Cocid No: 147117

ttention: Bill Zwiren

ANALYTICAL REPORT

This report contains information for the following samples:

Microseeps Sample No	Client Sample ID	Client Group ID	Microseeps Sample No	Client Sample ID	Client Group ID
2778/0013	MW-2	PROJ. 147244.ES.01	2778/0014	MW-3	PROJ. 147244.ES.01

Approved: Ruth Welsh

Samp.#: 2778/0013 Samp.ID: MW-2 Group ID: PROJ. 147244.ES.01 Date Received: 06/04/98

Field Parameters-> Date Sampled:06/03/98 Time Sampled:09:05

Parameter	Result	Units	Method Reference
Alkalinity	2	mg/l CaCO3	EPA 310.1
Chloride	38.5	mg/l	SM 4500Cl-B
Ferrous Iron	< 0.20	mg/L	3500-Fe D
Nitrate	5.6	mg/l as N	EPA 353.1
Nitrite	< 0.07	mg/l as N	EPA 353.1
Sulfate	14.0	mg/l	EPA 375.4
Sulfide	< 1.0	mg/l	EPA 376.1
Soluble Organic Carbon	2.7	mg/l	EPA 415.1
1,1-Dichloroethene	< 1.0	ug/l	EPA 601/8021
cis-1,2-Dichloroethene	< 1.0	ug/l	EPA 601/8021
Tetrachloroethene	< 1.0	ug/l	EPA 601/8021
1,1,1-Trichloroethane	< 1.0	ug/l	EPA 601/8021
Trichloroethene	< 1.0	ug/l	EPA 601/8021
Vinyl Chloride	< 1.0	ug/l	EPA 601/8021

Samp.#: 2778/0014 Samp.ID: MW-3 Group ID: PROJ. 147244.ES.01 Date Received: 06/04/98

Field Parameters-> Date Sampled:06/03/98 Time Sampled:10:45

Parameter	Result	Units	Method Reference
Alkalinity	4	mg/l CaCO3	EPA 310.1
Chloride	14.0	mg/l	SM 4500Cl-B
Ferrous Iron	< 0.20	mg/L	3500-Fe D
Nitrate	0.80	mg/l as N	EPA 353.1
Nitrite	< 0.07	mg/l as N	EPA 353.1
Sulfate	5.8	mg/l	EPA 375.4
Sulfide	< 1.0	mg/l	EPA 376.1
Soluble Organic Carbon	< 2.00	mg/l	EPA 415.1
1,1-Dichloroethene	< 1.0	ug/l	EPA 601/8021
cis-1,2-Dichloroethene	< 1.0	ug/l	EPA 601/8021
Tetrachloroethene	< 1.0	ug/l	EPA 601/8021
1,1,1-Trichloroethane	< 1.0	ug/l	EPA 601/8021

Continued on next page.....

MICROSEEPS

Samp.#: 2778/0014 Samp.ID: MW-3 Group ID: PROJ. 147244.ES.01 Date Received: 06/04/98

Continued from previous page.

Parameter	Result	Units	Method Reference
Trichloroethene	< 1.0	ug/l	EPA 601/8021
Vinyl Chloride	< 1.0	ug/l	EPA 601/8021

MICROSEEPS

Client: CH2M Hill
115 Perimeter Cntr Pl NE
Suite 700
Atlanta, GA 30346

Date: 06/11/98
Report No: 2520
Cocid No: 14700

Attention: Bill Zwiren

ANALYTICAL REPORT

This report contains information for the following samples:

Microseeps Sample No	Client Sample ID	Client Group ID	Microseeps Sample No	Client Sample ID	Client Group ID
2778/0010	MW-114	PROJ. 147244.ES.01	2778/0011	MW-121	PROJ. 147244.ES.01
2778/0012	MW-113	PROJ. 147244.ES.01			

Approved: Ruth Welsh

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

MICROSEEPS
University of Pittsburgh Applied Research Center
220 William Pitt Way, Pittsburgh, PA 15238
(412) 826-5245
FAX (412) 826-3433

June 23, 1998

Mr. Bill Zwiren
CH2M Hill
115 Perimeter Center Place NE
Suite 700
Atlanta, GA 30346

Dear Mr. Zwiren:

Attached is the final data listing for the samples we received on June 4, 1998, project #147244.ES.01.

Please give me a call if you have questions or I can be of further assistance. Thank you for using MICROSEEPS.

Sincerely,

Allan D. Sprayberry

ADS/dld

Attachments: CHM12-982705

MICROSEEPS

CHM12-982705

----- CH2M HILL -----
----- PROJECT: 147244.ES.01 -----
----- LOCATION: MOOLTRIE, GA -----
----- CONCENTRATIONS IN NANOGRAMS/LITER WATER -----

SAMPLE NAME	METHANE (ng/l)	ETHANE (ng/l)	ETHYLENE (ng/l)	FILE NAME	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED
MW-2	747	39	55	C16 229	06/03/98	06/04/98	06/15/98
MW-3	559	16	17	C16 230	06/03/98	06/04/98	06/15/98
MDLs FOR ABOVE SAMPLES	15	5	5				

15-Jun-98

ANALYST INITIALS BK

REVIEW AS

MICROSEEPS

CHM12-982705

**** QUALITY CONTROL ****

----- CH2M HILL -----
----- PROJECT: 147244.ES.01 -----
----- LOCATION: MOOLTRIE, GA -----

CONTINUING CALIBRATION CHECK

STANDARD: "M"

REFERENCE: C16 226

COMPOUND	KNOWN (ppmv)	RESULT (ppmv)	PERCENT DIFFERENCE
METHANE	10.00	9.86	1.40
ETHANE	1.00	0.99	1.00
ETHYLENE	1.00	0.98	2.00

LABORATORY BLANK RESULTS

BLANK: N2 IN LOOP

REFERENCE: C16 228

COMPOUND	BLANK (ppmv)	LOWER DETECTION LIMIT (ppmv)
METHANE	ND	0.01
ETHANE	ND	0.01
ETHYLENE	ND	0.01

15-Jun-98

ANALYST INITIALS HL

REVIEW AS

MICROSEEPS

CHM12-982705

**** QUALITY CONTROL ****

----- CH2M HILL -----
----- PROJECT: 147244.ES.01 -----
----- LOCATION: MOOLTRIE, GA -----

CONTINUING CALIBRATION CHECK

STANDARD: "M"

REFERENCE: C16 226

COMPOUND	KNOWN (ppmv)	RESULT (ppmv)	PERCENT DIFFERENCE
METHANE	10.00	9.86	1.40
ETHANE	1.00	0.99	1.00
ETHYLENE	1.00	0.98	2.00

LABORATORY BLANK RESULTS

BLANK: N2 IN LOOP

REFERENCE: C16 228

COMPOUND	BLANK (ppmv)	LOWER DETECTION LIMIT (ppmv)
METHANE	ND	0.01
ETHANE	ND	0.01
ETHYLENE	ND	0.01

15-Jun-98

ANALYST INITIALS HL

REVIEW AS

MICROSEEPS

lient: CH2M Hill
115 Perimeter Cntr Pl NE
Suite 700
Atlanta, GA 30346

ttention: Bill Zwiren

RECEIVED
JUN 23 RECD
CH2MHILL
ATL

Page 1 of 2
Date: 06/18/98
Report No: 25305
Cocid No: 147147

ANALYTICAL REPORT

his report contains information for the following samples:

Microseeps Sample No	Client Sample ID	Client Group ID	Microseeps Sample No	Client Sample ID	Client Group ID
2778/0015	MW-114D	PROJ. 147244.ES.01	2778/0016	MW-1A	PROJ. 147244.ES.01

Comments: Revised report to correcrt compound list

Approved: Ruth Welch

MICROSEEPS

CH2M Hill | Date:06/18/98 | Lab C-o-C No.:147147 | Report No.:25305 | Page 2 of 2

Samp.#: 2778/0015 Samp.ID: MW-114D Group ID: PROJ. 147244.ES.01 Date Received: 06/05/9

Field Parameters-> Date Sampled:06/04/98 Time Sampled:07:35

Parameter	Result	Units	Method Reference
1,1-Dichloroethane	1.8	ug/l	EPA 601/8021
1,1-Dichloroethene	4.6	ug/l	EPA 601/8021
cis-1,2-Dichloroethene	16.1	ug/l	EPA 601/8021
Tetrachloroethene	11.3	ug/l	EPA 601/8021
1,1,1-Trichloroethane	< 1.0	ug/l	EPA 601/8021
Trichloroethene	105	ug/l	EPA 601/8021
Vinyl Chloride	< 1.0	ug/l	EPA 601/8021

Samp.#: 2778/0016 Samp.ID: MW-1A Group ID: PROJ. 147244.ES.01 Date Received: 06/05/9

Field Parameters-> Date Sampled:06/04/98 Time Sampled:09:30

Parameter	Result	Units	Method Reference
1,1-Dichloroethane	< 1.0	ug/l	EPA 601/8021
1,1-Dichloroethene	< 1.0	ug/l	EPA 601/8021
cis-1,2-Dichloroethene	< 1.0	ug/l	EPA 601/8021
Tetrachloroethene	< 1.0	ug/l	EPA 601/8021
1,1,1-Trichloroethane	< 1.0	ug/l	EPA 601/8021
Trichloroethene	< 1.0	ug/l	EPA 601/8021
Vinyl Chloride	< 1.0	ug/l	EPA 601/8021

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MICROSEEPS

Samp.#: 2778/0010 Samp.ID: MW-114 Group ID: PROJ. 147244.ES.01 Date Received: 05/28/98

Field Parameters-> Date Sampled:05/27/98 Time Sampled:09:50

Parameter	Result	Units	Method Reference
Alkalinity	112	mg/l CaCO3	EPA 310.1
Chloride	32.5	mg/l	SM 4500Cl-B
Ferrous Iron	< 0.20	mg/L	3500-Fe D
Nitrate	7.6	mg/l as N	EPA 353.1
Nitrite	< 0.07	mg/l as N	EPA 353.1
Sulfate	12.8	mg/l	EPA 375.4
Sulfide	< 1.0	mg/l	EPA 376.1

Samp.#: 2778/0011 Samp.ID: MW-121 Group ID: PROJ. 147244.ES.01 Date Received: 05/28/98

Field Parameters-> Date Sampled:05/27/98 Time Sampled:11:15

Parameter	Result	Units	Method Reference
Alkalinity	28	mg/l CaCO3	EPA 310.1
Chloride	15.5	mg/l	SM 4500Cl-B
Ferrous Iron	< 0.20	mg/L	3500-Fe D
Nitrate	1.8	mg/l as N	EPA 353.1
Nitrite	< 0.07	mg/l as N	EPA 353.1
Sulfate	10.1	mg/l	EPA 375.4
Sulfide	< 1.0	mg/l	EPA 376.1

Samp.#: 2778/0012 Samp.ID: MW-113 Group ID: PROJ. 147244.ES.01 Date Received: 05/28/98

Field Parameters-> Date Sampled:05/27/98 Time Sampled:14:45

Parameter	Result	Units	Method Reference
Alkalinity	8	mg/l CaCO3	EPA 310.1
Chloride	13.5	mg/l	SM 4500Cl-B

Continued on next page.....

MICROSEEPS

FILE NOTE

SUBJECT: Light Hydrocarbon Analysis of Water Samples

The VOA vials are removed from the refrigerator (4°C) and allowed to reach ambient temperature. Samples are prepared by withdrawing 30 cc of water from the bottom of the vial into a 50 cc Hamilton gas tight, locking syringe. Then 10 cc of helium is withdrawn from a reservoir and the syringe is locked. The syringe is then shaken for five minutes and allowed to equilibrate. With the syringe in a near vertical position, the headspace is injected through a septum-fitting into a 0.5 cc sample loop. The loop is allowed to equilibrate at 1 atmosphere pressure prior to switching the valve to place the sample loop into the carrier gas flow stream.

First, headspace concentrations of the analyzed gases are determined by comparison to the results of analysis of a gas standard. Subsequently, the headspace concentrations are converted to the dissolved water concentrations using Henry's Law.

Results of analysis and applicable quality control parameters are supplied on the attached data sheets.

THE RESULTS SUPPLIED ARE THE ORIGINAL DISSOLVED CONCENTRATIONS OF THE ANALYTES IN NG/L AS CALCULATED FROM DETERMINED HEADSPACE CONCENTRATIONS.

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

MICROSEEPS

CHM11-982662

----- CH2M HILL -----
----- PROJECT: 147244.ES.01 -----
----- LOCATION: MOOLTRIE, GA -----
----- CONCENTRATIONS IN NANOGRAMS/LITER WATER -----

SAMPLE NAME	METHANE (ng/l)	ETHANE (ng/l)	ETHYLENE (ng/l)	FILE NAME	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED
MW-114	129222	249	205	C16 202	05/27/98	05/28/98	06/09/98
MW-121	195	<5	5	C16 203	05/27/98	05/28/98	06/09/98
MW-113	149	29	<5	C16 204	05/27/98	05/28/98	06/09/98
MDLs FOR ABOVE SAMPLES	15	5	5				

09-Jun-98

ANALYST INITIALS BL

REVIEW AS

MICROSEEPS

CHM11-982662

**** QUALITY CONTROL ****

----- CH2M HILL -----
----- PROJECT: 147244.ES.01 -----
----- LOCATION: MOOLTRIE, GA -----

CONTINUING CALIBRATION CHECK

STANDARD: "M"

REFERENCE: C16 197

COMPOUND	KNOWN (ppmv)	RESULT (ppmv)	PERCENT DIFFERENCE
METHANE	10.00	10.09	0.90
ETHANE	1.00	1.01	1.00
ETHYLENE	1.00	1.02	2.00

LABORATORY BLANK RESULTS

BLANK: HE IN LOOP

REFERENCE: C16 198

COMPOUND	BLANK (ppmv)	LOWER DETECTION LIMIT (ppmv)
METHANE	ND	0.01
ETHANE	ND	0.01
ETHYLENE	ND	0.01

09-Jun-98

ANALYST INITIALS KL

REVIEW AS

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245 — **Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238** — Fax No.: (412) 826-3433

Company : CHZM HILL
Co. Address : 115 PERIMETER CENTER PLACE NE, SUITE 700, ATLANTA GA 30346
Proj. Manager: BILL ZWIREN
Proj. Location: MILLER BREWING CO, MOULTRIE, GA
Proj. Number: 147244.ES.01
Phone # : 770-604-9095 Fax # : 770-604-9183

Sampler's signature :

Results to : BILL ZWIREN / CHZM HILL
Invoice to : BILL ZWIREN / CHZM HILL

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	Parameters Requested: DISSOLVED METALS	LIGHT HYDROCARBONS	ALKALINITY	Cl	SO_4	NO_2	NO_3	SULFIDE	FERROUS IRON	Remarks
MW-114		5-27-98	0950		X	6	X	X	X	X	X	X	X	X		
MW-121		5-27-98	1115		X	6	X	X	X	X	X	X	X	X		
MW-113		5-27-98	1445		X	6	X	X	X	X	X	X	X	X		

Cooler ID	Cooler Temp.

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
	CHZM HILL	5-27-98	1630		MICROSEEPS	5/28/98	1005
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Accompany Samples — YELLOW COPY : Laboratory File — PINK COPY : Submitter

MICROSEEPS

Client: CH2M Hill
625 Herndon Parkway
Herndon, VA 22070

Attention: Julie Lovett

Date: 06/10/98
Report No: 2517
Cocid No: 14700

ANALYTICAL REPORT

his report contains information for the following samples:

Microseeps ample No	Client Sample ID	Client Group ID
2778/0010	MW-114	PROJ. 147244.ES.01
^778/0012	MW-113	PROJ. 147244.ES.01
2778/0011	MW-121	PROJ. 147244.ES.01

Approved: Ruth Welsh

220 William Pitt Way, Pittsburgh, PA 15238 • Phone (412) 826-5245, Fax (412) 826-3433

Samp.#: 2778/0010 Samp.ID: MW-114 Group ID: PROJ. 147244.ES.01 Date Received: 05/28/98

Field Parameters-> Date Sampled:05/27/98 Time Sampled:09:50

Parameter	Result	Units	Method Reference
Alkalinity	112	mg/l CaCO3	EPA 310.1
Chloride	32.5	mg/l	SM 4500Cl-B
Ferrous Iron	< 0.20	mg/L	3500-Fe D
Nitrate	7.6	mg/l as N	EPA 353.1
Nitrite	< 0.07	mg/l as N	EPA 353.1
Sulfate	12.8	mg/l	EPA 375.4
Sulfide	< 1.0	mg/l	EPA 376.1

Samp.#: 2778/0011 Samp.ID: MW-121 Group ID: PROJ. 147244.ES.01 Date Received: 05/28/98

Field Parameters-> Date Sampled:05/27/98 Time Sampled:11:15

Parameter	Result	Units	Method Reference
Alkalinity	28	mg/l CaCO3	EPA 310.1
Chloride	15.5	mg/l	SM 4500Cl-B
Ferrous Iron	< 0.20	mg/L	3500-Fe D
Nitrate	1.8	mg/l as N	EPA 353.1
Nitrite	< 0.07	mg/l as N	EPA 353.1
Sulfate	10.1	mg/l	EPA 375.4
Sulfide	< 1.0	mg/l	EPA 376.1

Samp.#: 2778/0012 Samp.ID: MW-113 Group ID: PROJ. 147244.ES.01 Date Received: 05/28/98

Field Parameters-> Date Sampled:05/27/98 Time Sampled:14:45

Parameter	Result	Units	Method Reference
Alkalinity	8	mg/l CaCO3	EPA 310.1
Chloride	13.5	mg/l	SM 4500Cl-B

Continued on next page.....

MICROSEEPS

CH2M Hill | Date:06/10/98 | Lab C-o-C No.:146985 | Report No.:25166 | Page 2 of 2

Samp.#: 2778/0008 Samp.ID: MW-118 Group ID: PROJ. 147244.ES.01 Date Received: 05/27/9

Field Parameters-> Date Sampled:05/26/98 Time Sampled:13:20

Parameter	Result	Units	Method Reference
Alkalinity	< 2.0	mg/l CaCO3	EPA 310.1
Chloride	11.5	mg/l	SM 4500Cl-B
Ferrous Iron	< 0.20	mg/L	3500-Fe D
Nitrate	9.4	mg/l as N	EPA 353.1
Nitrite	< 0.07	mg/l as N	EPA 353.1
Sulfate	8.1	mg/l	EPA 375.4
Sulfide	< 1.0	mg/l	EPA 376.1

Samp.#: 2778/0009 Samp.ID: MW-116 Group ID: PROJ. 147244.ES.01 Date Received: 05/27/9

Field Parameters-> Date Sampled:05/26/98 Time Sampled:15:10

Parameter	Result	Units	Method Reference
Alkalinity	38	mg/l CaCO3	EPA 310.1
Chloride	12.0	mg/l	SM 4500Cl-B
Ferrous Iron	< 0.20	mg/L	3500-Fe D
Nitrate	6.2	mg/l as N	EPA 353.1
Nitrite	< 0.07	mg/l as N	EPA 353.1
Sulfate	14.8	mg/l	EPA 375.4
Sulfide	< 1.0	mg/l	EPA 376.1

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Appendix E
Sampling Data

CH2MHILL

former

Project Number: 147244.ES.01 AW

GROUNDWATER PURGING & SAMPLING DATA LOG

Client: Miller Drilling Company (Reynolds Metals) Well ID: MW-4D (Deep)
Location: Moultrie, Georgia Sample ID: MW-4D
Event: CSR
Date: August 5, 1998 Sample Team: Lillian Furlow / CH2M Hill-ATL
Weather: Hot, Sunny, 90's

Total Depth: 48.82 (MW) FT.(BTOC) Measuring Device: Water Level Indicator
Depth to Water: (-) 6.97 FT.(BTOC) Date and Time: 8/5/98 : 1354
Water Column: 41.85 FT.
(x) 0.163 GAL/FT.
Well Volume: 6.8 GAL.
Total Purge Volume: 20 GAL.

WELL DIAMETER
[(2" DIA.= 0.163 GAL/FT.) (4" DIA. = 0.653 GAL/FT.)]
(1" DIA.= 0.041 GAL/FT.) (1 1/4 " DIA.= 0.064 GAL/FT.)

Purge Device: -Decontaminated, electrical, centrifugal, submersible pump & new tubing.

FIELD PARAMETERS

Time	Cummulative Purge Vol. (gals)	Temp., °C	Cond. mS/cm	DO mg/l	pH	Redox mV	Turbidity (NTU)	Depth to GW (ft) (BTOC)	Color / Odor / Comments
1450	0	—	—	—	—	—	—	—	Begin pumping (well development)
1452	1 gal.	27.7	1.39	NM	11.26	NM	999	NM	Silty, no odor.
—	—	—	—	—	—	—	—	—	
1454	2 gallons	28.8	1.40	NM	11.36	NM	126	NM	pH is elevated.
1456	3 gallons	31.2	1.47	— (NM)	11.42	NM	999	NM	pumping rate slowed
1458	4 gal	31.3	1.45	NM	11.46	NM	999	NM	pH still elevated.
1506	~6 gal	—	—	—	—	—	—	—	purged dry - let recharge
1512	~6 gal.	—	—	—	—	—	—	—	continue pumping
1513	6½ gal	28.3	1116	NM	11.43	NM	210	NM	silty
1516	8 gal	—	—	—	—	—	—	—	Well dry.
1758	8 gal	—	—	—	(12)	—	—	—	Pump well.
1800	9 gal	27.7	0.522	NM	11.82	NM	565	NM	—
1807	10 gal	—	—	—	—	—	—	—	well dry.
0755	est 12 gal.	—	—	—	—	—	—	—	Begin pumping.
0758	12½ gal	—	—	—	—	—	—	21.98	ck. DTGW.
0754	13 gal	24.4	0.595	NM	10.88	NM	134	NM	

Sample information: method, container number, size, and type, preservative used

- 2-40 ml VOC's w/ HCl - EPA Method 8260 (VOC's).

0807	14 gal	25.2°C	0.486	NM	11.52	NM	45 (clear)	Shut-off pump- b/c barely pumping

Sample Time
Sample Appearance

Notes:
- Prior to pumping suspect most of water in well due to mud rotary drilling technique. Will pump well dry & let recharge prior to sampling.
- pump at ½-1 gph.

Signed by: Lillian Furlow 8/5/98
Lillian Furlow Date

CH2MHILL (Former)

AW

Project Number: 147244.ES.01

GROUNDWATER PURGING & SAMPLING DATA LOG

Client: Miller Drilling Company (Reynolds Metals)
Location: Moultrie, Georgia
Event: CSR
Date: August 5, 1998
Weather: Hot, sunny, 90s

Well ID: MW-5
Sample ID: MW-5
Sample Team: Lillian Furlow / CH2M Hill-ATL

Total Depth: 15.13 FT.(BTOC)
Depth to Water: (-) 12.50 FT.(BTOC)
Water Column: 2.63 FT.
(x) 0.163 GAL/FT.
Well Volume: 0.43 GAL.
Total Purge Volume: 1.3 GAL.
Purge Device: new, disposable Bailer.

Measuring Device: Water Level Indicator
Date and Time: 8/5/98: 1257
WELL DIAMETER
[(2" DIA.= 0.163 GAL/FT.) (4" DIA. = 0.653 GAL/FT.)]
(1" DIA.= 0.041 GAL/FT.) (1 1/4 " DIA.= 0.064 GAL/FT.)

FIELD PARAMETERS

Time	Cummulative Purge Vol. (gals)	Temp., °C	Cond. mS/cm	DO mg/l	pH	Redox mV	Turbidity (NTU)	Depth to GW (ft) (BTOC)	Color / Odor / Comments
1315	3/4 Bailer	25.6	0.169	NM	5.52	NM	92	NM	clear. no odor.
1315	1 1/2 Bailer	—	—	—	—	—	—	—	Well Dry.

Sample Information: Method, Container Number, Size, and Type, Preservative Used

- 2 - 40 ml VOC's w/ HCl : EPA Method 8260 (VOC's)

Sample Time: 8/5/98: 1315
Sample Appearance: clear

Notes:
- It took approximately 1 1/2 days for groundwater to recharge well since installation. Due to slow recovery, pulled a sample immediately for analysis.

Signed by: Lilli F. Furlow 8/5/98
Lillian Furlow — Date

CH2M HILL

Project Number: Project Number: **147244.ES.01**

GROUNDWATER SAMPLING DATA SHEET

Client: **Miller Brewing Company, Reynolds Can Plant** Well ID: MW-113

Location: Moultrie, Goergia Sample ID:

Event: CSR Investigation

Date: 5-27-98 Sample Team: Stephanie Blum/CH2M HILL

Weather: ? Cloudy 80s

Total Depth: 11.15 FT.(BTOC) Measuring Device: Water Level Indicator

Depth to water: (-) 5.68 FT.(BTOC) Date and Time: 5-26-98 0959

Water Column: 5.47 FT.

(x) ~~0.16~~ GAL/FT. WELL DIAMETER

Well Volume: 0.89 GAL. [(2" DIA.= 0.163 GAL/FT.) (4" DIA. = 0.653 GAL/FT.)]

Total Purge Volume: GAL. (1" DIA.= 0.041 GAL/FT.) (1 1/4 " DIA.= 0.064 GAL/FT.)

Purge Device: PERISTALTIC PUMP - LOW FLOW

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp., °C	Cond. mS/cm	DO	pH	Redox	Turbidity (visual)	Color / Odor / Comments
1318	0	25.24	0.268	-1.68	6.71	167.7	CLEAR	
1323		24.70	0.256	-0.81	6.67	171.3	"	
1328		24.85	0.249	-0.67	6.58	172.7	"	
1333		~~24.84~~	0.240	~~-0.80~~ -0.93	6.50	173.0	"	
1338		24.79	0.235	-1.27	6.43	174.5	"	
1343		25.06	0.222	~~-1.09~~ -1.07	6.40	176.1	"	
1348		25.83	0.218	-1.40	6.37	175.7	"	
1353		26.26	0.216	-1.55	6.35	174.9	"	
1358		27.35	0.215	-1.43	6.33	175.4	"	
1403		24.60	0.193	-1.60	6.16	175.2	"	
1412		23.98	0.170	-2.61	5.86	182.0	"	
1417		23.95	0.169	-2.43	5.83	185.2	"	
1422		23.99	0.169	-2.76	5.88	188.9	"	
1427		24.04	0.170	-2.52	5.85	189.3	"	
1432		24.13	0.168	-2.70	5.77	191.8	"	
1437	2.5	24.44	0.168	-2.24	5.83	195.6	"	

Sample information: method, container number, size, and type; preservative used.

VOC - INTRINSIC

Sample Time 5-27-98 1445

Sample Appearance CLEAR

Notes:

TUBING LOWERED TO 9 FT BTOC

Signed by: [signature] 5-27-98

Date

CH2M HILL

Project Number: Project Number: 147244.ES.01

GROUNDWATER SAMPLING DATA SHEET

Client: Miller Brewing Company, Reynolds Can Plant
Well ID: MW-114
Location: Moultrie, Goergia
Sample ID:
Event: CSR Investigation
Date: 5-27-98
Sample Team: Stephanie Blum/CH2M HILL
Weather: PARTLY CLOUDY 80s
BILL ZWIREN / CH2M HILL

Total Depth: 15.15 FT.(BTOC) Measuring Device: Water Level Indicator
Depth to water: (-) 7.10 FT.(BTOC) Date and Time: 5-26-98 0954
Water Column: FT.
(x) GAL/FT. [(2" DIA.= 0.163 GAL/FT.) (4" DIA. = 0.653 GAL/FT.)] WELL DIAMETER
Well Volume: GAL. (1" DIA.= 0.041 GAL/FT.) (1 1/4 " DIA.= 0.064 GAL/FT.)
Total Purge Volume: GAL.
Purge Device: PERISTALTIC PUMP - LOW FLOW

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp., °C	Cond. mS/cm	DO	pH	Redox	Turbidity (visual)	Color / Odor / Comments
~~0819~~	0	~~22.45~~	~~0.431~~					
0825		23.64	0.412	0.39	6.42	201.5	CLEAR	
0830		23.28	0.449	-6.05	6.34	188.6	"	
0835		22.63	0.586	-7.03	6.34	172.2	"	
0840		22.64	0.382	-7.88	6.34	164.0	"	
0845		22.74	0.381	-8.38	6.30	163.9	"	
0908		26.00	0.388	0.86	6.42	186.9	"	
0913		23.16	0.376	-4.97	6.34	174.2	"	
0918		23.15	0.376	~~-5.87~~	6.32	167.4	"	
0923		23.16	0.375	-6.03 -7.24	6.32	165.6	"	
0928	~2.5	23.46	0.375	-8.22	6.34	165.6	"	
0933		23.72	0.374	-8.48	6.34	166.8	"	
0938		23.70	0.374	-9.22	6.35	167.1	"	
0943		23.65	0.375	-9.62	6.37	167.3	"	
0948	3.5	23.62	0.375	-9.69	6.37	168.2	"	

Sample information: method, container number, size, and type; preservative used:
VOC + INTRINSIC

Sample Time 5-27-98 0950
Sample Appearance CLEAR

Notes:
TUBING LOWERED TO 14 FT BTOC

Signed by: [signature] 5-27-98
Date

CH2M HILL

Project Number: Project Number: 147244.ES.01

GROUNDWATER SAMPLING DATA SHEET

Client: Miller Brewing Company, Reynolds Can Plant
Well ID: MW-1140
Location: Moultrie, Goergia
Sample ID:
Event: CSR Investigation
Date: 6-4-98
Sample Team: Stephanie Blum/CH2M HILL
Weather: SUNNY 90s

Total Depth: 26.55 FT.(BTOC) Measuring Device:
Depth to water: (-) 22.23 FT.(BTOC) Date and Time:
Water Column: FT.
(x) GAL/FT.
Well Volume: GAL.
Total Purge Volume: GAL.
Purge Device: PERISTALTIC PUMP

Water Level Indicator
6-4-98 0705

WELL DIAMETER
[(2" DIA.= 0.163 GAL/FT.) (4" DIA. = 0.653 GAL/FT.)]
(1" DIA.= 0.041 GAL/FT.) (1 1/4 " DIA.= 0.064 GAL/FT.)

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp., °C	Cond. mS/cm	DO	pH	Redox	Turbidity (visual)	Color / Odor / Comments

Sample information: method, container number, size, and type, preservative used
VOC

Sample Time 6-4-98 0735
Sample Appearance CLEAR

Notes:
GRAB SAMPLE - NO PARAMETERS MEASURED

Signed by: 6-4-98
Date

CH2M HILL

Project Number: Project Number: 147244.ES.01

GROUNDWATER SAMPLING DATA SHEET

Client: Miller Brewing Company, Reynolds Can Plant

Well ID: MW-11b

Location: Moultrie, Goergia

Sample ID: —

Event: CSR Investigation

Date: 5-26-98

Sample Team: Stephanie Blum/CH2M HILL

Weather: SUNNY 90s

Total Depth: ~~1.91~~ 10.83 FT.(BTOC) Measuring Device: Water Level Indicator

Depth to water: (-) 1.91 FT.(BTOC) Date and Time: 5-26-98 0929

Water Column: FT.

(x) GAL/FT. [(2" DIA.= 0.163 GAL/FT.) (4" DIA. = 0.653 GAL/FT.)] WELL DIAMETER

Well Volume: GAL. (1" DIA.= 0.041 GAL/FT.) (1 1/4 " DIA.= 0.064 GAL/FT.)

Total Purge Volume: GAL.

Purge Device: PERISTALTIC PUMP - LOW FLOW

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp., °C	Cond. mS/cm	DO	pH	Redox	Turbidity (visual)	Color / Odor / Comments
1405	0	25.59	0.193	0.71	6.23	230.1	CLEAR	
1410		27.20	0.186	0.77	6.23	227.2	"	
1415		28.40	0.184	0.25	6.24	221.4	"	
~~1420~~1427		29.41	0.289	9.64	6.39	208.4	"	
~~1425~~1432		24.23	0.186	2.08	6.22	202.7	"	
1437		25.02	0.184	2.02	6.22	198.3	"	
1442		25.44	0.185	1.53	6.20	196.0	"	
1447		24.63	0.183	1.79	6.19	194.6	"	
1452		24.86	0.183	1.55	6.18	192.2	"	
1457		24.76	0.180	1.47	6.18	190.5	"	
1502	2.5	24.98	0.180	1.56	6.18	188.9	"	

Sample information: method, container number, size, and type, preservative used.

VOC + INTRINSIC (Alk, Cl, SO_4, NO_2, NO_3, Sulfide, IRON (FERROUS), DISSOLVED METALS)

Sample Time 5-26-98 1510

Sample Appearance CLEAR

Notes:

TUBING LOWERED TO 9 FT BTOC

Signed by: [signature] 5-26-98

Date

P:\PPL\SILVER\MONITOR\97Q1\Sample.xls

CH2M HILL

Project Number: Project Number: 147244.ES.01

GROUNDWATER SAMPLING DATA SHEET

Client: Miller Brewing Company, Reynolds Can Plant
Well ID: MW-118
Location: Moultrie, Goergia
Sample ID:
Event: CSR Investigation
Date: 5-26-98
Sample Team: Stephanie Blum/CH2M HILL
Weather: SUNNY 90s

Total Depth: 10.53 FT.(BTOC) Measuring Device:
Water Level Indicator
Depth to water: (-) 2.73 FT.(BTOC) Date and Time: 5-26-98 0922
Water Column: FT.
WELL DIAMETER
(x) GAL/FT. [(2" DIA.= 0.163 GAL/FT.) (4" DIA. = 0.653 GAL/FT.)]
Well Volume: GAL. (1" DIA.= 0.041 GAL/FT.) (1 1/4 " DIA.= 0.064 GAL/FT.)
Total Purge Volume: GAL.
Purge Device: PERISTALTIC PUMP - LOW FLOW

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp., °C	Cond. mS/cm	DO	pH	Redox	Turbidity (visual)	Color / Odor / Comments
1216	0	28.80	0.152	1.80	5.47	186.5	CLEAR	
1221		30.50	0.143	1.31	4.85	198.5	"	
1226		31.57	0.142	1.19	4.77	204.1	"	
1231		32.16	0.144	0.87	4.77	206.0	"	
1236		32.08	0.148	0.65	4.52	209.7	"	
1242		32.34	0.149	0.54	4.47	216.4	"	
1247		32.10	0.150	0.44	4.41	218.3	"	
1252		32.18	0.150	0.36	4.37	221.1	"	
1257		32.07	0.151	0.26	4.34	221.5	"	
1302		32.86	0.151	0.06	4.32	219.2	"	
1307		31.62	0.150	0.08	4.29	217.0	"	
1312	2.5	31.77	0.150	-0.06	4.28	219.1	"	

Sample information: method, container number, size, and type, preservative used:
VOCs & INTRINSIC
ALK, Cl, SO4, NH3, FERROUS ICON, SULFIDE, NO3, DISSOLVED METALS

Sample Time 5/26-98 1320
Sample Appearance CLEAR

Notes:
TUBING LOWERED TO 6 FT BTOC.

Signed by: [signature] 5-26-98
Date

CH2M HILL

Project Number: Project Number: 147244.ES.01

GROUNDWATER SAMPLING DATA SHEET

Client: Miller Brewing Company, Reynolds Can Plant
Well ID: MW-120
Location: Moultrie, Goergia
Sample ID:
Event: CSR Investigation
Date: 5-26-98
Sample Team: Stephanie Blum/CH2M HILL
Weather: SUNNY 90s

Total Depth: 13.90 FT.(BTOC) Measuring Device:
Depth to water: (-) 6.72 FT.(BTOC) Date and Time:
Water Column: FT.
(x) GAL/FT.
Well Volume: GAL.
Total Purge Volume: GAL.
Purge Device: PERISTALTIC PUMP - LOW FLOW

Water Level Indicator
5-26-98 0941

WELL DIAMETER
[(2" DIA.= 0.163 GAL/FT.) (4" DIA. = 0.653 GAL/FT.)]
(1" DIA.= 0.041 GAL/FT.) (1 1/4 " DIA.= 0.064 GAL/FT.)

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp., °C	Cond. mS/cm	DO	pH	Redox	Turbidity (visual)	Color / Odor / Comments
1759	0	25.89	0.207	-2.28	5.85	196.9		
1604		26.03	0.162	-2.90	5.76	197.8		
1609		26.51	0.149	-3.47	5.72	194.4		
1614		27.29	0.142	-3.52	5.60	194.6		
1619		27.07	0.132	-3.58	5.47	195.5		
1624	2.5	27.31	0.131	-3.59	5.45	197.6		

Sample information: method, container number, size, and type, preservative used
VOCs

Sample Time 5-26-98 1630
Sample Appearance CLEAR

Notes:
TUBING LOWERED TO 12 FT BTOC

Signed by: 5-26-98
Date

CH2M HILL

Project Number: Project Number: 147244.ES.01

GROUNDWATER SAMPLING DATA SHEET

Client: Miller Brewing Company, Reynolds Can Plant
Well ID: MW-120 121
Location: Moultrie, Goergia
Sample ID:
Event: CSR Investigation
Date: 5-27-98
Sample Team: Stephanie Blum/CH2M HILL
Weather: PARTLY CLOUDY 80S

Total Depth: 13.92 FT.(BTOC) Measuring Device: Water Level Indicator
Depth to water: (-) 8.05 FT.(BTOC) Date and Time: 5-26-98 0944
Water Column: FT.
(x) GAL/FT. (2" DIA.= 0.163 GAL/FT.) (4" DIA. = 0.653 GAL/FT.)] WELL DIAMETER
Well Volume: GAL. (1" DIA.= 0.041 GAL/FT.) (1 1/4 " DIA.= 0.064 GAL/FT.)
Total Purge Volume: GAL.
Purge Device: PERISTALTIC PUMP - LOW FLOW

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp., °C	Cond. mS/cm	DO	pH	Redox	Turbidity (visual)	Color / Odor / Comments
1039	0	23.67	0.140	-7.79	5.78	148.6	CLEAR	
1044		23.78	0.129	-9.35	5.55	154.7	"	
1049		23.97	0.123	-10.25	5.51	151.6	"	
1054		24.49	0.118	-10.14	5.46	147.6	"	
1059		24.81	0.113	-10.75	5.35	147.3	"	
1104		24.74	0.111	-11.18	5.30	146.9	"	
1109	1.5	24.75	0.112	-10.94	5.29	145.0	"	

Sample information: method, container number, size, and type, preservative used
VOC - INTRINSIC

Sample Time 5-27-98 1115
Sample Appearance CLEAR

Notes:
TUBING LOWERED TO 12 FT BTOC

Signed by: [signature] 5-27-98
Date

CH2M HILL

Project Number: Project Number: 147244.ES.01

GROUNDWATER SAMPLING DATA SHEET

Client: Miller Brewing Company, Reynolds Can Plant
Well ID: MW-1A
Location: Moultrie, Goergia
Sample ID:
Event: CSR Investigation
Date: 6-4-98
Sample Team: Stephanie Blum/CH2M HILL
Weather: Sunny 90s

Total Depth: 15.03 FT.(BTOC) Measuring Device:
Depth to water: (-) 14.60 FT.(BTOC) Date and Time:
Water Column: FT.
(x) GAL/FT.
Well Volume: GAL.
Total Purge Volume: GAL.
Purge Device: PERISTALTIC PUMP

Water Level Indicator
6-4-98 0915

WELL DIAMETER
[(2" DIA.= 0.163 GAL/FT.) (4" DIA. = 0.653 GAL/FT.)]
(1" DIA.= 0.041 GAL/FT.) (1 1/4 " DIA.= 0.064 GAL/FT.)

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp., °C	Cond. mS/cm	DO	pH	Redox	Turbidity (visual)	Color / Odor / Comments

Sample information: method, container number, size, and type, preservative used.
VOC

Sample Time 6-4-98 0930
Sample Appearance CLEAR

Notes:
GRAB SAMPLE - NO PARAMETERS MEASURED

Signed by: [signature] 6-4-98
Date

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CH2M HILL

Project Number: Project Number: **147244.ES.01**

GROUNDWATER SAMPLING DATA SHEET

Client: **Miller Brewing Company, Reynolds Can Plant** Well ID: MW-2

Location: Moultrie, Goergia Sample ID:

Event: CSR Investigation

Date: 6-3-98 Sample Team: Stephanie Blum/CH2M HILL

Weather: SUNNY 90s

Total Depth: 18 FT.(BTOC) Measuring Device: Water Level Indicator

Depth to water: (-) 5.23 FT.(BTOC) Date and Time: 6-1-98 1412

Water Column: FT. WELL DIAMETER

(x) GAL/FT. [(2" DIA = 0.163 GAL/FT.) (4" DIA. = 0.653 GAL/FT.)]

Well Volume: GAL. (1" DIA.= ~~0.041~~ GAL/FT.) (1 1/4 " DIA.= 0.064 GAL/FT.)

Total Purge Volume: GAL.

Purge Device: PERISTALTIC PUMP - LOW FLOW

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp., °C	Cond. mS/cm	DO	pH	Redox	Turbidity (visual)	Color / Odor / Comments
0835		22.408	0.254	4.75	4.63	230.8	CLEAR	
0840		23.021	0.227	4.34	4.53	250.5	"	
0845		23.444	0.221	4.40	4.43	249.7	"	
0850		23.647	0.220	4.41	4.34	252.8	"	
0855	2.5	23.805	0.219	4.37	4.30	256.2	"	

Sample information: method, container number, size, and type, preservative used

VOC & INTRINSIC

Sample Time 6-3-98 0905

Sample Appearance CLEAR

Notes:

TUBING LOWERED TO 12 FT BTOC

Signed by: [signature] 6-3-98

Date

P:\PPL\SILVER\MONITOR\97Q1\Sample.xls

CH2M HILL

Project Number: Project Number: 147244.ES.01

GROUNDWATER SAMPLING DATA SHEET

Client: Miller Brewing Company, Reynolds Can Plant
Well ID: MW-3
Location: Moultrie, Goergia
Sample ID:
Event: CSR Investigation
Date: 6-3-98
Sample Team: Stephanie Blum/CH2M HILL
Weather: Sunny 90s

Total Depth: 14 FT.(BTOC) Measuring Device: Water Level Indicator
Depth to water: (-) 5.05 FT.(BTOC) Date and Time: 6-1-98 1422
Water Column: FT.
(x) GAL/FT. WELL DIAMETER [(2" DIA.= 0.163 GAL/FT.) (4" DIA. = 0.653 GAL/FT.)]
Well Volume: GAL. (1" DIA.= 0.041 GAL/FT.) (1 1/4 " DIA.= 0.064 GAL/FT.)
Total Purge Volume: GAL.
Purge Device: PERISTALTIC PUMP - LOW FLOW

FIELD PARAMETERS

Time	Purge Vol. (gals)	Temp., °C	Cond. mS/cm	DO	pH	Redox	Turbidity (visual)	Color / Odor / Comments
1005	0	24.832	0.101	6.78	4.58	254.4	CLEAR	
1010		24.740	0.098	6.01	4.52	264.4	"	
1015		25.118	0.096	5.76	4.56	267.7	"	
1020		25.289	0.092	4.74	4.58	269.9	"	
1025		25.300	0.087	4.35	4.56	271.5	"	
1030		25.581	0.086	4.27	4.56	271.1	"	
1035	2.5	25.594	0.086	4.06	4.55	272.3	"	

Sample information: method, container number, size, and type, preservative used
VOC @ INTRINSIC

Sample Time 6-3-98 1045
Sample Appearance CLEAR

Notes:
TUBING LOWERED TO 12 FT BTOC

Signed by: [signature] 6-3-98
Date

Appendix H

Ground Water Monitoring Report (O'Brien & Gere, January 2006)

Report

Ground Water Monitoring Report
Miller Brewing Company Can Plant
Moultrie, Georgia

Miller Brewing Company
Moultrie, Georgia

January 2006



1669\35789

Corrective Action Monitoring and Evaluation Report
Miller Brewing Company Can Plant
Moultrie, Georgia

Miller Brewing Company
Moultrie, Georgia

January 2006

2610 Wycliff Road, Suite 104
Raleigh, NC 27607

Contents

1. Introduction 1
1.1. Objectives 1
1.2. Site background 1

2. Scope and methodology 5
2.1. Underground injection 5
2.2. Ground water monitoring field activities 6

3. Ground water monitoring results 9
3.1. Hydrogeologic conditions 9
3.2. Ground water analytical results 10
3.3. Corrective action evaluation 11

4. Conclusions and recommendations 15
4.1. Conclusions 15
4.2. Recommendations 15

5. References 17

List of Tables

1. Target Analyte List and Geochemistry Parameters
2. Monitoring Wells Sampled
3. Summary of Well Construction Details and Ground Water Elevations
4. Ground Water Analytical Results, Pre-treatment (2004) and Post-treatment (2005)
5. Ground Water Geochemical Data, Pre-treatment (2004) and Post-treatment (2005)

List of Figures

1. Site Location Map
2. Site Plan I
3. Site Plan II
4. Enhanced Bioremediation Injection Points
5. Potentiometric Surface Map, April 2005
6. Potentiometric Surface Map, October 2005
7. Horizontal Extent of Target Analytes in Ground Water, October 2005
8. Recommended Additional Injection Points

List of Appendices

A. Historical Ground Water Analytical Results Summary
   1. Historical Ground Water Analytical Data (VOCs)
   2. Historical Ground Water Geochemical Data
B. 1. Laboratory Analytical Data for Ground Water, April 2005
   2. Laboratory Analytical Data for Ground Water, October 2005
C. Ground Water Purging and Sampling Log Forms
D. Concentration vs. Time Graphs for Selected Target Analytes

1. Introduction

This Corrective Action Evaluation Report presents the progress of corrective measures performed on the surficial ground water zone at the former Miller Brewing Company Facility (Site) in Moultrie, Georgia (Figure 1). Corrective action at the Site is being conducted under the Georgia Hazardous Site Response Act (HSRA). This report was required by the Corrective Action Plan (CAP) submitted to Georgia EPD in January 2004 (O'Brien & Gere, January 2004) and, with minor amendments, approved by Georgia EPD in March 2004. The ground water corrective measure approved by Georgia EPD is enhanced bioremediation by underground injection of a lactate formulation. The CAP requires semiannual ground water monitoring to evaluate the progress and effectiveness of the corrective measure.

The first enhanced bioremediation injection occurred in October 2004. This was followed by semiannual ground water monitoring in April 2005 and October 2005. This report presents the results of these two events and an evaluation of the progress toward meeting corrective action goals.

1.1. Objectives

The goal of the corrective action is to bring site ground water into compliance with non-residential (Type 3 or Type 4) Risk Reduction Standards (RRS). These RRS are set forth in Chapter 391-3-19 of the HSRA. RRS values represent an acceptable level of theoretical human health risk associated with analytes found in soil and ground water at the site.

Once non-residential RRS for ground water are met site-wide, natural attenuation monitoring will be performed annually until residential (Type 1 or Type 2) RRS are met for ground water. Site closure will be sought when ground water meets residential RRS for two consecutive monitoring events. Both residential and non-residential RRS are presented on Table 4 for individual constituents. Non-residential RRS are presented only for those constituents that have been detected at concentrations greater than Type 1 RRS since 1998.

1.2. Site background

In September 1988, four underground storage tanks (USTs) were removed from the site. These consisted of two No. 2 fuel oil USTs, a waste oil UST, and a waste solvent UST. During the removal, a release was discovered from a portion of the piping that was connected to the waste solvent UST. In response to this release, the following activities and investigations were performed:

- Closure of four USTs in September 1988
- Removal of piping associated with the former waste solvent tank, and excavation and disposal of soils contaminated with chlorinated solvents in 1988
- Phase II Site Assessment performed in 1993
- Site Investigation performed in 1994
- Supplemental Site Investigation performed in 1995
- Phase II Subsurface Investigation performed in 1998
- Compliance status investigation performed in 1998
- Supplemental compliance status investigations performed in 2000, 2001, and 2004
- Ground water monitoring in 2002.

The final Compliance Status Report (CSR) (O'Brien & Gere, June 2004) was submitted to Georgia EPD in June 2004. Analytical data provided in the CSR delineated the nature and extent of chlorinated aliphatic hydrocarbons (CAHs) in soil and ground water, and defined the area of ground water affected by concentrations of CAHs above the RRS. Site soil meets the Type 4 site-specific, non-residential property RRS and has been certified as doing so in the CSR. No further action is required with respect to site soil.

CAHs have been detected at concentrations above the RRS in a number of wells surrounding the former waste solvent tank piping (Figure 3). The migration of these constituents has been limited because of the low hydraulic conductivity of the soil. It is likely that these constituents are derived from the historic release from the waste solvent tank piping.

The conservative risk evaluation performed for site ground water constituents indicates that site ground water meets neither non-residential nor residential RRS. The area of ground water constituents that exceed non-residential RRS is well constrained, and extends approximately 80-ft downgradient of the suspected source area (Figure 7). Further details of the site background are presented in the approved CSR (O'Brien & Gere, June 2004). A summary of historical ground water analytical results is provided in Appendix A.

Corrective action at the Moultrie Facility was prompted by the determination that site ground water does not meet Georgia RRS. The approved CAP (O'Brien & Gere, January 2004) details the selected remedial measures and provides the basis for corrective action at the site. As described in the CAP, the first component of corrective action on site ground water is enhanced bioremediation consisting of injection of a lactate formulation, ABC®, into the area of ground water with concentrations of CAHs above RRS. The lactate formulation accelerates microbial activity, which, in turn, facilitates reductive dechlorination of the CAHs. Injection was performed with a Geoprobe® at injection nodes laid out on a grid pattern (Figure 4). The CAP projected that two injection events approximately two years apart would be necessary to

decrease the concentration of CAHs below non-residential RRS. One injection event has been performed to date in October 2004. The effects of an injection event are anticipated to be seen within eighteen months. To measure these effects, semiannual ground water monitoring events have been scheduled to follow each injection event. Data acquired from the first and second post-injection monitoring events have been used to evaluate the effectiveness of the enhanced bioremediation to date. The results of this evaluation are presented herein.

The second component of the approved corrective action is monitored natural attenuation (MNA), which is to be implemented once enhanced bioremediation has reduced the concentration of CAHs in ground water below non-residential RRS. MNA will continue until residential RRS are achieved site-wide for two consecutive monitoring events, after which a petition for closure will be submitted.

2. Scope and methodology

The CAP prescribes underground injection of a lactate formulation to treat constituents in the surficial ground water zone and semiannual ground water monitoring to facilitate the evaluation of the remedial measure. The first two semiannual ground water monitoring events have been performed since injection of the lactate formulation into site ground water in October 2004. During these monitoring events, in April and October 2005, the following field tasks were performed:

- A comprehensive water level survey of onsite wells
- Collection of ground water samples for VOC analysis from twenty monitoring wells
- Collection of ground water for geochemical parameter analyses from seven monitoring wells.

The Corrective Action Implementation Plan (O'Brien & Gere, August 2004) presents the procedures for subsurface lactate injection and details ground water monitoring activities in the Ground Water Monitoring Plan (GWMP) presented in Appendix A of the CAP. This section provides an overview of the procedures for these tasks, and describes deviations from the planned activities.

2.1. Underground injection

The initial remedial measure prescribed in the CAP, injection of the lactate formulation ABC® into the surficial water zone, was conducted October 25 through October 29, 2004. A few minor departures from the planned implementation resulting from conditions found in the field are noted below.

Several of the nineteen injection point locations were slightly modified from those presented in the Corrective Action Implementation Plan, as necessary, to avoid underground utilities and because of access limitations. Final approximate injection point locations are presented on Figure 4.

The ABC® product was shipped to the site in 5-gal buckets bundled on pallets. The solution was mixed on site with potable water, as necessary, in a 500-gal mixing tank mounted on an injection trailer.

Following location and marking of subsurface utilities in the treatment area, a Geoprobe® drilling rig was used to advance a casing and a proprietary 360-degree injection tool to depth. Injection points inside the building and in paved areas required cutting (or coring) of concrete prior

to drilling to access the subgrade. Injection points were initially drilled with a 2 1/8-inch diameter drill bit, but because of the dense clays present at the site, the bit could drill no deeper than 10 ft. It was therefore necessary to switch to a smaller diameter (1¼-inch) drill bit to reach the required depths.

Once the target depth of approximately 20 to 25 ft below surface (fbs) was reached, the outer casing was retracted to expose the injection nozzle. The fluid was then injected via an air-operated diaphragm pump mounted on the injection trailer. Fluid was injected at depth until the desired volume was injected. Without stopping the injection, the injector was then raised about 2 to 3 ft to the next target interval This process continued until the vertical treatment zone, which extends from approximately 20 ft below the water table up to the water table, had been treated at the desired dosage rate.

Once injection at a point was completed, a ¾-in diameter PVC well point was installed at depth. The use of the smaller 1¼-inch drill bit necessitated the use of the ¾-in diameter well point, not the 1-in diameter well point initially planned. Should future injections be necessary, these well points will facilitate the delivery of the injectant, thus reducing the time required in the field.

The well points consist of a 10-ft section of 10 slot screen set at approximately 15 to 25 ft below surface and a PVC casing extending to the surface. Injection points located in paved areas were surface finished with 4-inch diameter roadway boxes. Eight-inch diameter well vaults were used in grassy or graveled areas. All locations were provided with locking caps.

It should be noted that hydraulic fracturing of the aquifer was achieved during injection of the ABC® material, which is important for increased contact with the aquifer. Some "daylighting" of the injectant occurred, indicative of high injection pressures at shallow depths, as well as the low hydraulic conductivity of the formation.

The extremely low hydraulic conductivity of the formation necessitated the injection of the ABC® at full strength. Initially, the subcontractor planned to dilute the product with water prior to injection. Delivering the desired quantities of diluted ABC® into the treatment zone would have required a half a day or more of sustained pressure at each point. When pure product was pumped, delivery was fairly rapid while still achieving hydraulic fracturing of the formation.

2.2. Ground water monitoring field activities

Ground water monitoring activities took place six and twelve months following the initial treatment of shallow ground water in October 2004. Upon arrival at the site, monitoring wells were opened and allowed to

equilibrate to atmospheric pressure for a minimum of one hour prior to measuring water levels. Water levels were measured with a decontaminated electronic water level meter to the nearest 0.01-ft relative to a mark on the top of the well casing.

After completion of the water level survey, each monitoring well was purged following low-flow purging protocols. During purging, water quality parameters – temperature, pH, conductivity, dissolved oxygen, and redox potential (ORP) – as listed on Table 1, were measured continuously with a Hydrolab® equipped with a flow-through cell. Purging continued until at least one well volume of water was removed from the well, and until water quality parameters had stabilized. Ground water VOC samples were collected directly from the peristaltic pump discharge into 40-milliliter sample vials preserved with hydrochloric acid.

If the well ran dry prior to stabilization, no additional purging was considered necessary. The wells were allowed to recover until a sufficient quantity of water was present in the well to collect the ground water sample.

Quality control samples were also collected. Two duplicate samples, equivalent to a rate of one duplicate sample for every ten samples analyzed for VOCs, were collected. An adequate sample volume was collected to run one set of duplicate sample analyses for geochemical parameters per event, as well. In addition, one MS/MSD sample was collected per sampling event, equivalent to a rate of one per every twenty field samples.

Once sample containers were properly labeled and filled, they were wrapped, sealed, and placed immediately in a cooler with ice. A trip blank was included in each cooler containing samples to be submitted for VOC analysis. A chain of custody form listing each sample and the analyses requested also was included with each cooler. At the conclusion of each day, additional ice was provided in the cooler, if necessary, prior to shipping via overnight delivery to the laboratory. Samples were delivered to Life Science Laboratories (formerly O'Brien & Gere Laboratories) of Syracuse, New York, which holds an accreditation approved by Georgia EPD.

Ground water samples were analyzed for VOCs following SW 846 Method 8260 for the specific list of parameters identified on Table 1. In addition, ground water samples from seven monitoring wells, as identified on Table 2, were analyzed for the geochemical parameters listed on Table 1.

One departure from the work plan resulted from conditions encountered in the field. Because of the low hydraulic conductivity of the surficial ground water zone, monitoring wells at the site are characterized by slow recovery following purging. Limited recovery combined with low ground water levels in October 2005 prevented collection of an adequate

sample volume from monitoring well CH2MW-1A. Because of the limited sample volume recovered, analyses for all geochemical parameters could not be performed. The parameters not reported were alkalinity, iron, manganese, sulfide, and soluble organic carbon.

CH2MW-1A is a sentinel well used to monitor plume movement and identify potential offsite CAH migration, neither of which are currently a concern at this location. As such, although the missing data would be helpful in data analysis, they are not essential in evaluating the overall status of the ongoing corrective action.

3. Ground water monitoring results

This section presents the findings of the first two post injection monitoring events performed in April and October 2005 and is followed by an evaluation of corrective measures thus far. The analytical data reports provided by the laboratory are included as Appendix B. Ground water purging and sampling logs, which include field obtained data, are provided as Appendix C.

3.1. Hydrogeologic conditions

Ground water at the site is unconfined, and encountered at depths ranging from 2 to 14 fbs. Shallow monitoring wells in the surficial ground water zone range in depth from 10 to 15 fbs and have either 5- or 10-ft screen lengths. Water levels obtained during the April 2005 were consistent with previous sampling events, however, those obtained in October were significantly lower (Table 3). This drop in water levels is likely the result of below normal rainfall from September to November 2005 or a prior historically dry period. The rate of response of the aquifer to precipitation has not been evaluated.

Because of the low hydraulic conductivity and varied recharge rates resulting from the impermeable cover provided by the building and paved areas, ground water flow at the site is highly irregular. In general, ground water on the western edge of the facility flows to the northeast and then to the north. Ground water on the eastern edge of the facility flows to the northwest and then to the north. Despite the drop in water levels, the flow direction and gradient were generally consistent between April and October 2005 (Figures 4 and 5).

Two monitoring wells are screened at greater depths than the other monitoring wells at the site. CH2MW-4D is screened from 36 to 46 fbs, and is located next to shallow well CH2PP-1. CH2MW-114D is screened from 17.5 to 22.5 fbs and is paired with shallow monitoring well ETCMW-114. Comparison of the shallow and deep water levels measured in these monitoring well pairs in both April and October 2005 indicate a pronounced downward hydraulic gradient, which is consistent with historical measurements.

Two small ponds are located to the southwest and southeast of the Moultrie Facility (Figure 1). The damming of an ephemeral creek that originates near the Moultrie Facility formed the pond to the southeast. Given the northward flow direction, low hydraulic conductivity of site soil, and the limited ground water productivity, ground water originating at the site is not expected to be a contributing source to these ponds; it is likely that precipitation is the predominant source of water in the creek and pond.

Low hydraulic conductivity and the high consolidation of the formation affected the application of the lactate solution more than expected. Although hydraulic fracturing, which increases contact of the product with the aquifer, occurred, daylighting of the diluted solution limited delivery of appropriate quantities to the desired treatment zone. This occurrence necessitated injection of the lactate formulation at full strength. It is likely that full strength application of the ABC® limited contact of the product with the aquifer, further requiring the reliance on natural processes to mix, dilute, and disperse the product in the ground water zone.

3.2. Ground water analytical results

Consistent with historical data (Appendix A), the analytical data obtained in April and October 2005 (Table 4) indicate that CAH concentrations decrease with the distance from the historical spill location. There were no exceedances of either residential or non-residential RRS outside the treatment zone (Figure 5). In fact, the analytical data support the understanding that ground water constituents are migrating very little and continue to be well confined with the bounds of the site.

Seven wells (CH2MW-2, CH2MW-3, CH2MW-4D, CH2MW-5, ETMW-121, OBGMW-122, and OBGMW-123) had no reported detections either prior to treatment (April 2004) or following treatment (April and October 2005). Trace concentrations (below the RRS) either pre-treatment, post-treatment, or in most cases both, were indicated for five monitoring wells (CH2MW-1A, ETMW-119, ETMW-120, OBGMW-124, and CH2PP-1). None of these wells are within the treatment area.

Monitoring well CH2MW-1, which is directly down-gradient of the treatment zone, is also below RRS, but has had fairly consistent concentrations of the chlorinated compounds 1,1-dichloroethane, cis-1,2-dichloroethene (cis-1,2-DCE), and trichloroethene (TCE). The concentration of TCE in this well is just below the RRS, and has been increasing slightly since April 2004.

Within the treated area (Figure 7), several locations show diminishing levels of TCE and PCE, increasing levels of compounds which are indicative of reductive dechlorination working on these constituents, or both. Prior to treatment, the seven monitoring wells within the treatment zone had one or more constituents exceeding non-residential RRS. Although this continues to be the case as of October 2005, the data point to ground water in the treatment zone beginning to favorably respond to treatment.

As of October 2005, the following four constituents exceed non-residential RRS:

Constituent	Location(s)
Tetrachloroethene (PCE)	ETCMW-113, ETCMW-114, CH2MW-114D (below detection limit), ETMW-116
Trichloroethene (TCE)	ETCMW-113, ETCMW-114, CH2MW-114D, ETMW-116, ETMW-117, ETMW-118
Cis-1,2-Dichloroethene (cis-1,2-DCE)	ETCMW-114
Vinyl Chloride	ETCMW-114, ETCMW-115

Sitewide, the geochemical parameters obtained in the field from ground water indicate a general downward trend of both dissolved oxygen (DO) and oxidation reduction potential (ORP) following the injection event (Table 5). The most marked decreases were in monitoring wells within the treatment zone, most notably from CH2MW-114D. At this location DO ranged from 3.30 mg/L pre-treatment (April 2004) to 0.51 post-treatment (October 2005) and ORP decreased from 463 mV prior to treatment to -76 mV as of October 2005. Ground water temperatures site wide were relatively high in October 2005, likely a result of seasonal variation. All but two locations, CH2MW-5 and ETCMW-13, were reported over 20°C. Trends for geochemical parameters analyzed in the laboratory were less distinct, and are discussed in Section 3.3.

3.3. Corrective action evaluation

Geochemical and analytical data from both pre- (April 2004) and post- (April and October 2005) injection were reviewed to evaluate the progress and effectiveness of the corrective action. Although no one particular location shows strong evidence from both the chemical and geochemical results, collectively, the data point to the beginning signs of enhanced biological activity within the treatment zone.

The sections that follow provide a discussion, by well, of the progress of constituent concentrations in approaching RRS within the defined plume These discussions are supported by constituent trend graphs provided in Appendix D

ETCMW-114

This monitoring well is located in the former source area and, with its paired deeper well CH2MW-114D, is located in close proximity to the historical former solvent tank piping release. Correspondingly, this well has consistently had the highest concentrations of CAHs at the site.

Three constituents, PCE, TCE, and cis-1,2-DCE, remain above RRS values. PCE and TCE were reported at the same approximate concentrations before and after injection. The post-injection concentration of cis-1,2-DCE, a by-product of the reductive dechlorination process, on the other hand, was found at a concentration nearly double that found just prior to injection Vinyl chloride, another by-product of the reductive dechlorination process, was also detected at

concentrations above the RRS in October 2005, the first time that this constituent has been detected in this well since 2001.

In addition to the decreasing trends for DO and ORP and elevated ground water temperature, conditions more favorable to reduction processes, notably methane, appeared in the October 2005 sample. Methane is produced at the end of the dechlorination process by which methanogenic bacteria convert ethene to ethane or methane.

There were moderate variations of several laboratory analyzed geochemical parameters – iron, nitrate, sulfate, and carbon dioxide, none of which show trends from before treatment to after treatment.

Viewed together, the VOC and geochemical trends suggest that reductive dechlorination is occurring in the vicinity of this well. The fact that cis-1,2-DCE and vinyl chloride are increasing, while TCE and PCE remain stable suggests that there may be residual TCE and PCE in the soil. This residual would tend to continue to release TCE and PCE to ground water, even as the lactate is encouraging reductive dechlorination of these constituents to cis-1,2-DCE and vinyl chloride. TCE and PCE remain stable because of the release of these constituents from the soil, while the products of reductive dechlorination, cis-1,2-DCE, and vinyl chloride increase.

CH2MW-114D

This monitoring well is located in the former source area near monitoring well ETCMW-114, but is screened at a lower level within the shallow ground water zone. As with ETCMW-114, this well is located in the vicinity of the former solvent tank piping release. Water level data showing a strong downward hydraulic gradient suggest low permeability and little flow between the shallow and deeper ground water zones represented by the two wells.

The concentration of PCE reported for April 2005 approaches the RRS and is slightly lower than that reported in April 2004 before treatment. Because of a detection limit greater than the RRS value, it is unclear how low this concentration dropped as of October 2005. TCE concentrations rose slightly while cis-1,2-DCE remained steady.

Geochemical data from CH2MW-114D show favorable reducing conditions. Below the detection limit before treatment, alkalinity increased to over 2000 mg/L, a likely indicator of increased biological activity. Chloride ion concentrations increased two orders of magnitude follow treatment, which would be expected as CAHs are dechlorinated. The significant increase in ferrous iron and the presence of ferric iron, as evidenced in the total iron concentration which included both ferrous and ferric iron, support the presence of iron reducing conditions in this area of the plume. In addition, carbon dioxide and organic carbon correspond to an increased level of biological activity. Although DO has not diminished completely, the elevated alkalinity, chloride ion, ferrous iron concentrations and the negative ORP value substantiate limited

acceleration of biological activity and reduction processes following treatment.

ETCMW-113

This monitoring well is located on the periphery of the affected area, beneath the main building. Although ground water flow direction varies somewhat, this well appears to be cross gradient to slightly up gradient from the former source area near ETCMW-114.

Post-treatment sampling indicated an order of magnitude drop in the concentrations of both PCE and TCE. PCE is now just slightly above the RRS, while TCE remains an order of magnitude greater than the RRS. The trends for by-products of the reductive dechlorination of TCE and PCE were less clear.

Field measurements of geochemical data indicate decreasing trends for both DO and ORP. An elevated water temperature, favorable to biological activity, was reported in October. 2005. These factors, in combination with the downward trend in the concentration of TCE and PCE suggest that reductive dechlorination is occurring in the vicinity of this well and may reflect seasonal variability, as well.

ETCMW-115

This monitoring well is located on the periphery of the treatment area, downgradient from the former solvent tank piping release in the vicinity of ETCMW-114.

Post injection monitoring indicates that TCE dropped below the RRS in October 2005, the first time this has happened since sampling began at this location in 1994 (Appendix A). Also following treatment, vinyl chloride, an intermediary by-product of the reductive dechlorination process, was reported at elevated concentrations exceeding its RRS value.

Field measurements of geochemical data indicate decreasing trends for ORP, while DO has remained relatively stable. The downward trend in the ORP, coupled with the decrease in TCE and presence of vinyl chloride provide limited evidence that reductive dechlorination is occurring in the vicinity of this well.

ETMW-116

This well is located in the center of the affected area cross gradient to the former solvent release area near ETCMW-114, and has historically had some of the highest concentrations of CAHs at the site.

At ETMW-116, PCE concentrations decreased slightly to a concentration just above the RRS, while TCE remained at approximately the same level. The concentration of cis-1,2-DCE, a by-product of the reductive dechlorination process, increased above the RRS post treatment.

Field measurements of geochemical data indicate decreasing trends for both DO and ORP and an elevated ground water temperature in October 2005. The downward trend of DO and ORP coupled with the decrease in PCE likely reflect modest levels of reductive dechlorination occurring in the vicinity of this well and, perhaps, seasonal variability. The elevated ground water temperature is favorable to the biological activity that facilitates the reduction reactions.

ETMW-117

This monitoring well is located in the center of the affected area downgradient to the former solvent tank piping release location in the vicinity of ETCMW-114.

Constituent concentrations at ETMW-117 have increased slightly since the ground water treatment event in October 2004. PCE concentrations continues to hover just below the RRS value while TCE remains one order of magnitude greater than its regulatory limit.

Field measurements of geochemical data indicate moderately decreasing trends for DO and ORP after injection. Although conditions are becoming more favorable to reductive dechlorination, it does not appear to be occurring at a significant rate in this well. This is likely because ETMW-117 is located at a considerable distance from the nearest injection point, and has not yet been affected by the lactate injection because of the low hydraulic conductivity in the shallow ground water.

ETMW-118

This monitoring well is located on the periphery of the affected area cross gradient to the former source area near ETCMW-114.

The concentrations of both PCE and TCE initially decreased post-treatment (April 2005) but rebounded to within the range of historical concentrations (October 2005). The concentration of cis-1,2-DCE, a by-product of the reductive dechlorination process, increased significantly after treatment, exceeding the RRS for the first time.

Field measurements of geochemical data indicated decreasing trends for both DO and ORP. The downward trend of these parameters, coupled with the decreasing concentrations of PCE and TCE, and the increasing concentration of cis-1,2-DCE provide limited evidence that reductive dechlorination is occurring in the vicinity of this well.

4. Conclusions and recommendations

4.1. Conclusions

A comparison of chemical and geochemical data obtained prior to on site treatment in October 2004 to data obtained from two semiannual sampling events following treatment provides evidence of ongoing reductive dechlorination processes. Although the results are mixed with no single monitoring well showing strong indications in both chemical and geochemical results, data overall show a moderate trend toward decreasing concentrations of the constituents of concern. The geochemical conditions at CH2MW-114D changed significantly following the remedy application yet drastic changes in chemical constituents did not occur. Modest reductions in either of the two of the primary contaminants of concern, PCE and TCE, were reported at ETCMW-113, ETCMW-115 and ETMW-116. It does not appear remedial measures have impacted processes at ETMW-117. At ETMW-118, TCE went below the RRS in April 2005 before rebounding to previous levels in October 2005.

The increase in the daughter products of reductive dechlorination of CAHs such cis-1,2-DCE, vinyl chloride, and methane, would be expected with the enhancement of biological and reductive chlorination processes. Within the treatment zone, monitoring wells ETCMW-114, ETMW-116, and ETMW-118 show an increase in one or more of these products supporting that enhanced bioremediation has begun to act on site constituents.

As anticipated, the low hydraulic conductivity at the site and the slow movement of ground water are limiting factors in treatment of site ground water. Treatment has been further limited by having to inject the lactate formulation at full concentration (also related to low hydraulic conductivity) and the historically low ground water levels encountered during the October 2005 sampling event.

Although some progress toward meeting RRS has been made, the results just one year following the initial treatment of the upper ground water zone at the Moultrie site are limited. Further affects of corrective action are expected over time as the slow natural and enhanced processes continue to act on site ground water.

4.2. Recommendations

An additional round of semiannual ground water monitoring in April 2006 is recommended. As stated in the CAP, the full effects of treatment are typically seen within six to eighteen months. Sampling thus far has only been conducted at six and twelve months following treatment.

Because of the slow movement of ground water and the noted variations in ground water levels, the additional time will allow more complete utilization of the injected lactate solution.

Following the April 2006 sampling event which will take place eighteen months post-treatment, further evaluation of the effectiveness of the selected remedy will be conducted. At that time, options of how to proceed will likely include the scheduling an additional semiannual sampling event, performing a second lactate application, or other options, as appropriate for the site conditions found at that time.

Regardless of the time frame of the next injection event, the addition of four injection points is recommended. In particular an additional injection point in the vicinity of ETMW-117 (Figure 8) is recommended to increase contact with the water zone and accelerate biodegradation in the vicinity of this well.

In addition, the apparently rising concentration of TCE in monitoring well CH2MW-1 should be taken into consideration. This location is immediately downgradient of the affected area and has had TCE concentrations below but approaching the RRS value. We recommend that lactate be injected at three additional locations, as depicted on Figure 8, during the next injection event. These recommendations are subject to change depending on the results of the April 2006 sampling and the recommendations set forth following that event.

5. References

O'Brien & Gere Engineers, Inc., *Corrective Action Plan, Former Miller Brewing Company Can Plant, Moultrie, Georgia*, January 2004.

O'Brien & Gere Engineers, Inc., *Revised Compliance Status Report, Miller Brewing Company, Moultrie, Georgia,* June 2004.

O'Brien & Gere Engineers, Inc., *Implementation Plan, Miller Brewing Company Can Plant, Moultrie, Georgia*, August 2004.

TABLES

Table 1
Target Analyte List and Geochemistry Parameters
Miller Brewing Company Can Plant
Moultrie, Georgia

Target Analytes	Geochemistry Parameters
Acetone	Alkalinity
2-Butanone (MEK)	Chloride
Benzene	Nitrate
Carbon Disulfide	Sulfate
Chloroethane	Sulfide
Chloromethane	Methane
1,2-Dibromo-3-chloropropane (DBCP)	Ethane
Dibromomethane	Ethene
1,1-Dichloroethane (1,1-DCA)	Soluble Organic Carbon (Dissolved)
1,2-Dichloroethane (1-,2-DCA)	Total Organic Carbon
1,1-Dichloroethene (1,1-DCE)	Total Iron
cis-1,2-dichloroethene (cis-1,2-DCE)	Conductivity*
trans-1,2-dichloroethene (trans-1,2-DCE)	Dissolved Oxygen*
1,2-Dichloroethene (total) (1,2-DCE-total)	Ferrous Iron*
Ethylbenzene	Manganese*
Isobutyl Alcohol	Oxidation/Reduction Potential (ORP)*
Methylene Chloride	pH*
4-methyl-2-pentanone (MIBK)	Temperature*
Naphthalene	
1,1,2,2-Tetrachloroethane	
Tetrachloroethene (PCE)	
Toluene	
1,2,3-Trichlorobenzene	
1,2,4-Trichlorobenzene	
1,1,1-Trichloroethane (TCA)	
Trichloroethene (TCE)	
Trichlorofluoromethane	
1,2,3-Trichloropropane	
Vinyl Acetate	
Vinyl Chloride	
Xylenes (total)	

* measured at time of sampling

Table 2
Monitoring Wells to be Sampled
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Monitoring Well	VOC Analysis	Geochemical - Field Parameters	Geochemical-Lab Analysis
CH2MW-1	X	X	
CH2MW-1A	X	X	X
CH2MW-2	X	X	
CH2MW-3	X	X	X
CH2MW-4D	X	X	
CH2MW-5	X	X	X
ETCMW-113	X	X	
ETCMW-114	X	X	X
CH2MW-114D	X	X	X
ETCMW-115	X	X	
ETMW-116	X	X	
ETMW-117	X	X	
ETMW-118	X	X	
ETMW-119	X	X	
ETMW-120	X	X	
ETMW-121	X	X	X
OBGMW-122	X	X	
OBGMW-123	X	X	
OBGMW-124	X	X	X
CH2PP-1	X	X	

Table 3
Summary of Well Construction Details and Ground Water Elevations
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Well	Ground Surface Elevation[a] (ft msl)	TOC Elevation[a] (ft msl)	Total Well Depth from Ground Surface (ft)	Screened Interval (ft bgs)	Well Diameter (in)	Depth to Water BTOC (ft)			Water Level Elevation (ft msl)		
						4/6/2004	4/25/2005	10/24/2005	4/6/2004	4/25/2005	10/24/2005
CH2MW-1	293.62	293.84	10	5 - 10	1	6.45	4.55	8.13	287.4	289.3	285.7
CH2MW-1A	292.87	293.01	15	5 - 15	2	11.21	6.38	13.36	281.8	286.6	279.7
CH2MW-2	295.34	295.43	13.5	3.5 - 13.5	2	4.86	3.55	8.48	290.6	291.9	287.0
CH2MW-3	295.45	295.53	13	3 -13	2	4.92	3.55	8.10	290.6	292.0	287.4
CH2MW-4D	293.65	293.54	45.93	36 - 46	2	16.05	16.10	19.44	277.5	277.4	274.1
CH2MW-5	295.28	295.44	15	5 - 15	2	7.43	2.90	9.66	288.0	292.5	285.8
ETCMW-113	296.32	296.32	12	2 - 12	2	6.25	4.40	7.07	290.1	291.9	289.3
ETCMW-114	294.02	297.66	11.7	1.7 - 11.7	4	7.78	6.60	8.15	289.9	291.1	289.5
CH2MW-114D	294.16	297.45	22.5	17.5 - 22.5	1	8.54	7.00	9.88	288.9	290.5	287.6
ETCMW-115	293.22	296.10	11.5	1.5 - 11.5	2	6.19	5.14	6.96	289.9	291.0	289.1
ETMW-116	292.29	292.29	11	1 - 11	4	1.98	0.70	1.81	290.3	291.6	290.5
ETMW-117	292.3	292.30	11	1 - 11	2	2.40	0.89	2.71	289.9	291.4	289.6
ETMW-118	292.34	292.34	11	1 - 11	2	2.90	0.40	3.42	289.4	291.9	288.9
ETMW-119	294.26	297.05	11	1 - 11	2	6.86	5.70	8.02	290.2	291.4	289.0
ETMW-120	293.76	296.84	11	1 - 11	2	6.69	4.50	9.42	290.2	292.3	287.4
ETMW-121	294.84	298.02	11	1 - 11	2	7.70	5.78	11.72	290.3	292.2	286.3
OBGMW-122	NA	295.98	15	5-15	2	8.13	6.40	10.58	287.9	289.6	285.4
OBGMW-123	NA	296.09	13	3-13	2	6.45	4.70	9.28	289.6	291.4	286.8
OBGMW-124	NA	NA	14	4-14	2	NA	5.70	10.08	NA	NA	NA
CH2PP-1	293.56	293.72	12	7 - 12	1	7.67	5.55	9.45	286.1	288.2	284.3

Notes

a Elevations based on a survey performed by H.J. Griffen and Associates in June 1998. Elevations reference a DOT benchmark.
Monitoring Wells OBGMW-122 and OBGMW-123 surveyed back to CH2WMW-4D and CH2MW-3, respectively.
No survey performed on OBGMW-124. Well was installed on 4/5/04.

NA Data not available

Table 4
Ground Water Analytical Data
Pre-treatment (2004) and Post-treatment (2005)
Former Miller Brewing Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	Downgradient						Upgradient							Cross Gradient			
				CH2MW-1			CH2MW-1A			CH2MW-2			CH2MW-3				CH2MW-4D			
				4/7/2004	4/28/2005	10/25/2005	4/7/2004	4/28/2005	10/26/2005	4/6/2004	4/28/2005	10/25/2005	4/6/2004	4/27/2005	4/27/2005(DUP2)	10/26/2005	4/8/2004	4/26/2005	4/26/2005 (DUP1)	10/25/2005
Acetone	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.031	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
Carbon Disulfide	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
Chloroethane	mg/L	0.001 (2)	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	mg/L	0.001 (2)		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	mg/L	0.0005 (2)		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
1,1-Dichloroethane (1,1-DCA)	mg/L	4		**0.0015**	**0.0013**	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
1,2-Dichloroethane (1-,2-DCA)	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	**0.0013**	**0.0011**	0.0011	< 0.0005	< 0.0005	<0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
Ethylbenzene	mg/L	0.7		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
Isobutyl Alcohol	mg/L	10		< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.1
Methylene Chloride	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.01
Naphthalene	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (6)	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
Toluene	mg/L	1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
Trichloroethene (TCE)	mg/L	0.005	0.005(6)	**0.0039**	**0.0041**	0.0044	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
Trichlorofluoromethane	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	mg/L	0.04		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001
Vinyl Acetate	mg/L	0.002 (2)		< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	< 0.005
Vinyl Chloride	mg/L	0.002	0.002 (5)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	mg/L	0.01		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(5) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Data Qualifiers:

B - Compound detected in method blank or trip blank
J - Estimated value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D - Dilution analysis result
< - Less than detection limit listed

BOLD	Detected concentration
	Concentration exceeds Type 1 RRS.
	Detection limit exceeds Type 1 RRS.
	Concentration exceeds Type 4 RRS.

Table 4
Ground Water Analytical Data
Pre-treatment (2004) and Post-treatment (2005)
Former Miller Brewing Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	Cross Gradient				In Plume											
				CH2MW-5				ETCMW-113			ETCMW-114				ETCMW-114D			ETCMW-115		
				4/7/2004	4/27/2005	10/26/2005	10/26/2005(DUP 2)	4/6/2004	4/26/2005	10/26/2005	4/7/2004	4/7/2004 DUP	4/28/2005	10/27/2005	4/7/2004	4/28/2005	10/26/2005	4/7/2004	4/28/2005	10/25/2005
Acetone	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.04	< 0.01	< 0.001	< 0.01	< 0.1	< 0.5	< 0.01	**0.19**	**0.52**	< 0.010	< 0.010	< 0.01
2-Butanone (MEK)	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.04	< 0.01	< 0.001	< 0.01	< 0.1	< 0.5	< 0.01	**0.43**	<0.1	< 0.010	< 0.010	< 0.01
Benzene	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0002	< 0.001	**0.0016**	**0.0017**	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.01	< 0.0005	**0.00062**	< 0.001
Carbon Disulfide	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	**0.0056**	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.0005	< 0.0005	< 0.01	< 0.0005	< 0.0005	< 0.001
Chloroethane	mg/L	0.001 (2)	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0004	< 0.001	**0.0053**	**0.0053**	< 0.010	< 0.001	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001	< 0.001
Chloromethane	mg/L	0.001 (2)		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.001	< 0.010	< 0.001	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.001	< 0.01	< 0.05	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001	< 0.001
Dibromomethane	mg/L	0.0005 (2)		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.0005	< 0.0005	< 0.01	< 0.0005	< 0.0005	< 0.001
1,1-Dichloroethane (1,1-DCA)	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.001	**0.022**	**0.018**	**0.011**	**0.11 D**	**0.11 D**	**0.062**	**0.13**	**0.0077**	**0.0083**	< 0.01	**0.0064**	**0.0063**	**0.0076**
1,2-Dichloroethane (1-,2-DCA)	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0002	< 0.001	**0.0029**	**0.0029**	< 0.005	< 0.05	< 0.0005	< 0.0005	< 0.005 J	< 0.0005	< 0.0005	< 0.001
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.001	**0.007**	**0.0051**	**0.003**	**0.13 D**	**0.13 D**	**0.1**	**0.24**	**0.0053**	**0.006**	< 0.01	< 0.0005	< 0.0025	< 0.001
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	< 0.0005	< 0.0005	< 0.001	< 0.001	**0.066 D**	**0.091**	**0.058**	**2.4 D**	**2.4 D**	**1.7 D**	**4.4**	**0.088 D**	**0.120**	**0.097**	**0.086 D**	**0.041**	**0.094**
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0002	< 0.001	**0.0025**	**0.0025**	< 0.005	< 0.05	< 0.0005	< 0.0005	< 0.01	< 0.0005	**0.00067**	< 0.001
Ethylbenzene	mg/L	0.7		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.0005	< 0.0005	< 0.01	< 0.0005	< 0.0005	< 0.001
Isobutyl Alcohol	mg/L	10		< 0.050	< 0.050	< 0.1	< 0.1	< 0.050	< 0.200	< 0.1	< 0.050	< 0.050	< 0.500	< 5	< 0.050	< 0.500	< 1	< 0.050	< 0.250	< 0.1
Methylene Chloride	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.0008	< 0.002	< 0.002	< 0.002	< 0.020	< 0.1	< 0.002	< 0.002	< 0.02	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		< 0.005	< 0.005	< 0.01	< 0.01	< 0.005	< 0.02	< 0.01	< 0.005	< 0.005	< 0.05	< 0.5	< 0.005	< 0.005	< 0.1	< 0.005	< 0.005	< 0.01
Naphthalene	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.001	< 0.01	< 0.05	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.0005	< 0.0005	< 0.01	< 0.0005	< 0.0005	< 0.001
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (6)	< 0.0005	< 0.0005	< 0.001	< 0.001	**0.016**	**0.0078**	**0.0061**	**0.11 D**	**0.12 D**	**0.074**	**0.13**	**0.010**	**0.0072**	< 0.01	< 0.0005	< 0.0005	< 0.001
Toluene	mg/L	1		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.0005	< 0.0005	< 0.01	< 0.0005	< 0.0005	< 0.001
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.001	< 0.01	< 0.05	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.001	< 0.01	< 0.05	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.0005	< 0.0005	< 0.01	< 0.0005	< 0.0005	< 0.001
Trichloroethene (TCE)	mg/L	0.005	0.005(6)	< 0.0005	< 0.0005	< 0.001	< 0.001	**0.16 D**	**0.056**	**0.059**	**1.6 D**	**1.7 D**	**1.0 D**	**2.2**	**0.200 D**	**0.230**	**0.240**	**0.016**	**0.0057**	**0.0039**
Trichlorofluoromethane	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.001	< 0.010	< 0.05	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	mg/L	0.04		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.0005	< 0.0005	< 0.01	< 0.0005	< 0.0005	< 0.001
Vinyl Acetate	mg/L	0.002 (2)		< 0.002	< 0.002	< 0.005	< 0.005	< 0.002	< 0.0008	< 0.005	< 0.002	< 0.002	< 0.020	< 0.1	< 0.002	< 0.002	< 0.05	< 0.002	< 0.002	< 0.005
Vinyl Chloride	mg/L	0.002	0.002 (5)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.001	< 0.010	0.026	< 0.001	< 0.001	< 0.005 J	**0.0015**	**0.025**	**0.014**
Xylenes (total)	mg/L	0.01		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.0005	< 0.0005	< 0.01	< 0.0005	**0.00061**	< 0.001

Table 4
Ground Water Analytical Data
Pre-treatment (2004) and Post-treatment (2005)
Former Miller Brewing Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	In Plume									Cross Gradient						
				ETMW-116			ETMW-117			ETMW-118			ETMW-119				ETMW-120		
				4/8/2004	4/26/2005	10/25/2005	4/8/2004	4/26/2005	10/25/2005	4/8/2004	4/26/2005	10/25/2005	4/7/2004	4/28/2005	10/25/2005	10/25/2005 (DUP 1)	4/7/2004	4/28/2005	10/25/2005
Acetone	mg/L	4		< 0.01	**0.36**	**1.6**	< 0.01	< 0.04	< 0.01	< 0.01	**0.021**	< 0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	mg/L	2	2.79	< 0.01	**0.053**	**0.38**	< 0.01	< 0.04	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	mg/L	0.005		< 0.0005	< 0.0025	< 0.01	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001
Carbon Disulfide	mg/L	4		< 0.0005	**0.0037**	< 0.01	< 0.0005	< 0.002	< 0.001	< 0.0005	**0.00079**	< 0.002	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001
Chloroethane	mg/L	0.001 (2)	1.23	< 0.001	< 0.005	< 0.01	< 0.001	< 0.004	< 0.001	< 0.001	< 0.001	**0.0038**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	mg/L	0.001 (2)		< 0.001	< 0.005	< 0.01	< 0.001	< 0.004	< 0.001	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	< 0.001	< 0.005	< 0.01	< 0.001	< 0.004	< 0.001	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	mg/L	0.0005 (2)		< 0.0005	< 0.0025	< 0.01	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001
1,1-Dichloroethane (1,1-DCA)	mg/L	4		**0.018**	**0.023**	< 0.01	**0.0098**	**0.014**	**0.013**	**0.0033**	**0.014**	**0.011**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001
1,2-Dichloroethane (1-,2-DCA)	mg/L	0.005		< 0.0005	< 0.0025	< 0.005J	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	**0.0055**	**0.009**	< 0.007 J	**0.0022**	**0.0038**	**0.0026**	**0.00061**	**0.037**	**0.0054**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	**0.039**	**0.1**	**0.18**	**0.02**	**0.03**	**0.03**	**0.0057**	**0.12 D**	**0.13**	< 0.0005	< 0.0005	< 0.001	< 0.001	**0.0011**	**0.0012**	**0.0052**
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		< 0.0005	< 0.0025	< 0.01	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001
Ethylbenzene	mg/L	0.7		< 0.0005	< 0.0025	< 0.01	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001
Isobutyl Alcohol	mg/L	10		< 0.050	**1.8**	**1.5**	< 0.050	< 0.2	< 0.1	< 0.050	< 0.050	< 0.2	< 0.050	< 0.050	< 0.1	< 0.1	< 0.050	< 0.050	< 0.1
Methylene Chloride	mg/L	0.005		< 0.002	< 0.001	< 0.002	< 0.002	< 0.008	< 0.002	< 0.002	< 0.002	< 0.004	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		< 0.005	< 0.025	< 0.1	< 0.005	< 0.02	< 0.01	< 0.005	< 0.005	< 0.02	< 0.005	< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	< 0.01
Naphthalene	mg/L	0.02		< 0.001	< 0.005	< 0.01	< 0.001	< 0.004	< 0.001	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.0005	< 0.0025	< 0.01	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (6)	**0.011**	**0.012**	**0.0062 J**	**0.0032**	**0.005**	**0.0042**	**0.0019**	< 0.0005	**0.0032**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001
Toluene	mg/L	1		< 0.0005	< 0.0025	< 0.01	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	< 0.001	< 0.005	< 0.01	< 0.001	< 0.004	< 0.001	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	mg/L	0.07		< 0.001	< 0.005	< 0.01	< 0.001	< 0.004	< 0.001	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.0005	< 0.0025	< 0.01	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001
Trichloroethene (TCE)	mg/L	0.005	0.005(6)	**0.15 D**	**0.17**	**0.12**	**0.064 D**	**0.094**	**0.098**	**0.021**	**0.0031**	**0.049**	< 0.0005	**0.00061**	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001
Trichlorofluoromethane	mg/L	2		< 0.001	< 0.005	< 0.01	< 0.001	< 0.004	< 0.001	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	mg/L	0.04		< 0.0005	< 0.0025	< 0.01	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001
Vinyl Acetate	mg/L	0.002 (2)		< 0.002	< 0.01	< 0.05	< 0.002	< 0.008	< 0.005	< 0.002	< 0.002	< 0.01	< 0.002	< 0.002	< 0.005	< 0.005	< 0.002	< 0.002	< 0.005
Vinyl Chloride	mg/L	0.002	0.002 (5)	< 0.001	< 0.005	< 0.005 J	< 0.001	< 0.004	< 0.001	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	mg/L	0.01		< 0.0005	< 0.0025	< 0.01	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001

Table 4
Ground Water Analytical Data
Pre-treatment (2004) and Post-treatment (2005)
Former Miller Brewing Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	Upgradient			Cross Gradient							Downgradient					
				ETMW-121			OBGMW-122			OBGMW-123 (formerly MW-123A)				OBGMW-124			CH2PP-1		
				4/7/2004	4/28/2005	10/26/2005	4/6/2004	4/28/2005	10/25/2005	4/6/2004	4/6/2004 DUP	4/27/2005	10/25/2005	4/21/2004	4/27/2005	10/26/2005	4/7/2004	4/26/2005	10/25/2005
Acetone	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.021**
2-Butanone (MEK)	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001
Carbon Disulfide	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	**0.00063**	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001
Chloroethane	mg/L	0.001 (2)	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	mg/L	0.001 (2)		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	mg/L	0.0005 (2)		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001
1,1-Dichloroethane (1,1-DCA)	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	**0.00057**	**0.00055**	< 0.001
1,2-Dichloroethane (1-,2-DCA)	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001
Ethylbenzene	mg/L	0.7		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001
Isobutyl Alcohol	mg/L	10		< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.1
Methylene Chloride	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.01
Naphthalene	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (6)	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001
Toluene	mg/L	1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001
Trichloroethene (TCE)	mg/L	0.005	0.005(6)	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001
Trichlorofluoromethane	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	mg/L	0.04		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001
Vinyl Acetate	mg/L	0.002 (2)		< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.005
Vinyl Chloride	mg/L	0.002	0.002 (5)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	mg/L	0.01		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001

Table 5
Ground Water Geochemical Data
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Downgradient								Upgradient						
		CH2MW-1				CH2MW-1A				CH2MW-2						
		4/29/2002	4/7/2004	4/28/2005	10/25/2005	4/29/2002	4/7/2004	4/28/2005	10/26/2005	5/29/1998	8/23/2000	11/21/2000	1/24/2001	4/6/2004	4/27/2005	10/25/2005
Alkalinity	mg/L	-	-	-	-	-	**22**	**2.6**	NA	**2**	< 10	< 10	< 10	-	-	-
Chloride	mg/L	-	-	-	-	-	**15**	**8.8**	**11**	**38.5**	**37.6**	**33.7**	**39.3**	**-**	**-**	-
Ferrous Iron	mg/L	-	-	0	**-**	-	**0.3**	0	**2.87**	< 0.20	**0.7**	**0.4**	**0.01**	**-**	0	-
Iron	mg/L		-	-	-	-	**0.63**	**1.2**	NA	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	< 0.05	< 0.05	NA	-	**15.1**	**0.3**	**0.2**	**-**	**-**	-
Nitrate (as N)	mg/L	-	-	-	-	-	**1.6**	**0.27**	**0.64**	**5.6**	**6.12**	**6.2**	**6.95**	**-**	**-**	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	< 0.07	< 0.05	< 0.05	< 0.05	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	**1.3**	**2.7**	< 2.0	**14**	**19.7**	**27**	**20.2**	**-**	**-**	-
Sulfide	mg/L	-	-	-	-	-	< 0.8	< 0.9	NA	< 1.0	< 0.2	< 0.5	< 0.5	-	-	-
Methane	ug/L	-	-	-	-	-	< 2.0	< 5.0	< 2.0	**0.747**	< 0.2	< 0.2	< 0.2	-	-	-
Ethane	ug/L	-	-	-	-	-	< 4.0	< 5.0	< 4.0	**0.039**	< 0.01	< 0.01	< 0.01	-	-	-
Ethene	ug/L	-	-	-	-	-	< 4.0	< 5.0	< 4.0	**0.055**	**0.02**	< 0.01	< 0.01	-	-	-
Soluble Organic Carbon (DOC)	mg/L	-	-	-	-	-	**1.3**	**11**	NA	**2.7**	**18.4**	**23.1**	**37**	**-**	**-**	-
Total Organic Carbon	mg/L	-	-	-	-	-	**1.3**	**9.6**	**3.5**	-	**37.4**	**29.1**	**47.4**	**-**	**-**	-
Carbon Dioxide	mg/L	**-**	**-**	**20**	**-**	**-**	**13.5**	**13**	**70**	**-**	**-**	**-**	**-**	**-**	**13**	-
pH	S.U.	**4.60**	**4.54**	**5.51**	**4.52**	**5.50**	**5.47**	**5.90**	**5.33**	**4.36**	**4.50**	**4.40**	**3.78**	**4.11**	**3.71**	**4.41**
Conductivity	mS/cm	**0.09**	**0.139**	**0.183**	**0.128**	**0.08**	**0.102**	**0.137**	**0.088**	**0.220**	**0.27**	**0.317**	**0.215**	**0.232**	**0.284**	**0.206**
Dissolved Oxygen	mg/L	**5.5**	**4.53**	**3.93**	**3.44**	**5.3**	**4.07**	**2.52**	**1.12**	**4.39**	**8.7**	**9.6**	**4.7**	**2.20**	**1.45**	**1.86**
Oxidation/Reduction Potential (C	mV	**293**	**527**	**222**	**179**	**231**	**499**	**181**	**186**	**252.9**	**32.5**	**404**	**248**	**553**	**387**	**234**
Temperature	C	-	**21.30**	**20.57**	**20.35**	-	**19.75**	**19.46**	**23.99**	-	**27.88**	-	**14.60**	**20.64**	**19.51**	**24.79**

Field Parameters:
Ferrous Iron (2000-2005)
Carbon Dioxide (2004-2005)
pH
Conductivity
ORP
Manganese (2000-2005)
Temperature
Dissolved Oxygen

Notes:
NA - Adequate sample volume to perform all analyses was not recovered.
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004, 2005)
Soluble Organic Carbon - EPA 415.1

Table 5
Ground Water Geochemical Data
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Upgradient									Cross Gradient					
		CH2MW-3									CH2MW-4D					
		5/29/1998	8/23/2000	11/21/2000	11/21/00 DUP	1/24/2001	4/6/2004	4/27/2005	4/27/2005(DUP2)	10/26/2005	8/23/2000	11/21/2000	1/25/2001	4/8/2004	4/26/2005	10/25/2005
Alkalinity	mg/L	**4**	< 10	< 10	< 10	< 10	< 10	**18**	**18**	< 10	**39.5**	**62**	**32**	**-**	**-**	-
Chloride	mg/L	**14**	**18.6**	**19**	**18.8**	**13.2**	**14**	**9.9**	**13**	**18**	< 3	< 3	< 3	-	-	-
Ferrous Iron	mg/L	< 0.20	**0.23**	**0.02**	**-**	**0.02**	**0.1**	0	-	**0.31**	**0.4**	**0.38**	**0.01**	**-**	0	-
Iron	mg/L	-	-	-	-	-	<0.05	0.11	<0.05	< 0.050	-	-	-	-	-	-
Manganese	mg/L	**-**	**1.8**	**0.6**	**-**	**0.3**	<0.05	<0.05	<0.05	< 0.050	0	**1.5**	**0.2**	**-**	**-**	-
Nitrate (as N)	mg/L	**0.8**	**2.26**	**2.38**	**2.36**	**0.906**	**0.65**	**0.55**	**0.79**	**1.6**	**0.87**	**-**	**0.896**	**-**	**-**	-
Nitrite	mg/L	< 0.07	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-	-	< 0.05	-	< 0.05	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	**0.89**	-	-	-	-
Sulfate	mg/L	**5.8**	**6.71**	**5.4**	**6**	**49.8**	**41**	**39**	**32**	**16**	< 5	< 5	< 5	-	-	-
Sulfide	mg/L	< 1.0	< 0.2	**0.6**	**0.6**	< 0.5	< 1.6	< 0.8	< 0.8	< 0.8	< 0.2	< 0.5	< 0.5	-	-	-
Methane	ug/L	**0.559**	<0.2	< 0.2	< 0.2	< 0.2	< 2.0	< 5.0 H	< 5.0 H	< 2.0	< 0.2	< 0.2	< 0.2	-	-	-
Ethane	ug/L	**0.016**	< 0.01	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0 H	< 5.0 H	< 4.0	**0.01**	< 0.01	**0.02**	**-**	**-**	-
Ethene	ug/L	**0.017**	< 0.01	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0 H	< 5.0 H	< 4.0	**0.08**	**0.01**	**0.01**	**-**	**-**	-
Soluble Organic Carbon (DOC)	mg/L	< 2.00	**9.98**	**8.75**	**19.1**	**19.4**	**1.8**	**3.8**	**3.9**	**6.8**	**5.95**	**3.91**	**4.44**	**-**	**-**	-
Total Organic Carbon	mg/L	-	**22.9**	**26.1**	**20.7**	**22.3**	**2.1**	**2.6**	**3.0**	**2.4**	**5.71**	**7.8**	**6.78**	**-**	**-**	-
Carbon Dioxide	mg/L	**-**	**-**	**-**	**-**	**-**	**13.5**	**14**	-	**50**	**-**	**-**	**-**	**-**	**14**	-
pH	S.U.	**4.56**	**4.35**	**4.61**	**-**	**4.35**	**5.06**	**5.12**	-	**4.57**	**6.50**	**4.87**	**6.01**	**8.59**	**8.67**	**7.66**
Conductivity	mS/cm	**0.086**	**0.13**	**0.146**	**-**	**0.17**	**0.15**	**0.186**	-	**0.106**	**0.10**	**0.122**	**0.09**	**0.071**	**0.081**	**0.067**
Dissolved Oxygen	mg/L	**4.23**	**4.8**	**6.85**	**-**	**6.0**	**5.5**	**2.4**	-	**1.83**	**9.5**	**9.18**	**5.1**	**4.70**	**4.11**	**5.16**
Oxidation/Reduction Potential (O	mV	**271.6**	**353**	**363**	**-**	**209**	**644**	**446**	-	**187**	**193**	**60**	**59**	**436**	**282**	**172**
Temperature	C	-	**27.97**	-	-	**20.72**	**20.31**	**20.78**	-	**23.8**	**27.90**	-	**22.77**	**22.85**	**21.87**	**23.39**

Field Parameters:
Ferrous Iron (2000-2005)
Carbon Dioxide (2004-2005)
pH
Conductivity
ORP
Manganese (2000-2005)
Temperature
Dissolved Oxygen

Table 5
Ground Water Geochemical Data
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient				In Plume						
		CH2MW-5				ETCMW-113						
		4/7/2004	4/27/2005	10/26/2005	10/26/2005 (DUP02)	5/27/1998	9/7/2000	11/21/2000	1/25/2001	4/6/2004	4/26/2005	10/26/2005
Alkalinity	mg/L	**60**	**98**	**36**	**34**	**8**	< 10	< 10	< 10	-	-	-
Chloride	mg/L	**5.6**	**2.8**	**6.6**	**7.2**	**13.5**	**12.9**	**11.7**	**13.4**	**-**	**-**	-
Ferrous Iron	mg/L	**0.2**	**0.5**	**2.2**	-	< 0.20	**11**	**0.03**	**0.05**	**-**	**1**	-
Iron	mg/L	**4.2**	**1.3**	**2.7**	**3.5**	-	-	-	-	-	-	-
Manganese	mg/L	< 0.05	< 0.05	< 0.050	< 0.050	**-**	**5.6**	**0.3**	**0.2**	0	0	-
Nitrate (as N)	mg/L	**1**	**0.57**	**1.6**	**1.7**	**10.2**	**7.05**	**10.7**	**11.8**	**-**	**-**	-
Nitrite	mg/L	-	-	-	-	< 0.07	< 0.05	< 0.05	< 0.05	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**4.5**	**2.2**	**2.5**	**2.5**	**10.1**	< 5	**5.8**	< 5	-	-	-
Sulfide	mg/L	< 0.8	< 0.8	< 0.8	< 0.8	< 1.0	< 0.2	**0.8**	< 0.5	-	-	-
Methane	ug/L	< 0.002	< 5.0 H	< 2.0	< 2.0	**0.149**	< 0.2	< 0.2	**0.3**	**-**	**-**	-
Ethane	ug/L	< 0.004	< 5.0 H	< 4.0	< 4.0	**0.029**	0.09	< 0.01	**0.13**	**-**	**-**	-
Ethene	ug/L	< 0.004	< 5.0 H	< 4.0	< 4.0	< 0.005	0.02	< 0.01	**0.03**	**-**	**-**	-
Soluble Organic Carbon (DOC)	mg/L	**1.8**	**11**	**2.9**	**11**	-	**4.42**	**6.65**	**8.51**	**-**	**-**	-
Total Organic Carbon	mg/L	**1.7**	**9.6**	**2.2**	**2.4**	-	**7.94**	**5.6**	**11.7**	**-**	**-**	-
Carbon Dioxide	mg/L	**18**	**15**	**40**	-	**-**	**-**	**-**	**-**	**-**	**10**	-
pH	S.U.	**6.10**	**6.40**	**5.51**	-	**5.83**	**4.94**	**4.70**	**4.09**	**6.12**	**6.53**	**6.21**
Conductivity	mS/cm	**0.126**	**0.196**	**0.100**	-	**0.169**	**0.19**	**0.22**	**0.29**	**0.197**	**0.342**	**0.352**
Dissolved Oxygen	mg/L	**5.10**	**2.85**	**1.77**	-	**6.79**	**6.3**	**8.89**	**6.7**	**6.12**	**2.47**	**1.27**
Oxidation/Reduction Potential (O	mV	**457**	**156**	**184**	-	**192.2**	**261**	**196**	**217**	**446**	**217**	**192**
Temperature	C	**17.99**	**19.79**	**22.40**	-	-	**24.10**	-	**19.28**	**18.06**	**18.02**	**23.34**

Field Parameters:
Ferrous Iron (2000-2005)
Carbon Dioxide (2004-2005)
pH
Conductivity
ORP
Manganese (2000-2005)
Temperature
Dissolved Oxygen

Table 5
Ground Water Geochemical Data
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume													
		ETCMW-114											ETCMW-114D		
		5/27/1998	8/23/2000	9/7/2000	11/21/2000	1/24/2001	1/24/2001 DUP	4/29/2002	4/7/2004	4/7/2004 (DUP-2)	4/29/2005	10/27/2005	4/7/2004	4/29/2005	10/26/2005
Alkalinity	mg/L	**112**	**82.2**	-	**128**	**134**	**135**	-	**94**	**96**	**120**	**120**	< 10	**3,000**	**2,200**
Chloride	mg/L	**32.5**	**90.1**	-	**108**	**82.8**	**82.1**	-	**37**	**37**	**26**	**32**	**2.1**	**89**	**190**
Ferrous Iron	mg/L	< 0.20	**0.2**	-	**0.05**	**0.03**	-	-	**0.8**	**0.8**	0	**0.19**	**0.2**	**5**	**2**
Iron	mg/L	-	-	-	-	-	-	-	**2**	**1.8**	**0.22**	**0.88**	**17**	**55**	**79**
Manganese	mg/L	**-**	**0.5**	-	**0.3**	**0.3**	-	-	< 0.05	< 0.05	<0.05	< 0.050	< 0.05	**0.64**	**0.53**
Nitrate (as N)	mg/L	**7.6**	**18.15**	-	-	**44.8**	**45.8**	-	**1.2**	**1.1**	**8.2 H**	**1.4**	**0.46**	<0.5 H	**1.2**
Nitrite	mg/L	< 0.07	**0.053**	-	-	< 0.05	< 0.05	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	**-**	-	**58**	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**12.8**	**54.1**	-	**110**	**75.6**	**75.6**	-	**33**	**33**	**39**	**31**	**3.6**	**47**	**100**
Sulfide	mg/L	< 1.0	-	< 0.2	**0.5**	< 0.5	< 0.5	-	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	<0.8 H	< 0.8
Methane	ug/L	**129.2**	**43.9**	-	**0.5**	< 0.2	< 0.2	-	< 2.0	< 2.0	< 5.0	**14**	< 2.0	< 5.0	< 2.0
Ethane	ug/L	**0.249**	**0.16**	-	**0.03**	**0.03**	**0.02**	-	< 4.0	< 4.0	< 5.0	< 4.0	< 4.0	< 5.0	< 4.0
Ethene	ug/L	**0.205**	**0.51**	-	**0.03**	**0.01**	**0.01**	-	< 4.0	< 4.0	< 5.0	< 4.0	< 4.0	< 5.0	< 4.0
Soluble Organic Carbon (DOC)	mg/L	-	-	-	**32.9**	**40.6**	**27.3**	-	**2.3**	**2.2**	**2.9**	**12**	**1.1**	**8,900**	**4,800**
Total Organic Carbon	mg/L	-	**21.6**	-	**40.5**	**51.2**	**52.2**	-	**2.6**	**2.6**	**2.2**	**3.2**	**2.3**	**9,800**	**3,500**
Carbon Dioxide	mg/L	**-**	-	**-**	**-**	-	**-**	**-**	**20**	**22**	**14**	**30**	**> 100**	**50**	**350 DL**
pH	S.U.	**6.36**	-	**6.60**	**4.70**	**4.80**	-	**6.10**	**6.38**	**-**	**6.61**	**6.46**	**5.60**	**5.95**	**6.08**
Conductivity	mS/cm	**0.375**	-	**0.0012**	**1.26**	**0.7350**	-	**0.33**	**0.333**	**-**	**0.485**	**0.034**	**0.030**	**3.620**	**4.650**
Dissolved Oxygen	mg/L	**0.19**	-	**3.1**	**10.55**	**6.4**	-	0.0	**2.76**	**-**	**3.02**	**1.31**	**3.30**	**0.97**	**0.51**
Oxidation/Reduction Potential (C	mV	**167.5**	-	**98**	**134**	**127**	-	**171**	**471**	**-**	**66**	**160**	**463**	**-8**	**-76**
Temperature	C	-	**26.55**	-	-	**16.40**	-	-	**17.26**	-	**17.98**	**22.88**	**19.36**	**20.43**	**21.06**

Field Parameters:
Ferrous Iron (2000-2005)
Carbon Dioxide (2004-2005)
pH
Conductivity
ORP
Manganese (2000-2005)
Temperature
Dissolved Oxygen

Table 5
Ground Water Geochemical Data
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume															
		ETCMW-115			ETMW-116							ETMW-117					
		4/7/2004	4/28/2005	10/25/2005	5/26/1998	8/23/2000	11/21/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	8/23/2000	11/21/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005
Alkalinity	mg/L	-	-	-	**38**	**12.5**	< 10	**62**	**-**	**-**	**-**	**13.9**	< 10	**58**	**-**	**-**	**-**
Chloride	mg/L	-	-	-	**12**	**11.7**	**8.77**	**11.6**	**-**	**-**	**-**	**10.7**	**12**	**6.73**	**-**	**-**	**-**
Ferrous Iron	mg/L	**-**	**4.3**	-	< 0.20	0	**0.02**	0	-	**5**	**-**	0	**0.03**	**0.01**	**-**	**2.2**	**-**
Iron	mg/L	-	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	**-**
Manganese	mg/L	-	-	-	-	**0.2**	**0.3**	**0.1**	**-**	**-**	**-**	**6.3**	**0.2**	**0**	-	-	**-**
Nitrate (as N)	mg/L	-	-	-	**6.2**	**8.25**	**-**	**7.7**	**-**	**-**	**-**	**6.72**	-	**4.47**	**-**	**-**	**-**
Nitrite	mg/L	-	-	-	< 0.07	< 0.05	-	**0.405**	**-**	**-**	**-**	< 0.05	-	< 0.05	-	-	**-**
Nitrate-Nitrite	mg/L	-	-	-	-	-	**7.72**	**-**	**-**	**-**	**-**	**6.72**	**7.64**	-	-	-	**-**
Sulfate	mg/L	-	-	-	**14.8**	**5.12**	**5.2**	**42.8**	**-**	**-**	**-**	**7.62**	**5.2**	**19.7**	**-**	**-**	**-**
Sulfide	mg/L	-	-	-	< 1.0	< 0.2	-	< 0.5	-	-	**-**	-	**0.6**	< 0.5	-	-	**-**
Methane	ug/L	-	-	-	**0.247**	< 0.2	< 0.2	< 0.2	-	-	**-**	< 0.2	< 0.2	< 0.2	-	-	**-**
Ethane	ug/L	-	-	-	**0.093**	**0.07**	**0.01**	**0.01**	**-**	**-**	**-**	**0.02**	**0.02**	**0.01**	**-**	**-**	**-**
Ethene	ug/L	-	-	-	**0.023**	**0.04**	**0.03**	**0.02**	**-**	**-**	**-**	**0.03**	**0.02**	**0.03**	**-**	**-**	**-**
Soluble Organic Carbon (DOC)	mg/L	-	-	-	-	**9.14**	**7.7**	**25.4**	**-**	**-**	**-**	-	**8.44**	**28.3**	**-**	**-**	**-**
Total Organic Carbon	mg/L	-	-	-	-	**15.1**	**9.1**	**32**	**-**	**-**	**-**	**7.9**	**17.3**	**38.7**	**-**	**-**	**-**
Carbon Dioxide	mg/L	**276**	**19**	-	**-**	**-**	**-**	**-**	**-**	**15**	**-**	**-**	**-**	**-**	**-**	**10**	**-**
pH	S.U.	**5.87**	**6.37**	**5.82**	**6.18**	**5.50**	**4.35**	**4.76**	**5.88**	**5.03**	**4.99**	**5.74**	**3.46**	**4.68**	**5.57**	**6.03**	**5.60**
Conductivity	mS/cm	**0.166**	**0.366**	**0.174**	**0.181**	**0.18**	**0.186**	**0.22**	**0.141**	**2.370**	**1.540**	**0.17**	**0.189**	**0.181**	**0.152**	**0.303**	**0.163**
Dissolved Oxygen	mg/L	**0.38**	**0.23**	**0.54**	**1.51**	**3.9**	**9.93**	**7.6**	**3.63**	**0.15**	**0.45**	**7.4**	**10.58**	**7.52**	**2.38**	**0.49**	**1.05**
Oxidation/Reduction Potential (C	mV	**276**	**131**	**84**	**190.5**	**199**	**157**	**119**	**560**	**141**	**108**	**212**	**157**	**108**	**555**	**278**	**144**
Temperature	C	**20.07**	**20.32**	**22.58**	-	-	**17.55**	-	**17.42**	**18.23**	**23.81**	**27.14**	-	**18.20**	**20.91**	**21.41**	**26.20**

Field Parameters:
Ferrous Iron (2000-2005)
Carbon Dioxide (2004-2005)
pH
Conductivity
ORP
Manganese (2000-2005)
Temperature
Dissolved Oxygen

Table 5
Ground Water Geochemical Data
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume				Cross Gradient						Upgradient						
		ETMW-118				ETMW-119			ETMW-120			ETMW-121						
		5/26/1998	4/8/2004	4/26/2005	10/25/2005	4/7/2004	4/28/2005	10/25/2005	4/7/2004	4/28/2005	10/25/2005	5/27/1998	8/24/2000	11/21/2000	1/24/2001	4/7/2004	4/28/2005	10/26/2005
Alkalinity	mg/L	< 2.0	-	-	-	-	-	-	-	-	-	**28**	**30.7**	**32**	**57**	**38**	**5.8**	**26**
Chloride	mg/L	**11.5**	**-**	**-**	-	**-**	**-**	-	**-**	**-**	-	**15.5**	**10.5**	**10.8**	**3.34**	**7.8**	**5.2**	**11**
Ferrous Iron	mg/L	< 0.20	-	**4.4**	-	**-**	**1**	-	**-**	**3.5**	-	< 0.20	**0.25**	**0.05**	**0.03**	**0.1**	0	**0.39**
Iron	mg/L	-	-	-	-	**-**	**-**	-	**-**	**-**	-	-	-	-	-	**1.1**	**0.84**	**16**
Manganese	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	**0.1**	0	< 0.05	< 0.05	**0.15**
Nitrate (as N)	mg/L	**9.4**	**-**	**-**	-	**-**	**-**	-	**-**	**-**	-	**1.8**	**1.94**	**-**	**1.19**	**0.65**	**0.59**	**1.2**
Nitrite	mg/L	< 0.07	-	-	-	**-**	**-**	-	**-**	**-**	-	< 0.07	< 0.05	-	< 0.05	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	**-**	**-**	-	**-**	**-**	-	-	-	**1.86**	-	-	-	-
Sulfate	mg/L	**8.1**	**-**	**-**	-	**-**	**-**	-	**-**	**-**	-	**10.1**	**10.3**	**12.6**	**8.93**	**8.5**	**9.9**	**4.6**
Sulfide	mg/L	< 1.0	-	-	-	-	-	-	**-**	**-**	-	< 1.0	-	< 0.5	< 0.5	**< 0.8**	**< 0.8**	< 0.8
Methane	ug/L	**0.508**	**-**	**-**	-	**-**	**-**	-	**-**	**-**	-	**0.195**	< 0.2	< 0.2	< 0.2	< 2.0	< 5.0	< 2.0
Ethane	ug/L	**0.044**	**-**	**-**	-	**-**	**-**	-	**-**	**-**	-	< 0.005	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0	< 4.0
Ethene	ug/L	**0.036**	**-**	**-**	-	**-**	**-**	-	**-**	**-**	-	**0.005**	**0.02**	**0.01**	**0.02**	< 4.0	< 5.0	< 4.0
Soluble Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	**-**	**-**	-	-	**12.9**	**7.74**	**21.1**	**1.9**	**7.9**	**12**
Total Organic Carbon	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	**15.6**	**25.7**	**1.9**	**4.9**	**3.3**
Carbon Dioxide	mg/L	**-**	**-**	**15**	-	**-**	**18**	-	**-**	**15**	-	**-**	-	**-**	**-**	**26**	**15**	**35**
pH	S.U.	**4.30**	**5.91**	**5.86**	**5.10**	**6.21**	**6.25**	**5.64**	**5.93**	**6.19**	**5.36**	**5.32**	-	**4.50**	**5.11**	**6.20**	**6.25**	**5.94**
Conductivity	mS/cm	**0.150**	**0.067**	**0.307**	**0.089**	**0.295**	**0.449**	**0.203**	**0.136**	**0.218**	**0.097**	**0.112**	-	**0.214**	**0.13**	**0.134**	**0.142**	**0.116**
Dissolved Oxygen	mg/L	**0.07**	**4.23**	**0.34**	**0.46**	**3.47**	**0.33**	**1.34**	**2.66**	**0.69**	**0.67**	**5.12**	-	**10.86**	**8.1**	**4.88**	**3.34**	**1.00**
Oxidation/Reduction Potential (O	mV	**218**	**519**	**125**	**155**	**486**	**138**	**115**	**485**	**169**	**92**	**146.4**	-	**134**	**123**	**482**	**197**	**176**
Temperature	C	-	**19.68**	**20.50**	**24.86**	**19.07**	**19.97**	**20.86**	**19.41**	**20.43**	**20.88**	-	**25.91**	-	**17.40**	**19.17**	**19.22**	**23.60**

Field Parameters:
Ferrous Iron (2000-2005)
Carbon Dioxide (2004-2005)
pH
Conductivity
ORP
Manganese (2000-2005)
Temperature
Dissolved Oxygen

Table 5
Ground Water Geochemical Data
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

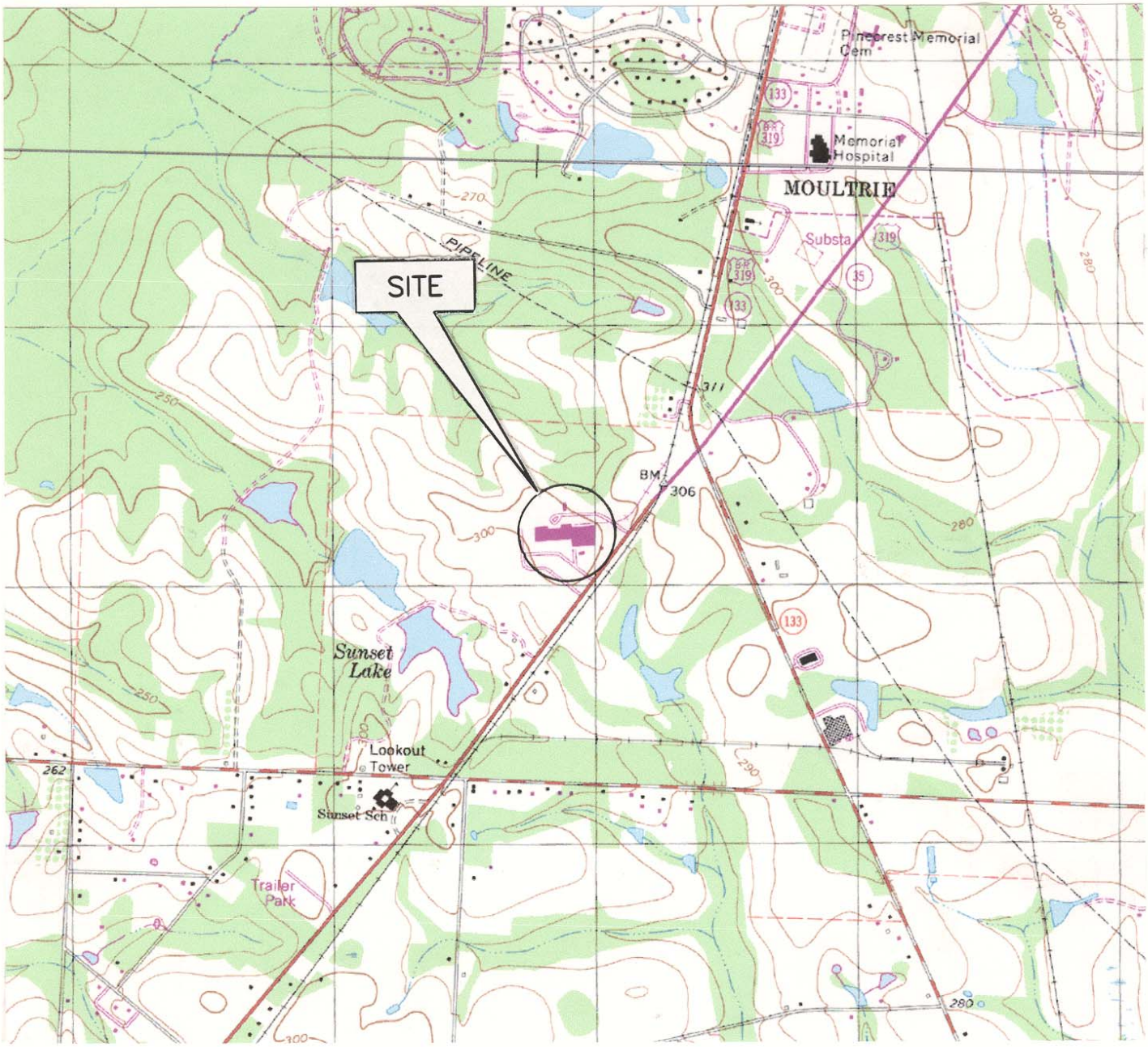
Parameters	Units	Cross Gradient														Upgradient		
		OBGMW-122						OBGMW-123					OBGMW-124			CH2PP-1		
		8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	9/8/2000	1/24/2001	4/6/2004	4/27/2005	10/25/2005	4/20/2004	4/27/2005	10/26/2005	4/7/2004	4/26/2005	10/25/2005
Alkalinity	mg/L	-	-	-	-	-	-	-	-	-	-	-	300	430	410	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	410 D	180	210	-	-	-
Ferrous Iron	mg/L	-	-	-	-	0	-	-	-	-	4.7	-	0	1.8	1.72	-	0	-
Iron	mg/L	-			-	-	-			-	-	-	0.41	1.3	2.0	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.09	0.15	0.20	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.14	<0.050	0.10	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-	-	-	-	310 D	170	190	-	-	-
Sulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-	< 0.80	< 0.80	< 0.8	-	-	-
Methane	ug/L	-	-	-	-	-	-	-	-	-	-	-	< 2.0	38 H	< 2.0	-	-	-
Ethane	ug/L	-	-	-	-	-	-	-	-	-	-	-	< 4.0	< 0.5	< 4.0	-	-	-
Ethene	ug/L	-	-	-	-	-	-	-	-	-	-	-	< 4.0	< 0.5	< 4.0	-	-	-
Soluble Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	5.1	6.3	17	-	-	-
Total Organic Carbon	mg/L	-	-	-	-	-	-	-	-	-	-	-	4.9	5.2	4.9	-	-	-
Carbon Dioxide	mg/L	-	-	-	-	15	-	-	-	-	18	-	-	50	70	-	12	-
pH	S.U.	6.31	4.80	4.65	6.27	6.08	6.38	4.60	6.06	5.94	6.27	5.25	6.82	6.40	6.82	5.22	5.93	5.01
Conductivity	mS/cm	0.64	0.81	0.39	0.272	0.076	0.183	0.16	0.12	0.122	0.162	0.092	2.13	1.06	1.31	0.117	0.141	0.108
Dissolved Oxygen	mg/L	6.4	7.81	6.2	0.98	3.25	0.77	7.0	7.7	0.51	0.41	0.52	1.34	1.11	0.63	4.11	4.75	3.19
Oxidation/Reduction Potential (O	mV	109	1.0	164	392	17.6	106.0	231	201	280	76	115	125	140	98	466	325	207
Temperature	C	25.53	-	20.00	20.16	18.40	22.45	19.10	-	20.18	20.10	24.64	19.80	20.30	21.83	20.05	20.72	25.77

Field Parameters:
Ferrous Iron (2000-2005)
Carbon Dioxide (2004-2005)
pH
Conductivity
ORP
Manganese (2000-2005)
Temperature
Dissolved Oxygen

FIGURES

I:\RALEIGH\PROJECTS\1669\26765\DWGS\SITELOC.dwg

FIGURE 1



SITE LOCATION MAP

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GA.

MAP SOURCE: USGS 7.5–MIN. SERIES TOPOGRAPHIC QUADRANGLE "COOLIDGE, GA" AND "MOULTRIE, GA".

1 0 1/2 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

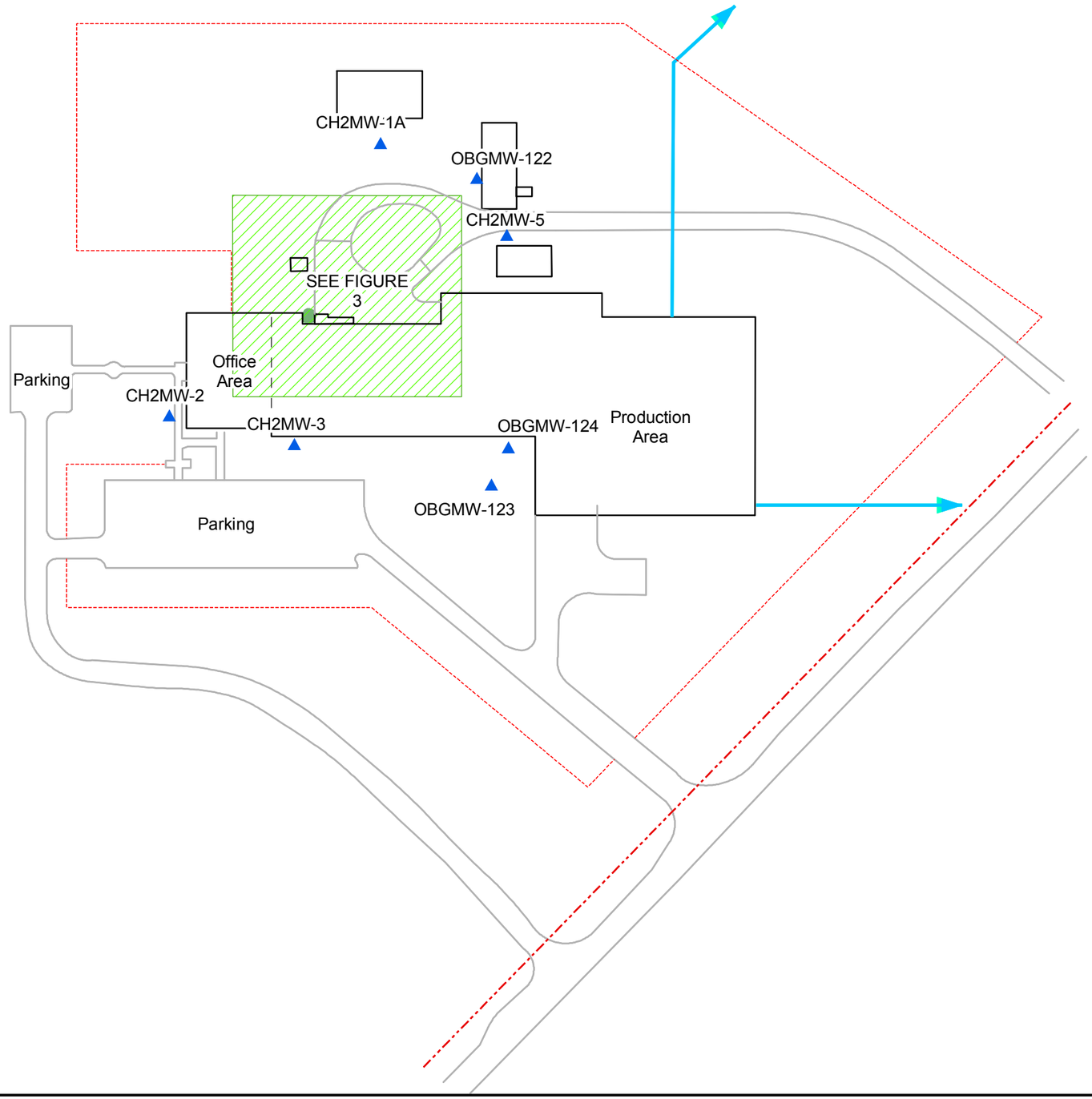
1 0 5 1 KILOMETER

SCALE: 1:24000

O'BRIEN & GERE ENGINEERS, INC.

FILE NO. 26765

FIGURE 2



Chain Link Fence

Property Boundary

Road

Storm Water Drainage

Existing Monitoring Well

Area shown on Figure 3

Former Waste Solvent Tank Piping Release

N

Feet

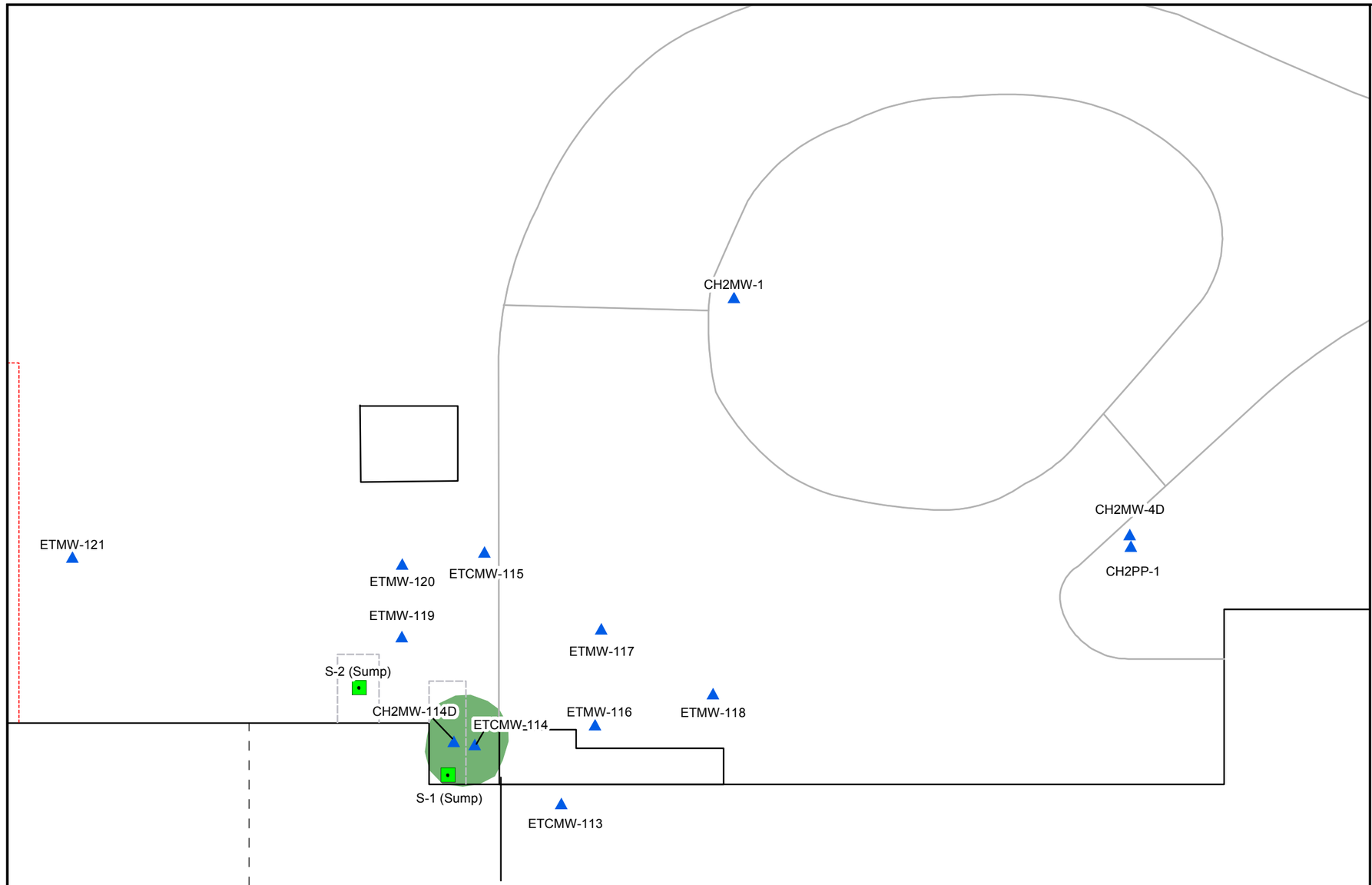
0 150 300

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

SITE PLAN I

O'BRIEN & GERE

FIGURE 3



Monitoring Well

Sump

Chain Link Fence

Road

Former Waste Solvent Tank Piping Release

N

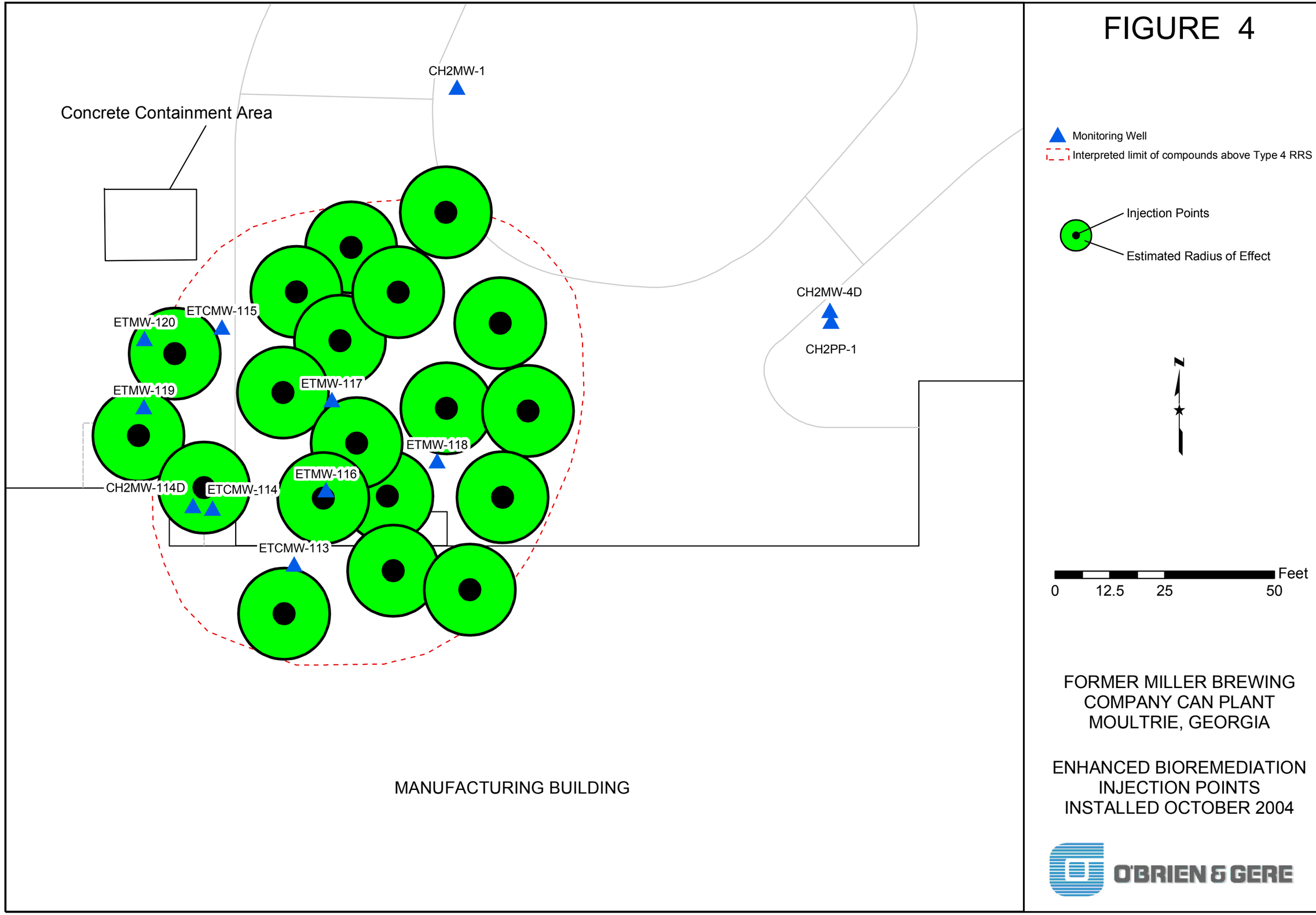
0 25 50 Feet

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

SITE PLAN II

O'BRIEN & GERE

FIGURE 4

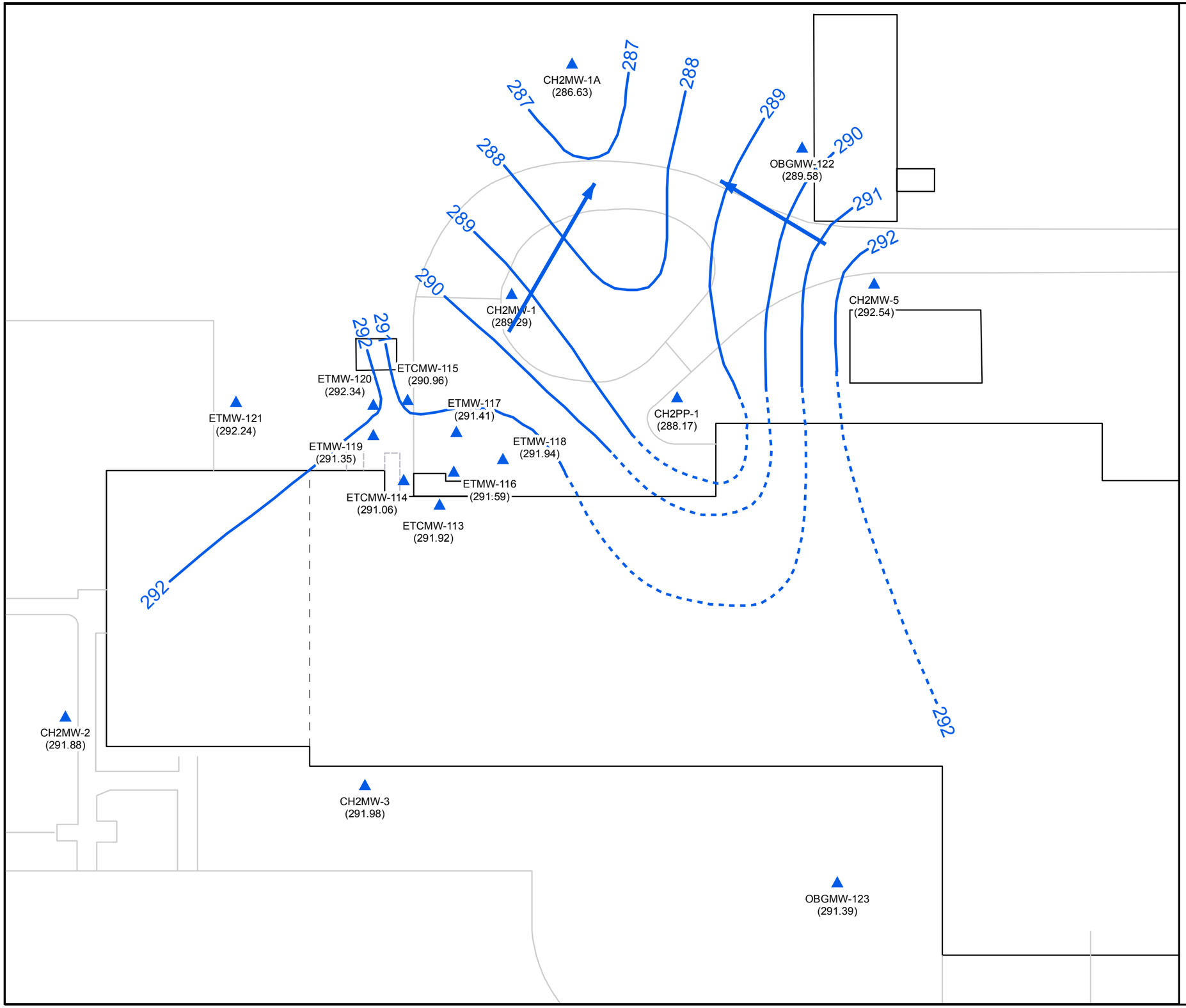


FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

ENHANCED BIOREMEDIATION
INJECTION POINTS
INSTALLED OCTOBER 2004

O'BRIEN & GERE

FIGURE 5



Monitoring Well

Ground Water Elevation (ft. msl)

Inferred Ground Water Elevation (ft. msl)

Ground water flow direction

N

Feet

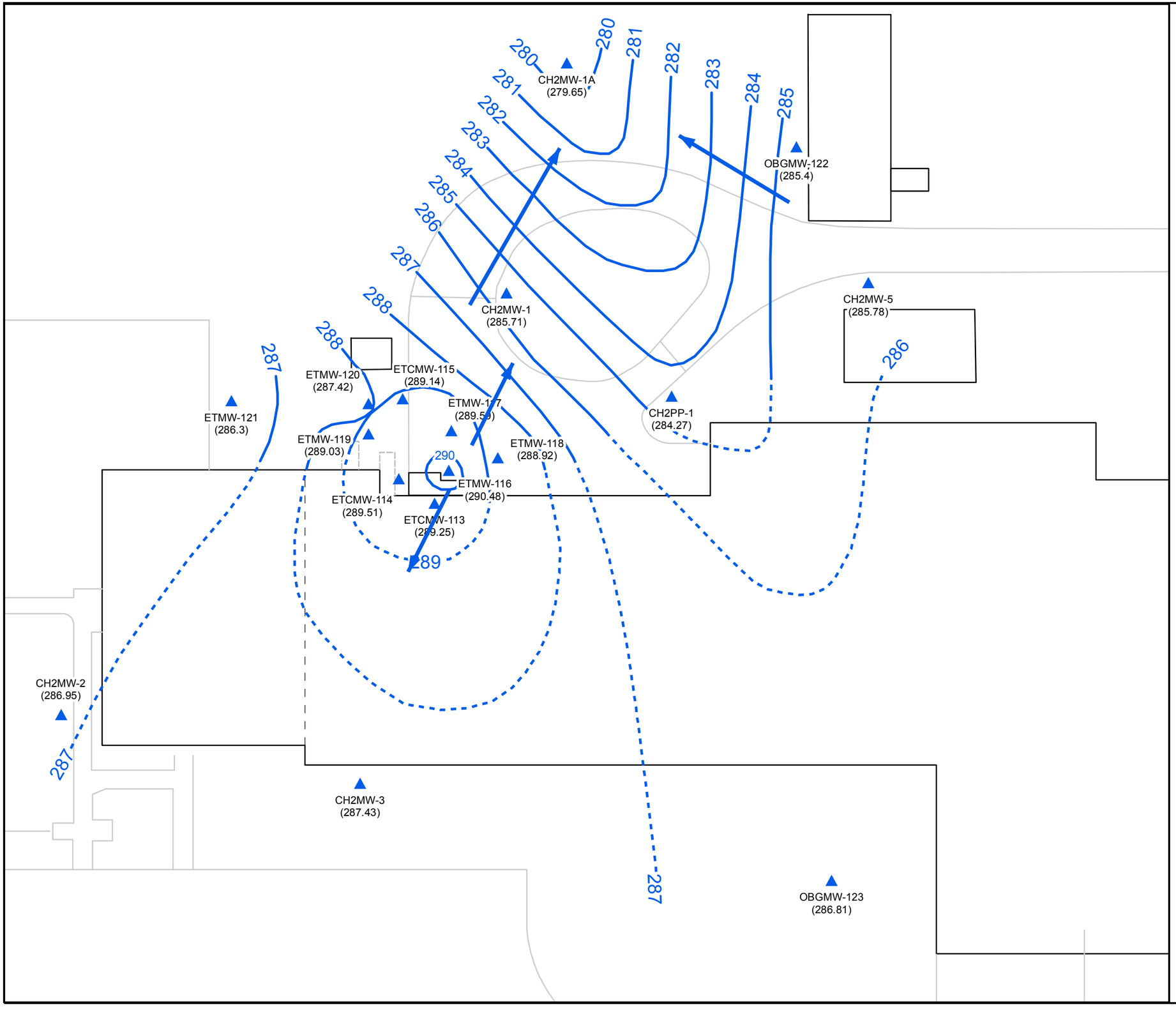
0 50 100

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GEORGIA

APRIL 25, 2005
POTENTIOMETRIC
SURFACE MAP

O'BRIEN & GERE

FIGURE 6



Monitoring Well

Ground Water Elevation (ft. msl)

Inferrred Ground Water Elevation (ft. msl)

Ground water flow direction

N

Feet

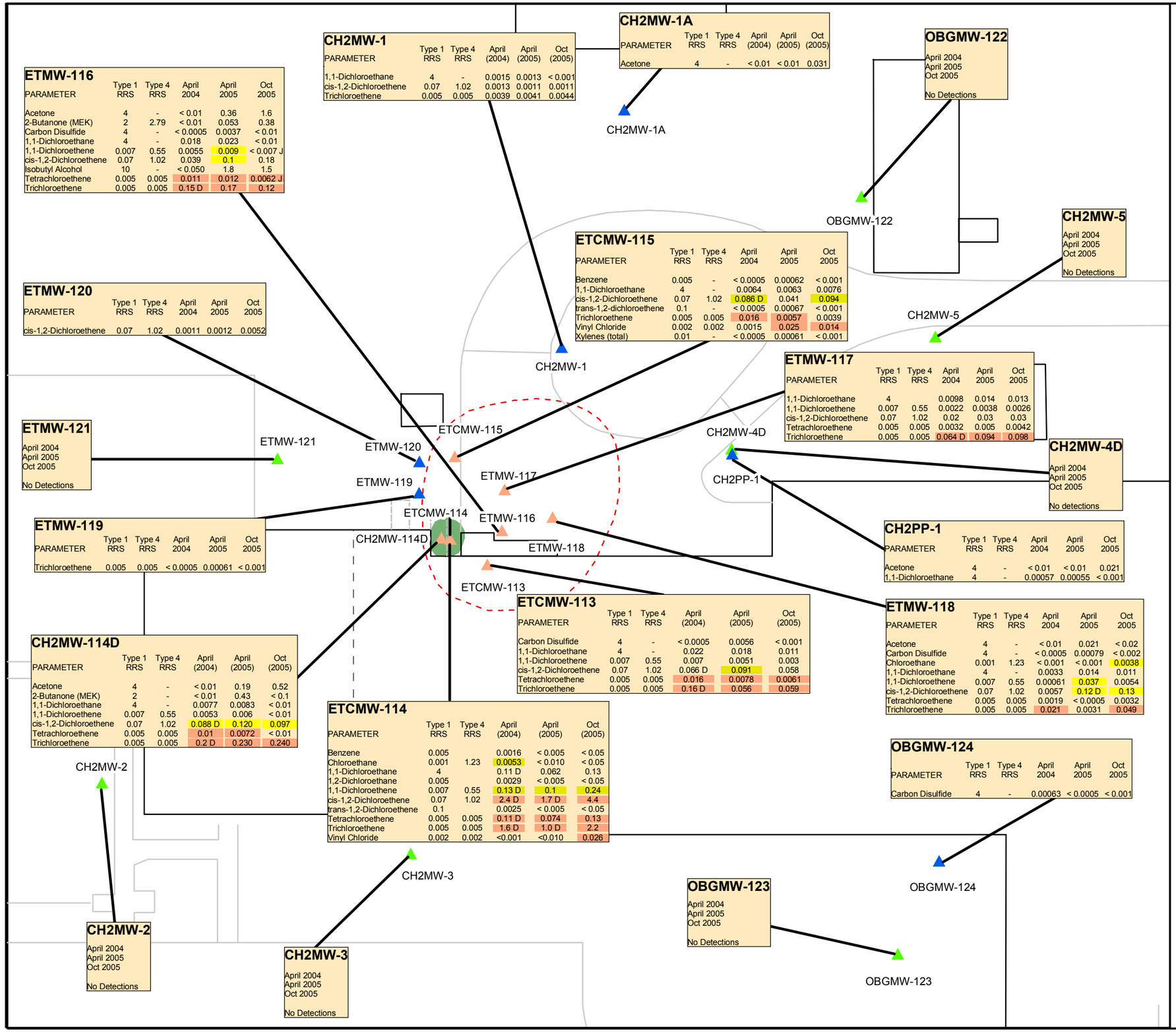
0 50 100

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

OCTOBER 24, 2005
POTENTIOMETRIC SURFACE MAP

O'BRIEN & GERE

FIGURE 7



ETMW-116

PARAMETER	Type 1 RRS	Type 4 RRS	April 2004	April 2005	Oct 2005
Acetone	4	-	< 0.01	0.36	1.6
2-Butanone (MEK)	2	2.79	< 0.01	0.053	0.38
Carbon Disulfide	4	-	< 0.0005	0.0037	< 0.01
1,1-Dichloroethane	4	-	0.018	0.023	< 0.01
1,1-Dichloroethene	0.007	0.55	0.0055	0.009	< 0.007 J
cis-1,2-Dichloroethene	0.07	1.02	0.039	0.1	0.18
Isobutyl Alcohol	10	-	< 0.050	1.8	1.5
Tetrachloroethene	0.005	0.005	0.011	0.012	0.0062 J
Trichloroethene	0.005	0.005	0.15 D	0.17	0.12

CH2MW-1

PARAMETER	Type 1 RRS	Type 4 RRS	April (2004)	April (2005)	Oct (2005)
1,1-Dichloroethane	4	-	0.0015	0.0013	< 0.001
cis-1,2-Dichloroethene	0.07	1.02	0.0013	0.0011	0.0011
Trichloroethene	0.005	0.005	0.0039	0.0041	0.0044

CH2MW-1A

PARAMETER	Type 1 RRS	Type 4 RRS	April (2004)	April (2005)	Oct (2005)
Acetone	4	-	< 0.01	< 0.01	0.031

OBGMW-122

April 2004
April 2005
Oct 2005

No Detections

CH2MW-5

April 2004
April 2005
Oct 2005

No Detections

ETCMW-115

PARAMETER	Type 1 RRS	Type 4 RRS	April 2004	April 2005	Oct 2005
Benzene	0.005	-	< 0.0005	0.00062	< 0.001
1,1-Dichloroethane	4	-	0.0064	0.0063	0.0076
cis-1,2-Dichloroethene	0.07	1.02	0.086 D	0.041	0.094
trans-1,2-dichloroethene	0.1	-	< 0.0005	0.00067	< 0.001
Trichloroethene	0.005	0.005	0.016	0.0057	0.0039
Vinyl Chloride	0.002	0.002	0.0015	0.025	0.014
Xylenes (total)	0.01	-	< 0.0005	0.00061	< 0.001

ETMW-120

PARAMETER	Type 1 RRS	Type 4 RRS	April 2004	April 2005	Oct 2005
cis-1,2-Dichloroethene	0.07	1.02	0.0011	0.0012	0.0052

ETMW-117

PARAMETER	Type 1 RRS	Type 4 RRS	April 2004	April 2005	Oct 2005
1,1-Dichloroethane	4		0.0098	0.014	0.013
1,1-Dichloroethene	0.007	0.55	0.0022	0.0038	0.0026
cis-1,2-Dichloroethene	0.07	1.02	0.02	0.03	0.03
Tetrachloroethene	0.005	0.005	0.0032	0.005	0.0042
Trichloroethene	0.005	0.005	0.064 D	0.094	0.098

ETMW-121

April 2004
April 2005
Oct 2005

No Detections

CH2MW-4D

April 2004
April 2005
Oct 2005

No detections

ETMW-119

PARAMETER	Type 1 RRS	Type 4 RRS	April 2004	April 2005	Oct 2005
Trichloroethene	0.005	0.005	< 0.0005	0.00061	< 0.001

CH2PP-1

PARAMETER	Type 1 RRS	Type 4 RRS	April 2004	April 2005	Oct 2005
Acetone	4	-	< 0.01	< 0.01	0.021
1,1-Dichloroethane	4	-	0.00057	0.00055	< 0.001

ETMW-118

PARAMETER	Type 1 RRS	Type 4 RRS	April 2004	April 2005	Oct 2005
Acetone	4	-	< 0.01	0.021	< 0.02
Carbon Disulfide	4	-	< 0.0005	0.00079	< 0.002
Chloroethane	0.001	1.23	< 0.001	< 0.001	0.0038
1,1-Dichloroethane	4	-	0.0033	0.014	0.011
1,1-Dichloroethene	0.007	0.55	0.00061	0.037	0.0054
cis-1,2-Dichloroethene	0.07	1.02	0.0057	0.12 D	0.13
Tetrachloroethene	0.005	0.005	0.0019	< 0.0005	0.0032
Trichloroethene	0.005	0.005	0.021	0.0031	0.049

CH2MW-114D

PARAMETER	Type 1 RRS	Type 4 RRS	April (2004)	April (2005)	Oct (2005)
Acetone	4	-	< 0.01	0.19	0.52
2-Butanone (MEK)	2	-	< 0.01	0.43	< 0.1
1,1-Dichloroethane	4	-	0.0077	0.0083	< 0.01
1,1-Dichloroethene	0.007	0.55	0.0053	0.006	< 0.01
cis-1,2-Dichloroethene	0.07	1.02	0.088 D	0.120	0.097
Tetrachloroethene	0.005	0.005	0.01	0.0072	< 0.01
Trichloroethene	0.005	0.005	0.2 D	0.230	0.240

ETCMW-113

PARAMETER	Type 1 RRS	Type 4 RRS	April (2004)	April (2005)	Oct (2005)
Carbon Disulfide	4	-	< 0.0005	0.0056	< 0.001
1,1-Dichloroethane	4	-	0.022	0.018	0.011
1,1-Dichloroethene	0.007	0.55	0.007	0.0051	0.003
cis-1,2-Dichloroethene	0.07	1.02	0.066 D	0.091	0.058
Tetrachloroethene	0.005	0.005	0.016	0.0078	0.0061
Trichloroethene	0.005	0.005	0.16 D	0.056	0.059

ETCMW-114

PARAMETER	Type 1 RRS	Type 4 RRS	April (2004)	April (2005)	Oct (2005)
Benzene	0.005		0.0016	< 0.005	< 0.05
Chloroethane	0.001	1.23	0.0053	< 0.010	< 0.05
1,1-Dichloroethane	4		0.11 D	0.062	0.13
1,2-Dichloroethane	0.005		0.0029	< 0.005	< 0.05
1,1-Dichloroethene	0.007	0.55	0.13 D	0.1	0.24
cis-1,2-Dichloroethene	0.07	1.02	2.4 D	1.7 D	4.4
trans-1,2-Dichloroethene	0.1		0.0025	< 0.005	< 0.05
Tetrachloroethene	0.005	0.005	0.11 D	0.074	0.13
Trichloroethene	0.005	0.005	1.6 D	1.0 D	2.2
Vinyl Chloride	0.002	0.002	<0.001	<0.010	0.026

OBGMW-124

PARAMETER	Type 1 RRS	Type 4 RRS	April 2004	April 2005	Oct 2005
Carbon Disulfide	4	-	0.00063	< 0.0005	< 0.001

CH2MW-2

April 2004
April 2005
Oct 2005

No Detections

CH2MW-3

April 2004
April 2005
Oct 2005

No Detections

OBGMW-123

April 2004
April 2005
Oct 2005

No Detections

- Monitoring Well with No Detections
- Monitoring Well with Concentrations Below Type 1 RRS
- Monitoring Well with Concentrations Above Type 3 RRS
- Monitoring Well with Concentrations Above Type 4 RRS
- Interpreted limit of compounds above Type 4 RRS
- Former Waste Solvent Tank Piping Release

Well ID — Not calculated (blank) — Not analyzed (dash)

OBGMW-01

Parameter	Type 1 RRS	Type 4 RRS	April 2005
Acetone	4	-	-
2-Butanone	2	2.79	2.25
1,1-Dichloroethene	0.007	0.55	1.00
Trichloroethene	0.005	0.005	< 0.0005

Concentration above Type 4 RRS
Concentration above Type 1 RRS
Less than detection limit

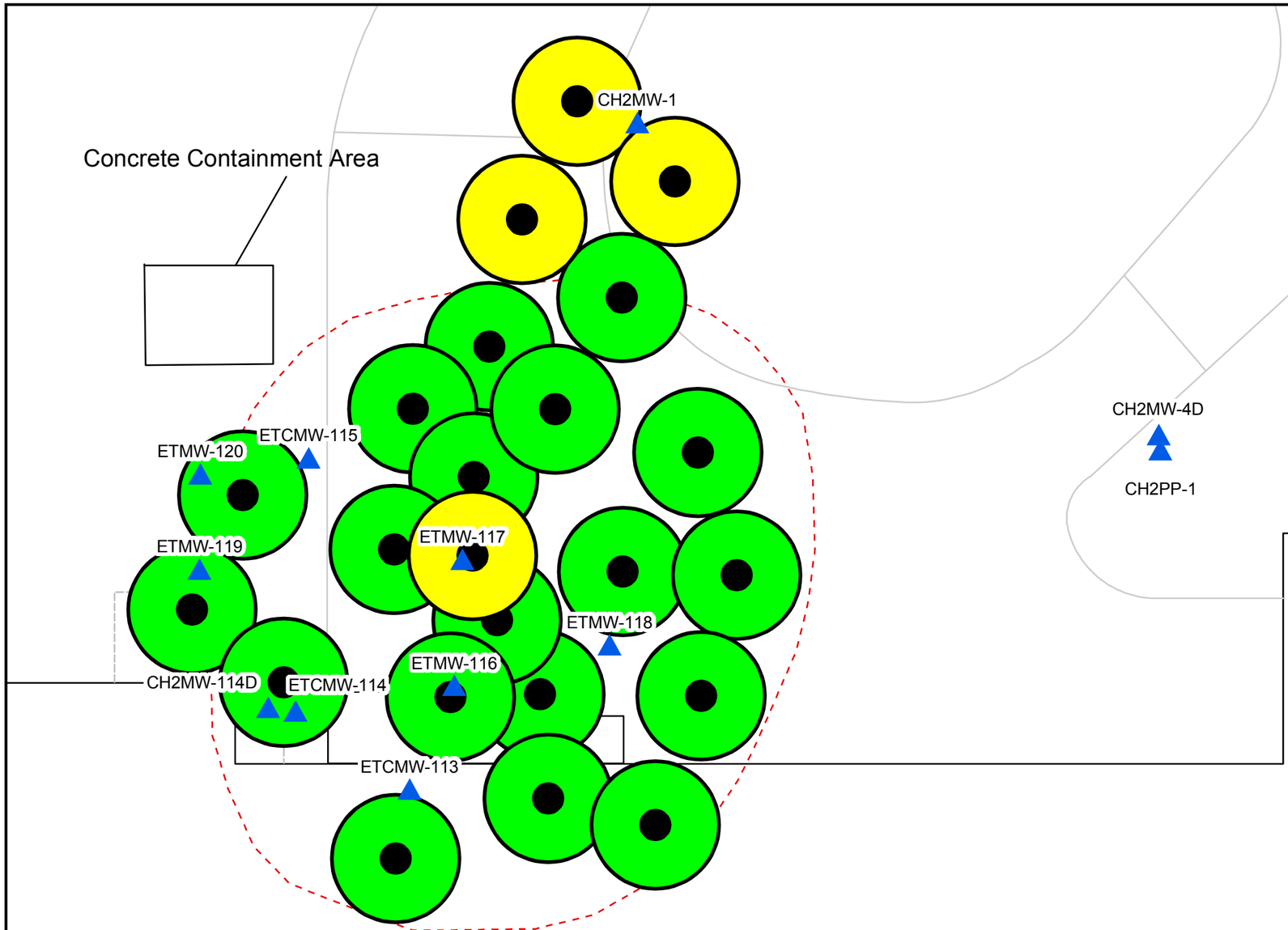
Feet
0 50 100

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

HORIZONTAL EXTENT OF VOCs in GROUND WATER APRIL 2004, APRIL 2005, & OCTOBER 2005 (mg/L)

O'BRIEN & GERE

FIGURE 8



Monitoring Well

Interpreted limit of compounds above Type 4 RRS

Injection Points

Estimated Radius of Effect

Additional Injection Points

Estimated Radius of Effect

N

0 12.5 25 50 Feet

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

RECOMMENDED ADDITIONAL INJECTION POINTS

O'BRIEN & GERE

APPENDICES

Appendix A

Historical Ground Water Analytical Results Summary

Appendix A1

Historical Ground Water Analytical Data (VOCs)

Appendix A - 1
Ground Water Analytical Results
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	Downgradient										Upgradient													
				CH2MW-1					CH2MW-1A					CH2MW-2								CH2MW-3							
				5/29/1998	4/29/2002	4/7/2004	4/28/2005	10/25/2005	6/4/1998	4/29/2002	4/7/2004	4/28/2005	10/26/2005	5/29/1998	6/4/1998	8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	5/29/1998	6/4/1998	8/23/2000	11/9/2000	11/9/2000 DUP	1/24/2001	4/6/2004	4/27/2005	4/27/2005(DUP2)	10/26/2005
Acetone	mg/L	4	-	-	-	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	**0.031**	-	-	**0.003**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	-	-	< 0.003	< 0.003	**0.003**	**0.003**	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	mg/L	2	2.79	-	< 0.003	< 0.01	< 0.01	< 0.01	-	< 0.003	< 0.01	< 0.01	< 0.01	-	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	mg/L	0.005		-		< 0.0005	< 0.0005	< 0.001	-		< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Carbon Disulfide	mg/L	4		-	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	**0.0007**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Chloroethane	mg/L	0.001 (2)	1.23	-	-	< 0.001	< 0.001	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	mg/L	0.001 (2)		-	-	< 0.001	< 0.001	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-	-	<0.0005	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	-	-	<0.0005	<0.0005	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0001	< 0.001	-	-	< 0.0005	**0.0006**	**0.0005**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	mg/L	0.0005 (2)		-	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
1,1-Dichloroethane (1,1-DCA)	mg/L	4		< 0.001	-	**0.0015**	**0.0013**	< 0.001	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
1,2-Dichloroethane (1-,2-DCA)	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	**0.00284**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	**0.00107**	**0.003**	**0.0013**	**0.0011**	**0.0011**	< 0.001	< 0.0005	< 0.0005	< 0.0005	<0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
1,2-Dichloroethene (total) (1,2-DCE-total)	mg/L	0.07 (4)	0.92	-	**0.003**	-	-	-	-	< 0.0005	-	-	-	-	-	<0.0005	<0.0005	<0.0005	-	-	-	-	-	<0.0005	<0.0005	< 0.0005	<0.0005	-	-	-	-
Ethylbenzene	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Isobutyl Alcohol	mg/L	10		-	-	< 0.050	< 0.050	< 0.1	-	-	< 0.050	< 0.050	< 0.1	-	-	-	-	-	< 0.050	< 0.050	< 0.1	-	-	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1
Methylene Chloride	mg/L	0.005		-	-	< 0.002	< 0.002	< 0.002	-	-	< 0.002	< 0.002	< 0.002	-	-	**0.0007**	**0.0006**	< 0.0005	< 0.002	< 0.002	< 0.002	-	-	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		-	-	< 0.005	< 0.005	< 0.01	-	-	< 0.005	< 0.005	< 0.01	-	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01
Naphthalene	mg/L	0.02		-	< 0.0005	< 0.001	< 0.001	< 0.001	-	< 0.0005	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	**0.002**	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (9)	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Toluene	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	-	-	< 0.001	< 0.001	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	**0.001**	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	mg/L	0.07		-	-	< 0.001	< 0.001	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	**0.0007**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Trichloroethene (TCE)	mg/L	0.005	0.005(7)	< 0.001	**0.0012**	**0.0039**	**0.0041**	**0.0044**	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Trichlorofluoromethane	mg/L	2		-	-	< 0.001	< 0.001	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Vinyl Acetate	mg/L	0.002 (2)		-	-	< 0.002	< 0.002	< 0.005	-	-	< 0.002	< 0.002	< 0.005	-	-	-	-	-	< 0.002	< 0.002	< 0.005	-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005
Vinyl Chloride	mg/L	0.002	0.002 (7)	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

November 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, corrective action monitoring
- EPA Method 8260 (VOCs)

Data Qualifiers:

B Compound Detected in Method Blank or Trip Blank

J Estimated Value

E Concentration exceeds upper level of the instrument calibration range for the analysis

D Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

BOLD Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

Appendix A - 1
Ground Water Analytical Results
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	Cross Gradient												In Plume									
				CH2MW-4D								CH2MW-5							ETCMW-113						
				8/6/1998	8/23/2000	11/9/2000	1/25/2001	4/8/2004	4/26/2005	4/26/2005 (DUP1)	10/25/2005	8/5/1998	4/7/2004	4/27/2005	10/26/2005	10/26/2005(DUP 2)	1/21/1994	11/3/1994	3/31/1995	5/27/1998	9/7/2000	11/9/2000	1/25/2001	4/6/2004	4/26/2005	10/26/2005
Acetone	mg/L	4	-	-	**0.007**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.100	< 0.001	< 0.050	-	**0.007**	**0.026**	< 0.003	< 0.01	< 0.04	< 0.01
2-Butanone (MEK)	mg/L	2	2.79	< 0.010	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.01	< 0.01	< 0.01	< 0.01	< 0.100	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.01	< 0.04	< 0.01
Benzene	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001	-	**0.0006**	< 0.005	**0.002**	< 0.0005	< 0.0002	< 0.001
Carbon Disulfide	mg/L	4		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.100	< 0.005	< 0.005	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0056**	< 0.001
Chloroethane	mg/L	0.001 (2)	1.23	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.010	< 0.001	< 0.001	-	**0.001**	< 0.005	**0.002**	< 0.001	< 0.0004	< 0.001
Chloromethane	mg/L	0.001 (2)		-	<0.0005	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.010	< 0.001	-	<0.0005	<0.005	<0.0005	< 0.001	< 0.0004	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.010	-	-	-	<0.0005	< 0.005	<.0005 (6)	< 0.001	< 0.0004	< 0.001
Dibromomethane	mg/L	0.0005 (2)		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001
1,1-Dichloroethane (1,1-DCA)	mg/L	4		<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	**0.063**	**0.035**	**0.026**	**0.01006**	**0.056 D**	**0.024**	**0.036 D**	**0.022**	**0.018**	**0.011**
1,2-Dichloroethane (1-,2-DCA)	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001	-	**0.0008**	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	**0.017**	< 0.005	**0.003**	**0.00244**	**0.027 E**	< 0.005	**0.020 D**	**0.007**	**0.0051**	**0.003**
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	<0.005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	-	**0.017**	**0.022**	**0.02213**	-	-	**0.100 D**	**0.066 D**	**0.091**	**0.058**
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001	-	-	-	0.0005	< 0.0005	< 0.0002	< 0.001
1,2-Dichloroethene (total) (1,2-DCE-total)	mg/L	0.07 (4)	0.92	-	<0.0005	<0.0005	<0.0005	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0005	<0.005	**0.110 D**	-	-	-
Ethylbenzene	mg/L	0.7		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001
Isobutyl Alcohol	mg/L	10		-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.100	-	-	-	-	-	-	< 0.050	< 0.200	< 0.1
Methylene Chloride	mg/L	0.005		-	**0.0008**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.005	< 0.005	< 0.001	-	**0.002**	< 0.005	**0.0006**	< 0.002	< 0.0008	< 0.002
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	-	< 0.005	< 0.005	< 0.01	< 0.01	< 0.050	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.005	< 0.02	< 0.01
Naphthalene	mg/L	0.02		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	< 0.0005	< 0.005	<.0005 (6)	< 0.001	< 0.0004	< 0.001
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (9)	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	**0.028**	**0.014**	**0.0084**	**0.00649**	**0.044 D**	**0.013**	**0.035 E**	**0.016**	**0.0078**	**0.0061**
Toluene	mg/L	1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	-	-	< 0.002	-	< 0.0005	< 0.005	<.0005 (6)	< 0.001	< 0.0004	< 0.001
1,2,4-Trichlorobenzene	mg/L	0.07		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	-	-	< 0.003	-	< 0.0005	< 0.005	<.0005 (6)	< 0.001	< 0.0004	< 0.001
1,1,1-Trichloroethane (TCA)	mg/L	0.2		<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.005	< 0.004	< 0.001	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001
Trichloroethene (TCE)	mg/L	0.005	0.005(7)	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	**0.290**	**0.062**	< 0.005	**0.06938**	**0.530 D**	**0.150**	**0.240 D**	**0.16 D**	**0.056**	**0.059**
Trichlorofluoromethane	mg/L	2		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	-	-	< 0.006	-	**0.0009**	< 0.005	**0.001**	< 0.001	< 0.0004	< 0.001
1,2,3-Trichloropropane	mg/L	0.04		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.001	<0.005	-	< 0.007	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001
Vinyl Acetate	mg/L	0.002 (2)		-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	-	< 0.002	< 0.002	< 0.005	< 0.005	< 0.100	< 0.005	< 0.008	-	-	-	-	< 0.002	< 0.0008	< 0.005
Vinyl Chloride	mg/L	0.002	0.002 (7)	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.009	**0.00137**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001
Xylenes (total)	mg/L	0.01		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.005	< 0.010	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001

Appendix A - 1
Ground Water Analytical Results
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	In Plume																			
				ETCMW-114																CH2MW-114D			
				1/21/1994	1/21/94 DUP	11/3/1994	11/3/94 DUP	3/31/1995	3/31/95 DUP	5/27/1998	8/23/2000	11/10/2000	1/24/2001	1/24/01 DUP	4/29/2002	4/29/02 DUP	4/7/2004	4/7/2004 DUP	4/28/2005	10/27/2005	6/4/1998	4/7/2004	4/28/2005	10/26/2005
Acetone	mg/L	4		3.300	2.300	0.060	< 0.010	< 5	< 5	-	1.8	< 0.089	< 0.003	< 0.003	-	-	< 0.001	< 0.01	< 0.1	< 0.5	-	< 0.01	0.19	0.52
2-Butanone (MEK)	mg/L	2	2.79	2.600	1.500	0.030	0.020	< 5	< 5	-	3.9	< 0.089	< 0.003	< 0.003	< 0.003	< 0.003	< 0.001	< 0.01	< 0.1	< 0.5	-	< 0.01	0.43	<0.1
Benzene	mg/L	0.005		0.0075	0.018	0.011	0.008	< 0.10	< 0.10	-	< 0.042	< 0.018	0.003	0.003	-	-	0.0016	0.0017	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.01
Carbon Disulfide	mg/L	4		< 0.100	< 0.100	< 0.005	< 0.005	< 0.5	< 0.5	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	-	< 0.0005	< 0.0005	< 0.01
Chloroethane	mg/L	0.001 (2)	1.23	0.410	1.300	1.2	< 0.010	0.930	1.200	-	< 0.042	0.120	0.061 E	0.062 E	-	-	0.0053	0.0053	< 0.010	< 0.001	-	< 0.001	< 0.001	< 0.01
Chloromethane	mg/L	0.001 (2)		< 0.005	< 0.005	< 0.010	1.100	< 0.100	< 0.100	-	<0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.010	< 0.001	-	< 0.001	< 0.001	< 0.01
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	< 0.010	< 0.010	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	-	< 0.001	< 0.001	< 0.01
Dibromomethane	mg/L	0.0005 (2)		< 0.0005	< 0.0005	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	-	< 0.0005	< 0.0005	< 0.01
1,1-Dichloroethane (1,1-DCA)	mg/L	4		0.690	1.200	0.710	0.580	0.400	0.450	0.09321	0.230	0.200	0.12 D	0.12 D	-	-	0.11 D	0.11 D	0.062	0.13	0.0018	0.0077	0.0083	< 0.01
1,2-Dichloroethane (1-,2-DCA)	mg/L	0.005		0.011	0.015	< 0.005	<0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	0.004	0.004	-	-	0.0029	0.0029	< 0.005	< 0.05	-	< 0.0005	< 0.0005	< 0.005 J
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	0.019	0.110	0.570	0.260	0.310	0.330	0.20412	0.260	0.120	0.12 D	0.11 D	0.39 D	0.33 D	0.13 D	0.13 D	0.1	0.24	0.0046	0.0053	0.006	< 0.01
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	-	-	15	12	11	12	4.841	-	-	3.4 D	3.3 D	3.8 D	3.7 D	2.4 D	2.4 D	1.7 D	4.4	0.0161	0.088 D	0.120	0.097
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		< 0.005	< 0.005	< 0.005	< 0.005	< 0.1	< 0.1	-	-	-	0.004	0.003	0.009	0.007	0.0025	0.0025	< 0.005	< 0.05	-	< 0.0005	< 0.0005	< 0.01
1,2-Dichloroethene (total) (1,2-DCE-total)	mg/L	0.07 (4)	0.92	-	-	-	-	-	-	-	< 0.042	< 0.018	3.1 D	3.1 D	3.9 D	3.8 D	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7		0.0085	0.020	0.007	0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	-	< 0.0005	< 0.0005	< 0.01
Isobutyl Alcohol	mg/L	10		0.310	0.330	-	-	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050	< 0.500	< 5	-	< 0.050	< 0.500	< 1
Methylene Chloride	mg/L	0.005		0.0088	0.0052	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	0.001	0.003	-	-	< 0.002	< 0.002	< 0.020	< 0.1	-	< 0.002	< 0.002	< 0.02
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		0.077	0.080	0.018	0.015	< 5	< 5	-	< 0.210	< 0.089	< 0.003	< 0.003	-	-	< 0.005	< 0.005	< 0.05	< 0.5	-	< 0.005	< 0.005	< 0.1
Naphthalene	mg/L	0.02		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.001	< 0.001	< 0.01	< 0.05	-	< 0.001	< 0.001	< 0.01
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	<0.001	<0.001	<0.005	< 0.005	<0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	-	< 0.0005	< 0.0005	< 0.01
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (9)	0.039	0.120	0.013	0.012	< 0.100	< 0.100	0.03293	0.140	0.036	0.039 E	0.039 E	-	-	0.11 D	0.12 D	0.074	0.13	0.011	0.010	0.0072	< 0.01
Toluene	mg/L	1		0.072	0.150	0.057	0.049	< 0.100	< 0.1 00	-	< 0.042	< 0.018	0.008	0.008	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	-	< 0.0005	< 0.0005	< 0.01
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	-	< 0.001	< 0.001	< 0.01
1,2,4-Trichlorobenzene	mg/L	0.07		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	-	< 0.001	< 0.001	< 0.01
1,1,1-Trichloroethane (TCA)	mg/L	0.2		0.041	0.170	< 0.005	< 0.005	< 0.100	< 0.100	< 0.001	< 0.042	< 0.018	0.002	0.002	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.001	< 0.0005	< 0.0005	< 0.01
Trichloroethene (TCE)	mg/L	0.005	0.005(7)	0.420	0.670	0.14	0.120	0.400	0.440	0.662	3.100 D	0.740	0.82 D	0.79 D	4.5 D	4.0 D	1.6 D	1.7 D	1.0 D	2.2	0.105	0.200 D	0.230	0.240
Trichlorofluoromethane	mg/L	2		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.010	< 0.05	-	< 0.001	< 0.001	< 0.01
1,2,3-Trichloropropane	mg/L	0.04		<0.0057	< 0.0058	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	-	< 0.0005	< 0.0005	< 0.01
Vinyl Acetate	mg/L	0.002 (2)		3.800	3.600	< 0.005	< 0.010	< 1.000	< 1.0	-	-	-	-	-	-	-	< 0.002	< 0.002	< 0.020	< 0.1	-	< 0.002	< 0.002	< 0.05
Vinyl Chloride	mg/L	0.002	0.002 (7)	< 0.001	< 0.001	< 0.01	< 0.01	< 0.100	< 0.100	0.01956	< 0.042	< 0.018	0.001	0.001	-	-	< 0.001	< 0.001	< 0.010	0.026	< 0.001	< 0.001	< 0.001	< 0.005 J
Xylenes (total)	mg/L	0.01		0.045	0.095	0.024	0.020	< 0.300	< 0.300	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	-	< 0.0005	< 0.0005	< 0.01

Appendix A - 1
Ground Water Analytical Results
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	In Plume																												
				ETCMW-115					ETMW-116										ETMW-117								ETMW-118						
				11/3/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	12/20/1994	3/31/1995	5/26/1998	8/23/2000	8/23/2000 DUP	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	12/21/1994	3/31/1995	8/23/2000	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	12/20/1994	3/31/1995	5/26/1998	4/8/2004	4/26/2005	10/25/2005
Acetone	mg/L	4		< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	< 0.25	-	**0.010**	**0.011**	**0.036 B**	< 0.003	< 0.01	**0.36**	**1.6**	< 0.010	< 0.1	< 0.018	< 0.003	**0.003**	< 0.01	< 0.04	< 0.01	< 0.005	< 0.05	-	< 0.01	**0.021**	< 0.02
2-Butanone (MEK)	mg/L	2	2.79	< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	< 0.25	-	< 0.003	< 0.003	< 0.025	< 0.003	< 0.01	**0.053**	**0.38**	< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.01	< 0.04	< 0.01	< 0.010	< 0.05	-	< 0.01	< 0.01	< 0.02
Benzene	mg/L	0.005		< 0.005	< 0.001	< 0.0005	**0.00062**	< 0.001	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.002	< 0.004	**0.0008**	**0.002**	< 0.0005	< 0.002	< 0.001	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002
Carbon Disulfide	mg/L	4		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.025	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0037**	< 0.01	< 0.005	< 0.010	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.005	< 0.005	-	< 0.0005	**0.00079**	< 0.002
Chloroethane	mg/L	0.001 (2)	1.23	< 0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.010	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.005	< 0.001	-	< 0.001	< 0.001	**0.0038**
Chloromethane	mg/L	0.001 (2)		< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.010	< 0.005	-	<0.0005	< 0.0005	<0.005	<0.0005	< 0.001	< 0.005	< 0.01	< 0.010	< 0.002	<0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.010	< 0.001	-	< 0.001	< 0.001	< 0.002
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	-	-	-	**0.0007**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	-	-	-	< 0.001	< 0.001	< 0.002
Dibromomethane	mg/L	0.0005 (2)		-	-	< 0.0005	< 0.0005	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.002
1,1-Dichloroethane (1,1-DCA)	mg/L	4		**0.042**	**0.025**	**0.0064**	**0.0063**	**0.0076**	**0.062**	**0.045**	**0.03585**	**0.045 D**	**0.039 D**	**0.012**	**0.012**	**0.018**	**0.023**	< 0.01	**0.012**	**0.025**	**0.017**	**0.017**	**0.008**	**0.0098**	**0.014**	**0.013**	**0.014**	**0.021**	**0.01884**	**0.0033**	**0.014**	**0.011**
1,2-Dichloroethane (1-,2-DCA)	mg/L	0.005		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.005	-	**0.0007**	**0.0007**	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.005J	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	< 0.005	< 0.001	< 0.0005	< 0.0025	< 0.001	**0.008**	**0.012**	**0.01349**	**0.016**	**0.018**	< 0.005	**0.004**	**0.0055**	**0.009**	< 0.007 J	< 0.005	**0.005**	< 0.004	**0.003**	**0.002**	**0.0022**	**0.0038**	**0.0026**	< 0.005	**0.0046**	**0.00292**	**0.00061**	**0.037**	**0.0054**
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	**0.210**	**0.120**	**0.086 D**	**0.041**	**0.094**	**0.085**	**0.074**	**0.05735**	-	-	-	**0.026 D**	**0.039**	**0.1**	**0.18**	**0.014**	-	-	-	**0.016**	**0.02**	**0.03**	**0.03**	**0.012**	**0.023**	**0.01722**	**0.0057**	**0.12 D**	**0.13**
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		< 0.005	< 0.001	< 0.0005	**0.00067**	< 0.001	< 0.005	< 0.005	-	-	-	-	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.002	-	-	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002
1,2-Dichloroethene (total) (1,2-DCE-total)	mg/L	0.07 (4)	0.92	-	-	-	-	-	-	-	-	<0.0005	< 0.0005	< 0.005	**0.024**	-	-	-	-	-	<0.004	< 0.0005	**0.015**	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002
Isobutyl Alcohol	mg/L	10		-	-	< 0.050	< 0.250	< 0.1	-	-	-	-	-	-	-	< 0.050	**1.8**	**1.5**	-	-	-	-	-	< 0.050	< 0.2	< 0.1	-	-	-	< 0.050	< 0.050	< 0.2
Methylene Chloride	mg/L	0.005		< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.005	< 0.005	-	**0.001**	**0.0009**	< 0.005	< 0.0005	< 0.002	< 0.001	< 0.002	< 0.005	< 0.002	< 0.004	**0.0006**	**0.002**	< 0.002	< 0.008	< 0.002	< 0.005	< 0.001	-	< 0.002	< 0.002	< 0.004
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		< 0.01	< 0.50	< 0.005	< 0.005	< 0.01	< 0.010	< 0.25	-	< 0.003	<0.003	<0.025	< 0.003	< 0.005	< 0.025	< 0.1	< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.005	< 0.02	< 0.01	< 0.010	< 0.05	-	< 0.005	< 0.005	< 0.02
Naphthalene	mg/L	0.02		-	-	< 0.001	< 0.001	< 0.001	-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	-	-	-	< 0.001	< 0.001	< 0.002
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (9)	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	**0.034**	**0.022**	**0.018**	**0.024**	**0.022 D**	**0.007**	**0.005**	**0.011**	**0.012**	**0.0062 J**	< 0.005	**0.008**	**0.005**	**0.005**	**0.002**	**0.0032**	**0.005**	**0.0042**	< 0.010	**0.009**	**0.008**	**0.0019**	< 0.0005	**0.0032**
Toluene	mg/L	1		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	-	-	< 0.001	< 0.001	< 0.001	-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	-	-	-	< 0.001	< 0.001	< 0.002
1,2,4-Trichlorobenzene	mg/L	0.07		-	-	< 0.001	< 0.001	< 0.001	-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	-	-	-	< 0.001	< 0.001	< 0.002
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.005
Trichloroethene (TCE)	mg/L	0.005	0.005(7)	**0.170**	**0.120**	**0.016**	**0.0057**	**0.0039**	**0.560**	**0.420**	**0.26512**	**0.420 D**	**0.350 D**	**0.130**	**0.100 D**	**0.15 D**	**0.17**	**0.12**	**0.130**	**0.210**	**0.120**	**0.070**	**0.050 D**	**0.064 D**	**0.094**	**0.098**	**0.069**	**0.110**	**0.08682**	**0.021**	**0.0031**	**0.049**
Trichlorofluoromethane	mg/L	2		-	-	< 0.001	< 0.001	< 0.001	-	-	-	**0.001**	**0.001**	<0.0005	< 0.0005	< 0.001	< 0.005	< 0.01	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	-	-	-	< 0.001	< 0.001	< 0.002
1,2,3-Trichloropropane	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.001	-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.002
Vinyl Acetate	mg/L	0.002 (2)		< 0.005	< 0.010	< 0.002	< 0.002	< 0.005	< 0.010	< 0.050	-	-	-	-	-	< 0.002	< 0.01	< 0.05	< 0.010	< 0.020	-	-	-	< 0.002	< 0.008	< 0.005	< 0.010	< 0.010	-	< 0.002	< 0.002	< 0.01
Vinyl Chloride	mg/L	0.002	0.002 (7)	< 0.001	< 0.001	**0.0015**	**0.025**	**0.014**	< 0.010	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.005 J	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.010	< 0.001	< 0.001	< 0.001	**< 0.001**	< 0.002
Xylenes (total)	mg/L	0.01		< 0.005	<0.003	< 0.0005	**0.00061**	< 0.001	< 0.005	< 0.015	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.006	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.002

Appendix A - 1
Ground Water Analytical Results
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	Cross Gradient													Upgradient							
				ETMW-119						ETMW-120							ETMW-121							
				12/20/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	10/25/2005 (DUP 1)	12/20/1994	3/31/1995	5/26/1998	5/26/98 DUP	4/7/2004	4/28/2005	10/25/2005	12/20/1994	3/31/1995	5/27/1998	8/23/2000	11/10/2000	1/24/2001	4/7/2004	4/28/2005	10/26/2005
Acetone	mg/L	4		< 0.005	< 0.050	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.005	< 0.05	-	**0.009**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	mg/L	2	2.79	< 0.01	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01
Benzene	mg/L	0.005		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Carbon Disulfide	mg/L	4		< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Chloroethane	mg/L	0.001 (2)	1.23	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001
Chloromethane	mg/L	0.001 (2)		< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.010	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.010	< 0.001	-	<0.0005	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001
Dibromomethane	mg/L	0.0005 (2)		-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	-	-	-	-	< 0.0005	< 0.0005	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
1,1-Dichloroethane (1,1-DCA)	mg/L	4		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
1,2-Dichloroethane (1-,2-DCA)	mg/L	0.005		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.001	**0.00184**	**0.00166**	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	< 0.05	**0.0016**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.05	**0.0048**	**0.00543**	**0.00525**	**0.0011**	**0.0012**	**0.0052**	< 0.05	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
1,2-Dichloroethene (total) (1,2-DCE-total)	mg/L	0.07 (4)	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0005	<0.0005	<0.0005	-	-	-
Ethylbenzene	mg/L	0.7		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Isobutyl Alcohol	mg/L	10		-	-	< 0.050	< 0.050	< 0.1	< 0.1	-	-	-	-	< 0.050	< 0.050	< 0.1	-	-	-	-	-	-	< 0.050	< 0.050	< 0.1
Methylene Chloride	mg/L	0.005		< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	< 0.005	< 0.001	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.001	-	**0.0009**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		< 0.010	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.010	< 0.05	-	-	< 0.005	< 0.005	< 0.01	< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01
Naphthalene	mg/L	0.02		-	-	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (9)	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.010	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.010	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Toluene	mg/L	1		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	-	-	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	mg/L	0.07		-	-	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	**0.0018**	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Trichloroethene (TCE)	mg/L	0.005	0.005(7)	<0.005	**0.0034**	< 0.0005	**0.00061**	< 0.001	< 0.001	<0.005	**0.0017**	**0.00138**	**0.00128**	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.001	< 0.001	**0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Trichlorofluoromethane	mg/L	2		-	-	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	-	-	-	-	< 0.0005	< 0.0005	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001
Vinyl Acetate	mg/L	0.002 (2)		< 0.010	< 0.010	< 0.002	< 0.002	< 0.005	< 0.005	< 0.010	< 0.010	-	-	< 0.002	< 0.002	< 0.005	< 0.010	< 0.010	-	-	-	-	< 0.002	< 0.002	< 0.005
Vinyl Chloride	mg/L	0.002	0.002 (7)	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.010	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.010	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001
Xylenes (total)	mg/L	0.01		< 0.005	< 0.003	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.005	< 0.003	-	-	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001

Appendix A - 1
Ground Water Analytical Results
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	Cross Gradient														Downgradient							Upgradient		In Plume	
				OBGMW-122						OBGMW-123								OBGMW-124			CH2PP-1				CH2PP-2	CH2PP-3(8)	Sump 1	Sump 2
				8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	9/8/2000	11/9/2000	1/24/2001	4/29/2002	4/6/2004	4/6/2004 DUP	4/27/2005	10/25/2005	4/21/2004	4/27/2005	10/26/2005	6/30/1998	4/7/2004	4/26/2005	10/25/2005	5/29/1998	(not sampled)	11/3/1994	11/3/1994
Acetone	mg/L	4		**0.016**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.003	< 0.003	< 0.003	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	**0.021**	-	-	**0.790**	< 0.010
2-Butanone (MEK)	mg/L	2	2.79	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	-	-	**0.420**	< 0.010
Benzene	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.005	< 0.005
Carbon Disulfide	mg/L	4		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	**0.003**	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	**0.00063**	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.005	< 0.005
Chloroethane	mg/L	0.001 (2)	1.23	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	-	-	< 0.010	< 0.010
Chloromethane	mg/L	0.001 (2)		<0.0005	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.001	<0.0005	<0.0005	<0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	-	-	**1.3**	< 0.010
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	< 0.0005	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	<0.0005	<0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	-	-	-	-
Dibromomethane	mg/L	0.0005 (2)		< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	mg/L	4		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.005	**0.00057**	**0.00055**	< 0.001	<0.001	-	**0.240**	< 0.005
1,2-Dichloroethane (1-,2-DCA)	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.005	< 0.005
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	-	**0.046**	< 0.005
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	**0.013**	< 0.0005	< 0.0005	< 0.001	< 0.001	-	**1.5**	< 0.005
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.005	< 0.005
1,2-Dichloroethene (total) (1,2-DCE-total)	mg/L	0.07 (4)	0.92	< 0.0005	< 0.0005	<0.0005	-	-	-	<0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.005	< 0.005
Isobutyl Alcohol	mg/L	10		-	-	-	< 0.050	< 0.050	< 0.1	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.1	-	< 0.050	< 0.050	< 0.1	-	-	-	-
Methylene Chloride	mg/L	0.005		**0.001**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	**0.001**	< 0.0005	< 0.0005	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002		< 0.002	< 0.002	< 0.002	-	-	< 0.005	< 0.005
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.003	< 0.003	< 0.003	-	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.01	-	< 0.005	< 0.005	< 0.01	-	-	< 0.010	< 0.010
Naphthalene	mg/L	0.02		< 0.0005	**0.001**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.005	< 0.005
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (9)	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	-	**0.077**	< 0.005
Toluene	mg/L	1		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	-	-	**0.018**	< 0.005
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	< 0.0005	**0.002**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.07		< 0.0005	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	-	-	-	-
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	-	**0.140**	< 0.005
Trichloroethene (TCE)	mg/L	0.005	0.005(7)	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.001	-	**0.250**	**0.016**
Trichlorofluoromethane	mg/L	2		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	-	-	-	-
1,2,3-Trichloropropane	mg/L	0.04		< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	-	-	-	-
Vinyl Acetate	mg/L	0.002 (2)		-	-	-	< 0.002	< 0.002	< 0.005	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.005	-	< 0.002	< 0.002	< 0.005	-	-	< 0.010	< 0.010
Vinyl Chloride	mg/L	0.002	0.002 (7)	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.010	< 0.010
Xylenes (total)	mg/L	0.01		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	-	-	< 0.005	< 0.005

Appendix A2

Historical Ground Water Geochemical data

Appendix A-2
Ground Water Geochemical Data
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Downgradient								Upgradient														
		CH2MW-1				CH2MW-1A				CH2MW-2							CH2MW-3							
		4/29/2002	4/7/2004	4/28/2005	10/25/2005	4/29/2002	4/7/2004	4/28/2005	10/26/2005	5/29/1998	8/23/2000	11/21/2000	1/24/2001	4/6/2004	4/27/2005	10/25/2005	5/29/1998	8/23/2000	11/21/2000	11/21/00 DUP	1/24/2001	4/6/2004	4/27/2005	4/27/2005(DUP2)	10/26/2005
Alkalinity	mg/L	-	-	-	-	-	**22**	**2.6**	NA	**2**	< 10	< 10	< 10	-	-	-	**4**	< 10	< 10	< 10	< 10	< 10	**18**	**18**	< 10
Chloride	mg/L	-	-	-	-	-	**15**	**8.8**	**11**	**38.5**	**37.6**	**33.7**	**39.3**	**-**	**-**	-	**14**	**18.6**	**19**	**18.8**	**13.2**	**14**	**9.9**	**13**	**18**
Ferrous Iron	mg/L	-	-	0	**-**	-	**0.3**	0	**2.87**	< 0.20	**0.7**	**0.4**	**0.01**	**-**	0	-	< 0.20	**0.23**	**0.02**	**-**	**0.02**	**0.1**	0	-	**0.31**
Iron	mg/L		-	-	-	-	**0.63**	**1.2**	NA	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	0.11	<0.05	< 0.050
Manganese	mg/L	-	-	-	-	-	< 0.05	< 0.05	NA	-	**15.1**	**0.3**	**0.2**	**-**	**-**	-	**-**	**1.8**	**0.6**	**-**	**0.3**	<0.05	<0.05	<0.05	< 0.050
Nitrate (as N)	mg/L	-	-	-	-	-	**1.6**	**0.27**	**0.64**	**5.6**	**6.12**	**6.2**	**6.95**	**-**	**-**	-	**0.8**	**2.26**	**2.38**	**2.36**	**0.906**	**0.65**	**0.55**	**0.79**	**1.6**
Nitrite	mg/L	-	-	-	-	-	-	-	-	< 0.07	< 0.05	< 0.05	< 0.05	-	-	-	< 0.07	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	**1.3**	**2.7**	< 2.0	**14**	**19.7**	**27**	**20.2**	**-**	**-**	-	**5.8**	**6.71**	**5.4**	**6**	**49.8**	**41**	**39**	**32**	**16**
Sulfide	mg/L	-	-	-	-	-	< 0.8	< 0.9	NA	< 1.0	< 0.2	< 0.5	< 0.5	-	-	-	< 1.0	< 0.2	**0.6**	**0.6**	< 0.5	< 1.6	< 0.8	< 0.8	< 0.8
Methane	ug/L	-	-	-	-	-	< 2.0	< 5.0	< 2.0	**0.747**	< 0.2	< 0.2	< 0.2	-	-	-	**0.559**	<0.2	< 0.2	< 0.2	< 0.2	< 2.0	< 5.0 H	< 5.0 H	< 2.0
Ethane	ug/L	-	-	-	-	-	< 4.0	< 5.0	< 4.0	**0.039**	< 0.01	< 0.01	< 0.01	-	-	-	**0.016**	< 0.01	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0 H	< 5.0 H	< 4.0
Ethene	ug/L	-	-	-	-	-	< 4.0	< 5.0	< 4.0	**0.055**	**0.02**	< 0.01	< 0.01	-	-	-	**0.017**	< 0.01	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0 H	< 5.0 H	< 4.0
Soluble Organic Carbon (DOC)	mg/L	-	-	-	-	-	**1.3**	**11**	NA	**2.7**	**18.4**	**23.1**	**37**	**-**	**-**	-	< 2.00	**9.98**	**8.75**	**19.1**	**19.4**	**1.8**	**3.8**	**3.9**	**6.8**
Total Organic Carbon	mg/L	-	-	-	-	-	**1.3**	**9.6**	**3.5**	-	**37.4**	**29.1**	**47.4**	**-**	**-**	-	-	**22.9**	**26.1**	**20.7**	**22.3**	**2.1**	**2.6**	**3.0**	**2.4**
Carbon Dioxide	mg/L	**-**	**-**	**20**	**-**	**-**	**13.5**	**13**	**70**	**-**	**-**	**-**	**-**	**-**	**13**	-	**-**	**-**	**-**	**-**	**-**	**13.5**	**14**	-	**50**
pH	S.U.	**4.60**	**4.54**	**5.51**	**4.52**	**5.50**	**5.47**	**5.90**	**5.33**	**4.36**	**4.50**	**4.40**	**3.78**	**4.11**	**3.71**	**4.41**	**4.56**	**4.35**	**4.61**	**-**	**4.35**	**5.06**	**5.12**	-	**4.57**
Conductivity	mS/cm	**0.09**	**0.139**	**0.183**	**0.128**	**0.08**	**0.102**	**0.137**	**0.088**	**0.220**	**0.27**	**0.317**	**0.215**	**0.232**	**0.284**	**0.206**	**0.086**	**0.13**	**0.146**	**-**	**0.17**	**0.15**	**0.186**	-	**0.106**
Dissolved Oxygen	mg/L	**5.5**	**4.53**	**3.93**	**3.44**	**5.3**	**4.07**	**2.52**	**1.12**	**4.39**	**8.7**	**9.6**	**4.7**	**2.20**	**1.45**	**1.86**	**4.23**	**4.8**	**6.85**	**-**	**6.0**	**5.5**	**2.4**	-	**1.83**
Oxidation/Reduction Potential (C	mV	**293**	**527**	**222**	**179**	**231**	**499**	**181**	**186**	**252.9**	**32.5**	**404**	**248**	**553**	**387**	**234**	**271.6**	**353**	**363**	**-**	**209**	**644**	**446**	-	**187**
Temperature	C	-	**21.30**	**20.57**	**20.35**	-	**19.75**	**19.46**	**23.99**	-	**27.88**	-	**14.60**	**20.64**	**19.51**	**24.79**	-	**27.97**	-	-	**20.72**	**20.31**	**20.78**	-	**23.8**

Field Parameters:
Ferrous Iron (2000-2005)
Carbon Dioxide (2004-2005)
pH
Conductivity
ORP
Manganese (2000-2005)
Temperature
Dissolved Oxygen

Notes:
NA - Adequate sample volume to perform all analyses was not recovered.
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004, 2005)
Soluble Organic Carbon - EPA 415.1

Appendix A-2
Ground Water Geochemical Data
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

		Cross Gradient										In Plume													
Parameters	**Units**	**CH2MW-4D**						**CH2MW-5**				**ETCMW-113**							**ETCMW-114**								
		8/23/2000	**11/21/2000**	**1/25/2001**	**4/8/2004**	**4/26/2005**	**10/25/2005**	**4/7/2004**	**4/27/2005**	**10/26/2005**	**10/26/2005 (DUP02)**	**5/27/1998**	**9/7/2000**	**11/21/2000**	**1/25/2001**	**4/6/2004**	**4/26/2005**	**10/26/2005**	**5/27/1998**	**8/23/2000**	**9/7/2000**	**11/21/2000**	**1/24/2001**	**1/24/2001 DUP**	**4/29/2002**	**4/7/2004**	**4/7/2004 (DUP-2)**	**4/29/2005**	**10/27/2005**
Alkalinity	mg/L	**39.5**	**62**	**32**	**-**	**-**	-	**60**	**98**	**36**	**34**	**8**	< 10	< 10	< 10	-	-	-	**112**	**82.2**	-	**128**	**134**	**135**	-	**94**	**96**	**120**	**120**
Chloride	mg/L	< 3	< 3	< 3	-	-	-	**5.6**	**2.8**	**6.6**	**7.2**	**13.5**	**12.9**	**11.7**	**13.4**	**-**	**-**	-	**32.5**	**90.1**	-	**108**	**82.8**	**82.1**	-	**37**	**37**	**26**	**32**
Ferrous Iron	mg/L	**0.4**	**0.38**	**0.01**	**-**	0	-	**0.2**	**0.5**	**2.2**	-	< 0.20	**11**	**0.03**	**0.05**	**-**	**1**	-	< 0.20	**0.2**	-	**0.05**	**0.03**	-	-	**0.8**	**0.8**	0	**0.19**
Iron	mg/L	-	-	-	-	-	-	**4.2**	**1.3**	**2.7**	**3.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**2**	**1.8**	**0.22**	**0.88**
Manganese	mg/L	0	**1.5**	**0.2**	**-**	**-**	-	< 0.05	< 0.05	< 0.050	< 0.050	**-**	**5.6**	**0.3**	**0.2**	0	0	-	**-**	**0.5**	-	**0.3**	**0.3**	-	-	< 0.05	< 0.05	<0.05	< 0.050
Nitrate (as N)	mg/L	**0.87**	**-**	**0.896**	**-**	**-**	-	**1**	**0.57**	**1.6**	**1.7**	**10.2**	**7.05**	**10.7**	**11.8**	**-**	**-**	-	**7.6**	**18.15**	-	-	**44.8**	**45.8**	-	**1.2**	**1.1**	**8.2 H**	**1.4**
Nitrite	mg/L	< 0.05	-	< 0.05	-	-	-	-	-	-	-	< 0.07	< 0.05	< 0.05	< 0.05	-	-	-	< 0.07	**0.053**	-	-	< 0.05	< 0.05	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	**0.89**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	-	**58**	-	-	-	-	-	-	-
Sulfate	mg/L	< 5	< 5	< 5	-	-	-	**4.5**	**2.2**	**2.5**	**2.5**	**10.1**	< 5	**5.8**	< 5	-	-	-	**12.8**	**54.1**	-	**110**	**75.6**	**75.6**	-	**33**	**33**	**39**	**31**
Sulfide	mg/L	< 0.2	< 0.5	< 0.5	-	-	-	< 0.8	< 0.8	< 0.8	< 0.8	< 1.0	< 0.2	**0.8**	< 0.5	-	-	-	< 1.0	-	< 0.2	**0.5**	< 0.5	< 0.5	-	< 0.8	< 0.8	< 0.8	< 0.8
Methane	ug/L	< 0.2	< 0.2	< 0.2	-	-	-	< 0.002	< 5.0 H	< 2.0	< 2.0	**0.149**	< 0.2	< 0.2	**0.3**	**-**	**-**	-	**129.2**	**43.9**	-	**0.5**	< 0.2	< 0.2	-	< 2.0	< 2.0	< 5.0	**14**
Ethane	ug/L	**0.01**	< 0.01	**0.02**	**-**	**-**	-	< 0.004	< 5.0 H	< 4.0	< 4.0	**0.029**	0.09	< 0.01	**0.13**	**-**	**-**	-	**0.249**	**0.16**	-	**0.03**	**0.03**	**0.02**	-	< 4.0	< 4.0	< 5.0	< 4.0
Ethene	ug/L	**0.08**	**0.01**	**0.01**	**-**	**-**	-	< 0.004	< 5.0 H	< 4.0	< 4.0	< 0.005	0.02	< 0.01	**0.03**	**-**	**-**	-	**0.205**	**0.51**	-	**0.03**	**0.01**	**0.01**	-	< 4.0	< 4.0	< 5.0	< 4.0
Soluble Organic Carbon (DOC) -	mg/L	**5.95**	**3.91**	**4.44**	**-**	**-**	-	**1.8**	**11**	**2.9**	**11**	-	**4.42**	**6.65**	**8.51**	**-**	**-**	-	-	-	-	**32.9**	**40.6**	**27.3**	-	**2.3**	**2.2**	**2.9**	**12**
Total Organic Carbon	mg/L	**5.71**	**7.8**	**6.78**	**-**	**-**	-	**1.7**	**9.6**	**2.2**	**2.4**	-	**7.94**	**5.6**	**11.7**	**-**	**-**	-	-	**21.6**	-	**40.5**	**51.2**	**52.2**	-	**2.6**	**2.6**	**2.2**	**3.2**
Carbon Dioxide	mg/L	**-**	**-**	**-**	**-**	**14**	-	**18**	**15**	**40**	-	**-**	**-**	**-**	**-**	**-**	**10**	-	**-**	-	**-**	**-**	-	**-**	**-**	**20**	**22**	**14**	**30**
pH	S.U.	**6.50**	**4.87**	**6.01**	**8.59**	**8.67**	**7.66**	**6.10**	**6.40**	**5.51**	-	**5.83**	**4.94**	**4.70**	**4.09**	**6.12**	**6.53**	**6.21**	**6.36**	-	**6.60**	**4.70**	**4.80**	-	**6.10**	**6.38**	-	**6.61**	**6.46**
Conductivity	mS/cm	**0.10**	**0.122**	**0.09**	**0.071**	**0.081**	**0.067**	**0.126**	**0.196**	**0.100**	-	**0.169**	**0.19**	**0.22**	**0.29**	**0.197**	**0.342**	**0.352**	**0.375**	-	**0.0012**	**1.26**	**0.7350**	-	**0.33**	**0.333**	-	**0.485**	**0.034**
Dissolved Oxygen	mg/L	**9.5**	**9.18**	**5.1**	**4.70**	**4.11**	**5.16**	**5.10**	**2.85**	**1.77**	-	**6.79**	**6.3**	**8.89**	**6.7**	**6.12**	**2.47**	**1.27**	**0.19**	-	**3.1**	**10.55**	**6.4**	-	0.0	**2.76**	-	**3.02**	**1.31**
Oxidation/Reduction Potential (O	mV	**193**	**60**	**59**	**436**	**282**	**172**	**457**	**156**	**184**	-	**192.2**	**261**	**196**	**217**	**446**	**217**	**192**	**167.5**	-	**98**	**134**	**127**	-	**171**	**471**	-	**66**	**160**
Temperature	C	**27.90**	-	**22.77**	**22.85**	**21.87**	**23.39**	**17.99**	**19.79**	**22.40**	-	-	**24.10**	-	**19.28**	**18.06**	**18.02**	**23.34**	-	**26.55**	-	-	**16.40**	-	-	**17.26**	-	**17.98**	**22.88**

Field Parameters:
Ferrous Iron (2000-2005)
Carbon Dioxide (2004-2005)
pH
Conductivity
ORP
Manganese (2000-2005)
Temperature
Dissolved Oxygen

Appendix A-2
Ground Water Geochemical Data
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume																						Cross Gradient					
		ETCMW-114D			ETCMW-115			ETMW-116							ETMW-117						ETMW-118				ETMW-119			ETMW-120		
		4/7/2004	4/29/2005	10/26/2005	4/7/2004	4/28/2005	10/25/2005	5/26/1998	8/23/2000	11/21/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	8/23/2000	11/21/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	5/26/1998	4/8/2004	4/26/2005	10/25/2005	4/7/2004	4/28/2005	10/25/2005	4/7/2004	4/28/2005	10/25/2005
Alkalinity	mg/L	< 10	3,000	2,200	-	-	-	38	12.5	< 10	62	-	-	-	13.9	< 10	58	-	-	-	< 2.0	-	-	-	-	-	-	-	-	-
Chloride	mg/L	2.1	89	190	-	-	-	12	11.7	8.77	11.6	-	-	-	10.7	12	6.73	-	-	-	11.5	-	-	-	-	-	-	-	-	-
Ferrous Iron	mg/L	0.2	5	2	-	4.3	-	< 0.20	0	0.02	0	-	5	-	0	0.03	0.01	-	2.2	-	< 0.20	-	4.4	-	-	1	-	-	3.5	-
Iron	mg/L	17	55	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	< 0.05	0.64	0.53	-	-	-	-	0.2	0.3	0.1	-	-	-	6.3	0.2	0	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	0.46	<0.5 H	1.2	-	-	-	6.2	8.25	-	7.7	-	-	-	6.72	-	4.47	-	-	-	9.4	-	-	-	-	-	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	< 0.07	< 0.05	-	0.405	-	-	-	< 0.05	-	< 0.05	-	-	-	< 0.07	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	7.72	-	-	-	-	6.72	7.64	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	3.6	47	100	-	-	-	14.8	5.12	5.2	42.8	-	-	-	7.62	5.2	19.7	-	-	-	8.1	-	-	-	-	-	-	-	-	-
Sulfide	mg/L	< 0.8	<0.8 H	< 0.8	-	-	-	< 1.0	< 0.2	-	< 0.5	-	-	-	-	0.6	< 0.5	-	-	-	< 1.0	-	-	-	-	-	-	-	-	-
Methane	ug/L	< 2.0	< 5.0	< 2.0	-	-	-	0.247	< 0.2	< 0.2	< 0.2	-	-	-	< 0.2	< 0.2	< 0.2	-	-	-	0.508	-	-	-	-	-	-	-	-	-
Ethane	ug/L	< 4.0	< 5.0	< 4.0	-	-	-	0.093	0.07	0.01	0.01	-	-	-	0.02	0.02	0.01	-	-	-	0.044	-	-	-	-	-	-	-	-	-
Ethene	ug/L	< 4.0	< 5.0	< 4.0	-	-	-	0.023	0.04	0.03	0.02	-	-	-	0.03	0.02	0.03	-	-	-	0.036	-	-	-	-	-	-	-	-	-
Soluble Organic Carbon (DOC)	mg/L	1.1	8,900	4,800	-	-	-	-	9.14	7.7	25.4	-	-	-	-	8.44	28.3	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/L	2.3	9,800	3,500	-	-	-	-	15.1	9.1	32	-	-	-	7.9	17.3	38.7	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Dioxide	mg/L	> 100	50	350 DL	276	19	-	-	-	-	-	-	15	-	-	-	-	-	10	-	-	-	15	-	-	18	-	-	15	-
pH	S.U.	5.60	5.95	6.08	5.87	6.37	5.82	6.18	5.50	4.35	4.76	5.88	5.03	4.99	5.74	3.46	4.68	5.57	6.03	5.60	4.30	5.91	5.86	5.10	6.21	6.25	5.64	5.93	6.19	5.36
Conductivity	mS/cm	0.030	3.620	4.650	0.166	0.366	0.174	0.181	0.18	0.186	0.22	0.141	2.370	1.540	0.17	0.189	0.181	0.152	0.303	0.163	0.150	0.067	0.307	0.089	0.295	0.449	0.203	0.136	0.218	0.097
Dissolved Oxygen	mg/L	3.30	0.97	0.51	0.38	0.23	0.54	1.51	3.9	9.93	7.6	3.63	0.15	0.45	7.4	10.58	7.52	2.38	0.49	1.05	0.07	4.23	0.34	0.46	3.47	0.33	1.34	2.66	0.69	0.67
Oxidation/Reduction Potential (C	mV	463	-8	-76	276	131	84	190.5	199	157	119	560	141	108	212	157	108	555	278	144	218	519	125	155	486	138	115	485	169	92
Temperature	C	19.36	20.43	21.06	20.07	20.32	22.58	-	-	17.55	-	17.42	18.23	23.81	27.14	-	18.20	20.91	21.41	26.20	-	19.68	20.50	24.86	19.07	19.97	20.86	19.41	20.43	20.88

Field Parameters:
Ferrous Iron (2000-2005)
Carbon Dioxide (2004-2005)
pH
Conductivity
ORP
Manganese (2000-2005)
Temperature
Dissolved Oxygen

Appendix A-2
Ground Water Geochemical Data
Pretreatment (2004) and Post-treatment (2005)
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Upgradient							Cross Gradient														Upgradient		
		ETMW-121							OBGMW-122						OBGMW-123					OBGMW-124			CH2PP-1		
		5/27/1998	8/24/2000	11/21/2000	1/24/2001	4/7/2004	4/28/2005	10/26/2005	8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	9/8/2000	1/24/2001	4/6/2004	4/27/2005	10/25/2005	4/20/2004	4/27/2005	10/26/2005	4/7/2004	4/26/2005	10/25/2005
Alkalinity	mg/L	**28**	**30.7**	**32**	**57**	**38**	**5.8**	**26**	-	-	-	-	-	-	-	-	-	-	-	**300**	**430**	**410**	-	-	-
Chloride	mg/L	**15.5**	**10.5**	**10.8**	**3.34**	**7.8**	**5.2**	**11**	-	-	-	-	-	-	-	-	-	-	-	**410 D**	**180**	**210**	-	-	-
Ferrous Iron	mg/L	< 0.20	**0.25**	**0.05**	**0.03**	**0.1**	0	**0.39**	-	-	-	-	0	-	-	-	-	**4.7**	-	**0**	**1.8**	**1.72**	-	0	-
Iron	mg/L	-	-	-	-	**1.1**	**0.84**	**16**	-			-	-	-			-	-	-	**0.41**	**1.3**	**2.0**	-	-	-
Manganese	mg/L	-	-	**0.1**	0	< 0.05	< 0.05	**0.15**	-	-	-	-	-	-	-	-	-	-	-	**0.09**	**0.15**	**0.20**	-	-	-
Nitrate (as N)	mg/L	**1.8**	**1.94**	**-**	**1.19**	**0.65**	**0.59**	**1.2**	-	-	-	-	-	-	-	-	-	-	-	**0.14**	<0.050	**0.10**	-	-	-
Nitrite	mg/L	< 0.07	< 0.05	-	< 0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	**1.86**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**10.1**	**10.3**	**12.6**	**8.93**	**8.5**	**9.9**	**4.6**	-	-	-	-	-	-	-	-	-	-	-	**310 D**	**170**	**190**	-	-	-
Sulfide	mg/L	< 1.0	-	< 0.5	< 0.5	**< 0.8**	**< 0.8**	< 0.8	-	-	-	-	-	-	-	-	-	-	-	< 0.80	< 0.80	< 0.8	-	-	-
Methane	ug/L	**0.195**	< 0.2	< 0.2	< 0.2	< 2.0	< 5.0	< 2.0	-	-	-	-	-	-	-	-	-	-	-	< 2.0	**38 H**	< 2.0	-	-	-
Ethane	ug/L	< 0.005	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0	< 4.0	-	-	-	-	-	-	-	-	-	-	-	< 4.0	< 0.5	< 4.0	-	-	-
Ethene	ug/L	**0.005**	**0.02**	**0.01**	**0.02**	< 4.0	< 5.0	< 4.0	-	-	-	-	-	-	-	-	-	-	-	< 4.0	< 0.5	< 4.0	-	-	-
Soluble Organic Carbon (DOC) -	mg/L	-	**12.9**	**7.74**	**21.1**	**1.9**	**7.9**	**12**	-	-	-	-	-	-	-	-	-	-	-	**5.1**	**6.3**	**17**	-	-	-
Total Organic Carbon	mg/L	-	-	**15.6**	**25.7**	**1.9**	**4.9**	**3.3**	-	-	-	-	-	-	-	-	-	-	-	**4.9**	**5.2**	**4.9**	-	-	-
Carbon Dioxide	mg/L	**-**	-	**-**	**-**	**26**	**15**	**35**	**-**	**-**	-	-	**15**	-	-	-	-	**18**	-	**-**	**50**	**70**	**-**	**12**	-
pH	S.U.	**5.32**	-	**4.50**	**5.11**	**6.20**	**6.25**	**5.94**	**6.31**	**4.80**	**4.65**	**6.27**	**6.08**	**6.38**	**4.60**	**6.06**	**5.94**	**6.27**	**5.25**	**6.82**	**6.40**	**6.82**	**5.22**	**5.93**	**5.01**
Conductivity	mS/cm	**0.112**	-	**0.214**	**0.13**	**0.134**	**0.142**	**0.116**	**0.64**	**0.81**	**0.39**	**0.272**	**0.076**	**0.183**	**0.16**	**0.12**	**0.122**	**0.162**	**0.092**	**2.13**	**1.06**	**1.31**	**0.117**	**0.141**	**0.108**
Dissolved Oxygen	mg/L	**5.12**	-	**10.86**	**8.1**	**4.88**	**3.34**	**1.00**	**6.4**	**7.81**	**6.2**	**0.98**	**3.25**	**0.77**	**7.0**	**7.7**	**0.51**	**0.41**	**0.52**	**1.34**	**1.11**	**0.63**	**4.11**	**4.75**	**3.19**
Oxidation/Reduction Potential (O	mV	**146.4**	-	**134**	**123**	**482**	**197**	**176**	**109**	**1.0**	**164**	**392**	**17.6**	**106.0**	**231**	**201**	**280**	**76**	**115**	**125**	**140**	**98**	**466**	**325**	**207**
Temperature	C	-	**25.91**	-	**17.40**	**19.17**	**19.22**	**23.60**	**25.53**	-	**20.00**	**20.16**	**18.40**	**22.45**	**19.10**	-	**20.18**	**20.10**	**24.64**	**19.80**	**20.30**	**21.83**	**20.05**	**20.72**	**25.77**

Field Parameters:
Ferrous Iron (2000-2005)
Carbon Dioxide (2004-2005)
pH
Conductivity
ORP
Manganese (2000-2005)
Temperature
Dissolved Oxygen

Appendix B

Laboratory Analytical Data for Ground Water

Appendix B1

April 2005

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Monday, May 16, 2005

Mary Jane Bartlett
O'Brien & Gere Engineers, Inc
951 Aviation Parkway
Suite 1400
Morrisville, NC 27560

TEL: 315-437-6100

Project: MILLER BREWING COMPANY CAN PLANT
RE: Analytical Results Order No.: 0504152

Dear Mary Jane Bartlett:

O'Brien & Gere Laboratories, Inc. received 8 sample(s) on 4/27/05 for the analyses presented in the following report.

Very truly yours,
O'BRIEN & GERE LABORATORIES, INC.

Monika Santucci

Monika Santucci
Project Supervisor

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504152-001A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	ETCMW-113
W Order:	0504152			**Collection Date:**	4/26/2005
Matrix:	WATER			**Date Received:**	4/27/2005
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/16/2005 6:31:28 AM	**TestCode:**	8260W_CAL	**FileID:**	J5540.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		2.0	µg/L	4	5/10/2005 12:19:00 AM
1,1,2,2-Tetrachloroethane	ND		2.0	µg/L	4	5/10/2005 12:19:00 AM
1,1,2-Trichloroethane	ND		2.0	µg/L	4	5/10/2005 12:19:00 AM
1,1-Dichloroethane	18		2.0	µg/L	4	5/10/2005 12:19:00 AM
1,1-Dichloroethene	5.1		2.0	µg/L	4	5/10/2005 12:19:00 AM
1,2,3-Trichlorobenzene	ND		4.0	µg/L	4	5/10/2005 12:19:00 AM
1,2,3-Trichloropropane	ND		2.0	µg/L	4	5/10/2005 12:19:00 AM
1,2,4-Trichlorobenzene	ND		4.0	µg/L	4	5/10/2005 12:19:00 AM
1,2-Dibromo-3-chloropropane	ND		4.0	µg/L	4	5/10/2005 12:19:00 AM
1,2-Dichloroethane	ND		2.0	µg/L	4	5/10/2005 12:19:00 AM
2-Butanone	ND		40	µg/L	4	5/10/2005 12:19:00 AM
4-Methyl-2-pentanone	ND		20	µg/L	4	5/10/2005 12:19:00 AM
Acetone	ND		40	µg/L	4	5/10/2005 12:19:00 AM
Benzene	ND		2.0	µg/L	4	5/10/2005 12:19:00 AM
Carbon disulfide	5.6		2.0	µg/L	4	5/10/2005 12:19:00 AM
Chloroethane	ND		4.0	µg/L	4	5/10/2005 12:19:00 AM
Chloromethane	ND		4.0	µg/L	4	5/10/2005 12:19:00 AM
cis-1,2-Dichloroethene	91		2.0	µg/L	4	5/10/2005 12:19:00 AM
Dibromomethane	ND		2.0	µg/L	4	5/10/2005 12:19:00 AM
Ethylbenzene	ND		2.0	µg/L	4	5/10/2005 12:19:00 AM
Methylene chloride	ND		8.0	µg/L	4	5/10/2005 12:19:00 AM
Naphthalene	ND		4.0	µg/L	4	5/10/2005 12:19:00 AM
Tetrachloroethene	7.8		2.0	µg/L	4	5/10/2005 12:19:00 AM
Toluene	ND		2.0	µg/L	4	5/10/2005 12:19:00 AM
trans-1,2-Dichloroethene	ND		2.0	µg/L	4	5/10/2005 12:19:00 AM
Trichloroethene	56		2.0	µg/L	4	5/10/2005 12:19:00 AM
Trichlorofluoromethane	ND		4.0	µg/L	4	5/10/2005 12:19:00 AM
Vinyl acetate	ND		8.0	µg/L	4	5/10/2005 12:19:00 AM
Vinyl chloride	ND		4.0	µg/L	4	5/10/2005 12:19:00 AM
Xylenes (total)	ND		2.0	µg/L	4	5/10/2005 12:19:00 AM
Surr: 1,2-Dichloroethane-d4	89.7		75-134	%REC	4	5/10/2005 12:19:00 AM
Surr: 4-Bromofluorobenzene	105		75-125	%REC	4	5/10/2005 12:19:00 AM
Surr: Dibromofluoromethane	98.9		75-127	%REC	4	5/10/2005 12:19:00 AM
Surr: Toluene-d8	99.9		75-125	%REC	4	5/10/2005 12:19:00 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504152-001A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	ETCMW-113
W Order:	0504152			**Collection Date:**	4/26/2005
Matrix:	WATER			**Date Received:**	4/27/2005
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/16/2005 6:31:28 AM	**TestCode:**	8260W_CAL	**FileID:**	J5540.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
NOTES:						
~~Isobutyl alcohol <500 ug/L~~ (AS) 5-16-05						
Isobutyl alcohol < 200 ug/L						

Qualifiers:	B Analyte detected in the associated Method Blank	E	Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-001A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETCMW-113
Work Order:	0504152	**Collection Date:**	4/26/05
Matrix:	WATER	**Date Received:**	4/27/05
InstrumentID:	MS03 10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R940
Revision:	5/6/05 11:25:13 AM **TestCode:** 8260W CAL	**FileID:**	J5476.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		5.0	µg/L	10	5/5/05 2:29:00 PM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	10	5/5/05 2:29:00 PM
1,1,2-Trichloroethane	ND		5.0	µg/L	10	5/5/05 2:29:00 PM
1,1-Dichloroethane	19		5.0	µg/L	10	5/5/05 2:29:00 PM
1,1-Dichloroethene	6.2		5.0	µg/L	10	5/5/05 2:29:00 PM
1,2,3-Trichlorobenzene	ND		10	µg/L	10	5/5/05 2:29:00 PM
1,2,3-Trichloropropane	ND		5.0	µg/L	10	5/5/05 2:29:00 PM
1,2,4-Trichlorobenzene	ND		10	µg/L	10	5/5/05 2:29:00 PM
1,2-Dibromo-3-chloropropane	ND		10	µg/L	10	5/5/05 2:29:00 PM
1,2-Dichloroethane	ND		5.0	µg/L	10	5/5/05 2:29:00 PM
2-Butanone	ND		100	µg/L	10	5/5/05 2:29:00 PM
4-Methyl-2-pentanone	ND		50	µg/L	10	5/5/05 2:29:00 PM
Acetone	ND		100	µg/L	10	5/5/05 2:29:00 PM
Benzene	ND		5.0	µg/L	10	5/5/05 2:29:00 PM
Carbon disulfide	7.6		5.0	µg/L	10	5/5/05 2:29:00 PM
Chloroethane	ND		10	µg/L	10	5/5/05 2:29:00 PM
Chloromethane	ND		10	µg/L	10	5/5/05 2:29:00 PM
cis-1,2-Dichloroethene	97		5.0	µg/L	10	5/5/05 2:29:00 PM
Dibromomethane	ND		5.0	µg/L	10	5/5/05 2:29:00 PM
Ethylbenzene	ND		5.0	µg/L	10	5/5/05 2:29:00 PM
Methylene chloride	ND		20	µg/L	10	5/5/05 2:29:00 PM
Naphthalene	ND		10	µg/L	10	5/5/05 2:29:00 PM
Tetrachloroethene	9.4		5.0	µg/L	10	5/5/05 2:29:00 PM
Toluene	ND		5.0	µg/L	10	5/5/05 2:29:00 PM
trans-1,2-Dichloroethene	ND		5.0	µg/L	10	5/5/05 2:29:00 PM
Trichloroethene	62		5.0	µg/L	10	5/5/05 2:29:00 PM
Trichlorofluoromethane	ND		10	µg/L	10	5/5/05 2:29:00 PM
Vinyl acetate	ND		20	µg/L	10	5/5/05 2:29:00 PM
Vinyl chloride	ND		10	µg/L	10	5/5/05 2:29:00 PM
Xylenes (total)	ND		5.0	µg/L	10	5/5/05 2:29:00 PM
Surr: 1,2-Dichloroethane-d4	110		75-134	%REC	10	5/5/05 2:29:00 PM
Surr: 4-Bromofluorobenzene	102		75-125	%REC	10	5/5/05 2:29:00 PM
Surr: Dibromofluoromethane	108		75-127	%REC	10	5/5/05 2:29:00 PM
Surr: Toluene-d8	106		75-125	%REC	10	5/5/05 2:29:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-001A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETCMW-113
Work Order:	0504152	**Collection Date:**	4/26/05
Matrix:	WATER	**Date Received:**	4/27/05
InstrumentID:	MS03 10	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R940
Revision:	5/6/05 11:25:13 AM	**TestCode:** 8260W CAL	**FileID:** J5476.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed

VOLATILE ORGANIC COMPOUNDS BY GC/MS **SW8260B**

NOTES:

Isobutyl alcohol <500 ug/L

~~Isobutyl alcohol < 200 ug/L~~ SG 5/13/05

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-002A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETMW-116
Work Order:	0504152	**Collection Date:**	4/26/05
Matrix:	WATER	**Date Received:**	4/27/05
InstrumentID:	MS03 10	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R940
Revision:	5/6/05 11:25:13 AM	**TestCode:** 8260W CAL	**FileID:** J5477.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		2.5	µg/L	5	5/5/05 3:03:00 PM
1,1,2,2-Tetrachloroethane	ND		2.5	µg/L	5	5/5/05 3:03:00 PM
1,1,2-Trichloroethane	ND		2.5	µg/L	5	5/5/05 3:03:00 PM
1,1-Dichloroethane	23		2.5	µg/L	5	5/5/05 3:03:00 PM
1,1-Dichloroethene	9.0		2.5	µg/L	5	5/5/05 3:03:00 PM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	5	5/5/05 3:03:00 PM
1,2,3-Trichloropropane	ND		2.5	µg/L	5	5/5/05 3:03:00 PM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	5	5/5/05 3:03:00 PM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	5	5/5/05 3:03:00 PM
1,2-Dichloroethane	ND		2.5	µg/L	5	5/5/05 3:03:00 PM
2-Butanone	53		50	µg/L	5	5/5/05 3:03:00 PM
4-Methyl-2-pentanone	ND		25	µg/L	5	5/5/05 3:03:00 PM
Acetone	360		50	µg/L	5	5/5/05 3:03:00 PM
Benzene	ND		2.5	µg/L	5	5/5/05 3:03:00 PM
Carbon disulfide	3.7		2.5	µg/L	5	5/5/05 3:03:00 PM
Chloroethane	ND		5.0	µg/L	5	5/5/05 3:03:00 PM
Chloromethane	ND		5.0	µg/L	5	5/5/05 3:03:00 PM
cis-1,2-Dichloroethene	100		2.5	µg/L	5	5/5/05 3:03:00 PM
Dibromomethane	ND		2.5	µg/L	5	5/5/05 3:03:00 PM
Ethylbenzene	ND		2.5	µg/L	5	5/5/05 3:03:00 PM
Methylene chloride	ND		10	µg/L	5	5/5/05 3:03:00 PM
Naphthalene	ND		5.0	µg/L	5	5/5/05 3:03:00 PM
Tetrachloroethene	12		2.5	µg/L	5	5/5/05 3:03:00 PM
Toluene	ND		2.5	µg/L	5	5/5/05 3:03:00 PM
trans-1,2-Dichloroethene	ND		2.5	µg/L	5	5/5/05 3:03:00 PM
Trichloroethene	170		2.5	µg/L	5	5/5/05 3:03:00 PM
Trichlorofluoromethane	ND		5.0	µg/L	5	5/5/05 3:03:00 PM
Vinyl acetate	ND		10	µg/L	5	5/5/05 3:03:00 PM
Vinyl chloride	ND		5.0	µg/L	5	5/5/05 3:03:00 PM
Xylenes (total)	ND		2.5	µg/L	5	5/5/05 3:03:00 PM
Surr: 1,2-Dichloroethane-d4	103		75-134	%REC	5	5/5/05 3:03:00 PM
Surr: 4-Bromofluorobenzene	113		75-125	%REC	5	5/5/05 3:03:00 PM
Surr: Dibromofluoromethane	102		75-127	%REC	5	5/5/05 3:03:00 PM
Surr: Toluene-d8	107		75-125	%REC	5	5/5/05 3:03:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-002A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETMW-116
Work Order:	0504152	**Collection Date:**	4/26/05
Matrix:	WATER	**Date Received:**	4/27/05
InstrumentID:	MS03 10	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R940
Revision:	5/6/05 11:25:13 AM	**TestCode:** 8260W CAL	**FileID:** J5477.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
NOTES:						
Isobutyl alcohol: 1800 ug/L						

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-003A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETMW-117
Work Order:	0504152	**Collection Date:**	4/26/05
Matrix:	WATER	**Date Received:**	4/27/05
InstrumentID:	MS03 10	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R940
Revision:	5/6/05 11:25:13 AM	**TestCode:** 8260W CAL	**FileID:** J5478.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		2.0	µg/L	4	5/5/05 3:37:00 PM
1,1,2,2-Tetrachloroethane	ND		2.0	µg/L	4	5/5/05 3:37:00 PM
1,1,2-Trichloroethane	ND		2.0	µg/L	4	5/5/05 3:37:00 PM
1,1-Dichloroethane	14		2.0	µg/L	4	5/5/05 3:37:00 PM
1,1-Dichloroethene	3.8		2.0	µg/L	4	5/5/05 3:37:00 PM
1,2,3-Trichlorobenzene	ND		4.0	µg/L	4	5/5/05 3:37:00 PM
1,2,3-Trichloropropane	ND		2.0	µg/L	4	5/5/05 3:37:00 PM
1,2,4-Trichlorobenzene	ND		4.0	µg/L	4	5/5/05 3:37:00 PM
1,2-Dibromo-3-chloropropane	ND		4.0	µg/L	4	5/5/05 3:37:00 PM
1,2-Dichloroethane	ND		2.0	µg/L	4	5/5/05 3:37:00 PM
2-Butanone	ND		40	µg/L	4	5/5/05 3:37:00 PM
4-Methyl-2-pentanone	ND		20	µg/L	4	5/5/05 3:37:00 PM
Acetone	ND		40	µg/L	4	5/5/05 3:37:00 PM
Benzene	ND		2.0	µg/L	4	5/5/05 3:37:00 PM
Carbon disulfide	ND		2.0	µg/L	4	5/5/05 3:37:00 PM
Chloroethane	ND		4.0	µg/L	4	5/5/05 3:37:00 PM
Chloromethane	ND		4.0	µg/L	4	5/5/05 3:37:00 PM
cis-1,2-Dichloroethene	30		2.0	µg/L	4	5/5/05 3:37:00 PM
Dibromomethane	ND		2.0	µg/L	4	5/5/05 3:37:00 PM
Ethylbenzene	ND		2.0	µg/L	4	5/5/05 3:37:00 PM
Methylene chloride	ND		8.0	µg/L	4	5/5/05 3:37:00 PM
Naphthalene	ND		4.0	µg/L	4	5/5/05 3:37:00 PM
Tetrachloroethene	5.0		2.0	µg/L	4	5/5/05 3:37:00 PM
Toluene	ND		2.0	µg/L	4	5/5/05 3:37:00 PM
trans-1,2-Dichloroethene	ND		2.0	µg/L	4	5/5/05 3:37:00 PM
Trichloroethene	94		2.0	µg/L	4	5/5/05 3:37:00 PM
Trichlorofluoromethane	ND		4.0	µg/L	4	5/5/05 3:37:00 PM
Vinyl acetate	ND		8.0	µg/L	4	5/5/05 3:37:00 PM
Vinyl chloride	ND		4.0	µg/L	4	5/5/05 3:37:00 PM
Xylenes (total)	ND		2.0	µg/L	4	5/5/05 3:37:00 PM
Surr: 1,2-Dichloroethane-d4	109		75-134	%REC	4	5/5/05 3:37:00 PM
Surr: 4-Bromofluorobenzene	106		75-125	%REC	4	5/5/05 3:37:00 PM
Surr: Dibromofluoromethane	108		75-127	%REC	4	5/5/05 3:37:00 PM
Surr: Toluene-d8	108		75-125	%REC	4	5/5/05 3:37:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-003A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETMW-117
Work Order:	0504152	**Collection Date:**	4/26/05
Matrix:	WATER	**Date Received:**	4/27/05
InstrumentID:	MS03 10	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R940
Revision:	5/6/05 11:25:13 AM	**TestCode:** 8260W CAL	**FileID:** J5478.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed

VOLATILE ORGANIC COMPOUNDS BY GC/MS **SW8260B**

NOTES:
Isobutyl alcohol <200 ug/L

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 (315) 437-6100

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-004A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETMW-118
Work Order:	0504152	**Collection Date:**	4/26/05
Matrix:	WATER	**Date Received:**	4/27/05
InstrumentID:	MS03 10	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R940
Revision:	5/6/05 11:25:13 AM	**TestCode:** 8260W CAL	**FileID:** J5479.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/05 4:11:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/05 4:11:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/05 4:11:00 PM
1,1-Dichloroethane	14		0.50	µg/L	1	5/5/05 4:11:00 PM
1,1-Dichloroethene	3.7		0.50	µg/L	1	5/5/05 4:11:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 4:11:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/05 4:11:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 4:11:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/05 4:11:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/05 4:11:00 PM
2-Butanone	ND		10	µg/L	1	5/5/05 4:11:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/05 4:11:00 PM
Acetone	21		10	µg/L	1	5/5/05 4:11:00 PM
Benzene	ND		0.50	µg/L	1	5/5/05 4:11:00 PM
Carbon disulfide	0.79		0.50	µg/L	1	5/5/05 4:11:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/05 4:11:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/05 4:11:00 PM
cis-1,2-Dichloroethene	120	E	0.50	µg/L	1	5/5/05 4:11:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/05 4:11:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/05 4:11:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/05 4:11:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/05 4:11:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/05 4:11:00 PM
Toluene	ND		0.50	µg/L	1	5/5/05 4:11:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 4:11:00 PM
Trichloroethene	3.1		0.50	µg/L	1	5/5/05 4:11:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/05 4:11:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/05 4:11:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/05 4:11:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/05 4:11:00 PM
Surr: 1,2-Dichloroethane-d4	108		75-134	%REC	1	5/5/05 4:11:00 PM
Surr: 4-Bromofluorobenzene	104		75-125	%REC	1	5/5/05 4:11:00 PM
Surr: Dibromofluoromethane	107		75-127	%REC	1	5/5/05 4:11:00 PM
Surr: Toluene-d8	108		75-125	%REC	1	5/5/05 4:11:00 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-004A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETMW-118
Work Order:	0504152	**Collection Date:**	4/26/05
Matrix:	WATER	**Date Received:**	4/27/05
InstrumentID:	MS03 10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R940
Revision:	5/6/05 11:25:13 AM **TestCode:** 8260W CAL	**FileID:**	J5479.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			

NOTES:

Isobutyl alcohol <50 ug/L

~~Isobutyl alcohol < 250 ug/L~~ SG 5/13/05

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-004A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETMW-118
W Order:	0504152	**Collection Date:**	4/26/2005
Matrix:	WATER	**Date Received:**	4/27/2005
Inst. ID:	MS03_10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R996
Revision:	5/16/2005 6:31:28 AM **TestCode:** 8260W_CAL	**FileID:**	J5541.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		2.5	µg/L	5	5/10/2005 12:53:00 AM
1,1,2,2-Tetrachloroethane	ND		2.5	µg/L	5	5/10/2005 12:53:00 AM
1,1,2-Trichloroethane	ND		2.5	µg/L	5	5/10/2005 12:53:00 AM
1,1-Dichloroethane	15		2.5	µg/L	5	5/10/2005 12:53:00 AM
1,1-Dichloroethene	3.9		2.5	µg/L	5	5/10/2005 12:53:00 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	5	5/10/2005 12:53:00 AM
1,2,3-Trichloropropane	ND		2.5	µg/L	5	5/10/2005 12:53:00 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	5	5/10/2005 12:53:00 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	5	5/10/2005 12:53:00 AM
1,2-Dichloroethane	ND		2.5	µg/L	5	5/10/2005 12:53:00 AM
2-Butanone	ND		50	µg/L	5	5/10/2005 12:53:00 AM
4-Methyl-2-pentanone	ND		25	µg/L	5	5/10/2005 12:53:00 AM
Acetone	ND		50	µg/L	5	5/10/2005 12:53:00 AM
Benzene	ND		2.5	µg/L	5	5/10/2005 12:53:00 AM
Carbon disulfide	ND		2.5	µg/L	5	5/10/2005 12:53:00 AM
Chloroethane	ND		5.0	µg/L	5	5/10/2005 12:53:00 AM
Chloromethane	ND		5.0	µg/L	5	5/10/2005 12:53:00 AM
cis-1,2-Dichloroethene	120		2.5	µg/L	5	5/10/2005 12:53:00 AM
Dibromomethane	ND		2.5	µg/L	5	5/10/2005 12:53:00 AM
Ethylbenzene	ND		2.5	µg/L	5	5/10/2005 12:53:00 AM
Methylene chloride	ND		10	µg/L	5	5/10/2005 12:53:00 AM
Naphthalene	ND		5.0	µg/L	5	5/10/2005 12:53:00 AM
Tetrachloroethene	ND		2.5	µg/L	5	5/10/2005 12:53:00 AM
Toluene	ND		2.5	µg/L	5	5/10/2005 12:53:00 AM
trans-1,2-Dichloroethene	ND		2.5	µg/L	5	5/10/2005 12:53:00 AM
Trichloroethene	9.5		2.5	µg/L	5	5/10/2005 12:53:00 AM
Trichlorofluoromethane	ND		5.0	µg/L	5	5/10/2005 12:53:00 AM
Vinyl acetate	ND		10	µg/L	5	5/10/2005 12:53:00 AM
Vinyl chloride	ND		5.0	µg/L	5	5/10/2005 12:53:00 AM
Xylenes (total)	ND		2.5	µg/L	5	5/10/2005 12:53:00 AM
Surr: 1,2-Dichloroethane-d4	93.4		75-134	%REC	5	5/10/2005 12:53:00 AM
Surr: 4-Bromofluorobenzene	103		75-125	%REC	5	5/10/2005 12:53:00 AM
Surr: Dibromofluoromethane	99.7		75-127	%REC	5	5/10/2005 12:53:00 AM
Surr: Toluene-d8	102		75-125	%REC	5	5/10/2005 12:53:00 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-004A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETMW-118
W Order:	0504152	**Collection Date:**	4/26/2005
Matrix:	WATER	**Date Received:**	4/27/2005
Inst. ID:	MS03_10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R996
Revision:	5/16/2005 6:31:28 AM **TestCode:** 8260W_CAL	**FileID:**	J5541.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		

NOTES:

~~Isobutyl alcohol <50 ug/L~~ @ 5-16-05

Isobutyl alcohol < 250 ug/L

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-005A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-4D
Work Order:	0504152	**Collection Date:**	4/26/05
Matrix:	WATER	**Date Received:**	4/27/05
InstrumentID:	MS03 10	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R940
Revision:	5/6/05 11:25:13 AM	**TestCode:** 8260W CAL	**FileID:** J5480.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 4:45:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 4:45:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/05 4:45:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
2-Butanone	ND		10	µg/L	1	5/5/05 4:45:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/05 4:45:00 PM
Acetone	ND		10	µg/L	1	5/5/05 4:45:00 PM
Benzene	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/05 4:45:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/05 4:45:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/05 4:45:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/05 4:45:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
Toluene	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/05 4:45:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/05 4:45:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/05 4:45:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/05 4:45:00 PM
Surr: 1,2-Dichloroethane-d4	111		75-134	%REC	1	5/5/05 4:45:00 PM
Surr: 4-Bromofluorobenzene	100		75-125	%REC	1	5/5/05 4:45:00 PM
Surr: Dibromofluoromethane	108		75-127	%REC	1	5/5/05 4:45:00 PM
Surr: Toluene-d8	107		75-125	%REC	1	5/5/05 4:45:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-005A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-4D
Work Order:	0504152	**Collection Date:**	4/26/05
Matrix:	WATER	**Date Received:**	4/27/05
InstrumentID:	MS03 10	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R940
Revision:	5/6/05 11:25:13 AM	**TestCode:** 8260W CAL	**FileID:** J5480.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
NOTES:						
Isobutyl alcohol	<50			ug/L		

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-006A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2PP-1
Work Order:	0504152	**Collection Date:**	4/26/05
Matrix:	WATER	**Date Received:**	4/27/05
InstrumentID:	MS03 10	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R940
Revision:	5/6/05 11:25:13 AM	**TestCode:** 8260W CAL	**FileID:** J5481.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/05 5:19:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/05 5:19:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/05 5:19:00 PM
1,1-Dichloroethane	0.55		0.50	µg/L	1	5/5/05 5:19:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/05 5:19:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 5:19:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/05 5:19:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 5:19:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/05 5:19:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/05 5:19:00 PM
2-Butanone	ND		10	µg/L	1	5/5/05 5:19:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/05 5:19:00 PM
Acetone	ND		10	µg/L	1	5/5/05 5:19:00 PM
Benzene	ND		0.50	µg/L	1	5/5/05 5:19:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/05 5:19:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/05 5:19:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/05 5:19:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 5:19:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/05 5:19:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/05 5:19:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/05 5:19:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/05 5:19:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/05 5:19:00 PM
Toluene	ND		0.50	µg/L	1	5/5/05 5:19:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 5:19:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/05 5:19:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/05 5:19:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/05 5:19:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/05 5:19:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/05 5:19:00 PM
Surr: 1,2-Dichloroethane-d4	112		75-134	%REC	1	5/5/05 5:19:00 PM
Surr: 4-Bromofluorobenzene	102		75-125	%REC	1	5/5/05 5:19:00 PM
Surr: Dibromofluoromethane	108		75-127	%REC	1	5/5/05 5:19:00 PM
Surr: Toluene-d8	106		75-125	%REC	1	5/5/05 5:19:00 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-006A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2PP-1
Work Order:	0504152	**Collection Date:**	4/26/05
Matrix:	WATER	**Date Received:**	4/27/05
InstrumentID:	MS03 10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R940
Revision:	5/6/05 11:25:13 AM **TestCode:** 8260W CAL	**FileID:**	J5481.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
NOTES:						
Isobutyl alcohol	<50			ug/L		

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-007A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	DUP-01
Work Order:	0504152	**Collection Date:**	4/26/05
Matrix:	WATER	**Date Received:**	4/27/05
InstrumentID:	MS03 10	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R940
Revision:	5/6/05 11:25:13 AM	**TestCode:** 8260W CAL	**FileID:** J5482.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 5:53:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 5:53:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/05 5:53:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
2-Butanone	ND		10	µg/L	1	5/5/05 5:53:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/05 5:53:00 PM
Acetone	ND		10	µg/L	1	5/5/05 5:53:00 PM
Benzene	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/05 5:53:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/05 5:53:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/05 5:53:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/05 5:53:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
Toluene	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/05 5:53:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/05 5:53:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/05 5:53:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/05 5:53:00 PM
Surr: 1,2-Dichloroethane-d4	113		75-134	%REC	1	5/5/05 5:53:00 PM
Surr: 4-Bromofluorobenzene	102		75-125	%REC	1	5/5/05 5:53:00 PM
Surr: Dibromofluoromethane	113		75-127	%REC	1	5/5/05 5:53:00 PM
Surr: Toluene-d8	106		75-125	%REC	1	5/5/05 5:53:00 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-007A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	DUP-01
Work Order:	0504152	**Collection Date:**	4/26/05
Matrix:	WATER	**Date Received:**	4/27/05
InstrumentID:	MS03 10	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R940
Revision:	5/6/05 11:25:13 AM	**TestCode:** 8260W CAL	**FileID:** J5482.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
NOTES:						
Isobutyl alcohol	<50			ug/L		

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-008A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	TRIP BLANK
Work Order:	0504152	**Collection Date:**	4/26/05
Matrix:	WATER	**Date Received:**	4/27/05
InstrumentID:	MS03 10	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R940
Revision:	5/6/05 11:25:13 AM	**TestCode:** 8260W CAL	**FileID:** J5483.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 6:27:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 6:27:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/05 6:27:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
2-Butanone	ND		10	µg/L	1	5/5/05 6:27:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/05 6:27:00 PM
Acetone	ND		10	µg/L	1	5/5/05 6:27:00 PM
Benzene	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/05 6:27:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/05 6:27:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/05 6:27:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/05 6:27:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
Toluene	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/05 6:27:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/05 6:27:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/05 6:27:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/05 6:27:00 PM
Surr: 1,2-Dichloroethane-d4	113		75-134	%REC	1	5/5/05 6:27:00 PM
Surr: 4-Bromofluorobenzene	101		75-125	%REC	1	5/5/05 6:27:00 PM
Surr: Dibromofluoromethane	112		75-127	%REC	1	5/5/05 6:27:00 PM
Surr: Toluene-d8	104		75-125	%REC	1	5/5/05 6:27:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504152-008A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	TRIP BLANK
Work Order:	0504152	**Collection Date:**	4/26/05
Matrix:	WATER	**Date Received:**	4/27/05
InstrumentID:	MS03 10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R940
Revision:	5/6/05 11:25:13 AM **TestCode:** 8260W CAL	**FileID:**	J5483.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
NOTES:						
Isobutyl alcohol	<50			ug/L		

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
P.O. Box 4873, East Syracuse, NY 13057 (315) 437-6100

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0504152
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **MB-940**	SampType: **MBLK**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**940**
Client ID: **ZZZZZ**	Batch ID: **R940**	Method: **SW8260B**		Analysis Date: **5/5/05**		SeqNo:	**30990**
Instrument: **MS03_10**	ColumnID: **Rtx-VMS**	**Rtx-VMS, 1.0 df**					

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,2,3-Trichlorobenzene	ND	1.0									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	1.0									
1,2-Dibromo-3-chloropropane	ND	1.0									
1,2-Dichloroethane	ND	0.50									
2-Butanone	ND	10									
4-Methyl-2-pentanone	ND	5.0									
Acetone	ND	10									
Benzene	ND	0.50									
Carbon disulfide	ND	0.50									
Chloroethane	ND	1.0									
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	0.50									
Dibromomethane	ND	0.50									
Ethylbenzene	ND	0.50									
Methylene chloride	ND	2.0									
Naphthalene	ND	1.0									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	1.0									
Vinyl acetate	ND	2.0									
Vinyl chloride	ND	1.0									
Xylenes (total)	ND	0.50									

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *10-May-05*

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
P.O. Box 4873, East Syracuse, NY 13057 (315) 437-6100

CLIENT: O'Brien & Gere Engineers, Inc

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0504152
Project: Miller Brewing Company Can Plant

Sample ID: **MB-940**	SampType: **MBLK**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**940**
Client ID: **ZZZZZ**	Batch ID: **R940**	Method: **SW8260B**		Analysis Date: **5/5/05**		SeqNo:	**30990**
Instrument: **MS03_10**	ColumnID: **Rtx-VMS**	**Rtx-VMS, 1.0 df**					

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	11.08	0.10	10	0	111	75	134				
Surr: 4-Bromofluorobenzene	10.59	0.10	10	0	106	75	125				
Surr: Dibromofluoromethane	10.66	0.10	10	0	107	75	127				
Surr: Toluene-d8	10.61	0.10	10	0	106	75	125				
Isobutyl alcohol	ND	50.0									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Date: *10-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
P.O. Box 4873, East Syracuse, NY 13057 (315) 437-6100

CLIENT: O'Brien & Gere Engineers, Inc

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0504152
Project: Miller Brewing Company Can Plant

Sample ID:	**MB-996**	SampType:	**MBLK**	TestCode:	**8260W_CAL**	Units:	**µg/L**	Prep Date:		RunNo:	**996**
Client ID:	**ZZZZZ**	Batch ID:	**R996**	Method:	**SW8260B**			Analysis Date:	**5/9/05**	SeqNo:	**33326**
Instrument:	**MS03_10**	ColumnID:	**Rtx-VMS**		**Rtx-VMS, 1.0 df**						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,2,3-Trichlorobenzene	ND	1.0									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	1.0									
1,2-Dibromo-3-chloropropane	ND	1.0									
1,2-Dichloroethane	ND	0.50									
2-Butanone	ND	10									
4-Methyl-2-pentanone	ND	5.0									
Acetone	ND	10									
Benzene	ND	0.50									
Carbon disulfide	ND	0.50									
Chloroethane	ND	1.0									
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	0.50									
Dibromomethane	ND	0.50									
Ethylbenzene	ND	0.50									
Methylene chloride	ND	2.0									
Naphthalene	ND	1.0									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	1.0									
Vinyl acetate	ND	2.0									
Vinyl chloride	ND	1.0									
Xylenes (total)	ND	1.0									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Date: *10-May-05*

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
P.O. Box 4873, East Syracuse, NY 13057 (315) 437-6100

CLIENT: O'Brien & Gere Engineers, Inc

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0504152
Project: Miller Brewing Company Can Plant

Sample ID: **MB-996** SampType: **MBLK** TestCode: **8260W_CAL** Units: **µg/L** Prep Date: RunNo: **996**
Client ID: **ZZZZZ** Batch ID: **R996** Method: **SW8260B** Analysis Date: **5/9/05** SeqNo: **33326**
Instrument: **MS03_10** ColumnID: **Rtx-VMS** **Rtx-VMS, 1.0 df**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.160	0.10	10	0	91.6	75	134				
Surr: 4-Bromofluorobenzene	10.47	0.10	10	0	105	75	125				
Surr: Dibromofluoromethane	9.810	0.10	10	0	98.1	75	127				
Surr: Toluene-d8	10.14	0.10	10	0	101	75	125				
Isobutyl alcohol	ND	50.0									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Date: *10-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway

East Syracuse, NY 13057 (315) 437-6100

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0504152

CLIENT: O'Brien & Gere Engineers, Inc

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-940** SampType: **LCS** TestCode: **8260W_CAL** Units: **µg/L** Prep Date: RunNo: **940**

Client ID: **ZZZZZ** Batch ID: **R940** Method: **SW8260B** Analysis Date: **5/5/2005** SeqNo: **30987**

Instrument: **MS03_10** ColumnID: **Rtx-VMS** **Rtx-VMS, 1.0 df**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.18	0.50	10	0	102	80	127				
1,1,2,2-Tetrachloroethane	8.860	0.50	10	0	88.6	73	122				
1,1,2-Trichloroethane	9.830	0.50	10	0	98.3	80	120				
1,1-Dichloroethane	9.950	0.50	10	0	99.5	80	120				
1,1-Dichloroethene	9.930	0.50	10	0	99.3	77	126				
1,2,3-Trichlorobenzene	10.01	1.0	10	0	100	75	123				
1,2,3-Trichloropropane	9.240	0.50	10	0	92.4	72	126				
1,2,4-Trichlorobenzene	8.890	1.0	10	0	88.9	73	123				
1,2-Dibromo-3-chloropropane	9.420	1.0	10	0	94.2	71	124				
1,2-Dichloroethane	10.13	0.50	10	0	101	73	126				
2-Butanone	14.78	10	20	0	73.9	49	153				
4-Methyl-2-pentanone	17.93	5.0	20	0	89.7	50	150				
Acetone	9.770	10	20	0	48.8	37	163				J
Benzene	10.25	0.50	10	0	103	80	120				
Carbon disulfide	9.650	0.50	10	0	96.5	76	122				
Chloroethane	9.940	1.0	10	0	99.4	75	124				
Chloromethane	11.16	1.0	10	0	112	59	133				
cis-1,2-Dichloroethene	9.870	0.50	10	0	98.7	80	120				
Dibromomethane	9.950	0.50	10	0	99.5	79	120				
Ethylbenzene	10.60	0.50	10	0	106	80	120				
Methylene chloride	9.850	2.0	10	0	98.5	78	120				
Naphthalene	8.660	1.0	10	0	86.6	67	134				
Tetrachloroethene	9.310	0.50	10	0	93.1	80	120				
Toluene	11.27	0.50	10	0	113	80	120				
trans-1,2-Dichloroethene	9.600	0.50	10	0	96.0	80	120				
Trichloroethene	9.830	0.50	10	0	98.3	80	120				
Trichlorofluoromethane	10.04	1.0	10	0	100	73	132				
Vinyl acetate	9.130	2.0	10	0	91.3	43	150				
Vinyl chloride	11.16	1.0	10	0	112	75	125				

Qualifiers:

- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Date: *16-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0504152
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS-940**	SampType: **LCS**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:	RunNo: **940**
Client ID: **ZZZZZ**	Batch ID: **R940**	Method: **SW8260B**		Analysis Date: **5/5/2005**	SeqNo: **30987**
Instrument: **MS03_10**	ColumnID: **Rtx-VMS**	**Rtx-VMS, 1.0 df**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Xylenes (total)	30.72	0.50	30	0	102	80	120				
Surr: 1,2-Dichloroethane-d4	10.04	0.10	10	0	100	75	134				
Surr: 4-Bromofluorobenzene	9.830	0.10	10	0	98.3	75	125				
Surr: Dibromofluoromethane	9.930	0.10	10	0	99.3	75	127				
Surr: Toluene-d8	10.82	0.10	10	0	108	75	125				

Notes:

Isobutyl alcohol	240.49	50	250	0	96.2

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *16-May-05*

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
P.O. Box 4873, East Syracuse, NY 13057 (315) 437-6100

CLIENT: O'Brien & Gere Engineers, Inc

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0504152
Project: Miller Brewing Company Can Plant

Sample ID: **LCS-996**	SampType: **LCS**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**996**
Client ID: **ZZZZZ**	Batch ID: **R996**	Method: **SW8260B**		Analysis Date: **5/9/05**		SeqNo:	**33324**
Instrument: **MS03_10**	ColumnID: **Rtx-VMS**	**Rtx-VMS, 1.0 df**					

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	8.910	0.50	10	0	89.1	80	127				
1,1,2,2-Tetrachloroethane	9.220	0.50	10	0	92.2	73	122				
1,1,2-Trichloroethane	9.540	0.50	10	0	95.4	80	120				
1,1-Dichloroethane	10.03	0.50	10	0	100	80	120				
1,1-Dichloroethene	10.23	0.50	10	0	102	77	126				
1,2,3-Trichlorobenzene	10.14	1.0	10	0	101	75	123				
1,2,3-Trichloropropane	9.060	0.50	10	0	90.6	72	126				
1,2,4-Trichlorobenzene	8.910	1.0	10	0	89.1	73	123				
1,2-Dibromo-3-chloropropane	8.500	1.0	10	0	85.0	71	124				
1,2-Dichloroethane	8.610	0.50	10	0	86.1	73	126				
2-Butanone	13.96	10	20	0	69.8	49	153				
4-Methyl-2-pentanone	18.25	5.0	20	0	91.2	50	150				
Acetone	10.32	10	20	0	51.6	37	163				
Benzene	10.42	0.50	10	0	104	80	120				
Carbon disulfide	9.410	0.50	10	0	94.1	76	122				
Chloroethane	9.660	1.0	10	0	96.6	75	124				
Chloromethane	10.39	1.0	10	0	104	59	133				
cis-1,2-Dichloroethene	10.26	0.50	10	0	103	80	120				
Dibromomethane	9.290	0.50	10	0	92.9	79	120				
Ethylbenzene	10.61	0.50	10	0	106	80	120				
Methylene chloride	9.880	2.0	10	0	98.8	78	120				
Naphthalene	9.110	1.0	10	0	91.1	67	134				
Tetrachloroethene	10.00	0.50	10	0	100	80	120				
Toluene	10.83	0.50	10	0	108	80	120				
trans-1,2-Dichloroethene	10.07	0.50	10	0	101	80	120				
Trichloroethene	10.09	0.50	10	0	101	80	120				
Trichlorofluoromethane	8.550	1.0	10	0	85.5	73	132				
Vinyl acetate	8.440	2.0	10	0	84.4	43	150				
Vinyl chloride	10.53	1.0	10	0	105	75	125				
Xylenes (total)	32.20	1.0	30	0	107	80	120				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Date: *10-May-05*

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
P.O. Box 4873, East Syracuse, NY 13057 (315) 437-6100

CLIENT: O'Brien & Gere Engineers, Inc

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0504152
Project: Miller Brewing Company Can Plant

Sample ID: **LCS-996**	SampType: **LCS**	TestCode: **8260W_CAL**	Units: **µg/L**		Prep Date:				RunNo: **996**			
Client ID: **ZZZZZ**	Batch ID: **R996**	Method: **SW8260B**			Analysis Date: **5/9/05**				SeqNo: **33324**			
Instrument: **MS03_10**	ColumnID: **Rtx-VMS**	**Rtx-VMS, 1.0 df**										

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	8.500	0.10	10	0	85.0	75	134				
Surr: 4-Bromofluorobenzene	10.14	0.10	10	0	101	75	125				
Surr: Dibromofluoromethane	9.900	0.10	10	0	99.0	75	127				
Surr: Toluene-d8	10.36	0.10	10	0	104	75	125				
Isobutyl alcohol	245.71	50.0	250.	0	98.3%						

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Date: *10-May-05*

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
P.O. Box 4873, East Syracuse, NY 13057 (315) 437-6100

CLIENT: O'Brien & Gere Engineers, Inc

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0504152
Project: Miller Brewing Company Can Plant

Sample ID: **LCSD-996**	SampType: **LCSD**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**996**
Client ID: **ZZZZZ**	Batch ID: **R996**	Method: **SW8260B**		Analysis Date: **5/9/05**		SeqNo:	**33325**
Instrument: **MS03_10**	ColumnID: **Rtx-VMS**	**Rtx-VMS, 1.0 df**					

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	9.260	0.50	10	0	92.6	80	127	8.91	3.85	20	
1,1,2,2-Tetrachloroethane	9.140	0.50	10	0	91.4	73	122	9.22	0.871	20	
1,1,2-Trichloroethane	9.570	0.50	10	0	95.7	80	120	9.54	0.314	20	
1,1-Dichloroethane	9.920	0.50	10	0	99.2	80	120	10.03	1.10	20	
1,1-Dichloroethene	10.10	0.50	10	0	101	77	126	10.23	1.28	20	
1,2,3-Trichlorobenzene	10.00	1.0	10	0	100	75	123	10.14	1.39	20	
1,2,3-Trichloropropane	8.530	0.50	10	0	85.3	72	126	9.06	6.03	20	
1,2,4-Trichlorobenzene	8.700	1.0	10	0	87.0	73	123	8.91	2.39	20	
1,2-Dibromo-3-chloropropane	8.950	1.0	10	0	89.5	71	124	8.5	5.16	20	
1,2-Dichloroethane	8.450	0.50	10	0	84.5	73	126	8.61	1.88	20	
2-Butanone	14.63	10	20	0	73.2	49	153	13.96	4.69	50	
4-Methyl-2-pentanone	18.83	5.0	20	0	94.2	50	150	18.25	3.13	50	
Acetone	10.04	10	20	0	50.2	37	163	10.32	2.75	50	
Benzene	10.40	0.50	10	0	104	80	120	10.42	0.192	20	
Carbon disulfide	9.340	0.50	10	0	93.4	76	122	9.41	0.747	20	
Chloroethane	9.490	1.0	10	0	94.9	75	124	9.66	1.78	20	
Chloromethane	10.17	1.0	10	0	102	59	133	10.39	2.14	20	
cis-1,2-Dichloroethene	9.870	0.50	10	0	98.7	80	120	10.26	3.87	20	
Dibromomethane	9.180	0.50	10	0	91.8	79	120	9.29	1.19	20	
Ethylbenzene	10.34	0.50	10	0	103	80	120	10.61	2.58	20	
Methylene chloride	9.600	2.0	10	0	96.0	78	120	9.88	2.87	20	
Naphthalene	9.220	1.0	10	0	92.2	67	134	9.11	1.20	20	
Tetrachloroethene	9.910	0.50	10	0	99.1	80	120	10	0.904	20	
Toluene	10.69	0.50	10	0	107	80	120	10.83	1.30	20	
trans-1,2-Dichloroethene	9.850	0.50	10	0	98.5	80	120	10.07	2.21	20	
Trichloroethene	10.04	0.50	10	0	100	80	120	10.09	0.497	20	
Trichlorofluoromethane	8.430	1.0	10	0	84.3	73	132	8.55	1.41	20	
Vinyl acetate	9.070	2.0	10	0	90.7	43	150	8.44	7.20	50	
Vinyl chloride	10.44	1.0	10	0	104	75	125	10.53	0.858	20	
Xylenes (total)	31.76	1.0	30	0	106	80	120	32.2	1.38	20	

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Date: *10-May-05*

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
P.O. Box 4873, East Syracuse, NY 13057 (315) 437-6100

CLIENT: O'Brien & Gere Engineers, Inc

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0504152
Project: Miller Brewing Company Can Plant

Sample ID: **LCSD-996**	SampType: **LCSD**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**996**
Client ID: **ZZZZZ**	Batch ID: **R996**	Method: **SW8260B**		Analysis Date: **5/9/05**		SeqNo:	**33325**
Instrument: **MS03_10**	ColumnID: **Rtx-VMS**	**Rtx-VMS, 1.0 df**					

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	8.360	0.10	10	0	83.6	75	134	0	0	0	
Surr: 4-Bromofluorobenzene	10.18	0.10	10	0	102	75	125	0	0	0	
Surr: Dibromofluoromethane	9.720	0.10	10	0	97.2	75	127	0	0	0	
Surr: Toluene-d8	10.43	0.10	10	0	104	75	125	0	0	0	
Isobutyl alcohol	272.02	50.	250.	0	108.8						

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Date: *10-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 (315) 437-6100

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0504152
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **0504156-004AMS** SampType: **MS** TestCode: **8260W_CAL** Units: **µg/L** Prep Date: RunNo: **940**
Client ID: **ZZZZZ** Batch ID: **R940** Method: **SW8260B** Analysis Date: **5/5/2005** SeqNo: **30988**
Instrument: **MS03_10** ColumnID: **Rtx-VMS** **Rtx-VMS, 1.0 df**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.53	0.50	10	0	105	70	130				
1,1,2,2-Tetrachloroethane	9.620	0.50	10	0	96.2	68	136				
1,1,2-Trichloroethane	9.810	0.50	10	0	98.1	68	133				
1,1-Dichloroethane	9.920	0.50	10	0	99.2	70	130				
1,1-Dichloroethene	9.840	0.50	10	0	98.4	70	135				
1,2,3-Trichlorobenzene	9.800	1.0	10	0	98.0	70	130				
1,2,3-Trichloropropane	9.620	0.50	10	0	96.2	63	143				
1,2,4-Trichlorobenzene	8.920	1.0	10	0	89.2	68	130				
1,2-Dibromo-3-chloropropane	9.720	1.0	10	0	97.2	55	149				
1,2-Dichloroethane	10.28	0.50	10	0	103	70	130				
2-Butanone	13.43	10	20	0	67.2	25	150				
4-Methyl-2-pentanone	17.78	5.0	20	0	88.9	44	150				
Acetone	9.140	10	20	2.08	35.3	25	150				J
Benzene	10.25	0.50	10	0	103	70	132				
Carbon disulfide	9.850	0.50	10	0	98.5	66	130				
Chloroethane	9.660	1.0	10	0	96.6	70	130				
Chloromethane	10.94	1.0	10	0	109	58	135				
cis-1,2-Dichloroethene	10.09	0.50	10	0	101	48	151				
Dibromomethane	9.810	0.50	10	0	98.1	70	130				
Ethylbenzene	10.55	0.50	10	0	106	70	130				
Methylene chloride	9.660	2.0	10	0.12	95.4	70	130				
Naphthalene	9.390	1.0	10	0	93.9	46	158				
Tetrachloroethene	9.350	0.50	10	0	93.5	70	130				
Toluene	11.07	0.50	10	0.12	110	70	130				
trans-1,2-Dichloroethene	10.02	0.50	10	0	100	70	130				
Trichloroethene	9.820	0.50	10	0	98.2	42	167				
Trichlorofluoromethane	10.18	1.0	10	0	102	70	131				
Vinyl acetate	9.180	2.0	10	0	91.8	37	155				
Vinyl chloride	10.90	1.0	10	0	109	70	130				

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Date: *16-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0504152
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **0504156-004AMS**	SampType: **MS**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo: **940**						
Client ID: **ZZZZZ**	Batch ID: **R940**	Method: **SW8260B**		Analysis Date: **5/5/2005**		SeqNo: **30988**						
Instrument: **MS03_10**	ColumnID: **Rtx-VMS**	**Rtx-VMS, 1.0 df**										

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Xylenes (total)	31.01	0.50	30	0	103	65	132				
Surr: 1,2-Dichloroethane-d4	10.37	0.10	10	0	104	75	134				
Surr: 4-Bromofluorobenzene	10.45	0.10	10	0	104	75	125				
Surr: Dibromofluoromethane	9.960	0.10	10	0	99.6	75	127				
Surr: Toluene-d8	10.66	0.10	10	0	107	75	125				

Notes:

Isobutyl alcohol	248.77	50	250	0	99.5							

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Date: *16-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 (315) 437-6100

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0504152
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **0504156-004AMSD** SampType: **MSD** TestCode: **8260W_CAL** Units: **µg/L** Prep Date: RunNo: **940**
Client ID: **ZZZZZ** Batch ID: **R940** Method: **SW8260B** Analysis Date: **5/5/2005** SeqNo: **30989**
Instrument: **MS03_10** ColumnID: **Rtx-VMS** **Rtx-VMS, 1.0 df**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.53	0.50	10	0	105	70	130	10.53	0	20	
1,1,2,2-Tetrachloroethane	9.250	0.50	10	0	92.5	68	136	9.62	3.92	20	
1,1,2-Trichloroethane	9.910	0.50	10	0	99.1	68	133	9.81	1.01	20	
1,1-Dichloroethane	10.12	0.50	10	0	101	70	130	9.92	2.00	20	
1,1-Dichloroethene	10.16	0.50	10	0	102	70	135	9.84	3.20	20	
1,2,3-Trichlorobenzene	9.940	1.0	10	0	99.4	70	130	9.8	1.42	20	
1,2,3-Trichloropropane	9.320	0.50	10	0	93.2	63	143	9.62	3.17	20	
1,2,4-Trichlorobenzene	9.330	1.0	10	0	93.3	68	130	8.92	4.49	20	
1,2-Dibromo-3-chloropropane	8.870	1.0	10	0	88.7	55	149	9.72	9.14	20	
1,2-Dichloroethane	10.14	0.50	10	0	101	70	130	10.28	1.37	20	
2-Butanone	13.46	10	20	0	67.3	25	150	13.43	0.22	50	
4-Methyl-2-pentanone	18.62	5.0	20	0	93.1	44	150	17.78	4.62	50	
Acetone	9.580	10	20	2.08	37.5	25	150	9.14	0	50	J
Benzene	10.45	0.50	10	0	104	70	132	10.25	1.93	20	
Carbon disulfide	9.670	0.50	10	0	96.7	66	130	9.85	1.84	20	
Chloroethane	10.12	1.0	10	0	101	70	130	9.66	4.65	20	
Chloromethane	11.35	1.0	10	0	114	58	135	10.94	3.68	20	
cis-1,2-Dichloroethene	10.14	0.50	10	0	101	48	151	10.09	0.49	20	
Dibromomethane	9.670	0.50	10	0	96.7	70	130	9.81	1.44	20	
Ethylbenzene	10.43	0.50	10	0	104	70	130	10.55	1.14	20	
Methylene chloride	9.780	2.0	10	0.12	96.6	70	130	9.66	1.23	20	
Naphthalene	9.500	1.0	10	0	95.0	46	158	9.39	1.16	20	
Tetrachloroethene	9.470	0.50	10	0	94.7	70	130	9.35	1.28	20	
Toluene	11.40	0.50	10	0.12	113	70	130	11.07	2.94	20	
trans-1,2-Dichloroethene	9.880	0.50	10	0	98.8	70	130	10.02	1.41	20	
Trichloroethene	10.05	0.50	10	0	100	42	167	9.82	2.32	20	
Trichlorofluoromethane	9.920	1.0	10	0	99.2	70	131	10.18	2.59	20	
Vinyl acetate	8.800	2.0	10	0	88.0	37	155	9.18	4.23	50	
Vinyl chloride	11.14	1.0	10	0	111	70	130	10.9	2.18	20	

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Date: *16-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway

East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0504152

CLIENT: O'Brien & Gere Engineers, Inc

Project: Miller Brewing Company Can Plant

Sample ID: **0504156-004AMSD**	SampType: **MSD**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo: **940**					
Client ID: **ZZZZZ**	Batch ID: **R940**	Method: **SW8260B**		Analysis Date: **5/5/2005**		SeqNo: **30989**					
Instrument: **MS03_10**	ColumnID: **Rtx-VMS**	**Rtx-VMS, 1.0 df**									

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Xylenes (total)	31.08	0.50	30	0	104	65	132	31.01	0.23	20	
Surr: 1,2-Dichloroethane-d4	9.980	0.10	10	0	99.8	75	134	0	0	0	
Surr: 4-Bromofluorobenzene	10.39	0.10	10	0	104	75	125	0	0	0	
Surr: Dibromofluoromethane	10.14	0.10	10	0	101	75	127	0	0	0	
Surr: Toluene-d8	10.73	0.10	10	0	107	75	125	0	0	0	

Notes:

Isobutyl alcohol	244.25	50	250	0	99.7

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *16-May-05*

Table 1
Target Analyte List and Geochemistry Parameters
Miller Brewing Company Can Plant
Moultrie, Georgia

Target Analytes	Geochemistry Parameters
Acetone	Alkalinity
2-Butanone (MEK)	Chloride
Benzene	Nitrate
Carbon Disulfide	Sulfate
Chloroethane	Sulfide
Chloromethane	Methane
1,2-Dibromo-3-chloropropane (DBCP)	Ethane
Dibromomethane	Ethene
1,1-Dichloroethane (1,1-DCA)	Soluble Organic Carbon (Dissolved)
1,2-Dichloroethane (1-,2-DCA)	Total Organic Carbon
1,1-Dichloroethene (1,1-DCE)	Total Iron
cis-1,2-dichloroethene (cis-1,2-DCE)	Conductivity*
trans-1,2-dichloroethene (trans-1,2-DCE)	Dissolved Oxygen*
1,2-Dichloroethene (total) (1,2-DCE-total)	Ferrous Iron*
Ethylbenzene	Manganese*
Isobutyl Alcohol	Oxidation/Reduction Potential (ORP)*
Methylene Chloride	pH*
4-methyl-2-pentanone (MIBK)	Temperature*
Naphthalene	
1,1,2,2-Tetrachloroethane	
Tetrachloroethene (PCE)	
Toluene	
1,2,3-Trichlorobenzene	
1,2,4-Trichlorobenzene	
1,1,1-Trichloroethane (TCA)	
Trichloroethene (TCE)	
Trichlorofluoromethane	
1,2,3-Trichloropropane	
Vinyl Acetate	
Vinyl Chloride	
Xylenes (total)	

* measured at time of sampling

From: Mary Jane Bartlett
To: Santucci, Monika
Date: 4/18/05 3:46:04 PM
Subject: Miller Brewing Co. groundwater sampling

We have a sampling event scheduled for next week at the MBCO site in Georgia. We are only sampling for groundwater. Analyses are target analyte VOCs from 20 wells and geochemical parameters from 7 wells. Attached is the VOC target analyte list. Geochem lab parameters are:

Alkalinity
Chloride
Nitrate
Sulfate
Sulfide
Ethane
Ethene
Methane
Soluble Organic Carbon
TOC
Total Iron

These should be the same analyses as we had done for this site before. The last time around we had a misunderstanding about MS/MSD analyses. From what I understand now, you run the MS/MSD with left over sample volume so you don't need extra shipped for that. Let me know if this is correct or not.

Please ship sample bottles to Marv Richardson in the OBG Atlanta office for delivery by the end of this week. Please call if questions. Thanks.

Mary Jane Bartlett, PE
Project Engineer
O'Brien & Gere Engineers
951 Aviation Parkway, Suite 1400
Morrisville, NC 27560

(919) 469-0099
(919) 469-9967 fax

email: bartlemj@obg.com

CC: Brunton, Andrew; Richardson, Marv

O'BRIEN & GERE LABORATORIES, INC.

SUBJECT

FedEx. US Airbill
Express

FedEx Tracking Number 847959481479

0200

Recipient's Copy

1A8513 1B8513 1C8513 1E8513

1 From

Date

Sender's Name Phone

Company

Address Dept./Floor/Suite/Room

City State ZIP

2 Your Internal Billing Reference

3 To

Recipient's Name Phone

Company

Recipient's Address Dept./Floor/Suite/Room

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FedEx Envelope rate not available. Minimum charge: One-pound rate

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- [ ] FedEx 1Day Freight* — Next business day**
- [ ] FedEx 2Day Freight — Second business day**
- [ ] FedEx 3Day Freight — Third business day**

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- [ ] FedEx Envelope*
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- [ ] FedEx Tube
- [X] Other

6 Special Handling — Include FedEx address in Section 3.

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- [ ] HOLD Saturday at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

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- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including Dry Ice) cannot be shipped in FedEx packaging.

- [ ] Cargo Aircraft Only

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- [X] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
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Obtain Recip. Acct. No. [ ]

Total Packages	Total Weight	Total Declared Value†	Total Charges
1	5	$ .00	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

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467

O'BRIEN & GERE ENGINEERS, INC.

Chain of Custody/Analysis Report

COC Tracking Number:

Lab Use Only

Project Number:

Lab ID:

Job Number:

Site Name: Moultrie, GA (Miller) | Site Location: Moultrie, GA | Sampler(s): MARY B RICHARDSON

O'Brien & Gere Office: Atlanta
Address: 5895 Shiloh Rd.
Phone: 770-205-4758
Fax: 770-205-9604
Email:

Laboratory:
Phone:
Fax:

Analysis Turnaround Time:
Rush Charges authorized for: 2 weeks | 1 Week | Next Day
P.O. Number: 35789.002.001
EDD Format:

Grab (G) or Composite (C) | Field Filtered? (Y / N)

Preservatives: (see key at bottom)

Sample Identification: Unique Field Sample ID	Start Depth (ft)	End Depth (ft)	Sample Location	Sample Date (mm/dd/yy)	Sample Time (hh:mm)	Sample Type (see key)	Sample Matrix (see key)	# of Containers	Reporting Units	Grab (G) or Composite (C)	Field Filtered? (Y / N)	Preservatives: (see key at bottom) 1	Lab Sample ID
1 ETMW-113			MW-113	04/26/05	1000	GW	N	3		G	N	VOC	
2 ETMW-116			MW-116		1205	GW	N	3		G			
3 ETMW-117			MW-117		1310	GW	N	3		G			
4 ETMW-118			MW-118		1405	GW	N	3		G			
5 CH2MW-4D			MW-4D		1530	GW	N	3		G			
6 CH2PP-1			PP-1		1610	GW	N	3		G			
7 DUP-01			—		—	GW	FD	3		G			
8 Trip Blank			—	↓	-		TB	1		-	↓		
9													
10													
11													
12													

Special Instructions:

Relinquished by:	Date	Received by:	Date	Condition:
of: MARY B. RICHARDSON	Time 1745	of: OBG-CABS	Time 9:35	4°C Iced
Relinquished by:	Date	Received by:	Date	Custody Seals intact? Y N
of:	Time	of:	Time	
Relinquished by:	Date	Received by:	Date	Cooler Temperature:
of:	Time	of:	Time	

Other Comments or Notes regarding condition of samples as received:

Sample Type: N = Normal environmental sample, FD = field duplicate, EB = Equipment Blank, FB = Field Blank, TB = Trip Blank, MS = Lab Matrix Spike, Other (Specify):
Sample Matrix: SE = Sediment, SO = Soil, WG = Ground Water, WS = Surface Water, WW = Waste Water, WP = Potable Water, TA = Animal Tissue, TP = Plant Tissue, AA = Ambient Air, Other (Specify):
Preservatives Code: 0 = none, 1 = HCL, 2 = HNO3, 3 = H2SO4, 4 = NaOH, 5 = Zn Acetate, 6 = MeOH, 7 = NaHSO4, 8 = Other (specify):

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Thursday, May 26, 2005

Mary Jane Bartlett
O'Brien & Gere Engineers, Inc
951 Aviation Parkway
Suite 1400
Morrisville, NC 27560

TEL: 315-437-6100

Project: MILLER BREWING COMPANY CAN PLANT
RE: Analytical Results Order No.: 0504156

Dear Mary Jane Bartlett:

O'Brien & Gere Laboratories, Inc. received 11 sample(s) on 4/28/05 for the analyses presented in the following report.

Very truly yours,
O'BRIEN & GERE LABORATORIES, INC.

Monika Santucci

Monika Santucci
Project Supervisor

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-001A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-2
W Order:	0504156	**Collection Date:**	4/27/2005 9:25:00 AM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	MS03_10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R940
Revision:	5/25/2005 8:38:34 AM **TestCode:** 8260W_CAL	**FileID:**	J5485.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/2005 7:35:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/2005 7:35:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/2005 7:35:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
2-Butanone	ND		10	µg/L	1	5/5/2005 7:35:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/2005 7:35:00 PM
Acetone	ND		10	µg/L	1	5/5/2005 7:35:00 PM
Benzene	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/2005 7:35:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/2005 7:35:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/2005 7:35:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/2005 7:35:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
Toluene	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/2005 7:35:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/2005 7:35:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/2005 7:35:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/2005 7:35:00 PM
Surr: 1,2-Dichloroethane-d4	116		75-134	%REC	1	5/5/2005 7:35:00 PM
Surr: 4-Bromofluorobenzene	100		75-125	%REC	1	5/5/2005 7:35:00 PM
Surr: Dibromofluoromethane	108		75-127	%REC	1	5/5/2005 7:35:00 PM
Surr: Toluene-d8	104		75-125	%REC	1	5/5/2005 7:35:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504156-001A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	CH2MW-2
W Order:	0504156			**Collection Date:**	4/27/2005 9:25:00 AM
Matrix:	WATER			**Date Received:**	4/28/2005
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R940
Revision:	5/25/2005 8:38:34 AM	**TestCode:**	8260W_CAL	**FileID:**	J5485.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
NOTES:						
Isobutyl alcohol	<50			ug/L		

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504156-002A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	CH2MW-3
W Order:	0504156			**Collection Date:**	4/27/2005 10:40:00 AM
Matrix:	WATER			**Date Received:**	4/28/2005
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R940
Revision:	5/25/2005 8:38:34 AM	**TestCode:**	8260W_CAL	**FileID:**	J5490.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/2005 10:25:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/2005 10:25:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/2005 10:25:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
2-Butanone	ND		10	µg/L	1	5/5/2005 10:25:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/2005 10:25:00 PM
Acetone	ND		10	µg/L	1	5/5/2005 10:25:00 PM
Benzene	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/2005 10:25:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/2005 10:25:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/2005 10:25:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/2005 10:25:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
Toluene	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/2005 10:25:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/2005 10:25:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/2005 10:25:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/2005 10:25:00 PM
Surr: 1,2-Dichloroethane-d4	118		75-134	%REC	1	5/5/2005 10:25:00 PM
Surr: 4-Bromofluorobenzene	100		75-125	%REC	1	5/5/2005 10:25:00 PM
Surr: Dibromofluoromethane	115		75-127	%REC	1	5/5/2005 10:25:00 PM
Surr: Toluene-d8	107		75-125	%REC	1	5/5/2005 10:25:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504156-002A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	CH2MW-3
W Order:	0504156			**Collection Date:**	4/27/2005 10:40:00 AM
Matrix:	WATER			**Date Received:**	4/28/2005
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R940
Revision:	5/25/2005 8:38:34 AM	**TestCode:**	8260W_CAL	**FileID:**	J5490.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
NOTES:						
Isobutyl alcohol	<50			ug/L		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-004A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	OBGMW-124
W Order:	0504156	**Collection Date:**	4/27/2005 12:35:00 PM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	MS03_10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R940
Revision:	5/25/2005 8:38:34 AM **TestCode:** 8260W_CAL	**FileID:**	J5484.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/2005 7:01:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/2005 7:01:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/2005 7:01:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
2-Butanone	ND		10	µg/L	1	5/5/2005 7:01:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/2005 7:01:00 PM
Acetone	ND		10	µg/L	1	5/5/2005 7:01:00 PM
Benzene	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/2005 7:01:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/2005 7:01:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/2005 7:01:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/2005 7:01:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
Toluene	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/2005 7:01:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/2005 7:01:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/2005 7:01:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/2005 7:01:00 PM
Surr: 1,2-Dichloroethane-d4	117		75-134	%REC	1	5/5/2005 7:01:00 PM
Surr: 4-Bromofluorobenzene	103		75-125	%REC	1	5/5/2005 7:01:00 PM
Surr: Dibromofluoromethane	113		75-127	%REC	1	5/5/2005 7:01:00 PM
Surr: Toluene-d8	108		75-125	%REC	1	5/5/2005 7:01:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504156-004A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	OBGMW-124
W Order:	0504156			**Collection Date:**	4/27/2005 12:35:00 PM
Matrix:	WATER			**Date Received:**	4/28/2005
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R940
Revision:	5/25/2005 8:38:34 AM	**TestCode:**	8260W_CAL	**FileID:**	J5484.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
NOTES:						
Isobutyl alcohol	<50			ug/L		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504156-005A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	DUP-02
W Order:	0504156			**Collection Date:**	4/27/2005
Matrix:	WATER			**Date Received:**	4/28/2005
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R940
Revision:	5/25/2005 8:38:34 AM	**TestCode:**	8260W_CAL	**FileID:**	J5489.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/2005 9:51:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/2005 9:51:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/2005 9:51:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
2-Butanone	ND		10	µg/L	1	5/5/2005 9:51:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/2005 9:51:00 PM
Acetone	ND		10	µg/L	1	5/5/2005 9:51:00 PM
Benzene	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/2005 9:51:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/2005 9:51:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/2005 9:51:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/2005 9:51:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
Toluene	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/2005 9:51:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/2005 9:51:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/2005 9:51:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/2005 9:51:00 PM
Surr: 1,2-Dichloroethane-d4	121		75-134	%REC	1	5/5/2005 9:51:00 PM
Surr: 4-Bromofluorobenzene	101		75-125	%REC	1	5/5/2005 9:51:00 PM
Surr: Dibromofluoromethane	115		75-127	%REC	1	5/5/2005 9:51:00 PM
Surr: Toluene-d8	108		75-125	%REC	1	5/5/2005 9:51:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504156-005A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	DUP-02
W Order:	0504156			**Collection Date:**	4/27/2005
Matrix:	WATER			**Date Received:**	4/28/2005
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R940
Revision:	5/25/2005 8:38:34 AM	**TestCode:**	8260W_CAL	**FileID:**	J5489.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
NOTES:						
Isobutyl alcohol	<50			ug/L		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-006A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	OBGMW-123
W Order:	0504156	**Collection Date:**	4/27/2005 2:38:00 PM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	MS03_10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R940
Revision:	5/25/2005 8:38:34 AM **TestCode:** 8260W_CAL	**FileID:**	J5486.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/2005 8:09:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/2005 8:09:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/2005 8:09:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
2-Butanone	ND		10	µg/L	1	5/5/2005 8:09:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/2005 8:09:00 PM
Acetone	ND		10	µg/L	1	5/5/2005 8:09:00 PM
Benzene	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/2005 8:09:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/2005 8:09:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/2005 8:09:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/2005 8:09:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
Toluene	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/2005 8:09:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/2005 8:09:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/2005 8:09:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/2005 8:09:00 PM
Surr: 1,2-Dichloroethane-d4	117		75-134	%REC	1	5/5/2005 8:09:00 PM
Surr: 4-Bromofluorobenzene	102		75-125	%REC	1	5/5/2005 8:09:00 PM
Surr: Dibromofluoromethane	114		75-127	%REC	1	5/5/2005 8:09:00 PM
Surr: Toluene-d8	107		75-125	%REC	1	5/5/2005 8:09:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504156-006A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	OBGMW-123
W Order:	0504156			**Collection Date:**	4/27/2005 2:38:00 PM
Matrix:	WATER			**Date Received:**	4/28/2005
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R940
Revision:	5/25/2005 8:38:34 AM	**TestCode:**	8260W_CAL	**FileID:**	J5486.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
NOTES:						
Isobutyl alcohol	<50			ug/L		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504156-007A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	CH2MW-5
W Order:	0504156			**Collection Date:**	4/27/2005 4:00:00 PM
Matrix:	WATER			**Date Received:**	4/28/2005
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R940
Revision:	5/25/2005 8:38:34 AM	**TestCode:**	8260W_CAL	**FileID:**	J5487.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/2005 8:43:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/2005 8:43:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/2005 8:43:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
2-Butanone	ND		10	µg/L	1	5/5/2005 8:43:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/2005 8:43:00 PM
Acetone	ND		10	µg/L	1	5/5/2005 8:43:00 PM
Benzene	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/2005 8:43:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/2005 8:43:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/2005 8:43:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/2005 8:43:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
Toluene	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/2005 8:43:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/2005 8:43:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/2005 8:43:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/2005 8:43:00 PM
Surr: 1,2-Dichloroethane-d4	116		75-134	%REC	1	5/5/2005 8:43:00 PM
Surr: 4-Bromofluorobenzene	100		75-125	%REC	1	5/5/2005 8:43:00 PM
Surr: Dibromofluoromethane	112		75-127	%REC	1	5/5/2005 8:43:00 PM
Surr: Toluene-d8	108		75-125	%REC	1	5/5/2005 8:43:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504156-007A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	CH2MW-5
W Order:	0504156			**Collection Date:**	4/27/2005 4:00:00 PM
Matrix:	WATER			**Date Received:**	4/28/2005
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R940
Revision:	5/25/2005 8:38:34 AM	**TestCode:**	8260W_CAL	**FileID:**	J5487.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
NOTES:						
Isobutyl alcohol	<50			ug/L		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504156-008A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	Trip Blank
W Order:	0504156			**Collection Date:**	4/27/2005
Matrix:	WATER			**Date Received:**	4/28/2005
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R940
Revision:	5/25/2005 8:38:34 AM	**TestCode:**	8260W_CAL	**FileID:**	J5488.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/2005 9:17:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/2005 9:17:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/2005 9:17:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
2-Butanone	ND		10	µg/L	1	5/5/2005 9:17:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/2005 9:17:00 PM
Acetone	ND		10	µg/L	1	5/5/2005 9:17:00 PM
Benzene	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/2005 9:17:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/2005 9:17:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/2005 9:17:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/2005 9:17:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
Toluene	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/2005 9:17:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/2005 9:17:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/2005 9:17:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/2005 9:17:00 PM
Surr: 1,2-Dichloroethane-d4	115		75-134	%REC	1	5/5/2005 9:17:00 PM
Surr: 4-Bromofluorobenzene	102		75-125	%REC	1	5/5/2005 9:17:00 PM
Surr: Dibromofluoromethane	113		75-127	%REC	1	5/5/2005 9:17:00 PM
Surr: Toluene-d8	105		75-125	%REC	1	5/5/2005 9:17:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504156-008A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	Trip Blank
W Order:	0504156			**Collection Date:**	4/27/2005
Matrix:	WATER			**Date Received:**	4/28/2005
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R940
Revision:	5/25/2005 8:38:34 AM	**TestCode:**	8260W_CAL	**FileID:**	J5488.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
NOTES:						
Isobutyl alcohol	<50			ug/L		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-001A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-2
Work Order:	0504156	**Collection Date:**	4/27/05 9:25:00 AM
Matrix:	WATER	**Date Received:**	4/28/05
InstrumentID:	MS03 10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R940
Revision:	5/6/05 11:25:13 AM **TestCode:** 8260W CAL	**FileID:**	J5485.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 7:35:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 7:35:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/05 7:35:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
2-Butanone	ND		10	µg/L	1	5/5/05 7:35:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/05 7:35:00 PM
Acetone	ND		10	µg/L	1	5/5/05 7:35:00 PM
Benzene	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/05 7:35:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/05 7:35:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/05 7:35:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/05 7:35:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
Toluene	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/05 7:35:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/05 7:35:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/05 7:35:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/05 7:35:00 PM
Surr: 1,2-Dichloroethane-d4	116		75-134	%REC	1	5/5/05 7:35:00 PM
Surr: 4-Bromofluorobenzene	100		75-125	%REC	1	5/5/05 7:35:00 PM
Surr: Dibromofluoromethane	108		75-127	%REC	1	5/5/05 7:35:00 PM
Surr: Toluene-d8	104		75-125	%REC	1	5/5/05 7:35:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-001A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-2
Work Order:	0504156	**Collection Date:**	4/27/05 9:25:00 AM
Matrix:	WATER	**Date Received:**	4/28/05
InstrumentID:	MS03 10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R940
Revision:	5/6/05 11:25:13 AM **TestCode:** 8260W CAL	**FileID:**	J5485.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			

NOTES:
Isobutyl alcohol <50 ug/L

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-002A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-3
Work Order:	0504156	**Collection Date:**	4/27/05 10:40:00 AM
Matrix:	WATER	**Date Received:**	4/28/05
InstrumentID:	MS03 10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R940
Revision:	5/6/05 11:25:13 AM **TestCode:** 8260W CAL	**FileID:**	J5490.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 10:25:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 10:25:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/05 10:25:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
2-Butanone	ND		10	µg/L	1	5/5/05 10:25:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/05 10:25:00 PM
Acetone	ND		10	µg/L	1	5/5/05 10:25:00 PM
Benzene	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/05 10:25:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/05 10:25:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/05 10:25:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/05 10:25:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
Toluene	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/05 10:25:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/05 10:25:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/05 10:25:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/05 10:25:00 PM
Surr: 1,2-Dichloroethane-d4	118		75-134	%REC	1	5/5/05 10:25:00 PM
Surr: 4-Bromofluorobenzene	100		75-125	%REC	1	5/5/05 10:25:00 PM
Surr: Dibromofluoromethane	115		75-127	%REC	1	5/5/05 10:25:00 PM
Surr: Toluene-d8	107		75-125	%REC	1	5/5/05 10:25:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504156-002A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	CH2MW-3
Work Order:	0504156			**Collection Date:**	4/27/05 10:40:00 AM
Matrix:	WATER			**Date Received:**	4/28/05
InstrumentID:	MS03 10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R940
Revision:	5/6/05 11:25:13 AM	**TestCode:**	8260W CAL	**FileID:**	J5490.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
NOTES:						
Isobutyl alcohol	<50			ug/L		

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-004A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	OBGMW-124
Work Order:	0504156	**Collection Date:**	4/27/05 12:35:00 PM
Matrix:	WATER	**Date Received:**	4/28/05
InstrumentID:	MS03 10	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R940
Revision:	5/6/05 11:25:13 AM	**TestCode:** 8260W CAL	**FileID:** J5484.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 7:01:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 7:01:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/05 7:01:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
2-Butanone	ND		10	µg/L	1	5/5/05 7:01:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/05 7:01:00 PM
Acetone	ND		10	µg/L	1	5/5/05 7:01:00 PM
Benzene	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/05 7:01:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/05 7:01:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/05 7:01:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/05 7:01:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
Toluene	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/05 7:01:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/05 7:01:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/05 7:01:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/05 7:01:00 PM
Surr: 1,2-Dichloroethane-d4	117		75-134	%REC	1	5/5/05 7:01:00 PM
Surr: 4-Bromofluorobenzene	103		75-125	%REC	1	5/5/05 7:01:00 PM
Surr: Dibromofluoromethane	113		75-127	%REC	1	5/5/05 7:01:00 PM
Surr: Toluene-d8	108		75-125	%REC	1	5/5/05 7:01:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-004A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	OBGMW-124
Work Order:	0504156	**Collection Date:**	4/27/05 12:35:00 PM
Matrix:	WATER	**Date Received:**	4/28/05
InstrumentID:	MS03 10	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R940
Revision:	5/6/05 11:25:13 AM	**TestCode:** 8260W CAL	**FileID:** J5484.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
NOTES:						
Isobutyl alcohol	<50			ug/L		

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-005A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	DUP-02
Work Order:	0504156	**Collection Date:**	4/27/05
Matrix:	WATER	**Date Received:**	4/28/05
InstrumentID:	MS03 10	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R940
Revision:	5/6/05 11:25:13 AM	**TestCode:** 8260W CAL	**FileID:** J5489.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 9:51:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 9:51:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/05 9:51:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
2-Butanone	ND		10	µg/L	1	5/5/05 9:51:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/05 9:51:00 PM
Acetone	ND		10	µg/L	1	5/5/05 9:51:00 PM
Benzene	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/05 9:51:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/05 9:51:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/05 9:51:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/05 9:51:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
Toluene	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/05 9:51:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/05 9:51:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/05 9:51:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/05 9:51:00 PM
Surr: 1,2-Dichloroethane-d4	121		75-134	%REC	1	5/5/05 9:51:00 PM
Surr: 4-Bromofluorobenzene	101		75-125	%REC	1	5/5/05 9:51:00 PM
Surr: Dibromofluoromethane	115		75-127	%REC	1	5/5/05 9:51:00 PM
Surr: Toluene-d8	108		75-125	%REC	1	5/5/05 9:51:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-005A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	DUP-02
Work Order:	0504156	**Collection Date:**	4/27/05
Matrix:	WATER	**Date Received:**	4/28/05
InstrumentID:	MS03 10	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R940
Revision:	5/6/05 11:25:13 AM	**TestCode:** 8260W CAL	**FileID:** J5489.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
NOTES:						
Isobutyl alcohol	<50			ug/L		

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-006A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	OBGMW-123
Work Order:	0504156	**Collection Date:**	4/27/05 2:38:00 PM
Matrix:	WATER	**Date Received:**	4/28/05
InstrumentID:	MS03 10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R940
Revision:	5/6/05 11:25:13 AM **TestCode:** 8260W CAL	**FileID:**	J5486.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 8:09:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 8:09:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/05 8:09:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
2-Butanone	ND		10	µg/L	1	5/5/05 8:09:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/05 8:09:00 PM
Acetone	ND		10	µg/L	1	5/5/05 8:09:00 PM
Benzene	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/05 8:09:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/05 8:09:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/05 8:09:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/05 8:09:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
Toluene	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/05 8:09:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/05 8:09:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/05 8:09:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/05 8:09:00 PM
Surr: 1,2-Dichloroethane-d4	117		75-134	%REC	1	5/5/05 8:09:00 PM
Surr: 4-Bromofluorobenzene	102		75-125	%REC	1	5/5/05 8:09:00 PM
Surr: Dibromofluoromethane	114		75-127	%REC	1	5/5/05 8:09:00 PM
Surr: Toluene-d8	107		75-125	%REC	1	5/5/05 8:09:00 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-006A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	OBGMW-123
Work Order:	0504156	**Collection Date:**	4/27/05 2:38:00 PM
Matrix:	WATER	**Date Received:**	4/28/05
InstrumentID:	MS03 10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R940
Revision:	5/6/05 11:25:13 AM **TestCode:** 8260W CAL	**FileID:**	J5486.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
NOTES:						
Isobutyl alcohol	<50			ug/L		

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-007A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-5
Work Order:	0504156	**Collection Date:**	4/27/05 4:00:00 PM
Matrix:	WATER	**Date Received:**	4/28/05
InstrumentID:	MS03 10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R940
Revision:	5/6/05 11:25:13 AM **TestCode:** 8260W CAL	**FileID:**	J5487.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 8:43:00 PM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/5/05 8:43:00 PM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/5/05 8:43:00 PM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
2-Butanone	ND		10	µg/L	1	5/5/05 8:43:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/5/05 8:43:00 PM
Acetone	ND		10	µg/L	1	5/5/05 8:43:00 PM
Benzene	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
Carbon disulfide	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
Chloroethane	ND		1.0	µg/L	1	5/5/05 8:43:00 PM
Chloromethane	ND		1.0	µg/L	1	5/5/05 8:43:00 PM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
Dibromomethane	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
Ethylbenzene	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
Methylene chloride	ND		2.0	µg/L	1	5/5/05 8:43:00 PM
Naphthalene	ND		1.0	µg/L	1	5/5/05 8:43:00 PM
Tetrachloroethene	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
Toluene	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
Trichloroethene	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/5/05 8:43:00 PM
Vinyl acetate	ND		2.0	µg/L	1	5/5/05 8:43:00 PM
Vinyl chloride	ND		1.0	µg/L	1	5/5/05 8:43:00 PM
Xylenes (total)	ND		0.50	µg/L	1	5/5/05 8:43:00 PM
Surr: 1,2-Dichloroethane-d4	116		75-134	%REC	1	5/5/05 8:43:00 PM
Surr: 4-Bromofluorobenzene	100		75-125	%REC	1	5/5/05 8:43:00 PM
Surr: Dibromofluoromethane	112		75-127	%REC	1	5/5/05 8:43:00 PM
Surr: Toluene-d8	108		75-125	%REC	1	5/5/05 8:43:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-007A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-5
Work Order:	0504156	**Collection Date:**	4/27/05 4:00:00 PM
Matrix:	WATER	**Date Received:**	4/28/05
InstrumentID:	MS03 10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R940
Revision:	5/6/05 11:25:13 AM **TestCode:** 8260W CAL	**FileID:**	J5487.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
NOTES:						
Isobutyl alcohol	<50			ug/L		

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	S	Spike Recovery outside accepted recovery limits		

O'Brien & Gere Laboratories, Inc.

Analytical Results

5000 Brittonfield Parkway
East Syracuse, NY 13057 (315) 437-6100

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-002G
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-3
W Order:	0504156	**Collection Date:**	4/27/05 10:40:00 AM
Matrix:	WATER	**Date Received:**	4/28/05
Inst. ID:	GCOS 17E **Sample Size:** NA	**PrepDate:**	
ColumnID:	Alumina **%Moisture:**	**BatchNo:**	R1123
Revision:	5/19/05 10:34:35 AM **TestCode:** 8015W RSK175	**FileID:**	E:\OSIMAY05\E051212.rst

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		
Ethane	ND	H	0.0050	mg/L	1	5/12/05 2:09:12 PM
Ethene	ND	H	0.0050	mg/L	1	5/12/05 2:09:12 PM
Methane	ND	H	0.0050	mg/L	1	5/12/05 2:09:12 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-004G
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	OBGMW-124
W Order:	0504156	**Collection Date:**	4/27/05 12:35:00 PM
Matrix:	WATER	**Date Received:**	4/28/05
Inst. ID:	GCOS 17E **Sample Size:** NA	**PrepDate:**	
ColumnID:	Alumina **%Moisture:**	**BatchNo:**	R1123
Revision:	5/19/05 9:31:48 AM **TestCode:** 8015W RSK175	**FileID:**	E:\OSIMAY05\E051213.rst

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		
Ethane	ND	H	0.0050	mg/L	1	5/12/05 2:20:25 PM
Ethene	ND	H	0.0050	mg/L	1	5/12/05 2:20:25 PM
Methane	0.038	H	0.0050	mg/L	1	5/12/05 2:20:25 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-005G
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	DUP-02
W Order:	0504156	**Collection Date:**	4/27/05
Matrix:	WATER	**Date Received:**	4/28/05
Inst. ID:	GCOS 17E **Sample Size:** NA	**PrepDate:**	
ColumnID:	Alumina **%Moisture:**	**BatchNo:**	R1123
Revision:	5/19/05 9:31:48 AM **TestCode:** 8015W RSK175	**FileID:**	E:\OSIMAY05\E051214.rst

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		
Ethane	ND	H	0.0050	mg/L	1	5/12/05 2:34:02 PM
Ethene	ND	H	0.0050	mg/L	1	5/12/05 2:34:02 PM
Methane	ND	H	0.0050	mg/L	1	5/12/05 2:34:02 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504156-007G
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	CH2MW-5
W Order:	0504156			**Collection Date:**	4/27/2005 4:00:00 PM
Matrix:	WATER			**Date Received:**	4/28/2005
Inst. ID:	GCOS_17E	**Sample Size:**	NA	**PrepDate:**	
ColumnID:	Alumina	**%Moisture:**		**BatchNo:**	R1123
Revision:	5/19/2005 10:34:35 A	**TestCode:**	8015W_RSK175	**FileID:**	E:\OSIMAY05\E051215.rst

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		
Ethane	ND	H	0.0050	mg/L	1	5/12/2005 2:53:39 PM
Ethene	ND	H	0.0050	mg/L	1	5/12/2005 2:53:39 PM
Methane	ND	H	0.0050	mg/L	1	5/12/2005 2:53:39 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 (315) 437-6100

ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M
Work Order: 0504156
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **MB-1025**	SampType: **MBLK**	TestCode: **8015W_RSK1**	Units: **mg/L**	Prep Date:		RunNo:	**1123**
Client ID: **ZZZZZ**	Batch ID: **R1123**	Method: **8015M/RSK1**		Analysis Date: **5/12/05**		SeqNo:	**36620**
Instrument: **GCOS_17E**	ColumnID: **Alumina**	**J&W Alumina**					

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	ND	0.0050									
Ethene	ND	0.0050									
Methane	0.001080	0.0050									J

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M
Work Order: 0504156
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS-1025**	SampType: **LCS**	TestCode: **8015W_RSK1** Units: **mg/L**	Prep Date:	RunNo: **1123**	
Client ID: **ZZZZZ**	Batch ID: **R1123**	Method: **8015M/RSK1**	Analysis Date: **5/12/05**	SeqNo: **36621**	
Instrument: **GCOS_17E**	ColumnID: **Alumina**	**J&W Alumina**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.03583	0.0050	0.04091	0	87.6	46	116				
Ethene	0.02644	0.0050	0.03809	0	69.4	28	130				
Methane	0.01704	0.0050	0.02183	0	78.1	42	111				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M
Work Order: 0504156
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCSD-1025** SampType: **LCSD** TestCode: **8015W_RSK1** Units: **mg/L** Prep Date: RunNo: **1123**
Client ID: **ZZZZZ** Batch ID: **R1123** Method: **8015M/RSK1** Analysis Date: **5/12/05** SeqNo: **36622**
Instrument: **GCOS_17E** ColumnID: **Alumina** **J&W Alumina**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.03161	0.0050	0.04091	0	77.3	46	116	0.03583	12.5	0	
Ethene	0.02401	0.0050	0.03809	0	63.0	28	130	0.02644	9.62	0	
Methane	0.01454	0.0050	0.02183	0	66.6	42	111	0.01704	15.8	0	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-002F
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-3
W Order:	0504156	**Collection Date:**	4/27/05 10:40:00 AM
Matrix:	WATER	**Date Received:**	4/28/05
Inst. ID:	ICAP 61E **Sample Size:** 50 mL	**PrepDate:**	5/11/05
ColumnID:	**%Moisture:**	**BatchNo:**	580/R1040
Revision:	5/13/05 3:00:48 PM **TestCode:** 200.7W.3	**FileID:**	5678

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP			**EPA 200.7**			**(E4.1.3)**
Iron	0.11		0.050	mg/L	1	5/12/05 2:56:00 PM
Manganese	ND		0.050	mg/L	1	5/12/05 2:56:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-004F
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	OBGMW-124
W Order:	0504156	**Collection Date:**	4/27/05 12:35:00 PM
Matrix:	WATER	**Date Received:**	4/28/05
Inst. ID:	ICAP 61E **Sample Size:** 50 mL	**PrepDate:**	5/11/05
ColumnID:	**%Moisture:**	**BatchNo:**	580/R1040
Revision:	5/13/05 3:00:48 PM **TestCode:** 200.7W.3	**FileID:**	5679

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP			**EPA 200.7**			**(E4.1.3)**
Iron	1.3		0.050	mg/L	1	5/12/05 2:59:00 PM
Manganese	0.15		0.050	mg/L	1	5/12/05 2:59:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-005F
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	DUP-02
W Order:	0504156	**Collection Date:**	4/27/05
Matrix:	WATER	**Date Received:**	4/28/05
Inst. ID:	ICAP 61E **Sample Size:** 50 mL	**PrepDate:**	5/11/05
ColumnID:	**%Moisture:**	**BatchNo:**	580/R1040
Revision:	5/13/05 3:00:48 PM **TestCode:** 200.7W.3	**FileID:**	5680

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.3)**
Iron	ND		0.050	mg/L	1	5/12/05 3:03:00 PM
Manganese	ND		0.050	mg/L	1	5/12/05 3:03:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-007F
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-5
W Order:	0504156	**Collection Date:**	4/27/05 4:00:00 PM
Matrix:	WATER	**Date Received:**	4/28/05
Inst. ID:	ICAP 61E **Sample Size:** 50 mL	**PrepDate:**	5/11/05
ColumnID:	**%Moisture:**	**BatchNo:**	580/R1040
Revision:	5/13/05 3:00:48 PM **TestCode:** 200.7W.3	**FileID:**	5684

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.3)**
Iron	1.3		0.050	mg/L	1	5/12/05 3:16:00 PM
Manganese	ND		0.050	mg/L	1	5/12/05 3:16:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7
Work Order: 0504156
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **MB-580**	SampType: **MBLK**	TestCode: **200.7W.3**	Units: **mg/L**	Prep Date: **5/11/05**	RunNo: **1040**				
Client ID: **ZZZZZ**	Batch ID: **580**	Method: **EPA 200.7**	**(E4.1.3)**	Analysis Date: **5/12/05**	SeqNo: **34521**				
Instrument:	ColumnID:								

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.04280	0.050									J
Manganese	ND	0.050									

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *16-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7
Work Order: 0504156
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS-580**	SampType: **LCS**	TestCode: **200.7W.3**	Units: **mg/L**	Prep Date: **5/11/05**		RunNo: **1040**	
Client ID: **ZZZZZ**	Batch ID: **580**	Method: **EPA 200.7**	**(E4.1.3)**	Analysis Date: **5/12/05**		SeqNo: **34522**	
Instrument:	ColumnID:						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.9442	0.050	1	0	94.4	85	115				
Manganese	0.1896	0.050	0.2	0	94.8	85	115				

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *16-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-002B
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-3
W Order:	0504156	**Collection Date:**	4/27/2005 10:40:00 AM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	DC-190 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1109
Revision:	5/18/2005 9:16:46 AM **TestCode:** TOC415.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	2.6		1.0	mg/L	1	5/17/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504156-002C
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	CH2MW-3
W Order:	0504156			**Collection Date:**	4/27/2005 10:40:00 AM
Matrix:	WATER			**Date Received:**	4/28/2005
Inst. ID:	Buret Type A	**Sample Size:**	NA	**PrepDate:**	
ColumnID:		**%Moisture:**		**BatchNo:**	R1010
Revision:	5/11/2005 9:53:39 AM	**TestCode:**	ALK310.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, TOTAL (AS CACO3)				**EPA 310.1**		
Alkalinity, Total (As CaCO3)	18		10	mg/L	1	5/10/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-002D
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-3
W Order:	0504156	**Collection Date:**	4/27/2005 10:40:00 AM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R914
Revision:	5/4/2005 9:06:21 AM **TestCode:** S376.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		0.80	mg/L	1	5/3/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-002E
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-3
W Order:	0504156	**Collection Date:**	4/27/2005 10:40:00 AM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	IC **Sample Size:** NA	**PrepDate:**	
ColumnID:	IC **%Moisture:**	**BatchNo:**	R854
Revision:	4/29/2005 10:01:49 A **TestCode:** 300.0W	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	9.9		1.0	mg/L	1	4/28/2005 3:47:00 PM
Nitrogen, Nitrate (As N)	0.55		0.010	mg/L	1	4/28/2005 3:47:00 PM
Sulfate	39		1.0	mg/L	1	4/28/2005 3:47:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-004B
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	OBGMW-124
W Order:	0504156	**Collection Date:**	4/27/2005 12:35:00 PM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	DC-190 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1109
Revision:	5/18/2005 9:16:46 AM **TestCode:** TOC415.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	5.2		1.0	mg/L	1	5/17/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-004C
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	OBGMW-124
W Order:	0504156	**Collection Date:**	4/27/2005 12:35:00 PM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1010
Revision:	5/11/2005 9:53:39 AM **TestCode:** ALK310.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, TOTAL (AS CACO3)				**EPA 310.1**		
Alkalinity, Total (As CaCO3)	430		10	mg/L	1	5/10/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-004D
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	OBGMW-124
W Order:	0504156	**Collection Date:**	4/27/2005 12:35:00 PM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R914
Revision:	5/4/2005 9:06:21 AM **TestCode:** S376.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		0.80	mg/L	1	5/3/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-004E
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	OBGMW-124
W Order:	0504156	**Collection Date:**	4/27/2005 12:35:00 PM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	IC **Sample Size:** NA	**PrepDate:**	
ColumnID:	IC **%Moisture:**	**BatchNo:**	R854
Revision:	4/29/2005 10:01:49 A **TestCode:** 300.0W	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	180		5.0	mg/L	5	4/28/2005 4:01:00 PM
Nitrogen, Nitrate (As N)	ND		0.050	mg/L	5	4/28/2005 4:01:00 PM
Sulfate	170		5.0	mg/L	5	4/28/2005 4:01:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-005B
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	DUP-02
W Order:	0504156	**Collection Date:**	4/27/2005
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	DC-190 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1109
Revision:	5/18/2005 9:16:46 AM **TestCode:** TOC415.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	3.0		1.0	mg/L	1	5/17/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-005C
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	DUP-02
W Order:	0504156	**Collection Date:**	4/27/2005
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1010
Revision:	5/11/2005 9:53:39 AM **TestCode:** ALK310.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, TOTAL (AS CACO3)				**EPA 310.1**		
Alkalinity, Total (As CaCO3)	18		10	mg/L	1	5/10/2005

Qualifiers:	B Analyte detected in the associated Method Blank	E	Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-005D
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	DUP-02
W Order:	0504156	**Collection Date:**	4/27/2005
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R914
Revision:	5/4/2005 9:06:21 AM **TestCode:** S376.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		0.80	mg/L	1	5/3/2005

Qualifiers:		
B	Analyte detected in the associated Method Blank	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-005E
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	DUP-02
W Order:	0504156	**Collection Date:**	4/27/2005
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	IC **Sample Size:** NA	**PrepDate:**	
ColumnID:	IC **%Moisture:**	**BatchNo:**	R854
Revision:	4/29/2005 10:01:49 A **TestCode:** 300.0W	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	13		1.0	mg/L	1	4/28/2005 4:58:00 PM
Nitrogen, Nitrate (As N)	0.79		0.010	mg/L	1	4/28/2005 4:58:00 PM
Sulfate	32		1.0	mg/L	1	4/28/2005 4:58:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-007B
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-5
W Order:	0504156	**Collection Date:**	4/27/2005 4:00:00 PM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	DC-190 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1109
Revision:	5/18/2005 9:16:46 AM **TestCode:** TOC415.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	9.6		1.0	mg/L	1	5/17/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-007C
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-5
W Order:	0504156	**Collection Date:**	4/27/2005 4:00:00 PM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1010
Revision:	5/11/2005 9:53:39 AM **TestCode:** ALK310.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, TOTAL (AS CACO3)				**EPA 310.1**		
Alkalinity, Total (As CaCO3)	98		10	mg/L	1	5/10/2005

Qualifiers:	B Analyte detected in the associated Method Blank	E	Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-007D
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-5
W Order:	0504156	**Collection Date:**	4/27/2005 4:00:00 PM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R914
Revision:	5/4/2005 9:06:21 AM **TestCode:** S376.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		0.80	mg/L	1	5/3/2005

Qualifiers:	B Analyte detected in the associated Method Blank	E	Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-007E
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-5
W Order:	0504156	**Collection Date:**	4/27/2005 4:00:00 PM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	IC **Sample Size:** NA	**PrepDate:**	
ColumnID:	IC **%Moisture:**	**BatchNo:**	R854
Revision:	4/29/2005 10:01:49 A **TestCode:** 300.0W	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	2.8		1.0	mg/L	1	4/28/2005 5:12:00 PM
Nitrogen, Nitrate (As N)	0.57		0.010	mg/L	1	4/28/2005 5:12:00 PM
Sulfate	2.2		1.0	mg/L	1	4/28/2005 5:12:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-010A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-3 (FF)
W Order:	0504156	**Collection Date:**	4/27/2005 10:40:00 AM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	DC-190 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1109
Revision:	5/18/2005 9:16:46 AM **TestCode:** TOC415.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	3.8		1.0	mg/L	1	5/17/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-011A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	OBGMW-124 (FF)
W Order:	0504156	**Collection Date:**	4/27/2005 12:35:00 PM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	DC-190 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1109
Revision:	5/18/2005 9:16:46 AM **TestCode:** TOC415.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	6.3		1.0	mg/L	1	5/17/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-012A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	DUP-02 (FF)
W Order:	0504156	**Collection Date:**	4/27/2005
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	DC-190 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1109
Revision:	5/18/2005 9:16:46 AM **TestCode:** TOC415.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	3.9		1.0	mg/L	1	5/17/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504156-014A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-5 (FF)
W Order:	0504156	**Collection Date:**	4/27/2005 4:00:00 PM
Matrix:	WATER	**Date Received:**	4/28/2005
Inst. ID:	DC-190 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1109
Revision:	5/18/2005 9:16:46 AM **TestCode:** TOC415.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	11		1.0	mg/L	1	5/17/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0
Work Order: 0504156
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **MB-R854**	SampType: **MBLK**	TestCode: **300.0W**	Units: **mg/L**	Prep Date:			RunNo: **854**					
Client ID: **ZZZZZ**	Batch ID: **R854**	Method: **EPA 300.0**		Analysis Date: **4/28/2005**			SeqNo: **27774**					
Instrument: **IC**	ColumnID: **IC**											

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.0									
Nitrogen, Nitrate (As N)	ND	0.050									
Sulfate	ND	1.0									

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0
Work Order: 0504156
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS-R854**	SampType: **LCS**	TestCode: **300.0W**	Units: **mg/L**	Prep Date:		RunNo:	**854**
Client ID: **ZZZZZ**	Batch ID: **R854**	Method: **EPA 300.0**		Analysis Date:	**4/28/2005**	SeqNo:	**27775**
Instrument: **IC**	ColumnID: **IC**						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	20.41	1.0	20	0	102	80	120				
Nitrogen, Nitrate (As N)	2.026	0.050	2	0	101	80	120				
Sulfate	20.25	1.0	20	0	101	80	120				

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1
Work Order: 0504156
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **MB-R1010**	SampType: **MBLK**	TestCode: **ALK310.1**	Units: **mg/L**	Prep Date:			RunNo: **1010**					
Client ID: **ZZZZZ**	Batch ID: **R1010**	Method: **EPA 310.1**		Analysis Date: **5/10/2005**			SeqNo: **33467**					
Instrument:	ColumnID:											

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1
Work Order: 0504156
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS-R1010**	SampType: **LCS**	TestCode: **ALK310.1**	Units: **mg/L**	Prep Date:			RunNo: **1010**					
Client ID: **ZZZZZ**	Batch ID: **R1010**	Method: **EPA 310.1**		Analysis Date: **5/10/2005**			SeqNo: **33468**					
Instrument:	ColumnID:											

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	52.00	10	50	0	104	90	110				

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1
Work Order: 0504156
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **MB-R914**	SampType: **MBLK**	TestCode: **S376.1**	Units: **mg/L**	Prep Date:			RunNo: **914**					
Client ID: **ZZZZZ**	Batch ID: **R914**	Method: **EPA 376.1**		Analysis Date: **5/3/2005**			SeqNo: **30324**					
Instrument:	ColumnID:											

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	ND	0.80									

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1
Work Order: 0504156
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS-R914**	SampType: **LCS**	TestCode: **S376.1**	Units: **mg/L**	Prep Date:		RunNo: **914**						
Client ID: **ZZZZZ**	Batch ID: **R914**	Method: **EPA 376.1**		Analysis Date: **5/3/2005**		SeqNo: **30325**						
Instrument:	ColumnID:											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Sulfide	1.800	0.80	2	0	90.0	81	110					

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway

East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1

Work Order: 0504156

CLIENT: O'Brien & Gere Engineers, Inc

Project: Miller Brewing Company Can Plant

Sample ID: **MB-1109**	SampType: **MBLK**	TestCode: **TOC415.1**	Units: **mg/L**	Prep Date:			RunNo: **1109**					
Client ID: **ZZZZZ**	Batch ID: **R1109**	Method: **EPA 415.1**		Analysis Date: **5/17/2005**			SeqNo: **36118**					
Instrument:	ColumnID:											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Total Organic Carbon	ND	1.0										

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0504156
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS-1109**	SampType: **LCS**	TestCode: **TOC415.1**	Units: **mg/L**	Prep Date:		RunNo:	**1109**
Client ID: **ZZZZZ**	Batch ID: **R1109**	Method: **EPA 415.1**		Analysis Date:	**5/17/2005**	SeqNo:	**36116**
Instrument:	ColumnID:						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	52.06	1.0	50	0	104	88	111				

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client: Miller Brewing Co

Project: Miller Moultrie Sampling Event (GW)

Sampled by: MARV B. RICHARDSON

Client Contact: Rebecca Francisco Phone # 414-931-2000

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	Analysis/Method: VOC	TOC	DOC FF	TALK	Sulfide	Fe		Comments
CH2MW-2	042705	0925		G	3								Lost labels so I made my own.
CH2MW-3	042705	1040			13		X	X	X	X	X		
OBGMW-124	042705	1235			13		X	X	X	X	X		
OBGMW-124-MS	042705	1235			13		X	X	X	X	X		
OBGMW-124-MSD	042705	1235			13		X	X	X	X	X		
DUP-02	042705				13		X	X	X	X	X		
OBGMW-123	042705	1438			3								
BCH2MW-5	042705	1600		↓	13	↓	X	X	X	X	X		
TB	042705				3								

1560

Relinquished by: MARV B. RICHARDSON	Date: 042705	Time: 1800	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by Lab: Date: 4/28/05 Time: 9:25
Shipment Method:			Airbill Number:

Turnaround Time Required:

Routine_____

Rush (Specify)_____

Cooler Temperature: 6°C Wet iced

Comments:

Original - Laboratory
Copy - Client

CASE FILE FORM

PROGRAM INFORMATION

CLIENT: OBG-Raleigh DIV. _____ REF. No. _____

PROGRAM: _____

CUSTODY SEAL: _____ INTACT _____ NOT INTACT _____ NA

AFTER HOURS CUSTODY

RELINQUISHED BY:			RECEIVED BY:		
CLIENT:	DATE	TIME	SECURITY GUARD:	DATE	TIME
GUARD TO COOLER:	DATE	TIME	SAMPLE CUSTODIAN	DATE	TIME

COMMENTS/DISCREPANCIES:

When samples were ~~reciept~~ received one of the containers description OBGMW-124 had pH of 7 (preserved w/ H_2SO_4

RESOLUTION/CLIENT COMMENT:

added 1mL of H_2SO_4 to bring pH to 1

SIGNED: _____

DATE: 4/28/05

QA/QC APROVAL: _____

SIGNED: _____

DATE: _____

From: Monika Santucci
To: Bartlett, Mary Jane
Date: 5/13/05 9:20:07 AM
Subject: dissolved gases

Mary Jane,

The dissolved gases slipped through the cracks and we missed holding times by 1 day. The following samples are affected:

CH2MW-3
OBGMW-124
Dup-2
CH2MW-5

We apologize for the error.

Monika Santucci
Project Supervisor
O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057
Phone: 315 437-6100 X2481
Fax: 315 463-7554
e-mail: santucm@obg.com

FedEx. US Airbill
Express

8518 5568 2361

0200 Form ID No.

FedEx (

1 From
Date 4/26/05 Sender's FedEx Account Number 2083-4847-7
Sender's Name MARY B. RICCIARDSON Phone 778 705-4788
Company OBG
Address 5895 Shiloh Rd. Ste 113 Dept/Floor/Suite/Room
City Alpharetta State CA ZIP 30005

2 Your Internal Billing Reference 35789.062.001

3 To
Recipient's Name Monica Santucci Phone 315 437-3400
Company OBG LABS
Recipient's Address 5,000 Britton field Pkwy
We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept/Floor/Suite/Room
Address
To request a package be held at a specific FedEx location, print FedEx address here.
City E. Syracuse State NY ZIP 13057

4a Express Package Service — Packages up to
1 [X] FedEx Priority Overnight Next business morning* 5 [ ] FedEx Standard Overnight Next business afternoon* 6 [ ] FedEx First Ov Earliest next business delivery to select loc
3 [ ] FedEx 2Day Second business day* 20 [ ] FedEx Express Saver Third business day*
FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service — Packages ove
7 [ ] FedEx 1Day Freight* Next business day** 8 [ ] FedEx 2Day Freight Second business day** 83 [ ] FedEx 3Day Fr Third business day**
* Call for Confirmation:

5 Packaging
6 [ ] FedEx Envelope* 2 [ ] FedEx Pak* Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak 3 [ ] FedEx Box 4 [ ] FedEx Tube 1 [X]

6 Special Handling — Include FedEx address in Section 3.
3 [ ] SATURDAY Delivery Available ONLY for FedEx Priority Overnight, FedEx 2Day, FedEx 1Day Freight, and FedEx 2Day Freight to select ZIP codes
1 [ ] HOLD Weekday at FedEx Location Not available for FedEx First Overnight
31 [ ] HOLD Saturda at FedEx Locat Available ONLY for F Overnight and FedEx to select locations

Does this shipment contain dangerous goods? One box must be checked.
[X] No 4 [ ] Yes As per attached Shipper's Declaration [ ] Yes Shipper's Declaration not required 6 [ ] Dry Ice Dry Ice, 9, UN 1845 x
Dangerous goods (including Dry Ice) cannot be shipped in FedEx packaging. Cargo Aircraft Onl

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below. Obtain F Acct. N
1 [X] Sender Acct. No. in Section 1 will be billed. 2 [ ] Recipient 3 [ ] Third Party 4 [ ] Credit Card 5 [ ] Cas
FedEx Acct. No. Credit Card No. Exp. Date

Total Packages 2 Total Weight 10 Total Declared Value† $ .00 Total C
†Our liability is limited to $100 unless you declare a higher value. See the *FedEx Service Guide* for details. Credit C

8 Sign to Authorize Delivery Without a Signature
By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

46

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1A8513 1B8513 1C8513 1D8513 1E8513

SUBJECT SHEET BY DATE JOB NO.

OBRIEN & GERE LABORATORIES, INC.

O'BRIEN & GERE LABORATORIES, INC.

SUBJECT

SHEET

BY

DATE

JOB NO.

FedEx Express US Airbill

FedEx Tracking Number 8518 5568 2361

Form ID No. 0200

Sender's Copy

1 From

Date

Sender's Name

Phone

Company

Address

Dept./Floor/Suite/Room

City State ZIP

2 Your Internal Billing Reference

3 To

Recipient's Name

Phone

Company

Recipient's Address

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City State ZIP

4a Express Package Service — *Packages up to 150 lbs.* * To most locations

- [x] FedEx Priority Overnight — Next business morning*
- [ ] FedEx Standard Overnight — Next business afternoon*
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations*
- [ ] FedEx 2Day — Second business day*
- [ ] FedEx Express Saver — Third business day*

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service — *Packages over 150 lbs.* ** To most locations

- [ ] FedEx 1Day Freight* — Next business day**
- [ ] FedEx 2Day Freight — Second business day**
- [ ] FedEx 3Day Freight — Third business day**

* Call for Confirmation:

5 Packaging * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [ ] FedEx Box
- [ ] FedEx Tube
- [ ] Other

6 Special Handling — Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available ONLY for FedEx Priority Overnight, FedEx 2Day, FedEx Freight, and FedEx 2Day Freight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available for FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required — Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous goods (including Dry Ice) cannot be shipped in FedEx packaging.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No. [ ]

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages	Total Weight	Total Declared Value†	Total Charges
		$ .00	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Sign to Authorize Delivery Without a Signature

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

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467

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Thursday, May 26, 2005

Mary Jane Bartlett
O'Brien & Gere Engineers, Inc
951 Aviation Parkway
Suite 1400
Morrisville, NC 27560

TEL: 315-437-6100

Project: MILLER BREWING COMPANY CAN PLANT
RE: Analytical Results Order No.: 0504164

Dear Mary Jane Bartlett:

O'Brien & Gere Laboratories, Inc. received 12 sample(s) on 4/29/05 for the analyses presented in the following report.

Very truly yours,
O'BRIEN & GERE LABORATORIES, INC.

Monika Santucci

Monika Santucci
Project Supervisor

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-001A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	OBGMW-122
W Order:	0504164	**Collection Date:**	4/28/2005 8:26:00 AM
Matrix:	WATER	**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM **TestCode:** 8260W_CAL	**FileID:**	J5542.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/10/2005 1:27:00 AM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/10/2005 1:27:00 AM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/10/2005 1:27:00 AM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
2-Butanone	ND		10	µg/L	1	5/10/2005 1:27:00 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/10/2005 1:27:00 AM
Acetone	ND		10	µg/L	1	5/10/2005 1:27:00 AM
Benzene	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
Carbon disulfide	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
Chloroethane	ND		1.0	µg/L	1	5/10/2005 1:27:00 AM
Chloromethane	ND		1.0	µg/L	1	5/10/2005 1:27:00 AM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
Dibromomethane	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
Ethylbenzene	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
Methylene chloride	ND		2.0	µg/L	1	5/10/2005 1:27:00 AM
Naphthalene	ND		1.0	µg/L	1	5/10/2005 1:27:00 AM
Tetrachloroethene	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
Toluene	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
Trichloroethene	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/10/2005 1:27:00 AM
Vinyl acetate	ND		2.0	µg/L	1	5/10/2005 1:27:00 AM
Vinyl chloride	ND		1.0	µg/L	1	5/10/2005 1:27:00 AM
Xylenes (total)	ND		0.50	µg/L	1	5/10/2005 1:27:00 AM
Surr: 1,2-Dichloroethane-d4	95.0		75-134	%REC	1	5/10/2005 1:27:00 AM
Surr: 4-Bromofluorobenzene	104		75-125	%REC	1	5/10/2005 1:27:00 AM
Surr: Dibromofluoromethane	103		75-127	%REC	1	5/10/2005 1:27:00 AM
Surr: Toluene-d8	102		75-125	%REC	1	5/10/2005 1:27:00 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-001A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	OBGMW-122
W Order:	0504164			**Collection Date:**	4/28/2005 8:26:00 AM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5542.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
NOTES:						
Isobutyl alcohol	< 50			ug/L		

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-002A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-1A
W Order:	0504164	**Collection Date:**	4/28/2005 9:15:00 AM
Matrix:	WATER	**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM **TestCode:** 8260W_CAL	**FileID:**	J5543.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/10/2005 2:00:00 AM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/10/2005 2:00:00 AM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/10/2005 2:00:00 AM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
2-Butanone	ND		10	µg/L	1	5/10/2005 2:00:00 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/10/2005 2:00:00 AM
Acetone	ND		10	µg/L	1	5/10/2005 2:00:00 AM
Benzene	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
Carbon disulfide	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
Chloroethane	ND		1.0	µg/L	1	5/10/2005 2:00:00 AM
Chloromethane	ND		1.0	µg/L	1	5/10/2005 2:00:00 AM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
Dibromomethane	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
Ethylbenzene	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
Methylene chloride	ND		2.0	µg/L	1	5/10/2005 2:00:00 AM
Naphthalene	ND		1.0	µg/L	1	5/10/2005 2:00:00 AM
Tetrachloroethene	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
Toluene	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
Trichloroethene	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/10/2005 2:00:00 AM
Vinyl acetate	ND		2.0	µg/L	1	5/10/2005 2:00:00 AM
Vinyl chloride	ND		1.0	µg/L	1	5/10/2005 2:00:00 AM
Xylenes (total)	ND		0.50	µg/L	1	5/10/2005 2:00:00 AM
Surr: 1,2-Dichloroethane-d4	96.7		75-134	%REC	1	5/10/2005 2:00:00 AM
Surr: 4-Bromofluorobenzene	103		75-125	%REC	1	5/10/2005 2:00:00 AM
Surr: Dibromofluoromethane	103		75-127	%REC	1	5/10/2005 2:00:00 AM
Surr: Toluene-d8	102		75-125	%REC	1	5/10/2005 2:00:00 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-002A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	CH2MW-1A
W Order:	0504164			**Collection Date:**	4/28/2005 9:15:00 AM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5543.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
NOTES:						
Isobutyl alcohol	<		50	ug/L		

O'Brien & Gere Laboratories, Inc.

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Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-003A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	CH2MW-1
W Order:	0504164			**Collection Date:**	4/28/2005 10:20:00 AM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5544.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/10/2005 2:34:00 AM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/10/2005 2:34:00 AM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/10/2005 2:34:00 AM
1,1-Dichloroethane	1.3		0.50	µg/L	1	5/10/2005 2:34:00 AM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 2:34:00 AM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/10/2005 2:34:00 AM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/10/2005 2:34:00 AM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/10/2005 2:34:00 AM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/10/2005 2:34:00 AM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/10/2005 2:34:00 AM
2-Butanone	ND		10	µg/L	1	5/10/2005 2:34:00 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/10/2005 2:34:00 AM
Acetone	ND		10	µg/L	1	5/10/2005 2:34:00 AM
Benzene	ND		0.50	µg/L	1	5/10/2005 2:34:00 AM
Carbon disulfide	ND		0.50	µg/L	1	5/10/2005 2:34:00 AM
Chloroethane	ND		1.0	µg/L	1	5/10/2005 2:34:00 AM
Chloromethane	ND		1.0	µg/L	1	5/10/2005 2:34:00 AM
cis-1,2-Dichloroethene	1.1		0.50	µg/L	1	5/10/2005 2:34:00 AM
Dibromomethane	ND		0.50	µg/L	1	5/10/2005 2:34:00 AM
Ethylbenzene	ND		0.50	µg/L	1	5/10/2005 2:34:00 AM
Methylene chloride	ND		2.0	µg/L	1	5/10/2005 2:34:00 AM
Naphthalene	ND		1.0	µg/L	1	5/10/2005 2:34:00 AM
Tetrachloroethene	ND		0.50	µg/L	1	5/10/2005 2:34:00 AM
Toluene	ND		0.50	µg/L	1	5/10/2005 2:34:00 AM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 2:34:00 AM
Trichloroethene	4.1		0.50	µg/L	1	5/10/2005 2:34:00 AM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/10/2005 2:34:00 AM
Vinyl acetate	ND		2.0	µg/L	1	5/10/2005 2:34:00 AM
Vinyl chloride	ND		1.0	µg/L	1	5/10/2005 2:34:00 AM
Xylenes (total)	ND		0.50	µg/L	1	5/10/2005 2:34:00 AM
Surr: 1,2-Dichloroethane-d4	99.2		75-134	%REC	1	5/10/2005 2:34:00 AM
Surr: 4-Bromofluorobenzene	100		75-125	%REC	1	5/10/2005 2:34:00 AM
Surr: Dibromofluoromethane	104		75-127	%REC	1	5/10/2005 2:34:00 AM
Surr: Toluene-d8	101		75-125	%REC	1	5/10/2005 2:34:00 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-003A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	CH2MW-1
W Order:	0504164			**Collection Date:**	4/28/2005 10:20:00 AM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5544.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
NOTES:						
Isobutyl alcohol < 50 ug/L						

O'Brien & Gere Laboratories, Inc.

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Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-004A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	ETMW-121
W Order:	0504164			**Collection Date:**	4/28/2005 11:10:00 AM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5545.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/10/2005 3:08:00 AM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/10/2005 3:08:00 AM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/10/2005 3:08:00 AM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
2-Butanone	ND		10	µg/L	1	5/10/2005 3:08:00 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/10/2005 3:08:00 AM
Acetone	ND		10	µg/L	1	5/10/2005 3:08:00 AM
Benzene	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
Carbon disulfide	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
Chloroethane	ND		1.0	µg/L	1	5/10/2005 3:08:00 AM
Chloromethane	ND		1.0	µg/L	1	5/10/2005 3:08:00 AM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
Dibromomethane	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
Ethylbenzene	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
Methylene chloride	ND		2.0	µg/L	1	5/10/2005 3:08:00 AM
Naphthalene	ND		1.0	µg/L	1	5/10/2005 3:08:00 AM
Tetrachloroethene	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
Toluene	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
Trichloroethene	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/10/2005 3:08:00 AM
Vinyl acetate	ND		2.0	µg/L	1	5/10/2005 3:08:00 AM
Vinyl chloride	ND		1.0	µg/L	1	5/10/2005 3:08:00 AM
Xylenes (total)	ND		0.50	µg/L	1	5/10/2005 3:08:00 AM
Surr: 1,2-Dichloroethane-d4	102		75-134	%REC	1	5/10/2005 3:08:00 AM
Surr: 4-Bromofluorobenzene	100		75-125	%REC	1	5/10/2005 3:08:00 AM
Surr: Dibromofluoromethane	104		75-127	%REC	1	5/10/2005 3:08:00 AM
Surr: Toluene-d8	103		75-125	%REC	1	5/10/2005 3:08:00 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-004A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	ETMW-121
W Order:	0504164			**Collection Date:**	4/28/2005 11:10:00 AM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5545.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
NOTES:						
Isobutyl alcohol	<		50	ug/L		

O'Brien & Gere Laboratories, Inc.

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Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-005A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	ETMW-120
W Order:	0504164			**Collection Date:**	4/28/2005 12:15:00 PM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5546.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/10/2005 3:42:00 AM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/10/2005 3:42:00 AM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/10/2005 3:42:00 AM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/10/2005 3:42:00 AM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 3:42:00 AM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/10/2005 3:42:00 AM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/10/2005 3:42:00 AM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/10/2005 3:42:00 AM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/10/2005 3:42:00 AM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/10/2005 3:42:00 AM
2-Butanone	ND		10	µg/L	1	5/10/2005 3:42:00 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/10/2005 3:42:00 AM
Acetone	ND		10	µg/L	1	5/10/2005 3:42:00 AM
Benzene	ND		0.50	µg/L	1	5/10/2005 3:42:00 AM
Carbon disulfide	ND		0.50	µg/L	1	5/10/2005 3:42:00 AM
Chloroethane	ND		1.0	µg/L	1	5/10/2005 3:42:00 AM
Chloromethane	ND		1.0	µg/L	1	5/10/2005 3:42:00 AM
cis-1,2-Dichloroethene	1.2		0.50	µg/L	1	5/10/2005 3:42:00 AM
Dibromomethane	ND		0.50	µg/L	1	5/10/2005 3:42:00 AM
Ethylbenzene	ND		0.50	µg/L	1	5/10/2005 3:42:00 AM
Methylene chloride	ND		2.0	µg/L	1	5/10/2005 3:42:00 AM
Naphthalene	ND		1.0	µg/L	1	5/10/2005 3:42:00 AM
Tetrachloroethene	ND		0.50	µg/L	1	5/10/2005 3:42:00 AM
Toluene	ND		0.50	µg/L	1	5/10/2005 3:42:00 AM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 3:42:00 AM
Trichloroethene	ND		0.50	µg/L	1	5/10/2005 3:42:00 AM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/10/2005 3:42:00 AM
Vinyl acetate	ND		2.0	µg/L	1	5/10/2005 3:42:00 AM
Vinyl chloride	ND		1.0	µg/L	1	5/10/2005 3:42:00 AM
Xylenes (total)	ND		0.50	µg/L	1	5/10/2005 3:42:00 AM
Surr: 1,2-Dichloroethane-d4	102		75-134	%REC	1	5/10/2005 3:42:00 AM
Surr: 4-Bromofluorobenzene	103		75-125	%REC	1	5/10/2005 3:42:00 AM
Surr: Dibromofluoromethane	103		75-127	%REC	1	5/10/2005 3:42:00 AM
Surr: Toluene-d8	103		75-125	%REC	1	5/10/2005 3:42:00 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-005A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	ETMW-120
W Order:	0504164			**Collection Date:**	4/28/2005 12:15:00 PM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5546.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
NOTES:						
Isobutyl alcohol	<		50	ug/L		

O'Brien & Gere Laboratories, Inc.

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-006A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETMW-115
W Order:	0504164	**Collection Date:**	4/28/2005 1:05:00 PM
Matrix:	WATER	**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM **TestCode:** 8260W_CAL	**FileID:**	J5552.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/10/2005 7:06:00 AM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/10/2005 7:06:00 AM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/10/2005 7:06:00 AM
1,1-Dichloroethane	6.3		0.50	µg/L	1	5/10/2005 7:06:00 AM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 7:06:00 AM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/10/2005 7:06:00 AM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/10/2005 7:06:00 AM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/10/2005 7:06:00 AM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/10/2005 7:06:00 AM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/10/2005 7:06:00 AM
2-Butanone	ND		10	µg/L	1	5/10/2005 7:06:00 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/10/2005 7:06:00 AM
Acetone	ND		10	µg/L	1	5/10/2005 7:06:00 AM
Benzene	0.62		0.50	µg/L	1	5/10/2005 7:06:00 AM
Carbon disulfide	ND		0.50	µg/L	1	5/10/2005 7:06:00 AM
Chloroethane	ND		1.0	µg/L	1	5/10/2005 7:06:00 AM
Chloromethane	ND		1.0	µg/L	1	5/10/2005 7:06:00 AM
cis-1,2-Dichloroethene	47	E	0.50	µg/L	1	5/10/2005 7:06:00 AM
Dibromomethane	ND		0.50	µg/L	1	5/10/2005 7:06:00 AM
Ethylbenzene	ND		0.50	µg/L	1	5/10/2005 7:06:00 AM
Methylene chloride	ND		2.0	µg/L	1	5/10/2005 7:06:00 AM
Naphthalene	ND		1.0	µg/L	1	5/10/2005 7:06:00 AM
Tetrachloroethene	ND		0.50	µg/L	1	5/10/2005 7:06:00 AM
Toluene	ND		0.50	µg/L	1	5/10/2005 7:06:00 AM
trans-1,2-Dichloroethene	0.67		0.50	µg/L	1	5/10/2005 7:06:00 AM
Trichloroethene	5.7		0.50	µg/L	1	5/10/2005 7:06:00 AM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/10/2005 7:06:00 AM
Vinyl acetate	ND		2.0	µg/L	1	5/10/2005 7:06:00 AM
Vinyl chloride	25		1.0	µg/L	1	5/10/2005 7:06:00 AM
Xylenes (total)	0.61		0.50	µg/L	1	5/10/2005 7:06:00 AM
Surr: 1,2-Dichloroethane-d4	111		75-134	%REC	1	5/10/2005 7:06:00 AM
Surr: 4-Bromofluorobenzene	98.4		75-125	%REC	1	5/10/2005 7:06:00 AM
Surr: Dibromofluoromethane	108		75-127	%REC	1	5/10/2005 7:06:00 AM
Surr: Toluene-d8	102		75-125	%REC	1	5/10/2005 7:06:00 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-006A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	ETMW-115
W Order:	0504164			**Collection Date:**	4/28/2005 1:05:00 PM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5552.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		

NOTES:

~~Isobutyl alcohol < 250 ug/L~~

Isobutyl alcohol < 50 ug/L GT 5/25/05

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-006A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	ETMW-115
W Order:	0504164			**Collection Date:**	4/28/2005 1:05:00 PM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5547.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		2.5	µg/L	5	5/10/2005 4:16:00 AM
1,1,2,2-Tetrachloroethane	ND		2.5	µg/L	5	5/10/2005 4:16:00 AM
1,1,2-Trichloroethane	ND		2.5	µg/L	5	5/10/2005 4:16:00 AM
1,1-Dichloroethane	6.2		2.5	µg/L	5	5/10/2005 4:16:00 AM
1,1-Dichloroethene	ND		2.5	µg/L	5	5/10/2005 4:16:00 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	5	5/10/2005 4:16:00 AM
1,2,3-Trichloropropane	ND		2.5	µg/L	5	5/10/2005 4:16:00 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	5	5/10/2005 4:16:00 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	5	5/10/2005 4:16:00 AM
1,2-Dichloroethane	ND		2.5	µg/L	5	5/10/2005 4:16:00 AM
2-Butanone	ND		50	µg/L	5	5/10/2005 4:16:00 AM
4-Methyl-2-pentanone	ND		25	µg/L	5	5/10/2005 4:16:00 AM
Acetone	ND		50	µg/L	5	5/10/2005 4:16:00 AM
Benzene	ND		2.5	µg/L	5	5/10/2005 4:16:00 AM
Carbon disulfide	ND		2.5	µg/L	5	5/10/2005 4:16:00 AM
Chloroethane	ND		5.0	µg/L	5	5/10/2005 4:16:00 AM
Chloromethane	ND		5.0	µg/L	5	5/10/2005 4:16:00 AM
cis-1,2-Dichloroethene	41		2.5	µg/L	5	5/10/2005 4:16:00 AM
Dibromomethane	ND		2.5	µg/L	5	5/10/2005 4:16:00 AM
Ethylbenzene	ND		2.5	µg/L	5	5/10/2005 4:16:00 AM
Methylene chloride	ND		10	µg/L	5	5/10/2005 4:16:00 AM
Naphthalene	ND		5.0	µg/L	5	5/10/2005 4:16:00 AM
Tetrachloroethene	ND		2.5	µg/L	5	5/10/2005 4:16:00 AM
Toluene	ND		2.5	µg/L	5	5/10/2005 4:16:00 AM
trans-1,2-Dichloroethene	ND		2.5	µg/L	5	5/10/2005 4:16:00 AM
Trichloroethene	5.2		2.5	µg/L	5	5/10/2005 4:16:00 AM
Trichlorofluoromethane	ND		5.0	µg/L	5	5/10/2005 4:16:00 AM
Vinyl acetate	ND		10	µg/L	5	5/10/2005 4:16:00 AM
Vinyl chloride	26		5.0	µg/L	5	5/10/2005 4:16:00 AM
Xylenes (total)	ND		2.5	µg/L	5	5/10/2005 4:16:00 AM
Surr: 1,2-Dichloroethane-d4	103		75-134	%REC	5	5/10/2005 4:16:00 AM
Surr: 4-Bromofluorobenzene	104		75-125	%REC	5	5/10/2005 4:16:00 AM
Surr: Dibromofluoromethane	103		75-127	%REC	5	5/10/2005 4:16:00 AM
Surr: Toluene-d8	102		75-125	%REC	5	5/10/2005 4:16:00 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-006A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	ETMW-115
W Order:	0504164			**Collection Date:**	4/28/2005 1:05:00 PM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5547.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		

NOTES:
Isobutyl alcohol < 250 ug/L
~~Isobutyl alcohol < 50 ug/L~~ GG 5/25/05

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-007A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	EMW-119
W Order:	0504164			**Collection Date:**	4/28/2005 1:43:00 PM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5548.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/10/2005 4:50:00 AM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/10/2005 4:50:00 AM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/10/2005 4:50:00 AM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/10/2005 4:50:00 AM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 4:50:00 AM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/10/2005 4:50:00 AM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/10/2005 4:50:00 AM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/10/2005 4:50:00 AM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/10/2005 4:50:00 AM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/10/2005 4:50:00 AM
2-Butanone	ND		10	µg/L	1	5/10/2005 4:50:00 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/10/2005 4:50:00 AM
Acetone	ND		10	µg/L	1	5/10/2005 4:50:00 AM
Benzene	ND		0.50	µg/L	1	5/10/2005 4:50:00 AM
Carbon disulfide	ND		0.50	µg/L	1	5/10/2005 4:50:00 AM
Chloroethane	ND		1.0	µg/L	1	5/10/2005 4:50:00 AM
Chloromethane	ND		1.0	µg/L	1	5/10/2005 4:50:00 AM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 4:50:00 AM
Dibromomethane	ND		0.50	µg/L	1	5/10/2005 4:50:00 AM
Ethylbenzene	ND		0.50	µg/L	1	5/10/2005 4:50:00 AM
Methylene chloride	ND		2.0	µg/L	1	5/10/2005 4:50:00 AM
Naphthalene	ND		1.0	µg/L	1	5/10/2005 4:50:00 AM
Tetrachloroethene	ND		0.50	µg/L	1	5/10/2005 4:50:00 AM
Toluene	ND		0.50	µg/L	1	5/10/2005 4:50:00 AM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 4:50:00 AM
Trichloroethene	0.61		0.50	µg/L	1	5/10/2005 4:50:00 AM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/10/2005 4:50:00 AM
Vinyl acetate	ND		2.0	µg/L	1	5/10/2005 4:50:00 AM
Vinyl chloride	ND		1.0	µg/L	1	5/10/2005 4:50:00 AM
Xylenes (total)	ND		0.50	µg/L	1	5/10/2005 4:50:00 AM
Surr: 1,2-Dichloroethane-d4	106		75-134	%REC	1	5/10/2005 4:50:00 AM
Surr: 4-Bromofluorobenzene	100		75-125	%REC	1	5/10/2005 4:50:00 AM
Surr: Dibromofluoromethane	104		75-127	%REC	1	5/10/2005 4:50:00 AM
Surr: Toluene-d8	102		75-125	%REC	1	5/10/2005 4:50:00 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-007A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	EMW-119
W Order:	0504164			**Collection Date:**	4/28/2005 1:43:00 PM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5548.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
NOTES:						
Isobutyl alcohol < 50 ug/L						

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-008A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETCMW-114
W Order:	0504164	**Collection Date:**	4/28/2005 2:50:00 PM
Matrix:	WATER	**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM **TestCode:** 8260W_CAL	**FileID:**	J5553.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		5.0	µg/L	10	5/10/2005 7:40:00 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	10	5/10/2005 7:40:00 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	10	5/10/2005 7:40:00 AM
1,1-Dichloroethane	62		5.0	µg/L	10	5/10/2005 7:40:00 AM
1,1-Dichloroethene	100		5.0	µg/L	10	5/10/2005 7:40:00 AM
1,2,3-Trichlorobenzene	ND		10	µg/L	10	5/10/2005 7:40:00 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	10	5/10/2005 7:40:00 AM
1,2,4-Trichlorobenzene	ND		10	µg/L	10	5/10/2005 7:40:00 AM
1,2-Dibromo-3-chloropropane	ND		10	µg/L	10	5/10/2005 7:40:00 AM
1,2-Dichloroethane	ND		5.0	µg/L	10	5/10/2005 7:40:00 AM
2-Butanone	ND		100	µg/L	10	5/10/2005 7:40:00 AM
4-Methyl-2-pentanone	ND		50	µg/L	10	5/10/2005 7:40:00 AM
Acetone	ND		100	µg/L	10	5/10/2005 7:40:00 AM
Benzene	ND		5.0	µg/L	10	5/10/2005 7:40:00 AM
Carbon disulfide	ND		5.0	µg/L	10	5/10/2005 7:40:00 AM
Chloroethane	ND		10	µg/L	10	5/10/2005 7:40:00 AM
Chloromethane	ND		10	µg/L	10	5/10/2005 7:40:00 AM
cis-1,2-Dichloroethene	1800	E	5.0	µg/L	10	5/10/2005 7:40:00 AM
Dibromomethane	ND		5.0	µg/L	10	5/10/2005 7:40:00 AM
Ethylbenzene	ND		5.0	µg/L	10	5/10/2005 7:40:00 AM
Methylene chloride	ND		20	µg/L	10	5/10/2005 7:40:00 AM
Naphthalene	ND		10	µg/L	10	5/10/2005 7:40:00 AM
Tetrachloroethene	74		5.0	µg/L	10	5/10/2005 7:40:00 AM
Toluene	ND		5.0	µg/L	10	5/10/2005 7:40:00 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	10	5/10/2005 7:40:00 AM
Trichloroethene	1100	E	5.0	µg/L	10	5/10/2005 7:40:00 AM
Trichlorofluoromethane	ND		10	µg/L	10	5/10/2005 7:40:00 AM
Vinyl acetate	ND		20	µg/L	10	5/10/2005 7:40:00 AM
Vinyl chloride	ND		10	µg/L	10	5/10/2005 7:40:00 AM
Xylenes (total)	ND		5.0	µg/L	10	5/10/2005 7:40:00 AM
Surr: 1,2-Dichloroethane-d4	114		75-134	%REC	10	5/10/2005 7:40:00 AM
Surr: 4-Bromofluorobenzene	95.4		75-125	%REC	10	5/10/2005 7:40:00 AM
Surr: Dibromofluoromethane	107		75-127	%REC	10	5/10/2005 7:40:00 AM
Surr: Toluene-d8	104		75-125	%REC	10	5/10/2005 7:40:00 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-008A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	ETCMW-114
W Order:	0504164			**Collection Date:**	4/28/2005 2:50:00 PM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5553.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		

NOTES:

~~Isobutyl alcohol < 4000 ug/L~~ GCN 5/25/05

Isobutyl alcohol < 500 ug/L

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-008A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	ETCMW-114
W Order:	0504164			**Collection Date:**	4/28/2005 2:50:00 PM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5549.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		40	µg/L	80	5/10/2005 5:24:00 AM
1,1,2,2-Tetrachloroethane	ND		40	µg/L	80	5/10/2005 5:24:00 AM
1,1,2-Trichloroethane	ND		40	µg/L	80	5/10/2005 5:24:00 AM
1,1-Dichloroethane	66		40	µg/L	80	5/10/2005 5:24:00 AM
1,1-Dichloroethene	97		40	µg/L	80	5/10/2005 5:24:00 AM
1,2,3-Trichlorobenzene	ND		80	µg/L	80	5/10/2005 5:24:00 AM
1,2,3-Trichloropropane	ND		40	µg/L	80	5/10/2005 5:24:00 AM
1,2,4-Trichlorobenzene	ND		80	µg/L	80	5/10/2005 5:24:00 AM
1,2-Dibromo-3-chloropropane	ND		80	µg/L	80	5/10/2005 5:24:00 AM
1,2-Dichloroethane	ND		40	µg/L	80	5/10/2005 5:24:00 AM
2-Butanone	ND		800	µg/L	80	5/10/2005 5:24:00 AM
4-Methyl-2-pentanone	ND		400	µg/L	80	5/10/2005 5:24:00 AM
Acetone	ND		800	µg/L	80	5/10/2005 5:24:00 AM
Benzene	ND		40	µg/L	80	5/10/2005 5:24:00 AM
Carbon disulfide	ND		40	µg/L	80	5/10/2005 5:24:00 AM
Chloroethane	ND		80	µg/L	80	5/10/2005 5:24:00 AM
Chloromethane	ND		80	µg/L	80	5/10/2005 5:24:00 AM
cis-1,2-Dichloroethene	1700		40	µg/L	80	5/10/2005 5:24:00 AM
Dibromomethane	ND		40	µg/L	80	5/10/2005 5:24:00 AM
Ethylbenzene	ND		40	µg/L	80	5/10/2005 5:24:00 AM
Methylene chloride	ND		160	µg/L	80	5/10/2005 5:24:00 AM
Naphthalene	ND		80	µg/L	80	5/10/2005 5:24:00 AM
Tetrachloroethene	73		40	µg/L	80	5/10/2005 5:24:00 AM
Toluene	ND		40	µg/L	80	5/10/2005 5:24:00 AM
trans-1,2-Dichloroethene	ND		40	µg/L	80	5/10/2005 5:24:00 AM
Trichloroethene	1000		40	µg/L	80	5/10/2005 5:24:00 AM
Trichlorofluoromethane	ND		80	µg/L	80	5/10/2005 5:24:00 AM
Vinyl acetate	ND		160	µg/L	80	5/10/2005 5:24:00 AM
Vinyl chloride	ND		80	µg/L	80	5/10/2005 5:24:00 AM
Xylenes (total)	ND		40	µg/L	80	5/10/2005 5:24:00 AM
Surr: 1,2-Dichloroethane-d4	105		75-134	%REC	80	5/10/2005 5:24:00 AM
Surr: 4-Bromofluorobenzene	103		75-125	%REC	80	5/10/2005 5:24:00 AM
Surr: Dibromofluoromethane	105		75-127	%REC	80	5/10/2005 5:24:00 AM
Surr: Toluene-d8	101		75-125	%REC	80	5/10/2005 5:24:00 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-008A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	ETCMW-114
W Order:	0504164			**Collection Date:**	4/28/2005 2:50:00 PM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5549.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		

NOTES:

Isobutyl alcohol < 4000 ug/L

~~Isobutyl alcohol < 500 ug/L~~ SG 5/25/05

Qualifiers:	B Analyte detected in the associated Method Blank	E	Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-009A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-114D
W Order:	0504164	**Collection Date:**	4/28/2005 3:15:00 PM
Matrix:	WATER	**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM **TestCode:** 8260W_CAL	**FileID:**	J5554.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		5.0	µg/L	10	5/10/2005 8:14:00 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	10	5/10/2005 8:14:00 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	10	5/10/2005 8:14:00 AM
1,1-Dichloroethane	8.3		5.0	µg/L	10	5/10/2005 8:14:00 AM
1,1-Dichloroethene	6.0		5.0	µg/L	10	5/10/2005 8:14:00 AM
1,2,3-Trichlorobenzene	ND		10	µg/L	10	5/10/2005 8:14:00 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	10	5/10/2005 8:14:00 AM
1,2,4-Trichlorobenzene	ND		10	µg/L	10	5/10/2005 8:14:00 AM
1,2-Dibromo-3-chloropropane	ND		10	µg/L	10	5/10/2005 8:14:00 AM
1,2-Dichloroethane	ND		5.0	µg/L	10	5/10/2005 8:14:00 AM
2-Butanone	430		100	µg/L	10	5/10/2005 8:14:00 AM
4-Methyl-2-pentanone	ND		50	µg/L	10	5/10/2005 8:14:00 AM
Acetone	190		100	µg/L	10	5/10/2005 8:14:00 AM
Benzene	ND		5.0	µg/L	10	5/10/2005 8:14:00 AM
Carbon disulfide	ND		5.0	µg/L	10	5/10/2005 8:14:00 AM
Chloroethane	ND		10	µg/L	10	5/10/2005 8:14:00 AM
Chloromethane	ND		10	µg/L	10	5/10/2005 8:14:00 AM
cis-1,2-Dichloroethene	120		5.0	µg/L	10	5/10/2005 8:14:00 AM
Dibromomethane	ND		5.0	µg/L	10	5/10/2005 8:14:00 AM
Ethylbenzene	ND		5.0	µg/L	10	5/10/2005 8:14:00 AM
Methylene chloride	ND		20	µg/L	10	5/10/2005 8:14:00 AM
Naphthalene	ND		10	µg/L	10	5/10/2005 8:14:00 AM
Tetrachloroethene	7.2		5.0	µg/L	10	5/10/2005 8:14:00 AM
Toluene	ND		5.0	µg/L	10	5/10/2005 8:14:00 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	10	5/10/2005 8:14:00 AM
Trichloroethene	230		5.0	µg/L	10	5/10/2005 8:14:00 AM
Trichlorofluoromethane	ND		10	µg/L	10	5/10/2005 8:14:00 AM
Vinyl acetate	ND		20	µg/L	10	5/10/2005 8:14:00 AM
Vinyl chloride	ND		10	µg/L	10	5/10/2005 8:14:00 AM
Xylenes (total)	ND		5.0	µg/L	10	5/10/2005 8:14:00 AM
Surr: 1,2-Dichloroethane-d4	112		75-134	%REC	10	5/10/2005 8:14:00 AM
Surr: 4-Bromofluorobenzene	111		75-125	%REC	10	5/10/2005 8:14:00 AM
Surr: Dibromofluoromethane	108		75-127	%REC	10	5/10/2005 8:14:00 AM
Surr: Toluene-d8	109		75-125	%REC	10	5/10/2005 8:14:00 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-009A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	CH2MW-114D
W Order:	0504164			**Collection Date:**	4/28/2005 3:15:00 PM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5554.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
NOTES:						
Isobutyl alcohol	< 500			ug/L		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 (315) 437-6100

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-010A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	Trip Blanks
W Order:	0504164	**Collection Date:**	4/28/2005
Matrix:	WATER	**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10 **Sample Size:** 10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS **%Moisture:**	**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM **TestCode:** 8260W_CAL	**FileID:**	J5551.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS			**SW8260B**			
1,1,1-Trichloroethane	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
1,1,2-Trichloroethane	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
1,1-Dichloroethane	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
1,1-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
1,2,3-Trichlorobenzene	ND		1.0	µg/L	1	5/10/2005 6:32:00 AM
1,2,3-Trichloropropane	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
1,2,4-Trichlorobenzene	ND		1.0	µg/L	1	5/10/2005 6:32:00 AM
1,2-Dibromo-3-chloropropane	ND		1.0	µg/L	1	5/10/2005 6:32:00 AM
1,2-Dichloroethane	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
2-Butanone	ND		10	µg/L	1	5/10/2005 6:32:00 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	5/10/2005 6:32:00 AM
Acetone	ND		10	µg/L	1	5/10/2005 6:32:00 AM
Benzene	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
Carbon disulfide	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
Chloroethane	ND		1.0	µg/L	1	5/10/2005 6:32:00 AM
Chloromethane	ND		1.0	µg/L	1	5/10/2005 6:32:00 AM
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
Dibromomethane	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
Ethylbenzene	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
Methylene chloride	ND		2.0	µg/L	1	5/10/2005 6:32:00 AM
Naphthalene	ND		1.0	µg/L	1	5/10/2005 6:32:00 AM
Tetrachloroethene	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
Toluene	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
Trichloroethene	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
Trichlorofluoromethane	ND		1.0	µg/L	1	5/10/2005 6:32:00 AM
Vinyl acetate	ND		2.0	µg/L	1	5/10/2005 6:32:00 AM
Vinyl chloride	ND		1.0	µg/L	1	5/10/2005 6:32:00 AM
Xylenes (total)	ND		0.50	µg/L	1	5/10/2005 6:32:00 AM
Surr: 1,2-Dichloroethane-d4	111		75-134	%REC	1	5/10/2005 6:32:00 AM
Surr: 4-Bromofluorobenzene	105		75-125	%REC	1	5/10/2005 6:32:00 AM
Surr: Dibromofluoromethane	108		75-127	%REC	1	5/10/2005 6:32:00 AM
Surr: Toluene-d8	104		75-125	%REC	1	5/10/2005 6:32:00 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 (315) 437-6100

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-010A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	Trip Blanks
W Order:	0504164			**Collection Date:**	4/28/2005
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	MS03_10	**Sample Size:**	10 mL	**PrepDate:**	
ColumnID:	Rtx-VMS	**%Moisture:**		**BatchNo:**	R996
Revision:	5/25/2005 8:58:31 AM	**TestCode:**	8260W_CAL	**FileID:**	J5551.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		

NOTES:
Isobutyl alcohol < 50 ug/L

Qualifiers:	B	Analyte detected in the associated Method Blank		E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded		J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit		S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-002B
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-1A
W Order:	0504164	**Collection Date:**	4/28/05 9:15:00 AM
Matrix:	WATER	**Date Received:**	4/29/05 9:15:00 AM
Inst. ID:	GCOS 17E **Sample Size:** NA	**PrepDate:**	
ColumnID:	Alumina **%Moisture:**	**BatchNo:**	R1125
Revision:	5/19/05 10:56:10 AM **TestCode:** 8015W RSK175	**FileID:**	E:\OSIMAY05\E051217.rst

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID			**8015M/RSK175M**			
Ethane	ND		0.0050	mg/L	1	5/12/05 3:52:52 PM
Ethene	ND		0.0050	mg/L	1	5/12/05 3:52:52 PM
Methane	ND		0.0050	mg/L	1	5/12/05 3:52:52 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-004B
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	ETMW-121
W Order:	0504164			**Collection Date:**	4/28/05 11:10:00 AM
Matrix:	WATER			**Date Received:**	4/29/05 9:15:00 AM
Inst. ID:	GCOS 17E	**Sample Size:**	NA	**PrepDate:**	
ColumnID:	Alumina	**%Moisture:**		**BatchNo:**	R1125
Revision:	5/19/05 10:56:10 AM	**TestCode:**	8015W RSK175	**FileID:**	E:\OSIMAY05\E051218.rst

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID			**8015M/RSK175M**			
Ethane	ND		0.0050	mg/L	1	5/12/05 4:04:24 PM
Ethene	ND		0.0050	mg/L	1	5/12/05 4:04:24 PM
Methane	ND		0.0050	mg/L	1	5/12/05 4:04:24 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 (315) 437-6100

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-009B
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-114D
W Order:	0504164	**Collection Date:**	4/28/05 3:15:00 PM
Matrix:	WATER	**Date Received:**	4/29/05 9:15:00 AM
Inst. ID:	GCOS 17E **Sample Size:** NA	**PrepDate:**	
ColumnID:	Alumina **%Moisture:**	**BatchNo:**	R1125
Revision:	5/19/05 10:56:10 AM **TestCode:** 8015W RSK175	**FileID:**	E:\OSIMAY05\E051220.rst

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		
Ethane	ND		0.0050	mg/L	1	5/12/05 5:34:50 PM
Ethene	ND		0.0050	mg/L	1	5/12/05 5:34:50 PM
Methane	ND		0.0050	mg/L	1	5/12/05 5:34:50 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M
Work Order: 0504164
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS-1025** SampType: **LCS** TestCode: **8015W_RSK1** Units: **mg/L** Prep Date: RunNo: **1125**
Client ID: **ZZZZZ** Batch ID: **R1125** Method: **8015M/RSK1** Analysis Date: **5/12/05** SeqNo: **36644**
Instrument: **GCOS_17E** ColumnID: **Alumina** **J&W Alumina**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.03583	0.0050	0.04091	0	87.6	46	116				
Ethene	0.02644	0.0050	0.03809	0	69.4	28	130				
Methane	0.01704	0.0050	0.02183	0	78.1	42	111				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M
Work Order: 0504164
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCSD-1025** SampType: **LCSD** TestCode: **8015W_RSK1** Units: **mg/L** Prep Date: RunNo: **1125**
Client ID: **ZZZZZ** Batch ID: **R1125** Method: **8015M/RSK1** Analysis Date: **5/12/05** SeqNo: **36645**
Instrument: **GCOS_17E** ColumnID: **Alumina** **J&W Alumina**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.03161	0.0050	0.04091	0	77.3	46	116	0.03583	12.5	0	
Ethene	0.02401	0.0050	0.03809	0	63.0	28	130	0.02644	9.62	0	
Methane	0.01454	0.0050	0.02183	0	66.6	42	111	0.01704	15.8	0	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M
Work Order: 0504164
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **MB-1025** SampType: **MBLK** TestCode: **8015W_RSK1** Units: **mg/L** Prep Date: RunNo: **1125**
Client ID: **ZZZZZ** Batch ID: **R1125** Method: **8015M/RSK1** Analysis Date: **5/12/05** SeqNo: **36643**
Instrument: **GCOS_17E** ColumnID: **Alumina** **J&W Alumina**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	ND	0.0050									
Ethene	ND	0.0050									
Methane	0.001080	0.0050									J

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-002G
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-1A
W Order:	0504164	**Collection Date:**	4/28/05 9:15:00 AM
Matrix:	WATER	**Date Received:**	4/29/05 9:15:00 AM
Inst. ID:	ICAP 61E **Sample Size:** 50 mL	**PrepDate:**	5/11/05
ColumnID:	**%Moisture:**	**BatchNo:**	580/R1040
Revision:	5/13/05 3:00:48 PM **TestCode:** 200.7W.3	**FileID:**	5685

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.3)**
Iron	1.2		0.050	mg/L	1	5/12/05 3:20:00 PM
Manganese	ND		0.050	mg/L	1	5/12/05 3:20:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-004G
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	ETMW-121
W Order:	0504164			**Collection Date:**	4/28/05 11:10:00 AM
Matrix:	WATER			**Date Received:**	4/29/05 9:15:00 AM
Inst. ID:	ICAP 61E	**Sample Size:**	50 mL	**PrepDate:**	5/11/05
ColumnID:		**%Moisture:**		**BatchNo:**	580/R1040
Revision:	5/13/05 3:00:48 PM	**TestCode:**	200.7W.3	**FileID:**	5686

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP			**EPA 200.7**			**(E4.1.3)**
Iron	0.84		0.050	mg/L	1	5/12/05 3:23:00 PM
Manganese	ND		0.050	mg/L	1	5/12/05 3:23:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7
Work Order: 0504164
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **MB-580**	SampType: **MBLK**	TestCode: **200.7W.3**	Units: **mg/L**		Prep Date: **5/11/05**			RunNo: **1040**				
Client ID: **ZZZZZ**	Batch ID: **580**	Method: **EPA 200.7**	**(E4.1.3)**		Analysis Date: **5/12/05**			SeqNo: **34521**				
Instrument:	ColumnID:											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Iron	0.04280	0.050									J	
Manganese	ND	0.050										

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *16-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7
Work Order: 0504164
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS-580**	SampType: **LCS**	TestCode: **200.7W.3**	Units: **mg/L**		Prep Date: **5/11/05**		RunNo: **1040**					
Client ID: **ZZZZZ**	Batch ID: **580**	Method: **EPA 200.7**	**(E4.1.3)**		Analysis Date: **5/12/05**		SeqNo: **34522**					
Instrument:	ColumnID:											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Iron	0.9442	0.050	1	0	94.4	85	115					
Manganese	0.1896	0.050	0.2	0	94.8	85	115					

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *16-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-002C
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-1A
W Order:	0504164	**Collection Date:**	4/28/2005 9:15:00 AM
Matrix:	WATER	**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	IC **Sample Size:** NA	**PrepDate:**	
ColumnID:	IC **%Moisture:**	**BatchNo:**	R863
Revision:	5/5/2005 9:15:49 PM **TestCode:** 300.0W	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	8.8		1.0	mg/L	1	4/29/2005 2:06:00 PM
Nitrogen, Nitrate (As N)	0.27		0.010	mg/L	1	4/29/2005 2:06:00 PM
Sulfate	2.7		1.0	mg/L	1	4/29/2005 2:06:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-002D
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-1A
W Order:	0504164	**Collection Date:**	4/28/2005 9:15:00 AM
Matrix:	WATER	**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	DC-190 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1109
Revision:	5/18/2005 9:16:46 AM **TestCode:** TOC415.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	9.6		1.0	mg/L	1	5/17/2005

Qualifiers:	B Analyte detected in the associated Method Blank	E	Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-002E
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-1A
W Order:	0504164	**Collection Date:**	4/28/2005 9:15:00 AM
Matrix:	WATER	**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1010
Revision:	5/11/2005 9:53:39 AM **TestCode:** ALK310.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, TOTAL (AS CACO3)				**EPA 310.1**		
Alkalinity, Total (As CaCO3)	26		10	mg/L	1	5/10/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0504164-002F
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	CH2MW-1A
W Order:	0504164			**Collection Date:**	4/28/2005 9:15:00 AM
Matrix:	WATER			**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	Buret Type A	**Sample Size:**	NA	**PrepDate:**	
ColumnID:		**%Moisture:**		**BatchNo:**	R914
Revision:	5/4/2005 9:06:21 AM	**TestCode:**	S376.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		0.80	mg/L	1	5/3/2005

Qualifiers:					
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-004C
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETMW-121
W Order:	0504164	**Collection Date:**	4/28/2005 11:10:00 AM
Matrix:	WATER	**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	IC **Sample Size:** NA	**PrepDate:**	
ColumnID:	IC **%Moisture:**	**BatchNo:**	R863
Revision:	5/5/2005 9:15:49 PM **TestCode:** 300.0W	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	5.2		1.0	mg/L	1	4/29/2005 2:20:00 PM
Nitrogen, Nitrate (As N)	0.59		0.010	mg/L	1	4/29/2005 2:20:00 PM
Sulfate	9.9		1.0	mg/L	1	4/29/2005 2:20:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-004D
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETMW-121
W Order:	0504164	**Collection Date:**	4/28/2005 11:10:00 AM
Matrix:	WATER	**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	DC-190 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1109
Revision:	5/18/2005 9:16:46 AM **TestCode:** TOC415.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	4.9		1.0	mg/L	1	5/17/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-004E
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETMW-121
W Order:	0504164	**Collection Date:**	4/28/2005 11:10:00 AM
Matrix:	WATER	**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1010
Revision:	5/11/2005 9:53:39 AM **TestCode:** ALK310.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, TOTAL (AS CACO3)				**EPA 310.1**		
Alkalinity, Total (As CaCO3)	58		10	mg/L	1	5/10/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-004F
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETMW-121
W Order:	0504164	**Collection Date:**	4/28/2005 11:10:00 AM
Matrix:	WATER	**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R914
Revision:	5/4/2005 9:06:21 AM **TestCode:** S376.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		0.80	mg/L	1	5/3/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-011A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-1A (FF)
W Order:	0504164	**Collection Date:**	4/28/2005 9:15:00 AM
Matrix:	WATER	**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	DC-190 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1109
Revision:	5/18/2005 9:16:46 AM **TestCode:** TOC415.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	11		1.0	mg/L	1	5/17/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0504164-012A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETMW-121 (FF)
W Order:	0504164	**Collection Date:**	4/28/2005 11:10:00 AM
Matrix:	WATER	**Date Received:**	4/29/2005 9:15:00 AM
Inst. ID:	DC-190 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1109
Revision:	5/18/2005 9:16:46 AM **TestCode:** TOC415.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	7.9		1.0	mg/L	1	5/17/2005

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway

East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0

Work Order: 0504164

CLIENT: O'Brien & Gere Engineers, Inc

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-R863**	SampType: **LCS**	TestCode: **300.0W**	Units: **mg/L**	Prep Date:		RunNo:	**863**
Client ID: **ZZZZZ**	Batch ID: **R863**	Method: **EPA 300.0**		Analysis Date:	**4/29/2005**	SeqNo:	**27956**
Instrument: **IC**	ColumnID: **IC**						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	21.87	1.0	20	0	109	80	120				
Nitrogen, Nitrate (As N)	2.177	0.050	2	0	109	80	120				
Sulfate	21.79	1.0	20	0	109	80	120				

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway

East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1

Work Order: 0504164

CLIENT: O'Brien & Gere Engineers, Inc

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-R1010**	SampType: **LCS**	TestCode: **ALK310.1**	Units: **mg/L**	Prep Date:		RunNo: **1010**						
Client ID: **ZZZZZ**	Batch ID: **R1010**	Method: **EPA 310.1**		Analysis Date: **5/10/2005**		SeqNo: **33468**						
Instrument:	ColumnID:											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Alkalinity, Total (As CaCO3)	52.00	10	50	0	104	90	110					

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway

East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1

Work Order: 0504164

CLIENT: O'Brien & Gere Engineers, Inc

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-R914**	SampType: **LCS**	TestCode: **S376.1**	Units: **mg/L**	Prep Date:		RunNo: **914**						
Client ID: **ZZZZZ**	Batch ID: **R914**	Method: **EPA 376.1**		Analysis Date: **5/3/2005**		SeqNo: **30325**						
Instrument:	ColumnID:											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Sulfide	1.800	0.80	2	0	90.0	81	110					

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0504164
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS-1109**	SampType: **LCS**	TestCode: **TOC415.1**	Units: **mg/L**	Prep Date:		RunNo: **1109**						
Client ID: **ZZZZZ**	Batch ID: **R1109**	Method: **EPA 415.1**		Analysis Date: **5/17/2005**		SeqNo: **36116**						
Instrument:	ColumnID:											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Total Organic Carbon	52.06	1.0	50	0	104	88	111					

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0
Work Order: 0504164
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **MB-R863**	SampType: **MBLK**	TestCode: **300.0W**	Units: **mg/L**	Prep Date:		RunNo: **863**					
Client ID: **ZZZZZ**	Batch ID: **R863**	Method: **EPA 300.0**		Analysis Date: **4/29/2005**		SeqNo: **27955**					
Instrument: **IC**	ColumnID: **IC**										

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	0.1051	1.0									J
Nitrogen, Nitrate (As N)	ND	0.050									
Sulfate	ND	1.0									

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway

East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1

Work Order: 0504164

CLIENT: O'Brien & Gere Engineers, Inc

Project: Miller Brewing Company Can Plant

Sample ID: **MB-R1010**	SampType: **MBLK**	TestCode: **ALK310.1**	Units: **mg/L**	Prep Date:			RunNo: **1010**				
Client ID: **ZZZZZ**	Batch ID: **R1010**	Method: **EPA 310.1**		Analysis Date: **5/10/2005**			SeqNo: **33467**				
Instrument:	ColumnID:										

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway

East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1

Work Order: 0504164

CLIENT: O'Brien & Gere Engineers, Inc

Project: Miller Brewing Company Can Plant

Sample ID: **MB-R914**	SampType: **MBLK**	TestCode: **S376.1**	Units: **mg/L**	Prep Date:		RunNo: **914**					
Client ID: **ZZZZZ**	Batch ID: **R914**	Method: **EPA 376.1**		Analysis Date: **5/3/2005**		SeqNo: **30324**					
Instrument:	ColumnID:										

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	ND	0.80									

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0504164
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **MB-1109**	SampType: **MBLK**	TestCode: **TOC415.1**	Units: **mg/L**	Prep Date:		RunNo: **1109**					
Client ID: **ZZZZZ**	Batch ID: **R1109**	Method: **EPA 415.1**		Analysis Date: **5/17/2005**		SeqNo: **36118**					
Instrument:	ColumnID:										

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0									

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client: Miller Brewing Co
Project: Miller Moultrie GW Sampling
Sampled by: MARY B. RICHARDSON
Client Contact: Rebecca Francisco Phone # 414-931-2000

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	VOC	MEE	NO_3 Cl- SO_4	TOC	DOC (FF)	TALK	Sulfide / Fe	Comments
OBGMW-122	04/28/05	0820	WG	60	3	X							
CH2MW-1A	↓	0915	↓	↓	11	X	X	X	X	X	X	X	
CH2MW-1	↓	1020	↓	↓	3	X							
ETMW-121	↓	1110	↓	↓	11	X	X	X	X	X	X	X	
ETMW-120	↓	1215	↓	↓	3	X							
ETMW-115	↓	1305	↓	↓	3	X							
EMW-119	↓	1343	↓	↓	3	X							
ETCMW-114	↓	1450	↓	↓	3	X	X	[illegible]					
CH2MW-114D	↓	1515	↓	↓	5	X	X	[illegible]					
Trip Blanks	–	–			4								

164

Relinquished by: MARY B. RICHARDSON	Date: 04/28/05	Time: 1800	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by Lab: DMack	Date: 4/29/05	Time: 915
Shipment Method:			Airbill Number:		

Turnaround Time Required:
Routine_____
Rush (Specify)_____

Cooler Temperature: 9°C Iced

Comments:

Original - Laboratory
Copy - Client

From: Monika Santucci
To: Bartlett, Mary Jane
Date: 4/29/05 11:36:18 AM
Subject: cooler temperature

Mary Jane,

Today's shipment was rec.'d at 9 degrees.

M onika

CASE FILE FORM

PROGRAM INFORMATION

CLIENT: Miller DIV. _____ REF. No. _____

PROGRAM: _____

CUSTODY SEAL: _____ INTACT _____ NOT INTACT _____ NA

AFTER HOURS CUSTODY

RELINQUISHED BY:			RECEIVED BY:		
CLIENT:	DATE	TIME	SECURITY GUARD:	DATE	TIME
GUARD TO COOLER:	DATE	TIME	SAMPLE CUSTODIAN	DATE	TIME

COMMENTS/DISCREPANCIES:

When samples were recieved one bottle containing NaOH had a pH of 7 (description: ETMW-12)

RESOLUTION/CLIENT COMMENT:

added two mL of NaOH to bring pH to 12

SIGNED: _____

DATE: _____

QA/QC APROVAL: _____

SIGNED: Monika Fontucci

DATE: 5/26/05

FedEx Express US Airbill 851855679230 0200 Form ID No. FedEx Retrieval Copy

1A8513

1B8513

1C8513

1E8513

1 From

Date 4/25/05 Sender's FedEx Account Number 2053-4847-7

Sender's Name Mary B. Pickardson Phone 770 205-4758

Company SBG

Address 5895 Shiloh Rd. Ste 113 Dept./Floor/Suite/Room

City Alpharetta State GA ZIP 30005

2 Your Internal Billing Reference

3 To

Recipient's Name Monica Santucci Phone 315 437-3100

Company OBG Labs

Recipient's Address 5,000 Fairmount Pkwy. Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City E. Syracuse State NY ZIP 13057

8518 5567 9230

4a Express Package Service *Packages up to 150 lbs.* * To most locations

1 [X] FedEx Priority Overnight Next business morning*
5 [ ] FedEx Standard Overnight Next business afternoon*
6 [ ] FedEx First Overnight Earliest next business morning delivery to select locations*
3 [ ] FedEx 2Day Second business day*
20 [ ] FedEx Express Saver Third business day*

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service *Packages over 150 lbs.* ** To most locations

7 [ ] FedEx 1Day Freight* Next business day**
8 [ ] FedEx 2Day Freight Second business day**
83 [ ] FedEx 3Day Freight Third business day**

* Call for Confirmation:

5 Packaging * Declared value limit $500

6 [ ] FedEx Envelope*
2 [ ] FedEx Pak* Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
3 [ ] FedEx Box
4 [ ] FedEx Tube
1 [X] Other

6 Special Handling Include FedEx address in Section 3.

3 [ ] SATURDAY Delivery Available ONLY for FedEx Priority Overnight, FedEx 2Day, FedEx 1Day Freight, and FedEx 2Day Freight to select ZIP codes
1 [ ] HOLD Weekday at FedEx Location Not available for FedEx First Overnight
21 [ ] HOLD Saturday at FedEx Location Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations

24 X 14 X 14

Does this shipment contain dangerous goods? One box must be checked.

[ ] No 4 [ ] Yes As per attached Shipper's Declaration [ ] Yes Shipper's Declaration not required 6 [ ] Dry Ice Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including Dry Ice) cannot be shipped in FedEx packaging. [ ] Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No. [ ]

1 [X] Sender Acct. No. in Section 1 will be billed.
2 [ ] Recipient
3 [ ] Third Party
4 [ ] Credit Card
5 [ ] Cash/Check

FedEx Acct. No. Credit Card No. Exp. Date

Total Packages 1 Total Weight 39 Total Charges

Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the *FedEx Service Guide* for details.

8 Sign to Authorize Delivery Without a Signature

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

467

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SUBJECT

SHEET BY DATE JOB NO.

LABORATORIES, INC.

O'Brien & Gere Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Thursday, May 19, 2005

Mary Jane Bartlett
O'Brien & Gere Engineers, Inc
951 Aviation Parkway
Suite 1400
Morrisville, NC 27560

TEL: 315-437-6100

Project: MILLER BREWING COMPANY CAN PLANT
RE: Analytical Results Order No.: 0505006

Dear Mary Jane Bartlett:

O'Brien & Gere Laboratories, Inc. received 4 sample(s) on 5/2/05 for the analyses presented in the following report.

Very truly yours,
O'BRIEN & GERE LABORATORIES, INC.

Monika Santucci

Monika Santucci
Project Supervisor

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0505006-001E
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETCMW-114
W Order:	0505006	**Collection Date:**	4/29/05 11:25:00 AM
Matrix:	WATER	**Date Received:**	5/2/05 9:55:00 AM
Inst. ID:	ICAP 61E **Sample Size:** 50 mL	**PrepDate:**	5/11/05
ColumnID:	**%Moisture:**	**BatchNo:**	580/R1040
Revision:	5/13/05 3:00:48 PM **TestCode:** 200.7W.3	**FileID:**	5687

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP			**EPA 200.7**			**(E4.1.3)**
Iron	0.22		0.050	mg/L	1	5/12/05 3:26:00 PM
Manganese	ND		0.050	mg/L	1	5/12/05 3:26:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0505006-002A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-114D
W Order:	0505006	**Collection Date:**	4/29/05 11:41:00 AM
Matrix:	WATER	**Date Received:**	5/2/05 9:55:00 AM
Inst. ID:	ICAP 61E **Sample Size:** 10 mL	**PrepDate:**	5/11/05
ColumnID:	**%Moisture:**	**BatchNo:**	580/R1040
Revision:	5/13/05 3:00:48 PM **TestCode:** 200.7W.3	**FileID:**	5688

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP			**EPA 200.7**			**(E4.1.3)**
Iron	55		0.25	mg/L	1	5/12/05 3:30:00 PM
Manganese	0.64		0.25	mg/L	1	5/12/05 3:30:00 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E	Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7
Work Order: 0505006
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **MB-580**	SampType: **MBLK**	TestCode: **200.7W.3**	Units: **mg/L**	Prep Date: **5/11/05**		RunNo: **1040**	
Client ID: **ZZZZZ**	Batch ID: **580**	Method: **EPA 200.7**	**(E4.1.3)**	Analysis Date: **5/12/05**		SeqNo: **34521**	
Instrument:	ColumnID:						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.04280	0.050									J
Manganese	ND	0.050									

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *16-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7
Work Order: 0505006
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS-580** SampType: **LCS** TestCode: **200.7W.3** Units: **mg/L** Prep Date: **5/11/05** RunNo: **1040**
Client ID: **ZZZZZ** Batch ID: **580** Method: **EPA 200.7** **(E4.1.3)** Analysis Date: **5/12/05** SeqNo: **34522**
Instrument: ColumnID:

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.9442	0.050	1	0	94.4	85	115				
Manganese	0.1896	0.050	0.2	0	94.8	85	115				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Date: *16-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0505006-001A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETCMW-114
W Order:	0505006	**Collection Date:**	4/29/2005 11:25:00 AM
Matrix:	WATER	**Date Received:**	5/2/2005 9:55:00 AM
Inst. ID:	IC **Sample Size:** NA	**PrepDate:**	
ColumnID:	IC **%Moisture:**	**BatchNo:**	R927
Revision:	5/5/2005 11:55:10 AM **TestCode:** 300.0W	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	26		1.0	mg/L	1	5/2/2005 2:21:00 PM
Sulfate	39		1.0	mg/L	1	5/2/2005 2:21:00 PM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0505006-001A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETCMW-114
W Order:	0505006	**Collection Date:**	4/29/2005 11:25:00 AM
Matrix:	WATER	**Date Received:**	5/2/2005 9:55:00 AM
Inst. ID:	IC **Sample Size:** NA	**PrepDate:**	
ColumnID:	IC **%Moisture:**	**BatchNo:**	R927
Revision:	5/5/2005 11:55:10 AM **TestCode:** 300.0W	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Nitrogen, Nitrate (As N)	8.2	H	0.25	mg/L	5	5/2/2005 3:34:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0505006-001B
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETCMW-114
W Order:	0505006	**Collection Date:**	4/29/2005 11:25:00 AM
Matrix:	WATER	**Date Received:**	5/2/2005 9:55:00 AM
Inst. ID:	DC-190 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1109
Revision:	5/18/2005 9:16:46 AM **TestCode:** TOC415.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	2.2		1.0	mg/L	1	5/17/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0505006-001C
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	ETCMW-114
W Order:	0505006			**Collection Date:**	4/29/2005 11:25:00 AM
Matrix:	WATER			**Date Received:**	5/2/2005 9:55:00 AM
Inst. ID:	Buret Type A	**Sample Size:**	NA	**PrepDate:**	
ColumnID:		**%Moisture:**		**BatchNo:**	R1010
Revision:	5/11/2005 9:53:39 AM	**TestCode:**	ALK310.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, TOTAL (AS CACO3)				**EPA 310.1**		
Alkalinity, Total (As CaCO3)	120		10	mg/L	1	5/10/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0505006-001D
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETCMW-114
W Order:	0505006	**Collection Date:**	4/29/2005 11:25:00 AM
Matrix:	WATER	**Date Received:**	5/2/2005 9:55:00 AM
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R914
Revision:	5/4/2005 9:06:21 AM **TestCode:** S376.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		0.80	mg/L	1	5/3/2005

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0505006-002A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-114D
W Order:	0505006	**Collection Date:**	4/29/2005 11:41:00 AM
Matrix:	WATER	**Date Received:**	5/2/2005 9:55:00 AM
Inst. ID:	IC **Sample Size:** NA	**PrepDate:**	
ColumnID:	IC **%Moisture:**	**BatchNo:**	R1037
Revision:	5/13/2005 9:17:37 AM **TestCode:** 300.0W	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	89		10	mg/L	10	5/11/2005 4:09:00 PM
Nitrogen, Nitrate (As N)	ND	H	0.50	mg/L	10	5/11/2005 4:09:00 PM
Sulfate	47		10	mg/L	10	5/11/2005 4:09:00 PM

NOTES:
* The reporting limits were raised due to sample matrix interference.

Qualifiers:	B Analyte detected in the associated Method Blank	E	Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0505006-002A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-114D
W Order:	0505006	**Collection Date:**	4/29/2005 11:41:00 AM
Matrix:	WATER	**Date Received:**	5/2/2005 9:55:00 AM
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1015
Revision:	5/11/2005 11:48:46 A **TestCode:** ALK310.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, TOTAL (AS CACO3)				**EPA 310.1**		
Alkalinity, Total (As CaCO3)	3000		10	mg/L	1	5/11/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0505006-002A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-114D
W Order:	0505006	**Collection Date:**	4/29/2005 11:41:00 AM
Matrix:	WATER	**Date Received:**	5/2/2005 9:55:00 AM
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1007
Revision:	5/11/2005 9:33:32 AM **TestCode:** S376.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND	H	0.80	mg/L	1	5/10/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc			**Lab ID:**	0505006-002A
Project:	Miller Brewing Company Can Plant			**Client Sample ID:**	CH2MW-114D
W Order:	0505006			**Collection Date:**	4/29/2005 11:41:00 AM
Matrix:	WATER			**Date Received:**	5/2/2005 9:55:00 AM
Inst. ID:	DC-190	**Sample Size:**	NA	**PrepDate:**	
ColumnID:		**%Moisture:**		**BatchNo:**	R1109
Revision:	5/18/2005 9:16:46 AM	**TestCode:**	TOC415.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	9800		100	mg/L	100	5/17/2005

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0505006-004A
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	ETCMW-114 (FF)
W Order:	0505006	**Collection Date:**	4/29/2005 11:25:00 AM
Matrix:	WATER	**Date Received:**	5/2/2005 9:55:00 AM
Inst. ID:	DC-190 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1109
Revision:	5/18/2005 9:16:46 AM **TestCode:** TOC415.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	2.9		1.0	mg/L	1	5/17/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100** **StateCertNo:**

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc	**Lab ID:**	0505006-002B
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	CH2MW-114D (FF)
W Order:	0505006	**Collection Date:**	4/29/2005 11:41:00 AM
Matrix:	WATER	**Date Received:**	5/2/2005 9:55:00 AM
Inst. ID:	DC-190 **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R1109
Revision:	5/18/2005 9:16:46 AM **TestCode:** TOC415.1	**FileID:**	

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	8900		100	mg/L	100	5/17/2005

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0
Work Order: 0505006
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **MB-R927**	SampType: **MBLK**	TestCode: **300.0W**	Units: **mg/L**	Prep Date:		RunNo: **927**						
Client ID: **ZZZZZ**	Batch ID: **R927**	Method: **EPA 300.0**		Analysis Date: **5/2/2005**		SeqNo: **30736**						
Instrument: **IC**	ColumnID: **IC**											

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	0.09140	1.0									J
Nitrogen, Nitrate (As N)	ND	0.050									
Sulfate	ND	1.0									

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway

East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0

Work Order: 0505006

CLIENT: O'Brien & Gere Engineers, Inc

Project: Miller Brewing Company Can Plant

Sample ID: **MB-R1037**	SampType: **MBLK**	TestCode: **300.0W**	Units: **mg/L**	Prep Date:		RunNo: **1037**			
Client ID: **ZZZZZ**	Batch ID: **R1037**	Method: **EPA 300.0**		Analysis Date: **5/11/2005**		SeqNo: **34211**			
Instrument: **IC**	ColumnID: **IC**								

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.0									
Nitrogen, Nitrate (As N)	ND	0.050									
Sulfate	ND	1.0									

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway

East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0

Work Order: 0505006

CLIENT: O'Brien & Gere Engineers, Inc

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-R1037**	SampType: **MBLK**	TestCode: **300.0W**	Units: **mg/L**	Prep Date:		RunNo:	**1037**
Client ID: **ZZZZZ**	Batch ID: **R1037**	Method: **EPA 300.0**		Analysis Date: **5/11/2005**		SeqNo:	**34212**
Instrument: **IC**	ColumnID: **IC**						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	21.65	1.0									
Nitrogen, Nitrate (As N)	2.130	0.050									
Sulfate	21.60	1.0									

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0
Work Order: 0505006
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS-R927**	SampType: **LCS**	TestCode: **300.0W**	Units: **mg/L**	Prep Date:		RunNo:	**927**
Client ID: **ZZZZZ**	Batch ID: **R927**	Method: **EPA 300.0**		Analysis Date: **5/2/2005**		SeqNo:	**30737**
Instrument: **IC**	ColumnID: **IC**						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	21.73	1.0	20	0	109	80	120				
Nitrogen, Nitrate (As N)	2.141	0.050	2	0	107	80	120				
Sulfate	21.63	1.0	20	0	108	80	120				

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1
Work Order: 0505006
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **MB-R1010**	SampType: **MBLK**	TestCode: **ALK310.1**	Units: **mg/L**	Prep Date:			RunNo: **1010**					
Client ID: **ZZZZZ**	Batch ID: **R1010**	Method: **EPA 310.1**		Analysis Date: **5/10/2005**			SeqNo: **33467**					
Instrument:	ColumnID:											

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway

East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1

Work Order: 0505006

CLIENT: O'Brien & Gere Engineers, Inc

Project: Miller Brewing Company Can Plant

Sample ID: **MB-R1015**	SampType: **MBLK**	TestCode: **ALK310.1**	Units: **mg/L**	Prep Date:			RunNo: **1015**					
Client ID: **ZZZZZ**	Batch ID: **R1015**	Method: **EPA 310.1**		Analysis Date: **5/11/2005**			SeqNo: **33609**					
Instrument:	ColumnID:											

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1
Work Order: 0505006
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS-R1010**	SampType: **LCS**	TestCode: **ALK310.1**	Units: **mg/L**	Prep Date:		RunNo: **1010**						
Client ID: **ZZZZZ**	Batch ID: **R1010**	Method: **EPA 310.1**		Analysis Date: **5/10/2005**		SeqNo: **33468**						
Instrument:	ColumnID:											

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	52.00	10	50	0	104	90	110				

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1
Work Order: 0505006
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS-R1015**	SampType: **LCS**	TestCode: **ALK310.1**	Units: **mg/L**	Prep Date:		RunNo: **1015**	
Client ID: **ZZZZZ**	Batch ID: **R1015**	Method: **EPA 310.1**		Analysis Date: **5/11/2005**		SeqNo: **33610**	
Instrument:	ColumnID:						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	52.00	10	50	0	104	90	110				

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1
Work Order: 0505006
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **MB-R914**	SampType: **MBLK**	TestCode: **S376.1**	Units: **mg/L**	Prep Date:			RunNo: **914**					
Client ID: **ZZZZZ**	Batch ID: **R914**	Method: **EPA 376.1**		Analysis Date: **5/3/2005**			SeqNo: **30324**					
Instrument:	ColumnID:											

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	ND	0.80									

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1
Work Order: 0505006
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **MB-R1007**	SampType: **MBLK**	TestCode: **S376.1**	Units: **mg/L**	Prep Date:		RunNo: **1007**						
Client ID: **ZZZZZ**	Batch ID: **R1007**	Method: **EPA 376.1**		Analysis Date: **5/10/2005**		SeqNo: **33451**						
Instrument:	ColumnID:											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Sulfide	ND	0.80										

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1
Work Order: 0505006
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS-R914**	SampType: **LCS**	TestCode: **S376.1**	Units: **mg/L**	Prep Date:		RunNo: **914**						
Client ID: **ZZZZZ**	Batch ID: **R914**	Method: **EPA 376.1**		Analysis Date: **5/3/2005**		SeqNo: **30325**						
Instrument:	ColumnID:											

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	1.800	0.80	2	0	90.0	81	110				

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1
Work Order: 0505006
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS**	SampType: **LCS**	TestCode: **S376.1**	Units: **mg/L**	Prep Date:		RunNo:	**1007**
Client ID: **ZZZZZ**	Batch ID: **R1007**	Method: **EPA 376.1**		Analysis Date: **5/10/2005**		SeqNo:	**33453**
Instrument:	ColumnID:						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	1.800	0.80	2	0	90.0	81	110				

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 (315) 437-6100

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0505006
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **MB-1109** SampType: **MBLK** TestCode: **TOC415.1** Units: **mg/L** Prep Date: RunNo: **1109**
Client ID: **ZZZZZ** Batch ID: **R1109** Method: **EPA 415.1** Analysis Date: **5/17/2005** SeqNo: **36118**
Instrument: ColumnID:

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, NY 13057 **(315) 437-6100**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0505006
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc

Sample ID: **LCS-1109**	SampType: **LCS**	TestCode: **TOC415.1**	Units: **mg/L**	Prep Date:	RunNo: **1109**
Client ID: **ZZZZZ**	Batch ID: **R1109**	Method: **EPA 415.1**		Analysis Date: **5/17/2005**	SeqNo: **36116**
Instrument:	ColumnID:				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	52.06	1.0	50	0	104	88	111				

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Date: *19-May-05*

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client: Miller Brewing Co.

Project: 35789 - Miller Monitoring Sampling (GW) Event

Sampled by: MARV B. RICHARDSON

Client Contact: Rebecca Francisco Phone # (414) 931-2000

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	Analysis/Method: NO_3, Cl, SO_4	TOC	DOC (FF)	TAlk	Sulfide	Fe		Comments
ETC MW-114	04/29/05	1125	WG	G	4	X	X	X	X	X	X		1-Bottle was field filtered
CH2 MW-114D	04/29/05	1141	WG	G	1	X	X	X	X	X	X		well went dry.
Trip Blanks	04/21/05	—	BL	-	2								

0010

Relinquished by: MARV B. RICHARDSON	Date: 04-29-05	Time: 1611	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by Lab: DMack	Date: 5/2/05	Time: 955
Shipment Method:			Airbill Number:		

Turnaround Time Required:

Routine_____

Rush (Specify)_____

Cooler Temperature: 4°C iced

Comments:

Original - Laboratory
Copy - Client

O'BRIEN & GERE COMPANIES

SUBJECT:	PAGE:	BY:	DATE:	JOB NUMBER:

5/2/05

Left message for Mary Jane Bartlett about the missed holding time for Nitrate for Samples ETC MW-114 & CH2 MW-114D. Also for Sample CH2MW-114D approximately 100 mls was collected for all of the tests. Requested a hierarchy for requested tests due to lack of Sample volume that was collected.

Monika Santucci

5/6/05

Per Mary Jane Bartlett, analyze Sample CH-2 MW-114D in the following order:

TALK, 300.0, Sulfide, TOC, metals, DOC

FedEx Express US Airbill

8528 2809 9890

0200

Form ID No.

FedEx Retrieval Copy

1 From

Date

Sender's FedEx Account Number

Sender's Name

Phone

Company

Address

Dept/Floor/Suite/Room

City

State

ZIP

2 Your Internal Billing Reference

3 To

Recipient's Name

Phone

Company

Recipient's Address

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept/Floor/Suite/Room

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City

State

ZIP

8528 2809 9890

4a Express Package Service — *Packages up to 150 lbs.* * To most locations

1 ☒ FedEx Priority Overnight — Next business morning*

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6 ☐ FedEx First Overnight — Earliest next business morning delivery to select locations*

3 ☐ FedEx 2Day — Second business day*

20 ☐ FedEx Express Saver — Third business day*

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service — *Packages over 150 lbs.* ** To most locations

7 ☐ FedEx 1Day Freight* — Next business day**

8 ☐ FedEx 2Day Freight — Second business day**

83 ☐ FedEx 3Day Freight — Third business day**

* Call for Confirmation:

5 Packaging * Declared value limit $500

6 ☐ FedEx Envelope*

2 ☐ FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak

3 ☐ FedEx Box

4 ☐ FedEx Tube

1 ☒ Other

6 Special Handling — Include FedEx address in Section 3.

3 ☐ **SATURDAY Delivery** — Available ONLY for FedEx Priority Overnight, FedEx 2Day, FedEx 1Day Freight, and FedEx 2Day Freight to select ZIP codes

1 ☐ **HOLD Weekday** at FedEx Location — Not available for FedEx First Overnight

31 ☐ **HOLD Saturday** at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

☐ No

4 ☐ Yes — As per attached Shipper's Declaration

☐ Yes — Shipper's Declaration not required

6 ☐ Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including Dry Ice) cannot be shipped in FedEx packaging

☐ Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

1 ☒ Sender — Acct. No. in Section 1 will be billed.

2 ☐ Recipient

3 ☐ Third Party

4 ☐ Credit Card

5 ☐ Cash/Check

Obtain Recip. Acct. No. ☐

FedEx Acct. No. / Credit Card No.

Exp. Date

Total Packages 1

Total Weight 1 lb

Total Charges

Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the *FedEx Service Guide* for details.

8 Sign to Authorize Delivery Without a Signature

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

467

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SUBJECT

SHEET

BY

DATE

JOB NO.

LABORATORIES, INC.

Appendix B2

October 2005

Cross Reference Table
Sample Identification Labels-October 2005
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Lab Sample ID	OBG Sample ID
0510143-001A	CH2MW-2
0510143-002A	OBGMW-123
0510143-003A	OBGMW-124
0510143-003B	OBGMW-124
0510143-003C	OBGMW-124
0510143-003D	OBGMW-124
0510143-003E	OBGMW-124
0510143-003F	OBGMW-124
0510143-003G	OBGMW-124
0510143-004A	CH2MW-3
0510143-004B	CH2MW-3
0510143-004C	CH2MW-3
0510143-004D	CH2MW-3
0510143-004E	CH2MW-3
0510143-004F	CH2MW-3
0510143-004G	CH2MW-3
0510143-005A	CH2PP-1
0510143-006A	CH2MW-5
0510143-006B	CH2MW-5
0510143-006C	CH2MW-5
0510143-006D	CH2MW-5
0510143-006E	CH2MW-5
0510143-006F	CH2MW-5
0510143-006G	CH2MW-5
0510143-007A	DUP-02-102605
0510143-007B	DUP-02-102605
0510143-007C	DUP-02-102605
0510143-007D	DUP-02-102605
0510143-007E	DUP-02-102605
0510143-007F	DUP-02-102605
0510143-007G	DUP-02-102605
0510143-008A	CH2MW-114D
0510143-008B	CH2MW-114D
0510143-008C	CH2MW-114D
0510143-008E	CH2MW-114D
0510143-008F	CH2MW-114D
0510143-009A	ETMW-121
0510143-009B	ETMW-121
0510143-009C	ETMW-121
0510143-009D	ETMW-121
0510143-009F	ETMW-121
0510143-009G	ETMW-121
0510143-010A	ETCMW-115
0510143-011A	ETMW-120
0510143-012A	ETMW-119
0510143-013A	OBGMW-122

Cross Reference Table
Sample Identification Labels-October 2005
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Lab Sample ID	OBG Sample ID
0510143-014A	CH2MW-1
0510143-015A	DUP-01-102505
0510143-016A	ETMW-117
0510143-017A	ETMW-116
0510143-018A	ETMW-118
0510143-019A	CH2MW-4D
0510143-020A	TB-102605
0510143-021A	OBGMW-124 (FF)
0510143-022A	CH2MW-3 (FF)
0510143-023A	CH2MW-5 (FF)
0510143-024A	DUP-02-102605 (FF)
0510143-025A	ETMW-121 (FF)
0510151-001A	ETCMW-113
0510151-002A	CH2MW-114D
0510151-002B	CH2MW-114D
0510151-003A	ETMW-121
0510151-004A	ETCMW-114
0510151-004B	ETCMW-114
0510151-004C	ETCMW-114
0510151-004D	ETCMW-114
0510151-004E	ETCMW-114
0510151-004F	ETCMW-114
0510151-004G	ETCMW-114
0510151-005A	CH2MW-1A
0510151-005B	CH2MW-1A
0510151-005C	CH2MW-1A
0510151-005D	CH2MW-1A
0510151-006A	TB-102705
0510151-007A	CH2MW-114D (FF)
0510151-008A	ETCMW-114 (FF)

Tom Alexander
Life Science Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057

Phone: (315) 437-0200
FAX: (315) 437-0377

REVISED

Laboratory Analysis Report

For

Life Science Laboratories, Inc.

LSL Project ID: **0518731**

Receive Date/Time: 10/28/05 13:32

Project Received by: MW

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By the Client's acceptance and/or use of this report, the Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect the Client as regards to the results contained in this report. The Client further agrees that the only remedy available to the Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to the Client. The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without express prior written consent of Life Science Laboratories, Inc. This report may only be reproduced in its entirety. No partial duplication is allowed. The Chain of Custody document submitted with these samples is considered by LSL to be an appendix of this report and may contain specific information that pertains to the samples included in this report. The analytical result(s) in this report are only representative of the sample(s) submitted for analysis. LSL makes no claim of a sample's representativeness, or integrity, if sampling was not performed by LSL personnel.

Life Science Laboratories, Inc.

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NYS DOH ELAP #11667

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Fax (585) 968-0906
NYS DOH ELAP #10760

LSL MidLakes Lab
699 South Main Street
Canandaigua, NY 14424
Tel. (585) 396-0270
Fax (585) 396-0377
NYS DOH ELAP #11369

This report was reviewed by: Life Science Laboratories, Inc *Date:* 12/12/05

A copy of this report was sent to:

Originally Printed: 11/3/05

Date Printed: 12/12/05

- - LABORATORY ANALYSIS REPORT - -

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-001A **LSL Sample ID:** 0518731-001

Location:

Sampled: 10/25/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		10/31/05	LEF
Isobutyl Alcohol	<100	ug/l		10/31/05	LEF
Vinyl acetate	<5	ug/l		10/31/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		10/31/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		10/31/05	LEF
Naphthalene	<1	ug/l		10/31/05	LEF
Dibromomethane	<1	ug/l		10/31/05	LEF
cis-1,2-Dichloroethene	<1	ug/l		10/31/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		10/31/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		10/31/05	LEF
1,2,3-Trichloropropane	<1	ug/l		10/31/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		10/31/05	LEF
Acetone	<10	ug/l		10/31/05	LEF
Benzene	<1	ug/l		10/31/05	LEF
2-Butanone (MEK)	<10	ug/l		10/31/05	LEF
Carbon disulfide	<1	ug/l		10/31/05	LEF
Chloroethane	<1	ug/l		10/31/05	LEF
Chloromethane	<1	ug/l		10/31/05	LEF
1,1-Dichloroethane	<1	ug/l		10/31/05	LEF
1,1-Dichloroethene	<1	ug/l		10/31/05	LEF
Ethyl benzene	<1	ug/l		10/31/05	LEF
Methylene chloride	<2	ug/l		10/31/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		10/31/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		10/31/05	LEF
Tetrachloroethene	<1	ug/l		10/31/05	LEF
Toluene	<1	ug/l		10/31/05	LEF
1,1,1-Trichloroethane	<1	ug/l		10/31/05	LEF
Trichloroethene	<1	ug/l		10/31/05	LEF
Vinyl chloride	<1	ug/l		10/31/05	LEF
Xylenes (Total)	<1	ug/l		10/31/05	LEF
Surrogate (1,2-DCA-d4)	109	%R		10/31/05	LEF
Surrogate (Tol-d8)	102	%R		10/31/05	LEF
Surrogate (4-BFB)	112	%R		10/31/05	LEF

- - LABORATORY ANALYSIS REPORT - -

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-002A **LSL Sample ID:** 0518731-002

Location:

Sampled: 10/25/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		10/31/05	LEF
Isobutyl Alcohol	<100	ug/l		10/31/05	LEF
Vinyl acetate	<5	ug/l		10/31/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		10/31/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		10/31/05	LEF
Naphthalene	<1	ug/l		10/31/05	LEF
Dibromomethane	<1	ug/l		10/31/05	LEF
cis-1,2-Dichloroethene	<1	ug/l		10/31/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		10/31/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		10/31/05	LEF
1,2,3-Trichloropropane	<1	ug/l		10/31/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		10/31/05	LEF
Acetone	<10	ug/l		10/31/05	LEF
Benzene	<1	ug/l		10/31/05	LEF
2-Butanone (MEK)	<10	ug/l		10/31/05	LEF
Carbon disulfide	<1	ug/l		10/31/05	LEF
Chloroethane	<1	ug/l		10/31/05	LEF
Chloromethane	<1	ug/l		10/31/05	LEF
1,1-Dichloroethane	<1	ug/l		10/31/05	LEF
1,1-Dichloroethene	<1	ug/l		10/31/05	LEF
Ethyl benzene	<1	ug/l		10/31/05	LEF
Methylene chloride	<2	ug/l		10/31/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		10/31/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		10/31/05	LEF
Tetrachloroethene	<1	ug/l		10/31/05	LEF
Toluene	<1	ug/l		10/31/05	LEF
1,1,1-Trichloroethane	<1	ug/l		10/31/05	LEF
Trichloroethene	<1	ug/l		10/31/05	LEF
Vinyl chloride	<1	ug/l		10/31/05	LEF
Xylenes (Total)	<1	ug/l		10/31/05	LEF
Surrogate (1,2-DCA-d4)	106	%R		10/31/05	LEF
Surrogate (Tol-d8)	102	%R		10/31/05	LEF
Surrogate (4-BFB)	107	%R		10/31/05	LEF

- - LABORATORY ANALYSIS REPORT - -

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-003A **LSL Sample ID:** 0518731-003

Location:

Sampled: 10/26/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		10/31/05	LEF
Isobutyl Alcohol	<100	ug/l		10/31/05	LEF
Vinyl acetate	<5	ug/l		10/31/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		10/31/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		10/31/05	LEF
Naphthalene	<1	ug/l		10/31/05	LEF
Dibromomethane	<1	ug/l		10/31/05	LEF
cis-1,2-Dichloroethene	<1	ug/l		10/31/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		10/31/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		10/31/05	LEF
1,2,3-Trichloropropane	<1	ug/l		10/31/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		10/31/05	LEF
Acetone	<10	ug/l		10/31/05	LEF
Benzene	<1	ug/l		10/31/05	LEF
2-Butanone (MEK)	<10	ug/l		10/31/05	LEF
Carbon disulfide	<1	ug/l		10/31/05	LEF
Chloroethane	<1	ug/l		10/31/05	LEF
Chloromethane	<1	ug/l		10/31/05	LEF
1,1-Dichloroethane	<1	ug/l		10/31/05	LEF
1,1-Dichloroethene	<1	ug/l		10/31/05	LEF
Ethyl benzene	<1	ug/l		10/31/05	LEF
Methylene chloride	<2	ug/l		10/31/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		10/31/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		10/31/05	LEF
Tetrachloroethene	<1	ug/l		10/31/05	LEF
Toluene	<1	ug/l		10/31/05	LEF
1,1,1-Trichloroethane	<1	ug/l		10/31/05	LEF
Trichloroethene	<1	ug/l		10/31/05	LEF
Vinyl chloride	<1	ug/l		10/31/05	LEF
Xylenes (Total)	<1	ug/l		10/31/05	LEF
Surrogate (1,2-DCA-d4)	107	%R		10/31/05	LEF
Surrogate (Tol-d8)	101	%R		10/31/05	LEF
Surrogate (4-BFB)	108	%R		10/31/05	LEF

- - LABORATORY ANALYSIS REPORT - -

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-004A **LSL Sample ID:** 0518731-004

Location:

Sampled: 10/26/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		10/31/05	LEF
Isobutyl Alcohol	<100	ug/l		10/31/05	LEF
Vinyl acetate	<5	ug/l		10/31/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		10/31/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		10/31/05	LEF
Naphthalene	<1	ug/l		10/31/05	LEF
Dibromomethane	<1	ug/l		10/31/05	LEF
cis-1,2-Dichloroethene	<1	ug/l		10/31/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		10/31/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		10/31/05	LEF
1,2,3-Trichloropropane	<1	ug/l		10/31/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		10/31/05	LEF
Acetone	<10	ug/l		10/31/05	LEF
Benzene	<1	ug/l		10/31/05	LEF
2-Butanone (MEK)	<10	ug/l		10/31/05	LEF
Carbon disulfide	<1	ug/l		10/31/05	LEF
Chloroethane	<1	ug/l		10/31/05	LEF
Chloromethane	<1	ug/l		10/31/05	LEF
1,1-Dichloroethane	<1	ug/l		10/31/05	LEF
1,1-Dichloroethene	<1	ug/l		10/31/05	LEF
Ethyl benzene	<1	ug/l		10/31/05	LEF
Methylene chloride	<2	ug/l		10/31/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		10/31/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		10/31/05	LEF
Tetrachloroethene	<1	ug/l		10/31/05	LEF
Toluene	<1	ug/l		10/31/05	LEF
1,1,1-Trichloroethane	<1	ug/l		10/31/05	LEF
Trichloroethene	<1	ug/l		10/31/05	LEF
Vinyl chloride	<1	ug/l		10/31/05	LEF
Xylenes (Total)	<1	ug/l		10/31/05	LEF
Surrogate (1,2-DCA-d4)	110	%R		10/31/05	LEF
Surrogate (Tol-d8)	101	%R		10/31/05	LEF
Surrogate (4-BFB)	107	%R		10/31/05	LEF

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-005A **LSL Sample ID:** 0518731-005

Location:

Sampled: 10/26/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		10/31/05	LEF
Isobutyl Alcohol	<100	ug/l		10/31/05	LEF
Vinyl acetate	<5	ug/l		10/31/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		10/31/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		10/31/05	LEF
Naphthalene	<1	ug/l		10/31/05	LEF
Dibromomethane	<1	ug/l		10/31/05	LEF
cis-1,2-Dichloroethene	<1	ug/l		10/31/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		10/31/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		10/31/05	LEF
1,2,3-Trichloropropane	<1	ug/l		10/31/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		10/31/05	LEF
Acetone	21	ug/l		10/31/05	LEF
Benzene	<1	ug/l		10/31/05	LEF
2-Butanone (MEK)	<10	ug/l		10/31/05	LEF
Carbon disulfide	<1	ug/l		10/31/05	LEF
Chloroethane	<1	ug/l		10/31/05	LEF
Chloromethane	<1	ug/l		10/31/05	LEF
1,1-Dichloroethane	<1	ug/l		10/31/05	LEF
1,1-Dichloroethene	<1	ug/l		10/31/05	LEF
Ethyl benzene	<1	ug/l		10/31/05	LEF
Methylene chloride	<2	ug/l		10/31/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		10/31/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		10/31/05	LEF
Tetrachloroethene	<1	ug/l		10/31/05	LEF
Toluene	<1	ug/l		10/31/05	LEF
1,1,1-Trichloroethane	<1	ug/l		10/31/05	LEF
Trichloroethene	<1	ug/l		10/31/05	LEF
Vinyl chloride	<1	ug/l		10/31/05	LEF
Xylenes (Total)	<1	ug/l		10/31/05	LEF
Surrogate (1,2-DCA-d4)	106	%R		10/31/05	LEF
Surrogate (Tol-d8)	100	%R		10/31/05	LEF
Surrogate (4-BFB)	102	%R		10/31/05	LEF

- - LABORATORY ANALYSIS REPORT - -

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-006A **LSL Sample ID:** 0518731-006

Location:

Sampled: 10/26/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		10/31/05	LEF
Isobutyl Alcohol	<100	ug/l		10/31/05	LEF
Vinyl acetate	<5	ug/l		10/31/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		10/31/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		10/31/05	LEF
Naphthalene	<1	ug/l		10/31/05	LEF
Dibromomethane	<1	ug/l		10/31/05	LEF
cis-1,2-Dichloroethene	<1	ug/l		10/31/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		10/31/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		10/31/05	LEF
1,2,3-Trichloropropane	<1	ug/l		10/31/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		10/31/05	LEF
Acetone	<10	ug/l		10/31/05	LEF
Benzene	<1	ug/l		10/31/05	LEF
2-Butanone (MEK)	<10	ug/l		10/31/05	LEF
Carbon disulfide	<1	ug/l		10/31/05	LEF
Chloroethane	<1	ug/l		10/31/05	LEF
Chloromethane	<1	ug/l		10/31/05	LEF
1,1-Dichloroethane	<1	ug/l		10/31/05	LEF
1,1-Dichloroethene	<1	ug/l		10/31/05	LEF
Ethyl benzene	<1	ug/l		10/31/05	LEF
Methylene chloride	<2	ug/l		10/31/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		10/31/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		10/31/05	LEF
Tetrachloroethene	<1	ug/l		10/31/05	LEF
Toluene	<1	ug/l		10/31/05	LEF
1,1,1-Trichloroethane	<1	ug/l		10/31/05	LEF
Trichloroethene	<1	ug/l		10/31/05	LEF
Vinyl chloride	<1	ug/l		10/31/05	LEF
Xylenes (Total)	<1	ug/l		10/31/05	LEF
Surrogate (1,2-DCA-d4)	109	%R		10/31/05	LEF
Surrogate (Tol-d8)	101	%R		10/31/05	LEF
Surrogate (4-BFB)	110	%R		10/31/05	LEF

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-007A **LSL Sample ID:** 0518731-007

Location:

Sampled: 10/26/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		10/31/05	LEF
Isobutyl Alcohol	<100	ug/l		10/31/05	LEF
Vinyl acetate	<5	ug/l		10/31/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		10/31/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		10/31/05	LEF
Naphthalene	<1	ug/l		10/31/05	LEF
Dibromomethane	<1	ug/l		10/31/05	LEF
cis-1,2-Dichloroethene	<1	ug/l		10/31/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		10/31/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		10/31/05	LEF
1,2,3-Trichloropropane	<1	ug/l		10/31/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		10/31/05	LEF
Acetone	<10	ug/l		10/31/05	LEF
Benzene	<1	ug/l		10/31/05	LEF
2-Butanone (MEK)	<10	ug/l		10/31/05	LEF
Carbon disulfide	<1	ug/l		10/31/05	LEF
Chloroethane	<1	ug/l		10/31/05	LEF
Chloromethane	<1	ug/l		10/31/05	LEF
1,1-Dichloroethane	<1	ug/l		10/31/05	LEF
1,1-Dichloroethene	<1	ug/l		10/31/05	LEF
Ethyl benzene	<1	ug/l		10/31/05	LEF
Methylene chloride	<2	ug/l		10/31/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		10/31/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		10/31/05	LEF
Tetrachloroethene	<1	ug/l		10/31/05	LEF
Toluene	<1	ug/l		10/31/05	LEF
1,1,1-Trichloroethane	<1	ug/l		10/31/05	LEF
Trichloroethene	<1	ug/l		10/31/05	LEF
Vinyl chloride	<1	ug/l		10/31/05	LEF
Xylenes (Total)	<1	ug/l		10/31/05	LEF
Surrogate (1,2-DCA-d4)	111	%R		10/31/05	LEF
Surrogate (Tol-d8)	98	%R		10/31/05	LEF
Surrogate (4-BFB)	110	%R		10/31/05	LEF

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-008A **LSL Sample ID:** 0518731-008

Location:

Sampled: 10/26/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<5 J	ug/l		10/31/05	LEF
Isobutyl Alcohol	<1000	ug/l		10/31/05	LEF
Vinyl acetate	<50	ug/l		10/31/05	LEF
Trichlorofluoromethane (Freon 11)	<10	ug/l		10/31/05	LEF
1,2-Dichloroethene, Trans	<10	ug/l		10/31/05	LEF
Naphthalene	<10	ug/l		10/31/05	LEF
Dibromomethane	<10	ug/l		10/31/05	LEF
cis-1,2-Dichloroethene	97	ug/l		10/31/05	LEF
1,2-Dibromo-3-chloropropane	<10	ug/l		10/31/05	LEF
1,2,4-Trichlorobenzene	<10	ug/l		10/31/05	LEF
1,2,3-Trichloropropane	<10	ug/l		10/31/05	LEF
1,2,3-Trichlorobenzene	<10	ug/l		10/31/05	LEF
Acetone	520	ug/l		10/31/05	LEF
Benzene	<5 J	ug/l		10/31/05	LEF
2-Butanone (MEK)	<100	ug/l		10/31/05	LEF
Carbon disulfide	<10	ug/l		10/31/05	LEF
Chloroethane	<10	ug/l		10/31/05	LEF
Chloromethane	<10	ug/l		10/31/05	LEF
1,1-Dichloroethane	<10	ug/l		10/31/05	LEF
1,1-Dichloroethene	<10	ug/l		10/31/05	LEF
Ethyl benzene	<10	ug/l		10/31/05	LEF
Methylene chloride	<20	ug/l		10/31/05	LEF
4-Methyl-2-pentanone (MIBK)	<100	ug/l		10/31/05	LEF
1,1,2,2-Tetrachloroethane	<10	ug/l		10/31/05	LEF
Tetrachloroethene	3.5 J	ug/l		10/31/05	LEF
Toluene	<10	ug/l		10/31/05	LEF
1,1,1-Trichloroethane	<10	ug/l		10/31/05	LEF
Trichloroethene	240	ug/l		10/31/05	LEF
Vinyl chloride	<5 J	ug/l		10/31/05	LEF
Xylenes (Total)	<10	ug/l		10/31/05	LEF
Surrogate (1,2-DCA-d4)	108	%R		10/31/05	LEF
Surrogate (Tol-d8)	98	%R		10/31/05	LEF
Surrogate (4-BFB)	108	%R		10/31/05	LEF

This sample was also found to contain substantial amounts of several compounds tentatively identified as alcohols.

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-009A **LSL Sample ID:** 0518731-009

Location:

Sampled: 10/26/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		11/1/05	LEF
Isobutyl Alcohol	<100	ug/l		11/1/05	LEF
Vinyl acetate	<5	ug/l		11/1/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		11/1/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		11/1/05	LEF
Naphthalene	<1	ug/l		11/1/05	LEF
Dibromomethane	<1	ug/l		11/1/05	LEF
cis-1,2-Dichloroethene	<1	ug/l		11/1/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		11/1/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		11/1/05	LEF
1,2,3-Trichloropropane	<1	ug/l		11/1/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		11/1/05	LEF
Acetone	<10	ug/l		11/1/05	LEF
Benzene	<1	ug/l		11/1/05	LEF
2-Butanone (MEK)	<10	ug/l		11/1/05	LEF
Carbon disulfide	<1	ug/l		11/1/05	LEF
Chloroethane	<1	ug/l		11/1/05	LEF
Chloromethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethene	<1	ug/l		11/1/05	LEF
Ethyl benzene	<1	ug/l		11/1/05	LEF
Methylene chloride	<2	ug/l		11/1/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		11/1/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		11/1/05	LEF
Tetrachloroethene	<1	ug/l		11/1/05	LEF
Toluene	<1	ug/l		11/1/05	LEF
1,1,1-Trichloroethane	<1	ug/l		11/1/05	LEF
Trichloroethene	<1	ug/l		11/1/05	LEF
Vinyl chloride	<1	ug/l		11/1/05	LEF
Xylenes (Total)	<1	ug/l		11/1/05	LEF
Surrogate (1,2-DCA-d4)	113	%R		11/1/05	LEF
Surrogate (Tol-d8)	101	%R		11/1/05	LEF
Surrogate (4-BFB)	108	%R		11/1/05	LEF

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-010A **LSL Sample ID:** 0518731-010

Location:

Sampled: 10/25/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		11/1/05	LEF
Isobutyl Alcohol	<100	ug/l		11/1/05	LEF
Vinyl acetate	<5	ug/l		11/1/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		11/1/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		11/1/05	LEF
Naphthalene	<1	ug/l		11/1/05	LEF
Dibromomethane	<1	ug/l		11/1/05	LEF
cis-1,2-Dichloroethene	94	ug/l		11/1/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		11/1/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		11/1/05	LEF
1,2,3-Trichloropropane	<1	ug/l		11/1/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		11/1/05	LEF
Acetone	<10	ug/l		11/1/05	LEF
Benzene	<1	ug/l		11/1/05	LEF
2-Butanone (MEK)	<10	ug/l		11/1/05	LEF
Carbon disulfide	<1	ug/l		11/1/05	LEF
Chloroethane	<1	ug/l		11/1/05	LEF
Chloromethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethane	7.6	ug/l		11/1/05	LEF
1,1-Dichloroethene	<1	ug/l		11/1/05	LEF
Ethyl benzene	<1	ug/l		11/1/05	LEF
Methylene chloride	<2	ug/l		11/1/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		11/1/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		11/1/05	LEF
Tetrachloroethene	<1	ug/l		11/1/05	LEF
Toluene	<1	ug/l		11/1/05	LEF
1,1,1-Trichloroethane	<1	ug/l		11/1/05	LEF
Trichloroethene	3.9	ug/l		11/1/05	LEF
Vinyl chloride	14	ug/l		11/1/05	LEF
Xylenes (Total)	<1	ug/l		11/1/05	LEF
Surrogate (1,2-DCA-d4)	105	%R		11/1/05	LEF
Surrogate (Tol-d8)	100	%R		11/1/05	LEF
Surrogate (4-BFB)	111	%R		11/1/05	LEF

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-011A **LSL Sample ID:** 0518731-011

Location:

Sampled: 10/25/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		11/1/05	LEF
Isobutyl Alcohol	<100	ug/l		11/1/05	LEF
Vinyl acetate	<5	ug/l		11/1/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		11/1/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		11/1/05	LEF
Naphthalene	<1	ug/l		11/1/05	LEF
Dibromomethane	<1	ug/l		11/1/05	LEF
cis-1,2-Dichloroethene	5.2	ug/l		11/1/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		11/1/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		11/1/05	LEF
1,2,3-Trichloropropane	<1	ug/l		11/1/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		11/1/05	LEF
Acetone	<10	ug/l		11/1/05	LEF
Benzene	<1	ug/l		11/1/05	LEF
2-Butanone (MEK)	<10	ug/l		11/1/05	LEF
Carbon disulfide	<1	ug/l		11/1/05	LEF
Chloroethane	<1	ug/l		11/1/05	LEF
Chloromethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethene	<1	ug/l		11/1/05	LEF
Ethyl benzene	<1	ug/l		11/1/05	LEF
Methylene chloride	<2	ug/l		11/1/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		11/1/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		11/1/05	LEF
Tetrachloroethene	<1	ug/l		11/1/05	LEF
Toluene	<1	ug/l		11/1/05	LEF
1,1,1-Trichloroethane	<1	ug/l		11/1/05	LEF
Trichloroethene	<1	ug/l		11/1/05	LEF
Vinyl chloride	<1	ug/l		11/1/05	LEF
Xylenes (Total)	<1	ug/l		11/1/05	LEF
Surrogate (1,2-DCA-d4)	107	%R		11/1/05	LEF
Surrogate (Tol-d8)	101	%R		11/1/05	LEF
Surrogate (4-BFB)	110	%R		11/1/05	LEF

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-012A **LSL Sample ID:** 0518731-012

Location:

Sampled: 10/25/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		11/1/05	LEF
Isobutyl Alcohol	<100	ug/l		11/1/05	LEF
Vinyl acetate	<5	ug/l		11/1/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		11/1/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		11/1/05	LEF
Naphthalene	<1	ug/l		11/1/05	LEF
Dibromomethane	<1	ug/l		11/1/05	LEF
cis-1,2-Dichloroethene	<1	ug/l		11/1/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		11/1/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		11/1/05	LEF
1,2,3-Trichloropropane	<1	ug/l		11/1/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		11/1/05	LEF
Acetone	<10	ug/l		11/1/05	LEF
Benzene	<1	ug/l		11/1/05	LEF
2-Butanone (MEK)	<10	ug/l		11/1/05	LEF
Carbon disulfide	<1	ug/l		11/1/05	LEF
Chloroethane	<1	ug/l		11/1/05	LEF
Chloromethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethene	<1	ug/l		11/1/05	LEF
Ethyl benzene	<1	ug/l		11/1/05	LEF
Methylene chloride	<2	ug/l		11/1/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		11/1/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		11/1/05	LEF
Tetrachloroethene	<1	ug/l		11/1/05	LEF
Toluene	<1	ug/l		11/1/05	LEF
1,1,1-Trichloroethane	<1	ug/l		11/1/05	LEF
Trichloroethene	<1	ug/l		11/1/05	LEF
Vinyl chloride	<1	ug/l		11/1/05	LEF
Xylenes (Total)	<1	ug/l		11/1/05	LEF
Surrogate (1,2-DCA-d4)	117	%R		11/1/05	LEF
Surrogate (Tol-d8)	103	%R		11/1/05	LEF
Surrogate (4-BFB)	109	%R		11/1/05	LEF

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-012A MS **LSL Sample ID:** 0518731-013

Location:

Sampled: 10/25/05 0:00 **Sampled By:** Client

Sample Matrix: QC

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	108	%R		11/1/05	LEF
Isobutyl Alcohol	97	%R		11/1/05	LEF
Vinyl acetate	87	%R		11/1/05	LEF
Trichlorofluoromethane (Freon 11)	91	%R		11/1/05	LEF
1,2-Dichloroethene, Trans	96	%R		11/1/05	LEF
Naphthalene	95	%R		11/1/05	LEF
Dibromomethane	100	%R		11/1/05	LEF
cis-1,2-Dichloroethene	102	%R		11/1/05	LEF
1,2-Dibromo-3-chloropropane	107	%R		11/1/05	LEF
1,2,4-Trichlorobenzene	102	%R		11/1/05	LEF
1,2,3-Trichloropropane	91	%R		11/1/05	LEF
1,2,3-Trichlorobenzene	102	%R		11/1/05	LEF
Acetone	66	%R		11/1/05	LEF
Benzene	100	%R		11/1/05	LEF
2-Butanone (MEK)	92	%R		11/1/05	LEF
Carbon disulfide	83	%R		11/1/05	LEF
Chloroethane	89	%R		11/1/05	LEF
Chloromethane	64	%R		11/1/05	LEF
1,1-Dichloroethane	98	%R		11/1/05	LEF
1,1-Dichloroethene	90	%R		11/1/05	LEF
Ethyl benzene	102	%R		11/1/05	LEF
Methylene chloride	93	%R		11/1/05	LEF
4-Methyl-2-pentanone (MIBK)	89	%R		11/1/05	LEF
1,1,2,2-Tetrachloroethane	89	%R		11/1/05	LEF
Tetrachloroethene	98	%R		11/1/05	LEF
Toluene	102	%R		11/1/05	LEF
1,1,1-Trichloroethane	108	%R		11/1/05	LEF
Trichloroethene	108	%R		11/1/05	LEF
Vinyl chloride	73	%R		11/1/05	LEF
Xylenes (Total)	100	%R		11/1/05	LEF
Surrogate (1,2-DCA-d4)	108	%R		11/1/05	LEF
Surrogate (Tol-d8)	101	%R		11/1/05	LEF
Surrogate (4-BFB)	96	%R		11/1/05	LEF

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-012A MSD **LSL Sample ID:** 0518731-014

Location:

Sampled: 10/25/05 0:00 **Sampled By:** Client

Sample Matrix: QC

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	2	RPD		11/1/05	LEF
Isobutyl Alcohol	1	RPD		11/1/05	LEF
Vinyl acetate	5	RPD		11/1/05	LEF
Trichlorofluoromethane (Freon 11)	5	RPD		11/1/05	LEF
1,2-Dichloroethene, Trans	6	RPD		11/1/05	LEF
Naphthalene	1	RPD		11/1/05	LEF
Dibromomethane	5	RPD		11/1/05	LEF
cis-1,2-Dichloroethene	2	RPD		11/1/05	LEF
1,2-Dibromo-3-chloropropane	6	RPD		11/1/05	LEF
1,2,4-Trichlorobenzene	5	RPD		11/1/05	LEF
1,2,3-Trichloropropane	7	RPD		11/1/05	LEF
1,2,3-Trichlorobenzene	8	RPD		11/1/05	LEF
Acetone	11	RPD		11/1/05	LEF
Benzene	1	RPD		11/1/05	LEF
2-Butanone (MEK)	10	RPD		11/1/05	LEF
Carbon disulfide	4	RPD		11/1/05	LEF
Chloroethane	7	RPD		11/1/05	LEF
Chloromethane	22	RPD		11/1/05	LEF
1,1-Dichloroethane	5	RPD		11/1/05	LEF
1,1-Dichloroethene	5	RPD		11/1/05	LEF
Ethyl benzene	2	RPD		11/1/05	LEF
Methylene chloride	1	RPD		11/1/05	LEF
4-Methyl-2-pentanone (MIBK)	5	RPD		11/1/05	LEF
1,1,2,2-Tetrachloroethane	5	RPD		11/1/05	LEF
Tetrachloroethene	3	RPD		11/1/05	LEF
Toluene	3	RPD		11/1/05	LEF
1,1,1-Trichloroethane	3	RPD		11/1/05	LEF
Trichloroethene	4	RPD		11/1/05	LEF
Vinyl chloride	19	RPD		11/1/05	LEF
Xylenes (Total)	2	RPD		11/1/05	LEF
Surrogate (1,2-DCA-d4)	104	%R		11/1/05	LEF
Surrogate (Tol-d8)	101	%R		11/1/05	LEF
Surrogate (4-BFB)	98	%R		11/1/05	LEF

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-013A **LSL Sample ID:** 0518731-015

Location:

Sampled: 10/25/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		11/1/05	LEF
Isobutyl Alcohol	<100	ug/l		11/1/05	LEF
Vinyl acetate	<5	ug/l		11/1/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		11/1/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		11/1/05	LEF
Naphthalene	<1	ug/l		11/1/05	LEF
Dibromomethane	<1	ug/l		11/1/05	LEF
cis-1,2-Dichloroethene	<1	ug/l		11/1/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		11/1/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		11/1/05	LEF
1,2,3-Trichloropropane	<1	ug/l		11/1/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		11/1/05	LEF
Acetone	<10	ug/l		11/1/05	LEF
Benzene	<1	ug/l		11/1/05	LEF
2-Butanone (MEK)	<10	ug/l		11/1/05	LEF
Carbon disulfide	<1	ug/l		11/1/05	LEF
Chloroethane	<1	ug/l		11/1/05	LEF
Chloromethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethene	<1	ug/l		11/1/05	LEF
Ethyl benzene	<1	ug/l		11/1/05	LEF
Methylene chloride	<2	ug/l		11/1/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		11/1/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		11/1/05	LEF
Tetrachloroethene	<1	ug/l		11/1/05	LEF
Toluene	<1	ug/l		11/1/05	LEF
1,1,1-Trichloroethane	<1	ug/l		11/1/05	LEF
Trichloroethene	<1	ug/l		11/1/05	LEF
Vinyl chloride	<1	ug/l		11/1/05	LEF
Xylenes (Total)	<1	ug/l		11/1/05	LEF
Surrogate (1,2-DCA-d4)	116	%R		11/1/05	LEF
Surrogate (Tol-d8)	99	%R		11/1/05	LEF
Surrogate (4-BFB)	113	%R		11/1/05	LEF

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-014A **LSL Sample ID:** 0518731-016

Location:

Sampled: 10/25/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		11/1/05	LEF
Isobutyl Alcohol	<100	ug/l		11/1/05	LEF
Vinyl acetate	<5	ug/l		11/1/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		11/1/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		11/1/05	LEF
Naphthalene	<1	ug/l		11/1/05	LEF
Dibromomethane	<1	ug/l		11/1/05	LEF
cis-1,2-Dichloroethene	1.1	ug/l		11/1/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		11/1/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		11/1/05	LEF
1,2,3-Trichloropropane	<1	ug/l		11/1/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		11/1/05	LEF
Acetone	<10	ug/l		11/1/05	LEF
Benzene	<1	ug/l		11/1/05	LEF
2-Butanone (MEK)	<10	ug/l		11/1/05	LEF
Carbon disulfide	<1	ug/l		11/1/05	LEF
Chloroethane	<1	ug/l		11/1/05	LEF
Chloromethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethene	<1	ug/l		11/1/05	LEF
Ethyl benzene	<1	ug/l		11/1/05	LEF
Methylene chloride	<2	ug/l		11/1/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		11/1/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		11/1/05	LEF
Tetrachloroethene	<1	ug/l		11/1/05	LEF
Toluene	<1	ug/l		11/1/05	LEF
1,1,1-Trichloroethane	<1	ug/l		11/1/05	LEF
Trichloroethene	4.4	ug/l		11/1/05	LEF
Vinyl chloride	<1	ug/l		11/1/05	LEF
Xylenes (Total)	<1	ug/l		11/1/05	LEF
Surrogate (1,2-DCA-d4)	109	%R		11/1/05	LEF
Surrogate (Tol-d8)	103	%R		11/1/05	LEF
Surrogate (4-BFB)	108	%R		11/1/05	LEF

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-015A **LSL Sample ID:** 0518731-017

Location:

Sampled: 10/25/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		11/1/05	LEF
Isobutyl Alcohol	<100	ug/l		11/1/05	LEF
Vinyl acetate	<5	ug/l		11/1/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		11/1/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		11/1/05	LEF
Naphthalene	<1	ug/l		11/1/05	LEF
Dibromomethane	<1	ug/l		11/1/05	LEF
cis-1,2-Dichloroethene	<1	ug/l		11/1/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		11/1/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		11/1/05	LEF
1,2,3-Trichloropropane	<1	ug/l		11/1/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		11/1/05	LEF
Acetone	<10	ug/l		11/1/05	LEF
Benzene	<1	ug/l		11/1/05	LEF
2-Butanone (MEK)	<10	ug/l		11/1/05	LEF
Carbon disulfide	<1	ug/l		11/1/05	LEF
Chloroethane	<1	ug/l		11/1/05	LEF
Chloromethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethene	<1	ug/l		11/1/05	LEF
Ethyl benzene	<1	ug/l		11/1/05	LEF
Methylene chloride	<2	ug/l		11/1/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		11/1/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		11/1/05	LEF
Tetrachloroethene	<1	ug/l		11/1/05	LEF
Toluene	<1	ug/l		11/1/05	LEF
1,1,1-Trichloroethane	<1	ug/l		11/1/05	LEF
Trichloroethene	<1	ug/l		11/1/05	LEF
Vinyl chloride	<1	ug/l		11/1/05	LEF
Xylenes (Total)	<1	ug/l		11/1/05	LEF
Surrogate (1,2-DCA-d4)	115	%R		11/1/05	LEF
Surrogate (Tol-d8)	97	%R		11/1/05	LEF
Surrogate (4-BFB)	112	%R		11/1/05	LEF

- - LABORATORY ANALYSIS REPORT - -

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-016A **LSL Sample ID:** 0518731-018

Location:

Sampled: 10/25/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		11/1/05	LEF
Isobutyl Alcohol	<100	ug/l		11/1/05	LEF
Vinyl acetate	<5	ug/l		11/1/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		11/1/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		11/1/05	LEF
Naphthalene	<1	ug/l		11/1/05	LEF
Dibromomethane	<1	ug/l		11/1/05	LEF
cis-1,2-Dichloroethene	30	ug/l		11/1/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		11/1/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		11/1/05	LEF
1,2,3-Trichloropropane	<1	ug/l		11/1/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		11/1/05	LEF
Acetone	<10	ug/l		11/1/05	LEF
Benzene	<1	ug/l		11/1/05	LEF
2-Butanone (MEK)	<10	ug/l		11/1/05	LEF
Carbon disulfide	<1	ug/l		11/1/05	LEF
Chloroethane	<1	ug/l		11/1/05	LEF
Chloromethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethane	13	ug/l		11/1/05	LEF
1,1-Dichloroethene	2.6	ug/l		11/1/05	LEF
Ethyl benzene	<1	ug/l		11/1/05	LEF
Methylene chloride	<2	ug/l		11/1/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		11/1/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		11/1/05	LEF
Tetrachloroethene	4.2	ug/l		11/1/05	LEF
Toluene	<1	ug/l		11/1/05	LEF
1,1,1-Trichloroethane	<1	ug/l		11/1/05	LEF
Trichloroethene	98	ug/l		11/1/05	LEF
Vinyl chloride	<1	ug/l		11/1/05	LEF
Xylenes (Total)	<1	ug/l		11/1/05	LEF
Surrogate (1,2-DCA-d4)	117	%R		11/1/05	LEF
Surrogate (Tol-d8)	101	%R		11/1/05	LEF
Surrogate (4-BFB)	112	%R		11/1/05	LEF

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-017A **LSL Sample ID:** 0518731-019

Location:

Sampled: 10/25/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<5 J	ug/l		11/1/05	LEF
Isobutyl Alcohol	1500	ug/l		11/1/05	LEF
Vinyl acetate	<50	ug/l		11/1/05	LEF
Trichlorofluoromethane (Freon 11)	<10	ug/l		11/1/05	LEF
1,2-Dichloroethene, Trans	<10	ug/l		11/1/05	LEF
Naphthalene	<10	ug/l		11/1/05	LEF
Dibromomethane	<10	ug/l		11/1/05	LEF
cis-1,2-Dichloroethene	180	ug/l		11/1/05	LEF
1,2-Dibromo-3-chloropropane	<10	ug/l		11/1/05	LEF
1,2,4-Trichlorobenzene	<10	ug/l		11/1/05	LEF
1,2,3-Trichloropropane	<10	ug/l		11/1/05	LEF
1,2,3-Trichlorobenzene	<10	ug/l		11/1/05	LEF
Acetone	1600	ug/l		11/1/05	LEF
Benzene	<5 J	ug/l		11/1/05	LEF
2-Butanone (MEK)	380	ug/l		11/1/05	LEF
Carbon disulfide	<10	ug/l		11/1/05	LEF
Chloroethane	<10	ug/l		11/1/05	LEF
Chloromethane	<10	ug/l		11/1/05	LEF
1,1-Dichloroethane	<10	ug/l		11/1/05	LEF
1,1-Dichloroethene	<7 J	ug/l		11/1/05	LEF
Ethyl benzene	<10	ug/l		11/1/05	LEF
Methylene chloride	<20	ug/l		11/1/05	LEF
4-Methyl-2-pentanone (MIBK)	<100	ug/l		11/1/05	LEF
1,1,2,2-Tetrachloroethane	<10	ug/l		11/1/05	LEF
Tetrachloroethene	6.2 J	ug/l		11/1/05	LEF
Toluene	<10	ug/l		11/1/05	LEF
1,1,1-Trichloroethane	<10	ug/l		11/1/05	LEF
Trichloroethene	120	ug/l		11/1/05	LEF
Vinyl chloride	<5 J	ug/l		11/1/05	LEF
Xylenes (Total)	<10	ug/l		11/1/05	LEF
Surrogate (1,2-DCA-d4)	106	%R		11/1/05	LEF
Surrogate (Tol-d8)	102	%R		11/1/05	LEF
Surrogate (4-BFB)	111	%R		11/1/05	LEF

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-018A **LSL Sample ID:** 0518731-020

Location:

Sampled: 10/25/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<2	ug/l		11/3/05	LEF
Isobutyl Alcohol	<200	ug/l		11/3/05	LEF
Vinyl acetate	<10	ug/l		11/3/05	LEF
Trichlorofluoromethane (Freon 11)	<2	ug/l		11/3/05	LEF
1,2-Dichloroethene, Trans	<2	ug/l		11/3/05	LEF
Naphthalene	<2	ug/l		11/3/05	LEF
Dibromomethane	<2	ug/l		11/3/05	LEF
cis-1,2-Dichloroethene	130	ug/l		11/3/05	LEF
1,2-Dibromo-3-chloropropane	<2	ug/l		11/3/05	LEF
1,2,4-Trichlorobenzene	<2	ug/l		11/3/05	LEF
1,2,3-Trichloropropane	<2	ug/l		11/3/05	LEF
1,2,3-Trichlorobenzene	<2	ug/l		11/3/05	LEF
Acetone	<20	ug/l		11/3/05	LEF
Benzene	<2	ug/l		11/3/05	LEF
2-Butanone (MEK)	<20	ug/l		11/3/05	LEF
Carbon disulfide	<2	ug/l		11/3/05	LEF
Chloroethane	3.8	ug/l		11/3/05	LEF
Chloromethane	<2	ug/l		11/3/05	LEF
1,1-Dichloroethane	11	ug/l		11/3/05	LEF
1,1-Dichloroethene	5.4	ug/l		11/3/05	LEF
Ethyl benzene	<2	ug/l		11/3/05	LEF
Methylene chloride	<4	ug/l		11/3/05	LEF
4-Methyl-2-pentanone (MIBK)	<20	ug/l		11/3/05	LEF
1,1,2,2-Tetrachloroethane	<2	ug/l		11/3/05	LEF
Tetrachloroethene	3.2	ug/l		11/3/05	LEF
Toluene	<2	ug/l		11/3/05	LEF
1,1,1-Trichloroethane	<2	ug/l		11/3/05	LEF
Trichloroethene	49	ug/l		11/3/05	LEF
Vinyl chloride	<2	ug/l		11/3/05	LEF
Xylenes (Total)	<2	ug/l		11/3/05	LEF
Surrogate (1,2-DCA-d4)	109	%R		11/3/05	LEF
Surrogate (Tol-d8)	99	%R		11/3/05	LEF
Surrogate (4-BFB)	110	%R		11/3/05	LEF

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-019A **LSL Sample ID:** 0518731-021

Location:

Sampled: 10/25/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		11/1/05	LEF
Isobutyl Alcohol	<100	ug/l		11/1/05	LEF
Vinyl acetate	<5	ug/l		11/1/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		11/1/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		11/1/05	LEF
Naphthalene	<1	ug/l		11/1/05	LEF
Dibromomethane	<1	ug/l		11/1/05	LEF
cis-1,2-Dichloroethene	<1	ug/l		11/1/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		11/1/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		11/1/05	LEF
1,2,3-Trichloropropane	<1	ug/l		11/1/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		11/1/05	LEF
Acetone	<10	ug/l		11/1/05	LEF
Benzene	<1	ug/l		11/1/05	LEF
2-Butanone (MEK)	<10	ug/l		11/1/05	LEF
Carbon disulfide	<1	ug/l		11/1/05	LEF
Chloroethane	<1	ug/l		11/1/05	LEF
Chloromethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethene	<1	ug/l		11/1/05	LEF
Ethyl benzene	<1	ug/l		11/1/05	LEF
Methylene chloride	<2	ug/l		11/1/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		11/1/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		11/1/05	LEF
Tetrachloroethene	<1	ug/l		11/1/05	LEF
Toluene	<1	ug/l		11/1/05	LEF
1,1,1-Trichloroethane	<1	ug/l		11/1/05	LEF
Trichloroethene	<1	ug/l		11/1/05	LEF
Vinyl chloride	<1	ug/l		11/1/05	LEF
Xylenes (Total)	<1	ug/l		11/1/05	LEF
Surrogate (1,2-DCA-d4)	111	%R		11/1/05	LEF
Surrogate (Tol-d8)	102	%R		11/1/05	LEF
Surrogate (4-BFB)	109	%R		11/1/05	LEF

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-020A **LSL Sample ID:** 0518731-022

Location:

Sampled: 10/25/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		11/1/05	LEF
Isobutyl Alcohol	<100	ug/l		11/1/05	LEF
Vinyl acetate	<5	ug/l		11/1/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		11/1/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		11/1/05	LEF
Naphthalene	<1	ug/l		11/1/05	LEF
Dibromomethane	<1	ug/l		11/1/05	LEF
cis-1,2-Dichloroethene	<1	ug/l		11/1/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		11/1/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		11/1/05	LEF
1,2,3-Trichloropropane	<1	ug/l		11/1/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		11/1/05	LEF
Acetone	<10	ug/l		11/1/05	LEF
Benzene	<1	ug/l		11/1/05	LEF
2-Butanone (MEK)	<10	ug/l		11/1/05	LEF
Carbon disulfide	<1	ug/l		11/1/05	LEF
Chloroethane	<1	ug/l		11/1/05	LEF
Chloromethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethene	<1	ug/l		11/1/05	LEF
Ethyl benzene	<1	ug/l		11/1/05	LEF
Methylene chloride	<2	ug/l		11/1/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		11/1/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		11/1/05	LEF
Tetrachloroethene	<1	ug/l		11/1/05	LEF
Toluene	<1	ug/l		11/1/05	LEF
1,1,1-Trichloroethane	<1	ug/l		11/1/05	LEF
Trichloroethene	<1	ug/l		11/1/05	LEF
Vinyl chloride	<1	ug/l		11/1/05	LEF
Xylenes (Total)	<1	ug/l		11/1/05	LEF
Surrogate (1,2-DCA-d4)	115	%R		11/1/05	LEF
Surrogate (Tol-d8)	100	%R		11/1/05	LEF
Surrogate (4-BFB)	108	%R		11/1/05	LEF

LSL

SURROGATE RECOVERY CONTROL LIMITS FOR ORGANIC METHODS

Method	Surrogate(s)	Water Limits, %R	SHW Limits, %R
EPA 504	TCMX	80-120	NA
EPA 508	DCB	70-130	NA
EPA 515.4	DCAA	70-130	NA
EPA 524.2	1,2-DCA-d4, 4-BFB	80-120	NA
EPA 525.2	1,3-DM-2-NB, TPP, Per-d12	70-130	NA
EPA 526	1,3-DM-2-NB, TPP	70-130	NA
EPA 528	2-CP-3,4,5,6-d4, 2,4,6-TBP	70-130	NA
EPA 551.1	Decafluorobiphenyl	80-120	NA
EPA 552.2	2,3-DBPA	80-120	NA
EPA 601	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 602	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 608	DCB	30-150	NA
EPA 624	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 625, AE	2-Fluorophenol	21-110	NA
EPA 625, AE	Phenol-d5	10-110	NA
EPA 625, AE	2,4,6-Tribromophenol	10-123	NA
EPA 625, BN	Nitrobenzene-d5	35-114	NA
EPA 625, BN	2-Fluorobiphenyl	43-116	NA
EPA 625, BN	Terphenyl-d14	33-141	NA
EPA 8010	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8020	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8021	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8081	TCMX, DCB	30-150	30-150
EPA 8082	DCB	30-150	30-150
EPA 8151	DCAA	30-130	30-120
EPA 8260	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8270, AE	2-Fluorophenol	21-110	25-121
EPA 8270, AE	Phenol-d5	10-110	24-113
EPA 8270, AE	2,4,6-Tribromophenol	10-123	19-122
EPA 8270, BN	Nitrobenzene-d5	35-114	23-120
EPA 8270, BN	2-Fluorobiphenyl	43-116	30-115
EPA 8270, BN	Terphenyl-d14	33-141	18-137
DOH 310-13	Dodecane	40-110	40-110
DOH 310-14	Dodecane	40-110	40-110
DOH 310-15	Dodecane	40-110	40-110
DOH 310-34	4-BFB	50-150	50-150
DOH 313-4	DCB	NA	30-150
8015M_GRO	4-BFB	50-150	50-150
8015M_DRO	Terphenyl-d14	50-150	50-150

Units Key:	ug/l = microgram per liter ug/kg = microgram per kilogram mg/l = milligram per liter mg/kg = milligram per kilogram %R = Percent Recovery

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REVISED

Laboratory Analysis Report

For

Life Science Laboratories, Inc.

LSL Project ID: **0518732**

Receive Date/Time: 10/28/05 13:32

Project Received by: MW

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Life Science Laboratories, Inc.

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This report was reviewed by: Life Science Laboratories, Inc *Date:* 12/12/05

A copy of this report was sent to:

Originally Printed: 11/3/05

Date Printed: 12/12/05

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510151-001A **LSL Sample ID:** 0518732-001

Location:

Sampled: 10/26/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		11/1/05	LEF
Vinyl acetate	<5	ug/l		11/1/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		11/1/05	LEF
Naphthalene	<1	ug/l		11/1/05	LEF
Isobutyl Alcohol	<100	ug/l		11/1/05	LEF
Methylene chloride	<2	ug/l		11/1/05	LEF
Dibromomethane	<1	ug/l		11/1/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		11/1/05	LEF
cis-1,2-Dichloroethene	58	ug/l		11/1/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		11/1/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		11/1/05	LEF
1,2,3-Trichloropropane	<1	ug/l		11/1/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		11/1/05	LEF
Acetone	<10	ug/l		11/1/05	LEF
Benzene	<1	ug/l		11/1/05	LEF
2-Butanone (MEK)	<10	ug/l		11/1/05	LEF
Carbon disulfide	<1	ug/l		11/1/05	LEF
Chloroethane	<1	ug/l		11/1/05	LEF
Chloromethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethane	11	ug/l		11/1/05	LEF
1,1-Dichloroethene	3.0	ug/l		11/1/05	LEF
Ethyl benzene	<1	ug/l		11/1/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		11/1/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		11/1/05	LEF
Tetrachloroethene	6.1	ug/l		11/1/05	LEF
Toluene	<1	ug/l		11/1/05	LEF
1,1,1-Trichloroethane	<1	ug/l		11/1/05	LEF
Trichloroethene	59	ug/l		11/1/05	LEF
Vinyl chloride	<1	ug/l		11/1/05	LEF
Xylenes (Total)	<1	ug/l		11/1/05	LEF
Surrogate (1,2-DCA-d4)	108	%R		11/1/05	LEF
Surrogate (Tol-d8)	101	%R		11/1/05	LEF
Surrogate (4-BFB)	107	%R		11/1/05	LEF

- - LABORATORY ANALYSIS REPORT - -

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510151-004A **LSL Sample ID:** 0518732-002

Location:

Sampled: 10/27/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<5	ug/l		11/3/05	LEF
Vinyl acetate	<100	ug/l		11/3/05	LEF
Trichlorofluoromethane (Freon 11)	<50	ug/l		11/3/05	LEF
Naphthalene	<50	ug/l		11/3/05	LEF
Isobutyl Alcohol	<5000	ug/l		11/3/05	LEF
Methylene chloride	<100	ug/l		11/3/05	LEF
Dibromomethane	<50	ug/l		11/3/05	LEF
1,2-Dibromo-3-chloropropane	<50	ug/l		11/3/05	LEF
cis-1,2-Dichloroethene	4400	ug/l		11/3/05	LEF
1,4-Dichlorobenzene	<50	ug/l		11/3/05	LEF
1,2-Dichloroethene, Trans	<50	ug/l		11/3/05	LEF
1,2,4-Trichlorobenzene	<50	ug/l		11/3/05	LEF
1,2,3-Trichloropropane	<50	ug/l		11/3/05	LEF
1,2,3-Trichlorobenzene	<50	ug/l		11/3/05	LEF
Acetone	<500	ug/l		11/3/05	LEF
Benzene	<5	ug/l		11/3/05	LEF
2-Butanone (MEK)	<500	ug/l		11/3/05	LEF
Carbon disulfide	<50	ug/l		11/3/05	LEF
Chlorobenzene	<50	ug/l		11/3/05	LEF
Chloroethane	<1	ug/l		11/3/05	LEF
Chloromethane	<1	ug/l		11/3/05	LEF
1,1-Dichloroethane	130	ug/l		11/3/05	LEF
1,1-Dichloroethene	240	ug/l		11/3/05	LEF
Ethyl benzene	<50	ug/l		11/3/05	LEF
4-Methyl-2-pentanone (MIBK)	<500	ug/l		11/3/05	LEF
1,1,2,2-Tetrachloroethane	<50	ug/l		11/3/05	LEF
Tetrachloroethene	130	ug/l		11/3/05	LEF
Toluene	<50	ug/l		11/3/05	LEF
1,1,1-Trichloroethane	<50	ug/l		11/3/05	LEF
Trichloroethene	2200	ug/l		11/3/05	LEF
Vinyl chloride	26	ug/l		11/3/05	LEF
Xylenes (Total)	<50	ug/l		11/3/05	LEF
Surrogate (1,2-DCA-d4)	110	%R		11/3/05	LEF
Surrogate (Tol-d8)	98	%R		11/3/05	LEF
Surrogate (4-BFB)	114	%R		11/3/05	LEF

- - LABORATORY ANALYSIS REPORT - -

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510151-005A **LSL Sample ID:** 0518732-003

Location:

Sampled: 10/27/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		11/3/05	LEF
Vinyl acetate	<5	ug/l		11/3/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		11/3/05	LEF
Naphthalene	<1	ug/l		11/3/05	LEF
Isobutyl Alcohol	<100	ug/l		11/3/05	LEF
Methylene chloride	<2	ug/l		11/3/05	LEF
Dibromomethane	<1	ug/l		11/3/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		11/3/05	LEF
cis-1,2-Dichloroethene	<1	ug/l		11/3/05	LEF
1,4-Dichlorobenzene	<1	ug/l		11/3/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		11/3/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		11/3/05	LEF
1,2,3-Trichloropropane	<1	ug/l		11/3/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		11/3/05	LEF
Acetone	31	ug/l		11/3/05	LEF
Benzene	<1	ug/l		11/3/05	LEF
2-Butanone (MEK)	<10	ug/l		11/3/05	LEF
Carbon disulfide	<1	ug/l		11/3/05	LEF
Chlorobenzene	<1	ug/l		11/3/05	LEF
Chloroethane	<1	ug/l		11/3/05	LEF
Chloromethane	<1	ug/l		11/3/05	LEF
1,1-Dichloroethane	<1	ug/l		11/3/05	LEF
1,1-Dichloroethene	<1	ug/l		11/3/05	LEF
Ethyl benzene	<1	ug/l		11/3/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		11/3/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		11/3/05	LEF
Tetrachloroethene	<1	ug/l		11/3/05	LEF
Toluene	<1	ug/l		11/3/05	LEF
1,1,1-Trichloroethane	<1	ug/l		11/3/05	LEF
Trichloroethene	<1	ug/l		11/3/05	LEF
Vinyl chloride	<1	ug/l		11/3/05	LEF
Xylenes (Total)	<1	ug/l		11/3/05	LEF
Surrogate (1,2-DCA-d4)	112	%R		11/3/05	LEF
Surrogate (Tol-d8)	97	%R		11/3/05	LEF
Surrogate (4-BFB)	111	%R		11/3/05	LEF

- - LABORATORY ANALYSIS REPORT - -

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510151-006A **LSL Sample ID:** 0518732-004

Location:

Sampled: 10/27/05 0:00 **Sampled By:** Client

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8260B TCL Volatiles					
1,2-Dichloroethane	<1	ug/l		11/1/05	LEF
Vinyl acetate	<5	ug/l		11/1/05	LEF
Trichlorofluoromethane (Freon 11)	<1	ug/l		11/1/05	LEF
Naphthalene	<1	ug/l		11/1/05	LEF
Isobutyl Alcohol	<100	ug/l		11/1/05	LEF
Methylene chloride	<2	ug/l		11/1/05	LEF
Dibromomethane	<1	ug/l		11/1/05	LEF
1,2-Dibromo-3-chloropropane	<1	ug/l		11/1/05	LEF
cis-1,2-Dichloroethene	<1	ug/l		11/1/05	LEF
1,4-Dichlorobenzene	<1	ug/l		11/1/05	LEF
1,2-Dichloroethene, Trans	<1	ug/l		11/1/05	LEF
1,2,4-Trichlorobenzene	<1	ug/l		11/1/05	LEF
1,2,3-Trichloropropane	<1	ug/l		11/1/05	LEF
1,2,3-Trichlorobenzene	<1	ug/l		11/1/05	LEF
Acetone	<10	ug/l		11/1/05	LEF
Benzene	<1	ug/l		11/1/05	LEF
2-Butanone (MEK)	<10	ug/l		11/1/05	LEF
Carbon disulfide	<1	ug/l		11/1/05	LEF
Chlorobenzene	<1	ug/l		11/1/05	LEF
Chloroethane	<1	ug/l		11/1/05	LEF
Chloromethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethane	<1	ug/l		11/1/05	LEF
1,1-Dichloroethene	<1	ug/l		11/1/05	LEF
Ethyl benzene	<1	ug/l		11/1/05	LEF
4-Methyl-2-pentanone (MIBK)	<10	ug/l		11/1/05	LEF
1,1,2,2-Tetrachloroethane	<1	ug/l		11/1/05	LEF
Tetrachloroethene	<1	ug/l		11/1/05	LEF
Toluene	<1	ug/l		11/1/05	LEF
1,1,1-Trichloroethane	<1	ug/l		11/1/05	LEF
Trichloroethene	<1	ug/l		11/1/05	LEF
Vinyl chloride	<1	ug/l		11/1/05	LEF
Xylenes (Total)	<1	ug/l		11/1/05	LEF
Surrogate (1,2-DCA-d4)	115	%R		11/1/05	LEF
Surrogate (Tol-d8)	101	%R		11/1/05	LEF
Surrogate (4-BFB)	110	%R		11/1/05	LEF

LSL

SURROGATE RECOVERY CONTROL LIMITS FOR ORGANIC METHODS

Method	Surrogate(s)	Water Limits, %R	SHW Limits, %R
EPA 504	TCMX	80-120	NA
EPA 508	DCB	70-130	NA
EPA 515.4	DCAA	70-130	NA
EPA 524.2	1,2-DCA-d4, 4-BFB	80-120	NA
EPA 525.2	1,3-DM-2-NB, TPP, Per-d12	70-130	NA
EPA 526	1,3-DM-2-NB, TPP	70-130	NA
EPA 528	2-CP-3,4,5,6-d4, 2,4,6-TBP	70-130	NA
EPA 551.1	Decafluorobiphenyl	80-120	NA
EPA 552.2	2,3-DBPA	80-120	NA
EPA 601	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 602	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 608	DCB	30-150	NA
EPA 624	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 625, AE	2-Fluorophenol	21-110	NA
EPA 625, AE	Phenol-d5	10-110	NA
EPA 625, AE	2,4,6-Tribromophenol	10-123	NA
EPA 625, BN	Nitrobenzene-d5	35-114	NA
EPA 625, BN	2-Fluorobiphenyl	43-116	NA
EPA 625, BN	Terphenyl-d14	33-141	NA
EPA 8010	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8020	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8021	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8081	TCMX, DCB	30-150	30-150
EPA 8082	DCB	30-150	30-150
EPA 8151	DCAA	30-130	30-120
EPA 8260	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8270, AE	2-Fluorophenol	21-110	25-121
EPA 8270, AE	Phenol-d5	10-110	24-113
EPA 8270, AE	2,4,6-Tribromophenol	10-123	19-122
EPA 8270, BN	Nitrobenzene-d5	35-114	23-120
EPA 8270, BN	2-Fluorobiphenyl	43-116	30-115
EPA 8270, BN	Terphenyl-d14	33-141	18-137
DOH 310-13	Dodecane	40-110	40-110
DOH 310-14	Dodecane	40-110	40-110
DOH 310-15	Dodecane	40-110	40-110
DOH 310-34	4-BFB	50-150	50-150
DOH 313-4	DCB	NA	30-150
8015M_GRO	4-BFB	50-150	50-150
8015M_DRO	Terphenyl-d14	50-150	50-150

Units Key:	ug/l = microgram per liter ug/kg = microgram per kilogram mg/l = milligram per liter mg/kg = milligram per kilogram %R = Percent Recovery

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-003B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*OBGMW-124*
W Order:	0510143	**Collection Date:**	10/26/05 8:00 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	GCOS 17E **Sample Size:** 30 mL	**PrepDate:**	
ColumnID:	Alumina **%Moisture:**	**BatchNo:**	R3315
Revision:	11/09/05 7:24:06 P **TestCode** 8015W RSK175	**FileID:**	1-SAMP-E:\OSInov05\E110506.

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		
Ethane	ND		0.0040	mg/L	1	11/05/05 12:08 P
Ethene	ND		0.0040	mg/L	1	11/05/05 12:08 P
Methane	ND		0.0020	mg/L	1	11/05/05 12:08 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-004B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-3*
W Order:	0510143	**Collection Date:**	10/26/05 9:15 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	GCOS 17E **Sample Size:** 30 mL	**PrepDate:**	
ColumnID:	Alumina **%Moisture:**	**BatchNo:**	R3315
Revision:	11/09/05 7:24:06 P **TestCode** 8015W RSK175	**FileID:**	1-SAMP-E:\OSInov05\E110507.

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		
Ethane	ND		0.0040	mg/L	1	11/05/05 12:20 P
Ethene	ND		0.0040	mg/L	1	11/05/05 12:20 P
Methane	ND		0.0020	mg/L	1	11/05/05 12:20 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit

LSL **Life Science Laboratories, Inc.**
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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-006B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-5*
W Order:	0510143	**Collection Date:**	10/26/05 10:40 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	GCOS 17E **Sample Size:** 30 mL	**PrepDate:**	
ColumnID:	Alumina **%Moisture:**	**BatchNo:**	R3315
Revision:	11/09/05 7:24:06 P **TestCode** 8015W RSK175	**FileID:**	1-SAMP-E:\OSInov05\E110508.

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		
Ethane	ND		0.0040	mg/L	1	11/05/05 12:37 P
Ethene	ND		0.0040	mg/L	1	11/05/05 12:37 P
Methane	ND		0.0020	mg/L	1	11/05/05 12:37 P

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	P	Prim./Conf. column %D or RPD exceeds limit
S	Spike Recovery outside accepted recovery limits		

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-007B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*DUP-02-102605*
W Order:	0510143	**Collection Date:**	10/26/05 12:00 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	GCOS 17E **Sample Size:** 30 mL	**PrepDate:**	
ColumnID:	Alumina **%Moisture:**	**BatchNo:**	R3315
Revision:	11/09/05 7:24:06 P **TestCode** 8015W RSK175	**FileID:**	1-SAMP-E:\OSInov05\E110509.

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		
Ethane	ND		0.0040	mg/L	1	11/05/05 12:50 P
Ethene	ND		0.0040	mg/L	1	11/05/05 12:50 P
Methane	ND		0.0020	mg/L	1	11/05/05 12:50 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-008B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-114D*
W Order:	0510143	**Collection Date:**	10/26/05 1:25 P
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	GCOS 17E **Sample Size:** 30 mL	**PrepDate:**	
ColumnID:	Alumina **%Moisture:**	**BatchNo:**	R3315
Revision:	11/09/05 7:24:06 P **TestCode** 8015W RSK175	**FileID:**	1-SAMP-E:\OSInov05\E110510.

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		
Ethane	ND		0.0040	mg/L	1	11/05/05 1:05 P
Ethene	ND		0.0040	mg/L	1	11/05/05 1:05 P
Methane	ND		0.0020	mg/L	1	11/05/05 1:05 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-009B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-121*
W Order:	0510143	**Collection Date:**	10/26/05 12:30 P
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	GCOS 17E **Sample Size:** 30 mL	**PrepDate:**	
ColumnID:	Alumina **%Moisture:**	**BatchNo:**	R3315
Revision:	11/09/05 7:24:06 P **TestCode** 8015W RSK175	**FileID:**	1-SAMP-E:\OSInov05\E110511.

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		
Ethane	ND		0.0040	mg/L	1	11/05/05 1:16 P
Ethene	ND		0.0040	mg/L	1	11/05/05 1:16 P
Methane	ND		0.0020	mg/L	1	11/05/05 1:16 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M
Work Order: 0510143
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCS-3315** SampType: **LCS** TestCode: **8015W_RSK1** Units: **mg/L** Prep Date: RunNo: **3315**
Client ID: **ZZZZZ** Batch ID: **R3315** Method: **8015M/RSK1** Analysis Date: **11/5/2005** SeqNo: **103232**
Instrument: **GCOS_17E** ColumnID: **Alumina** **J&W Alumina**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.04618	0.0040	0.04091	0	113	41	133				
Ethene	0.03637	0.0040	0.03809	0	95.5	30	125				
Methane	0.02292	0.0020	0.02183	0	105	33	125				

Qualifiers:
E Value exceeds the instrument calibration range
ND Not Detected at the Practical Quantitation Limit (PQL)
H Holding times for preparation or analysis exceeded
R RPD exceeds accepted precision limit
J Analyte detected below the PQL
S Spike Recovery outside accepted recovery limits

Date: *09-Nov-05*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M
Work Order: 0510143
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCSD-3315** SampType: **LCSD** TestCode: **8015W_RSK1** Units: **mg/L** Prep Date: RunNo: **3315**
Client ID: **ZZZZZ** Batch ID: **R3315** Method: **8015M/RSK1** Analysis Date: **11/5/2005** SeqNo: **103233**
Instrument: **GCOS_17E** ColumnID: **Alumina** **J&W Alumina**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.02784	0.0040	0.04091	0	68.0	41	133	0.04618	49.6	50	
Ethene	0.02369	0.0040	0.03809	0	62.2	30	125	0.03637	42.2	50	
Methane	0.01476	0.0020	0.02183	0	67.6	33	125	0.02292	43.3	50	

Qualifiers:
E Value exceeds the instrument calibration range
H Holding times for preparation or analysis exceeded
J Analyte detected below the PQL
ND Not Detected at the Practical Quantitation Limit (PQL)
R RPD exceeds accepted precision limit
S Spike Recovery outside accepted recovery limits

Date: *09-Nov-05*

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M

Work Order: 0510143

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **MB-3315** SampType: **MBLK** TestCode: **8015W_RSK1** Units: **mg/L** Prep Date: RunNo: **3315**

Client ID: **ZZZZZ** Batch ID: **R3315** Method: **8015M/RSK1** Analysis Date: **11/5/2005** SeqNo: **103221**

Instrument: **GCOS_17E** ColumnID: **Alumina** **J&W Alumina**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	ND	0.0040									
Ethene	ND	0.0040									
Methane	ND	0.0020									

Qualifiers:

E Value exceeds the instrument calibration range

ND Not Detected at the Practical Quantitation Limit (PQL)

H Holding times for preparation or analysis exceeded

R RPD exceeds accepted precision limit

J Analyte detected below the PQL

S Spike Recovery outside accepted recovery limits

Date: *15-Nov-05*

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510151-004B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-114*
W Order:	0510151	**Collection Date:**	10/27/05 9:55 A
Matrix:	GROUNDWATER	**Date Received:**	10/28/05 9:45 A
Inst. ID:	GCOS 17E **Sample Size:** NA	**PrepDate:**	
ColumnID:	Alumina **%Moisture:**	**BatchNo:**	R3261
Revision:	11/02/05 9:15:48 A **TestCode** 8015W RSK175	**FileID:**	1-SAMP-E:\OSInov05\E110123.

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		
Ethane	ND		0.0040	mg/L	1	11/01/05 7:38 P
Ethene	ND		0.0040	mg/L	1	11/01/05 7:38 P
Methane	0.014		0.0020	mg/L	1	11/01/05 7:38 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510151-005B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MIV-1A*
W Order:	0510151	**Collection Date:**	10/27/05 7:45 A
Matrix:	GROUNDWATER	**Date Received:**	10/28/05 9:45 A
Inst. ID:	GCOS 17E **Sample Size:** NA	**PrepDate:**	
ColumnID:	Alumina **%Moisture:**	**BatchNo:**	R3261
Revision:	11/02/05 9:15:48 A **TestCode** 8015W RSK175	**FileID:**	1-SAMP-E:\OSInov05\E110124.

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		
Ethane	ND		0.0040	mg/L	1	11/01/05 7:48 P
Ethene	ND		0.0040	mg/L	1	11/01/05 7:48 P
Methane	ND		0.0020	mg/L	1	11/01/05 7:48 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M
Work Order: 0510151
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCS-3261** SampType: **LCS** TestCode: **8015W_RSK1** Units: **mg/L** Prep Date: RunNo: **3261**
Client ID: **ZZZZZ** Batch ID: **R3261** Method: **8015M/RSK1** Analysis Date: **11/1/2005** SeqNo: **100385**
Instrument: **GCOS_17E** ColumnID: **Alumina** **J&W Alumina**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.03442	0.0040	0.04091	0	84.1	41	133				
Ethene	0.02726	0.0040	0.03809	0	71.6	30	125				
Methane	0.01879	0.0020	0.02183	0	86.1	33	125				

Qualifiers:

E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits

Date: *09-Nov-05*

Life Science Laboratories, Inc.

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East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M

Work Order: 0510151

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCSD-3261** SampType: **LCSD** TestCode: **8015W_RSK1** Units: **mg/L** Prep Date: RunNo: **3261**

Client ID: **ZZZZZ** Batch ID: **R3261** Method: **8015M/RSK1** Analysis Date: **11/1/2005** SeqNo: **100386**

Instrument: **GCOS_17E** ColumnID: **Alumina** **J&W Alumina**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.03542	0.0040	0.04091	0	86.6	41	133	0.03442	2.86	50	
Ethene	0.02808	0.0040	0.03809	0	73.7	30	125	0.02726	2.98	50	
Methane	0.01926	0.0020	0.02183	0	88.2	33	125	0.01879	2.43	50	

Qualifiers:

E Value exceeds the instrument calibration range

ND Not Detected at the Practical Quantitation Limit (PQL)

H Holding times for preparation or analysis exceeded

R RPD exceeds accepted precision limit

J Analyte detected below the PQL

S Spike Recovery outside accepted recovery limits

Date: *09-Nov-05*

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M
Work Order: 0510151
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **MB-3261**	SampType: **MBLK**	TestCode: **8015W_RSK1**	Units: **mg/L**	Prep Date:		RunNo:	**3261**
Client ID: **ZZZZZ**	Batch ID: **R3261**	Method: **8015M/RSK1**		Analysis Date: **11/1/2005**		SeqNo:	**100384**
Instrument: **GCOS_17E**	ColumnID: **Alumina**	**J&W Alumina**					

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	ND	0.0040									
Ethene	ND	0.0040									
Methane	ND	0.0020									

Qualifiers:

E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits

Date: *15-Nov-05*

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-003G**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*OBGMW-124*
W Order:	0510143	**Collection Date:**	10/26/05 8:00 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	ICAP 61E **Sample Size:** 50 mL	**PrepDate:**	10/28/05 12:00 A
ColumnID:	**%Moisture:**	**BatchNo:**	1836/R3314
Revision:	11/07/05 10:41:27 A **TestCode** 200.7W.3	**FileID:**	1-SAMP-3226

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.3)**
Iron	2.0		0.050	mg/L	1	11/04/05 1:15 P
Manganese	0.20		0.050	mg/L	1	11/04/05 1:15 P

Qualifiers:	B Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
	ND Not Detected at the Practical Quantitation Limit (PQL)	P	Prim./Conf. column %D or RPD exceeds limit
	S Spike Recovery outside accepted recovery limits		

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-004G**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-3*
W Order:	0510143	**Collection Date:**	10/26/05 9:15 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	ICAP 61E **Sample Size:** 50 mL	**PrepDate:**	10/28/05 12:00 A
ColumnID:	**%Moisture:**	**BatchNo:**	1836/R3314
Revision:	11/07/05 10:41:27 A **TestCode** 200.7W.3	**FileID:**	1-SAMP-3227

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.3)**
Iron	ND		0.050	mg/L	1	11/04/05 1:18 P
Manganese	ND		0.050	mg/L	1	11/04/05 1:18 P

Qualifiers:	B Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
	ND Not Detected at the Practical Quantitation Limit (PQL)	P	Prim./Conf. column %D or RPD exceeds limit
	S Spike Recovery outside accepted recovery limits		

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-006G**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-5*
W Order:	0510143	**Collection Date:**	10/26/05 10:40 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	ICAP 61E **Sample Size:** 50 mL	**PrepDate:**	10/28/05 12:00 A
ColumnID:	**%Moisture:**	**BatchNo:**	1836/R3314
Revision:	11/07/05 10:41:27 A **TestCode** 200.7W.3	**FileID:**	1-SAMP-3231

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.3)**
Iron	2.7		0.050	mg/L	1	11/04/05 1:32 P
Manganese	ND		0.050	mg/L	1	11/04/05 1:32 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-007G**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	***DUP-02-102605***
W Order:	0510143	**Collection Date:**	10/26/05 12:00 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	ICAP 61E **Sample Size:** 50 mL	**PrepDate:**	10/28/05 12:00 A
ColumnID:	**%Moisture:**	**BatchNo:**	1836/R3314
Revision:	11/07/05 10:41:27 A **TestCode** 200.7W.3	**FileID:**	1-SAMP-3232

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.3)**
Iron	3.5		0.050	mg/L	1	11/04/05 1:35 P
Manganese	ND		0.050	mg/L	1	11/04/05 1:35 P

Qualifiers:	B Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
	ND Not Detected at the Practical Quantitation Limit (PQL)	P	Prim./Conf. column %D or RPD exceeds limit
	S Spike Recovery outside accepted recovery limits		

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-009G**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-121*
W Order:	0510143	**Collection Date:**	10/26/05 12:30 P
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	ICAP 61E **Sample Size:** 50 mL	**PrepDate:**	10/28/05 12:00 A
ColumnID:	**%Moisture:**	**BatchNo:**	1836/R3314
Revision:	11/07/05 10:41:27 A **TestCode** 200.7W.3	**FileID:**	1-SAMP-3233

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.3)**
Iron	16		0.050	mg/L	1	11/04/05 1:38 P
Manganese	0.15		0.050	mg/L	1	11/04/05 1:38 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7

Work Order: 0510143

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-1836**	SampType: **MBLK**	TestCode: **200.7W.3**	Units: **mg/L**	Prep Date: **10/28/2005**	RunNo: **3314**				
Client ID: **ZZZZZ**	Batch ID: **1836**	Method: **EPA 200.7**	**(E4.1.3)**	Analysis Date: **11/4/2005**	SeqNo: **101702**				
Instrument:	ColumnID:								

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	0.050									
Manganese	ND	0.050									

Qualifiers:

E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits

Date: *11-Nov-05*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7

Work Order: 0510143

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-1836	SampType: LCS	TestCode: 200.7W.3	Units: mg/L	Prep Date: 10/28/2005	RunNo: 3314		
Client ID: ZZZZZ	Batch ID: 1836	Method: EPA 200.7	(E4.1.3)	Analysis Date: 11/4/2005	SeqNo: 101703		
Instrument:	ColumnID:						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.9741	0.050	1	0	97.4	85	115				
Manganese	0.1960	0.050	0.2	0	98.0	85	115				

Qualifiers:

E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits

Date: *11-Nov-05*

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510151-002B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-114D*
W Order:	0510151	**Collection Date:**	10/26/05 1:25 P
Matrix:	GROUNDWATER	**Date Received:**	10/28/05 9:45 A
Inst. ID:	ICAP 61E **Sample Size:** 50 mL	**PrepDate:**	10/28/05 12:00 A
ColumnID:	**%Moisture:**	**BatchNo:**	1836/R3314
Revision:	11/07/05 10:41:27 A **TestCode** 200.7W.3	**FileID:**	1-SAMP-3235

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.3)**
Iron	79		0.050	mg/L	1	11/04/05 1:45 P
Manganese	0.53		0.050	mg/L	1	11/04/05 1:45 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510151-004G**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-114*
W Order:	0510151	**Collection Date:**	10/27/05 9:55 A
Matrix:	GROUNDWATER	**Date Received:**	10/28/05 9:45 A
Inst. ID:	ICAP 61E **Sample Size:** 50 mL	**PrepDate:**	10/28/05 12:00 A
ColumnID:	**%Moisture:**	**BatchNo:**	1836/R3314
Revision:	11/07/05 10:41:27 A **TestCode** 200.7W.3	**FileID:**	1-SAMP-3236

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.3)**
Iron	0.88		0.050	mg/L	1	11/04/05 1:49 P
Manganese	ND		0.050	mg/L	1	11/04/05 1:49 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7
Work Order: 0510151
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **MB-1836**	SampType: **MBLK**	TestCode: **200.7W.3**	Units: **mg/L**	Prep Date: **10/28/2005**	RunNo: **3314**				
Client ID: **ZZZZZ**	Batch ID: **1836**	Method: **EPA 200.7**	**(E4.1.3)**	Analysis Date: **11/4/2005**	SeqNo: **101702**				
Instrument:	ColumnID:								

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	0.050									
Manganese	ND	0.050									

Qualifiers:

E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits

Date: *11-Nov-05*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7

Work Order: 0510151

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-1836	SampType: LCS	TestCode: 200.7W.3	Units: mg/L	Prep Date: 10/28/2005	RunNo: 3314		
Client ID: ZZZZZ	Batch ID: 1836	Method: EPA 200.7	(E4.1.3)	Analysis Date: 11/4/2005	SeqNo: 101703		
Instrument:	ColumnID:						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.9741	0.050	1	0	97.4	85	115				
Manganese	0.1960	0.050	0.2	0	98.0	85	115				

Qualifiers:

E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits

Date: *11-Nov-05*

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-003C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*OBGMW-124*
W Order:	0510143	**Collection Date:**	10/26/05 8:00 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	IC	**Sample Size:** NA	**PrepDate:**
ColumnID:	IC	**%Moisture:**	**BatchNo:** R3215
Revision:	10/28/05 9:37:39 A	**TestCode** 300.0W	**FileID:** 1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	210		5.0	mg/L	5	10/27/05 3:19 P
Nitrogen, Nitrate (As N)	0.10		0.050	mg/L	5	10/27/05 3:19 P
Sulfate	190		5.0	mg/L	5	10/27/05 3:19 P

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	P	Prim./Conf. column %D or RPD exceeds limit
S	Spike Recovery outside accepted recovery limits		

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-004C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-3*
W Order:	0510143	**Collection Date:**	10/26/05 9:15 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	IC **Sample Size:** NA	**PrepDate:**	
ColumnID:	IC **%Moisture:**	**BatchNo:**	R3215
Revision:	10/28/05 9:37:39 A **TestCode** 300.0W	**FileID:**	1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	18		1.0	mg/L	1	10/27/05 3:34 P
Nitrogen, Nitrate (As N)	1.6		0.010	mg/L	1	10/27/05 3:34 P
Sulfate	16		1.0	mg/L	1	10/27/05 3:34 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-006C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-5*
W Order:	0510143	**Collection Date:**	10/26/05 10:40 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	IC **Sample Size:** NA	**PrepDate:**	
ColumnID:	IC **%Moisture:**	**BatchNo:**	R3215
Revision:	10/28/05 9:37:39 A **TestCode** 300.0W	**FileID:**	1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	6.6		2.0	mg/L	2	10/27/05 3:48 P
Nitrogen, Nitrate (As N)	1.6		0.020	mg/L	2	10/27/05 3:48 P
Sulfate	2.5		2.0	mg/L	2	10/27/05 3:48 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-007C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	***DUP-02-102605***
W Order:	0510143	**Collection Date:**	10/26/05 12:00 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	IC	**Sample Size:** NA	**PrepDate:**
ColumnID:	IC	**%Moisture:**	**BatchNo:** R3215
Revision:	10/28/05 9:37:39 A	**TestCode** 300.0W	**FileID:** 1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	7.2		2.0	mg/L	2	10/27/05 4:02 P
Nitrogen, Nitrate (As N)	1.7		0.020	mg/L	2	10/27/05 4:02 P
Sulfate	2.5		2.0	mg/L	2	10/27/05 4:02 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-008C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-114D*
W Order:	0510143	**Collection Date:**	10/26/05 1:25 P
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	IC	**Sample Size:** NA	**PrepDate:**
ColumnID:	IC	**%Moisture:**	**BatchNo:** R3215
Revision:	11/14/05 7:25:56 P	**TestCode** 300.0W	**FileID:** 1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Nitrogen, Nitrate (As N)	1.2		0.10	mg/L	10	10/27/05 4:17 P
Sulfate	100		10	mg/L	10	10/27/05 4:17 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-008C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	***CH2MW-114D***
W Order:	0510143	**Collection Date:**	10/26/05 1:25 P
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	IC	**Sample Size:** NA	**PrepDate:**
ColumnID:	IC	**%Moisture:**	**BatchNo:** R3215
Revision:	10/28/05 9:37:39 A	**TestCode** 300.0W	**FileID:** 1-DL-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	190		50	mg/L	50	10/27/05 5:49 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-009C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-121*
W Order:	0510143	**Collection Date:**	10/26/05 12:30 P
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	IC **Sample Size:** NA	**PrepDate:**	
ColumnID:	IC **%Moisture:**	**BatchNo:**	R3215
Revision:	10/28/05 9:37:39 A **TestCode** 300.0W	**FileID:**	1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	11		2.0	mg/L	2	10/27/05 4:31 P
Nitrogen, Nitrate (As N)	1.2		0.020	mg/L	2	10/27/05 4:31 P
Sulfate	4.6		2.0	mg/L	2	10/27/05 4:31 P

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510151-004C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-114*
W Order:	0510151	**Collection Date:**	10/27/05 9:55 A
Matrix:	GROUNDWATER	**Date Received:**	10/28/05 9:45 A
Inst. ID:	IC **Sample Size:** NA	**PrepDate:**	
ColumnID:	IC **%Moisture:**	**BatchNo:**	R3230
Revision:	10/28/05 7:40:20 P **TestCode** 300.0W	**FileID:**	1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	32		2.0	mg/L	2	10/28/05 11:33 A
Nitrogen, Nitrate (As N)	1.4		0.020	mg/L	2	10/28/05 11:33 A
Sulfate	31		2.0	mg/L	2	10/28/05 11:33 A

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

Print Date: 11/15/05 2:25:27 P **Project Supervisor:** Monika Santucci

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510151-005C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-1A*
W Order:	0510151	**Collection Date:**	10/27/05 7:45 A
Matrix:	GROUNDWATER	**Date Received:**	10/28/05 9:45 A
Inst. ID:	IC	**Sample Size:** NA	**PrepDate:**
ColumnID:	IC	**%Moisture:**	**BatchNo:** R3230
Revision:	10/28/05 7:40:20 P	**TestCode** 300.0W	**FileID:** 1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	11		2.0	mg/L	2	10/28/05 11:48 A
Nitrogen, Nitrate (As N)	0.64		0.020	mg/L	2	10/28/05 11:48 A
Sulfate	ND		2.0	mg/L	2	10/28/05 11:48 A

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-003E**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*OBGMW-124*
W Order:	0510143	**Collection Date:**	10/26/05 8:00 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	pH meter **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R3228
Revision:	10/28/05 4:27:28 P **TestCode** ALK310.1	**FileID:**	1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, TOTAL (AS CACO3)				**EPA 310.1**		
Alkalinity, Total (As CaCO3)	410		10	mg/L	1	10/28/05 12:00 A

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-004E**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-3*
W Order:	0510143	**Collection Date:**	10/26/05 9:15 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	pH meter	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R3228
Revision:	10/28/05 4:27:28 P	**TestCode** ALK310.1	**FileID:** 1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, TOTAL (AS CACO3)				**EPA 310.1**		
Alkalinity, Total (As CaCO3)	ND		10	mg/L	1	10/28/05 12:00 A

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-006E**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-5*
W Order:	0510143	**Collection Date:**	10/26/05 10:40 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	pH meter	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R3228
Revision:	10/28/05 4:27:28 P	**TestCode** ALK310.1	**FileID:** 1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, TOTAL (AS CACO3)				**EPA 310.1**		
Alkalinity, Total (As CaCO3)	36		10	mg/L	1	10/28/05 12:00 A

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-007E**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*DUP-02-102605*
W Order:	0510143	**Collection Date:**	10/26/05 12:00 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	pH meter **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R3228
Revision:	10/28/05 4:27:28 P **TestCode** ALK310.1	**FileID:**	1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, TOTAL (AS CACO3)				**EPA 310.1**		
Alkalinity, Total (As CaCO3)	34		10	mg/L	1	10/28/05 12:00 A

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-008E**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-114D*
W Order:	0510143	**Collection Date:**	10/26/05 1:25 P
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	pH meter	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R3228
Revision:	10/28/05 4:27:28 P	**TestCode** ALK310.1	**FileID:** 1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, TOTAL (AS CACO3)				**EPA 310.1**		
Alkalinity, Total (As CaCO3)	2200		10	mg/L	1	10/28/05 12:00 A

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510151-003A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-121*
W Order:	0510151	**Collection Date:**	10/26/05 12:30 P
Matrix:	GROUNDWATER	**Date Received:**	10/28/05 9:45 A
Inst. ID:	pH meter	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R3228
Revision:	10/28/05 4:27:28 P	**TestCode** ALK310.1	**FileID:** 1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, TOTAL (AS CACO3)				**EPA 310.1**		
Alkalinity, Total (As CaCO3)	26		10	mg/L	1	10/28/05 12:00 A

Qualifiers:	B Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
	ND Not Detected at the Practical Quantitation Limit (PQL)	P	Prim./Conf. column %D or RPD exceeds limit
	S Spike Recovery outside accepted recovery limits		

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510151-004E**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-114*
W Order:	0510151	**Collection Date:**	10/27/05 9:55 A
Matrix:	GROUNDWATER	**Date Received:**	10/28/05 9:45 A
Inst. ID:	pH meter **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R3228
Revision:	10/28/05 4:27:28 P **TestCode** ALK310.1	**FileID:**	1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, TOTAL (AS CACO3)				**EPA 310.1**		
Alkalinity, Total (As CaCO3)	120		10	mg/L	1	10/28/05 12:00 A

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- P Prim./Conf. column %D or RPD exceeds limit
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-003F**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*OBGMW-124*
W Order:	0510143	**Collection Date:**	10/26/05 8:00 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R3233
Revision:	11/08/05 1:04:42 P **TestCode** S376.1	**FileID:**	1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		0.80	mg/L	1	10/30/05 12:00 A

Qualifiers:		
B	Analyte detected in the associated Method Blank	E Value exceeds the instrument calibration range
H	Holding times for preparation or analysis exceeded	J Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	P Prim./Conf. column %D or RPD exceeds limit
S	Spike Recovery outside accepted recovery limits	

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-004F**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-3*
W Order:	0510143	**Collection Date:**	10/26/05 9:15 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R3233
Revision:	11/08/05 1:04:42 P **TestCode** S376.1	**FileID:**	1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		0.80	mg/L	1	10/30/05 12:00 A

Qualifiers:	B Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
	ND Not Detected at the Practical Quantitation Limit (PQL)	P	Prim./Conf. column %D or RPD exceeds limit
	S Spike Recovery outside accepted recovery limits		

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-006F**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-5*
W Order:	0510143	**Collection Date:**	10/26/05 10:40 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R3233
Revision:	11/08/05 1:04:42 P **TestCode** S376.1	**FileID:**	1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		0.80	mg/L	1	10/30/05 12:00 A

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-007F**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	***DUP-02-102605***
W Order:	0510143	**Collection Date:**	10/26/05 12:00 A
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R3233
Revision:	11/08/05 1:04:42 P **TestCode** S376.1	**FileID:**	1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		0.80	mg/L	1	10/30/05 12:00 A

Qualifiers:	B Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
	ND Not Detected at the Practical Quantitation Limit (PQL)	P	Prim./Conf. column %D or RPD exceeds limit
	S Spike Recovery outside accepted recovery limits		

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-008F**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-114D*
W Order:	0510143	**Collection Date:**	10/26/05 1:25 P
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R3233
Revision:	11/08/05 1:04:42 P **TestCode** S376.1	**FileID:**	1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		0.80	mg/L	1	10/30/05 12:00 A

Qualifiers:	B Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
	ND Not Detected at the Practical Quantitation Limit (PQL)	P	Prim./Conf. column %D or RPD exceeds limit
	S Spike Recovery outside accepted recovery limits		

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510143-009F**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-121*
W Order:	0510143	**Collection Date:**	10/26/05 12:30 P
Matrix:	GROUNDWATER	**Date Received:**	10/27/05 8:45 A
Inst. ID:	Buret Type A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R3233
Revision:	11/08/05 1:04:42 P	**TestCode** S376.1	**FileID:** 1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		0.80	mg/L	1	10/30/05 12:00 A

Qualifiers:	B Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
	ND Not Detected at the Practical Quantitation Limit (PQL)	P	Prim./Conf. column %D or RPD exceeds limit
	S Spike Recovery outside accepted recovery limits		

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0510151-004F**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-114*
W Order:	0510151	**Collection Date:**	10/27/05 9:55 A
Matrix:	GROUNDWATER	**Date Received:**	10/28/05 9:45 A
Inst. ID:	Buret Type A **Sample Size:** NA	**PrepDate:**	
ColumnID:	**%Moisture:**	**BatchNo:**	R3233
Revision:	11/08/05 1:04:42 P **TestCode** S376.1	**FileID:**	1-SAMP-

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		0.80	mg/L	1	10/30/05 12:00 A

Qualifiers:			
	B Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
	ND Not Detected at the Practical Quantitation Limit (PQL)	P	Prim./Conf. column %D or RPD exceeds limit
	S Spike Recovery outside accepted recovery limits		

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0
Work Order: 0510143
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCS-R3215**	SampType: **LCS**	TestCode: **300.0W**	Units: **mg/L**	Prep Date:		RunNo:	**3215**
Client ID: **ZZZZZ**	Batch ID: **R3215**	Method: **EPA 300.0**		Analysis Date: **10/27/2005**		SeqNo:	**98942**
Instrument: **IC**	ColumnID: **IC**						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	20.27	1.0	20	0	101	80	120				
Nitrogen, Nitrate (As N)	1.953	0.010	2	0	97.6	80	120				
Sulfate	20.01	1.0	20	0	100	80	120				

Qualifiers:

E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits

Date: *16-Nov-05*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0
Work Order: 0510143
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCSD-R3215**	SampType: **LCSD**	TestCode: **300.0W**	Units: **mg/L**	Prep Date:		RunNo: **3215**	
Client ID: **ZZZZZ**	Batch ID: **R3215**	Method: **EPA 300.0**		Analysis Date: **10/27/2005**		SeqNo: **98943**	
Instrument: **IC**	ColumnID: **IC**						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	20.13	1.0	20	0	101	80	120	20.27	0.73	20	
Nitrogen, Nitrate (As N)	1.959	0.010	2	0	97.9	80	120	1.953	0.31	20	
Sulfate	20.07	1.0	20	0	100	80	120	20.01	0.29	20	

Qualifiers:

E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits

Date: *16-Nov-05*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0

Work Order: 0510151

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-R3230**	SampType: **LCS**	TestCode: **300.0W**	Units: **mg/L**	Prep Date:		RunNo:	**3230**
Client ID: **ZZZZZ**	Batch ID: **R3230**	Method: **EPA 300.0**		Analysis Date:	**10/28/2005**	SeqNo:	**99204**
Instrument: **IC**	ColumnID: **IC**						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	20.23	1.0	20	0	101	80	120				
Nitrogen, Nitrate (As N)	1.970	0.010	2	0	98.5	80	120				
Sulfate	20.20	1.0	20	0	101	80	120				

Qualifiers:

E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits

Date: *16-Nov-05*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0

Work Order: 0510151

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCSD-R3230**	SampType: **LCSD**	TestCode: **300.0W**	Units: **mg/L**	Prep Date:	RunNo: **3230**
Client ID: **ZZZZZ**	Batch ID: **R3230**	Method: **EPA 300.0**		Analysis Date: **10/28/2005**	SeqNo: **99205**
Instrument: **IC**	ColumnID: **IC**				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	20.11	1.0	20	0	101	80	120	20.23	0.60	20	
Nitrogen, Nitrate (As N)	1.966	0.010	2	0	98.3	80	120	1.97	0.17	20	
Sulfate	20.16	1.0	20	0	101	80	120	20.2	0.19	20	

Qualifiers:

E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits

Date: *16-Nov-05*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 **(315) 437-0200**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1
Work Order: 0510143
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCS-R3228** SampType: **LCS** TestCode: **ALK310.1** Units: **mg/L** Prep Date: RunNo: **3228**
Client ID: **ZZZZZ** Batch ID: **R3228** Method: **EPA 310.1** Analysis Date: **10/28/2005** SeqNo: **99170**
Instrument: ColumnID:

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	54.00	10	50	0	108	90	110				

Qualifiers:
- E Value exceeds the instrument calibration range
- ND Not Detected at the Practical Quantitation Limit (PQL)
- H Holding times for preparation or analysis exceeded
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *14-Nov-05*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1
Work Order: 0510143
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-R3233	SampType: LCS	TestCode: S376.1	Units: mg/L	Prep Date:			RunNo: 3233					
Client ID: ZZZZZ	Batch ID: R3233	Method: EPA 376.1		Analysis Date: 10/30/2005			SeqNo: 99268					
Instrument:	ColumnID:											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Sulfide	2.000	0.80	2	0	100	81	110					

Qualifiers:

E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits

Date: *14-Nov-05*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 **(315) 437-0200**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1

Work Order: 0510143

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCSD-R3233** SampType: **LCSD** TestCode: **S376.1** Units: **mg/L** Prep Date: RunNo: **3233**

Client ID: **ZZZZZ** Batch ID: **R3233** Method: **EPA 376.1** Analysis Date: **10/30/2005** SeqNo: **99276**

Instrument: ColumnID:

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	1.800	0.80	2	0	90.0	81	110	2	10.5	20	

Qualifiers:

E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits

Date: *14-Nov-05*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0

Work Order: 0510143

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-R3215**	SampType: **MBLK**	TestCode: **300.0W**	Units: **mg/L**	Prep Date:		RunNo:	**3215**
Client ID: **ZZZZZ**	Batch ID: **R3215**	Method: **EPA 300.0**		Analysis Date: **10/27/2005**		SeqNo:	**98941**
Instrument: **IC**	ColumnID: **IC**						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.0									
Nitrogen, Nitrate (As N)	ND	0.010									
Sulfate	ND	1.0									

Qualifiers:

E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits

Date: *16-Nov-05*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0
Work Order: 0510151
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **MB-R3230**	SampType: **MBLK**	TestCode: **300.0W**	Units: **mg/L**	Prep Date:	RunNo: **3230**
Client ID: **ZZZZZ**	Batch ID: **R3230**	Method: **EPA 300.0**		Analysis Date: **10/28/2005**	SeqNo: **99203**
Instrument: **IC**	ColumnID: **IC**				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.0									
Nitrogen, Nitrate (As N)	ND	0.010									
Sulfate	ND	1.0									

Qualifiers:

E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits

Date: *16-Nov-05*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 **(315) 437-0200**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1
Work Order: 0510143
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **MB-R3228** SampType: **MBLK** TestCode: **ALK310.1** Units: **mg/L** Prep Date: RunNo: **3228**
Client ID: **ZZZZZ** Batch ID: **R3228** Method: **EPA 310.1** Analysis Date: **10/28/2005** SeqNo: **99169**
Instrument: ColumnID:

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	10									

Qualifiers:

E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits

Date: *15-Nov-05*

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 **(315) 437-0200**

ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1
Work Order: 0510143
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **MB-R3233**	SampType: **MBLK**	TestCode: **S376.1**	Units: **mg/L**	Prep Date:		RunNo: **3233**						
Client ID: **ZZZZZ**	Batch ID: **R3233**	Method: **EPA 376.1**		Analysis Date: **10/30/2005**		SeqNo: **99267**						
Instrument:	ColumnID:											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Sulfide	ND	0.80										

Qualifiers:
- E Value exceeds the instrument calibration range
- ND Not Detected at the Practical Quantitation Limit (PQL)
- H Holding times for preparation or analysis exceeded
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *14-Nov-05*

LSL

RECEIVED
NOV 23 2005
By

Tom Alexander
Life Science Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057

Phone: (315) 437-0200
FAX: (315) 437-0377

Laboratory Analysis Report
For
Life Science Laboratories, Inc.

LSL Project ID: **0519432**

Receive Date/Time: 11/09/05 12:31

Project Received by: GS

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By the Client's acceptance and/or use of this report, the Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect the Client as regards to the results contained in this report. The Client further agrees that the only remedy available to the Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to the Client. The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without express prior written consent of Life Science Laboratories, Inc. This report may only be reproduced in its entirety. No partial duplication is allowed. The Chain of Custody document submitted with these samples is considered by LSL to be an appendix of this report and may contain specific information that pertains to the samples included in this report. The analytical result(s) in this report are only representative of the sample(s) submitted for analysis. LSL makes no claim of a sample's representativeness, or integrity, if sampling was not performed by LSL personnel.

Life Science Laboratories, Inc.

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Fax (315) 388-4061
NYS DOH ELAP #10900

LSL Finger Lakes Lab
16 N. Main St., PO Box 424
Wayland, NY 14572
Tel. (585) 728-3320
Fax (585) 728-2711
NYS DOH ELAP #11667

LSL Southern Tier Lab
30 East Main Street
Cuba, NY 14727
Tel. (585) 968-2640
Fax (585) 968-0906
NYS DOH ELAP #10760

LSL MidLakes Lab
699 South Main Street
Canandaigua, NY 14424
Tel. (585) 396-0270
Fax (585) 396-0377
NYS DOH ELAP #11369

This report was reviewed by: Life Science Laboratories, Inc. **Date:** 11/21/05

A copy of this report was sent to:

Date Printed: 11/21/05

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-003D **LSL Sample ID:** 0519432-001
Location:
Sampled: 10/26/05 0:00 **Sampled By:** Client
Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) SM 19 5310C TOC					
Total Organic Carbon	4.9	mg/l		11/18/05	TER

Sample ID: 0510143-004D **LSL Sample ID:** 0519432-002
Location:
Sampled: 10/26/05 0:00 **Sampled By:** Client
Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) SM 19 5310C TOC					
Total Organic Carbon	2.4	mg/l		11/18/05	TER

Sample ID: 0510143-006D **LSL Sample ID:** 0519432-003
Location:
Sampled: 10/26/05 0:00 **Sampled By:** Client
Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) SM 19 5310C TOC					
Total Organic Carbon	2.2	mg/l		11/18/05	TER

Sample ID: 0510143-007D **LSL Sample ID:** 0519432-004
Location:
Sampled: 10/26/05 0:00 **Sampled By:** Client
Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) SM 19 5310C TOC					
Total Organic Carbon	2.4	mg/l		11/18/05	TER

Sample ID: 0510143-009D **LSL Sample ID:** 0519432-005
Location:
Sampled: 10/26/05 0:00 **Sampled By:** Client
Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) SM 19 5310C TOC					
Total Organic Carbon	3.3	mg/l		11/18/05	TER

- - LABORATORY ANALYSIS REPORT - -

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510143-0021A **LSL Sample ID:** 0519432-006
Location:
Sampled: 10/26/05 0:00 **Sampled By:** Client
Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) SM 19 5310C TOC					
Total Organic Carbon	17	mg/l		11/18/05	TER

Sample ID: 0510143-0022A **LSL Sample ID:** 0519432-007
Location:
Sampled: 10/26/05 0:00 **Sampled By:** Client
Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) SM 19 5310C TOC					
Total Organic Carbon	6.8	mg/l		11/18/05	TER

Sample ID: 0510143-0023A **LSL Sample ID:** 0519432-008
Location:
Sampled: 10/26/05 0:00 **Sampled By:** Client
Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) SM 19 5310C TOC					
Total Organic Carbon	2.9	mg/l		11/18/05	TER

Sample ID: 0510143-0024A **LSL Sample ID:** 0519432-009
Location:
Sampled: 10/26/05 0:00 **Sampled By:** Client
Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) SM 19 5310C TOC					
Total Organic Carbon	11	mg/l		11/18/05	TER

Sample ID: 0510143-0025A **LSL Sample ID:** 0519432-010
Location:
Sampled: 10/26/05 0:00 **Sampled By:** Client
Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) SM 19 5310C TOC					
Total Organic Carbon	12	mg/l		11/18/05	TER

Tom Alexander
Life Science Laboratories, Inc.
5000 Brittonfield Parkway
East Syracuse, NY 13057

Phone: (315) 437-0200
FAX: (315) 437-0377

Laboratory Analysis Report
For
Life Science Laboratories, Inc.

LSL Project ID: **0519433**

Receive Date/Time: 11/09/05 12:31

Project Received by: GS

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By the Client's acceptance and/or use of this report, the Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect the Client as regards to the results contained in this report. The Client further agrees that the only remedy available to the Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to the Client. The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without express prior written consent of Life Science Laboratories, Inc. This report may only be reproduced in its entirety. No partial duplication is allowed. The Chain of Custody document submitted with these samples is considered by LSL to be an appendix of this report and may contain specific information that pertains to the samples included in this report. The analytical result(s) in this report are only representative of the sample(s) submitted for analysis. LSL makes no claim of a sample's representativeness, or integrity, if sampling was not performed by LSL personnel.

Life Science Laboratories, Inc.

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East Syracuse, NY 13057	Waddington, NY 13694	Wayland, NY 14572	Cuba, NY 14727	Canandaigua, NY 14424
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Fax (315) 445-1301	Fax (315) 388-4061	Fax (585) 728-2711	Fax (585) 968-0906	Fax (585) 396-0377
NYS DOH ELAP #10248	NYS DOH ELAP #10900	NYS DOH ELAP #11667	NYS DOH ELAP #10760	NYS DOH ELAP #11369
PA DEP #68-2556				

This report was reviewed by: R. Palamarchuk, Ph.D., QAO *Date:* 11/28/05
Life Science Laboratories, Inc.

A copy of this report was sent to:

Date Printed: 11/28/05

-- LABORATORY ANALYSIS REPORT --

Life Science Laboratories, Inc. *East Syracuse, NY*

Sample ID: 0510151-002A **LSL Sample ID:** 0519433-001
Location:
Sampled: 10/26/05 0:00 **Sampled By:** Client
Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) SM 19 5310C TOC					
Total Organic Carbon	3500	mg/l		11/18/05	TER

Sample ID: 0510151-004D **LSL Sample ID:** 0519433-002
Location:
Sampled: 10/27/05 0:00 **Sampled By:** Client
Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) SM 19 5310C TOC					
Total Organic Carbon	3.2	mg/l		11/18/05	TER

Sample ID: 0510151-005D **LSL Sample ID:** 0519433-003
Location:
Sampled: 10/27/05 0:00 **Sampled By:** Client
Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) SM 19 5310C TOC					
Total Organic Carbon	3.5	mg/l		11/18/05	TER

Sample ID: 0510151-007A **LSL Sample ID:** 0519433-004
Location:
Sampled: 10/26/05 0:00 **Sampled By:** Client
Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) SM 19 5310C TOC					
Total Organic Carbon	4800	mg/l		11/18/05	TER

Sample ID: 0510151-008A **LSL Sample ID:** 0519433-005
Location:
Sampled: 10/27/05 0:00 **Sampled By:** Client
Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) SM 19 5310C TOC					
Total Organic Carbon	12	mg/l		11/23/05	TER

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name **OBG-RALEIGH**

Date and Time Receive **10/27/2005 8:45:00 AM**

Work Order Numbe **0510143**

Received by srm

Checklist completed by Signature 10/27/05 Date

Reviewed by Initials 10/27/05 Date

Matrix:

Carrier name FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? _____ Checked b _____

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: bottles pres w/HNO3 had pH=1
bottles pres w/NaOH had pH>12
bottles pres w/H2SO4 had pH=1

Corrective Action _____

JOB NO.

12

28

FedEx Express US Airbill

FedEx Tracking Number 8525 2794 8064

1 From This portion can be removed for Recipient's records.

Date [illegible] FedEx Tracking Number 852527948064

Sender's Name KATHY BRATCHER/TAWNYA B Phone 229 890-6821

Company TWO BIZZY B'S

Address 417 2ND ST SE

Dept./Floor/Suite/Room

City MOULTRIE State GA ZIP 31768-4709

2 Your Internal Billing Reference 35789

3 To

Recipient's Name O'BRIEN & GERE LABS Phone 315 433-6100

Company O'BRIEN & GERE LABORATORIES

Recipient's Address 5000 BRITTONFIELD PARKWAY

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City EAST SYRACUSE State NY ZIP 13057

8525 2794 8064

RECIPIENT: PEEL HERE

NO POUCH NEEDED.
See back for peel and stick application instructions.

O'BRIEN & GERE LABORATORIES

SUBJECT

0215 **Recipient's Copy**

4a Express Package Service *Packages up to 150 lbs.* * To most locations

- [x] FedEx Priority Overnight — Next business morning*
- [ ] FedEx Standard Overnight — Next business afternoon*
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations*
- [ ] FedEx 2Day — Second business day*
- [ ] FedEx Express Saver — Third business day*

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service *Packages over 150 lbs.* ** To most locations

- [ ] FedEx 1Day Freight* — Next business day**
- [ ] FedEx 2Day Freight — Second business day**
- [ ] FedEx 3Day Freight — Third business day**

* Call for Confirmation:

5 Packaging * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

6 Special Handling Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available ONLY for FedEx Priority Overnight, FedEx 2Day, FedEx 1Day Freight, and FedEx 2Day Freight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available for FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous goods (including Dry Ice) cannot be shipped in FedEx packaging.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No. [ ]

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages	Total Weight		Total Charges
1	48		Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the *FedEx Service Guide* for details.

8 Sign to Authorize Delivery Without a Signature

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.
Questions? Visit our Web site at fedex.com
or call 1.800.GoFedEx 1.800.463.3339.
SRS• Rev. Date 11/03•Part #158279•©1994–2003 FedEx•PRINTED IN U.S.A.

466

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client: O'Brien & Gere - Raleigh

Project: Miller - Moultrie, Georgia

Sampled by: Todd Thomas

Client Contact: Mary Jane Bartlett Phone # 919-783-7777

Sample Description

Analysis/Method 143

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	VOC	Methane/Ethane/Ethene	NO_3/Chloride	SO_4	TOC	DOC (FF)	TALK	Sulfide	Fe/Mn		Comments
CH2MW-2	10/25/05	1620	WG	G	3	x										
OBGMW-123	10/25/05	1700	WG	G	3	x										
OBGMW-124	10/26/05	0800	WG	G	11	x	x	x	x	x	x	x	x			
CH2MW-3	10/26/05	0915	WG	G	11	x	x	x	x	x	x	x	x			
CH2PP-1	10/26/05	0950	WG	G	3	x										
CH2MW-5	10/26/05	1040	WG	G	11	x	x	x	x	x	x	x	x			
DUP-03-102605	10/26/05	—	WG	G	11	x	x	x	x	x	x	x	x			BLIND DUPLICATE
TB-102605	10/26/05	—	BLANK		3	x										TRIP BLANK
CH2MW-114D	10/26/05	1325	WG	G	8	x	x	x			x	x				
ETMW-D1	10/26/05	1230	WG	G	10	x	x	x	x	x		x	x			

Relinquished by: Todd Thomas To Two Bizzy B's via FedEx	Date: 10/26/05	Time: 1520	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by Lab: Date: 10/27/05 Time: 845
Shipment Method: Priority Overnight - FED EX From Two Bizzy B's Moultrie, GA			Airbill Number: 8525 2794 8064

Turnaround Time Required:

Routine X

Rush (Specify)

Cooler Temperature: 3°C iced

Comments: Both CH2MW-114D & ETMW-121 ran dry ~ Remaining bottles (TALK for ETMW-121) and TOC/DOC/Fe/Mn for CH2MW-114D will ship tomorrow

Original - Laboratory
Copy - Client

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client: O'BRIEN & GERE - RALEIGH

Project: MILLER - MOULTRIE, GEORGIA

Sampled by: TODD THOMAS

Client Contact: MARY JANE BARTLETT Phone # 919-783-7777

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	Analysis/Method: VOC							Comments
ETC MW-115	10/25/05	0755	WG	G	3	X							
ETA MW-120	10/25/05	0820	WG	G	3	X							
ETMW-119	10/25/05	0850	WG	G	3	X							
ETMW-119-MS	10/25/05	0850	WG	G	3	X							
ETMW-119-MSD	10/25/05	0850	WG	G	3	X							
OBG MW-122	10/25/05	0940	WG	G	3	X							
CH2 MW-1	10/25/05	1018	WG	G	3	X							
DUP-01-102505	10/25/05	—	WG	G	3	X							DUPLICATE
ETMW-117	10/25/05	1105	WG	G	3	X							
ETMW-116	10/25/05	1220	WG	G	3	X							
ETMW-118	10/25/05	1305	WG	G	3	X							
CH2MW-4D	10/25/05	1528	WG	G	3	X							

Relinquished by: TO TWO BIZZY B'S VIA FEDEX Date: 10/26/05 Time: 1520

Relinquished by: Date: Time:

Relinquished by: Date: Time:

Shipment Method: PRIORITY OVERNIGHT - FED EX VIA TWO BIZZY B'S MOULTRIE GA

Received by: Date: Time:

Received by: Date: Time:

Received by Lab: Date: 10/27/05 Time: 845

Airbill Number:

Turnaround Time Required:

Routine X

Rush (Specify)

Comments:

Cooler Temperature: 3°C Iced

Original - Laboratory
Copy - Client

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name **OBG-RALEIGH**

Date and Time Receive **10/28/2005 9:45:00 AM**

Work Order Numbe **0510151**

Received by **srm**

Checklist completed by DMack (Signature) 10/28/05 (Date)

Reviewed by MS (Initials) 10/28/05 (Date)

Matrix:

Carrier name FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? _____ Checked b _____

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: bottles pres w/ HNO3 had pH=1
bottles pres w/ H2SO4 had pH=1
bottle pres w/ NaOH had pH 12

Corrective Action _____

JOB NO.

DATE

BY

SHEET

SUBJECT

FedEx Express® US Airbill

8553 8088 2782

0200 Form ID No.

FedEx Retrieval Copy

1 From

Date 10/27/05 Sender's FedEx Account Number 1482251 68

Sender's Name TODD THOMAS Phone 919 733-7777

Company O'BRIEN & GERE

Address 3610 WYCLIFF ROAD 104

City RALEIGH State NC ZIP 27607 Dept/Floor/Suite/Room

2 Your Internal Billing Reference 35789

3 To

Recipient's Name SAMPLE RECEIVING Phone 315 437-6100

Company O'BRIEN & GERE LABS

Recipient's Address 5000 BRITTONFIELD PARKWAY

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address Dept/Floor/Suite/Room

To request a package be held at a specific FedEx location, print FedEx address here.

City EAST SYRACUSE State NY ZIP 13057

8553 8088 2782

4a Express Package Service To add SATURDAY Delivery, see Section 6. *Packages up to 150 lbs.* * To most locations

1 [X] FedEx Priority Overnight Next business morning.* 5 [ ] FedEx Standard Overnight Next business afternoon.* 6 [ ] FedEx First Overnight Earliest next business morning delivery to select locations.*

3 [ ] FedEx 2Day Second business day.* 20 [ ] FedEx Express Saver Third business day.*

FedEx Envelope rate not available. Minimum charge: One-pound rate.

4b Express Freight Service To add SATURDAY Delivery, see Section 6. *Packages over 150 lbs.* ** To most locations

7 [ ] FedEx 1Day Freight* Next business day.** 8 [ ] FedEx 2Day Freight Second business day.** 83 [ ] FedEx 3Day Freight Third business day.**

* Call for Confirmation:

5 Packaging * Declared value limit $500.

6 [ ] FedEx Envelope* 2 [ ] FedEx Pak* Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak. 3 [ ] FedEx Box 4 [ ] FedEx Tube 1 [X] Other

6 Special Handling Include FedEx address in Section 3.

3 [ ] SATURDAY Delivery Available ONLY for FedEx Priority Overnight, FedEx 2Day, FedEx 1Day Freight, and FedEx 2Day Freight to select ZIP codes.

1 [ ] HOLD Weekday at FedEx Location Not available for FedEx First Overnight.

31 [ ] HOLD Saturday at FedEx Location Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.

[X] No 4 [ ] Yes As per attached Shipper's Declaration. [ ] Yes Shipper's Declaration not required. 6 [ ] Dry Ice Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging. [ ] Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

1 [X] Sender Acct. No. in Section 1 will be billed. 2 [ ] Recipient 3 [ ] Third Party 4 [ ] Credit Card 5 [ ] Cash/Check Obtain Recip. Acct. No. [ ]

FedEx Acct. No. / Credit Card No. Exp. Date

Total Packages 1 Total Weight 20 Total Charges

†Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details. Credit Card Auth.

8 NEW Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

[ ] No Signature Required Package may be left without obtaining a signature for delivery. 10 [ ] Direct Signature Anyone at recipient's address may sign for delivery. *Fee applies.* 34 [ ] Indirect Signature If no one is available at recipient's address, anyone at a neighboring address may sign for delivery. *Fee applies.*

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520

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O'BRIEN & GERE LABORATORIES, INC

O'Brien & Gere Laboratories, Inc.

5000 Brittonfield Parkway
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client: O'Brien & Gere - Raleigh
Project: Miller - Moultrie, Georgia
Sampled by: Todd Thomas
Client Contact: Mary Jane Bartlett Phone # 919-783-7777

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	VOC	Methane/Ethane/Ethene	NO3/Chloride	SO4	TOC	DOC (FF)	TALK	Sulfide	Fe/Mn	Comments
ETCmw-113	10/26/05	1650	WG	G	3	X									
TB-102705	10/27/05	—	Trip Blank		3	X									
CH2MW-114D	10/26/05	1325	WG	G	3				X	X			X		
ETMW-121	10/26/05	1230	WG	G	1						X				
ETCmw-114	10/27/05	0955	WG	G	11	X	X	X	X	X	X	X	X		
CH2MW-1A	10/27/05	0745	WG	G	7	X	X	X	X						

Analysis/Method 151

Relinquished by: [signature] TO FED EX Date: 10/27/05 Time: 1400
Relinquished by: Date: Time:
Relinquished by: Date: Time:
Shipment Method: FED EX Priority Overnight

Received by: Date: Time:
Received by: Date: Time:
Received by Lab: [signature] Date: 10/28/05 Time: 945
Airbill Number: 8553 8088 2782

Turnaround Time Required:
Routine X
Rush (Specify)

Comments:

Cooler Temperature: 4.0 C

Original - Laboratory
Copy - Client

Appendix C

Ground Water Purging and Sampling Log Forms

Appendix C1

Field Forms – April 2005

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-1
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	35789

PURGE START DATE/TIME:	4-28-05/1005		PURGE END DATE/TIME:	04-28-05/1011	
WEATHER CONDITIONS:	Warm 70s		WELL CONDITION:	Good	
WELL DEPTH:	10'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	0.25	gal.
SWL:	3.8	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	1"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	0.25 gal / 0.963L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1006	4.4 200							
1008	5.7		21.50	0.180	6.84	5.74	222	84.9
1009	6.5	0.125	20.73	0.186	4.18	5.54	224	84.5
1010	6.5		20.74	0.185	4.01	5.52	224	74.1
1011	6.5 ↓		20.57	0.183	3.93	5.51	222	71.6

SAMPLING DATA

SAMPLE DATE/TIME:	04-28-05/1020
DEPTH TO WATER AFTER PURGING:	6.7 ft.
APPEARANCE:	Brown-tan
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Purge water to Grd. Poor recovery

PURGING/SAMPLING PERSONNEL: Andrew Brunton

CO_2 = 20mL FeSO

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: [redacted] CH2MW-11
SITE NAME: Icehouse of America
LOCATION: Moultrie, GA.
PROJECT NO.: 35789

0840

PURGE START DATE/TIME:	4-28-05 / CH2MW-11		PURGE END DATE/TIME:	4-28-05 / 0910	
WEATHER CONDITIONS:	Partly cloudy 60s		WELL CONDITION:	Good	
WELL DEPTH:	15'		CONVERSION FACTORS	TOTAL PURGE VOLUME:	1.75 gal.
SWL:	4.40		1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	2"		2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	1.73 x 1	6.552	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0840	5.0 200							
0845	5.4 200		19.17	0.154	3.89	6.01	173	75.8
0850	6.3 200		19.25	0.154	2.84	6.01	174	69.4
[redacted]5	6.7 200	1.0 gal	19.23	0.155	2.67	6.01	175	68.7
0900	7.5 200		19.36	0.154	2.73	6.00	182	60.4
0905	8.7 200		19.40	0.154	2.71	5.99	182	61.5
0910	9.65		19.46	0.137	2.52	5.90	181	62.5

SAMPLING DATA

SAMPLE DATE/TIME:	04-27-05 / 0915		
DEPTH TO WATER AFTER PURGING:	9.65 ft.		
APPEARANCE:	Brown-tan		
SAMPLING DEVICE:			

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☑	OTHER	☐	PCBs

NOTES: Purge water turbid

PURGING/SAMPLING PERSONNEL: Andrew Brunton

$CO_2 = B$ Fe = 0

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	OU2MW-2
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	35789

PURGE START DATE/TIME:	04-27-05/905		PURGE END DATE/TIME:	04-27-05/0922	
WEATHER CONDITIONS:	Mostly Sunny		WELL CONDITION:	Good	
WELL DEPTH:	13.5'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	1.7	gal.
SWL:	3.29	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	1.66 gal / 6.3 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
905	3.29 200						--	
907	3.31 210		19.63	0.274	4.18	3.81	358	21.2
912	4.0 210	3.1L	19.66	0.272	2.86	3.61	376	14.3
915	4.0 300		19.48	0.273	2.00	3.50	357	8.4
920	4.0 306		19.47	0.273	1.70	3.49	381	8.5
922	4.1 306		19.48	0.274	1.92	3.57	391	7.5
[illegible]			19.51	0.284	1.45	3.71	387	8.4
[illegible]								

SAMPLING DATA

SAMPLE DATE/TIME:	04-27-05/0925
DEPTH TO WATER AFTER PURGING:	4.6 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Purge water very clear. Good Recovery
Started sampling at 0925 a.m.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

13 mg/L = CO_2 0 mg/L = Fe^{2+}

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: CH2MW-3
SITE NAME: Miller Moultrie
LOCATION: Moultrie, GA
PROJECT NO.: 35789

PURGE START DATE/TIME: 04-27-05/1015			PURGE END DATE/TIME: 04-27-05/1035		
WEATHER CONDITIONS: Partly Sunny 67°			WELL CONDITION: Good		
WELL DEPTH: 13'		CONVERSION FACTORS		TOTAL PURGE VOLUME:	1.55 gal.
SWL: 3.65		1 in. Dia.	0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"		2 in. Dia.	0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME: 1.52 gal 5.78 L		4 in. Dia.	0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1015	~~300~~ 200							
1020	3.9 300	~~2.5~~	20.91	0.192	3.52	4.94	376	55.4
1025	4.7 300	0.75	20.61	0.191	2.77	5.04	406	22.2
1030	5.05 300		20.62	0.191	2.75	5.17	441	12.2
1032	5.65 300		20.70	0.187	2.53	5.18	446	10.2
1035	5.18 " "		20.78	0.186	2.36	~~5~~12	446	10.0

SAMPLING DATA

SAMPLE DATE/TIME:	04-27-05/1040
DEPTH TO WATER AFTER PURGING:	5.18 ft.
APPEARANCE:	Clear
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☑	OTHER	☐	PCBs

NOTES: Purge water clear. Collected Dup-02.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

CO_2: 14mg/L Fe: 0mg/L

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: CH2MW-4D
SITE NAME: Miller Mouthric
LOCATION: Mouthrie, GA
PROJECT NO.: 35789

PURGE START DATE/TIME: 4-26-05 / 1500			PURGE END DATE/TIME: 4-26-05 / 1525		
WEATHER CONDITIONS: Raining - GOS			WELL CONDITION: ~~Poor~~ Good		
WELL DEPTH: 45.93'		CONVERSION FACTORS		TOTAL PURGE VOLUME:	5.2 gal.
SWL: 14.00'		1 in. Dia.	0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"		2 in. Dia.	0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME: 5.20 gal	19.73 L	4 in. Dia.	0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
~~1500~~	~~500~~		22.07	0.073	5.30	8.14	198	20
1505	18' 500	1.32	21.99	0.094	4.41	8.60	246	11.6
1510	20.8 500	7.5L	21.41	0.095	4.42	8.70	255	11.7
1515	21.2 ~~500~~ 350		21.41	0.094	4.19	8.72	266	10.9
1520	22.5		21.89	0.090	4.12	8.74	276	9.4
1525	22.9		21.87	0.091	4.11	8.67	282	9.0

SAMPLING DATA

SAMPLE DATE/TIME: 04-26-05 / 1530	
DEPTH TO WATER AFTER PURGING: 23 ft.	
APPEARANCE: Clear	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Pump flow rate was stuck on 500 mL/min. Could not adjust. Purge water is clear no odor until 1510 → down to 350 mL/min.
Took DUP-01

PURGING/SAMPLING PERSONNEL: Andrew Brunton

CO_2 = 14 mg/L Fe = 0 mg/L

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-5
SITE NAME:	Miller Brewing
LOCATION:	Manitowoc, GA
PROJECT NO.:	35789

PURGE START DATE/TIME:	4/22/05/1520		PURGE END DATE/TIME:	4-27-05/1555	
WEATHER CONDITIONS:	Sunny 80s		WELL CONDITION:	Good	
WELL DEPTH:	15	CONVERSION FACTORS	TOTAL PURGE VOLUME:	2.4	gal.
SWL:	0.71	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	2.33 gal 8.83L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1520	0.71 250							
1525	1.4 250	~~2.0~~	20.18	~~0.178~~	5.09	130	138	134
1530	2.3 250		20.10	0.189	3.07	6.33	136	140
1535	2.8	1.0 gal	19.21	0.143	2.70	6.39	138	122
1540	2.95		19.84	0.190	2.59	6.37	142	104
1545	3.25		19.78	0.191	2.78	6.34	146	88.3
1550	3.6		19.79	0.194	2.74	6.40	150	81.1
1555	4.1		19.79	0.196	2.85	6.40	156	76.4

SAMPLING DATA

SAMPLE DATE/TIME:	04/27/05-1600
DEPTH TO WATER AFTER PURGING:	4.1' ft.
APPEARANCE:	Red-Tan-murky
SAMPLING DEVICE:	

PARAMETERS			
☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Purge water a little reddish-murky color.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

CO_2 = 15 mg/L Fe = 0.5 mg/L

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: ETCMW-113
SITE NAME: Miller Motric
LOCATION: Moultrie, GA
PROJECT NO.: 35788

PURGE START DATE/TIME:	4/26/05/0930		PURGE END DATE/TIME:	4-26-05/0957	
WEATHER CONDITIONS:	Cloudy Mid 60's		WELL CONDITION:	Good	
WELL DEPTH:	12'		TOTAL PURGE VOLUME:	1.2	gal.
SWL:	4.40	CONVERSION FACTORS	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	1 in. Dia. 0.041 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	1.238 gal	2 in. Dia. 0.163 gal./ft.	PURGING DEVICE:	Peristaltic	
	4.695 L	4 in. Dia. 0.653 gal./ft.			

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0930	200		17.79	0.431	4.85	6.87	284	37.9
0940	5.70 200		17.84	0.431	4.57	7.01	288	54.1
0945			17.97	0.420	4.31	7.05	280	50.0
0950		0.5	17.97	0.392	3.84	6.87	259	47.8
0955	6.8		17.97	0.367	3.42	6.74	249	47.3
0950			18.01	0.365	3.28	6.70	243	47.3
953			18.01	0.361	3.11	6.66	235	46.8
955		1.0	18.03	0.352	2.67	6.57	222	47.5
957			18.02	0342	2.47	6.53	217	47.5

SAMPLING DATA

SAMPLE DATE/TIME:	4-26-05/1000
DEPTH TO WATER AFTER PURGING:	7.4 ft.
APPEARANCE:	Yellow / Turbid
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Initial purged water highly turbid.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

CO_2 = 14 mg/L Fe = 0 mg/L

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-114
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA.
PROJECT NO.:	35789

PURGE START DATE/TIME:	4/28/05/1405		PURGE END DATE/TIME:	4/28-05/1445	
WEATHER CONDITIONS:	Hot + Sunny		WELL CONDITION:		
WELL DEPTH:	11.7'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	3.4	gal.
SWL:	6.55	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	4"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	3.36 gal	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1405	6.53 250	•	19.43	0.472	2.72	6.44	152	63.2
1410	6.71 250		19.29	0.472	2.72	6.44	150	52.4
1415	6.9 250	1.0	18.73	0.472	2.70	6.42	144	40.7
1420	7.03 300		18.65	0.473	2.81	6.44	142	12.5
1425	7.15 300	2.0	18.57	0.473	2.79	6.43	140	8.3
1430	7.25 300	2.5	18.57	0.473	2.80	6.45	138	6.4
1435	7.40 200		18.50	0.473	2.73	6.46	133	5.70
1440	7.61 300	3.0	18.61	0.473	2.72	6.47	132	5.70
1445	8.0 250		18.61	0.473	2.71	6.51	146	5.4
1447			18.61	0.474	2.71	6.51	140	5.4
1449								

SAMPLING DATA

SAMPLE DATE/TIME:	4-28-05/1450
DEPTH TO WATER AFTER PURGING:	8.1 ft.
APPEARANCE:	Clear
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Purge water very turbid at first but cleared up nicely.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

O_2 = 14 mg/L Fe = 0

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-114
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	35789

PURGE START DATE/TIME:	04-29-05/1045	PURGE END DATE/TIME:	04-29-05/1122
WEATHER CONDITIONS:	Hot - 80s	WELL CONDITION:	Good
WELL DEPTH:	11.7	TOTAL PURGE VOLUME:	3.4 gal.
SWL:	6.5	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	4"	PUMP SETTING:	ft.
WELL VOLUME:	3.39 gal	PURGING DEVICE:	Peristaltic

CONVERSION FACTORS

1 in. Dia.	0.041 gal./ft.
2 in. Dia.	0.163 gal./ft.
4 in. Dia.	0.653 gal./ft.

12.87 L

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1045	6.7 200							
1048	6.8 300		18.32	0.482	3.65	6.09	85	29.5
1051	6.9 350	1.0	17.91	0.483	2.68	6.42	72	7.7
1055	6.9 400		17.92	0.481	2.67	6.43	75	9.4
1100	7.2 400		17.87	0.487	3.37	6.54	80	7.3
1105	7.30 400	2.0	17.85	0.481	3.45	6.56	82	9.4
1110	7.38 310		17.93	0.484	3.35	6.60	75	6.8
1115	7.85 310		17.95	0.483	3.22	6.60	71	5.6
1120	7.90 310	3.0	17.97	0.485	3.20	6.60	70	5.4
1122	8.0 310		17.98	0.485	3.02	6.61	66	5.6

SAMPLING DATA

SAMPLE DATE/TIME:	04-29-05/1125
DEPTH TO WATER AFTER PURGING:	8.0 ft.
APPEARANCE:	Clear
SAMPLING DEVICE:	

PARAMETERS

- [x] VOCs
- [ ] SVOCs
- [x] OTHER
- [ ] Metals (U)
- [ ] Metals (F)
- [ ] PCBs

NOTES: Purge water clear - great recovery.
Aquinafine Bottles used for MW114. - Came back out to collect Geo-Chem Analysis

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: 042MW-114D
SITE NAME: Miller Moultrie
LOCATION: Moultrie, GA
PROJECT NO.: 35789

PURGE START DATE/TIME:	4-28-05/1500		PURGE END DATE/TIME:	04-28-05/1515	
WEATHER CONDITIONS:	Hot + Sunny 80's		WELL CONDITION:	SWL is high + mucky	
WELL DEPTH:	22.5'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	0.65	gal.
SWL:	6.7'	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	1"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	0.65 gal	2.45	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1500	8.0 200		19.88	7.46	1.13	6.06	-31	104
1505	10.0 200		19.81	9.47	0.91	6.06	-39	102
1507	14.0' 200		19.76	9.39	0.75	5.99	-45	102
1509	16.0		12.53	9.32	0.58	5.97	-63	147
1512	18		20.62	9.31	1.69	5.99	20	154
1514	20		20.82	9.31	1.96	6.00	32	158
1515	22 ↓		20.91	9.31	2.22	6.01	42	155

SAMPLING DATA

SAMPLE DATE/TIME:	04-28-05/1515
DEPTH TO WATER AFTER PURGING:	21.0' ft.
APPEARANCE:	Murky - brown/tan
SAMPLING DEVICE:	

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES: Purge Water very turbid/murky & very, very strong pungent odor.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

$CO_2 = 50$ $Fe = 5+$ mg/L

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: CM2MW-1140
SITE NAME: Miller Monitrile
LOCATION: Monitrile, GA
PROJECT NO.: 35789

PURGE START DATE/TIME:	04-29-05 / 1137		PURGE END DATE/TIME:	04-29-05 / 1140	
WEATHER CONDITIONS:	Warm 75°F		WELL CONDITION:	Good	
WELL DEPTH:	22.5	CONVERSION FACTORS	TOTAL PURGE VOLUME:	0.395	gal.
SWL:	13.1	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	1"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	0.385 gal 1.4 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1137	14 200							
1138	15 200	2 ~~+0~~	20.10	5.05	1.36	5.96	0	69.2
1139	16 200		20.43	3.56	1.16	5.96	-6	70.9
1140	18.0 200		20.43	3.62	0.97	5.95	-8	68.2

SAMPLING DATA

SAMPLE DATE/TIME:	1141
DEPTH TO WATER AFTER PURGING:	18 ft.
APPEARANCE:	Turn Brown
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☑	OTHER	☐	PCBs

NOTES: Collected in Sprintine bottles. Came back out to plant to try to collect Geo-chem analysis samples. Got kicked off property by Plant Mgr. & the well went dry. — Strong purge odors.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-115
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	35789

PURGE START DATE/TIME:	4-28-05/1245		PURGE END DATE/TIME:	04-28-05/1304	
WEATHER CONDITIONS:	Sunny 80s.		WELL CONDITION:	Good	
WELL DEPTH:	11.5'		CONVERSION FACTORS	TOTAL PURGE VOLUME:	6.1 gal.
SWL:	4.9		1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	2"		2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	1.08 gal	4.08 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1246	5.1 200							
1248	5.1 200		20.73	0.335	1.78	6.36	163	91.8
1250	6.85	0.5	20.66	0.343	0.79	6.34	160	86.7
1255	5.65 260		20.89	0.370	0.47	6.41	147	63.3
1300	6.14 260		20.45	0.382	0.28	6.42	136	29.4
1304	6.5 260		20.32	0.366	0.23	6.37	131	17.6
[illegible]								

SAMPLING DATA

SAMPLE DATE/TIME:	04-28-05/1305
DEPTH TO WATER AFTER PURGING:	6.8 ft.
APPEARANCE:	Reddish
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Purged water very reddish w/ a lot of [illegible] particulate inside. Turbid purge water gradually cleared up. @ Good recovery

PURGING/SAMPLING PERSONNEL: Andrew Brunton

CO_2 19 mg/L Fe = 4.3 mg/L

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-116
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	35789

PURGE START DATE/TIME:	4-26-05 / 1105		PURGE END DATE/TIME:	4-26-05 / 1200	
WEATHER CONDITIONS:	Cloudy - mid 60s		WELL CONDITION:	Good	
WELL DEPTH:	11'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	6.8	gal.
SWL:	0.60	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	4"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	~~0.85~~ gal	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	
	6.79	~~10.2~~ 25.74 L			

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
~~1105~~ 1105	0.8 200	~~2.47~~	17.98	2.40	1.13	5.19	137	11.9
1110	1.5 250		18.15	2.40	0.61	5.10	137	10.7
1115	1.55		18.19	2.46	0.51	5.09	136	10.7
1120	1.80 400	3.5	18.18	2.40	0.30	5.09	137	10.2
1125	2.50		18.16	2.40	0.29	5.09	137	10.1
1130	3.20		18.17	2.40	0.24	5.09	138	9.7
1135	3.90		18.14	2.42	0.21	5.08	139	10.7
1140	4.60		18.20	2.47	0.16	5.08	141	10.9
1145	~~5.30~~		18.20	2.48	0.16	5.08	141	10.6
1150	~~5.50~~	6.5	18.21	2.49	0.17	5.08	141	10.7
1200	5.80		18.23	2.37	0.15	5.03	141	10.8

SAMPLING DATA

SAMPLE DATE/TIME:	04-26-05 / 1205
DEPTH TO WATER AFTER PURGING:	5.8 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Purgewater clear — had a strong gasoline odor.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

Fe = 5 mg/L, CO_2 to 15 mg/L

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-117
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	35787

PURGE START DATE/TIME:	4-26-05 / 1230		PURGE END DATE/TIME:	4-26-05 / 1305	
WEATHER CONDITIONS:	Cloudy - Mid 60's Rain		WELL CONDITION:	Good	
WELL DEPTH:	11'		TOTAL PURGE VOLUME:	1.7	gal.
SWL:	0.8	CONVERSION FACTORS	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	1 in. Dia. 0.041 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	1.66 gal	2 in. Dia. 0.163 gal./ft. 6.3 L	PURGING DEVICE:	Peristaltic	
		4 in. Dia. 0.653 gal./ft.			

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1230	0.8 200	-	20.67	0.244	0.77	5.73	284	6.7
1235	2.0		20.70	0.248	0.68	5.72	284	5.2
1240	2.7	0.5	20.73	0.248	0.63	5.72	285	6.1
1245	3.2		21.28	0.251	0.41	5.73	288	4.9
1250	4.0		21.49	0.322	0.54	6.03	281	4.4
1255	4.8	1.0	21.50	0.326	0.54	6.04	281	4.6
1300	5.6		21.41	0.303	0.49	6.03	278	4.8

SAMPLING DATA

SAMPLE DATE/TIME:	4-26-05 / 1310	PARAMETERS		
DEPTH TO WATER AFTER PURGING:	5.6 ft.	☑ VOCs	☐	Metals (U)
APPEARANCE:	Clear	☐ SVOCs	☐	Metals (F)
SAMPLING DEVICE:		☐ OTHER	☐	PCBs

NOTES: Purge water is clear, No odor.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

$Fe = 2.2 mg/L$, $CO_2 = 10 mg/L$

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-118
SITE NAME:	Miller Manufacturing
LOCATION:	Moultrie, GA
PROJECT NO.:	35789

PURGE START DATE/TIME: 4-26-05 / 1330			PURGE END DATE/TIME: 4-26-05 / 1400		
WEATHER CONDITIONS: Cloudy & Rainy - 60s			WELL CONDITION: Good but filled w/ surface water		
WELL DEPTH: 11'		CONVERSION FACTORS	TOTAL PURGE VOLUME:	1.75	gal.
SWL: 0.5		1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER: 2"		2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME: 1.71 gal	6.5 Liter	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
~~1330~~	~~0.6 250~~		~~18.23~~	~~0.000~~	~~6.73~~	~~6.64~~	~~290~~	~~93.9~~
~~1335~~	~~0.8~~		~~18.15~~	~~0.000~~	~~6.54~~	~~6.55~~		
1330	0.5 250		21.06	0.242	1.81	5.97	139	35.2
1335	0.9		21.16	0.243	1.51	5.96	137	34.7
1340	1.5	0.5	21.22	0.244	1.30	5.97	136	35.0
1345	2.5		21.33	0.250	0.74	5.99	142	27.1
1350	2.73	1.0	21.04	0.254	0.70	5.97	141	28.1
1355	3.30		20.47	0.306	0.24	5.86	125	18.1
1400	3.60		20.50	0.307	0.34	5.86	125	18.0

SAMPLING DATA

SAMPLE DATE/TIME: 04-26-05 / 1405		PARAMETERS			
DEPTH TO WATER AFTER PURGING: 3.6 ft.	☑	VOCs	☐	Metals (U)	
APPEARANCE: Clear (some odor)	☐	SVOCs	☐	Metals (F)	
SAMPLING DEVICE:	☐	OTHER	☐	PCBs	

NOTES: SWL is high - Purge water is clear

PURGING/SAMPLING PERSONNEL: Andrew Brunton

CO_2 = 15 mg/L, Fe = 4.4 mg/L

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-119
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	35789

PURGE START DATE/TIME:	4-28-05/1325		PURGE END DATE/TIME:	4-28-05/1343	
WEATHER CONDITIONS:	Sunny Hot 85F		WELL CONDITION:	Good	
WELL DEPTH:	11'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	0.9	gal.
SWL:	5.50	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	0.84 gal 3.4L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1326	5.65 200							
1328	6.10 200		21.11	0.546	1.28	6.39	180	55.8
1330	6.30 200	0.4 gal	20.36	0.546	0.93	6.39	165	43.2
1335	6.75 200		20.08	0.564	0.56	6.44	151	26.6
1340	7.25 200		20.05	0.556	0.41	6.43	142	15.2
1342	7.9 200		19.97	0.449	0.33	6.25	138	6.3

SAMPLING DATA

SAMPLE DATE/TIME:	04-28-05/1343
DEPTH TO WATER AFTER PURGING:	7.9 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Purge water appeared clear.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

CO_2 = 18 mg/L Fe = 1 mg/L

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-120
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	35789

PURGE START DATE/TIME:	4-28-05/1150		PURGE END DATE/TIME:	04-28-05/1210	
WEATHER CONDITIONS:	Sunny 80's		WELL CONDITION:	Good	
WELL DEPTH:	11'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	1.1	gal.
SWL:	4.40	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	1.08 gal / 4.08 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1150	4.42 200		22.07	0.199	1.54	6.09	224	108
1152	4.5 200		22.77	0.200	1.23	5.97	215	106
1156	4.7 200	0.5 gal	21.12	0.199	0.97	5.95	196	104
1200	5.8		20.53	0.203	0.91	6.19	180	44.6
1205	6.6		20.53	0.211	1.00	6.24	180	40.3
1210	6.78		20.43	0.218	0.69	6.19	169	39.4

SAMPLING DATA

SAMPLE DATE/TIME:	04-28-05/1215
DEPTH TO WATER AFTER PURGING:	7.4 ft.
APPEARANCE:	Light Tan
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Purge water started out turbid but cleared slightly cloudy

PURGING/SAMPLING PERSONNEL: Andrew Brunton

O_2 = 15 mg/L, Fe = 35 mg/L

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW421
SITE NAME:	Miller Mountrie
LOCATION:	Mountrie, GA
PROJECT NO.:	35789

PURGE START DATE/TIME:	4-28-05/1045		PURGE END DATE/TIME:	04-28-05/1100	
WEATHER CONDITIONS:	Sunny 80s		WELL CONDITION:	Good	
WELL DEPTH:	11'		CONVERSION FACTORS	TOTAL PURGE VOLUME:	1.0 gal.
SWL:	5.15		1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	2"		2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	0.95 gal	5.6 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1045	5.2 200							
1047	5.4 210	19.88	0.194	6.86	6.27	204	88.0	
1049	5.8 210		19.74	0.207	4.09	6.13	209	78.7
1053	6.2 40		19.66	0.219	4.07	6.14	208	75.2
1055	6.6 210	0.5	19.22	0.164	3.87	6.17	203	70.1
1057	7.0		19.21	0.160	3.48	6.31	198	65.0
1059	7.5		19.21	0.173	3.60	6.29	197	52.5
1100	↓		19.22	0.142	3.34	6.25	197	52.9

SAMPLING DATA

SAMPLE DATE/TIME:	04-28-05/1100
DEPTH TO WATER AFTER PURGING:	8.1 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Purge water clear, slow to recover

PURGING/SAMPLING PERSONNEL: Andrew Brunton

CO_2 = 15 mg/L PO = 0

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	OB6MW-122
SITE NAME:	Icehouse of America
LOCATION:	Moultrie, GA
PROJECT NO.:	35789

PURGE START DATE/TIME: 04-28-05/0745		PURGE END DATE/TIME: 4-28-05 / 0817	
WEATHER CONDITIONS: Mostly cloudy 49°F		WELL CONDITION: Good	
WELL DEPTH: 15		TOTAL PURGE VOLUME:	1.7 gal.
SWL: 4.65		DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"		PUMP SETTING:	ft.
WELL VOLUME: 1.69 gal	6.40 L	PURGING DEVICE:	Peristaltic

CONVERSION FACTORS

1 in. Dia.	0.041 gal./ft.
2 in. Dia.	0.163 gal./ft.
4 in. Dia.	0.653 gal./ft.

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0745	4.75 250		18.29	0.078	3.61	6.11	172	22.8
0750	5.0 250		18.32	0.078	3.56	6.10	172	23.7
0807	5.0 250		18.35	0.078	3.52	6.10	173	23.8
0809	5.1	1 gal	18.30	0.077	3.50	6.03	174	36.2
0811	5.3		18.38	0.076	3.25	6.05	177	30.0
0815	5.4		18.40	0.076	3.24	6.08	177	29.5
0817	5.5		18.40	0.076	3.25	6.08	176	29.8

SAMPLING DATA

SAMPLE DATE/TIME:	04-27-05/0820
DEPTH TO WATER AFTER PURGING:	5.5' ft.
APPEARANCE:	Brownish
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Started purging water @ 745. Stopped at 0800. Data Logger's Battery was low. Put new batteries in, Restarted @ 0807. Purge water turbid color. (brownish)

PURGING/SAMPLING PERSONNEL: Andrew Brunton

CO_2 = 5mg/L Fe = 0

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: OBGMW-123
SITE NAME: Miller Monitrix
LOCATION: Moultrie, GA
PROJECT NO.: 35787

PURGE START DATE/TIME: 04-27-05/1420			PURGE END DATE/TIME: 04-27-05/1436		
WEATHER CONDITIONS: Sunny - 80s			WELL CONDITION: Good		
WELL DEPTH: 13'		CONVERSION FACTORS	TOTAL PURGE VOLUME:	1.5	gal.
SWL: 4.70		1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER: 2"		2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME: ~~1.35~~ L	5.13 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1420	4.9 210							
1425	5.0 210		22.05	0.194	1.37	7.40	80	123
1430	5.4 300	0.5	20.79	0.169	0.43	6.46	77	118
1432	6.7 "		20.14	0.162	0.36	6.42	76	95.2
1434	5.8 "		20.09	0.159	0.36	6.35	76	77.7
1436	6.9 300		20.10	0.162	0.41	6.27	76	66.0

SAMPLING DATA

SAMPLE DATE/TIME:	04-27-05/1438
DEPTH TO WATER AFTER PURGING:	6.0 ft.
APPEARANCE:	Murky - Turbid
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Purge water is turbid

PURGING/SAMPLING PERSONNEL: Andrew Brunton

CO_2 = 18 mg/L Fe = ~~18~~ 4.7 mg/L

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: OBGMW-12A
SITE NAME: Miller Mountain
LOCATION: Moultrie, GA
PROJECT NO.: 35789

PURGE START DATE/TIME: 04-27-05/1215			PURGE END DATE/TIME: 04-27-05		
WEATHER CONDITIONS: Mostly Sunny 77°			WELL CONDITION: Good		
WELL DEPTH: 13.67'		CONVERSION FACTORS	TOTAL PURGE VOLUME:	1.3	gal.
SWL: 5.85		1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER: 2"		2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME: 1.275 gal	4.83 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1215	5.81 350		20.71	1.62	1.22	6.32	156	735
1220	6.1		20.57	1.49	1.50	6.37	137	69.8
1223	6.5		20.26	0.954	1.67	6.44	150	38.4
1225	7.3	1 gal	20.23	0.984	1.44	6.45	146	35.6
1227	7.6		20.23	1.062	1.11	6.45	141	31.0
1229	7.8		20.30	1.061	1.11	6.40	140	28.2

SAMPLING DATA

SAMPLE DATE/TIME:	04-27-05/1235
DEPTH TO WATER AFTER PURGING:	7.9 ft.
APPEARANCE:	Murky
SAMPLING DEVICE:	

PARAMETERS

- ☑ VOCs
- ☐ SVOCs
- ☑ OTHER
- ☐ Metals (U)
- ☐ Metals (F)
- ☐ PCBs

NOTES: Purged water had no odor. And was clear
Collected MS/MSD

PURGING/SAMPLING PERSONNEL: Andrew Brunton

CO_2 = 50 mg/L Fe = 1.8 mg/L

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2PP-1
SITE NAME:	Miller Mountain
LOCATION:	Moultrie, GA
PROJECT NO.:	35289

PURGE START DATE/TIME:	4-26-05/1355		PURGE END DATE/TIME:	04-26-05/1606	
WEATHER CONDITIONS:	Rainy ~60s		WELL CONDITION:	Poor	
WELL DEPTH:	12'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	0.275	gal.
SWL:	5.6	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	1"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	0.262 gal / 1L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1555	5.6 300							
1600	8.5 300		20.49	0.142	4.60	6.17	316	238
1602	9.5 300	0.12	20.54	0.141	4.40	6.08	319	220
1604	10.3		20.59	0.141	4.49	6.03	321	209
1606	11.0		20.72	0.141	4.75	5.93	325	165

SAMPLING DATA

SAMPLE DATE/TIME:	4-26-05/1610
DEPTH TO WATER AFTER PURGING:	11.0 ft.
APPEARANCE:	Murky
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Purge water never cleared up.

PURGING/SAMPLING PERSONNEL: Andrew Brunton

CO_2 = 12 mg/L, Fe = 0 mg/L

18

Appendix C2

Field Forms – October 2005

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE
ENGINEERS, INC.

WELL NO.:	CH2 MW-1
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME: 10/25/05		PURGE END DATE/TIME: 1016 10/25/05	
WEATHER CONDITIONS: SUNNY 50°F		WELL CONDITION: GOOD	
WELL DEPTH: 10'	CONVERSION FACTORS	TOTAL PURGE VOLUME: 560 mL	
SWL: 8.2	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 1"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME: 0.07 gal ~ 280 mL	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1009	8.2 80	0	15.29	0.087	7.23	6.37	150	55.3
1010	80	80	18.59	0.126	4.60	5.55	158	52.8
1011	80	160	19.27	0.187	4.12	5.08	163	52.1
1012	8.8 80	240	19.44	0.127	3.98	4.93	168	47.5
1013	80	320	19.60	0.127	3.83	4.73	170	45.5
1014	80	400	19.75	0.128	3.78	4.71	173	40.5
1015	9.02 80	480	20.03	0.128	3.55	4.59	175	36.3
1016	9.05 80	560	20.35	0.128	3.44	4.52	179	30.6

SAMPLING DATA

SAMPLE DATE/TIME: 1018		PARAMETERS			
DEPTH TO WATER AFTER PURGING: 9.05 ft.		☒	VOCs	☐	Metals (U)
APPEARANCE: CLEAR		☐	SVOCs	☐	Metals (F)
SAMPLING DEVICE:		☐	OTHER	☐	PCBs

NOTES: PUMPING AT LOW RATE - WELL VOLUME ONLY 280 mL

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: CHa mw-1A
SITE NAME: Miller Brewing
LOCATION: Moultrie, Georgia
PROJECT NO.: 35789

PURGE START DATE/TIME:		PURGE END DATE/TIME: 1138 10/26/05	
WEATHER CONDITIONS: SUNNY - LIGHT BREEZE		WELL CONDITION: GOOD	
WELL DEPTH: 15'	CONVERSION FACTORS	TOTAL PURGE VOLUME: 0.25	gal.
SWL: 13.5	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME: 0.25 gals	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1129	13.5 / 150	0	23.20	0.109	2.42	5.56	184	195
1130	/ 150		23.45	0.114	1.64	5.47	180	173
1131	13.93 / 150		23.68	0.112	1.12	5.46	172	161
1132	/ 150		23.75	0.108	1.14	5.44	170	582
1134	14.49 / 150		23.98	0.095	1.20	5.30	178	246
1136	/ 150		24.00	0.089	1.15	5.27	184	153
1138	/	0.25	23.99	0.088	1.12	5.33	186	155
		WELL IS DRY - WILL ALLOW TO RECOVER						
10/27/05 0745	13.1	SAMPLE - COLLECT VOCs/mEE/NO3/Cl/SO4						
1040		- ½ BOTTLE TOC						
1150		- TOC ¾ FULL - STOP SAMPLING						

SAMPLING DATA

SAMPLE DATE/TIME:	10/27/05 0745
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	TURBID
SAMPLING DEVICE:	

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER MNA	☐	PCBs

NOTES: Pump set @ lowest rate
FE = 2.87
CO_2 = 70

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2mw2
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME:	10/25/05		PURGE END DATE/TIME:	1617	10/25/05
WEATHER CONDITIONS:	SUNNY/WINDY 66°F		WELL CONDITION:	GOOD	
WELL DEPTH:	13.5	CONVERSION FACTORS	TOTAL PURGE VOLUME:	0.85	gal.
SWL:	8.52	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	0.82 gal	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1557	8.52 200	0	25.33	0.209	3.70	6.62	201	44.3
1559	8.92 175		24.97	0.207	2.01	5.26	219	33.3
1602	9.04 175	0.25	25.01	0.209	1.90	4.88	229	19.7
1605	9.50 175		25.02	0.208	1.83	4.66	230	21.6
1608	175	0.5	25.08	0.210	1.47	4.55	235	144
1611	10.21 175		25.06	0.209	1.94	4.48	235	140
1614	175	0.75	24.86	0.209	1.87	4.46	234	147
1617	10.81 175	0.85	24.79	0.206	1.86	4.41	234	130

SAMPLING DATA

SAMPLE DATE/TIME:	1620
DEPTH TO WATER AFTER PURGING:	11.08 ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: TURBIDITY JUMP - NOTHING MOVED OR CHANGED - HARD TO TELL IF 144 IS CORRECT
- TURBIDITY OBSERVED IN PURGE BUCKET

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CHDmw-3
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME:	10/26/05	PURGE END DATE/TIME:	0911 10/26/05
WEATHER CONDITIONS:	SUNNY 46°F	WELL CONDITION:	GOOD
WELL DEPTH:	13'	CONVERSION FACTORS	TOTAL PURGE VOLUME: 0.75 gal.
SWL:	8.2	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN: ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING: ft.
WELL VOLUME:	0.78 gal ~3 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE: Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0850	8.2 / 175	0	20.28	0.149	3.93	7.54	136	96.2
0853	8.6 / 175	0	22.80	0.145	1.90	5.56	150	102
0856	/ 175		23.21	0.131	1.87	5.01	165	36.2
0859	/ 175		23.58	0.117	1.84	4.62	176	2.1
0902	10.2 / 175	0.5	23.60	0.110	1.88	4.56	182	0
0905	/ 175		23.64	0.108	1.88	4.57	184	0
0908	/ 175		23.78	0.106	1.82	4.56	185	15.4
0911	11.2 / 175	0.75	23.80	0.106	1.83	4.57	187	17.8

SAMPLING DATA

SAMPLE DATE/TIME:	0915			PARAMETERS	
DEPTH TO WATER AFTER PURGING:	11.2 ft.	☒	VOCs	☐	Metals (U)
APPEARANCE:	CLEAR	☐	SVOCs	☐	Metals (F)
SAMPLING DEVICE:		☒	OTHER - MNA	☐	PCBs

NOTES: FE = 0.31 mg/L
CO_2 = 50 mg/L

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2 MW-4D
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME: 10/25/05		PURGE END DATE/TIME: 10/25/05 1525	
WEATHER CONDITIONS: SUNNY - WINDY 62°F		WELL CONDITION: GOOD	
WELL DEPTH: 45.93	CONVERSION FACTORS	TOTAL PURGE VOLUME: 4.5	gal.
SWL: 18.94	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME: 4.4 gal	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1359	18.94 175	0	24.66	0.068	5.93	5.94	175	391
1401	19.93 200		24.09	0.066	5.65	5.79	189	15.6
1403	200	0.25	23.66	0.065	5.76	5.93	189	11.9
1405	200		23.81	0.066	5.68	6.03	187	10.1
1410	22.01 200		23.66	0.066	5.75	6.31	181	9.7
1415	200		23.73	0.067	5.50	6.67	177	10.1
1420	23.88 200		23.65	0.067	5.42	6.77	174	9.1
1425	200	1.5	23.23	0.067	5.36	6.94	175	7.6
1430	25.51 200		23.19	0.067	5.38	7.10	174	7.1
1435	200		23.33	0.068	5.29	7.22	171	7.1
1440	26.78 200	2.25	23.43	0.069	5.06	7.26	171	7.7
1445	200		23.46	0.069	5.04	7.31	171	8.6
1450	27.27 200		23.61	0.069	5.03	7.33	171	6.4
1455	200		23.40	0.070	4.97	7.40	171	9.7
1500	28.04 200	3.25	23.33	0.069	4.98	7.48	170	10.3
1505	200		23.42	0.068	5.03	7.52	171	5.4
1510	28.80 200		23.35	0.068	5.29	7.56	172	3.5
1515	200		23.33	0.069	5.16	7.58	172	4.5
1520	29.33 200	4.25	23.40	0.068	5.09	7.62	172	5.5
1525	29.53 200	4.5	23.39	0.067	5.16	7.66	172	5.6

SAMPLING DATA

SAMPLE DATE/TIME:	1528
DEPTH TO WATER AFTER PURGING:	29.53 ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: CLEAR DISCHARGE

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	Chamw-5
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME:	10/26/05	PURGE END DATE/TIME:	1034 10/26/05
WEATHER CONDITIONS:	SUNNY 55°F	WELL CONDITION:	GOOD
WELL DEPTH:	15	TOTAL PURGE VOLUME:	0.6 gal.
SWL:	9.78	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	2"	PUMP SETTING:	ft.
WELL VOLUME:	0.50	PURGING DEVICE:	Peristaltic

CONVERSION FACTORS	
1 in. Dia.	0.041 gal./ft.
2 in. Dia.	0.163 gal./ft.
4 in. Dia.	0.653 gal./ft.

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1016	9.78 / 120	0	20.50	0.106	3.11	5.35	183	304
1019	/ 120		21.77	0.108	1.69	5.60	174	280
1022	10.01 / 120	0.25	21.99	0.109	1.56	5.57	176	400
1025	/ 120		22.45	0.103	1.79	5.55	180	916
1028	/ 120		22.64	0.101	1.78	5.51	185	1010
1031	/ 120	0.5	22.51	0.100	1.74	5.49	184	723
1034	10.31 / 120	0.6	22.40	0.100	1.77	5.51	184	564

SAMPLING DATA

SAMPLE DATE/TIME:	1040
DEPTH TO WATER AFTER PURGING:	10.97 ft.
APPEARANCE:	CLOUDY / SANDY
SAMPLING DEVICE:	

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER MNA	☐	PCBs

NOTES: FE = 2.20 mg/L
SAND IN DISCHARGE
CO_2 = 40
DUP-02-102605 COLLECTED

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETC MW-113
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME:	10/26/05 1625	PURGE END DATE/TIME:	1647 10/26/05
WEATHER CONDITIONS:	Sunny 70° F	WELL CONDITION:	Good
WELL DEPTH:	12'	TOTAL PURGE VOLUME:	3.15 gal.
SWL:	7.03	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	2"	PUMP SETTING:	ft.
WELL VOLUME:	0.82 ~ 3.1L	PURGING DEVICE:	Peristaltic

CONVERSION FACTORS	
1 in. Dia.	0.041 gal./ft.
2 in. Dia.	0.163 gal./ft.
4 in. Dia.	0.653 gal./ft.

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ L	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1625	7.03 125	0	22.21	0.215	3.95	6.28	195	38.2
1627	150		22.87	0.247	1.75	5.98	193	27.8
1629	8.17 150		22.80	0.229	1.76	5.90	195	47.2
1631	150		23.05	0.221	1.80	5.87	196	95.5
1633	150	1L	23.04	0.218	1.73	5.85	197	119
1635	8.8 150		23.25	0.227	1.52	5.86	197	137
1637	150		23.25	0.229	1.30	5.84	197	180
1639	9.4 150	2L	22.94	0.232	1.24	5.81	197	158
1641	150		23.21	0.259	1.29	5.89	197	188
1643	150		23.37	0.255	1.06	5.93	195	205
1645	10.15 150	3L	23.36	0.307	1.29	6.03	194	274
1647	10.4 150	3.15 L	23.34	0.352	1.27	6.21	192	310

SAMPLING DATA

SAMPLE DATE/TIME:	1650
DEPTH TO WATER AFTER PURGING:	10.4 ft.
APPEARANCE:	Turbid - Light Brown
SAMPLING DEVICE:	

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Light Brown Discharge
Well Depth w/Water Level Meter = 11.2'

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE
ENGINEERS, INC.

WELL NO.:	ETCMW-11Y
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME: 10/27/05 0845		PURGE END DATE/TIME: 0948 10/27/05	
WEATHER CONDITIONS: SUNNY 44°F		WELL CONDITION: GOOD	
WELL DEPTH: 15' - MEASURED WITH WLM	CONVERSION FACTORS	TOTAL PURGE VOLUME: 4.5	gal.
SWL: 8.10	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 4"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME: 4.5 gal	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0845	8.10 250	0	19.88	0.346	3.61	6.20	161	156
0848	8.3 250		21.85	0.343	2.57	6.30	156	153
0850	250	0.75	21.90	0.343	2.37	6.32	156	120
0855	250	0.75	22.21	0.344	2.10	6.41	158	42.2
0900	8.72 250	1.0	22.41	0.343	2.04	6.45	158	32.8
0905	250	1.25	22.53	0.343	2.02	6.45	159	19.6
0910	250	1.75	22.57	0.343	1.98	6.46	160	16.1
0915	9.22 250	2	22.56	0.343	1.87	6.47	160	10.9
0920	250		22.59	0.343	1.81	6.48	161	9.7
0925	9.6 250	3	22.61	0.344	1.67	6.48	160	2.1
0930	250	3.25	22.68	0.343	1.58	6.48	160	1.4
0935	250	3.5	22.71	0.342	1.48	6.47	160	0
0940	10.05 250	4	22.76	0.342	1.37	6.45	160	1.4
0945	250		22.84	0.342	1.31	6.47	160	0
0948	10.17 250	4.5	22.88	0.342	1.31	6.46	160	0

SAMPLING DATA

SAMPLE DATE/TIME: 0955 10/27/05		PARAMETERS		
DEPTH TO WATER AFTER PURGING: 10.17 ft.	☒	VOCs	☐	Metals (U)
APPEARANCE: CLEAR	☐	SVOCs	☐	Metals (F)
SAMPLING DEVICE:	☒	OTHER MNA	☐	PCBs

NOTES: WELL DEPTH MEASURED AT 15' WITH WATER LEVEL PROBE
CO_2 = 30
FE = 0.19 mg/L

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	FH2 MW-11D
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME:	10/26/05		PURGE END DATE/TIME:	1314 10/26/05	
WEATHER CONDITIONS:	Sunny 70°F		WELL CONDITION:	Good	
WELL DEPTH:	22.5	CONVERSION FACTORS	TOTAL PURGE VOLUME:	0.5	gal.
SWL:	9.72	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	1"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	0.53 gal ~2L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1300	9.72 150	0	20.87	4.58	3.24	5.99	27	246
1302	150		21.14	4.65	1.28	6.08	-58	219
1304	14.60 150		21.33	4.64	0.91	6.07	-82	179
1306	150		21.31	4.66	0.73	6.06	-94	157
1308	150		21.27	4.65	0.64	6.05	-91	151
1310	18.60 150		21.23	4.65	0.60	6.07	-85	126
1312	150		21.22	4.64	0.55	6.07	-81	120
1314	20.5 150	0.5	21.06	4.65	0.51	6.08	-76	110
1340		WELL IS DRY 4 BOTTLES LEFT TO FILL ABLE TO GET ALKALINITY - STILL NEED TOC/DOC/FE-MN						
10/27/05 0815	20.15	COLLECT FE-MN/TOC/DOC						

SAMPLING DATA

SAMPLE DATE/TIME:	13:25 10/26/05	PARAMETERS			
DEPTH TO WATER AFTER PURGING:	ft.	☒	VOCs	☐	Metals (U)
APPEARANCE:		☐	SVOCs	☐	Metals (F)
SAMPLING DEVICE:		☒	OTHER MNA	☐	PCBs

NOTES: ODOR OBSERVED - LIGHT BROWN DISCHARGE
FE = 2.00
CO_2 > 100 WILL DILUTE
5/25 ML DILUTION WITH DISTILLED : 70(5) = 350

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: ETCMW-115
SITE NAME: Miller Brewing
LOCATION: Moultrie, Georgia
PROJECT NO.: 35789

PURGE START DATE/TIME: 10/25/05 0730		PURGE END DATE/TIME: 10/25/05 0754	
WEATHER CONDITIONS: 46°F WINDY CLEAR		WELL CONDITION: GOOD	
WELL DEPTH: 11.5	CONVERSION FACTORS	TOTAL PURGE VOLUME: 0.8	gal.
SWL: 6.98	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME: 0.73	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0730	6.98	0						
0733			20.06	0.216	3.84	6.37	163	30.1
0736	7.33		21.44	0.206	1.40	5.86	119	20.4
0739			21.78	0.203	0.95	5.81	94	18.2
0742	7.59		21.95	0.201	0.75	5.81	83	17.4
0745		0.5	22.10	0.199	0.66	5.82	77	16.1
0748	7.80		22.40	0.189	0.67	5.84	78	16.0
0751			22.43	0.174	0.61	5.83	83	14.9
0754	7.99	0.8	22.58	0.174	0.54	5.82	84	13.6

SAMPLING DATA

SAMPLE DATE/TIME: 0755 10/25/05		PARAMETERS		
DEPTH TO WATER AFTER PURGING: 7.99 ft.	☒	VOCs	☐	Metals (U)
APPEARANCE: CLEAR	☐	SVOCs	☐	Metals (F)
SAMPLING DEVICE:	☐	OTHER	☐	PCBs

NOTES: CLEAR PURGE WATER

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETmw-116
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME:	10/25/05	PURGE END DATE/TIME:	1219 10/25/05
WEATHER CONDITIONS:	Sunny 50°F	WELL CONDITION:	Good
WELL DEPTH:	11'	TOTAL PURGE VOLUME:	6.5 gal.
SWL:	1.85	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	4"	PUMP SETTING:	ft.
WELL VOLUME:	5.95 gal	PURGING DEVICE:	Peristaltic

CONVERSION FACTORS	
1 in. Dia.	0.041 gal./ft.
2 in. Dia.	0.163 gal./ft.
4 in. Dia.	0.653 gal./ft.

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1114	1.85 / 350	0	23.29	1.66	2.82	5.22	142	35.4
1119	2.50 / 350	0.5	23.72	1.68	0.58	5.09	130	25.9
1124	/ 350		23.52	1.68	0.44	5.07	124	21.3
1129	3.55 / 350	1.5	23.61	1.67	0.40	5.03	120	19.6
1134	/ 350		23.73	1.67	0.39	5.04	118	18.0
1139	4.52 / 350	2.5	23.66	1.66	0.39	5.08	116	18.9
1144	/ 350		23.62	1.63	0.42	5.06	113	18.8
1149	5.4 / 350	3.5	23.60	1.61	0.41	5.08	110	18.1
1154	/ 350		23.49	1.59	0.42	5.07	109	19.1
1159	/ 350	4.5	23.71	1.57	0.43	5.05	108	19.5
1204	6.66 / 350		23.84	1.57	0.43	5.05	108	18.4
1209	/ 350	5.5	23.81	1.55	0.43	5.01	113	20.3
1214	7.28 / 350		23.87	1.56	0.48	5.00	109	18.9
1219	/ 350	6.5	23.81	1.54	0.45	4.99	108	18.6

SAMPLING DATA

SAMPLE DATE/TIME:	1220
DEPTH TO WATER AFTER PURGING:	7.92 ft.
APPEARANCE:	Clear
SAMPLING DEVICE:	

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Odor observed

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETmw-117
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME:	10/25/05			PURGE END DATE/TIME:	1103 10/25/05
WEATHER CONDITIONS:	CLEAR 50°F			WELL CONDITION:	Good
WELL DEPTH:	11'	CONVERSION FACTORS		TOTAL PURGE VOLUME:	1.5 gal.
SWL:	2.73	1 in. Dia.	0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	2"	2 in. Dia.	0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	1.35 gal	4 in. Dia.	0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1039	2.73 200	0	23.38	0.174	3.16	5.23	168	12.5
1042	200		24.69	0.175	1.58	5.55	150	8.0
1045	200		25.56	0.171	1.13	5.55	145	3.0
1048	3.91 200	0.5	25.72	0.170	0.96	5.55	144	1.4
1051	200		26.08	0.168	1.02	5.56	143	0
1054	200		26.15	0.168	1.07	5.58	143	0
1057	4.87 200	1.0	26.05	0.165	1.07	5.58	144	0
1100	200		26.21	0.164	1.04	5.58	144	0
1103	5.56 200	1.4	26.20	0.163	1.05	5.60	144	0

SAMPLING DATA

SAMPLE DATE/TIME:	1105			PARAMETERS	
DEPTH TO WATER AFTER PURGING:	5.82 ft.	☒	VOCs	☐	Metals (U)
APPEARANCE:	CLEAR	☐	SVOCs	☐	Metals (F)
SAMPLING DEVICE:		☐	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-118
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME:	10/25/05 1235		PURGE END DATE/TIME:	1302	
WEATHER CONDITIONS:	Sunny - Windy 55°F		WELL CONDITION:	Good	
WELL DEPTH:	11	CONVERSION FACTORS	TOTAL PURGE VOLUME:	1.5	gal.
SWL:	3.42	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:	~ 1.4 gal	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1235	3.42 250	0	24.05	0.093	5.08	5.65	147	46.7
1238	4.42 200	0.25	24.66	0.089	1.24	5.53	148	32.7
1241	200		24.14	0.089	0.87	5.47	150	30.2
1244	200	0.5	24.15	0.088	0.76	5.42	151	26.6
1247	5.38 200		24.27	0.088	0.92	5.37	152	24.2
1250	200		24.26	0.088	0.71	5.34	154	29.5
1253	200	1.0	24.27	0.090	0.59	5.26	156	22.6
1256	200		24.45	0.090	0.55	5.14	157	21.7
1259	200		24.72	0.090	0.53	5.13	155	22.6
1302	6.99 200	1.5	24.86	0.089	0.46	5.10	155	23.8

SAMPLING DATA

SAMPLE DATE/TIME:	1305	PARAMETERS			
DEPTH TO WATER AFTER PURGING:	7.27 ft.	☒	VOCs	☐	Metals (U)
APPEARANCE:		☐	SVOCs	☐	Metals (F)
SAMPLING DEVICE:		☐	OTHER	☐	PCBs

NOTES: TAN / LIGHT BROWN PURGE WATER
WILL BUY 2 NEW BOLTS - ONE MISSING / ONE BENT - WELL COVER

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETmw-119
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME:	10/25/05 0830	PURGE END DATE/TIME:	0848 10/25/05
WEATHER CONDITIONS:		WELL CONDITION:	GOOD
WELL DEPTH:	11	TOTAL PURGE VOLUME:	0.5 gal.
SWL:	8.05	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	2	PUMP SETTING:	ft.
WELL VOLUME:	0.5 gal	PURGING DEVICE:	Peristaltic

CONVERSION FACTORS	
1 in. Dia.	0.041 gal./ft.
2 in. Dia.	0.163 gal./ft.
4 in. Dia.	0.653 gal./ft.

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0830	8.05 125	0						
0833	125		18.02	0.215	3.05	5.54	122	16.9
0836	8.56 125		19.38	0.209	1.59	5.61	112	11.8
0839	125	0.25	19.79	0.207	1.82	5.63	114	10.8
0842	8.88 125		20.13	0.206	1.92	5.65	114	9.9
0845	125		20.59	0.202	1.51	5.64	115	12.7
0848	9.03 125	0.5	20.86	0.203	1.34	5.64	115	13.5

SAMPLING DATA

SAMPLE DATE/TIME:	0850
DEPTH TO WATER AFTER PURGING:	9.95 ft.
APPEARANCE:	CLEAR
SAMPLING DEVICE:	

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: DUP-01-102505 COLLECTED
MS/MSD COLLECTED

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-130
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME: 10/25/05		PURGE END DATE/TIME: 0819 10/25/05	
WEATHER CONDITIONS: CLEAR 50°F		WELL CONDITION: GOOD	
WELL DEPTH: 11'	CONVERSION FACTORS	TOTAL PURGE VOLUME: 0.40	gal.
SWL: 9.45	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2'	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME: 0.25 gal	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0807	9.45 / 100	0						
0809	/ 100		19.06	0.101	2.41	5.60	103	89.9
0811	9.81 / 100		19.78	0.101	1.94	5.49	97	81.2
0813	/ 100		20.35	0.099	1.34	5.42	93	68.9
0815	10.01 / 100		20.72	0.097	0.88	5.39	92	62.2
0817	/ 100		20.87	0.097	0.69	5.36	92	59.2
0819	10.35 / 100		20.88	0.097	0.67	5.36	92	58.5

SAMPLING DATA

SAMPLE DATE/TIME: 0820 10/25/05		PARAMETERS			
DEPTH TO WATER AFTER PURGING: 10.35 ft.	☒	VOCs	☐	Metals (U)	
APPEARANCE: CLEAN	☐	SVOCs	☐	Metals (F)	
SAMPLING DEVICE:	☐	OTHER	☐	PCBs	

NOTES: SLIGHTLY TURBID

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETmw-1R1
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME: 10/26/05		PURGE END DATE/TIME: 1221 10/26/05	
WEATHER CONDITIONS: SUNNY 65°F		WELL CONDITION: GOOD	
WELL DEPTH: ~~14~~ 13.9	CONVERSION FACTORS	TOTAL PURGE VOLUME: 0.35	gal.
SWL: 11.82	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME: 0.34gal ≈ 1.3 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1210	11.82 150	0	23.97	0.068	5.07	5.90	189	134
1211	12.11 150		23.56	0.103	2.51	5.70	197	102
1213	150		23.62	0.101	2.22	5.67	196	63.5
1215	150		23.69	0.101	1.51	5.61	194	37.5
1217	12.57 150	0.25	23.62	0101	1.21	5.61	191	38.5
1219	150		23.58	0.104	1.12	5.62	189	38.6
1221	12.8 150	0.35	23.60	0.116	1.00	5.94	176	38.4
1238		WELL MUST DRY WITH METALS & ALKALINITY BOTTLES YET TO BE FILLED						
		WILL ALLOW TO RECOVER & COME BACK						
1345		COLLECT FE/MN AND SHIP WITH OTHER BOTTLES						
10/27/05 0755	13.2	COLLECT ALKALINITY						

SAMPLING DATA

SAMPLE DATE/TIME: 1230 10/26/05			PARAMETERS		
DEPTH TO WATER AFTER PURGING: 12.8 ft.	☒	VOCs	☐	Metals (U)	
APPEARANCE: CLEAR	☐	SVOCs	☐	Metals (F)	
SAMPLING DEVICE:	☒	OTHER MNA	☐	PCBs	

NOTES: WELL DEPTH MEASURED USING WLM = 13.9' CASING ELEVATION ~ 2.4' ABOVE GROUND SURFACE
PUMP @ LOWEST RATE
CO_2 = 35
FE = 0.39

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: OBGmw-12
SITE NAME: Miller Brewing
LOCATION: Moultrie, Georgia
PROJECT NO.: 35789

PURGE START DATE/TIME: 10/25/05		PURGE END DATE/TIME: 0938 10/25/05	
WEATHER CONDITIONS: Sunny 50°F		WELL CONDITION: Good	
WELL DEPTH: 15'	CONVERSION FACTORS	TOTAL PURGE VOLUME: 0.75	gal.
SWL: 10.60	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME: 0.72 gal ~3L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0922	10.60 / 125	0						
0923	/ 125		20.44	0.793	5.23	6.24	127	9.9
0926	10.77 / 200	0.5L	21.07	0.398	1.93	6.44	114	7.7
0929	/ 200	1.1L	22.16	0.391	1.06	6.51	105	9.4
0932	/ 200	1.7L	22.30	0.352	0.75	6.52	102	7.6
0935	11.10 / 200	2.3L	22.36	0.250	0.64	6.51	102	5.2
0938	11.27 / 200	2.9L	22.45	0.183	0.77	6.38	106	4.1

SAMPLING DATA

SAMPLE DATE/TIME: 10/25/05 0940			PARAMETERS		
DEPTH TO WATER AFTER PURGING: 11.28 ft.	☒	VOCs	☐	Metals (U)	
APPEARANCE: Clear	☐	SVOCs	☐	Metals (F)	
SAMPLING DEVICE:	☐	OTHER	☐	PCBs	

NOTES: Clear discharge

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	036 mw-123
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME: 10/25/05		PURGE END DATE/TIME: 1657 10/25/05	
WEATHER CONDITIONS: SUNNY - WINDY 66°F		WELL CONDITION: SEE BELOW	
WELL DEPTH: 13'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	gal.
SWL: 9.32	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME: 0.6 gal ~2.3L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1637	9.32 150	0	24.77	0.099	2.96	5.42	188	411
1639	150		24.35	0.094	1.33	5.26	165	223
1641	150		24.35	0.091	1.00	5.24	163	182
1643	9.68 150		24.39	0.089	0.99	5.23	164	164
1645	150	0.25	24.46	0.089	0.87	5.22	153	136
1647	9.82 150		24.54	0.091	0.71	5.25	138	128
1649	150		24.49	0.091	0.64	5.25	131	120
1651	150		24.57	0.090	0.60	5.25	128	112
1653	10.07 150	0.5	24.56	0.089	0.57	5.22	126	108
1655	150		24.57	0.091	0.56	5.24	119	104
1657	10.28 150	0.6	24.64	0.092	0.52	5.25	115	101

SAMPLING DATA

SAMPLE DATE/TIME: 1700		PARAMETERS			
DEPTH TO WATER AFTER PURGING: 10.37 ft.	☐	VOCs	☐	Metals (U)	
APPEARANCE:	☐	SVOCs	☐	Metals (F)	
SAMPLING DEVICE:	☐	OTHER	☐	PCBs	

NOTES: WELL CONDITION - POOR - PAD IS ANGLED (LIKELY HIT BY MOWER) - ANT HILL ADJACENT & ON PAD - ANTS ALSO OBSERVED IN ANNULUS

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	036MW-104
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME: 10/26/05		PURGE END DATE/TIME: 0756 10/26/05	
WEATHER CONDITIONS: Dark - Clear 38°F		WELL CONDITION: Good	
WELL DEPTH: 13.67	CONVERSION FACTORS	TOTAL PURGE VOLUME: 0.75	gal.
SWL: 10.2	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME: 0.60 gal ~2.2L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0730	10.2 / 160	0	18.68	1.50	5.63	6.15	159	0
0732	10.3 / 100		20.53	1.73	1.44	6.42	124	0
0734	/ 100		20.68	1.74	1.42	6.44	113	0
0736	/ 100		21.16	1.92	1.08	6.55	95	0
0738	10.6 / 100		21.36	1.68	1.03	6.58	97	0
0740	/ 100		21.58	1.53	0.91	6.68	105	0
0744	/ 100		21.75	1.305	0.74	6.80	109	1.3
0748	11.2 / 100	0.5	21.74	1.276	0.74	6.82	107	0
0752	/ 100		21.84	1.264	0.68	6.83	94	0
0756	11.8 / 100	0.75	21.83	1.314	0.63	6.82	98	0

SAMPLING DATA

SAMPLE DATE/TIME: 0800 10/26/05			PARAMETERS		
DEPTH TO WATER AFTER PURGING: 11.8 ft.	☒	VOCs	☐	Metals (U)	
APPEARANCE: Clear	☐	SVOCs	☐	Metals (F)	
SAMPLING DEVICE:	☒	OTHER MNA	☐	PCBs	

NOTES: Fe = 1.72 mg/L
CO_2 = 70 mg/L

PURGING/SAMPLING PERSONNEL: Todd Thomas

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-1
SITE NAME:	Miller Brewing
LOCATION:	Moultrie, Georgia
PROJECT NO.:	35789

PURGE START DATE/TIME:	10/25/05			PURGE END DATE/TIME:	1344 10/25/05
WEATHER CONDITIONS:	WINDY SUNNY 60°F			WELL CONDITION:	POOR - SEE BELOW
WELL DEPTH:	12	CONVERSION FACTORS		TOTAL PURGE VOLUME:	gal.
SWL:	9.43	1 in. Dia.	0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	1'	2 in. Dia.	0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	0.11 gal ~ 400 mL	4 in. Dia.	0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1339	9.43 100	0	27.51	0.118	6.03	5.65	180	151
1340	10.92 100	100	26.22	0.112	3.91	5.25	199	122
1341	11.6 100	200	26.33	0.111	3.43	5.11	206	102
1342	11.81 100	300	26.17	0.109	3.33	5.06	206	106
1343	12.2 100	400	25.93	0.109	3.26	5.02	208	113
1344	12.35 100	500	25.77	0.108	3.19	5.01	207	125
		WELL IS DRY - WILL ALLOW TO RECOVER BEFORE SAMPLING						
1538		WATER LEVEL = 11.08 - WILL SAMPLE 10/26 AM						
10/26/05 0950		SAMPLED FOR VOCS						

SAMPLING DATA

SAMPLE DATE/TIME:	10/26/05 0950	PARAMETERS			
DEPTH TO WATER AFTER PURGING:	ft.	☒	VOCs	☐	Metals (U)
APPEARANCE:	CLEAR - CLOUDY @ 1344	☐	SVOCs	☐	Metals (F)
SAMPLING DEVICE:		☐	OTHER	☐	PCBs

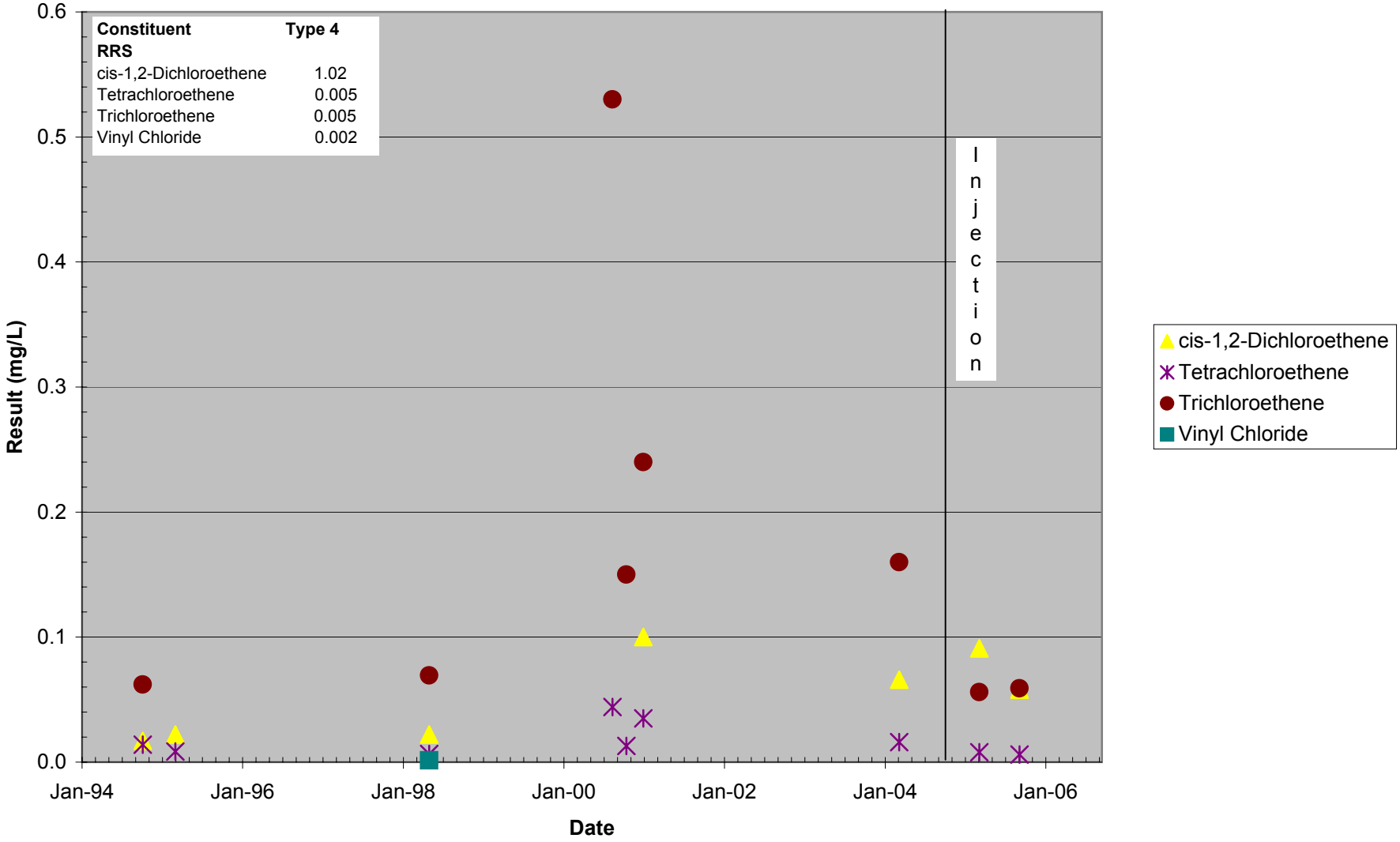
NOTES: 12.8 = DEPTH OF WELL OBSERVED - NOT 12.0 WELL IN POOR CONDITION
DISCHARGE CLOUDY AS WELL WENT DRY
ALLOWED TO RECOVER UNTIL
CONCRETE CAP ABOVE GROUND SURFACE - WELL NOT SECURED TO GROUND SURFACE

PURGING/SAMPLING PERSONNEL: Todd Thomas

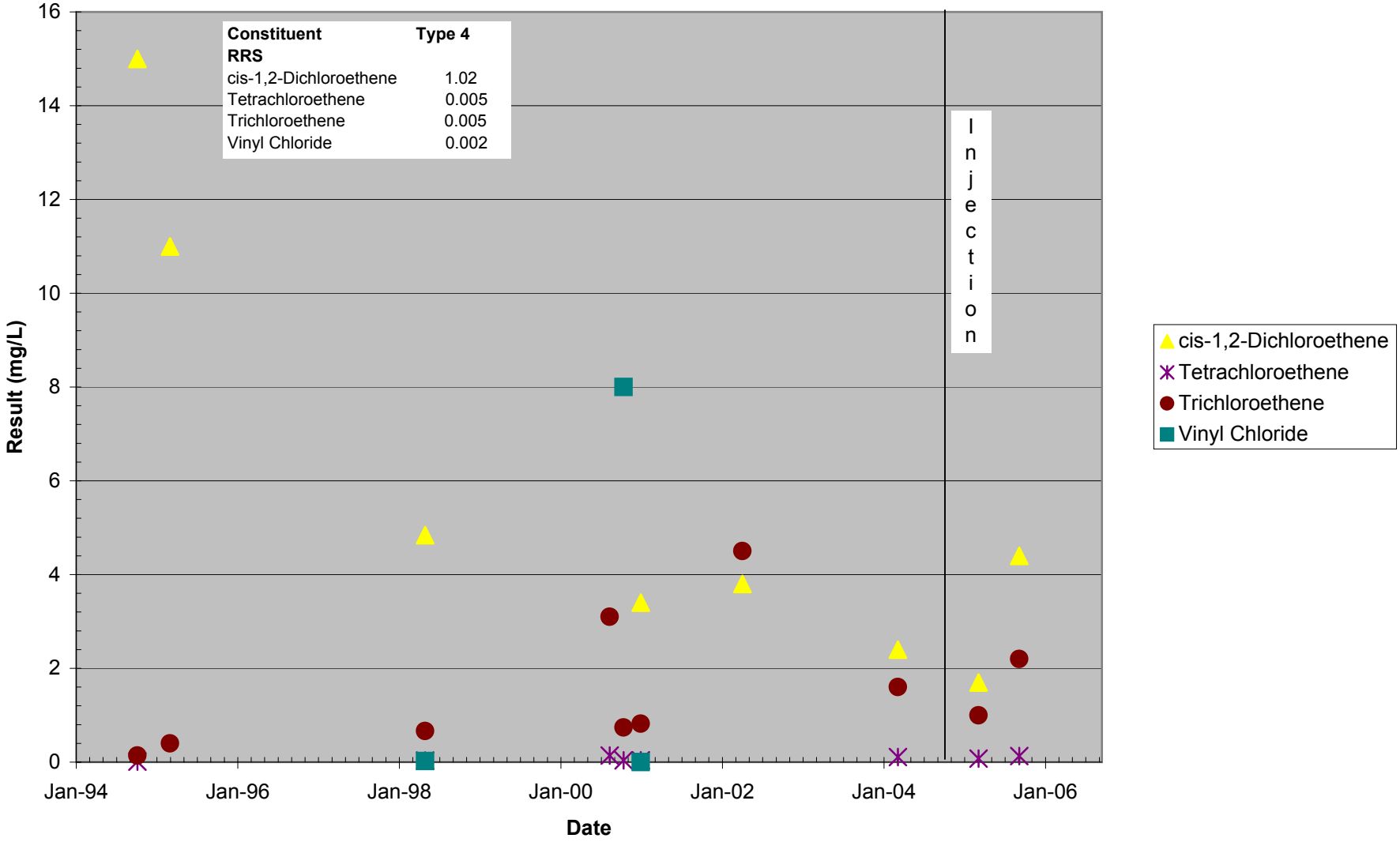
Appendix D

Concentration vs. Time Graphs for Selected Target Analytes

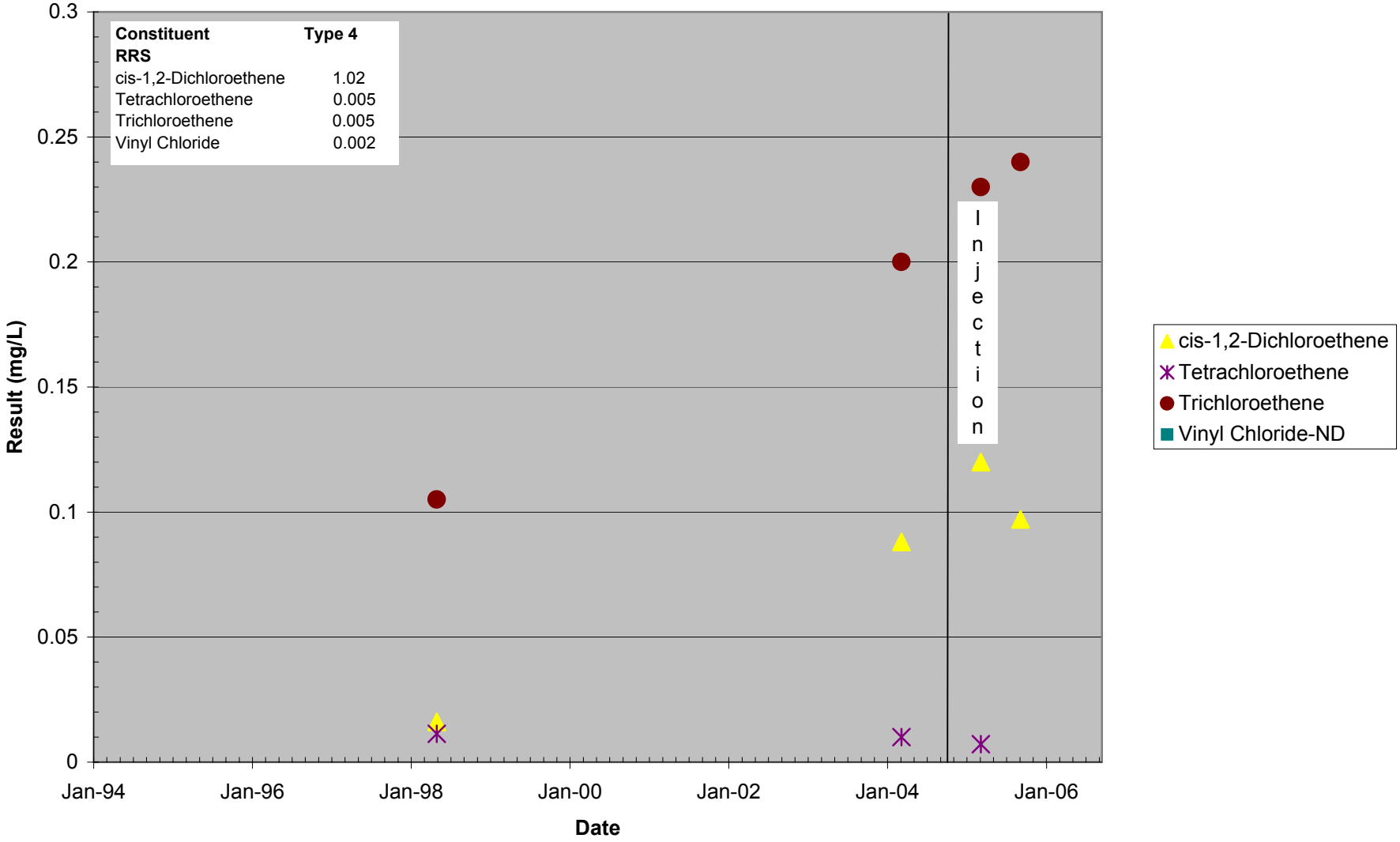
ETCMW-113


Constituent
Type 4 RRS
cis-1,2-Dichloroethene 1.02
Tetrachloroethene 0.005
Trichloroethene 0.005
Vinyl Chloride 0.002
Injection
Result (mg/L)
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Date
cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene
Vinyl Chloride

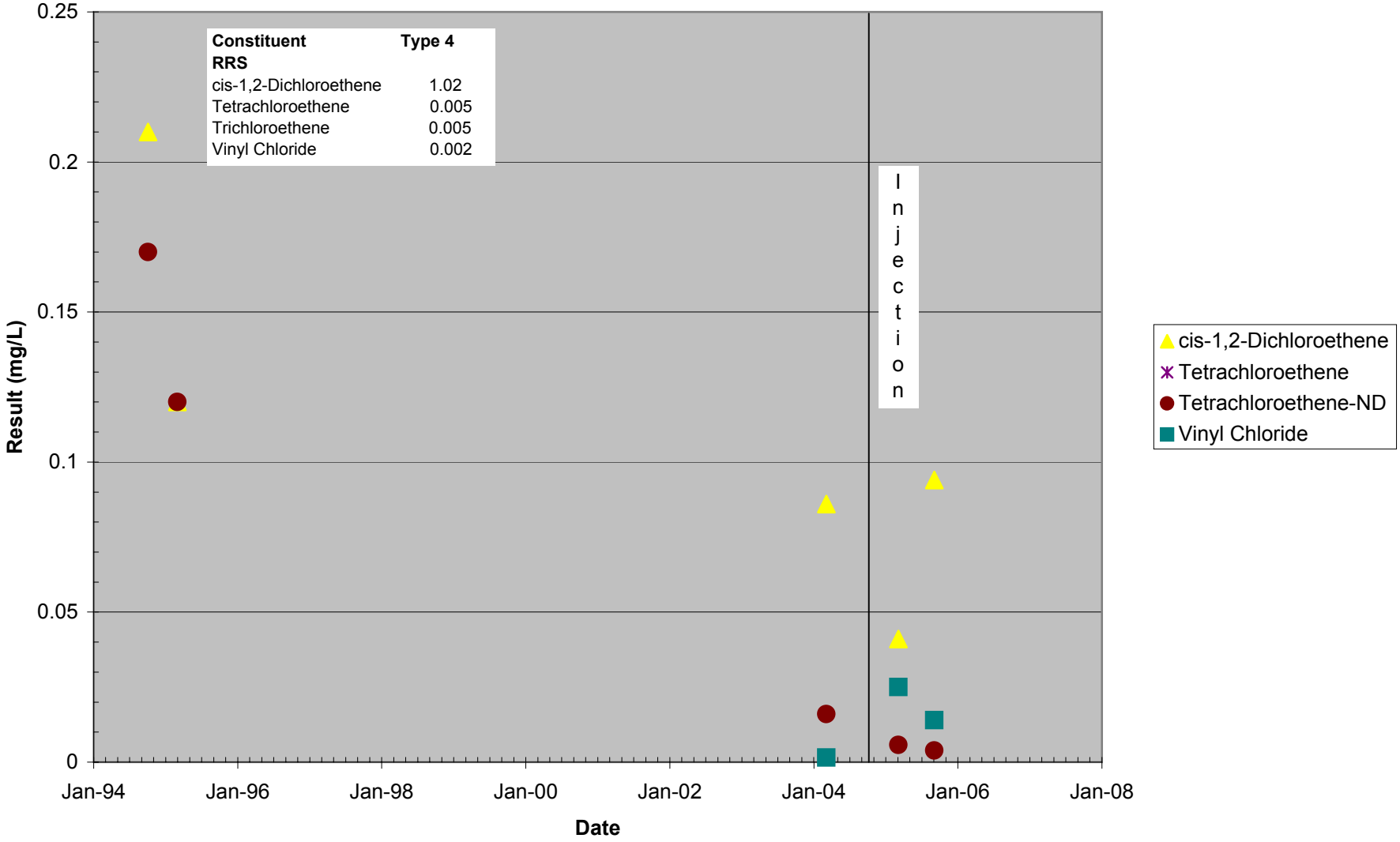
ETCMW-114


Constituent
Type 4
RRS
cis-1,2-Dichloroethene 1.02
Tetrachloroethene 0.005
Trichloroethene 0.005
Vinyl Chloride 0.002
Injection
Result (mg/L)
Date
0
2
4
6
8
10
12
14
16
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene
Vinyl Chloride

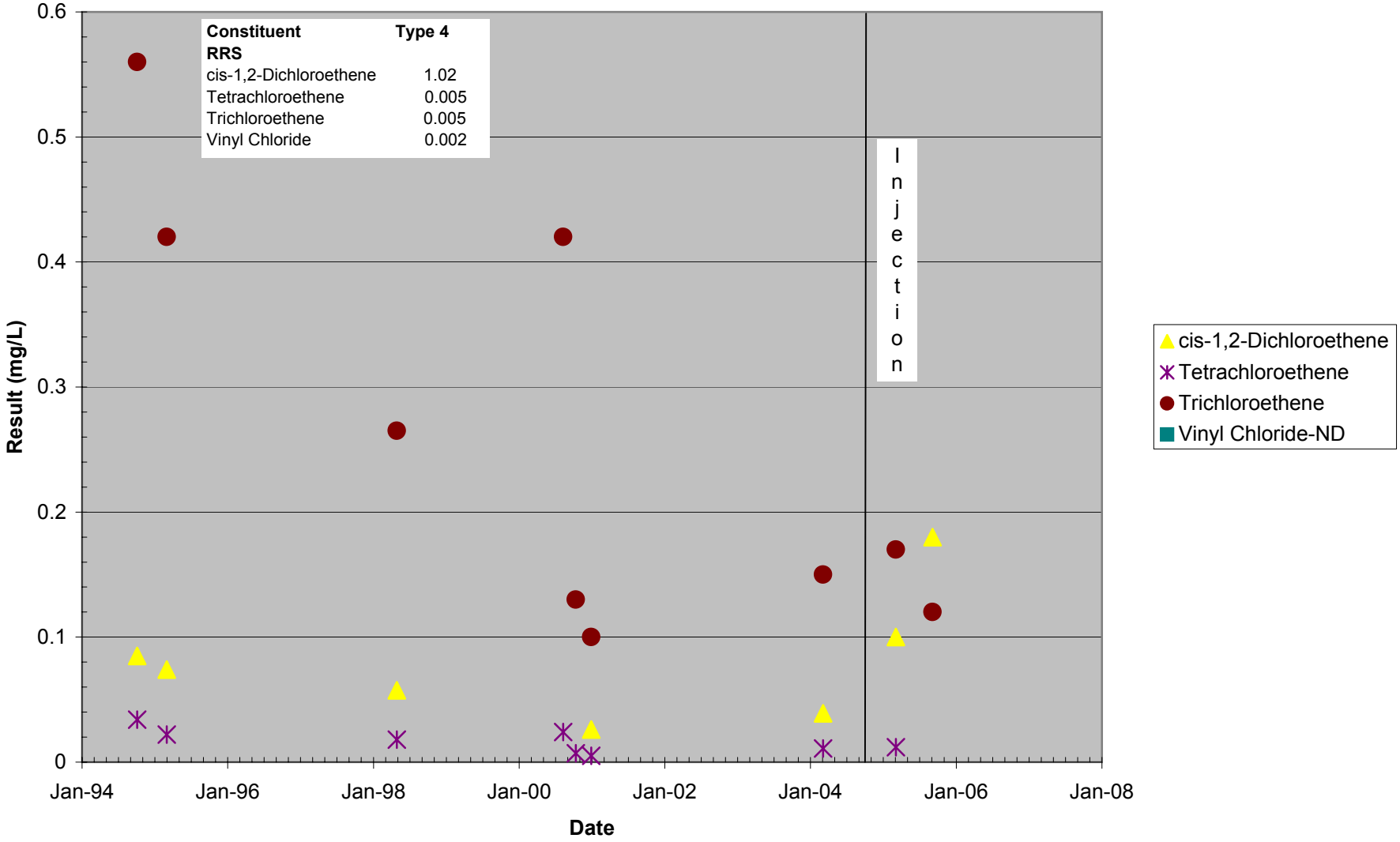
CH2MW-114D


Constituent
Type 4
RRS
cis-1,2-Dichloroethene 1.02
Tetrachloroethene 0.005
Trichloroethene 0.005
Vinyl Chloride 0.002
Injection
Result (mg/L)
0.3
0.25
0.2
0.15
0.1
0.05
0
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Date
cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene
Vinyl Chloride-ND

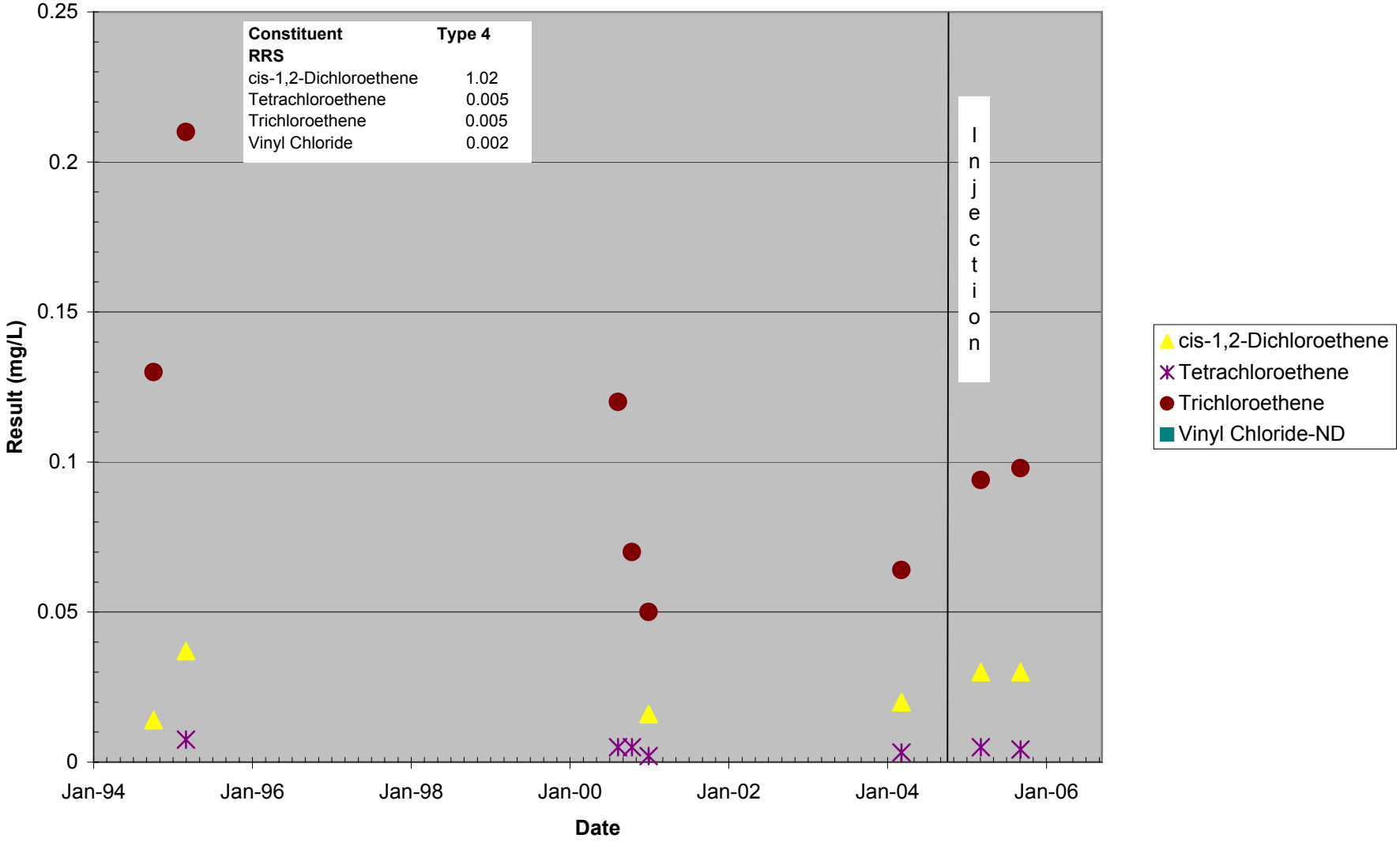
ETCMW-115


Constituent
RRS
Type 4
cis-1,2-Dichloroethene 1.02
Tetrachloroethene 0.005
Trichloroethene 0.005
Vinyl Chloride 0.002
Injection
Result (mg/L)
0.25
0.2
0.15
0.1
0.05
0
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Jan-08
Date
cis-1,2-Dichloroethene
Tetrachloroethene
Tetrachloroethene-ND
Vinyl Chloride

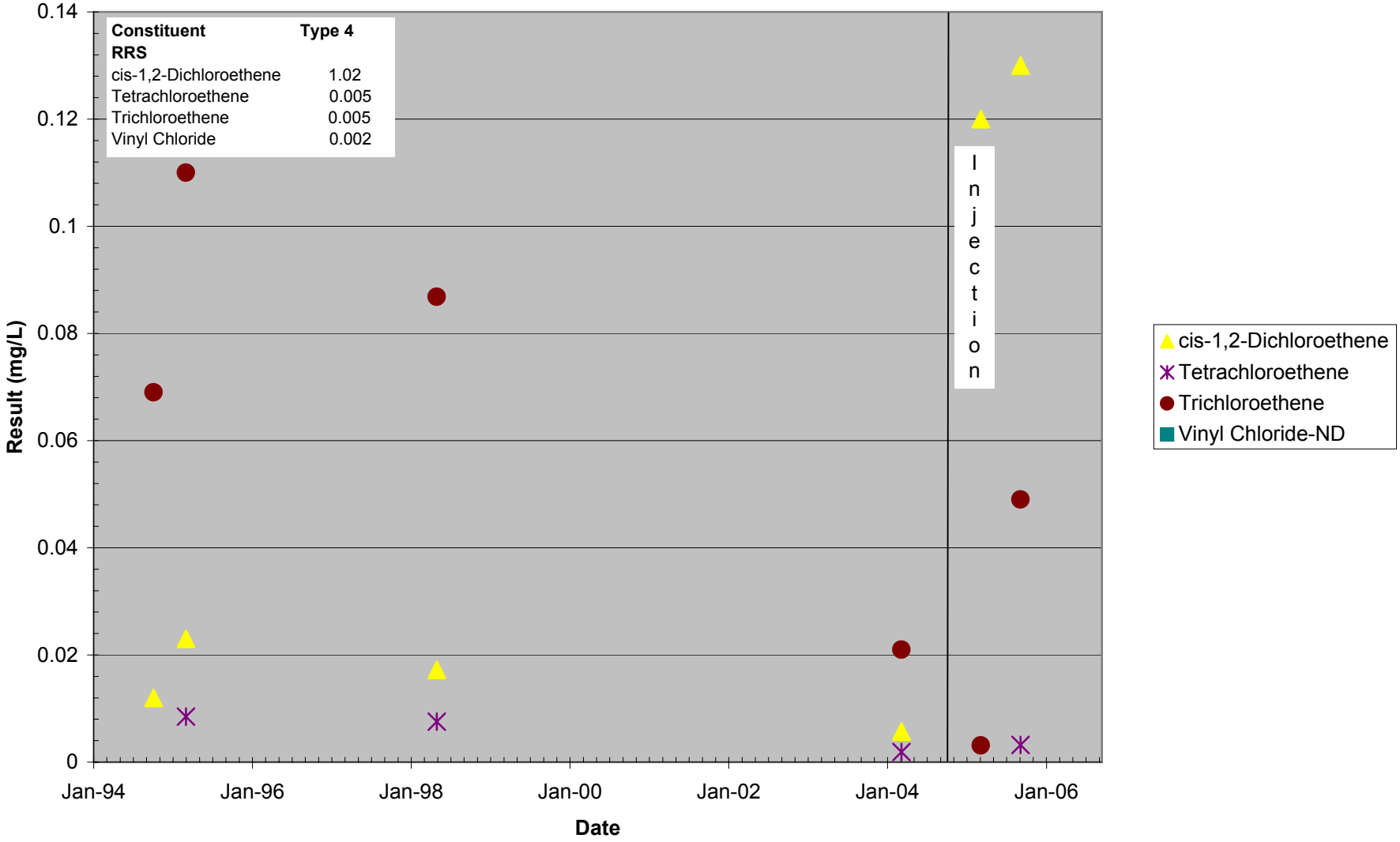
ETMW-116


Constituent
Type 4
RRS
cis-1,2-Dichloroethene 1.02
Tetrachloroethene 0.005
Trichloroethene 0.005
Vinyl Chloride 0.002
Injection
0.6
0.5
0.4
0.3
0.2
0.1
0
Result (mg/L)
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Jan-08
Date
cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene
Vinyl Chloride-ND

ETMW-117


Constituent
Type 4 RRS
cis-1,2-Dichloroethene 1.02
Tetrachloroethene 0.005
Trichloroethene 0.005
Vinyl Chloride 0.002
Injection
Result (mg/L)
0.25
0.2
0.15
0.1
0.05
0
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Date
cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene
Vinyl Chloride-ND

ETMW-118


Constituent
Type 4 RRS
cis-1,2-Dichloroethene 1.02
Tetrachloroethene 0.005
Trichloroethene 0.005
Vinyl Chloride 0.002
Injection
Result (mg/L)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Date
cis-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene
Vinyl Chloride-ND

Appendix I

Corrective Action Monitoring and Evaluation Report (O'Brien & Gere, April 2008)

REPORT

Corrective Action Monitoring and Evaluation Report
Miller Brewing Company Can Plant
Moultrie, Georgia

Miller Brewing Company
Moultrie, Georgia

April 2008



1669\35789

Corrective Action Monitoring and Evaluation Report Miller Brewing Company Can Plant Moultrie, Georgia

Miller Brewing Company
Moultrie, Georgia

April 2008

2610 Wycliff Road, Suite 104
Raleigh, NC 27607

TABLE OF CONTENTS

1. Introduction 1
1.1. Background 1
1.2. Corrective Action Objectives 2
2. Scope and Methodology 4
2.1. Lactate Injection 4
2.2. Ground Water Monitoring Field Activities 5
2.2.1. April 2007 6
2.2.2. October 2007 6
3. Ground Water Monitoring Results 7
3.1. Hydrogeologic Conditions 7
3.2. Ground Water Analytical Results 7
3.2.1. April 2007 8
3.2.2. October 2007 8
3.3. Corrective Action Evaluation 8
3.4. Natural Attenuation Evaluation 11
3.4.1. Natural Attenuation Scoring 12
3.4.2. Biochlor Modeling 15
3.4.3. Estimation of Degradation Rates 16
4. Conclusions 18
5. Recommendations 20
6. References 21

Tables

1. Summary of Monitoring Parameters
2. Monitoring Wells Sampled
3. Summary of Well Construction Details and Ground Water Elevations
4. Summary of Volatile Organic Constituents Detected in Ground Water Post Treatment
5. Natural Attenuation Scoring Criteria
6. Natural Attenuation Screening
7. Summary of Ground Water Geochemical Data Post Treatment
8. Summary of Biochlor Model Results
9. Summary of Bioattenuation Rates
10. Summary of Mass Reduction Rates
11. Proposed Ground Water Monitoring Network and Parameters
12. Proposed Target Analyte List

Figures

1. Site Location
2. Site Layout I
3. Site Layout II
4. Enhanced Bioremediation Injection Points
5. Ground Water Monitoring Network, April 2007
6. Ground Water Monitoring Network, October 2007
7. Potentiometric Surface, April 2007

8. Potentiometric Surface, October 2007
9. Proposed Ground Water Monitoring Network

Appendices

A. Historical Ground Water Results Summary
   A.1. Historical Summary of Volatile Organic Constituents in Ground Water
   A.2. Historical Summary of Ground Water Geochemical Parameters
B. Revised UIC Permit
C. Summary of Injection Quantities
D. Laboratory Certification
E. Laboratory Analytical Results
   E.1. April 2007
   E2. October 2007
F. Ground Water Sampling Log Forms
   F.1. April 2007
   F.2. October 2007
G. Trend Graphs for Volatile Organic Constituents
H. Biochlor Assumptions
I. Biochlor Results
   I.1. Pre-Treatment
   I.2. Post-Treatment
   I.3. Post-Treatement, Edge of Plume
J. Bioattenuation Rate Graphs
K. Time to RRS Calculations

1. Introduction

This report presents the progress of corrective measures performed on the surficial ground water zone at the former Miller Brewing Company Facility (Site) in Moultrie, Georgia (Figure 1). Corrective action at the Site is being conducted under the Georgia Hazardous Site Response Act (HSRA). This report was required by the Corrective Action Plan (CAP) submitted to Georgia Department of Natural Resources, Environmental Protection Division (GAEPD) in January 2004 (O'Brien & Gere, January 2004) and, with minor amendments, approved by GAEPD in March 2004. The ground water corrective measure approved by GAEPD is enhanced bioremediation by underground injection of a lactate formulation. The intent of this corrective measure was to increase biodegradation rates at the Site beyond those that were observed prior to injection, and accelerate attainment of Risk Reduction Standards (RRS). The CAP requires semiannual ground water monitoring to evaluate the progress and effectiveness of the corrective measure.

The first injection occurred in October 2004. This was followed by semiannual ground water monitoring in April 2005, October 2005, and April 2006. A second injection occurred in October 2006 followed by ground water monitoring in April and October 2007. This report presents the results of the two monitoring events following the second injection and an evaluation of the progress toward meeting corrective action objectives.

A preliminary evaluation of the post injection monitoring data was submitted to the GAEPD on July 24, 2007. This evaluation suggested that while some benefit was realized from the second injection, this affect was limited. During a telephone conference in September 20, 2007 with Mr. David Reuland and Ms. Katie Ross of the GAEPD, it was proposed that no further injections should be performed, and that henceforth, corrective action at the Site should consist of monitored natural attenuation (MNA). The GAEPD agreed to this approach, pending a demonstration that natural attenuation was occurring at the Site.

This purpose of this report is to document the results of the ground water monitoring following the second injection event, interpret these results in the context of the overall corrective action at the site, and provide support for MNA.

1.1. Background

In September 1988, four underground storage tanks (USTs) were removed from the site. These consisted of two No. 2 fuel oil USTs, a waste oil UST, and a waste solvent UST. During the removal, a release was discovered from a portion of the piping that was connected to the waste solvent UST. In response to this release, the following activities and investigations were performed:

- Closure of four USTs in September 1988
- Removal of piping associated with the former waste solvent tank, and excavation and disposal of soils contaminated with chlorinated solvents in 1988
- Phase II Site Assessment performed in 1993
- Site Investigation performed in 1994
- Supplemental Site Investigation performed in 1995
- Phase II Subsurface Investigation performed in 1998
- Compliance status investigation performed in 1998

- Supplemental compliance status investigations performed in 2000, 2001, and 2004
- Ground water monitoring in 2002.

The final Compliance Status Report (CSR) (O'Brien & Gere, June 2004) was submitted to GAEPD in June 2004. Analytical data provided in the CSR delineated the nature and extent of chlorinated ethenes in soil and ground water, and defined the area of ground water affected by concentrations of chlorinated aliphatic hydrocarbons (CAHs) above the risk reduction standards (RRS). Site soil meets the Type 4 site-specific, non-residential property RRS and has been certified as doing so in the CSR. No further action is required with respect to Site soil.

CAHs, and in particular chlorinated ethenes, have been detected at concentrations above the RRS in a number of wells surrounding the former waste solvent tank piping (Figure 2). The migration of these constituents has been limited because of the extremely low hydraulic conductivity of the soil. It is likely that these constituents are derived from the historic release from the waste solvent tank piping.

The conservative risk evaluation performed for Site ground water constituents indicates that Site ground water meets neither non-residential nor residential RRS. The area of ground water constituents that exceed non-residential RRS is well constrained, and extends approximately 100-ft downgradient of the suspected source area (Figure 3). Further details of the Site background are presented in the approved CSR (O'Brien & Gere, June 2004). A summary of historical ground water analytical results is provided in Appendix A.

Corrective action at the Moultrie Facility was prompted by the determination that Site ground water does not meet Georgia RRS. The approved Corrective Action Program (O'Brien & Gere, January 2004) details the selected remedial measures and provides the basis for corrective action at the Site. As described in the CAP, the first component of corrective action on Site ground water is enhanced bioremediation consisting of injection of a lactate formulation, *ABC®*, into the area of ground water with concentrations of chlorinated ethenes above RRS. The lactate formulation accelerates microbial activity, which, in turn, facilitates reductive dechlorination of the chlorinated ethenes. Injection was performed with a Geoprobe® at injection nodes laid out on a grid pattern (Figure 4). The CAP projected that two injection events approximately two years apart would be necessary to decrease the concentration of chlorinated ethenes below Type 4 and Type 3 RRS. These injection events were performed in October 2004 and October 2006. To measure the effectiveness of the injection, semiannual ground water monitoring events followed each injection event. The results of the first and second post-injection monitoring events are reported in the Corrective Action Monitoring and Evaluation Report (O'Brien & Gere, January 2006). The results from April and October 2007, following the second injection, are presented within this report. The second component of the approved corrective action is MNA, to be implemented following attainment of Type 4 RRS, until Type 1 RRS (residential) are attained.

1.2. Corrective Action Objectives

The goal of the corrective action is to bring site ground water into compliance with non-residential (Type 4) Risk Reduction Standards. These were calculated for the CSR following the requirements as set forth in Chapter 391-3-19 of the HSRA. RRS values represent an acceptable level of theoretical human health risk associated with analytes found in soil and ground water at the Site.

The CAP calls for injection to continue until the VOCs in ground water were reduced to concentrations below the Type 4 RRS, after which MNA was to be implemented until VOC concentrations met Type 1 or 3 RRS. MNA will continue until Type 1 or 3 RRS (residential) are met for two consecutive monitoring events.

2. Scope and Methodology

2.1. Lactate Injection

The initial remedial measure prescribed in the CAP, injection of the lactate formulation *ABC®* into the surficial groudwater zone, was conducted in October 2004. This was followed by semiannual ground water monitoring in April 2005, October 2005 and April 2006. A second injection of the lactate formulation occurred in October 2006, followed by ground water monitoring in April 2007 and October 2007.

During the second injection event, several changes were made to the original injection plan, based on evaluation of the data from the initial injection event and subsequant semiannual monitoring. These changes were intended to improve the performance of the second injection and included the addition of four injection points to improve the distribution of the *ABC®* near wells ETCMW-115, ETMW-117, and ETMW-118, and the adjustment of the *ABC®* formulation to include zero-valent iron in order to provide a stronger reducing environment.

These changes were proposed to the Georgia EPD on January 25, 2006, and were approved by letter on September 27, 2006. Because these changes resulted in change to the injection scheme, they required modification of the underground injection permit. An application to modify the underground injection permit was submitted to the GAEPD on September 24, 2007. Mr. Bijan Rahbar provided verbal approval for these changes with authorization to proceed with field activities on October 13, 2006 and a revised Underground Injection Permit was issued on November 13, 2006 (Appendix B).

During the 2006 injecting event, four additional points were placed in the vicinity of monitoring wells ETCMW-115, ETMW-117 and ETMW-118 (Figure 4) to increase the amount of lactate available in the vicinity of these wells which had shown little change in COC concentrations since the first injection. An additional point was located north of monitoring well ETMW-118. When placing these points, utility locations had to be taken into account; therefore, slight modifications to the locations of the points were made in the field to avoid damage to underground utilities. Each new injection point was installed using a GeoProbe® tool. Previously installed injection points were used for the remaining nineteen injections. The injection quantities and depths for each injection point are included in Appendix C.

Zero valent iron (ZVI) was added to the lactate mixture during the second injection treatment to improve its efficacy. The addition of ZVI helps to create reducing conditions, and improves and extends the bioenhancing effects of the *ABC®*. The mixture consisted of 100 pounds of ZVI added to 300 gal of lactate solution. To ensure that the ZVI did not settle out prior to injection, this mixture was mixed regularly during injection.

As with the initial injection, the extremely low hydraulic conductivity of the formation necessitated the injection of the *ABC®* at full strength. Although the contractor initially planned to dilute the product with water prior to injection during the first injection, delivering the desired quantities of diluted *ABC®* into the treatment zone would have required a half a day or more of sustained pressure at each point. When pure product was pumped, delivery was fairly rapid while still achieving hydraulic fracturing of the formation.

During the injection event, daylighting occurred at injection point #3 after approximately 25 gal of solution had been injected. A similar problem was encountered at injection point #16; however, rather than lactate rising to the surface, the lactate solution pushed ground water up through the seams in the concrete. At each of these wells, absorbent mats were used to clean up the liquid.

Following the second injection event, two well screens in the area of the former test pit location were removed at the request of Mr. David Reuland with GAEPD. Mr. Reuland expressed concern that the screens could allow for migration of storm water and contaminants to the subsurface. These wells were abandoned by pumping them full of cement-bentonite grout and cutting them off at grade. During abandonment, well screen #1 received 15 gal of grout and well screen #2 received 10 gal.

2.2. Ground Water Monitoring Field Activities

Ground water monitoring activities took place 6 and 12 months following the October 2006 injection treatment. Except where noted, field activities were performed following procedures described in the Corrective Action Investigation Work Plan (O'Brien & Gere, February 2004). The paragraphs that follow provide an overview of field activities.

Upon arrival at the Site, monitoring wells were opened and allowed to equilibrate to atmospheric pressure for a minimum of one hour prior to measuring water levels. Water levels were measured with a decontaminated electronic water level meter to the nearest 0.01-ft relative to a mark on the top of the well casing.

After completion of the water level survey, each monitoring well was purged following low-flow purging protocols. During purging, water quality parameters – temperature, pH, conductivity, dissolved oxygen, and oxidation reduction potential (ORP) – as listed on Table 1, were measured continuously with a Hydrolab Quanta® equipped with a flow-through cell. Purging continued until at least one well volume of water was removed from the well, and until water quality parameters had stabilized. Following purging, VOC samples were collected directly from the peristaltic pump discharge into 40-milliliter sample vials preserved with hydrochloric acid. Following the collection of ground water samples for laboratory analyses, ground water samples were collected for field measurement of iron and carbon dioxide levels using titration kits.

Hydraulic conductivity at the Site is extremely low, and in general, monitoring wells had the tendency to run dry during purging. If the well ran dry prior to stabilization, no additional purging was considered necessary. The wells were allowed to recover (often overnight) until a sufficient quantity of water was present in the well to collect the ground water sample. One set of duplicate samples was collected for every 20 field samples for VOCs analyses. In addition, 1 MS/MSD sample was collected per sampling event, equivalent to a rate of 1 for every 20 field samples. One duplicate was also collected for each sampling event for geochemical analyses. Once sample containers were properly labeled and filled, they were wrapped, sealed, and placed immediately in a cooler with ice. A trip blank was included in each cooler containing samples to be submitted for VOC analysis. A chain of custody form listing each sample and the analyses requested was also included with each cooler. At the conclusion of each day, additional ice was provided in the cooler, if necessary, prior to shipping the samples to the laboratory via overnight delivery. Samples were delivered to Life Science Laboratories (formerly O'Brien & Gere Laboratories) of Syracuse, New York, which holds an accreditation approved by Georgia EPD (Appendix D).

Ground water samples were analyzed for VOCs following SW 846 Method 8260 for the target list parameters identified on Table 1. In addition, ground water samples from seven monitoring wells, as identified on Table 2, were analyzed for the geochemical parameters listed on Table 1 (Figures 5 & 6).

2.2.1. April 2007

During the April 2007 sampling event, an insufficient amount of ground water was available to complete analyses for several geochemical parameters. Because of the low hydraulic conductivity of the surficial ground water zone, monitoring wells at the Site are characterized by slow recovery following purging. Limited recovery, combined with low ground water levels in April 2007 prevented collection of an adequate sample volume from monitoring wells CH2MW-114D and CH2MW-1A. Parameters not analyzed for CH2MW-114D include alkalinity, chloride, nitrate, sulfate, sulfide, total iron and manganese. Parameters not analyzed for CH2MW-1A include alkalinity, chloride, nitrate, sulfate, and sulfide.

2.2.2. October 2007

Prior to the October 2007 sampling event, the sampling program at the Site was modified. These modifications were approved by Ms. Katie Ross of GAEPD on October 9, 2007. Six monitoring wells were removed from the sampling program: CH2MW-1A, OBGMW-122, CH2MW-5, OBGMW-124, OBGMW-123 and CH2MW-2. With the exception of a carbon disulfide detection below RRS in well OBGMW-124 in 2004, there have been no VOC detections in these wells since 2000, and given the extremely low hydraulic permeability at the Site, it is clear that contaminants are unlikely to reach these wells.

In addition to the removal of six monitoring wells from the sampling program, the wells analyzed for geochemical parameters were changed to incorporate more wells within the contaminant plume. Wells CH2MW-1A, CH2MW-5, and OBGMW-124 were not sampled for geochemical parameters and were replaced with wells ETMW-115, ETMW-116, and ETMW-117, which represent a variety of constituent concentrations and locations within the plume. Geochemical parameters continued to be sampled in wells CH2MW-114, ETCMW-114D, ETMW-121 and CH2MW-3. The changes in the monitoring program are detailed in Table 2 and Figure 6.

Wide variations have been observed among previous dissolved oxygen (DO) and ORP readings, possibly because of aeration during purging. To correct this problem, a YSI-556 down-hole probe was used prior to sampling in order to obtain a potentially more reliable measurement. In addition to the down-hole probe, a titration kit was used to measure DO at the in-plume wells to provide additional confirmation of the DO results.

During the October 2007 sampling event, analysis for several geochemical parameters could not be performed The limited ground water recovery, along with the small well volume, due to the one inch casing, prevented collection of an adequate sample volume from monitoring well CH2MW-114D. Parameters not analyzed include alkalinity, chloride, nitrate, sulfate, and sulfide.

3. Ground Water Monitoring Results

This section presents the results of the monitoring events in April and October 2007, following the second injection. An evaluation of corrective measures thus far is included. The analytical data reports provided by the laboratory are included as Appendix E. Ground water purging and sampling logs, which include field obtained data, are provided as Appendix F.

3.1. Hydrogeologic Conditions

The following provides a summary of current hydrogeologic conditions, for a more detailed description of hydrogeologic conditions, please refer to the Compliance Status Report (O'Brien & Gere, June 2004). Ground water at the Site is unconfined, and encountered at depths ranging from less than 1 to greater than 18 ft below surface (fbs). Shallow monitoring wells in the surficial ground water zone range in depth from 10 to 15 fbs and have either 5- or 10-ft screen lengths. Water levels obtained in April 2007 were up to 5 feet lower than those obtained in October 2007 (Table 3). This drop in water levels is likely the result of drought conditions in the area.

Hydraulic conductivity at the Site is extremely low (1.4×10^{-7} cm/sec to 7.5×10^{-6} cm/sec), and groundwater flow is minimal (0.053 ft/year to 0.53 ft/year). Because of the low hydraulic conductivity and varied recharge rates resulting from the impermeable cover provided by the building and paved areas, ground water flow at the Site is highly irregular. In general, ground water on the western edge of the facility flows to the northeast and then to the north. Ground water on the eastern edge of the facility flows to the northwest and then to the north. Despite the decrease in water levels, the flow direction and gradient were generally consistent between April and October 2007 (Figures 7 and 8) as well as with gradients and flow directions measured during previous monitoring events.

Two monitoring wells are screened at greater depths than the other monitoring wells at the Site. CH2MW-4D is screened from 36 to 46 fbs, and is located next to shallow well CH2PP-1. CH2MW-114D is screened from 17.5 to 22.5 fbs and is paired with the shallow monitoring well ETCMW-114. Comparison of the shallow and deep water levels measured in these monitoring wells in April 2007 indicate a downward hydraulic gradient of 0.26 ft/ft in wells CH2MW-4D and CH2PP-1 and 0.12 ft/ft in wells CH2MW-114D and ETCMW-114. Water levels from October 2007 indicate a more pronounced downward hydraulic gradient of 0.41 ft/ft in wells CH2MW-4D and CH2PP-1 and 0.28 ft/ft in wells CH2MW-114D and ETCMW-114.

The primary potential groundwater receptors at the Site are two small ponds that are located to the southwest and southeast of the Moultrie Facility (Figure 1). The damming of an ephemeral creek that originates near the Moultrie Facility formed the pond to the southeast. Given the northward flow direction, low hydraulic conductivity of ground water zone, ground water originating at the Site is not expected to be a contributing source to these ponds; it is likely that precipitation is the predominant source of water in the creek and pond.

3.2. Ground Water Analytical Results

Ground water analytical results showed a minimal decrease in VOC concentrations from April 2007 to October 2007 (Table 4).

3.2.1. April 2007

The April 2007 sampling event was the first sampling event following the second injection. Ten of the 20 wells sampled for VOCs during the April 2007 monitoring event had no detections of VOCs, these wells include CH2MW-1A, CH2MW-2, CH2MW-3, CH2MW-4D, CH2MW-5, ETMW-121, OBGMW-122, OBGMW-123, OBGMW-124 and CH2PP-1. Samples collected from the remaining 10 wells contained VOCs, seven at concentrations above the RRS.

Five constituents — tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), 1,1-dichloroethene (DCE), and vinyl chloride (VC) were detected at concentrations above the RRS.

3.2.2. October 2007

Prior to the October 2007 monitoring event, six wells (CH2MW-1A, CH2MW-2, CH2MW-5, OBGMW-122, OBGMW-123 and OBGMW-124) were removed from the sampling program. Among the remaining 14 wells, the 7 analyzed for geochemical parameters were changed to comprise of CH2MW-3, CH2MW-114D, ETCMW-114, ETCMW-115, ETMW-117, and ETMW-121.

Five of the 14 wells sampled for VOCs during the October 2007 monitoring event had no detections of VOCs, these wells include CH2MW-3, CH2MW-4D, ETMW-119, ETMW-121 and CH2PP-1. Samples collected from the remaining nine wells indicated that eight contained VOCs, seven at concentrations above the RRS.

Six constituents – benzene, chloroethane, cis-1,2-DCE, isobutyl alcohol, TCE and VC -- were all detected at concentrations above the RRS. Benzene and chloroethane were detected in monitoring well ETCMW-114 only. These constituents are sporadically detected at concentrations above the Type 1/3 RRS in this well, but have not been routinely detected as have the other constituents (excluding isobutyl alcohol). Isobutyl alcohol was detected for the first time above the Type 1/3 RRS in monitoring well ETCMW-118 in 2007. This constituent has not been detected above the RRS in this well previously, nor in any other well at the Site. This detection is anomalous, and does not appear to be indicative of a long term trend.

3.3. Corrective Action Evaluation

Graphs of the concentrations of chlorinated ethenes (Appendix G) indicate that natural attenuation was occurring at the Site prior to corrective action. Concentration trends showed a decreasing or stable concentration of these constituents in most wells, with the exception of CH2MW-114D, which had an increasing trend. Natural attenuation occurs as a result of a number of processes, including dilution, dispersion, volatilization and degradation. The objective of the corrective action was to increase the attenuation rate, by enhancing biodegradation. Following the initial injection of ABC® in 2004, there was a pronounced decrease in the concentration of VOCs in some monitoring wells, suggesting an increase in the biodegradation rate. Further decreases were observed after the second injection, although less pronounced in some wells. Concentrations of VOCs continue to decrease, but at rates that are more similar to those observed prior to corrective action. The wells in which decreasing concentrations were most pronounced were ETCMW-113, ETCMW-114, CH2MW-114D and ETMW-116. The addition of four injection points during the second injection event appeared to have some improved effect on well ETMW-117, while there was no evident effect on wells ETMCMW-115 and ETMW-118. Hydrogeologic and geochemical data collected indirectly

demonstrate that geochemical conditions are conducive for microbially mediated degradation. The sections that follow provide an overview of VOC trends observed in each of the affected wells.

ETCMW-113

The trends for this well indicate a pronounced decrease in PCE and TCE following the first injection, with more limited decreases since. The concentrations of cis-1,2-DCE had a slight increase after the first injection event, and a more pronounced increase following the second. This constituent is a product of the degradation of TCE and PCE, and the increase observed in the concentration of cis-1,2-DCE is probably a byproduct of the degradation of these constituents. TCE and PCE, which have historically been detected at concentrations above the Type 4 RRS in samples from this well, have dropped to concentrations below detectable levels in October 2007. The concentration of cis-1,2-DCE was below the Type 1/3 RRS in samples collected from this well in 2005 to 2006, but has increased to a concentration above the Type 1/3 RRS in 2007. Overall, these trends suggest that injection was effective in reducing the concentration of TCE and PCE in this well. Cis-1,2-DCE appears to have increased probably as a byproduct of the degradation of TCE and PCE. Historically this constituent has been at concentrations below the Type 1/3 RRS, and should return to these concentrations as a result of natural biodegradation. Based on these findings, it does not appear that further injection would be beneficial in the vicinity of this well.

ETCMW-114

This well, which is located in the source area, and has consistently had the highest concentration of constituents, appears to have had the best response to treatment. PCE decreased from concentrations above the Type 4 RRS to non-detectable concentrations after the first injection event, and has remained at non-detectable levels since. TCE remains at concentrations above the Type 4 RRS, but had been increasing prior to the first injection event. Concentrations of TCE have shown a steady decrease since the first injection event. The constituent cis-1,2-DCE had a pronounced increase following the first injection, and remained at concentrations above the Type 4 RRS. This increase is probably a byproduct of the degradation of TCE and PCE. This constituent had a pronounced decrease following the second injection event, falling to concentrations below the Type 4 RRS. This decrease was coupled with a pronounced increase in the concentration of VC. VC is produced by the degradation of cis-1,2-DCE, and the trends observed for these constituents suggests that VC has been produced as a byproduct of the degradation of cis-1,2-DCE. Overall, these trends suggest that injection was effective in enhancing the biodegradation in the vicinity of this well. Given the current decreasing trends, it appears that current attenuation rates will be effective at reducing the concentration of TCE, cis-1,2-DCE, and VC (the only constituents that remain at concentrations above the Type 3 or 4 RRS), and further injection would not be beneficial.

ETCMW-114D

Following the initial injection, this well demonstrated considerable improvement. The constituents cis-1,2-DCE, PCE and TCE decreased to non-detectable levels; however, each of these constituents rebounded following the second injection, although concentrations for these constituents have decreased from April to October 2007. TCE has rebounded to concentrations above the Type 4 RRS, and cis-1,2-DCE remains at concentrations above the Type 1/3 RRS. Given the current decreasing trends observed for PCE, TCE and cis-1,2-DCE, it does not appear that further injection would be beneficial.

ETMW-115

The trends in this well are somewhat difficult to interpret, although there does appear to be indication that injection of *ABC®* has had a beneficial effect on biodegradation in this well. The trends for this well indicate a decrease in TCE and cis-1,2-DCE following the first injection, with a corresponding increase in VC. Following the second injection event, there was an initial increase in the concentration of these constituents, followed by a decrease from April to October of 2007. The increases in cis-1,2-DCE and VC are likely a byproduct of the degradation of TCE. TCE remains at a concentration above the Type 4 RRS. The constituents cis-1,2-DCE and VC have decreased to concentrations below the Type 1/3 RRS. Overall, it appears that the injection has not had a dramatic effect on biodegradation in the vicinity of this well and further injection would not be beneficial.

ETMW-116

This well appears to have responded well to treatment. The concentrations of both PCE and TCE dropped to non-detect levels following the first injection and while the concentration of TCE rebounded following the second injection (April 2007) it has again fallen to a non-detectable level. The concentration of cis-1,2-DCE increased following the first injection, probably as a byproduct of the degradation of TCE and PCE. This constituent decreased significantly following the second injection, and is currently at a non-detectable level. VC was not present in this well until after the first injection, and increased in concentration following the second injection, probably as a byproduct of the degradation of cis-1,2-DCE. Currently only VC is present at a concentration above the RRS. This constituent will degrade under aerobic conditions, and further injection will not enhance this degradation. Overall, these trends suggest that injection was effective in enhancing the biodegradation in the vicinity of this well, and further injection would not be beneficial.

ETMW-117

This well did not have a significant response after the first injection, but has had a much more pronounced response following the second. The concentration of TCE and cis-1,2-DCE increased slightly following the first injection, while the concentration of PCE has remained essentially the same. Following the second injection, however, the concentration of TCE and PCE decreased significantly, while the concentration of cis-1,2-DCE increased, suggesting that the additional injection points were successful in enhance the biodegradation in the vicinity of this well. TCE remains at a concentrations above the Type 4 RRS, while cis-1,2-DCE has increased to a concentration above the Type 1/3 RRS. These trends suggest that the first injection had limited, if any effect on the biodegradation in the vicinity of this well, probably because the enhancement did not reach this area. The increased number of injection points for the second injection, however, appears to have improved the distribution of the enhancement, and improved the biodegradation rate in this well. Give the current decreasing trend in TCE, it does not appear that additional injections would be beneficial in this area.

ETMW-118

Trends for this well suggest a significant response to the first injection, with limited effect from the second. TCE and PCE concentrations decreased immediately after the first injection, but rebounded thereafter. TCE has remained relatively stable at concentrations above the Type 4 RRS. The concentration of PCE has been below Type 1/3 RRS, and dropped to below detectable levels in October 2007. After the first injection, cis-1,2-DCE increased significantly, probably as a result of the degradation of TCE and PCE. The concentration of this constituent has shown a slow but steady decrease thereafter, suggesting that

biodegradation of this constituent is occurring, but at a slow rate. Overall, these trends suggest that the initial injection was effective in enhancing biodegradation, but that biodegradation has stalled since, and there has been no further benefit from injection.

Sentinel Well Trends

Since April 2004, the VOC levels in wells outside of the injection area have remained essentially unchanged with minimal VOC detections; all below the RRS. Furthermore, these minor detections of VOCs have demonstrated a continuous decrease over time. Given the extremely low hydraulic conductivity at the Site, this trend is not unexpected, as it is unlikely that VOCs would migrate from the injection area.

3.4. Natural Attenuation Evaluation

Two injections of *ABC*® appear to have boosted biodegradation rates at the Site, resulting in pronounced overall decreases in the mass and concentrations of VOCs in ground water. Observed decreasing trends in the concentration of VOCs suggest that biodegradation is ongoing in most wells, although it appears to be very slow in some. Regardless, it does not appear that further injection will provide additional improvement and that as long as current conditions continue, natural attenuation will be sufficient to reduce VOCs to concentrations below the RRS. Based on this, Miller requests to discontinue further injection, and proceed with MNA. The GAEPD has concurred with this approach, pending a demonstration that natural attenuation is occurring at the Site. This section provides that demonstration.

Natural attenuation refers to the physical, chemical or biological processes that, under favorable conditions, reduce the mass, toxicity, mobility, volume or concentration of contaminants in soil and ground water. These processes may include biodegradation, dispersion, dilution, sorption, volatilization, chemical or biological stabilization, transformation or destruction of contaminants. These processes can be used to achieve site-specific remedial objection as part of a monitored clean-up approach within a time frame that is reasonable compared to other methods.

The USEPA has issued a Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water for implementing and evaluating natural attenuation processes associated with chlorinated ethenes in ground water (USEPA, September 1998). The protocol identifies three lines of evidence that can be used to demonstrate natural attenuation of chlorinated aliphatic hydrocarbons.

1. The first line of evidence utilizes historic ground water and/or soil analytical data to demonstrate decreasing trends in contaminant mass and/or concentration over time at appropriate monitoring points.
2. The second line of evidence utilizes hydrogeologic and geochemical data to indirectly demonstrate the types of natural attenuation processes occurring at a site, and the rate at which natural attenuation processes will reduce contaminant concentrations to regulatory criteria.
3. The third line of evidence utilizes field or microcosm data to directly demonstrate the degradation of particular contaminants of concern via biological processes.

The natural attenuation evaluation for the Site will utilize the first two lines of evidence to evaluate the potential occurrence of natural attenuation. The semiannual ground water sampling, in conjunction with historical Site data, will provide a database to assess trends in contaminant concentrations. The second line of evidence is being evaluated through the current analysis of

geochemical parameters and relationships between parent and daughter products. Following this evaluation, Biochlor modeling was performed to assess the time required to reduce the chlorinated ethenes below the RRS by MNA.

3.4.1. Natural Attenuation Scoring

In order to satisfy the first two lines of evidence required to demonstrate natural attenuation of chlorinated ethenes, natural attenuation scoring was used. The ground water monitoring data were evaluated for indications of biodegradation by completing the initial step of the bioattenuation screening process described above.

The Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water describes the implementation of the screening process to provide an initial evaluation whether biodegradation may be occurring and whether further investigations are warranted (USEPA, September 1998). The screening process awards points based on concentrations of various analytical parameters. The degree of evidence for reductive dechlorination is based on the total points awarded after assigning points to site-specific data. The bases for these points are described in Table 5. According to the screening process, scores between 0 and 5 indicate inadequate evidence for reductive dechlorination. Scores between 6 and 14, 15 and 20 and greater than 20 indicate limited, adequate, and strong evidence of reductive dechlorination, respectively. Table 6 contains the completed scoring sheet for the Site.

While most of the in-plume wells showed some evidence of reductive dechlorination, only ETCMW-114 and ETMW-116 showed adequate evidence of reductive dechlorination. Limited evidence of reductive dechlorination was observed in ETCMW-113, ETCMW-114D, ETCMW-115, ETMW-116, ETMW-117 and ETMW-118.

The parameters examined for the scoring are discussed in detail below.

Daughter Products

The first line of evidence utilizes ground water chlorinated ethene data to document plume stabilization and/or decreasing trends in contaminant concentration over time at appropriate monitoring points. The strongest evidence for biologically mediated degradation of chlorinated ethenes is the relationship between the distribution of chlorinated ethenes and the daughter products of chlorinated ethene degradation. An idealized distribution of chlorinated ethenes undergoing biodegradation via reductive dechlorination would consist of concentrations of TCE highest in the source areas with elevated cis-1,2-DCE concentrations within the source area and extending downgradient, and vinyl chloride present in the source with the highest concentration near the downgradient extent of the plume.

The chlorinated ethene daughter products cis-1,2-DCE, VC and ethene are indicators of dehalogenation of chlorinated ethenes. Because cis-1,2-DCE is preferentially produced by microbial reductive dehalogenation, the presence of cis-1,2-DCE is expected to be elevated in areas where microbial dehalogenation is occurring. The presence of cis-1,2-DCE in the majority of in-plume wells is a strong indication that microbial reductive dechlorination is occurring in this area of the Site. The presence of VC in ETCMW-114 and ETMW-116 suggests that the conditions in these wells are conducive for degradation of cis-1,2-DCE to VC.

During the most recent sampling event in October 2007, ethene was detected at 0.038 mg/L in ETCMW-114. This well is located in the source area of the plume and indicates that Site conditions

within this area are conducive for the degradation of VC. Although ethene was not detected in other wells in the plume area, it should be noted that only a limited number of in-plume wells were analyzed for this parameter (Table 1).

Geochemical Indicators

Biodegradation of organic compounds can bring about measurable changes in the geochemistry of ground water in the affected area. By measuring these changes, it is possible to document and quantitatively evaluate the importance of natural attenuation at a site. The second line of evidence uses hydrogeologic and geochemical data to indirectly demonstrate that geochemical conditions are conducive for biodegradation. These chemical and geochemical data include evidence of depletion of electron acceptors and donors, increases in metabolic by-products, and decreases in parent compound concentrations.

The ground water sampling events at the Site have included laboratory analyses of the following geochemical parameters: alkalinity, chloride, nitrate, sulfate, sulfide, methane, ethane, ethene, soluble organic carbon (dissolved), total organic carbon, and total iron to provide data necessary to further evaluate potential biologically mediated attenuative processes. These data are summarized along with geochemical parameters measured in the field (pH, temperature, specific conductance, ORP, turbidity, dissolved oxygen and ferrous iron) on Table 7. The geochemical data were collected to assess the effectiveness of treatment, and to provide indirect evidence of natural attenuation via biodegradation. The Site geochemistry in regards to natural attenuation is discussed below.

Dissolved oxygen

To support microorganisms capable of dechlorinating the constituents present within the aquifer, anaerobic conditions and a reducing environment must be present. To assess these conditions, DO was analyzed in the field. Anaerobic bacteria cannot function at DO levels above 0.5 mg/L and therefore reductive dechlorination cannot occur. While DO readings were below 0.5 mg/L in only a few monitoring wells (ETCMW-116, ETCMW-17, and ETCMW-118), most DO levels measured within other wells within the treatment area were generally close to 0.5 mg/L (ETCMW-114 and CH2MW-114D) and suggest that although conditions are not optimal, they are within the range that is supportive anaerobic microorganisms.

Because of the extremely low hydraulic conductivity at the Site, there was concern that the ground water samples could have been oxygenated during purging, resulting in inaccurate measurements of DO. During the October 2007 sampling event, additional DO monitoring was performed at all wells using a down-hole probe and the DO among the in-plume wells was further analyzed using a DO titration kit. The values measured with these methods proved to be comparable to the values obtained with the Hydrolab® flow-through cell during purging activities.

Oxidation Reduction Potential

The ORP of ground water is a measure of electron activity and is an indicator of the relative tendency of a solution to accept or transfer electrons. Redox reactions in ground water containing organic compounds are usually biologically mediated, and therefore, the ORP of a ground water system depends upon and influences rates of biodegradation. In order to indicate a reducing environment within the aquifer, ORP values must be strongly negative. In general, ORP measurements from the treatment area were not indicative of reducing conditions. The majority of ORP measurements were positive and indicated unfavorable conditions for reductive dechlorination. As with DO, additional ORP measurements were made using the down-hole probe. Although some variation was present between the two measurements, both indicated unfavorable conditions for reductive dechlorination.

Chloride

During anaerobic biodegradation of chlorinated ethenes, chloride is released into the ground water in stoichiometric amounts equivalent to the amount of chlorinated solvent degraded. This results in elevated chloride concentrations in a contaminant plume compared to background concentrations. Because of the neutral chemical behavior of chloride, it can be used as a conservative estimate of biodegradation rates. Concentrations of chloride elevated above background levels were not observed in monitoring wells at the Site with the exception of ETCMW-114D.

Nitrate

Subsequent to depletion of dissolved oxygen, nitrate may be used as an electron acceptor for anaerobic degradation of organic carbon via a metabolic process known as denitrification. In order for reductive dechlorination to occur, in addition to anaerobic conditions, nitrate concentrations in the contaminated portion of the aquifer must be depleted. Although only limited analysis was conducted for nitrate, concentrations did not appear to be depleted within the plume. The conditions observed are not indicative of anaerobic degradation.

Ferrous Iron

Ferric iron, Fe (III), may be used as an electron acceptor during anaerobic biodegradation of organic carbon via a metabolic process known as iron reduction. During iron reduction, Fe (III) is reduced to ferrous iron, Fe (II). Biodegradation within a contaminant plume via Fe (III) reduction is evidenced by increasing concentrations of Fe (II) in the plume when compared to background concentrations.

Ferrous iron data for the Site shows sporadic detections of ferrous iron, primarily within the plume. The presence of ferrous iron suggests that organic material is available for biodegradation through iron reduction and therefore is a strong indicator of microbial activity.

Sulfate

Subsequent to depletion of dissolved oxygen and nitrate, sulfate may be used as an electron acceptor for anaerobic biodegradation via a metabolic process known as sulfate reduction, where sulfate is reduced to sulfide. Decreasing sulfate concentrations and increasing sulfide concentrations within a contaminant plume indicates sulfate reduction. No clear trend of decreasing sulfate and increasing sulfide could be observed, although only limited analyses were conducted for these constituents and trends may have been missed.

Methane

Methane is a by-product of biodegradation of organic carbon. The presence of methane in ground water is indicative of strongly reducing conditions, and indicates that the ground water chemistry is favorable for reductive dechlorination. Although limited data are available to observe trends, elevated levels of methane were detected at several wells within the plume area, primarily in ETCMW-114, ETMW-116 and ETMW-117, indicating favorable conditions for reductive dechlorination.

Alkalinity

An increase in alkalinity levels over background concentration can serve as an indication of reductive dechlorination. During biodegradation, carbon dioxide is produced. If the aquifer matrix consists of carbonate materials, the carbon dioxide will form carbonic acid and dissolve these materials. This dissolution increases the alkalinity of the ground water. Therefore, alkalinity levels above background levels can indicate biodegradation. The alkalinity in several wells (CH2MW-3, ETCMW-114,

ETMW-116, ETMW-117 and ETMW-121) indicated an increase over background levels that is suggestive of reductive dechlorination.

pH

Optimal pH conditions for reductive dechlorination are between 5 and 9 (standard units). The wells at the Site typically have pH measurements at the low end of this range. A few wells have fallen below a pH of 5 (CH2MW-3, ETCMW-113, CH2MW-114D, ETMW-117 and ETMW-118), although the majority remains within the acceptable range for pH.

The processes of biodegradation tend to decrease the pH, and if the buffering capacity of the aquifer is limited, the pH within the affected area can fall. In some instances, enhanced biodegradation can reduce the pH to the point where it inhibits further degradation. It is important, therefore, not to enhance degradation to a rate that overtaxes the ability of the system to buffer the pH. Decreasing pH trends are evident following injection in several of the in-plume wells (ETCMW-113, CH2MW-114D, ETCMW-115, ETCMW-117, and ETCMW-118), and some of these have fallen to levels below the optimal range. This rend indicates that further injection of *ABC®* could actually hinder biodegradation at the Site.

3.4.2. Biochlor Modeling

Biochlor (USEPA, March 2002) is a screening model that simulates remediation by natural attenuation of chlorinated ethenes in ground water. The software is based on the Domenico analytical solute transport model (USEPA, January 2000) and programmed into a Microsoft Excel spreadsheet. The model assumes reductive dechlorination is occurring under anaerobic conditions and dissolved solvent degradation follows a sequential first-order decay process. The model was run under two scenarios. The first scenario was to calibrate the model to conditions prior to corrective action in order to estimate reasonable biotransformation rates. The second scenario used the estimated biotransformation rates to predict future migration and degradation of the chlorinated ethene plume. Summaries of the Biochlor modeling runs are provided in Appendix H.

Initially, the Biochlor model was calibrated to match Site conditions. The purpose of this calibration was to determine biotransformation values that could be used for predictive modeling. During this process, site-specific data obtained from the CSR (O'Brien & Gere, February 2002) were used for advection and source data while default values for the Biochlor model were used dispersivity and adsorption. The model was run for a period of 24 years to match an estimated release time of 1980, and pre-corrective action monitoring in 2004. The concentration of chlorinated ethenes observed in ETCMW-114 (in the source area) was used for the concentration of the release, and the source was conservatively assumed to have no degradation. The biotransformation values were estimated by inputting values and matching the output of the model to the field data obtained during monitoring in April 2004. The field data were fitted to fall in between the range of no degradation and sequential first order decay because while the Site does not indicate strong evidence of degradation some evidence is present within the plume.

Once biodegradation rates were estimated from the existing field data, the Biochlor model was used to predict the future migration and attenuation of the chlorinated ethene plume. Using the data from the source area during the October 2007 sampling event, and the biotransformation rates obtained in Biochlor from the screening process, projections were made regarding the migration distance and concentration of contaminants in 2027, 20 years following the last sampling event.

Assuming sequential first order decay does occur, limited transport of chlorinated ethenes will occur from the source (ETCMW-114) over a 20-yr period. Migration of TCE would be approximately 20 ft, cis-1,2-DCE would migrate approximately 32 ft down plume and VC would migrate approximately 24 ft. Because ethene is an end product of the biotransformation, it would travel furthest, at approximately 55 ft. After 20 years, the extent of the plume above the Type 4 RRS would extend less than 10 ft from the source area for TCE and less than 20 ft from the source area for VC. The migration of TCE, cis-1,2-DCE and VC all stabilize after 12 years (Table 8), and there is very limited increase in the migration following this point. Because PCE was not detected in the source area during the October 2007 sampling event, no modeling for PCE was performed (Table 8).

The Biochlor model also indicates that if no degradation were to occur, none of these constituents would migrate further than 60 ft from the source area in the next 20 years, this is well within the current extend of the plume, and demonstrates that there will be no migration of the plume. Given that the model was run assuming no degradation of the source, these estimates are conservative and it is likely that the plume will actually decrease in extent, given the decreasing concentration trends that have been observed.

To better estimate the migration of the chlorinated ethene plume, additional modeling was performed from the edge of the plume outward. Using well ETMW-118 (which is approximately 50 feet away from the source area on the margin of the plume) as the source area, Biochlor was again used to predict migration and attenuation of the chlorinated ethene plume. As with previous modeling, limited migration of the plume was shown over a twenty-year period. Assuming first-order sequential decay, no constituents migrated more than 40 feet from the well. After 20 years, the extent of the plume above the type 4 RRS would extended 10 ft from the source area for TCE and 20 ft from the source area for VC. The migration of TCE, cis-1,2-DCE and VC all stabilize within a 20-yr period, and there is very little increase in the migration distance following this. Because PCE was not detected at ETMW-118 during the October 2007 sampling event, no modeling for PCE concentration was performed.

As with the calibration modeling, the model was run with the assumption that there would be no degradation of the source. This is a conservative assumption, and it is likely, once again, that the plume will actually shrink, given the decreasing concentration trends that have been observed.

3.4.3. Estimation of Degradation Rates

In order to estimate the time to reach RRS, two rates were calculated. The first rate was the first order attenuation rate which includes all processes which act to reduce contaminant concentration. All wells within the contaminant plume were plotted on a semi-log plot for the constituents PCE, TCE, cis-1,2-DCE and VC. The decay regression was then performed based on the following equation (Appendix I):

$$C = C_0 e^{-kt}$$

where: C = concentration (mg/L)
C_0 = concentration at t = 0 (mg/L)
k = first order attenuation rate constant (1/yr)
t = time (yr)

Using the attenuation rate constant from each equation, calculations were made. Negative bioattenuation rate constants, indicative of an increasing concentration were not analyzed. Although DCE and VC are daughter products and therefore increase over time as an indication of degradation,

negative bioattenuation rates are not indicative of decay and were therefore excluded from the analysis. Additionally, fluctuations in the contaminant concentrations were observed due to the influence from the injections. Because fluctuation is not good for calculating rates, several data points were eliminated from the calculations because the regressions had a poor fit to the data (R^2 value less than 0.5). Because of these exclusions, and the fact that calculations could not be made from data where the constituent was not detected or detected at concentrations below the RRS, the time required to reach RRS could only be calculated for three wells and only for the constituent TCE. These calculations indicate that TCE would reach RRS at these wells within 5 yrs (Table 9).

An additional calculation was made for the mass reduction rate. Using the Biochlor model, the mass of constituent removed from the plume was obtained and converted into a rate of mg/yr. By averaging well concentrations, a cube of a specific concentration was created to simulate the average concentration and volume of the plume. Using the same assumptions from the Biochlor model, the plume was estimated at 100 ft by 100 ft with a saturated thickness of 15 ft and a porosity of 0.2. In order to maintain a conservative estimate, the detection limit was used as the concentration in wells with no detections and the RRS was used as the concentration in areas where no wells are present. Using this average concentration and the RRS concentrations, the current mass of the plume and the mass of the plume when RRS is the average concentration were calculated. Using these masses and the mass reduction rate, a time to reach RRS was calculated. These calculations are described in detail in Appendix J. The calculations indicate that it will take 591 years, 5.8 years, and 50.1 years to reach Type 1 RRS for TCE, cis-1,2-DCE and VC respectively (Table 10). The type 4 RRS for TCE and VC is equal to the Type 1 RRS and cis-1,2-DCE is currently below the type 4 RRS in all wells so no additional calculations were made for the Type 4 RRS. Because PCE was not detected in the source area in October 2007, no calculations for PCE were made.

The time to reach RRS for TCE, calculated from the mass reduction rate, does not correlate well with the first order attenuation rate calculation (591 years and 5 years respectively). The mass reduction rate for TCE, calculated from the Biochlor model, is significantly lower than the rates calculated for cis-1,2-DCE and VC (Table 10). This is most likely due to the very low concentration of TCE in the source area (0.00897 mg/L). Because of this low rate, the time calculated to reach RRS for TCE is significantly longer than the times calculated for cis-1,2-DCE and VC. Because TCE was the only constituent in which the first order attenuation rate calculation could be made, it is the only constituent in which a comparison could be made.

As indicated in the wide variations among calculated values, these data were collected during a period in which considerable fluctuation in the concentrations was observed due to the injection events and therefore, the calculations do not appear to represent reasonable values. Due to the lack of data and the fluctuations present in the data, it does not appear appropriate to calculate the time to reach RRS at this time. As more data are collected, more consistent trends are expected and it is anticipated that a more reliable calculation can be made for the time to reach RRS.

4. Conclusions

Miller has completed two injections of *ABC*® at the Site, and performed three ground water monitoring events following the first injection event, and two following the second. Data from this ground water monitoring has demonstrated a decrease in the concentration of chlorinated ethenes in response to these injections, with two constituents in four wells falling to concentrations below the Type 4 RRS established for the Site. The approved CAP (O'Brien & Gere, January 2004) recommended that injection be continued until the concentrations of chlorinated ethenes in ground water reaches the Type 4 RRS calculated for the Site. These conditions have largely been met, within the constraints of the RRS.

Three constituents – benzene, chloroethane and isobutyl alcohol – do not meet the Type 3 RRS. Benzene and chloroethane are sporadically detected at concentrations above the Type 3 RRS in ETCMW-114, and do not appear to be consistent concern in this well. Isobutyl alcohol was detected for the first time at a concentration above the Type 3 RRS in 2007. This constituent was detected only in monitoring well ETMW-118, and appears to be an anomalous detection. TCE, cis-1,2-DCE, and VC are more widespread and are the primary constituents of concern at the Site. TCE and VC remain at concentrations above the Type 4 RRS, but these are the same as the Type 1/3 RRS. The concentration of cis-1,2-DCE is below the Type 4 RRS in all wells sampled, but remains above the Type 1/3 RRS in some wells.

As anticipated, the low hydraulic conductivity at the Site and the slow movement of ground water have limited the effectiveness of treatment of Site ground water and presented a number of complications. The most significant of these is that the injected *ABC*® is not able to permeate rapidly within the formation, and thus cannot reach all of the affected areas uniformly. This probably accounts for the highly variable results of the treatment. Another problem is that the *ABC*® has had to be injected at full strength, because of the limited capacity of the formation to accept the material, further exacerbating the uneven distribution of the *ABC*®. Finally, the slow movement of the groundwater has limited the rate at which the *ABC*® flushes through the system, limiting the potential benefits from additional injections. Without adequate flushing, repeated injections of *ABC*® will create conditions (such as lowered pH) that are actually detrimental to biodegradation.

While the injections of *ABC*® appear to have increased the biodegradation rates at the Site, this response has not been as dramatic, nor as lasting as hoped for. Furthermore, measurements of pH within the plume area have shown dramatic decreases in response to injection, and are within, or approaching the range at which biodegradation is inhibited (less than 5), and it is clear that further injections could have a detrimental effect. Based on these observations, Miller is recommending that injection be discontinued at this time, in favor of MNA. The GAEPD has agreed with this approach, pending a demonstration that natural attenuation is occurring at the Site, and is sufficient to prevent migration of the constituents that remain above the RRS (essentially TCE, cis-1,2-DCE, and VC), and reduce the concentration of these constituents to below Type 4, and ultimately, Type 1/3 RRS.

An evaluation of natural attenuation conditions has been performed. This evaluation included natural attenuation screening following the OSWER directive on Monitored Natural Attenuation (9200.4-17) to determine if natural attenuation is occurring, and Biochlor modeling to predict future migration and attenuation of the chlorinated ethene plume, and help predict the time period required to meet RRS. The natural attenuation screening performed indicates that some evidence of reductive dechlorination is present within the majority of the plume, most notably within the source area. Biochlor modeling

has demonstrated that the extremely low hydraulic conductivity that has hampered the ABC® injection has restricted the migration of the chlorinated ethene plume to such an extent that even with limited natural attenuation, the plume is unlikely to expand, and will likely attenuate to concentrations below the Type 4 and Type 1/3 RRS.

Degradation rates have been estimated, however, there appears to be a lot of variation in the calculated rates, and they do not appear reliable at this time. It is likely that the *ABC®* injection has produced variations in the degradation rates of the constituents of concern, resulting in discrepancies in the estimates to reach RRS. As additional data are collected, more consistent trends are expected and appropriate calculations can be made.

5. Recommendations

Miller recommends that no further injection of *ABC*® be performed, and that corrective action proceed with MNA as the primary remedy.

Through the implementation of monitored natural attenuation at the Site, wells will be monitored to ensure the chlorinated ethene plume does not migrate, and also to track the progress of natural attenuation, and verify that it is still an effective remedy for the Site. It is recommended that a total of fourteen wells be included in the groundwater monitoring network (ETCMW-113, ETCMW-114, CH2MW-114D, ETCMW-115, ETMW-116, ETMW-117, ETMW-118, ETMW-119, ETMW-120, ETMW-121, CH2PP-1, CH2MW-1, CH2MW-4D and CH2MW-3). All 14 of these wells will be analyzed for a revised target list VOCs, and 7 (ETCMW-113, ETCMW-114, ETCMW-115, ETMW-116, ETMW-117, ETMW-118 and CH2MW-3) would also be analyzed for geochemical parameters (Tables 11 & 12, Figure 9). Because several constituents on the current target analyte list have had minimal detections since 2000, it is recommended that these constituents be removed from the list (Table 12). Monitoring the in-plume wells will allow for observation of the plume to determine if its behavior is changing. The monitoring of the perimeter wells will provide confirmation that contaminant concentrations meet acceptable levels and allow for monitoring of potential expansion of the plume. Additional, unused monitoring wells should be abandoned, to prevent these from becoming a potential conduit for surface contaminants to reach the ground water (Table 11, Figure 9).

Because the Site has very low hydraulic conductivity, annual sampling of all wells is recommended A MNA summary report will be provided to GAEPD each year providing the results of the sampling event for that year. MNA will continue until Type 1/3 RRS (residential) are achieved site-wide for two consecutive monitoring events, after which a petition for closure will be submitted.

6. References

O'Brien & Gere, *Corrective Action Investigation Work Plan, Miller Brewing Company Can Plant, Moultrie, Georgia*, February 2004.

O'Brien & Gere, *Corrective Action Monitoring and Evaluation Report, Miller Brewing Company Can Plant, Moultrie, Georgia,* January 2006.

O'Brien & Gere, *Corrective Action Plan, Former Miller Brewing Company Can Plant, Moultrie, Georgia,* January 2004.

O'Brien & Gere, *Revised Compliance Status Report, Miller Brewing Company, Moultrie, Georgia*, June 2004.

USEPA, *Biochlor Attenuation Discussion Support System Users Manual Version 1.0,* January 2000.

USEPA, B*iochlor version 2.2*, March 2002.

USEPA, *Technical protocol for evaluating natural attenuation of chlorinated solvents in ground water*; Office of Research and Development, EPA/600/R-98/128, September 1998.

Wiedemeier, T.H., Swanson, M.A., Moutoux, D.E., Gordeon, E.K., Wilson, J.T., Wilson, B.H., Kampbell, D.H., Haas, P.E., Miller, R.N., Hansen, J.E., Chapelle, F.H. 1998, *Technical Protocol For Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water*, USEPA Office of Research and Development, Washington DC 20460, EPA/600/R-98/128, OSWER Directive 9200.40-17 (1997). September 1998.

TABLES

Table 1
Summary of Monitoring Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Target Analytes	Geochemistry Parameters
Acetone	Alkalinity
2-Butanone (MEK)	Chloride
Benzene	Nitrate
Carbon Disulfide	Sulfate
Chloroethane	Sulfide
Chloromethane	Methane
1,2-Dibromo-3-chloropropane (DBCP)	Ethane
Dibromomethane	Ethene
1,1-Dichloroethane (1,1-DCA)	Soluble Organic Carbon (Dissolved)
1,2-Dichloroethane (1-,2-DCA)	Total Organic Carbon
1,1-Dichloroethene (1,1-DCE)	Total Iron
cis-1,2-dichloroethene (cis-1,2-DCE)	Conductivity*
trans-1,2-dichloroethene (trans-1,2-DCE)	Dissolved Oxygen*
1,2-Dichloroethene (total) (1,2-DCE-total)	Ferrous Iron*
Ethylbenzene	Manganese*
Isobutyl Alcohol	Oxidation/Reduction Potential (ORP)*
Methylene Chloride	pH*
4-methyl-2-pentanone (MIBK)	Temperature*
Naphthalene	Carbon Dioxide*
1,1,2,2-Tetrachloroethane	
Tetrachloroethene (PCE)	
Toluene	
1,2,3-Trichlorobenzene	
1,2,4-Trichlorobenzene	
1,1,1-Trichloroethane (TCA)	
Trichloroethene (TCE)	
Trichlorofluoromethane	
1,2,3-Trichloropropane	
Vinyl Acetate	
Vinyl Chloride	
Xylenes (total)	

* measured at time of sampling

Table 2
Monitoring Wells Sampled
Former Miller Brewing Company Can Plant
Moultrie, Georgia

	April 2007				October 2007			
Monitoring Well	Water Level	VOC Analysis	Geochemical Field Parameters	Geochemical Lab Analysis	Water Level	VOC Analysis	Geochemical Field Parameters	Geochemical Lab Analysis
CH2MW-1	X	X	X		X	X	X	
CH2MW-1A	X	X	X	X	X			
CH2MW-2	X	X	X		X			
CH2MW-3	X	X	X	X	X	X	X	X
CH2MW-4D	X	X	X		X	X	X	
CH2MW-5	X	X	X	X	X			
ETCMW-113	X	X	X		X	X	X	
ETCMW-114	X	X	X	X	X	X	X	X
CH2MW-114D	X	X	X	X	X	X	X	X
ETCMW-115	X	X	X		X	X	X	X
ETMW-116	X	X	X		X	X	X	X
ETMW-117	X	X	X		X	X	X	X
ETMW-118	X	X	X		X	X	X	
ETMW-119	X	X	X		X	X	X	
ETMW-120	X	X	X		X	X	X	
ETMW-121	X	X	X	X	X	X	X	X
OBGMW-122	X	X	X		X			
OBGMW-123	X	X	X		X			
OBGMW-124	X	X	X	X	X			
CH2PP-1	X	X	X		X	X	X	

Table 3
Summary of Well Construction Details and Ground Water Elevations
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Well	Ground Surface Elevation[a] (ft msl)	TOC Elevation[a] (ft msl)	Total Well Depth from Ground Surface (ft)	Screened Interval (ft bgs)	Well Diameter (in)	Depth to Water Below Top of Casing (ft)						Water Level Elevation (ft msl)					
						4/6/2004	4/25/2005	10/24/2005	4/17/2006	4/16/2007	10/22/2007	4/6/2004	4/25/2005	10/24/2005	4/17/2006	4/16/2007	10/22/2007
CH2MW-1	293.62	293.84	10	5 - 10	1	6.45	4.55	8.13	5.43	7.33	3.18	287.39	289.29	285.71	288.41	286.51	290.66
CH2MW-1A	292.87	293.01	15	5 - 15	2	11.21	6.38	13.36	8.75	11.67	5.02	281.80	286.63	279.65	284.26	281.34	287.99
CH2MW-2	295.34	295.43	13.5	3.5 - 13.5	2	4.86	3.55	8.48	3.98	5.53	9.87	290.57	291.88	286.95	291.45	289.90	285.56
CH2MW-3	295.45	295.53	13	3 -13	2	4.92	3.55	8.10	4.72	5.85	0.97	290.61	291.98	287.43	290.81	289.68	294.56
CH2MW-4D	293.65	293.54	45.93	36 - 46	2	16.05	16.10	19.44	15.62	16.71	18.88	277.49	277.44	274.10	277.92	276.83	274.66
CH2MW-5	295.28	295.44	15	5 - 15	2	7.43	2.90	9.66	5.35	7.79	3.80	288.01	292.54	285.78	290.09	287.65	291.64
ETCMW-113	296.32	296.32	12	2 - 12	2	6.25	4.40	7.07	5.58	5.75	5.94	290.07	291.92	289.25	290.74	290.57	290.38
ETCMW-114	294.02	297.66	11.7	1.7 - 11.7	4	7.78	6.60	8.15	7.36	7.94	6.52	289.88	291.06	289.51	290.30	289.72	291.14
CH2MW-114D	294.16	297.45	22.5	17.5 - 22.5	1	8.54	7.00	9.88	8.40	9.32	9.99	288.91	290.45	287.57	289.05	288.13	287.46
ETCMW-115	293.22	296.10	11.5	1.5 - 11.5	2	6.19	5.14	6.96	5.39	6.49	4.79	289.91	290.96	289.14	290.71	289.61	291.31
ETMW-116	292.29	292.29	11	1 - 11	4	1.98	0.70	1.81	1.16	1.46	0.89	290.31	291.59	290.48	291.13	290.83	291.40
ETMW-117	292.3	292.30	11	1 - 11	2	2.40	0.89	2.71	1.29	2.42	0.71	289.90	291.41	289.59	291.01	289.88	291.59
ETMW-118	292.34	292.34	11	1 - 11	2	2.90	0.40	3.42	2.15	1.61	1.73	289.44	291.94	288.92	290.19	290.73	290.61
ETMW-119	294.26	297.05	11	1 - 11	2	6.86	5.70	8.02	6.31	6.65	5.66	290.19	291.35	289.03	290.74	290.40	291.39
ETMW-120	293.76	296.84	11	1 - 11	2	6.69	4.50	9.42	5.46	7.18	4.77	290.15	292.34	287.42	291.38	289.66	292.07
ETMW-121	294.84	298.02	11	1 - 11	2	7.70	5.78	11.72	6.43	8.72	6.75	290.32	292.24	286.30	291.59	289.30	291.27
OBGMW-122	NA	295.98	15	5-15	2	8.13	6.40	10.58	7.02	9.01	6.00	287.85	289.58	285.40	288.96	286.97	289.98
OBGMW-123	NA	296.09	13	3-13	2	6.45	4.70	9.28	5.40	6.80	8.44	289.64	291.39	286.81	290.69	289.29	287.65
OBGMW-124	NA	NA	14	4-14	2	NA	5.70	10.08	7.29	8.78	7.43	NA	NA	NA	NA	NA	NA
CH2PP-1	293.56	293.72	12	7 - 12	1	7.67	5.55	9.45	7.63	8.81	6.00	286.05	288.17	284.27	286.09	284.91	287.72

Notes

a Elevations based on a survey performed by H.J. Griffen and Associates in June 1998. Elevations reference a DOT benchmark.
Monitoring Wells OBGMW-122 and OBGMW-123 surveyed back to CH2WMW-4D and CH2MW-3, respectively.
No survey performed on OBGMW-124. Well was installed on 4/5/04.

NA Data not available

Table 4
Summary of Volatile Organic Constituents Detected in Ground Water Post Treatment
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	Downgradient										Upgradient										
				CH2MW-1						CH2MW-1A					CH2MW-2						CH2MW-3							
				4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/24/2007	4/7/2004	4/28/2005	10/26/2005	4/18/2006	4/18/2007	4/6/2004	4/28/2005	10/25/2005	4/18/2006	DUP1-041806	4/18/2007	4/6/2004	4/27/2005	4/27/2005 (DUP2)	10/26/2005	4/19/2006	4/17/2007	10/24/2007
Acetone	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	< 0.01	< 0.01	**0.031**	< 0.01	<0.01	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01
2-Butanone (MEK)	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01
Benzene	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
Carbon Disulfide	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.0005	<0.0005	<0.0005
Chloroethane	mg/L	0.001 (2)	1.23	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001	<0.001	<0.001
Chloromethane	mg/L	0.001 (2)		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	<0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.0001	< 0.001	< 0.0001	< 0.0001	<0.001	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	<0.001	<0.001
Dibromomethane	mg/L	0.0005 (2)		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
1,1-Dichloroethane (1,1-DCA)	mg/L	4		**0.0015**	**0.0013**	< 0.001	**0.00059**	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	**0.0013**	**0.0011**	**0.0011**	**0.00052**	<0.0005	<0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
Ethylbenzene	mg/L	0.7		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
Isobutyl Alcohol	mg/L	10		< 0.050	< 0.050	< 0.1	< 0.050	<0.05	<0.05	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.05	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	<0.05
Methylene Chloride	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		< 0.005	< 0.005	< 0.01	< 0.005	<0.005	<0.005	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	<0.005
Naphthalene	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (6)	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
Toluene	mg/L	1		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,2,4-Trichlorobenzene	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	mg/L	0.005	0.005(6)	**0.0039**	**0.0041**	**0.0044**	**0.00202**	**0.00176**	**0.00082**	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
Trichlorofluoromethane	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,2,3-Trichloropropane	mg/L	0.04		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
Vinyl Acetate	mg/L	0.002 (2)		< 0.002	< 0.002	< 0.005	< 0.002	<0.002	<0.002	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	<0.002
Vinyl Chloride	mg/L	0.002	0.002 (5)	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
Xylenes (total)	mg/L	0.01		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(5) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Data Qualifiers:
B - Compound detected in method blank or trip blank
J - Estimated value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D - Dilution analysis result
< - Less than detection limit listed
H - Sample analyzed outside of holding time
BOLD Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

Table 4
Summary of Volatile Organic Constituents
Detected in Ground Water Post Treatment
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	Cross Gradient							In Plume						
				CH2MW-4D							CH2MW-5							ETCMW-113					
				4/8/2004	4/26/2005	4/26/2005 (DUP1)	10/25/2005	4/18/2006	4/18/2007	10/24/2007	4/7/2004	4/27/2005	10/26/2005	10/26/2005 (DUP 2)	4/20/2006	DUP2 042006	4/17/2007	4/6/2004	4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007
Acetone	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.01	< 0.04	< 0.01	< 0.01	0.235 D	**0.448 D**
2-Butanone (MEK)	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.01	< 0.04	< 0.01	< 0.01	0.191 D	**0.380 D**
Benzene	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005
Carbon Disulfide	mg/L	4		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.0005	**0.0056 D**	< 0.001	< 0.0005	**0.00810 D**	<0.005
Chloroethane	mg/L	0.001 (2)	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01
Chloromethane	mg/L	0.001 (2)		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01
Dibromomethane	mg/L	0.0005 (2)		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005
1,1-Dichloroethane (1,1-DCA)	mg/L	4		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.022**	**0.018 D**	**0.011**	**0.00884**	**0.0173 D**	**0.0117 D**
1,2-Dichloroethane (1,2-DCA)	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.007**	**0.0051 D**	**0.003**	0.00274	**0.0083 D**	<0.005
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.066 D**	**0.091 D**	**0.058**	**0.0554 D**	**0.178 D**	**0.147 D**
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005
Ethylbenzene	mg/L	0.7		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005
Isobutyl Alcohol	mg/L	10		< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	<0.05	< 0.050	< 0.050	< 0.1	< 0.1	< 0.1	< 0.1	<0.05	< 0.050	< 0.200	< 0.1	< 0.050	**1.45 D**	<0.5
Methylene Chloride	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	< 0.002	< 0.0008	< 0.002	< 0.002	<0.02	<0.02
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	<0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	<0.005	< 0.005	< 0.02	< 0.01	< 0.005	<0.050	<0.05
Naphthalene	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.05	<0.005
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (6)	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.016**	**0.0078 D**	**0.0061**	**0.00361**	**0.00640 D**	<0.005
Toluene	mg/L	1		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01
1,2,4-Trichlorobenzene	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005
Trichloroethene (TCE)	mg/L	0.005	0.005(6)	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.16 D**	**0.056 D**	**0.059**	**0.0246**	**0.0406 D**	<0.0005
Trichlorofluoromethane	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.0004	< 0.001	< 0.001	<0.010	<0.01
1,2,3-Trichloropropane	mg/L	0.04		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005
Vinyl Acetate	mg/L	0.002 (2)		< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	<0.002	< 0.002	< 0.002	< 0.005	< 0.005	< 0.005	< 0.005	<0.002	< 0.002	< 0.0008	< 0.005	< 0.002	<0.020	<0.02
Vinyl Chloride	mg/L	0.002	0.002 (5)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.0004	< 0.001	< 0.001	<0.010	<0.01
Xylenes (total)	mg/L	0.01		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.010	<0.01

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(5) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Data Qualifiers:
B - Compound detected in method blank or trip blank
J - Estimated value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D - Dilution analysis result
< - Less than detection limit listed
H - Sample analyzed outside of holding time
BOLD Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

Table 4
Summary of Volatile Organic Constituents Detected in Ground Water Post Treatment
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	In Plume																	
				ETCMW-114								CH2MW-114D						ETCMW-115					
				4/7/2004	4/7/2004 DUP	4/28/2005	10/27/2005	4/20/2006	4/17/2007	10/24/2007	10/24/2007 (DUP-02)	4/7/2004	4/28/2005	10/26/2005	4/20/2006	4/18/2007	10/24/2007	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007
Acetone	mg/L	4		< 0.001	< 0.01	< 0.1	< 0.5	<0.100	<0.50	<0.01	<0.01	< 0.01	**0.190 D**	**0.52**	< 0.01	<0.1	**0.123 E**	< 0.010	< 0.010	< 0.01	< 0.010	<0.025	<0.025
2-Butanone (MEK)	mg/L	2	2.79	< 0.001	< 0.01	< 0.1	< 0.5	<0.100	<0.50	<0.01	<0.01	< 0.01	**0.430 D**	<0.1	< 0.01	<0.1	**0.0442**	< 0.010	< 0.010	< 0.01	< 0.010	<0.025	<0.025
Benzene	mg/L	0.005		**0.0016**	**0.0017**	< 0.005	< 0.005	<0.005	<0.025	**0.00170**	**0.00165**	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	< 0.0005	**0.00062**	< 0.001	< 0.0005	<0.00125	<0.00125
Carbon Disulfide	mg/L	4		< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125
Chloroethane	mg/L	0.001 (2)	1.23	**0.0053**	**0.0053**	< 0.010	< 0.001	<0.010	<0.05	**0.0149**	**0.0143**	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025
Chloromethane	mg/L	0.001 (2)		< 0.001	< 0.001	< 0.010	< 0.001	<0.010	<0.05	<0.001	<0.001	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.01	< 0.05	<0.010	<0.050	<0.001	<0.001	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025
Dibromomethane	mg/L	0.0005 (2)		< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125
1,1-Dichloroethane (1,1-DCA)	mg/L	4		**0.11 D**	**0.11 D**	**0.062 D**	**0.13**	**0.0839 D**	**0.102 D**	**0.0520 E**	**0.0505 E**	**0.0077**	**0.00830 D**	< 0.01	< 0.001	<0.005	**0.00249**	**0.0064**	**0.0063**	**0.0076**	**0.00367**	**0.00848 D**	**0.00308 D**
1,2-Dichloroethane (1,2-DCA)	mg/L	0.005		**0.0029**	**0.0029**	< 0.005	< 0.05	<0.005	<0.025	**0.00082**	**0.00080**	< 0.0005	< 0.0005	< 0.005 J	< 0.001	<0.005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	**0.13 D**	**0.13 D**	**0.100 D**	**0.24**	**0.138 D**	<0.025	**0.00691**	**0.00642**	**0.0053**	**0.0060 D**	< 0.01	< 0.001	**0.00580 D**	**0.00395**	< 0.0005	< 0.0025	< 0.001	< 0.0005	<0.00125	<0.00125
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	**2.4 D**	**2.4 D**	**1.7 D**	**4.4**	**3.160 D**	**1.830 D**	**0.185 E**	**0.179 E**	**0.088 D**	**0.120 D**	**0.097**	< 0.001	**0.204 D**	**0.146 E**	**0.086 D**	**0.041 D**	**0.094**	**0.0346**	**0.120 D**	**0.0318 D**
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		**0.0025**	**0.0025**	< 0.005	< 0.05	**0.0314 D**	<0.025	**0.00331**	**0.00313**	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	< 0.0005	**0.00067**	< 0.001	< 0.0005	<0.00125	<0.00125
Ethylbenzene	mg/L	0.7		< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125
Isobutyl Alcohol	mg/L	10		< 0.050	< 0.050	< 0.500	< 5	<0.5	<2.5	<0.05	<0.05	< 0.050	< 0.500	< 1	< 0.1	<0.005	**.622 E**	< 0.050	< 0.250	< 0.1	< 0.050	<0.125	<0.125
Methylene Chloride	mg/L	0.005		< 0.002	< 0.002	< 0.020	< 0.1	<0.020	<0.10	<0.002	<0.002	< 0.002	< 0.002	< 0.02	< 0.002	<0.020	<0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.005	<0.005
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		< 0.005	< 0.005	< 0.05	< 0.5	<0.050	<0.25	<0.005	<0.005	< 0.005	< 0.005	< 0.1	< 0.01	<0.050	<0.005	< 0.005	< 0.005	< 0.01	< 0.005	<0.0125	<0.0125
Naphthalene	mg/L	0.02		< 0.001	< 0.001	< 0.01	< 0.05	<0.010	<0.05	<0.001	<0.001	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (6)	**0.11 D**	**0.12 D**	**0.074 D**	**0.13**	0.101 D	<0.025	<0.0005	<0.0005	**0.010**	**0.0072 D**	< 0.01	< 0.001	**0.00530 D**	**0.00288**	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125
Toluene	mg/L	1		< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	**0.00222**	**0.00202**	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	< 0.001	< 0.001	< 0.01	< 0.05	<0.010	<0.025	<0.001	<0.001	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025
1,2,4-Trichlorobenzene	mg/L	0.07		< 0.001	< 0.001	< 0.01	< 0.05	<0.010	<0.050	<0.001	<0.001	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0025	<0.00125
Trichloroethene (TCE)	mg/L	0.005	0.005(6)	**1.6 D**	**1.7 D**	**1.0 D**	**2.2**	**1.480 D**	<0.025	**0.00897**	**0.00823**	**0.200 D**	**0.230 D**	**0.240**	< 0.001	**0.135 D**	**0.056 E**	**0.016**	**0.0057**	**0.0039**	**0.00901**	**0.0214 D**	**0.0079 D**
Trichlorofluoromethane	mg/L	2		< 0.001	< 0.001	< 0.010	< 0.05	<0.010	<0.05	<0.001	<0.001	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025
1,2,3-Trichloropropane	mg/L	0.04		< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125
Vinyl Acetate	mg/L	0.002 (2)		< 0.002	< 0.002	< 0.020	< 0.1	<0.020	<0.10	<0.002	<0.002	< 0.002	< 0.002	< 0.05	< 0.005	<0.020	<0.002	< 0.002	< 0.002	< 0.005	< 0.002	<0.005	<0.005
Vinyl Chloride	mg/L	0.002	0.002 (5)	< 0.001	< 0.001	< 0.010	**0.026**	**0.0236 D**	**3.740 D**	**.524 E**	**0.547 E**	< 0.001	< 0.001	< 0.005 J	< 0.001	<0.010	<0.001	**0.0015**	**0.025**	**0.014**	**0.00346**	**0.00915 D**	<0.0025
Xylenes (total)	mg/L	0.01		< 0.0005	< 0.0005	< 0.005	< 0.05	<0.010	<0.05	**0.00169**	**0.00165**	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.010	<0.001	< 0.0005	**0.00061**	< 0.001	< 0.0005	<0.0025	<0.0025

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(5) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Data Qualifiers:
B - Compound detected in method blank or trip blank
J - Estimated value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D - Dilution analysis result
< - Less than detection limit listed
H - Sample analyzed outside of holding time
BOLD Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

Table 4
Summary of Volatile Organic Constituents Detected in Ground Water Post Treatment
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	In Plume																
				ETMW-116						ETMW-117						ETMW-118					
				4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007 (DUP-01)
Acetone	mg/L	4		< 0.01	**0.360 D**	**1.6**	**0.968 D**	**0.398 D**	<0.05	< 0.01	< 0.04	< 0.01	< 0.01	**2.090 D**	**0.513 ED**	< 0.01	**0.021**	< 0.02	< 0.01	**0.192 D**	<0.5
2-Butanone (MEK)	mg/L	2	2.79	< 0.01	**0.053 D**	**0.38**	**0.163 D**	<0.1	<0.05	< 0.01	< 0.04	< 0.01	< 0.01	0.213 D	**0.0785 D**	< 0.01	< 0.01	< 0.02	< 0.01	<0.050	<0.5
Benzene	mg/L	0.005		< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025
Carbon Disulfide	mg/L	4		< 0.0005	**0.0037 D**	< 0.01	<0.005	<0.005	<0.0025	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	**0.00079**	< 0.002	< 0.0005	**0.00370 D**	<0.025
Chloroethane	mg/L	0.001 (2)	1.23	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	< 0.001	< 0.001	**0.0038**	**0.00437**	<0.005	<0.05
Chloromethane	mg/L	0.001 (2)		< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05
Dibromomethane	mg/L	0.0005 (2)		< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025
1,1-Dichloroethane (1,1-DCA)	mg/L	4		**0.018**	**0.023 D**	< 0.01	**0.00870 D**	**0.00910 D**	**0.00660 D**	**0.0098**	**0.014 D**	**0.013**	**0.0105**	**0.00935 D**	**0.00825 D**	**0.0033**	**0.014**	**0.011**	**0.00961**	**0.0139 D**	<0.025
1,2-Dichloroethane (1,2-DCA)	mg/L	0.005		< 0.0005	< 0.0025	< 0.005 J	<0.005	<0.005	<0.0025	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	**0.0055**	**0.0090 D**	< 0.007 J	**0.00540 D**	<0.005	<0.0025	**0.0022**	**0.0038 D**	**0.0026**	**0.00075**	**0.00305 D**	<0.0025	**0.00061**	**0.0037**	**0.0054**	**0.00489**	**0.00575 D**	<0.025
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	**0.039**	**0.100 D**	**0.18**	**0.221 D**	**0.0831 D**	<0.0025	**0.02**	**0.030 D**	**0.03**	**0.0225**	**0.0315 D**	**0.0762 D**	**0.0057**	**0.120 D**	**0.13**	**0.127 D**	**0.117 D**	**0.111 D**
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	< 0.0005	< 0.002	< 0.001	**0.00213**	<0.0025	<0.0025	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025
Ethylbenzene	mg/L	0.7		< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025
Isobutyl Alcohol	mg/L	10		< 0.050	**1.8**	**1.5**	<0.5	<0.005	<0.25	< 0.050	< 0.2	< 0.1	< 0.050	**2.930 D**	<0.25	< 0.050	< 0.050	< 0.2	< 0.050	**25.6 DH**	**13.2 D**
Methylene Chloride	mg/L	0.005		< 0.002	< 0.001	< 0.002	<0.005	<0.020	<0.01	< 0.002	< 0.008	< 0.002	< 0.002	<0.010	<0.010	< 0.002	< 0.002	< 0.004	< 0.002	<0.010	<0.100
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		< 0.005	< 0.025	< 0.1	<0.05	<0.050	<0.025	< 0.005	< 0.02	< 0.01	< 0.005	<0.025	<0.025	< 0.005	< 0.005	< 0.02	< 0.005	<0.025	<0.25
Naphthalene	mg/L	0.02		< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (6)	**0.011**	**0.012 D**	**0.0062 J**	<0.005	<0.005	<0.0025	**0.0032**	**0.0050 D**	**0.0042**	**0.00378**	**0.00435 D**	<0.0025	**0.0019**	< 0.0005	**0.0032**	**0.00257**	**0.00460 D**	<0.025
Toluene	mg/L	1		< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05
1,2,4-Trichlorobenzene	mg/L	0.07		< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005	< 0.005	< 0.0005	<0.0025	<0.025
Trichloroethene (TCE)	mg/L	0.005	0.005(6)	**0.15 D**	**0.170 D**	**0.12**	<0.005	**0.0291 D**	<0.0025	**0.064 D**	**0.094 D**	**0.098**	**0.079 D**	**0.0744 D**	**0.0302 D**	**0.021**	**0.0031**	**0.049**	**0.0316**	**0.0489 D**	**0.0400 D**
Trichlorofluoromethane	mg/L	2		< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05
1,2,3-Trichloropropane	mg/L	0.04		< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025
Vinyl Acetate	mg/L	0.002 (2)		< 0.002	< 0.01	< 0.05	<0.02	<0.020	<0.01	< 0.002	< 0.008	< 0.005	< 0.002	<0.010	<0.010	< 0.002	< 0.002	< 0.01	< 0.002	<0.010	<0.100
Vinyl Chloride	mg/L	0.002	0.002 (5)	< 0.001	< 0.005	< 0.005 J	**0.0171 D**	**0.0581 D**	**0.0384 D**	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05
Xylenes (total)	mg/L	0.01		< 0.0005	< 0.0025	< 0.01	<0.01	<0.010	<0.005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.005	<0.005	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.005	<0.05

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(5) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Data Qualifiers:
B - Compound detected in method blank or trip blank
J - Estimated value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D - Dilution analysis result
< - Less than detection limit listed
H - Sample analyzed outside of holding time
BOLD Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

Table 4
Summary of Volatile Organic Constituents Detected in Ground Water Post Treatment
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	Cross Gradient												Upgradient					
				ETMW-119							ETMW-120						ETMW-121					
				4/7/2004	4/28/2005	10/25/2005	10/25/2005 (DUP 1	4/18/2006	4/17/2007	10/25/2007	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/23/2007	4/7/2004	4/28/2005	10/26/2005	4/19/2006	4/18/2007	10/23/2007
Acetone	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0212**	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01
2-Butanone (MEK)	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0998 DH**	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01
Benzene	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Carbon Disulfide	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Chloroethane	mg/L	0.001 (2)	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
Chloromethane	mg/L	0.001 (2)		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
Dibromomethane	mg/L	0.0005 (2)		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
1,1-Dichloroethane (1,1-DCA)	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	**0.0011**	**0.0012**	**0.0052**	< 0.0005	**0.00135**	**0.00094**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Ethylbenzene	mg/L	0.7		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Isobutyl Alcohol	mg/L	10		< 0.050	< 0.050	< 0.1	< 0.1	< 0.050	< 0.050	<0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.05	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.05
Methylene Chloride	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		< 0.005	< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	<0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	<0.005
Naphthalene	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (6)	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Toluene	mg/L	1		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
1,2,4-Trichlorobenzene	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Trichloroethene (TCE)	mg/L	0.005	0.005(6)	< 0.0005	**0.00061**	< 0.001	< 0.001	**0.00053**	**0.00074**	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Trichlorofluoromethane	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
1,2,3-Trichloropropane	mg/L	0.04		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Vinyl Acetate	mg/L	0.002 (2)		< 0.002	< 0.002	< 0.005	< 0.005	< 0.002	< 0.002	<0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	<0.002
Vinyl Chloride	mg/L	0.002	0.002 (5)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
Xylenes (total)	mg/L	0.01		< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	<0.001	<0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001

Notes:
(1) Appendix IIL Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(5) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Data Qualifiers:
B - Compound detected in method blank or trip blank
J - Estimated value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D - Dilution analysis result
< - Less than detection limit listed
H - Sample analyzed outside of holding time
BOLD Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

Table 4
Summary of Volatile Organic Constituents Detected in Ground Water Post Treatment
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	Cross Gradient											Downgradient											
				OBGMW-122					OBGMW-123 (formerly MW-123A)						OBGMW-124					CH2PP-1						
				4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	4/6/2004	4/6/2004 DUP	4/27/2005	10/25/2005	4/20/2006	4/18/2007	4/21/2004	4/27/2005	10/26/2005	4/20/2006	4/18/2007	4/7/2004	4/26/2005	10/25/2005	4/19/2006	4/17/2007	10/24/2007
Acetone	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.021**	< 0.01	< 0.01	<0.01
2-Butanone (MEK)	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01
Benzene	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Carbon Disulfide	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	**0.00063**	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Chloroethane	mg/L	0.001 (2)	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
Chloromethane	mg/L	0.001 (2)		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
Dibromomethane	mg/L	0.0005 (2)		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
1,1-Dichloroethane (1,1-DCA)	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	**0.00057**	**0.00055**	< 0.001	< 0.0005	< 0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	<0.0005
Ethylbenzene	mg/L	0.7		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	<0.0005
Isobutyl Alcohol	mg/L	10		< 0.050	< 0.050	<0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	<0.050
Methylene Chloride	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		< 0.005	< 0.005	<0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	<0.005
Naphthalene	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	<0.0005
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (6)	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	<0.0005
Toluene	mg/L	1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	<0.0005
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
1,2,4-Trichlorobenzene	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	<0.0005
Trichloroethene (TCE)	mg/L	0.005	0.005(6)	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	<0.0005
Trichlorofluoromethane	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
1,2,3-Trichloropropane	mg/L	0.04		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	<0.0005
Vinyl Acetate	mg/L	0.002 (2)		< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	<0.002
Vinyl Chloride	mg/L	0.002	0.002 (5)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
Xylenes (total)	mg/L	0.01		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	<0.001

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(5) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Data Qualifiers:
B - Compound detected in method blank or trip blank
J - Estimated value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D - Dilution analysis result
< - Less than detection limit listed
H - Sample analyzed outside of holding time
BOLD Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

Table 10
Summary of Mass Reduction Rates

Former Miller Brewing Company Can Plant
Moultrie, Georgia

	Mass Removed (kg)	% Biotransformed	Mass Reduction Rate (kg/yr)	Mass Reduction Rate (mg/yr)	Type 1 RRS (mg/L)	Type 4 RRS (mg/L)	Time to meet Type 1 RRS (years)	Time to meet Type 4 RRS (years)
PCE	NA	NA	NA	NA	0.005	0.005	NA	NA
TCE	0.00016	26.4%	0.000008	8.05	0.005	0.005	591	591
DCE	0.00618	49.0%	0.000309	308.93	0.07	1.02	5.8	NA*
VC	0.02148	60.2%	0.001074	1073.92	0.002	0.002	50.1	50.1

NA = Constituent not detected in source area
NA* = Constituent never above Type 4 RRS

Table 5
Natural Attenuation Scoring Criteria
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Analysis	Concentration in Most Contaminanted Zone	Interpretation	Value
Oxygen*	<0.5 mg/L	Tolerated, supresses the reductive pathway at higher concentrations	3
Oxygen*	>5 mg/L	Not tolerated; however, VC may be oxidized aerobically	-3
Nitrate	<1 mg/L	At higher concentrations may compete with reductive Pathway	2
Iron II*	>1 mg/L	Reductive pathway possible; VC may be oxidized under FE (III)-reducing conditions	3
Sulfate*	<20 mg/L	At higher concentrations may compete with reductive Pathway	2
Sulfide*	>1 mg/L	Reductive pathway possible	3
Methane*	<0.5 mg/L >0.5 mg/L	VC oxidizes Ultimate reductive daughter product, VC accumulates	0 3
Oxidation Reduction Potentail (ORP) against Ag/AgCl electrode	<50 millivolts (mV) <-100 mV	Reductive pathway possible Reductive pathway likeley	1 2
pH*	5<pH<9	Optimal range for reductive pathway Outside optimal range for reductive pathway	0 -2
TOC	>20 mg/L	Carbon and energy source; drives dechlorination; can be natural or anthropogenic	2
Temperature*	>20° C	At T>20°C biochemical process is accelerated	1
Carbon Dioxide	>2x background	Ultimate oxidative daughter product	1
Alkalinity	>2x background	Results from interaction between CO_2 and aquifer minerals	1
Chloride*	>2x background	Daughter product of organic chlorine	2
Hydrogen	>1 nM	Reductive pathway possible, VC may accumulate	3
Hydrogen	<1 nM	VC oxidizes	0
Volatile Fatty Acids	>0.1 mg/L	Intermediates resulting from biodegradation of more complex compounds; carbon and energy source	2
BTEX*	>0.1 mg/L	Carbon and energy source; drives dechlorination	2
Tetrachloroethene		Material released	0
Trichloroethene*		Material released Daughter product of PCE	0 2[a]
DCE*		Material released Daughter product of TCE If cis is >80% of total DCE it is likely a daughter product 1,1-DCE can be chemical reaction product of TCA	0 2[a]
1,1-Trichloroethane*		Material released	0
DCA		Daughter product of TCA under reducing conditions	2
Carbon Tetrachloride		Material released	0
Ethene/Ethane	>0.01 mg/L >0.1 mg/L	Daughter product of VC/ethene	2 3
Chloroform		Material released Daughter product of Carbon Tetrachloride	0 2
Dichloromethane		Material released Daughter product of Chloroform	0 2

* Required analysis

a Points awarded only if it can be shown that the compound is a daughter product (i.e., not a constituent of the source NAPL)

Analytical parameters are weighting for preliminary screening for anaerobic biodegradation processes.

Table 6
Natural Attenuation Screening

Former Miller Brewing Company Can Plant
Moultrie, Georgia

Well ID	Date	Alk (mg/L)	Alk Background	Alk >2x Background	CO_2 (mg/L)	CO_2 Background	CO_2 >2x Background	CL (mg/L)	CL Background	Cl >2x Background	DO (mg/L)	DO <0.5 mg/L = 3 >5 mg/L = -3	Ethene/ Ethane (ug/L)	Ethane >0.01mg/L =2 >0.1mg/L=3	Ferrous Iron (mg/L)	Ferrous Iron > 1 mg/L	Methane (ug/L)	Methane <0.5 mg/L = 0 >0.5 mg/L = 3	Nitrate (mg/L)	Nitrate < 1 mg/L =2	pH (s.u.)	pH 5<pH<9 = 0 5>pH>9 = -2	ORP (mV)	ORP <50 = 1 <-100 =2	Sulfate (mg/L)	Sulfate <20 mg/L =2	Sulfide (mg/L)	Sulfide >1 mg/L =3	Temp (°C)	Temp >20°C =1	TOC (mg/L)	TOC >20 mg/L = 2	cis-1,2-DCE	DCE
CH2MW-1	Apr-05	-	18	0	20	14	0	-	13	0	3.93	0	-	0	ND	0	-	0	-	0	5.51	0	222	0	-	0	-	0	20.57	1	-	0	0.0011	0
	Oct-05	-	ND	0	-	50	0	-	18	0	3.44	0	-	0	ND	0	-	0	-	0	4.52	-2	179	0	-	0	-	0	20.35	1	-	0	0.0011	0
	Apr-06	-	12	0	-	14	0	-	9.3	0	5.93	-3	-	0	ND	0	-	0	-	0	5.11	0	414	0	-	0	-	0	23.07	1	-	0	0.00052	0
	Apr-07	-	ND	0	>100	75	INC	-	6.7	0	4.96	0	-	0	ND	0	-	0	-	0	5.05	0	340	0	-	0	-	0	21.62	1	-	0	ND	0
	Oct-07	-	ND	0	80	30	2	-	12	0	3.53	0	-	0	ND	0	-	0	-	0	5.33	0	124	0	-	0	-	0	25.71	1	-	0	ND	0
CH2MW-1A	Apr-05	2.6	18	0	13	14	0	8.8	13	0	2.52	0	ND	0	ND	0	ND	0	0.27	2	5.9	0	181	0	2.7	2	ND	0	19.46	0	9.6	0	ND	0
	Oct-05	-	ND	0	70	50	0	11	18	0	1.12	0	ND	0	2.87	3	ND	0	0.64	2	5.33	0	186	0	ND	0	-	0	23.99	1	3.5	0	ND	0
	Apr-06	24	12	0	-	14	0	9.4	9.3	0	4.78	0	ND	0	ND	0	ND	0	0.71	2	5.13	0	357	0	1.6	2	ND	0	19.97	0	6.3	0	ND	0
	Apr-07	-	ND	0	0.79	75	0	7.8	6.7	0	0.71	0	ND	0	0.6	0	ND	0	1.2	0	5.36	0	353	0	7.7	2	-	0	19.97	0	3.9	0	ND	0
CH2MW-2	Apr-05	-	18	0	13	14	0	-	13	0	1.45	0	-	0	ND	0	-	0	-	0	3.71	-2	387	0	-	0	-	0	19.51	0	-	0	ND	0
	Oct-05	-	ND	0	-	50	0	-	18	0	1.86	0	-	0	-	0	-	0	-	0	4.41	-2	234	0	-	0	-	0	24.79	1	-	0	ND	0
	Apr-06	-	12	0	-	14	0	-	9.3	0	4.12	0	-	0	-	0	-	0	-	0	5.03	0	448	0	-	0	-	0	20.24	1	-	0	ND	0
	Apr-07	-	ND	0	95	75	0	-	6.7	0	4.86	0	-	0	ND	0	-	0	-	0	5.47	0	399	0	-	0	-	0	19.66	0	-	0	ND	0
CH2MW-3	Apr-05	18	18	0	14	14	0	9.9	13	0	2.4	0	ND	0	ND	0	ND	0	-	0	5.12	0	446	0	39	0	ND	0	20.78	1	2.6	0	ND	0
	Oct-05	ND	ND	0	50	50	0	18	18	0	1.8	0	ND	0	0.31	0	ND	0	-	0	4.57	-2	187	0	16	2	ND	0	23.80	1	2.4	0	ND	0
	Apr-06	12	12	0	14	14	0	9.3	9.3	0	6.7	-3	ND	0	ND	0	ND	0	-	0	4.91	-2	370	0	38	0	ND	0	21.91	1	3.1	0	ND	0
	Apr-07	ND	ND	0	6.9	75	0	6.7	6.7	0	0.152	3	ND	0	0.5	0	ND	0	-	0	5.10	0	339	0	44	0	ND	0	22.91	1	3.6	0	ND	0
	Oct-07	ND	ND	0	30	30	0	12	12	0	3.85	0	ND	0	ND	0	ND	0	1.1	0	4.56	-2	206	0	19	2	ND	0	23.95	1	2.1	0	ND	0
CH2MW-4D	Apr-05	ND	18	0	14	14	0	-	13	0	4.11	0	-	0	ND	0	-	0	-	0	8.67	0	282	0	-	0	-	0	21.87	1	-	0	ND	0
	Oct-05	ND	ND	0	-	50	0	-	18	0	5.16	-3	-	0	-	0	-	0	-	0	7.66	0	172	0	-	0	-	0	23.39	1	-	0	ND	0
	Apr-06	ND	12	0	-	14	0	-	9.3	0	7.05	-3	-	0	-	0	-	0	-	0	7.86	0	411	0	-	0	-	0	23.13	1	-	0	ND	0
	Apr-07	ND	ND	0	30	75	0	-	6.7	0	7.1	-3	-	0	ND	0	-	0	-	0	6.66	0	360	0	-	0	-	0	23.19	1	-	0	ND	0
	Oct-07	ND	ND	0	14	30	0	-	12	0	4.76	0	-	0	0.2	0	-	0	-	0	6.56	0	188	0	-	0	-	0	23.03	1	-	0	ND	0
CH2MW-5	Apr-05	98	18	1	15	14	0	2.8	13	0	2.85	0	ND	0	0.5	0	ND	0	-	0	6.4	0	156	0	2.2	2	ND	0	19.79	0	9.6	0	ND	0
	Oct-05	36	ND	1	40	50	0	6.6	18	0	1.77	0	ND	0	2.2	3	ND	0	-	0	5.51	0	184	0	2.5	2	ND	0	22.4	1	2.2	0	ND	0
	Apr-06	110	12	1	-	14	0	8.3	9.3	0	4.00	0	ND	0	-	0	ND	0	-	0	5.79	0	395	0	2.5	2	ND	0	19.42	0	2.4	0	ND	0
	Apr-07	42	ND	1	55	75	0	5.1	6.7	0	2.45	0	ND	0	1.0	0	ND	0	-	0	6.22	0	320	0	2.8	2	1.7	3	20.5	1	2.8	0	ND	0
ETCMW-113	Apr-05	-	18	0	10	14	0	-	13	0	2.47	0	-	0	1	0	-	0	-	0	6.53	0	217	0	-	0	-	0	18.02	0	-	0	0.091	2
	Oct-05	-	ND	0	-	50	0	-	18	0	1.27	0	-	0	-	0	-	0	-	0	6.21	0	192	0	-	0	-	0	23.34	1	-	0	0.058	2
	Apr-06	-	12	0	-	14	0	-	9.3	0	6.39	-3	-	0	-	0	-	0	-	0	5.71	0	348	0	-	0	-	0	20.43	1	-	0	0.0554	0
	Apr-07	-	ND	0	>100	75	INC	-	6.7	0	0.62	0	-	0	4.2	3	-	0	-	0	4.67	-2	259	0	-	0	-	0	18.75	0	-	0	0.178	2
	Oct-07	-	ND	0	>100	30	2	-	12	0	2.93	0	-	0	6.6	3	-	0	-	0	4.64	-2	67	0	-	0	-	0	23.53	1	-	0	0.147	2
ETCMW-114	Apr-05	120	18	1	14	14	0	26	13	0	3.02	0	ND	0	ND	0	ND	0	8.2 H	0	6.61	0	66	0	39	0	ND	0	17.98	0	2.2	0	1.7	2
	Oct-05	120	ND	1	30	50	0	32	18	0	1.31	0	ND	0	0.19	0	14.00	3	1.4	0	6.46	0	160	0	31	0	ND	0	22.88	1	3.2	0	4.4	2
	Apr-06	140	12	1	14	14	0	29	9.3	2	0.7	0	ND	0	ND	0	14.00	3	-	0	6.16	0	356	0	51 D	0	ND	0	18.56	0	14	0	3.16	2
	Apr-07	470	ND	1	>100	75	INC	110	6.7	2	0.68	0	7.0	0	4.2	3	0.14	0	ND	0	6.73	0	255	0	ND	0	1.8	3	18.14	0	51	2	1.83	2
	Oct-07	350	ND	1	90	30	2	73	12	2	0.96	0	38	2	1.2	3	54.00	3	-	0	6.20	0	150	0	35	0	ND	0	24.36	1	4.4	0	0.185	2
ETCMW-114D	Apr-05	3000	18	1	50	14	0	89	13	2	0.97	0	ND	0	5	3	ND	0	-	0	5.95	0	-8	1	47	0	ND	0	20.43	1	9800	2	0.12	2
	Oct-05	2200	ND	1	350 DL	50	0	190	18	2	0.51	0	ND	0	2	3	ND	0	-	0	6.08	0	-76	1	100	0	ND	0	21.06	1	3500	2	0.097	2
	Apr-06	830	12	1	-	14	0	200	9.3	2	3.00	0	-	0	-	0	-	0	-	0	5.58	0	289	0	150	0	1.4	3	21.65	1	3800	2	ND	0
	Apr-07	ND	ND	0	>100	75	0	-	6.7	0	0.90	0	ND	0	4.2	3	2.8	3	-	0	5.55	0	309	0	-	0	-	0	20.59	1	-	0	0.204	2
	Oct-07	-	ND	0	-	30	0	-	12	0	0.54	0	-	0	-	0	-	0	-	0	4.88	-2	97	0	-	0	-	0	22.89	1	1700	2	0.146	2
ETCMW-115	Apr-05	-	18	0	19	14	0	-	13	0	0.23	3	-	0	4.3	3	-	0	-	0	6.37	0	131	0	-	0	-	0	20.32	1	-	0	0.041	2
	Oct-05	-	ND	0	-	50	0	-	18	0	0.54	0	-	0	-	0	-	0	-	0	5.82	0	84	0	-	0	-	0	22.58	1	-	0	0.094	2
	Apr-06	-	12	0	-	14	0	-	9.3	0	2.09	0	-	0	-	0	-	0	-	0	5.70	0	377	0	-	0	-	0	22.36	1	-	0	0.0346	2
	Apr-07	-	ND	0	>100	75	0	-	6.7	0	0.49	3	-	0	4.8	3	-	0	-	0	5.70	0	312	0	-	0	-	0	21.45	1	-	0	0.12	2
	Oct-07	230	ND	1	60	30	0	6.4	12	0	2.65	0	ND	0	2.8	3	0.019	0	2.5	0	6.01	0	162	0	10	2	ND	0	27.50	1	4.1	0	0.0318	2
ETMW-116	Apr-05	-	18	0	15	14	0	-	13	0	0.15	3	-	0	5.0	3	-	0	-	0	5.03	0	141	0	-	0	-	0	18.23	0	-	0	0.1	2
	Oct-05	-	ND	0	-	50	0	-	18	0	0.45	3	-	0	-	0	-	0	-	0	4.99	-2	108	0	-	0	-	0	23.81	1	-	0	0.18	2
	Apr-06	-	12	0	-	14	0	-	9.3	0	0.35	3	-	0	-	0	-	0	-	0	5.56	0	281	0	-	0	-	0	19.10	0	-	0	0.221	2
	Apr-07	-	ND	0	>100	75	INC	-	6.7	0	0.42	3	-	0	6.0	3	-	0	-	0	4.89	-2	309	0	-	0	-	0	18.82	0	-	0	0.0831	2
	Oct-07	670	ND	1	>100	30	2	16	12	0	0.24	3	ND	0	6.2	3	3500	3	ND	0	6.17	0	-34	1	ND	0	ND	0	24.43	1	16	0	ND	0
ETMW-117	Apr-05	-	18	0	10	14	0	-	13	0	0.49	3	-	0	2.2	3	-	0	-	0	6.03	0	278	0	-	0	-	0	21.41	1	-	0	0.03	2
	Oct-05	-	ND	0	-	50	0	-	18	0	1.05	0	-	0	-	0	-	0	-	0	5.60	0	144	0	-	0	-	0	26.20	1	-	0	0.03	2
	Apr-06	-	12	0	-	14	0	-	9.3	0	1.86	0	-	0	-	0	-	0	-	0	5.23	0	363	0	-	0	-	0	22.82	1	-	0	0.0225	0
	Apr-07	-	ND	0	>100	75	INC	-	6.7	0	0.42	3	-	0	5.8	3	-	0	-	0	4.40	-2	335	0	-	0	-	0	22.27	1	-	0	0.0315	2
	Oct-07	86	ND	1	>100	30	2	8.8	12	0	0.38	3	-	0	7.4	3	-	0	-	0	4.04	-2	127	0	ND	0	ND	0	25.48	1	930	2	0.0762	2
ETMW-118	Apr-05	-	18	0	15	14	0	-	13	0	0.34	3	-	0	4.4	3	-	0	-	0	5.86	0	125	0	-	0	-	0	20.50	1	-	0	0.12	2
	Oct-05	-	ND	0	-	50	0	-	18	0	0.46	3	-	0	-	0	-	0	-	0	5.10	0	155	0	-	0	-	0	24.86	1	-	0	0.13	2
	Apr-06	-	12	0	-	14	0	-	9.3	0	0.59	0	-	0	-	0	-	0	-	0	5.35	0	346	0	-	0	-	0	22.71	1	-	0	0.127	2
	Apr-07	-	ND	0	>100	75	INC	-	6.7	0	0.50	0	-	0	5.0	3	-	0	-	0	4.38	-2	327	0	-	0	-	0	21.01	1	-	0	0.117	2
	Oct-07	-	ND	0	>100	30	2	-	12	0	0.40	3	-	0	6.4	3	-	0	-	0	4.60	-2	141	0	-	0	-	0	25.30	1	-	0	0.108	2
ETMW-119	Apr-05	-	18	0	18	14	0	-	13	0	0.33	3	-	0	1.0	0	-	0	-	0	6.25	0	138	0	-	0	-	0	19.97	0	-	0	ND	0
	Oct-05	-	ND	0	-	50	0	-	18	0	1.34	0	-	0	-	0	-	0	-	0	5.64	0	115	0	-	0	-	0	20.86	1	-	0	ND	0
	Apr-06	-	12	0	-	14	0	-	9.3	0	1.31	0	-	0	-	0	-	0	-	0	5.82	0	370	0	-	0	-	0	20.73	1	-	0	ND	0
	Apr-07	-	ND	0	>100	75	INC	-	6.7	0	2.78	0	-	0	4.2	3	-	0	-	0	6.2	0	251	0	-	0	-	0	19.18	0	-	0	ND	0
	Oct-07	-	ND	0	70	30	2	-	12	0	0.57	0	-	0	4.8	3	-	0	-	0	5.78	0	128	0	-	0	-	0	23.71	1	-	0	ND	0
ETMW-120	Apr-05	-	18	0	15	14	0	-	13	0	0.69	0	-	0	3.5	3	-	0	-	0	6.19	0	169	0	-	0	-	0	20.43	1	-	0	0.0012	2
	Oct-05	-	ND	0	-	50	0	-	18	0	0.67	0	-	0	-	0	-	0	-	0	5.36	0	92	0	-	0	-	0	20.88	1	-	0	0.0052	2
	Apr-06	-	12	0	-	14	0	-	9.3	0	2.19	0	-	0	-	0	-	0	-	0	5.64	0	379	0	-	0	-	0	21.94	1	-	0	ND	0
	Apr-07	-	ND	0	65	75	0	-	6.7	0	5.00	0	-	0	6.0	3	-	0	-	0	5.50	0	327	0	-	0	-	0	21.74	1	-	0	0.00135	2
	Oct-07	-	ND	0	40	30	0	-	12	0	3.05	0	-	0	0.6	0	-	0	-	0	5.87	0	175	0	-	0	-	0	25.67	1	-	0	0.00094	2
ETMW-121	Apr-05	5.8	18	0	15	14	0	5.2	13	0	3.34	0	ND	0	ND	0	ND	0	-	0	6.25	0	197	0	9.9	2	ND	0	19.22	0	4.9	0	ND	0
	Oct-05	26	ND	1	35	50	0	11	18	0	1.00	0	ND	0	0.39	0	ND	0	-	0	5.94	0	176	0	4.6	2	ND	0	23.6	1	3.3	0	ND	0
	Apr-06	28	12	1	25	14	0	6	9.3	0	3.27	0	ND	0	ND	0	ND	0	-	0	5.83	0	347	0	13	2	ND	0	19.36	0	4.5	0	ND	0
	Apr-07	38	ND	1	40	75	0	-	6.7	0	6.74	-3	ND	0	2.4	3	ND	0	-	0	6.00	0	332	0	-	0	1.8	3	19.56	0	2.1	0	ND	0
	Oct-07	82	ND	1	18	30	0	1.9	12	0	7.00	-3	ND	0	0.4	0	ND	0	-	0	6.23	0	166	0	5.4	2	ND	0	26.03	1	3.9	0	ND	0
OBGMW-122	Apr-05	-	18	0	15	14	0	-	13	0	3.25	0	-	0	ND	0	-	0	-	0	6.08	0	17.6	1	-	0	-	0	18.4	0	-	0	ND	0
	Oct-05	-	ND	0	-	50	0	-	18	0	0.77	0	-	0	-	0	-	0	-	0	6.38	0	106	0	-	0	-	0	22.45	1	-	0	ND	0
	Apr-06	-	12	0	-	14	0	-	9.3	0	3.58	0	-	0	-	0	-	0	-	0	6.18	0	395	0	-	0	-	0	19.79	0	-	0	ND	0
	Apr-07	-	ND	0	70	75	0	-	6.7	0	4.08	0	-	0	ND	0	-	0	-	0	6.31	0	370	0	-	0	-	0	19.27	0	-	0	ND	0
OBGMW-123	Apr-05	-	18	0	18	14	0	-	13	0	0.41	3	-	0	4.7	3	-	0	-	0	6.27	0	76	0	-	0	-	0	20.1	1	-	0	ND	0
	Oct-05	-	ND	0	-	50	0	-	18	0	0.52	0	-	0	-	0	-	0	-	0	5.25	0	115	0	-	0	-	0	24.64	1	-	0	ND	0
	Apr-06	-	12	0	-	14	0	-	9.3	0	7.22	-3	-	0	-	0	-	0	-	0	5.29	0	480	0	-	0	-	0	19.99	0	-	0	ND	0
	Apr-07	-	ND	0	50	75	0	-	6.7	0	0.66	0	-	0	1.5	3	-	0	-	0	4.75	-2	429	0	-	0	-	0	19.76	0	-	0	ND	0
OBGMW-124	Apr-05	430	18	1	50	14	2	180	13	2	1.11	0	ND	0	1.8	3	38	3	-	0	6.4	0	140	0	170	0	ND	0	20.3	1	5.2	0	ND	0
	Oct-05	410	ND	1	70	50	0	210	18	2	0.63	0	ND	0	1.7	3	ND	0	-	0	6.82	0	98	0	190	0	ND	0	21.83	1	4.9	0	ND	0
	Apr-06	390	12	1	15	14	0	44	9.3	2	1.85	0	ND	0	ND	0	2.1	3	0.2	2	6.55	0	326	0	60	0	ND	0	21.65	1	5.1	0	ND	0
	Apr-07	350	ND	1	75	75	0	200	6.7	2	5.83	-3	ND	0	ND	0	ND	0	-	0	7.25	0	318	0	150	0	1.6	3	20.96	1	3.5	0	ND	0
CH2PP1	Apr-05	-	18	0	12	14	0	-	13	0	4.75	0	-	0	ND	0	-	0	-	0	5.93	0	325	0	-	0	-	0	20.72	1	-	0	ND	0
	Oct-05	-	ND	0	-	50	0	-	18	0	3.19	0	-	0	-	0	-	0	-	0	5.01	0	207	0	-	0	-	0	25.77	1	-	0	ND	0
	Apr-06	-	12	0	-	14	0	-	9.3	0	7.51	-3	-	0	-	0	-	0	-	0	4.56	-2	439	0	-	0	-	0	21.84	1	-	0	ND	0
	Apr-07	-	ND	0	-	75	0	-	6.7	0	6.98	-3	-	0	-	0	-	0	-	0	5.53	0	330	0	-	0	-	0	21.57	1	-	0	ND	0
	Oct-07	-	ND	0	20	30	0	-	12	0	3.95	0	-	0	ND	0	-	0	-	0	5.28	0	122	0	-	0	-	0	25.27	1	-	0	ND	0

Table 6
Natural Attenuation Screening

Former Miller Brewing Company Can Plant
Moultrie, Georgia

Well ID	Date	VC	VC	PCE	PCE	TCE	TCE	TCA	TCA	DCA	DCA	Chloroethane	Chloroethane	Total	Biodegradation Potential
CH2MW-1	Apr-05	ND	0	ND	0	0.0041	0	ND	0	0.0013	0	ND	0	1	Inadequate Evidence
	Oct-05	ND	0	ND	0	0.0044	0	ND	0	ND	0	ND	0	-1	Inadequate Evidence
	Apr-06	ND	0	ND	0	0.00202	0	ND	0	0.00059	0	ND	0	-2	Inadequate Evidence
	Apr-07	ND	0	ND	0	0.00176	0	ND	0	ND	0	ND	0	1	Inadequate Evidence
	Oct-07	ND	0	ND	0	0.00082	0	ND	0	ND	0	ND	0	3	Inadequate Evidence
CH2MW-1A	Apr-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	4	Inadequate Evidence
	Oct-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	6	Limited Evidence
	Apr-06	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	4	Inadequate Evidence
	Apr-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	2	Inadequate Evidence
CH2MW-2	Apr-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	-2	Inadequate Evidence
	Oct-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	-1	Inadequate Evidence
	Apr-06	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	1	Inadequate Evidence
	Apr-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	0	Inadequate Evidence
CH2MW-3	Apr-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	1	Inadequate Evidence
	Oct-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	1	Inadequate Evidence
	Apr-06	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	-4	Inadequate Evidence
	Apr-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	4	Inadequate Evidence
	Oct-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	1	Inadequate Evidence
CH2MW-4D	Apr-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	1	Inadequate Evidence
	Oct-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	-2	Inadequate Evidence
	Apr-06	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	-2	Inadequate Evidence
	Apr-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	-2	Inadequate Evidence
	Oct-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	1	Inadequate Evidence
CH2MW-5	Apr-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	3	Inadequate Evidence
	Oct-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	7	Limited Evidence
	Apr-06	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	3	Inadequate Evidence
	Apr-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	7	Limited Evidence
ETCMW-113	Apr-05	ND	0	0.0078	0	0.056	2	ND	0	0.018	0	ND	0	4	Inadequate Evidence
	Oct-05	ND	0	0.0061	0	0.059	2	ND	0	0.011	0	ND	0	5	Inadequate Evidence
	Apr-06	ND	0	0.00361	0	0.0246	2	ND	0	0.00884	0	ND	0	0	Inadequate Evidence
	Apr-07	ND	0	0.0064	0	0.0406	2	ND	0	0.0173	0	ND	0	5	Inadequate Evidence
	Oct-07	ND	0	ND	0	ND	0	ND	0	0.0117	0	ND	0	6	Limited Evidence
ETCMW-114	Apr-05	ND	0	0.074	0	1	2	ND	0	0.062	0	ND	0	5	Inadequate Evidence
	Oct-05	0.026	2	0.13	0	2.2	2	ND	0	0.13	0	ND	0	11	Limited Evidence
	Apr-06	0.0236	2	0.101	0	1.48	2	ND	0	0.0839	0	ND	0	12	Limited Evidence
	Apr-07	3.74	2	ND	0	ND	0	ND	0	0.102	0	ND	0	15	Adequate Evidence
	Oct-07	0.524	2	ND	0	0.00897	0	ND	0	0.052	0	ND	0	18	Adequate Evidence
ETCMW-114D	Apr-05	ND	0	0.0072	0	0.23	2	ND	0	0.0083	0	ND	0	14	Limited Evidence
	Oct-05	ND	0	ND	0	0.24	2	ND	0	ND	0	ND	0	14	Limited Evidence
	Apr-06	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	9	Limited Evidence
	Apr-07	ND	0	0.0053	0	0.135	2	ND	0	ND	0	ND	0	11	Limited Evidence
	Oct-07	ND	0	0.00288	0	0.056	2	ND	0	0.00249	0	ND	0	5	Inadequate Evidence
ETCMW-115	Apr-05	0.025	2	ND	0	0.0057	0	ND	0	0.0063	0	ND	0	11	Limited Evidence
	Oct-05	0.014	0	ND	0	0.0039	0	ND	0	0.0076	0	ND	0	3	Inadequate Evidence
	Apr-06	0.00346	0	ND	0	0.00901	0	ND	0	0.00367	0	ND	0	3	Inadequate Evidence
	Apr-07	0.00915	2	ND	0	0.0214	0	ND	0	0.00848	0	ND	0	11	Limited Evidence
	Oct-07	ND	0	ND	0	0.0079	0	ND	0	0.00308	0	ND	0	9	Limited Evidence
ETMW-116	Apr-05	ND	0	0.012	0	0.17	2	ND	0	0.023	0	ND	0	10	Limited Evidence
	Oct-05	ND	0	0.0062	0	0.12	2	ND	0	ND	0	ND	0	6	Limited Evidence
	Apr-06	0.0171	2	ND	0	ND	0	ND	0	0.0087	0	ND	0	7	Limited Evidence
	Apr-07	0.0581	2	ND	0	0.0291	0	ND	0	0.0091	0	ND	0	8	Limited Evidence
	Oct-07	0.0384	2	ND	0	ND	0	ND	0	0.0066	0	ND	0	16	Adequate Evidence
ETMW-117	Apr-05	ND	0	0.005	0	0.094	2	ND	0	0.014	0	ND	0	11	Limited Evidence
	Oct-05	ND	0	0.0042	0	0.098	2	ND	0	0.013	0	ND	0	5	Inadequate Evidence
	Apr-06	ND	0	0.00378	0	0.079	2	ND	0	0.0105	0	ND	0	3	Inadequate Evidence
	Apr-07	ND	0	0.00435	0	0.0744	2	ND	0	0.00935	0	ND	0	9	Limited Evidence
	Oct-07	ND	0	ND	0	0.0302	2	ND	0	0.00825	0	ND	0	14	Limited Evidence
ETMW-118	Apr-05	ND	0	ND	0	0.0031	0	ND	0	0.014	0	ND	0	9	Limited Evidence
	Oct-05	ND	0	0.0032	0	0.049	2	ND	0	0.011	0	0.0038	2	10	Limited Evidence
	Apr-06	ND	0	0.00257	0	0.0316	2	ND	0	0.00961	0	0.00437	2	7	Limited Evidence
	Apr-07	ND	0	0.0046	0	0.0489	2	ND	0	0.0139	0	ND	0	6	Limited Evidence
	Oct-07	ND	0	ND	0	0.039	2	ND	0	ND	0	ND	0	11	Limited Evidence
ETMW-119	Apr-05	ND	0	ND	0	0.00061	0	ND	0	ND	0	ND	0	3	Inadequate Evidence
	Oct-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	1	Inadequate Evidence
	Apr-06	ND	0	ND	0	0.00053	0	ND	0	ND	0	ND	0	1	Inadequate Evidence
	Apr-07	ND	0	ND	0	0.00074	0	ND	0	ND	0	ND	0	3	Inadequate Evidence
	Oct-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	6	Limited Evidence
ETMW-120	Apr-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	6	Limited Evidence
	Oct-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	3	Inadequate Evidence
	Apr-06	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	1	Inadequate Evidence
	Apr-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	6	Limited Evidence
	Oct-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	3	Inadequate Evidence
ETMW-121	Apr-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	2	Inadequate Evidence
	Oct-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	4	Inadequate Evidence
	Apr-06	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	3	Inadequate Evidence
	Apr-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	4	Inadequate Evidence
	Oct-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	1	Inadequate Evidence
OBGMW-122	Apr-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	1	Inadequate Evidence
	Oct-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	1	Inadequate Evidence
	Apr-06	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	0	Inadequate Evidence
	Apr-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	0	Inadequate Evidence
OBGMW-123	Apr-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	7	Limited Evidence
	Oct-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	1	Inadequate Evidence
	Apr-06	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	-3	Inadequate Evidence
	Apr-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	1	Inadequate Evidence
OBGMW-124	Apr-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	12	Limited Evidence
	Oct-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	7	Limited Evidence
	Apr-06	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	9	Limited Evidence
	Apr-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	4	Inadequate Evidence
CH2PP1	Apr-05	ND	0	ND	0	ND	0	ND	0	0.00055	0	ND	0	1	Inadequate Evidence
	Oct-05	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	1	Inadequate Evidence
	Apr-06	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	-4	Inadequate Evidence
	Apr-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	-2	Inadequate Evidence
	Oct-07	ND	0	ND	0	ND	0	ND	0	ND	0	ND	0	1	Inadequate Evidence

Table 7
Summary of Ground Water Geochemical Data
Post-treatment
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Downgradient									Upgradient									
		CH2MW-1					CH2MW-1A				CH2MW-2				CH2MW-3					
		4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/24/2007	4/28/2005	10/26/2005	4/20/2006	4/19/2007	4/27/2005	10/25/2005	4/18/2006	4/18/2007	4/27/2005	4/27/2005 (DUP2)	10/26/2005	4/19/2006	4/17/2007	10/24/2007
Alkalinity	mg/L	-	-	-	-	-	2.6	NA	24	NA	-	-	-	-	18	18	< 10	12	<10	<10
Chloride	mg/L	-	-	-	-	-	8.8	11	9.4	7.8	-	-	-	-	9.9	13	18	9.3	6.7	12
Ferrous Iron	mg/L	ND	-	-	ND	ND	ND	2.87	-	0.6	ND	-	-	ND	ND	-	0.31	ND	0.5	ND
Iron	mg/L	-	-	-	-	-	1.2	NA	1.8	2.1	-	-	-	-	0.11	<0.05	< 0.050	0.094	0.072	0.16
Manganese	mg/L	-	-	-	-	-	< 0.05	NA	< 0.050	<0.050	-	-	-	-	<0.05	<0.05	< 0.050	< 0.050	<0.050	<0.050
Nitrate (as N)	mg/L	-	-	-	-	-	0.27	0.64	0.71	1.2	-	-	-	-	0.55	0.79	1.6	0.61	0.51	1.1
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	2.7	< 2.0	1.6	7.7	-	-	-	-	39	32	16	38	44	19
Sulfide	mg/L	-	-	-	-	-	< 0.9	NA	< 0.80	NA	-	-	-	-	< 0.8	< 0.8	< 0.8	< 0.80	<1.0	<1.0
Methane	ug/L	-	-	-	-	-	< 5.0	< 2.0	< 2.1	<0.0021	-	-	-	-	< 5.0	< 5.0	< 2.0	< 2.1	<2.3	<2.1
Ethane	ug/L	-	-	-	-	-	< 5.0	< 4.0	< 4.2	<0.0042	-	-	-	-	< 5.0	< 5.0	< 4.0	< 4.2	<4.5	<4.1
Ethene	ug/L	-	-	-	-	-	< 5.0	< 4.0	< 4.2	<0.0042	-	-	-	-	< 5.0	< 5.0	< 4.0	< 4.2	<4.5	<4.1
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	11	NA	-	2.7	-	-	-	-	3.8	3.9	6.8	16	1.7	2.1
Total Organic Carbon	mg/L	-	-	-	-	-	9.6	3.5	6.3	3.9	-	-	-	-	2.6	3.0	2.4	3.1	3.6	2.1
Carbon Dioxide	mg/L	20	-	-	>100	80	13	70	-	>100	13	-	-	95	14	-	50	14	75	30
pH	S.U.	5.51	4.52	5.11	5.05	5.33	5.90	5.33	5.13	5.36	3.71	4.41	5.03	5.47	5.12	-	4.57	4.91	5.10	4.56
Conductivity	mS/cm	0.183	0.128	0.137	0.12	0.134	0.137	0.088	0.098	0.092	0.284	0.206	0.217	0.207	0.186	-	0.106	0.170	0.152	0.095
Dissolved Oxygen	mg/L	3.93	3.44	5.93	4.96	3.53	2.52	1.12	4.78	0.79	1.45	1.86	4.12	4.86	2.4	-	1.8	6.7	6.90	3.85
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oxidation/Reduction Potential (ORP)	mV	222	179	414	340	124	181	186	357	353	387	234	448	399	446	-	187	370	339	206
Temperature	°C	20.57	20.35	23.07	21.62	25.71	19.46	23.99	19.97	19.57	19.51	24.79	20.24	19.66	20.78	-	23.80	21.91	22.91	23.95

Field Parameters:
Ferrous Iron
Carbon Dioxide
pH
Conductivity
ORP
Temperature

Data Qualifiers:
H - The holding time for the analysis was exceeded
NA - Analysis not performed due to inadequate sample volume recovered.
ND - Constituent not detected
D - Dilution

Table 7
Summary of Ground Water Geochemical Data
Post-treatment
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	CrossGradient											In Plume									
		CH2MW-4D					CH2MW-5						ETCMW-113					ETCMW-114					
		4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	4/27/2005	10/26/2005	10/26/2005 (DUP02)	4/20/2006	DUP2-042006	4/17/2007	4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	4/29/2005	10/27/2005	4/20/2006	4/17/2007	DUP-01 (4/17/2007)	10/23/2007
Alkalinity	mg/L	-	-	-	-	-	98	36	34	110	120	42	-	-	-	-	-	120	120	140	470	500	350
Chloride	mg/L	-	-	-	-	-	2.8	6.6	7.2	8.3	8.2	5.1	-	-	-	-	-	26	32	29	110	110	73 D
Ferrous Iron	mg/L	ND	-	-	ND	0.2	0.5	2.2	2.2	-	ND	1	1	-	-	4.2	6.6	ND	0.19	ND	4.2	-	1.2
Iron	mg/L	-	-	-	-	-	1.3	2.7	2.7	3.5	0.077	0.81	-	-	-	-	-	0.22	0.88	1	11	11	0.85
Manganese	mg/L	-	-	-	-	-	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	<0.050	<0.05	-	-	-	-	<0.05	< 0.050	< 0.050	0.54	0.55	0.08
Nitrate (as N)	mg/L	-	-	-	-	-	0.57	1.6	1.6	1.7	1.6	0.96	-	-	-	-	-	8.2 H	1.4	-	<0.02	<0.02	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.050	-	-	-
Sulfate	mg/L	-	-	-	-	-	2.2	2.5	2.5	2.5	1.4	2.8	-	-	-	-	-	39	31	51 D	<1.0	<1.0	35 D
Sulfide	mg/L	-	-	-	-	-	< 0.8	< 0.8	< 0.8	< 0.8	< 0.80	1.7	-	-	-	-	-	< 0.8	< 0.8	< 0.80	<1.0	1.8	<1.0
Methane	ug/L	-	-	-	-	-	< 5.0	< 2.0	< 2.0	< 2.0	7.30	<0.0021	-	-	-	-	-	< 5.0	14.00	14.00	0.14	0.14	54
Ethane	ug/L	-	-	-	-	-	< 5.0	< 4.0	< 4.0	< 4.0	< 4.9	<0.0042	-	-	-	-	-	< 5.0	< 4.0	< 4.5	<44	<44	<4.2
Ethene	ug/L	-	-	-	-	-	< 5.0	< 4.0	< 4.0	< 4.0	< 4.9	<0.0042	-	-	-	-	-	< 5.0	< 4.0	< 4.5	7	7.6	38
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	11	2.9	2.9	11	2.5	2.1	-	-	-	-	-	2.9	12	17	41	42	3.4
Total Organic Carbon	mg/L	-	-	-	-	-	9.6	2.2	2.2	2.4	2.8	2.8	-	-	-	-	-	2.2	3.2	14.0	51	47	4.4
Carbon Dioxide	mg/L	14	-	-	30	14	15	40	40	-	14	55	14	-	-	>100	>100	14	30	14	>100	-	90
pH	S.U.	8.67	7.66	7.86	6.66	6.56	6.40	5.51	-	5.79	-	6.22	6.53	6.21	5.71	4.67	4.64	6.61	6.46	6.16	6.73	-	6.2
Conductivity	mS/cm	0.081	0.067	0.069	0.066	0.059	0.196	0.1	-	0.263	-	0.122	0.342	0.352	0.298	0.668	0.32	0.485	0.342	0.437	1.295	-	0.958
Dissolved Oxygen	mg/L	4.11	5.16	7.05	7.1	4.76	2.85	1.77	-	4.00	-	2.45	2.47	1.27	6.39	0.62	2.93	3.02	1.31	0.70	0.68	-	0.96
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1.5
Oxidation/Reduction Potential (ORP)	mV	282	172	411	360	188	156	184	-	395	-	320	217	192	348	259	67	66.00	160.00	356.00	255	-	150
Temperature	°C	21.87	23.39	23.13	23.19	23.03	19.79	22.4	-	19.42	-	20.5	18.02	23.34	20.43	18.75	23.53	17.98	22.88	18.56	18.14	-	24.36

Field Parameters:
Ferrous Iron
Carbon Dioxide
pH
Conductivity
ORP
Temperature

Data Qualifiers:
H - The holding time for the analysis was exceeded
NA - Analysis not performed due to inadequate sample volume recovered.
ND - Constituent not detected
D - Dilution

Table 7
Summary of Ground Water Geochemical Data
Post-treatment
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume																			
		CH2MW-114D					ETCMW-115					ETMW-116					ETMW-117				
		4/29/2005	10/26/2005	4/20/2006	4/19/2007	10/24/2007	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007
Alkalinity	mg/L	3000	2200	830	-	-	-	-	-	-	230	-	-	-	-	670	-	-	-	-	86
Chloride	mg/L	89	190	200	-	-	-	-	-	-	6.4 D	-	-	-	-	16	-	-	-	-	8.8 D
Ferrous Iron	mg/L	5	2	-	4.2	-	4.3	-	-	4.8	2.8	5	-	-	6	6.2	2.2	-	-	5.8	7.4
Iron	mg/L	55	79	160	-	150	-	-	-	-	1.9	-	-	-	-	48	-	-	-	-	50
Manganese	mg/L	0.64	0.53	0.26	-	0.22	-	-	-	-	0.074	-	-	-	-	0.58	-	-	-	-	0.76
Nitrate (as N)	mg/L	<0.5 H	1.2	< 0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	47	100	150	-	-	-	-	-	-	10 D	-	-	-	-	<5.0	-	-	-	-	<5.0
Sulfide	mg/L	<0.8	< 0.8	1.40	-	-	-	-	-	-	<1.0	-	-	-	-	<1.0	-	-	-	-	<1.0
Methane	ug/L	< 5.0	< 2.0	-	2.8	-	-	-	-	-	0.019	-	-	-	-	3500 D	-	-	-	-	-
Ethane	ug/L	< 5.0	< 4.0	-	<0.21	-	-	-	-	-	<0.42	-	-	-	-	<210	-	-	-	-	-
Ethene	ug/L	< 5.0	< 4.0	-	<0.21	-	-	-	-	-	<0.42	-	-	-	-	<210	-	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	8900	4800	-	2	1600 D	-	-	-	-	3.5	-	-	-	-	9.6	-	-	-	-	910 D
Total Organic Carbon	mg/L	9,800	3,500	3,800	-	1700 D	-	-	-	-	4.1	-	-	-	-	16	-	-	-	-	930 D
Carbon Dioxide	mg/L	50	350 D	-	>100	-	19	-	-	>100	60	15	-	-	>100	>100	10	-	-	>100	>100
pH	S.U.	5.95	6.08	5.58	5.55	4.88	6.37	5.82	5.70	5.7	6.01	5.03	4.99	5.56	4.89	6.17	6.03	5.60	5.23	4.4	4.04
Conductivity	mS/cm	3.620	4.650	2.050	2.78	2.02	0.366	0.174	0.205	0.184	0.456	2.370	1.540	0.983	1.456	0.988	0.303	0.163	0.188	1.45	0.696
Dissolved Oxygen	mg/L	0.97	0.51	3.00	0.90	0.54	0.23	0.54	2.09	0.49	2.65	0.15	0.45	0.35	0.42	0.24	0.49	1.05	1.86	0.42	0.38
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oxidation/Reduction Potential (ORP)	mV	-8	-76	289	309	97	131	84	377	312	162	141	108	281	309	-34	278	144	363	335	127
Temperature	°C	20.43	21.06	21.65	20.59	22.89	20.32	22.58	22.36	21.45	27.5	18.23	23.81	19.10	18.82	24.43	21.41	26.20	22.82	22.27	25.48

Field Parameters:
Ferrous Iron
Carbon Dioxide
pH
Conductivity
ORP
Temperature

Data Qualifiers:
H - The holding time for the analysis was exceeded
NA - Analysis not performed due to inadequate sample volume recovered.
ND - Constituent not detected
D - Dilution

Table 7
Summary of Ground Water Geochemical Data
Post-treatment
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume					Cross Gradient										Upgradient				
		ETMW-118					ETMW-119					ETMW-120					ETMW-121				
		4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/24/2007	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/25/2007	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/23/2007	4/28/2005	10/26/2005	4/19/2006	4/19/2007	10/23/2007
Alkalinity	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.8	26	28	38	82
Chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.2	11	6	-	1.9
Ferrous Iron	mg/L	4.4	-	-	5	6.4	1	-	-	4.2	4.8	3.5	-	-	6	0.6	ND	0.39	ND	2.4	0.4
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.84	16	0.52	0.89	0.87
Manganese	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.05	0.15	< 0.050	<0.050	<0.050
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.59	1.2	0.35	-	0.2
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.9	4.6	13	-	5.4
Sulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.8	< 0.8	< 0.8	1.8	<1.0
Methane	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 5.0	< 2.0	< 2.1	<2.1	<2.1
Ethane	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 5.0	< 4.0	< 4.2	<4.2	<4.1
Ethene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 5.0	< 4.0	< 4.2	<4.2	<4.1
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.9	12	9.7	1.6	3
Total Organic Carbon	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.9	3.3	4.5	2.1	3.9
Carbon Dioxide	mg/L	15	-	-	>100	>100	18	-	-	>100	70	15	-	-	65	40	15	35	25	40	18
pH	S.U.	5.86	5.10	5.35	4.38	4.6	6.25	5.64	5.82	6.2	5.78	6.19	5.36	5.64	5.5 D	5.87	6.25	5.94	5.83	6.00	6.23
Conductivity	mS/cm	0.307	0.089	0.152	0.909	2.2	0.449	0.203	0.281	0.554	0.342	0.218	0.097	0.144	0.161	0.216	0.142	0.116	0.192	0.107	0.167
Dissolved Oxygen	mg/L	0.34	0.46	0.59	0.5	0.4	0.33	1.34	1.31	2.78	0.57	0.69	0.67	2.19	5.00	3.05	3.34	1.00	3.27	6.74	7.00
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	1.5	-	-	-	-	2	-	-	-	-	3.5	-	-	-	-	-
Oxidation/Reduction Potential (ORP)	mV	125	155	346	327	141	138	115	370	251	128	169	92	379	327	175	197	176	347	332	166
Temperature	°C	20.50	24.86	22.71	21.01	25.3	19.97	20.86	20.73	19.18	23.71	20.43	20.88	21.94	21.74	25.67	19.22	23.60	19.36	19.56	26.03

Field Parameters:
Ferrous Iron
Carbon Dioxide
pH
Conductivity
ORP
Temperature

Data Qualifiers:
H - The holding time for the analysis was exceeded
NA - Analysis not performed due to inadequate sample volume recovered.
ND - Constituent not detected
D - Dilution

Table 7
Summary of Ground Water Geochemical Data
Post-treatment
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient								Down Gradient								
		OBGMW-122				OBGMW-123				OBGMW-124				CH2PP-1				
		4/28/2005	10/25/2005	4/18/2006	4/18/2007	4/27/2005	10/25/2005	4/20/2006	4/18/2007	4/27/2005	10/26/2005	4/19/2006	4/19/2007	4/26/2005	10/25/2005	4/18/2006	4/16/2007	10/24/2007
Alkalinity	mg/L	-	-	-	-	-	-	-	-	430	410	390	350	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-	180	210	44	200	-	-	-	-	-
Ferrous Iron	mg/L	ND	-	-	ND	4.7	-	-	1.5	1.8	1.72	ND	ND	ND	-	-	-	ND
Iron	mg/L	-	-	-	-	-	-	-	-	1.3	2.0	0.076	0.1	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	0.15	0.20	< 0.050	<0.050	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	<0.050	0.10	-	6.7	-	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-	170	190	60	150	-	-	-	-	-
Sulfide	mg/L	-	-	-	-	-	-	-	-	< 0.80	< 0.8	< 0.80	1.6	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-	-	-	38 H	< 2.0	2.10	<0.0021	-	-	-	-	-
Ethane	ug/L	-	-	-	-	-	-	-	-	< 0.5	< 4.0	< 4.2	<0.0042	-	-	-	-	-
Ethene	ug/L	-	-	-	-	-	-	-	-	< 0.5	< 4.0	< 4.2	<0.0042	-	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	-	-	-	6.3	17	5.8	3.4	-	-	-	-	-
Total Organic Carbon	mg/L	-	-	-	-	-	-	-	-	5.2	4.9	5.1	3.5	-	-	-	-	-
Carbon Dioxide	mg/L	5	-	-	70	18	-	-	50	50	70	15	75	12	-	-	-	20
pH	S.U.	6.08	6.38	6.18	6.31	6.27	5.25	5.29	4.75	6.40	6.82	6.55	7.25	5.93	5.01	4.56	5.53	-
Conductivity	mS/cm	0.076	0.183	0.226	0.233	0.162	0.092	0.091	0.083	1.06	1.31	0.88	1.019	0.141	0.108	0.12	0.146	-
Dissolved Oxygen	mg/L	3.25	0.77	3.58	4.08	0.41	0.52	7.22	0.66	1.11	0.63	1.85	5.83	4.75	3.19	7.51	6.98	-
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Oxidation/Reduction Potential (ORP)	mV	17.6	106.0	395.0	370	76	115	480	429	140	98	326	318	325	207	439	330	-
Temperature	°C	18.40	22.45	19.79	19.27	20.10	24.64	19.99	19.76	20.30	21.83	21.65	20.96	20.72	25.77	21.84	21.57	-

Field Parameters:
Ferrous Iron
Carbon Dioxide
pH
Conductivity
ORP
Temperature

Data Qualifiers:
H - The holding time for the analysis was exceeded
NA - Analysis not performed due to inadequate sample volume recovered.
ND - Constituent not detected
D - Dilution

Table 8
Summary of Biochlor Model Results

Former Miller Brewing Company Can Plant
Moultrie, Georgia

Source area (ETCMW-114)										
			Sequential 1st Order Decay				No Biodegradation			
Constituent	Type 1 RRS (mg/L)	Type 4 RRS (mg/L)	Migration distance in 20 years	Extent of plume > Type 1 RRS in 20 years (ft)	Extent of Plume > Type 4 RRS in 20 years (ft)	Time to no further migration	Migration distance in 20 years	Extent of plume > Type 1 RRS in 20 years (ft)	Extent of Plume > Type 4 RRS in 20 years (ft)	Time to no further migration
PCE	0.005	0.005	NA*	NA*	NA*	NA*	NA*	NA**	NA*	NA*
TCE	0.005	0.005	21 feet	3 feet	3 feet	12 years	30 feet	4 feet	4 feet	73 years
cis-1,2-DCE	1.02	0.07	35 feet	NA**	3 feet	12 years	55 feet	NA**	7 feet	>100 years
VC	0.002	0.002	27 feet	20 feet	20 feet	10 years	60 feet	52 feet	52 feet	>100 years

Edge of Plume (ETMW-118)										
			Sequential 1st Order Decay				No Biodegradation			
Constituent	Type 1 RRS (mg/L)	Type 4 RRS (mg/L)	Migration distance in 20 years	Extent of plume > Type 1 RRS in 20 years (ft)	Extent of Plume > Type 4 RRS in 20 years (ft)	Time to no further migration	Migration distance in 20 years	Extent of plume > Type 1 RRS in 20 years (ft)	Extent of Plume > Type 4 RRS in 20 years (ft)	Time to no further migration
PCE	0.005	0.005	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*
TCE	0.005	0.005	35	10 feet	10 feet	20 years	42 feet	23 feet	23 feet	>100 years
cis-1,2-DCE	1.02	0.07	32	NA**	10 feet	20 years	50 feet	NA**	3 feet	>100 years
VC	0.002	0.002	22	20 feet	20 feet	10 years	NA*	NA*	NA*	NA*

NA* = Constituent not detected in source area
NA** = cis-1,2-DCE concentration never above Type 1 RRS

Table 9
Summary of Bioattenuation Rates

Former Miller Brewing Company Can Plant
Moultrie, Georgia

Constituent	Type 1/Type 4 RRS (mg/L)	Avg attenuation rate constant	Well	October 2007 Concentration (mg/L)	Time to reach RRS (years)
PCE	0.005	0.2113	ETCMW-113	ND	ND
			ETCMW-114	ND	ND
			CH2MW-114D	0.00288	Currently below RRS
			ETCMW-115	ND	ND
			ETMW-116	ND	ND
			ETMW-117	ND	ND
			ETMW-118	ND	ND
TCE	0.005	0.5611	ETCMW-113	ND	ND
			ETCMW-114	0.00897	1.04
			CH2MW-114D	0.056	4.31
			ETCMW-115	0.0079	0.82
			ETMW-116	ND	ND
			ETMW-117	0.0302	Currently below RRS
			ETMW-118	0.039	Currently below RRS
cis-1,2-DCE	Attenuation rate constant could not be calculated				
VC	Attenuation rate constant could not be calculated				

ND = Constituent not detected

Table 11
Proposed Ground Water Monitoring Network
Former Miller Brewing Company Can Plant
Moultrie, Georgia

	MNA Network				
Monitoring Well	Water Level	VOC Analysis	Geochemical Field Parameters	Geochemical Lab Analysis	Abandon Well
CH2MW-1	X	X	X		
CH2MW-1A					X
CH2MW-2					X
CH2MW-3	X	X	X	X	
CH2MW-4D	X	X	X		
CH2MW-5					X
ETCMW-113	X	X	X	X	
ETCMW-114	X	X	X		
CH2MW-114D	X	X	X	X	
ETCMW-115	X	X	X	X	
ETMW-116	X	X	X	X	
ETMW-117	X	X	X	X	
ETMW-118	X	X	X	X	
ETMW-119	X	X	X		
ETMW-120	X	X	X		
ETMW-121	X	X	X		
OBGMW-122					X
OBGMW-123					X
OBGMW-124					X
CH2PP-1	X	X	X		

Table 12
Proposed Target Analyte List
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Target Analytes	Geochemistry Parameters
Acetone	Alkalinity
2-Butanone (MEK)	Chloride
Benzene	Nitrate
Carbon Disulfide	Sulfate
Chloroethane	Sulfide
1,1-Dichloroethane (1,1-DCA)	Methane
1,2-Dichloroethane (1-,2-DCA)	Ethane
1,1-Dichloroethene (1,1-DCE)	Ethene
cis-1,2-dichloroethene (cis-1,2-DCE)	Soluble Organic Carbon (Dissolved)
trans-1,2-dichloroethene (trans-1,2-DCE)	Total Organic Carbon
Isobutyl Alcohol	Total Iron
Tetrachloroethene (PCE)	Conductivity*
Toluene	Dissolved Oxygen*
1,1,1-Trichloroethane (TCA)	Ferrous Iron*
Trichloroethene (TCE)	Manganese*
Trichlorofluoromethane	Oxidation/Reduction Potential (ORP)*
Vinyl Chloride	pH*
Xylenes (total)	Temperature*
	Carbon Dioxide*

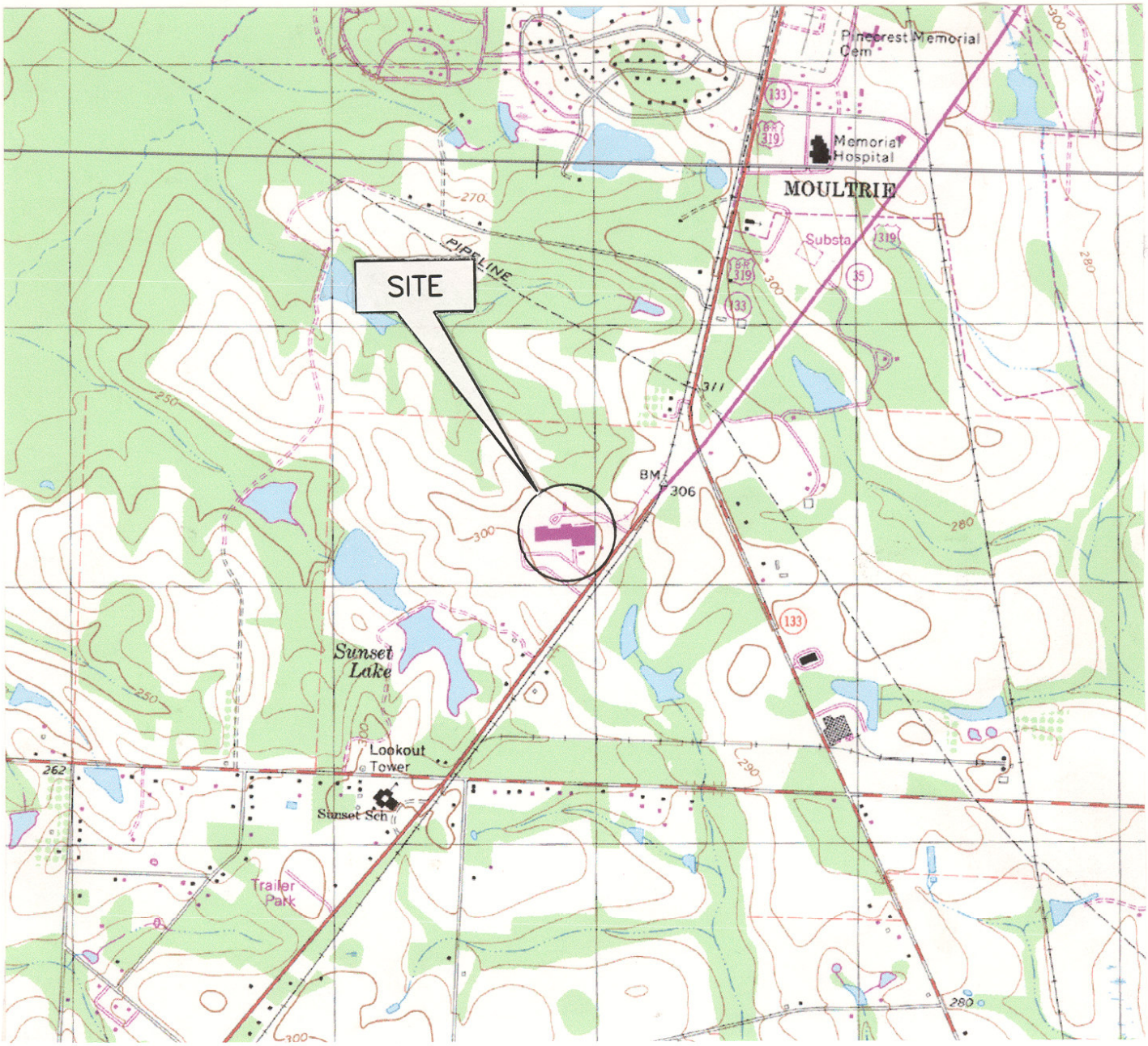
Analytes to be Removed
Chloromethane
1,2-Dibromo-3-chloropropane (DBCP)
Dibromomethane
1,2-Dichloroethene (total) (1,2-DCE-total)
Ethylbenzene
Methylene Chloride
4-methyl-2-pentanone (MIBK)
Naphthalene
1,1,2,2-Tetrachloroethane
1,2,3-Trichlorobenzene
1,2,4-Trichlorobenzene
1,2,3-Trichlorobenzene
Vinyl Acetate

* measured at time of sampling

FIGURES

I:\RALEIGH\PROJECTS\1669\26765\DWGS\SITELOC.dwg

FIGURE 1



SITE LOCATION MAP

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GA.

MAP SOURCE: USGS 7.5–MIN. SERIES TOPOGRAPHIC QUADRANGLE "COOLIDGE, GA" AND "MOULTRIE, GA".

1 0 1/2 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

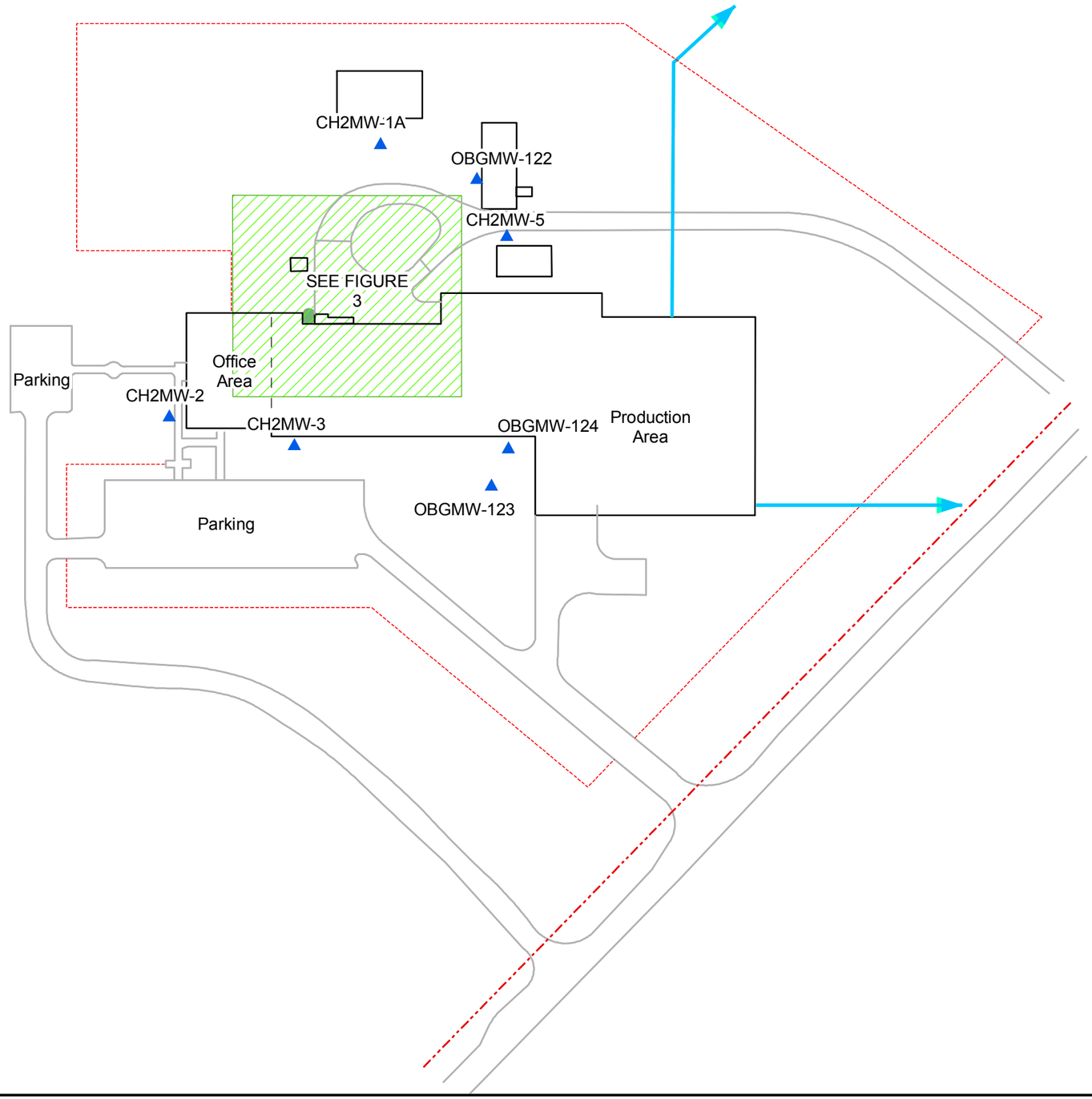
1 0 5 1 KILOMETER

SCALE: 1:24000

O'BRIEN & GERE ENGINEERS, INC.

FILE NO. 26765

FIGURE 2



Chain Link Fence

Property Boundary

Road

Storm Water Drainage

Existing Monitoring Well

Area shown on Figure 3

Former Waste Solvent Tank Piping Release

N

Feet

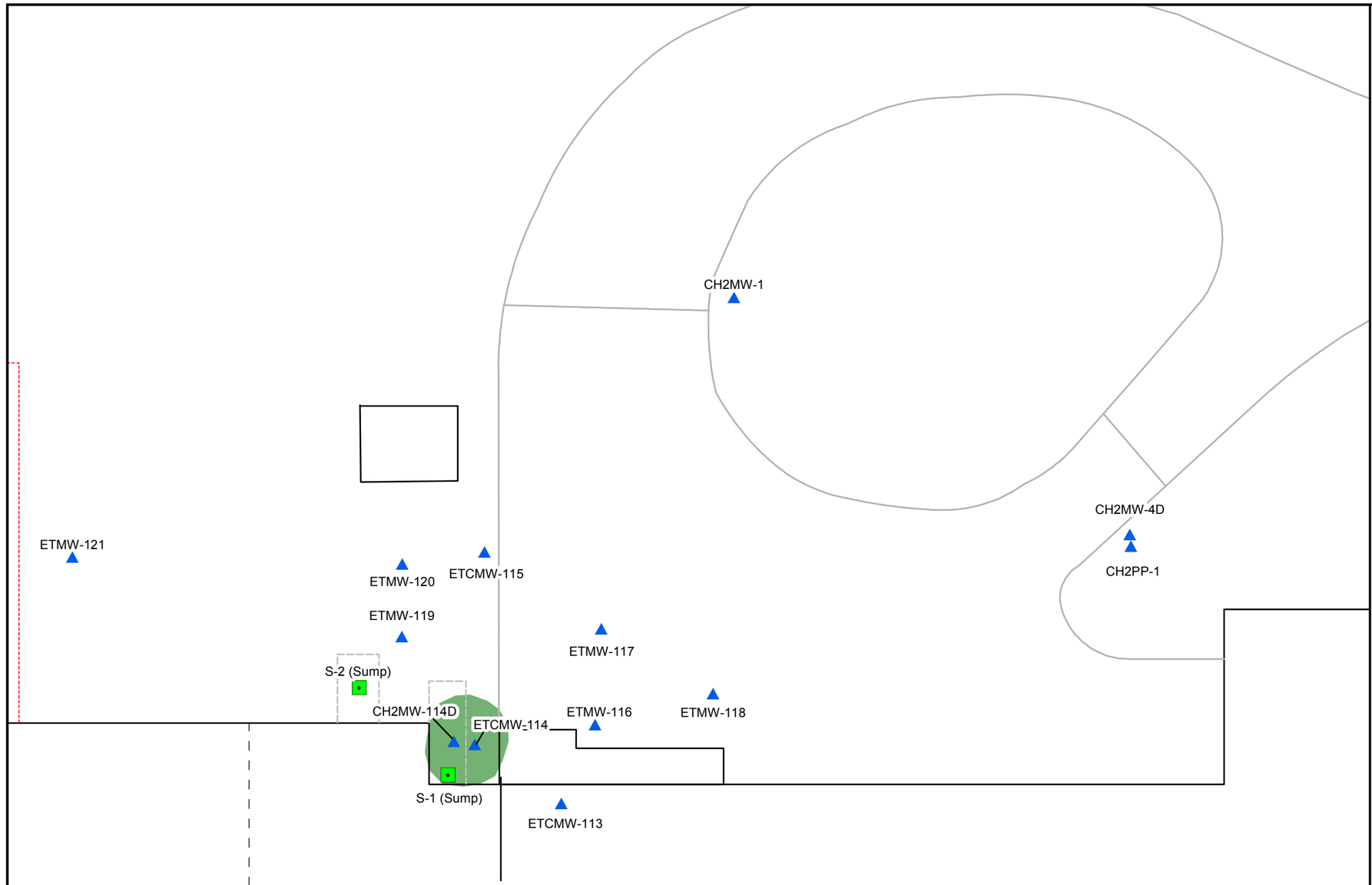
0 150 300

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

SITE PLAN I

O'BRIEN & GERE

FIGURE 3



Monitoring Well

Sump

Chain Link Fence

Road

Former Waste Solvent Tank Piping Release

N

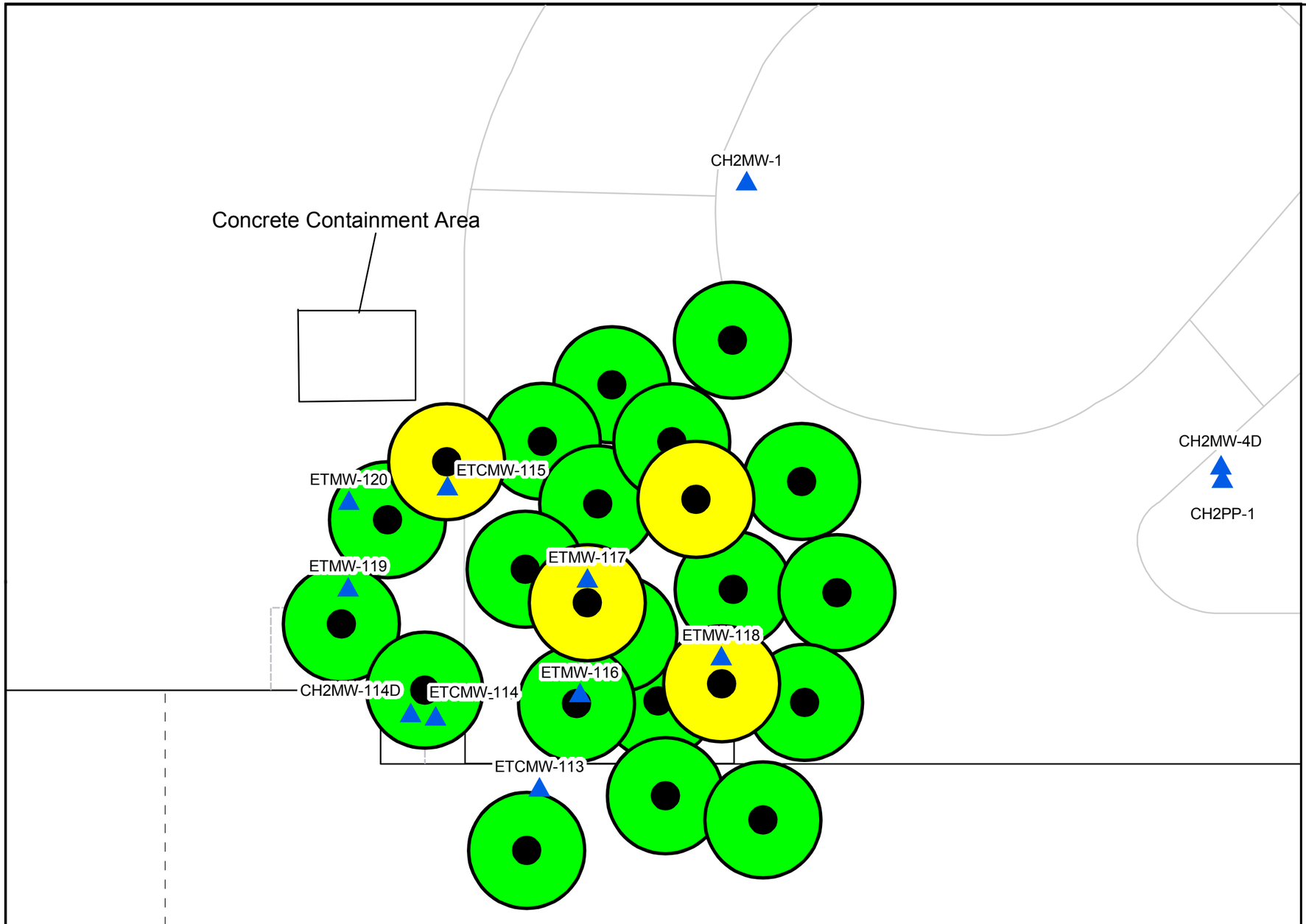
0 25 50 Feet

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

SITE PLAN II

O'BRIEN & GERE

FIGURE 4



Monitoring Well

Injection Points

Estimated Radius of Effect

Additional Injection Points

Estimated Radius of Effect

N

Feet

0 10 20 40

ENHANCED BIOREMEDIATION
INJECTION POINTS

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GEORGIA

O'BRIEN & GERE

Figure 5

CH2MW-1A

OBGMW-122

CH2MW-1

CH2MW-5

CH2MW-4D

CH2PP-1

ETMW-121

ETCMW-115

ETMW-120

ETMW-117

ETMW-119

ETMW-118

ETCMW-114

ETMW-116

CH2MW-114D

ETCMW-113

CH2MW-2

CH2MW-3

OBGMW-124

OBGMW-123

Monitoring Wells

- VOCs
- VOCs and Geochemical Parameters

N

Feet

0 25 50 100

GROUND WATER
MONITORING NETWORK
APRIL 2007

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GEORGIA

O'BRIEN & GERE

Figure 6

CH2MW-1A

OBGMW-122

CH2MW-1

CH2MW-5

CH2MW-4D

CH2PP-1

ETMW-121

ETMW-120

ETCMW-115

ETMW-119

ETMW-117

ETMW-118

ETCMW-114

CH2MW-114D

ETMW-116

ETCMW-113

CH2MW-2

CH2MW-3

OBGMW-124

OBGMW-123

Monitoring Wells

- Water Level
- Water Level and VOCs
- Water Level, VOCs and Geochemical Parameters

N

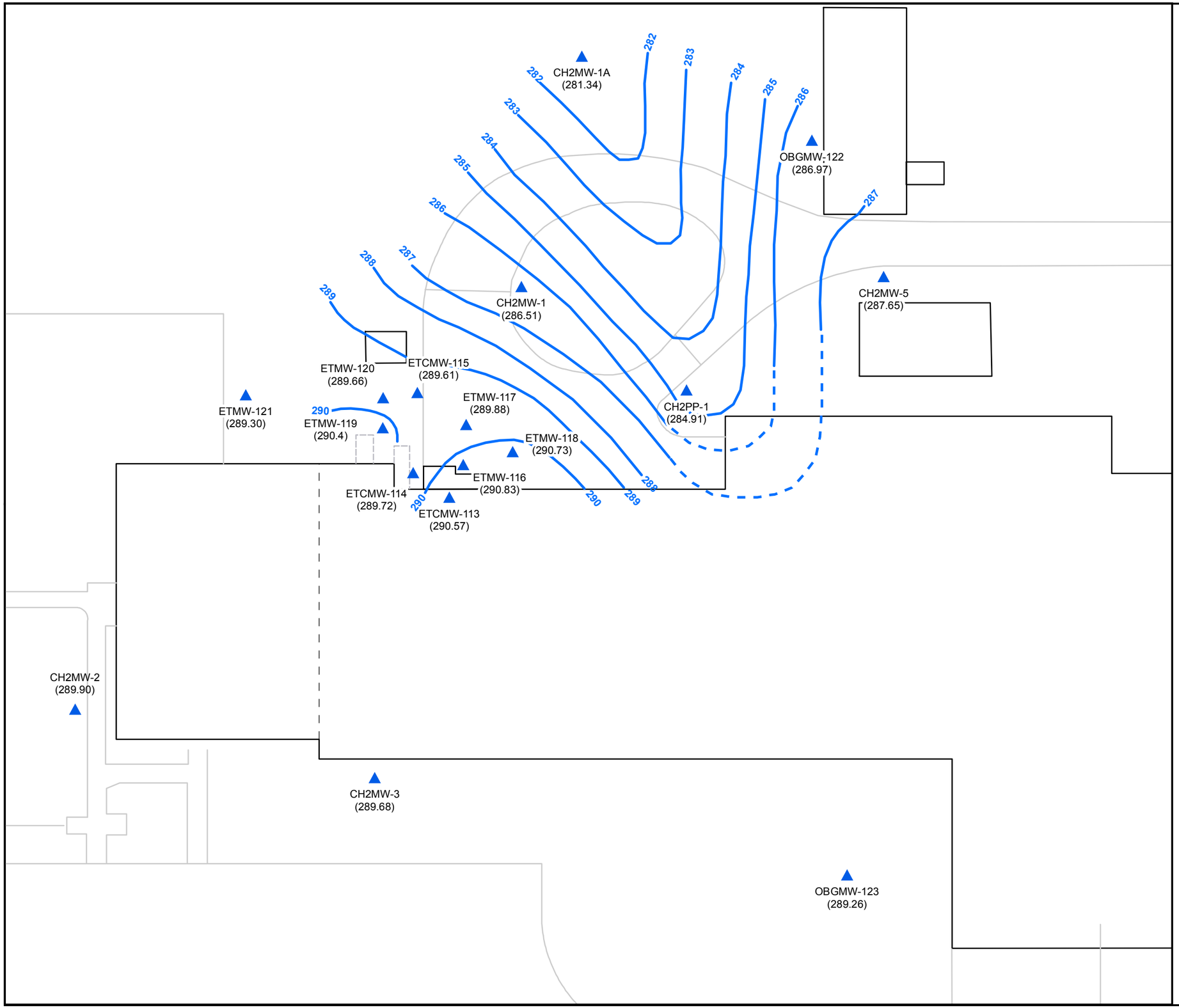
0 25 50 100 Feet

GROUND WATER MONITORING NETWORK
OCTOBER 2007

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

O'BRIEN & GERE

Figure 7



Monitoring Well

Ground Water Elevation (ft. msl)

Inferred Ground Water Elevation (ft. msl)

N

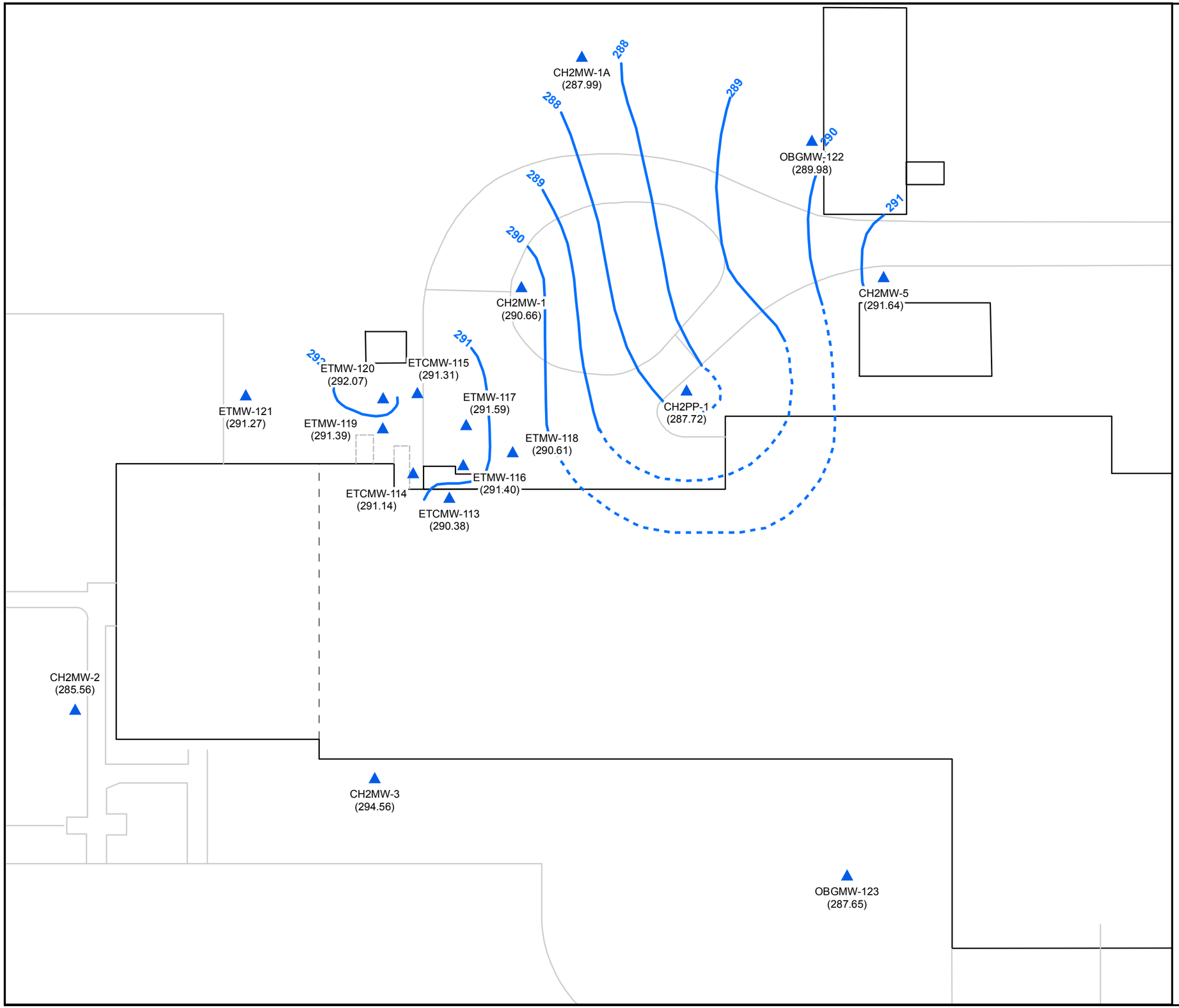
0 50 100 Feet

POTENTIOMETRIC SURFACE
APRIL 2007

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GEORGIA

O'BRIEN & GERE

Figure 8



Monitoring Well

Ground Water Elevation (ft msl)

Inferred Ground Water Elevation (ft msl)

N

0 50 100 Feet

POTENTIOMETRIC SURFACE
OCTOBER 2007

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GEORGIA

O'BRIEN & GERE

Figure 9

Monitoring Wells

Proposed MNA Sampling

- VOCs
- VOCs and Geochemical Parameters
- To be abandoned

CH2MW-1A
OBGMW-122
CH2MW-1
CH2MW-5
CH2MW-4D
CH2PP-1
ETMW-121
ETMW-120
ETCMW-115
ETMW-119
ETMW-117
ETMW-118
ETCMW-114
CH2MW-114D
ETMW-116
ETCMW-113
CH2MW-2
CH2MW-3
OBGMW-124
OBGMW-123

N

0 25 50 100 Feet

PROPOSED GROUND WATER MONITORING NETWORK

FORMER MILLER BREWING COMPANY CAN PLANT MOULTRIE, GEORGIA

O'BRIEN & GERE

Appendix A

Historical Ground Water Results Summary

Appendix A1

Historical Summary of Volatile Organic Constituents in Ground Water

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Downgradient								Upgradient												
				CH2MW-1						CH2MW-1A							CH2MW-2									
				5/29/1998	4/29/2002	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/24/2007	6/4/1998	4/29/2002	4/7/2004	4/28/2005	10/26/2005	4/18/2006	4/18/2007	5/29/1998	6/4/1998	8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	DUP1-041806	4/18/2007	DUP-02 (4/18/2007)
Acetone	mg/L	4		-		< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	-		< 0.01	< 0.01	**0.031**	< 0.01	<0.01	-	-	**0.003**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	<0.01	<0.01
2-Butanone (MEK)	mg/L	2	2.79	-	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	-	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	-	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	<0.01	<0.01
Benzene	mg/L	0.005		-		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Carbon Disulfide	mg/L	4		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Chloroethane	mg/L	0.001 [2]	1.23	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
Chloromethane	mg/L	0.001 [2]		-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	<0.0005	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0001	< 0.001	< 0.0001	< 0.0001	<0.001	<0.001
Dibromomethane	mg/L	0.0005 [2]		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,1-Dichloroethane (1,1-DCA)	mg/L	4		< 0.001	-	**0.0015**	**0.0013**	< 0.001	**0.00059**	<0.0005	<0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	**0.00284**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07 [5]	1.02	**0.00107**	**0.003**	**0.0013**	**0.0011**	**0.0011**	**0.00052**	<0.0005	<0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	<0.0005	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	mg/L	0.07 [4]	0.92	-	**0.003**	-	-	-	-	-	-	-	< 0.0005	-	-	-	-	-	-	-	<0.0005	<0.0005	<0.0005	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Isobutyl Alcohol	mg/L	10		-	-	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	<0.05	-	-	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	-	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.05	<0.05
Methylene Chloride	mg/L	0.005		-	-	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	-	-	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	-	**0.0007**	**0.0006**	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002
4-methyl-2-pentanone (MIBK)	mg/L	0.005 [2]		-	-	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	<0.005	-	-	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	-	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	<0.005
Naphthalene	mg/L	0.02		-	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Tetrachloroethene (PCE)	mg/L	0.005	0.005 [9]	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Toluene	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	mg/L	0.001 [2]	0.01	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,2,4-Trichlorobenzene	mg/L	0.07		-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	mg/L	0.005	0.005 [7]	< 0.001	**0.0012**	**0.0039**	**0.0041**	**0.0044**	**0.00202**	**0.00176**	**0.00082**	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Trichlorofluoromethane	mg/L	2		-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,2,3-Trichloropropane	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Vinyl Acetate	mg/L	0.002 [2]		-	-	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	<0.002	-	-	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	-	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	<0.002
Vinyl Chloride	mg/L	0.002	0.002 [7]	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
Xylenes (total)	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.001	<0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B	Compound Detected in Method Blank or Trip Blank
J	Estimated Value
E	Concentration exceeds upper level of the instrument calibration range for the analysis
D	Dilution analysis result
<	Less than detection limit listed
mg/L	Milligram per liter
NA	Not Available
-	Not Analyzed
BOLD	Detected concentration
	Concentration exceeds Type 1 RRS.
	Detection limit exceeds Type 1 RRS.
	Concentration exceeds Type 4 RRS.
**	Sum of detected isomer and PQL of undetected isomer

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Upgradient												Cross Gradient										
				CH2MW-3												CH2MW-4D										
				5/29/1998	6/4/1998	8/23/2000	11/9/2000	11/9/2000 DUP	1/24/2001	4/6/2004	4/27/2005	4/27/2005 (DUP2)	10/26/2005	4/19/2006	4/17/2007	10/24/2007	8/6/1998	8/23/2000	11/9/2000	1/25/2001	4/8/2004	4/26/2005	4/26/2005 (DUP1)	10/25/2005	4/18/2006	4/18/2007	10/24/2007
Acetone	mg/L	4		-	-	< 0.003	< 0.003	**0.003**	**0.003**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	-	**0.007**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01
2-Butanone (MEK)	mg/L	2	2.79	-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	< 0.010	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01
Benzene	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
Carbon Disulfide	mg/L	4		-	-	**0.0007**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
Chloroethane	mg/L	0.001 [2]	1.23	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
Chloromethane	mg/L	0.001 [2]		-	-	<0.0005	<0.0005	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	<0.0005	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	-	-	< 0.0005	**0.0006**	**0.0005**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
Dibromomethane	mg/L	0.0005 [2]		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
1,1-Dichloroethane (1,1-DCA)	mg/L	4		< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07[3]	1.02	< 0.001	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.005	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	mg/L	0.07[4]	0.92	-	-	<0.0005	<0.0005	< 0.0005	<0.0005	-	-	-	-	-	-	-	-	<0.0005	<0.0005	<0.0005	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
Isobutyl Alcohol	mg/L	10		-	-	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	<0.05	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	<0.05
Methylene Chloride	mg/L	0.005		-	-	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	-	**0.0008**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002
4-methyl-2-pentanone (MIBK)	mg/L	0.005 [2]		-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	<0.005	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	<0.005
Naphthalene	mg/L	0.02		-	-	< 0.0005	**0.002**	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
Tetrachloroethene (PCE)	mg/L	0.005	0.005 [9]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
Toluene	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	mg/L	0.001 [2]	0.01	-	-	< 0.0005	**0.001**	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,2,4-Trichlorobenzene	mg/L	0.07		-	-	< 0.0005	**0.0007**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	mg/L	0.005	0.005 [7]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
Trichlorofluoromethane	mg/L	2		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,2,3-Trichloropropane	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005
Vinyl Acetate	mg/L	0.002 [2]		-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	<0.002	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	<0.002
Vinyl Chloride	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
Xylenes (total)	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 199
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B	Compound Detected in Method Blank or Trip Blank
J	Estimated Value
E	Concentration exceeds upper level of the instrument calibration range for the analysis
D	Dilution analysis result
<	Less than detection limit listed
mg/L	Milligram per liter
NA	Not Available
-	Not Analyzed
BOLD	Detected concentration
	Concentration exceeds Type 1 RRS.
	Detection limit exceeds Type 1 RRS.
	Concentration exceeds Type 4 RRS.

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient							In Plume											
				CH2MW-5							ETCMW-113											
				8/5/1998	4/7/2004	4/27/2005	10/26/2005	10/26/2005 (DUP 2)	4/20/2006	DUP2 042006	4/17/2007	1/21/1994	11/3/1994	3/31/1995	5/27/1998	9/7/2000	11/9/2000	1/25/2001	4/6/2004	4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007
Acetone	mg/L	4		-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.100	< 0.001	< 0.050	-	**0.007**	**0.026**	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.235 D**	**0.448 D**
2-Butanone (MEK)	mg/L	2	2.79	< 0.010	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.100	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.191 D**	**0.380 D**
Benzene	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	**0.0006**	< 0.005	**0.002**	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005
Carbon Disulfide	mg/L	4		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.100	< 0.005	< 0.005	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0056 D**	< 0.001	< 0.0005	**0.00810 D**	<0.005
Chloroethane	mg/L	0.001 [2]	1.23	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.010	< 0.001	< 0.001	-	**0.001**	< 0.005	**0.002**	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01
Chloromethane	mg/L	0.001 [2]		-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.005	< 0.010	< 0.001	-	<0.0005	<0.005	<0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.010	-	-	-	<0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01
Dibromomethane	mg/L	0.0005 [2]		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005
1,1-Dichloroethane (1,1-DCA)	mg/L	4		< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.063**	**0.035**	**0.026**	**0.01006**	**0.056 D**	**0.024**	**0.036 D**	**0.022**	**0.018 D**	**0.011**	**0.00884**	**0.0173 D**	**0.0117 D**
1,2-Dichloroethane (1,2-DCA)	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	**0.0008**	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.017**	< 0.005	**0.003**	**0.00244**	**0.027 E**	< 0.005	**0.020 D**	**0.007**	**0.0051 D**	**0.003**	**0.00274**	**0.0083 D**	<0.005
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07 [3]	1.02	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	-	**0.017**	**0.022**	**0.02213**	-	-	**0.100 D**	**0.066 D**	**0.091 D**	**0.058**	**0.0554 D**	**0.178 D**	**0.147 D**
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	-	-	0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005
1,2-Dichloroethene (total) (1,2-DCE-total)	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	<0.0005	<0.005	**0.110 D**	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005
Isobutyl Alcohol	mg/L	10		-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.1	< 0.1	<0.05	< 0.100	-	-	-	-	-	-	< 0.050	< 0.200	< 0.1	< 0.050	**1.45 D**	<0.5
Methylene Chloride	mg/L	0.005		-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	< 0.005	< 0.005	< 0.001	-	**0.002**	< 0.005	**0.0006**	< 0.002	< 0.0008	< 0.002	< 0.002	<0.02	<0.02
4-methyl-2-pentanone (MIBK)	mg/L	0.005 [2]		-	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	<0.005	< 0.050	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.005	< 0.02	< 0.01	< 0.005	<0.050	<0.05
Naphthalene	mg/L	0.02		-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.05	<0.005
Tetrachloroethene (PCE)	mg/L	0.005	0.005 [9]	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.028**	**0.014**	**0.0084**	**0.00649**	**0.044 D**	**0.013**	**0.035 E**	**0.016**	**0.0078 D**	**0.0061**	**0.00361**	**0.00640 D**	<0.005
Toluene	mg/L	1		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005
1,2,3-Trichlorobenzene	mg/L	0.001 [2]	0.01	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.002	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01
1,2,4-Trichlorobenzene	mg/L	0.07		-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.003	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.004	< 0.001	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005
Trichloroethene (TCE)	mg/L	0.005	0.005 [7]	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.290**	**0.062**	< 0.005	**0.06938**	**0.530 D**	**0.150**	**0.240 D**	**0.16 D**	**0.056 D**	**0.059**	**0.0246**	**0.0406 D**	<0.0005
Trichlorofluoromethane	mg/L	2		-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.006	-	**0.0009**	< 0.005	**0.001**	< 0.001	< 0.0004	< 0.001	< 0.001	<0.010	<0.01
1,2,3-Trichloropropane	mg/L	0.04		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	<0.005	-	< 0.007	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005
Vinyl Acetate	mg/L	0.002 [2]		-	< 0.002	< 0.002	< 0.005	< 0.005	< 0.005	< 0.005	<0.002	< 0.100	< 0.005	< 0.008	-	-	-	-	< 0.002	< 0.0008	< 0.005	< 0.002	<0.020	<0.02
Vinyl Chloride	mg/L	0.002	0.002 [7]	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.009	**0.00137**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	<0.010	<0.01
Xylenes (total)	mg/L	0.01		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.005	< 0.005	< 0.010	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.010	<0.01

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B Compound Detected in Method Blank or Trip Blank
J Estimated Value
E Concentration exceeds upper level of the instrument calibration range for the analysis
D Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed
BOLD Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume																		
				ETCMW-114																		
				1/21/1994	1/21/94 DUP	11/3/1994	11/3/94 DUP	3/31/1995	3/31/95 DUP	5/27/1998	8/23/2000	11/10/2000	1/24/2001	1/24/01 DUP	4/29/2002	4/29/02 DUP	4/7/2004	4/7/2004 DUP	4/28/2005	10/27/2005	4/20/2006	4/17/2007	DUP-01 (4/17/2007)	10/24/2007	10/24/2007 (DUP-02)
Acetone	mg/L	4		**3.300**	**2.300**	**0.060**	< 0.010	< 5	< 5	-	**1.8**	< 0.089	< 0.003	< 0.003	-	-	< 0.001	< 0.01	< 0.1	< 0.5	<0.100	<0.50	<2	<0.01	<0.01
2-Butanone (MEK)	mg/L	2	2.79	**2.600**	**1.500**	**0.030**	**0.020**	< 5	< 5	-	**3.9**	< 0.089	< 0.003	< 0.003	< 0.003	< 0.003	< 0.001	< 0.01	< 0.1	< 0.5	<0.100	<0.50	<2	<0.01	<0.01
Benzene	mg/L	0.005		**0.0075**	**0.018**	**0.011**	**0.008**	< 0.10	< 0.10	-	< 0.042	< 0.018	**0.003**	**0.003**	-	-	**0.0016**	**0.0017**	< 0.005	< 0.005	<0.005	<0.025	<0.10	**0.00170**	**0.00165**
Carbon Disulfide	mg/L	4		< 0.100	< 0.100	< 0.005	< 0.005	< 0.5	< 0.5	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005
Chloroethane	mg/L	0.001 [2]	1.23	**0.410**	**1.300**	**1.2**	< 0.010	**0.930**	**1.200**	-	< 0.042	**0.120**	**0.061 E**	**0.062 E**	-	-	**0.0053**	**0.0053**	< 0.010	< 0.001	<0.010	<0.05	<0.20	**0.0149**	**0.0143**
Chloromethane	mg/L	0.001 [2]		< 0.005	< 0.005	< 0.010	**1.100**	< 0.100	< 0.100	-	<0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.010	< 0.001	<0.010	<0.05	<0.20	<0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	< 0.010	< 0.010	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	<0.010	<0.050	<0.20	<0.001	<0.001
Dibromomethane	mg/L	0.0005 [2]		< 0.0005	< 0.0005	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005
1,1-Dichloroethane (1,1-DCA)	mg/L	4		**0.690**	**1.200**	**0.710**	**0.580**	**0.400**	**0.450**	**0.09321**	**0.230**	**0.200**	**0.12 D**	**0.12 D**	-	-	**0.11 D**	**0.11 D**	**0.062 D**	**0.13**	**0.0839 D**	**0.102 D**	<0.10	**0.0520 E**	**0.0505 E**
1,2-Dichloroethane (1,2-DCA)	mg/L	0.005		**0.011**	**0.015**	< 0.005	<0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	**0.004**	**0.004**	-	-	**0.0029**	**0.0029**	< 0.005	< 0.05	<0.005	<0.025	<0.10	**0.00082**	**0.00080**
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	**0.019**	**0.110**	**0.570**	**0.260**	**0.310**	**0.330**	**0.20412**	**0.260**	**0.120**	**0.12 D**	**0.11 D**	**0.39 D**	**0.33 D**	**0.13 D**	**0.13 D**	**0.100 D**	**0.24**	**0.138 D**	<0.025	<0.10	**0.00691**	**0.00642**
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07 [3]	1.02	-	-	**15**	**12**	**11**	**12**	**4.841**	-	-	**3.4 D**	**3.3 D**	**3.8 D**	**3.7 D**	**2.4 D**	**2.4 D**	**1.7 D**	**4.4**	**3.160 D**	**1.830 D**	**1.760 D**	**0.185 E**	**0.179 E**
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		< 0.005	< 0.005	< 0.005	< 0.005	< 0.1	< 0.1	-	-	-	**0.004**	**0.003**	**0.009**	**0.007**	**0.0025**	**0.0025**	< 0.005	< 0.05	**0.0314 D**	<0.025	<0.10	**0.00331**	**0.00313**
1,2-Dichloroethene (total) (1,2-DCE-total)	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	< 0.042	< 0.018	**3.1 D**	**3.1 D**	**3.9 D**	**3.8 D**	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7		**0.0085**	**0.020**	**0.007**	**0.005**	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005
Isobutyl Alcohol	mg/L	10		**0.310**	**0.330**	-	-	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050	< 0.500	< 5	<0.5	<2.5	<10	<0.05	<0.05
Methylene Chloride	mg/L	0.005		**0.0088**	**0.0052**	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	**0.001**	**0.003**	-	-	< 0.002	< 0.002	< 0.020	< 0.1	<0.020	<0.10	<0.40	<0.002	<0.002
4-methyl-2-pentanone (MIBK)	mg/L	0.005 [2]		**0.077**	**0.080**	**0.018**	**0.015**	< 5	< 5	-	< 0.210	< 0.089	< 0.003	< 0.003	-	-	< 0.005	< 0.005	< 0.05	< 0.5	<0.050	<0.25	<1.0	<0.005	<0.005
Naphthalene	mg/L	0.02		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.001	< 0.001	< 0.01	< 0.05	<0.010	<0.05	<0.2	<0.001	<0.001
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	<0.001	<0.001	<0.005	< 0.005	<0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.1	<0.0005	<0.0005
Tetrachloroethene (PCE)	mg/L	0.005	0.005 [9]	**0.039**	**0.120**	**0.013**	**0.012**	< 0.100	< 0.100	**0.03293**	**0.140**	**0.036**	**0.039 E**	**0.039 E**	-	-	**0.11 D**	**0.12 D**	**0.074 D**	**0.13**	**0.101 D**	<0.025	<0.10	<0.0005	<0.0005
Toluene	mg/L	1		**0.072**	**0.150**	**0.057**	**0.049**	< 0.100	< 0.1 00	-	< 0.042	< 0.018	**0.008**	**0.008**	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	**0.00222**	**0.00202**
1,2,3-Trichlorobenzene	mg/L	0.001 [2]	0.01	-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	<0.010	<0.025	<0.10	<0.001	<0.001
1,2,4-Trichlorobenzene	mg/L	0.07		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	<0.010	<0.050	<0.20	<0.001	<0.001
1,1,1-Trichloroethane (TCA)	mg/L	0.2		**0.041**	**0.170**	< 0.005	< 0.005	< 0.100	< 0.100	< 0.001	< 0.042	< 0.018	**0.002**	**0.002**	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005
Trichloroethene (TCE)	mg/L	0.005	0.005 [7]	**0.420**	**0.670**	**0.14**	**0.120**	**0.400**	**0.440**	**0.662**	**3.100 D**	**0.740**	**0.82 D**	**0.79 D**	**4.5 D**	**4.0 D**	**1.6 D**	**1.7 D**	**1.0 D**	**2.2**	**1.480 D**	<0.025	<0.10	**0.00897**	**0.00823**
Trichlorofluoromethane	mg/L	2		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.010	< 0.05	<0.010	<0.05	<0.001	<0.001	<0.001
1,2,3-Trichloropropane	mg/L	0.04		<0.0057	< 0.0058	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005
Vinyl Acetate	mg/L	0.002 [2]		**3.800**	**3.600**	< 0.005	< 0.010	< 1.000	< 1.0	-	-	-	-	-	-	-	< 0.002	< 0.002	< 0.020	< 0.1	<0.020	<0.10	<0.40	<0.002	<0.002
Vinyl Chloride	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.01	< 0.01	< 0.100	< 0.100	**0.01956**	< 0.042	< 0.018	**0.001**	**0.001**	-	-	< 0.001	< 0.001	< 0.010	**0.026**	**0.0236 D**	**3.740 D**	**3.550 D**	**.524 E**	**0.547 E**
Xylenes (total)	mg/L	0.01		**0.045**	**0.095**	**0.024**	**0.020**	< 0.300	< 0.300	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.010	<0.05	<0.20	**0.00169**	**0.00165**

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 199
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B Compound Detected in Method Blank or Trip Blank
J Estimated Value
E Concentration exceeds upper level of the instrument calibration range for the analysis
D Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed
BOLD Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume																										
				CH2MW-114D							ETCMW-115								ETMW-116											
				6/4/1998	4/7/2004	4/28/2005	10/26/2005	4/20/2006	4/18/2007	10/24/2007	11/3/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/20/1994	3/31/1995	5/26/1998	8/23/2000	8/23/2000 DUP	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007
Acetone	mg/L	4		-	< 0.01	**0.190 D**	**0.52**	< 0.01	<0.1	**.123 E**	< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	<0.025	<0.025	< 0.010	< 0.25	-	**0.010**	**0.011**	**0.036 B**	< 0.003	< 0.01	**0.360 D**	**1.6**	**0.968 D**	**0.398 D**	<0.05
2-Butanone (MEK)	mg/L	2	2.79	-	< 0.01	**0.430 D**	<0.1	< 0.01	<0.1	**0.0442**	< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	<0.025	<0.025	< 0.010	< 0.25	-	< 0.003	< 0.003	< 0.025	< 0.003	< 0.01	**0.053 D**	**0.38**	**0.163 D**	<0.1	<0.05
Benzene	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	< 0.005	< 0.001	< 0.0005	**0.00062**	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025
Carbon Disulfide	mg/L	4		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.005	< 0.025	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0037 D**	< 0.01	<0.005	<0.005	<0.0025
Chloroethane	mg/L	0.001 [2]	1.23	-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	< 0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	< 0.010	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005
Chloromethane	mg/L	0.001 [2]		-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.025	<0.025	< 0.010	< 0.005	-	<0.0005	< 0.0005	<0.005	<0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	-	-	**0.0007**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005
Dibromomethane	mg/L	0.0005 [2]		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-	-	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025
1,1-Dichloroethane (1,1-DCA)	mg/L	4		**0.0018**	**0.0077**	**0.00830 D**	< 0.01	< 0.001	<0.005	**0.00249**	**0.042**	**0.025**	**0.0064**	**0.0063**	**0.0076**	**0.00367**	**0.00848 D**	**0.00308 D**	**0.062**	**0.045**	**0.03585**	**0.045 D**	**0.039 D**	**0.012**	**0.012**	**0.018**	**0.023 D**	< 0.01	**0.00870 D**	**0.00910 D**	**0.00660 D**
1,2-Dichloroethane (1,2-DCA)	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.005 J	< 0.001	<0.005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.005	< 0.005	-	**0.0007**	**0.0007**	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.005 J	<0.005	<0.005	<0.0025
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	**0.0046**	**0.0053**	**0.0060 D**	< 0.01	< 0.001	**0.00580 D**	**0.00395**	< 0.005	< 0.001	< 0.0005	< 0.0025	< 0.001	< 0.0005	<0.00125	<0.00125	**0.008**	**0.012**	**0.01349**	**0.016**	**0.018**	< 0.005	**0.004**	**0.0055**	**0.0090 D**	< 0.007 J	**0.00540 D**	<0.005	<0.0025
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07 [3]	1.02	**0.0161**	**0.088 D**	**0.120 D**	**0.097**	< 0.001	**0.204 D**	**0.146 E**	**0.210**	**0.120**	**0.086 D**	**0.041 D**	**0.094**	**0.0346**	**0.120 D**	**0.0318 D**	**0.085**	**0.074**	**0.05735**	-	-	-	**0.026 D**	**0.039**	**0.100 D**	**0.18**	**0.221 D**	**0.0831 D**	<0.0025
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	< 0.005	< 0.001	< 0.0005	**0.00067**	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.005	< 0.005	-	-	-	-	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025
1,2-Dichloroethene (total) (1,2-DCE-total)	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0005	< 0.0005	< 0.005	**0.024**	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025
Isobutyl Alcohol	mg/L	10		-	< 0.050	< 0.500	< 1	< 0.1	<0.005	**.622 E**	-	-	< 0.050	< 0.250	< 0.1	< 0.050	<0.125	<0.125	-	-	-	-	-	-	-	< 0.050	**1.8**	**1.5**	<0.5	<0.005	<0.25
Methylene Chloride	mg/L	0.005		-	< 0.002	< 0.002	< 0.02	< 0.002	<0.020	<0.002	< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	<0.005	<0.005	< 0.005	< 0.005	-	**0.001**	**0.0009**	< 0.005	< 0.0005	< 0.002	< 0.001	< 0.002	<0.005	<0.020	<0.01
4-methyl-2-pentanone (MIBK)	mg/L	0.005 [2]		-	< 0.005	< 0.005	< 0.1	< 0.01	<0.050	<0.005	< 0.01	< 0.50	< 0.005	< 0.005	< 0.01	< 0.005	<0.0125	<0.0125	< 0.010	< 0.25	-	< 0.003	<0.003	<0.025	< 0.003	< 0.005	< 0.025	< 0.1	<0.05	<0.050	<0.025
Naphthalene	mg/L	0.02		-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	-	-	-	< 0.0005	< 0.005	< 0.001	< 0.005	< 0.01	< 0.01	<0.01	<0.010	<0.005
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025
Tetrachloroethene (PCE)	mg/L	0.005	0.005 [9]	**0.011**	**0.010**	**0.0072 D**	< 0.01	< 0.001	**0.00530 D**	**0.00288**	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	**0.034**	**0.022**	**0.018**	**0.024**	**0.022 D**	**0.007**	**0.005**	**0.011**	**0.012 D**	**0.0062 J**	<0.005	<0.005	<0.0025
Toluene	mg/L	1		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025
1,2,3-Trichlorobenzene	mg/L	0.001 [2]	0.01	-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	-	-	-	< 0.0005	< 0.005	< 0.001	< 0.005	< 0.01	< 0.01	<0.01	<0.010	<0.005
1,2,4-Trichlorobenzene	mg/L	0.07		-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	-	-	-	< 0.0005	< 0.005	< 0.001	< 0.005	< 0.01	< 0.01	<0.01	<0.010	<0.005
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.001	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0025	<0.00125	< 0.005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025
Trichloroethene (TCE)	mg/L	0.005	0.005 [7]	**0.105**	**0.200 D**	**0.230 D**	**0.240**	< 0.001	**0.135 D**	**0.056 E**	**0.170**	**0.120**	**0.016**	**0.0057**	**0.0039**	**0.00901**	**0.0214 D**	**0.0079 D**	**0.560**	**0.420**	**0.26512**	**0.420 D**	**0.350 D**	**0.130**	**0.100 D**	**0.15 D**	**0.170 D**	**0.12**	<0.005	**0.0291 D**	<0.0025
Trichlorofluoromethane	mg/L	2		-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	-	-	**0.001**	**0.001**	<0.0005	< 0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005
1,2,3-Trichloropropane	mg/L	0.04		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025
Vinyl Acetate	mg/L	0.002 [2]		-	< 0.002	< 0.002	< 0.05	< 0.005	<0.020	<0.002	< 0.005	< 0.010	< 0.002	< 0.002	< 0.005	< 0.002	<0.005	<0.005	< 0.010	< 0.050	-	-	-	-	-	< 0.002	< 0.01	< 0.05	<0.02	<0.020	<0.01
Vinyl Chloride	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.005 J	< 0.001	<0.010	<0.001	< 0.001	< 0.001	**0.0015**	**0.025**	**0.014**	**0.00346**	**0.00915 D**	<0.0025	< 0.010	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.005 J	**0.0171 D**	**0.0581 D**	**0.0384 D**
Xylenes (total)	mg/L	0.01		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.010	<0.001	< 0.005	<0.003	< 0.0005	**0.00061**	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.005	< 0.015	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.01	<0.010	<0.005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 199
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B Compound Detected in Method Blank or Trip Blank

J Estimated Value

E Concentration exceeds upper level of the instrument calibration range for the analysis

D Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

BOLD Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume																		
				ETMW-117										ETMW-118								
				12/21/1994	3/31/1995	8/23/2000	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/20/1994	3/31/1995	5/26/1998	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	10/24/2007 (DUP-01)
Acetone	mg/L	4		< 0.010	< 0.1	< 0.018	< 0.003	**0.003**	< 0.01	< 0.04	< 0.01	< 0.01	**2.090 D**	**.513 ED**	< 0.005	< 0.05	-	< 0.01	**0.021**	< 0.02	< 0.01	**0.192 D**	<0.5	<0.5
2-Butanone (MEK)	mg/L	2	2.79	< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.213 D**	**0.0785 D**	< 0.010	< 0.05	-	< 0.01	< 0.01	< 0.02	< 0.01	<0.050	<0.5	<0.5
Benzene	mg/L	0.005		< 0.005	< 0.002	< 0.004	**0.0008**	**0.002**	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025
Carbon Disulfide	mg/L	4		< 0.005	< 0.010	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.005	< 0.005	-	< 0.0005	**0.00079**	< 0.002	< 0.0005	**0.00370 D**	<0.025	<0.025
Chloroethane	mg/L	0.001 [2]	1.23	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	< 0.005	< 0.001	-	< 0.001	< 0.001	**0.0038**	**0.00437**	<0.005	<0.05	<0.05
Chloromethane	mg/L	0.001 [2]		< 0.010	< 0.002	<0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	< 0.010	< 0.001	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05
Dibromomethane	mg/L	0.0005 [2]		-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	-	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025
1,1-Dichloroethane (1,1-DCA)	mg/L	4		**0.012**	**0.025**	**0.017**	**0.017**	**0.008**	**0.0098**	**0.014 D**	**0.013**	**0.0105**	**0.00935 D**	**0.00825 D**	**0.014**	**0.021**	**0.01884**	**0.0033**	**0.014**	**0.011**	**0.00961**	**0.0139 D**	<0.025	<0.025
1,2-Dichloroethane (1,2-DCA)	mg/L	0.005		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	< 0.005	**0.005**	< 0.004	**0.003**	**0.002**	**0.0022**	**0.0038 D**	**0.0026**	**0.00075**	**0.00305 D**	<0.0025	< 0.005	**0.0046**	**0.00292**	**0.00061**	**0.0037**	**0.0054**	**0.00489**	**0.00575 D**	<0.025	<0.025
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07 [3]	1.02	**0.014**	-	-	-	**0.016**	**0.02**	**0.030 D**	**0.03**	**0.0225**	**0.0315 D**	**0.0762 D**	**0.012**	**0.023**	**0.01722**	**0.0057**	**0.120 D**	**0.13**	**0.127 D**	**0.117 D**	**0.108 D**	**0.111 D**
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		< 0.005	< 0.002	-	-	< 0.0005	< 0.0005	< 0.002	< 0.001	**0.00213**	<0.0025	<0.0025	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025
1,2-Dichloroethene (total) (1,2-DCE-total)	mg/L	0.07 [4]	0.92	-	-	<0.004	< 0.0005	**0.015**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025
Isobutyl Alcohol	mg/L	10		-	-	-	-	-	< 0.050	< 0.2	< 0.1	< 0.050	**2.930 D**	<0.25	-	-	-	< 0.050	< 0.050	< 0.2	< 0.050	**25.6 DH**	**13.0 D**	**13.2 D**
Methylene Chloride	mg/L	0.005		< 0.005	< 0.002	< 0.004	**0.0006**	**0.002**	< 0.002	< 0.008	< 0.002	< 0.002	<0.010	<0.010	< 0.005	< 0.001	-	< 0.002	< 0.002	< 0.004	< 0.002	<0.010	<0.100	<0.100
4-methyl-2-pentanone (MIBK)	mg/L	0.005 [2]		< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.005	< 0.02	< 0.01	< 0.005	<0.025	<0.025	< 0.010	< 0.05	-	< 0.005	< 0.005	< 0.02	< 0.005	<0.025	<0.25	<0.25
Naphthalene	mg/L	0.02		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025
Tetrachloroethene (PCE)	mg/L	0.005	0.005 [9]	< 0.005	**0.008**	**0.005**	**0.005**	**0.002**	**0.0032**	**0.0050 D**	**0.0042**	**0.00378**	**0.00435 D**	<0.0025	< 0.010	**0.009**	**0.008**	**0.0019**	< 0.0005	**0.0032**	**0.00257**	**0.00460 D**	<0.025	<0.025
Toluene	mg/L	1		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025
1,2,3-Trichlorobenzene	mg/L	0.001 [2]	0.01	-	-	< 0.004	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05
1,2,4-Trichlorobenzene	mg/L	0.07		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	<0.0025	<0.025	<0.025
Trichloroethene (TCE)	mg/L	0.005	0.005 [7]	**0.130**	**0.210**	**0.120**	**0.070**	**0.050 D**	**0.064 D**	**0.094 D**	**0.098**	**0.079 D**	**0.0744 D**	**0.0302 D**	**0.069**	**0.110**	**0.08682**	**0.021**	**0.0031**	**0.049**	**0.0316**	**0.0489 D**	**0.0390 D**	**0.0400 D**
Trichlorofluoromethane	mg/L	2		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05
1,2,3-Trichloropropane	mg/L	0.04		-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	-	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025
Vinyl Acetate	mg/L	0.002 [2]		< 0.010	< 0.020	-	-	-	< 0.002	< 0.008	< 0.005	< 0.002	<0.010	<0.010	< 0.010	< 0.010	-	< 0.002	< 0.002	< 0.01	< 0.002	<0.010	<0.100	<0.100
Vinyl Chloride	mg/L	0.002	0.002 [7]	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	< 0.010	< 0.001	< 0.001	< 0.001	**< 0.001**	< 0.002	< 0.001	<0.005	<0.05	<0.05
Xylenes (total)	mg/L	0.01		< 0.005	< 0.006	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.005	<0.005	< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.005	<0.05	<0.05

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 199
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B Compound Detected in Method Blank or Trip Blank
J Estimated Value
E Concentration exceeds upper level of the instrument calibration range for the analysis
D Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed
BOLD Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient								Cross Gradient								
				ETMW-119								ETMW-120								
				12/20/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	10/25/2005 (DUP 1)	4/18/2006	4/17/2007	10/25/2007	12/20/1994	3/31/1995	5/26/1998	5/26/98 DUP	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/23/2007
Acetone	mg/L	4		< 0.005	< 0.050	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0212**	<0.01	< 0.005	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01
2-Butanone (MEK)	mg/L	2	2.79	< 0.01	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0998 DH**	<0.01	< 0.010	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01
Benzene	mg/L	0.005		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Carbon Disulfide	mg/L	4		< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.005	< 0.005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Chloroethane	mg/L	0.001 [2]	1.23	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.005	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
Chloromethane	mg/L	0.001 [2]		< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.010	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
Dibromomethane	mg/L	0.0005 [2]		-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
1,1-Dichloroethane (1,1-DCA)	mg/L	4		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	mg/L	0.005		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.005	< 0.001	**0.00184**	**0.00166**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07 [3]	1.02	< 0.05	**0.0016**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.05	**0.0048**	**0.00543**	**0.00525**	**0.0011**	**0.0012**	**0.0052**	< 0.0005	**0.00135**	**0.00094**
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Isobutyl Alcohol	mg/L	10		-	-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.050	< 0.050	<0.050	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.05
Methylene Chloride	mg/L	0.005		< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	< 0.005	< 0.001	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002
4-methyl-2-pentanone (MIBK)	mg/L	0.005 [2]		< 0.010	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	<0.005	< 0.010	< 0.05	-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	<0.005
Naphthalene	mg/L	0.02		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Tetrachloroethene (PCE)	mg/L	0.005	0.005 [9]	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.010	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Toluene	mg/L	1		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
1,2,3-Trichlorobenzene	mg/L	0.001 [2]	0.01	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
1,2,4-Trichlorobenzene	mg/L	0.07		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.005	**0.0018**	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Trichloroethene (TCE)	mg/L	0.005	0.005 [7]	<0.005	**0.0034**	< 0.0005	**0.00061**	< 0.001	< 0.001	**0.00053**	**0.00074**	<0.0005	<0.005	**0.0017**	**0.00138**	**0.00128**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Trichlorofluoromethane	mg/L	2		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
1,2,3-Trichloropropane	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005
Vinyl Acetate	mg/L	0.002 [2]		< 0.010	< 0.010	< 0.002	< 0.002	< 0.005	< 0.005	< 0.002	< 0.002	<0.002	< 0.010	< 0.010	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	<0.002
Vinyl Chloride	mg/L	0.002	0.002 [7]	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.010	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
Xylenes (total)	mg/L	0.01		< 0.005	< 0.003	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	<0.001	<0.001	< 0.005	< 0.003	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B	Compound Detected in Method Blank or Trip Blank
J	Estimated Value
E	Concentration exceeds upper level of the instrument calibration range for the analysis
D	Dilution analysis result
<	Less than detection limit listed
mg/L	Milligram per liter
NA	Not Available
-	Not Analyzed
BOLD	Detected concentration
	Concentration exceeds Type 1 RRS.
	Detection limit exceeds Type 1 RRS.
	Concentration exceeds Type 4 RRS.

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	Upgradient											Cross Gradient							
				ETMW-121											OBGMW-122							
				12/20/1994	3/31/1995	5/27/1998	8/23/2000	11/10/2000	1/24/2001	4/7/2004	4/28/2005	10/26/2005	4/19/2006	4/18/2007	10/23/2007	8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007
Acetone	mg/L	4		< 0.005	< 0.05	-	**0.009**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	**0.016**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	mg/L	2	2.79	< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	mg/L	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Carbon Disulfide	mg/L	4		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Chloroethane	mg/L	0.001 (2)	1.23	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	mg/L	0.001 (2)		< 0.010	< 0.001	-	<0.0005	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.0005	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	mg/L	0.0005 (2)		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	mg/L	4		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	mg/L	0.005		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07(3)	1.02	< 0.05	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	mg/L	0.07 (4)	0.92	-	-	-	<0.0005	<0.0005	<0.0005	-	-	-	-	-	-	< 0.0005	< 0.0005	<0.0005	-	-	-	-	-
Ethylbenzene	mg/L	0.7		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Isobutyl Alcohol	mg/L	10		-	-	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.05	-	-	-	< 0.050	< 0.050	<0.050	< 0.050	< 0.050
Methylene Chloride	mg/L	0.005		< 0.005	< 0.001	-	**0.0009**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	**0.001**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	mg/L	0.005 (2)		< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	<0.005	< 0.005	< 0.005
Naphthalene	mg/L	0.02		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.0005	**0.001**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	mg/L	0.005	0.005 (9)	< 0.010	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Toluene	mg/L	1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	mg/L	0.001 (2)	0.01	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.0005	**0.002**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	mg/L	0.07		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.0005	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichloroethene (TCE)	mg/L	0.005	0.005(7)	< 0.005	< 0.001	< 0.001	**0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichlorofluoromethane	mg/L	2		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	mg/L	0.04		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Vinyl Acetate	mg/L	0.002 (2)		< 0.010	< 0.010	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002
Vinyl Chloride	mg/L	0.002	0.002 (7)	< 0.010	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	mg/L	0.01		< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B Compound Detected in Method Blank or Trip Blank
J Estimated Value
E Concentration exceeds upper level of the instrument calibration range for the analysis
D Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed
BOLD Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient									Downgradient												Upgradient		In Plume	
				OBGMW-123									OBGMW-124					CH2PP-1							CH2PP-2	CH2PP-3[8] (not sampled)	Sump 1	Sump 2
				9/8/2000	11/9/2000	1/24/2001	4/29/2002	4/6/2004	4/6/2004 DUP	4/27/2005	10/25/2005	4/20/2006	4/18/2007	4/21/2004	4/27/2005	10/26/2005	4/20/2006	4/18/2007	6/30/1998	4/7/2004	4/26/2005	10/25/2005	4/19/2006	4/17/2007	10/24/2007	5/29/1998		11/3/1994	11/3/1994
Acetone	mg/L	4		< 0.003	< 0.003	< 0.003	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	**0.021**	< 0.01	< 0.01	<0.01	-	-	**0.790**	< 0.010
2-Butanone (MEK)	mg/L	2	2.79	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	-	-	**0.420**	< 0.010
Benzene	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	< 0.005	< 0.005
Carbon Disulfide	mg/L	4		< 0.0005	**0.003**	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	**0.00063**	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	< 0.005	< 0.005
Chloroethane	mg/L	0.001 [2]	1.23	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.010	< 0.010
Chloromethane	mg/L	0.001 [2]		<0.0005	<0.0005	<0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	**1.3**	< 0.010
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	0.0002	0.00058	<0.0005	<0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-
Dibromomethane	mg/L	0.0005 [2]		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	mg/L	4		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	**0.00057**	**0.00055**	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.001	-	**0.240**	< 0.005
1,2-Dichloroethane (1,2-DCA)	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	< 0.005	< 0.005
1,1-Dichloroethene (1,1-DCE)	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.001	-	**0.046**	< 0.005
cis-1,2-dichloroethene (cis-1,2-DCE)	mg/L	0.07 [3]	1.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	**0.013**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.001	-	**1.5**	< 0.005
trans-1,2-dichloroethene (trans-1,2-DCE)	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	< 0.005	< 0.005
1,2-Dichloroethene (total) (1,2-DCE-total)	mg/L	0.07 [4]	0.92	<0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/L	0.7		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	< 0.005	< 0.005
Isobutyl Alcohol	mg/L	10		-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.050	-	-	-	-
Methylene Chloride	mg/L	0.005		**0.001**	< 0.0005	< 0.0005	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	-	< 0.005	< 0.005
4-methyl-2-pentanone (MIBK)	mg/L	0.005 [2]		< 0.003	< 0.003	< 0.003	-	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	-	-	< 0.010	< 0.010
Naphthalene	mg/L	0.02		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	< 0.005	< 0.005
Tetrachloroethene (PCE)	mg/L	0.005	0.005 [9]	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.001	-	**0.077**	< 0.005
Toluene	mg/L	1		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	**0.018**	< 0.005
1,2,3-Trichlorobenzene	mg/L	0.001 [2]	0.01	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-
1,2,4-Trichlorobenzene	mg/L	0.07		< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-
1,1,1-Trichloroethane (TCA)	mg/L	0.2		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.001	-	**0.140**	< 0.005
Trichloroethene (TCE)	mg/L	0.005	0.005 [7]	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	< 0.001	-	**0.250**	**0.016**
Trichlorofluoromethane	mg/L	2		< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-
1,2,3-Trichloropropane	mg/L	0.04		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-
Vinyl Acetate	mg/L	0.002 [2]		-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	-	-	< 0.010	< 0.010
Vinyl Chloride	mg/L	0.002	0.002 [7]	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	-	< 0.010	< 0.010
Xylenes (total)	mg/L	0.01		< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	-	-	< 0.005	< 0.005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 199
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B Compound Detected in Method Blank or Trip Blank
J Estimated Value
E Concentration exceeds upper level of the instrument calibration range for the analysis
D Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed
BOLD Detected concentration

Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

Appendix A2

Historical Summary of Ground Water Geochemical Parameters

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Downgradient														Upgradient									
		CH2MW-1							CH2MW-1A							CH2MW-2									
		4/29/2002	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/24/2007	4/29/2002	4/7/2004	4/28/2005	10/26/2005	4/20/2006	4/19/2007	10/22/2007	5/29/1998	8/23/2000	11/21/2000	1/24/2001	4/6/2004	4/27/2005	10/25/2005	4/18/2006	4/18/2007	10/22/2007
Alkalinity	mg/L	-	-	-	-	-	-	-	-	**22**	**2.6**	NA	**24**	NA	-	**2.0**	< 10	< 10	< 10	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-	**15**	**8.8**	**11**	**9.4**	**7.8**	**-**	**38.5**	**37.6**	**33.7**	**39.3**	**-**	**-**	-	-	-	-
Ferrous Iron	mg/L	-	-	ND	**-**	**-**	ND	ND	-	**0.3**	ND	**2.87**	**-**	**0.6**	**-**	< 0.20	**0.7**	**0.4**	**0.01**	**-**	ND	-	-	ND	-
Iron	mg/L		-	-	-	-	-	-	-	**0.63**	**1.2**	NA	**1.8**	**2.1**	**-**	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	< 0.05	< 0.05	NA	< 0.050	<0.050	-	-	**15.1**	**0.3**	**0.2**	**-**	**-**	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	**1.6**	**0.27**	**0.64**	**0.71**	**1.2**	**-**	**5.6**	**6.12**	**6.2**	**6.95**	**-**	**-**	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.07	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-	**1.3**	**2.7**	< 2.0	**1.6**	**7.7**	**-**	**14**	**19.7**	**27**	**20.2**	**-**	**-**	-	-	-	-
Sulfide	mg/L	-	-	-	-	-	-	-	-	< 0.8	< 0.9	NA	< 0.80	NA	-	< 1.0	< 0.2	< 0.5	< 0.5	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-	-	-	< 2.0	< 5.0	< 2.0	< 2.1	<0.0021	-	**0.747**	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-
Ethane	ug/L	-	-	-	-	-	-	-	-	< 4.0	< 5.0	< 4.0	< 4.2	<0.0042	-	**0.039**	< 0.01	< 0.01	< 0.01	-	-	-	-	-	-
Ethene	ug/L	-	-	-	-	-	-	-	-	< 4.0	< 5.0	< 4.0	< 4.2	<0.0042	-	**0.055**	**0.02**	< 0.01	< 0.01	-	-	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	-	-	-	**1.3**	**11**	NA	-	**2.7**	**-**	**2.7**	**18.4**	**23.1**	**37**	**-**	**-**	-	-	-	-
Total Organic Carbon	mg/L	-	-	-	-	-	-	-	-	**1.3**	**9.6**	**3.5**	**6.3**	**3.9**	**-**	-	**37.4**	**29.1**	**47.4**	**-**	**-**	-	-	-	-
Carbon Dioxide	mg/L	**-**	**-**	**20**	**-**	**-**	**>100**	**80**	**-**	**14**	**13**	**70**	**-**	**>100**	**-**	**-**	**-**	**-**	**-**	**-**	**13**	-	-	**95**	**-**
pH	S.U.	**4.60**	**4.54**	**5.51**	**4.52**	**5.11**	**5.05**	**5.33**	**5.50**	**5.47**	**5.90**	**5.33**	**5.13**	**5.36**	**-**	**4.36**	**4.50**	**4.40**	**3.78**	**4.11**	**3.71**	**4.41**	**5.03**	**5.47**	**-**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.9**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.29**
Conductivity	mS/cm	**0.090**	**0.139**	**0.183**	**0.128**	**0.137**	**0.115**	**0.134**	**0.080**	**0.102**	**0.137**	**0.088**	**0.098**	**0.092**	**-**	**0.220**	**0.270**	**0.317**	**0.215**	**0.232**	**0.284**	**0.206**	**0.217**	**0.207**	**-**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.019**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.039**
Dissolved Oxygen	mg/L	**5.50**	**4.53**	**3.93**	**3.44**	**5.93**	**4.96**	**3.53**	**5.30**	**4.07**	**2.52**	**1.12**	**4.78**	**0.79**	**-**	**4.39**	**8.70**	**9.60**	**4.70**	**2.20**	**1.45**	**1.86**	**4.12**	**4.86**	**-**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.74**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.52**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**4.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Oxidation/Reduction Potential (ORP)	mV	**293**	**527**	**222**	**179**	**414**	**340**	**124**	**231**	**499**	**181**	**186**	**357**	**353**	**-**	**252.9**	**32.5**	**404**	**248**	**553**	**387**	**234**	**448**	**399**	**-**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**262.4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**251**
Temperature	℃	-	**21.30**	**20.57**	**20.35**	**23.07**	**21.62**	**25.71**	-	**19.75**	**19.46**	**23.99**	**19.97**	**19.57**	**-**	-	**27.88**	-	**14.60**	**20.64**	**19.51**	**24.79**	**20.24**	**19.66**	**-**
Temperature (Downhole Probe)	℃	-	-	-	-	-	-	-	-	-	-	-	-	-	**25.96**	-	-	-	-	-	-	-	-	-	**25.84**

Field Parameters:
Ferrous Iron (2000-2007)
Carbon Dioxide (2004-2007)
pH
Conductivity
ORP
Manganese (2000-2006)
Temperature
Dissolved Oxygen

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Upgradient												Cross Gradient								
		CH2MW-3												CH2MW-4D								
		5/29/1998	8/23/2000	11/21/2000	11/21/00 DUP	1/24/2001	4/6/2004	4/27/2005	4/27/2005 (DUP2)	10/26/2005	4/19/2006	4/17/2007	10/24/2007	8/23/2000	11/21/2000	1/25/2001	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007
Alkalinity	mg/L	**4.0**	< 10	< 10	< 10	< 10	< 10	**18**	**18**	< 10	**12**	<10	<10	**39.5**	**62**	**32**	**-**	**-**	-	-	-	-
Chloride	mg/L	**14**	**18.6**	**19**	**18.8**	**13.2**	**14**	**9.9**	**13**	**18**	**9.3**	**6.7**	**12**	< 3.0	< 3.0	< 3.0	-	-	-	-	-	-
Ferrous Iron	mg/L	< 0.20	**0.23**	**0.02**	**-**	**0.02**	**0.1**	ND	-	**0.31**	ND	**0.5**	ND	**0.4**	**0.38**	**0.01**	**-**	ND	-	-	ND	**0.2**
Iron	mg/L	-	-	-	-	-	<0.05	0.11	<0.05	< 0.050	**0.094**	**0.072**	**0.16**	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**-**	**1.8**	**0.6**	**-**	**0.3**	<0.05	<0.05	<0.05	< 0.050	< 0.050	<0.050	<0.050	<0.05	**1.5**	**0.2**	**-**	**-**	-	-	-	-
Nitrate (as N)	mg/L	**0.8**	**2.26**	**2.38**	**2.36**	**0.906**	**0.65**	**0.55**	**0.79**	**1.6**	**0.61**	**0.51**	**1.1**	**0.87**	**-**	**0.896**	**-**	**-**	-	-	-	-
Nitrite	mg/L	< 0.07	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	**-**	< 0.05	-	< 0.05	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	**-**	-	**0.89**	-	-	-	-	-	-	-
Sulfate	mg/L	**5.8**	**6.71**	**5.4**	**6.0**	**49.8**	**41**	**39**	**32**	**16**	**38**	**44**	**19**	< 5.0	< 5.0	< 5.0	-	-	-	-	-	-
Sulfide	mg/L	< 1.0	< 0.2	**0.6**	**0.6**	< 0.5	< 1.6	< 0.8	< 0.8	< 0.8	< 0.80	<1.0	<1.0	< 0.2	< 0.5	< 0.5	-	-	-	-	-	-
Methane	ug/L	**0.559**	<0.2	< 0.2	< 0.2	< 0.2	< 2.0	< 5.0	< 5.0	< 2.0	< 2.1	<2.3	<2.1	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-
Ethane	ug/L	**0.016**	< 0.01	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0	< 5.0	< 4.0	< 4.2	<4.5	<4.1	**0.01**	< 0.01	**0.02**	**-**	**-**	-	-	-	-
Ethene	ug/L	**0.017**	< 0.01	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0	< 5.0	< 4.0	< 4.2	<4.5	<4.1	**0.08**	**0.01**	**0.01**	**-**	**-**	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	< 2.00	**9.98**	**8.75**	**19.1**	**19.4**	**1.8**	**3.8**	**3.9**	**6.8**	**16**	**1.7**	**2.1**	**5.95**	**3.91**	**4.44**	**-**	**-**	-	-	-	-
Total Organic Carbon	mg/L	-	**22.9**	**26.1**	**20.7**	**22.3**	**2.1**	**2.6**	**3.0**	**2.4**	**3.1**	**3.6**	**2.1**	**5.71**	**7.8**	**6.78**	**-**	**-**	-	-	-	-
Carbon Dioxide	mg/L	**-**	**-**	**-**	**-**	**-**	**14**	**14**	-	**50**	**14**	**75**	**30**	**-**	**-**	**-**	**-**	**14**	-	-	**30**	**14**
pH	S.U.	**4.56**	**4.35**	**4.61**	**-**	**4.35**	**5.06**	**5.12**	-	**4.57**	**4.91**	**5.10**	**4.56**	**6.50**	**4.87**	**6.01**	**8.59**	**8.67**	**7.66**	**7.86**	**6.66**	**6.56**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**4.49**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**7.01**
Conductivity	mS/cm	**0.086**	**0.130**	**0.146**	**-**	**0.167**	**0.150**	**0.186**	-	**0.106**	**0.170**	**0.152**	**0.095**	**0.100**	**0.122**	**0.09**	**0.071**	**0.081**	**0.067**	**0.069**	**0.066**	**0.059**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**0.032**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.016**
Dissolved Oxygen	mg/L	**4.23**	**4.80**	**6.85**	**-**	**6.01**	**5.50**	**2.36**	-	**1.83**	**6.66**	**6.90**	**3.85**	**9.50**	**9.18**	**5.14**	**4.70**	**4.11**	**5.16**	**7.05**	**7.10**	**4.76**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**5.20**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.35**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Oxidation/Reduction Potential (ORP)	mV	**271.6**	**353**	**363**	**-**	**209**	**644**	**446**	-	**187**	**370**	**339**	**206**	**193**	**60**	**59**	**436**	**282**	**172**	**411**	**360**	**188**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**354.1**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**158**
Temperature	℃	-	**27.97**	-	-	**20.72**	**20.31**	**20.78**	-	**23.80**	**21.91**	**22.91**	**23.95**	**27.90**	-	**22.77**	**22.85**	**21.87**	**23.39**	**23.13**	**23.19**	**23.03**
Temperature (Downhole Probe)	℃	-	-	-	-	-	-	-	-	-	-	-	**25.60**	-	-	-	-	-	-	-	-	**24.99**

Field Parameters:
Ferrous Iron (2000-2007)
Carbon Dioxide (2004-2007)
pH
Conductivity
ORP
Manganese (2000-2006)
Temperature
Dissolved Oxygen

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient								In Plume									
		CH2MW-5								ETCMW-113									
		4/7/2004	4/27/2005	10/26/2005	10/26/2005 (DUP02)	4/20/2006	DUP2-042006	4/17/2007	10/22/2007	5/27/1998	9/7/2000	11/21/2000	1/25/2001	4/6/2004	4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007
Alkalinity	mg/L	**60**	**98**	**36**	**34**	**110**	**120**	**42**	**-**	**8**	< 10	< 10	< 10	-	-	-	-	-	-
Chloride	mg/L	**5.6**	**2.8**	**6.6**	**7.2**	**8.3**	**8.2**	**5.1**	**-**	**13.5**	**12.9**	**11.7**	**13.4**	**-**	**-**	-	-	-	-
Ferrous Iron	mg/L	**0.2**	**0.5**	**2.2**	-	ND	-	**1.0**	**-**	< 0.20	**11**	**0.03**	**0.05**	**-**	**1**	-	-	**4.2**	**6.6**
Iron	mg/L	**4.2**	**1.3**	**2.7**	**3.5**	**0.077**	< 0.050	**0.81**	**-**	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	<0.050	-	**-**	**5.6**	**0.3**	**0.2**	<0.05	<0.05	-	-	-	-
Nitrate (as N)	mg/L	**1**	**0.57**	**1.6**	**1.7**	**1.6**	**1.6**	**0.96**	**-**	**10.2**	**7.05**	**10.7**	**11.8**	**-**	**-**	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	< 0.07	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**4.5**	**2.2**	**2.5**	**2.5**	**1.4**	**1.4**	**2.8**	**-**	**10.1**	< 5	**5.8**	< 5	-	-	-	-	-	-
Sulfide	mg/L	< 0.8	< 0.8	< 0.8	< 0.8	< 0.80	< 0.80	**1.7**	**-**	< 1.0	< 0.2	**0.8**	< 0.5	-	-	-	-	-	-
Methane	ug/L	< 0.002	< 5.0	< 2.0	< 2.0	**7.30**	**2000**	<0.0021	-	**0.149**	< 0.2	< 0.2	**0.3**	**-**	**-**	-	-	-	-
Ethane	ug/L	< 0.004	< 5.0	< 4.0	< 4.0	< 4.9	< 49	<0.0042	-	**0.029**	**0.09**	< 0.01	**0.13**	**-**	**-**	-	-	-	-
Ethene	ug/L	< 0.004	< 5.0	< 4.0	< 4.0	< 4.9	< 49	<0.0042	-	< 0.005	**0.02**	< 0.01	**0.03**	**-**	**-**	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	**1.8**	**11**	**2.9**	**11**	**2.5**	**16**	**2.1**	**-**	-	**4.42**	**6.65**	**8.51**	**-**	**-**	-	-	-	-
Total Organic Carbon	mg/L	**1.7**	**9.6**	**2.2**	**2.4**	**2.8**	**2.8**	**2.8**	**-**	-	**7.94**	**5.6**	**11.7**	**-**	**-**	-	-	-	-
Carbon Dioxide	mg/L	**18**	**15**	**40**	-	**14**	-	**55**	**-**	**-**	**-**	**-**	**-**	**-**	**14**	-	-	**>100**	**>100**
pH	S.U.	**6.10**	**6.40**	**5.51**	-	**5.79**	-	**6.22**	**-**	**5.83**	**4.94**	**4.70**	**4.09**	**6.12**	**6.53**	**6.21**	**5.71**	**4.67**	**4.64**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	-	**-**	-	**-**	**6.20**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.72**
Conductivity	mS/cm	**0.126**	**0.196**	**0.100**	-	**0.263**	-	**0.122**	**-**	**0.169**	**0.190**	**0.220**	**0.293**	**0.197**	**0.342**	**0.352**	**0.298**	**0.668**	**0.320**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	-	**-**	-	**-**	**0.038**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.097**
Dissolved Oxygen	mg/L	**5.10**	**2.85**	**1.77**	-	**4.00**	-	**2.45**	**-**	**6.79**	**6.30**	**8.89**	**6.71**	**6.12**	**2.47**	**1.27**	**6.39**	**0.62**	**2.93**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	-	**-**	-	**-**	**2.15**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**7.85**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	-	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.0**
Oxidation/Reduction Potential (ORP)	mV	**457**	**156**	**184**	-	**395**	-	**320**	**-**	**192.2**	**261**	**196**	**217**	**446**	**217**	**192**	**348**	**259**	**67**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	-	**-**	-	**-**	**249.2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**89**
Temperature	℃	**17.99**	**19.79**	**22.40**	-	**19.42**	-	**20.50**	**-**	-	**24.10**	-	**19.28**	**18.06**	**18.02**	**23.34**	**20.43**	**18.75**	**23.53**
Temperature (Downhole Probe)	℃	-	-	-	-	-	-	-	**25.15**	-	-	-	-	-	-	-	-	-	**24.64**

Field Parameters:
Ferrous Iron (2000-2007)
Carbon Dioxide (2004-2007)
pH
Conductivity
ORP
Manganese (2000-2006)
Temperature
Dissolved Oxygen

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume																				
		ETCMW-114															CH2MW-114D					
		5/27/1998	8/23/2000	9/7/2000	11/21/2000	1/24/2001	1/24/2001 DUP	4/29/2002	4/7/2004	4/7/2004 (DUP-2)	4/29/2005	10/27/2005	4/20/2006	4/17/2007	DUP-01 (4/17/2007)	10/23/2007	4/7/2004	4/29/2005	10/26/2005	4/20/2006	4/19/2007	10/24/2007
Alkalinity	mg/L	**112**	**82.2**	-	**128**	**134**	**135**	-	**94**	**96**	**120**	**120**	**140**	**470**	**500**	**350**	< 10	**3000**	**2200**	**830**	-	-
Chloride	mg/L	**32.5**	**90.1**	-	**108**	**82.8**	**82.1**	-	**37**	**37**	**26**	**32**	**29**	**110**	**110**	**73 D**	**2.1**	**89**	**190**	**200**	-	-
Ferrous Iron	mg/L	< 0.20	**0.2**	-	**0.05**	**0.03**	-	-	**0.8**	**0.8**	ND	**0.19**	ND	**4.2**	**-**	**1.2**	**0.2**	**5.0**	**2.0**	-	**4.2**	**-**
Iron	mg/L	-	-	-	-	-	-	-	**2**	**1.8**	**0.22**	**0.88**	**1.0**	**11**	**11**	**0.85**	**17**	**55**	**79**	**160**	-	**150**
Manganese	mg/L	**-**	**0.5**	-	**0.3**	**0.3**	-	-	< 0.05	< 0.05	<0.05	< 0.050	< 0.050	**0.54**	**0.55**	**0.080**	< 0.05	**0.64**	**0.53**	**0.26**	-	**0.22**
Nitrate (as N)	mg/L	**7.6**	**18.15**	-	-	**44.8**	**45.8**	-	**1.2**	**1.1**	**8.2 H**	**1.4**	**-**	<0.02	<0.02	**1.9 D**	**0.46**	<0.5 H	**1.2**	< 0.50	-	-
Nitrite	mg/L	< 0.07	**0.053**	-	-	< 0.05	< 0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	**-**	-	**58**	-	-	-	-	-	-	-	< 0.050	-	-	**-**	-	-	-	-	-	-
Sulfate	mg/L	**12.8**	**54.1**	-	**110**	**75.6**	**75.6**	-	**33**	**33**	**39**	**31**	**51 D**	<1.0	<1.0	**35 D**	**3.6**	**47**	**100**	**150**	-	-
Sulfide	mg/L	< 1.0	-	< 0.2	**0.5**	< 0.5	< 0.5	-	< 0.8	< 0.8	< 0.8	< 0.8	< 0.80	<1.0	**1.8**	<1.0	< 0.8	<0.8	< 0.8	**1.4**	-	-
Methane	ug/L	**129.2**	**43.9**	-	**0.5**	< 0.2	< 0.2	-	< 2.0	< 2.0	< 5.0	**14**	**14**	**0.14**	**0.14**	**54**	< 2.0	< 5.0	< 2.0	-	**2.8**	**-**
Ethane	ug/L	**0.249**	**0.16**	-	**0.03**	**0.03**	**0.02**	-	< 4.0	< 4.0	< 5.0	< 4.0	< 4.5	<44	<44	<4.2	< 4.0	< 5.0	< 4.0	-	<0.21	-
Ethene	ug/L	**0.205**	**0.51**	-	**0.03**	**0.01**	**0.01**	-	< 4.0	< 4.0	< 5.0	< 4.0	< 4.5	**7.0**	**7.6**	**38**	< 4.0	< 5.0	< 4.0	-	<0.21	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	**32.9**	**40.6**	**27.3**	-	**2.3**	**2.2**	**2.9**	**12**	**17**	**41**	**42**	**3.4**	**1.1**	**8,900**	**4800**	-	**2**	**1600 D**
Total Organic Carbon	mg/L	-	**21.6**	-	**40.5**	**51.2**	**52.2**	-	**2.6**	**2.6**	**2.2**	**3.2**	**14.0**	**51.0**	**47.0**	**4.4**	**2.3**	**9,800**	**3500**	**3800**	-	**1700 D**
Carbon Dioxide	mg/L	**-**	-	**-**	**-**	-	**-**	**-**	**20**	**22**	**14**	**30**	**14**	**>100**	-	**90**	**> 100**	**50**	**350 D**	-	**>100**	**-**
pH	S.U.	**6.36**	-	**6.60**	**4.70**	**4.80**	-	**6.10**	**6.38**	**-**	**6.61**	**6.46**	**6.16**	**6.73**	**-**	**6.20**	**5.60**	**5.95**	**6.08**	**5.58**	**5.55**	**4.88**
pH (Downhole Probe)	S.U.	**-**	-	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.34**	**-**	**-**	**-**	**-**	**-**	**-**
Conductivity	mS/cm	**0.375**	-	**0.0012**	**1.26**	**0.7350**	-	**0.330**	**0.333**	**-**	**0.485**	**0.342**	**0.437**	**1.295**	**-**	**0.958**	**0.030**	**3.620**	**4.650**	**2.050**	**2.780**	**2.020**
Conductivity (Downhole Probe)	mS/cm	**-**	-	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.210**	**-**	**-**	**-**	**-**	**-**	**-**
Dissolved Oxygen	mg/L	**0.19**	-	**3.10**	**10.55**	**6.40**	-	**0.0**	**2.76**	**-**	**3.02**	**1.31**	**0.70**	**0.68**	**-**	**0.96**	**3.30**	**0.97**	**0.51**	**3.00**	**0.90**	**0.54**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	-	**-**	**-**	**-**	-	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.67**	**-**	**-**	**-**	**-**	**-**	**-**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	-	**-**	**-**	**-**	-	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.5**	**-**	**-**	**-**	**-**	**-**	**-**
Oxidation/Reduction Potential (ORP)	mV	**167.5**	-	**98**	**134**	**127**	-	**171**	**471**	**-**	**66**	**160**	**356**	**255**	**-**	**150**	**463**	**-8**	**-76**	**289**	**309**	**97**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	-	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**97.2**	**-**	**-**	**-**	**-**	**-**	**-**
Temperature	℃	-	**26.55**	-	-	**16.40**	-	-	**17.26**	-	**17.98**	**22.88**	**18.56**	**18.14**	**-**	**24.36**	**19.36**	**20.43**	**21.06**	**21.65**	**20.59**	**22.89**
Temperature (Downhole Probe)	℃	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**23.91**	-	-	-	-	-	-

Field Parameters:
Ferrous Iron (2000-2007)
Carbon Dioxide (2004-2007)
pH
Conductivity
ORP
Manganese (2000-2006)
Temperature
Dissolved Oxygen

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
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Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume															
		ETCMW-115						ETMW-116									
		4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	5/26/1998	8/23/2000	11/21/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007
Alkalinity	mg/L	-	-	-	-	-	**230**	**38**	**12.5**	< 10	**62**	**-**	**-**	-	-	-	**670**
Chloride	mg/L	-	-	-	-	-	**6.4 D**	**12**	**11.7**	**8.77**	**11.6**	**-**	**-**	-	-	-	**16**
Ferrous Iron	mg/L	**-**	**4.3**	-	-	**4.8**	**2.8**	< 0.20	ND	**0.02**	ND	-	**5.0**	-	-	**6.0**	**6.2**
Iron	mg/L	-	-	-	-	-	**1.9**	-	-	-	-	-	-	-	-	-	**48**
Manganese	mg/L	-	-	-	-	-	**0.074**	-	**0.2**	**0.3**	**0.1**	**-**	**-**	-	-	-	**0.58**
Nitrate (as N)	mg/L	-	-	-	-	-	**2.5 D**	**6.2**	**8.25**	**-**	**7.7**	**-**	**-**	-	-	-	<0.10
Nitrite	mg/L	-	-	-	-	-	-	< 0.07	< 0.05	-	**0.405**	**-**	**-**	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	**-**	-	-	**7.72**	**-**	**-**	**-**	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	**10 D**	**14.8**	**5.12**	**5.2**	**42.8**	**-**	**-**	-	-	-	<5.0
Sulfide	mg/L	-	-	-	-	-	<1.0	< 1.0	< 0.2	-	< 0.5	-	-	-	-	-	<1.0
Methane	ug/L	-	-	-	-	-	**0.019**	**0.247**	< 0.2	< 0.2	< 0.2	-	-	-	-	-	**3500 D**
Ethane	ug/L	-	-	-	-	-	<0.42	**0.093**	**0.07**	**0.01**	**0.01**	**-**	**-**	-	-	-	<210
Ethene	ug/L	-	-	-	-	-	<0.42	**0.023**	**0.04**	**0.03**	**0.02**	**-**	**-**	-	-	-	<210
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	**3.5**	-	**9.14**	**7.7**	**25.4**	**-**	**-**	-	-	-	**9.6**
Total Organic Carbon	mg/L	-	-	-	-	-	**4.1**	-	**15.1**	**9.1**	**32**	**-**	**-**	-	-	-	**16**
Carbon Dioxide	mg/L	**276**	**19**	-	-	**>100**	**60**	**-**	**-**	**-**	**-**	**-**	**15**	-	-	**>100**	**>100**
pH	S.U.	**5.87**	**6.37**	**5.82**	**5.70**	**5.70**	**6.01**	**6.18**	**5.50**	**4.35**	**4.76**	**5.88**	**5.03**	**4.99**	**5.56**	**4.89**	**6.17**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**6.01**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.29**
Conductivity	mS/cm	**0.166**	**0.366**	**0.174**	**0.205**	**0.184**	**0.456**	**0.181**	**0.180**	**0.186**	**0.220**	**0.141**	**2.370**	**1.540**	**0.983**	**1.456**	**0.988**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**0.063**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.301**
Dissolved Oxygen	mg/L	**0.38**	**0.23**	**0.54**	**2.09**	**0.49**	**2.65**	**1.51**	**3.90**	**9.93**	**7.59**	**3.63**	**0.15**	**0.45**	**0.35**	**0.42**	**0.24**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**4.87**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**13.32**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2.0**
Oxidation/Reduction Potential (ORP)	mV	**276**	**131**	**84**	**377**	**312**	**162**	**190.5**	**199**	**157**	**119**	**560**	**141**	**108**	**281**	**309**	**-34**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**133.3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-92.5**
Temperature	℃	**20.07**	**20.32**	**22.58**	**22.36**	**21.45**	**27.50**	-	-	**17.55**	-	**17.42**	**18.23**	**23.81**	**19.10**	**18.82**	**24.43**
Temperature (Downhole Probe)	℃	-	-	-	-	-	**27.02**	-	-	-	-	-	-	-	-	-	**24.55**

Field Parameters:
Ferrous Iron (2000-2007)
Carbon Dioxide (2004-2007)
pH
Conductivity
ORP
Manganese (2000-2006)
Temperature
Dissolved Oxygen

Notes:
BOLD- Parameter detected
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ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
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Soluble Organic Carbon - EPA 415.1

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Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume																Cross Gradient					
		ETMW-117									ETMW-118							ETMW-119					
		8/23/2000	11/21/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	5/26/1998	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/24/2007	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/25/2007
Alkalinity	mg/L	**13.9**	< 10	**58**	**-**	**-**	-	-	-	**86**	< 2.0	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	**10.7**	**12**	**6.73**	**-**	**-**	-	-	-	**8.8 D**	**11.5**	**-**	**-**	-	-	-	-	**-**	**-**	-	-	-	-
Ferrous Iron	mg/L	ND	**0.03**	**0.01**	**-**	**2.2**	-	-	**5.8**	**7.4**	< 0.20	-	**4.4**	-	-	**5.0**	**6.4**	**-**	**1.0**	-	-	**4.2**	**4.8**
Iron	mg/L	-	-	-	-	-	-	-	-	**50**	-	-	-	-	-	-	-	**-**	**-**	-	-	-	-
Manganese	mg/L	**6.3**	**0.2**	<0.05	-	-	-	-	-	**0.76**	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	**6.72**	-	**4.47**	**-**	**-**	-	-	-	<0.10	**9.4**	**-**	**-**	-	-	-	-	**-**	**-**	-	-	-	-
Nitrite	mg/L	< 0.05	-	< 0.05	-	-	-	-	-	-	< 0.07	-	-	-	-	-	-	**-**	**-**	-	-	-	-
Nitrate-Nitrite	mg/L	**6.72**	**7.64**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**	-	-	-	-
Sulfate	mg/L	**7.62**	**5.2**	**19.7**	**-**	**-**	-	-	-	<5.0	**8.1**	**-**	**-**	-	-	-	-	**-**	**-**	-	-	-	-
Sulfide	mg/L	-	**0.6**	< 0.5	-	-	-	-	-	<1.0	< 1.0	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	< 0.2	< 0.2	< 0.2	-	-	-	-	-	**3600 D**	**0.508**	**-**	**-**	-	-	-	-	**-**	**-**	-	-	-	-
Ethane	ug/L	**0.02**	**0.02**	**0.01**	**-**	**-**	-	-	-	<210	**0.044**	**-**	**-**	-	-	-	-	**-**	**-**	-	-	-	-
Ethene	ug/L	**0.03**	**0.02**	**0.03**	**-**	**-**	-	-	-	<210	**0.036**	**-**	**-**	-	-	-	-	**-**	**-**	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	**8.44**	**28.3**	**-**	**-**	-	-	-	**910 D**	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/L	**7.9**	**17.3**	**38.7**	**-**	**-**	-	-	-	**930 D**	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Dioxide	mg/L	**-**	**-**	**-**	**-**	**10**	-	-	**>100**	**>100**	**-**	**-**	**15**	-	-	**>100**	**>100**	**-**	**18**	-	-	**>100**	**70**
pH	S.U.	**5.74**	**3.46**	**4.68**	**5.57**	**6.03**	**5.60**	**5.23**	**4.40**	**4.04**	**4.30**	**5.91**	**5.86**	**5.10**	**5.35**	**4.38**	**4.60**	**6.21**	**6.25**	**5.64**	**5.82**	**6.20**	**5.78**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.82**	**-**	**-**	**-**	**-**	**-**	**-**	**4.58**	**-**	**-**	**-**	**-**	**-**	**6.22**
Conductivity	mS/cm	**0.170**	**0.189**	**0.181**	**0.152**	**0.303**	**0.163**	**0.188**	**1.450**	**0.696**	**0.150**	**0.067**	**0.307**	**0.089**	**0.152**	**0.909**	**2.20**	**0.295**	**0.449**	**0.203**	**0.281**	**0.554**	**0.342**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.207**	**-**	**-**	**-**	**-**	**-**	**-**	**0.56**	**-**	**-**	**-**	**-**	**-**	**0.13**
Dissolved Oxygen	mg/L	**7.40**	**10.58**	**7.52**	**2.38**	**0.49**	**1.05**	**1.86**	**0.42**	**0.38**	**0.07**	**4.23**	**0.34**	**0.46**	**0.59**	**0.50**	**0.40**	**3.47**	**0.33**	**1.34**	**1.31**	**2.78**	**0.57**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**12.96**	**-**	**-**	**-**	**-**	**-**	**-**	**12.49**	**-**	**-**	**-**	**-**	**-**	**6.55**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.0**	**-**	**-**	**-**	**-**	**-**	**-**	**1.5**	**-**	**-**	**-**	**-**	**-**	**2.0**
Oxidation/Reduction Potential (ORP)	mV	**212**	**157**	**108**	**555**	**278**	**144**	**363**	**335**	**127**	**218**	**519**	**125**	**155**	**346**	**327**	**141**	**486**	**138**	**115**	**370**	**251**	**128**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**90.7**	**-**	**-**	**-**	**-**	**-**		**134.3**	**-**	**-**	**-**	**-**	**-**	**57.5**
Temperature	℃	**27.14**	-	**18.20**	**20.91**	**21.41**	**26.20**	**22.82**	**22.27**	**25.48**	-	**19.68**	**20.50**	**24.86**	**22.71**	**21.01**	**25.30**	**19.07**	**19.97**	**20.86**	**20.73**	**19.18**	**23.71**
Temperature (Downhole Probe)	℃	-	-	-	-	-	-	-	-	**27.39**							**25.81**	-	-	-	-	-	**24.98**

Field Parameters:
Ferrous Iron (2000-2007)
Carbon Dioxide (2004-2007)
pH
Conductivity
ORP
Manganese (2000-2006)
Temperature
Dissolved Oxygen

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient						Upgradient										Cross Gradient								
		ETMW-120						ETMW-121										OBGMW-122								
		4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/23/2007	5/27/1998	8/24/2000	11/21/2000	1/24/2001	4/7/2004	4/28/2005	10/26/2005	4/19/2006	4/19/2007	10/23/2007	8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/22/2007
Alkalinity	mg/L	-	-	-	-	-	-	**28**	**30.7**	**32**	**57**	**38**	**5.8**	**26**	**28**	**38**	**82**	-	**-**	-	-	-	-	-	-	-
Chloride	mg/L	**-**	**-**	-	-	-	-	**15.5**	**10.5**	**10.8**	**3.34**	**7.8**	**5.2**	**11**	**6**	-	**1.9**	-	**-**	**-**	**-**	**-**	-	-	-	-
Ferrous Iron	mg/L	**-**	**3.5**	-	-	**6.0**	**0.6**	< 0.20	**0.25**	**0.05**	**0.03**	**0.1**	ND	**0.39**	ND	**2.4**	**0.4**	-	-	**-**	**-**	ND	-	-	ND	-
Iron	mg/L	**-**	**-**	-	-	-	-	-	-	-	-	**1.1**	**0.84**	**16**	**0.52**	**0.89**	**0.87**	-			**-**	**-**	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	**0.1**	<0.05	< 0.05	< 0.05	**0.15**	< 0.050	<0.050	<0.050	-	-	**-**	**-**	**-**	-	-	-	-
Nitrate (as N)	mg/L	**-**	**-**	-	-	-	-	**1.8**	**1.94**	**-**	**1.19**	**0.65**	**0.59**	**1.2**	**0.35**	-	**0.20**	-	**-**	**-**	**-**	**-**	-	-	-	-
Nitrite	mg/L	**-**	**-**	-	-	-	-	< 0.07	< 0.05	-	< 0.05	-	-	-	-	-	-	-	**-**	**-**	**-**	**-**	-	-	-	-
Nitrate-Nitrite	mg/L	**-**	**-**	-	-	-	-	-	-	**1.86**	-	-	-	-	-	-	-	-	**-**	**-**	**-**	**-**	-	-	-	-
Sulfate	mg/L	**-**	**-**	-	-	-	-	**10.1**	**10.3**	**12.6**	**8.93**	**8.5**	**9.9**	**4.6**	**13**	-	**5.4**	-	**-**	**-**	**-**	**-**	-	-	-	-
Sulfide	mg/L	**-**	**-**	-	-	-	-	< 1.0	-	< 0.5	< 0.5	< 0.8	< 0.8	< 0.8	< 0.8	**1.8**	<1.0	-	**-**	**-**	**-**	**-**	-	-	-	-
Methane	ug/L	**-**	**-**	-	-	-	-	**0.195**	< 0.2	< 0.2	< 0.2	< 2.0	< 5.0	< 2.0	< 2.1	<2.1	<2.1	-	**-**	**-**	**-**	**-**	-	-	-	-
Ethane	ug/L	**-**	**-**	-	-	-	-	< 0.005	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0	< 4.0	< 4.2	<4.2	<4.1	-	**-**	**-**	**-**	**-**	-	-	-	-
Ethene	ug/L	**-**	**-**	-	-	-	-	**0.005**	**0.02**	**0.01**	**0.02**	< 4.0	< 5.0	< 4.0	< 4.2	<4.2	<4.1	-	**-**	**-**	**-**	**-**	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	**-**	**-**	-	-	-	-	-	**12.9**	**7.74**	**21.1**	**1.9**	**7.9**	**12**	**9.7**	**1.6**	**3.0**	-	**-**	**-**	**-**	**-**	-	-	-	-
Total Organic Carbon	mg/L	-	-	-	-	-	-	-	-	**15.6**	**25.7**	**1.9**	**4.9**	**3.3**	**4.5**	**2.1**	**3.9**	-	**-**	**-**	**-**	**-**	-	-	-	-
Carbon Dioxide	mg/L	**-**	**15**	-	-	**65**	**40**	**-**	-	**-**	**-**	**26**	**15**	**35**	**25**	**40**	**18**	**-**	**-**	**-**	**-**	**5**	-	-	**70**	**-**
pH	S.U.	**5.93**	**6.19**	**5.36**	**5.64**	**5.5 D**	**5.87**	**5.32**	-	**4.50**	**5.11**	**6.20**	**6.25**	**5.94**	**5.83**	**6.00**	**6.23**	**6.31**	**4.80**	**4.65**	**6.27**	**6.08**	**6.38**	**6.18**	**6.31**	**-**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**5.97**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.45**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.70**
Conductivity	mS/cm	**0.136**	**0.218**	**0.097**	**0.144**	**0.161**	**0.216**	**0.112**	-	**0.214**	**0.134**	**0.134**	**0.142**	**0.116**	**0.192**	**0.107**	**0.167**	**0.640**	**0.810**	**0.393**	**0.272**	**0.076**	**0.183**	**0.226**	**0.233**	**-**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**0.048**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.038**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.03**
Dissolved Oxygen	mg/L	**2.66**	**0.69**	**0.67**	**2.19**	**5.00**	**3.05**	**5.12**	-	**10.86**	**8.07**	**4.88**	**3.34**	**1.00**	**3.27**	**6.74**	**7.00**	**6.40**	**7.81**	**6.20**	**0.98**	**3.25**	**0.77**	**3.58**	**4.08**	**-**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**3.64**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.39**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.99**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**3.5**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Oxidation/Reduction Potential (ORP)	mV	**485**	**169**	**92**	**379**	**327**	**175**	**146.4**	-	**134**	**123**	**482**	**197**	**176**	**347**	**332**	**166**	**109**	**1.0**	**164**	**392**	**17.6**	**106**	**395**	**370**	**-**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**286.8**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**232.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**219.4**
Temperature	℃	**19.41**	**20.43**	**20.88**	**21.94**	**21.74**	**25.67**	-	**25.91**	-	**17.40**	**19.17**	**19.22**	**23.60**	**19.36**	**19.56**	**26.03**	**25.53**	-	**20.00**	**20.16**	**18.40**	**22.45**	**19.79**	**19.27**	**-**
Temperature (Downhole Probe)	℃	-	-	-	-	-	**25.33**	-	-	-	-	-	-	-	-	-	**25.02**	-	-	-	-	-	-	-	-	**24.82**

Field Parameters:
Ferrous Iron (2000-2007)
Carbon Dioxide (2004-2007)
pH
Conductivity
ORP
Manganese (2000-2006)
Temperature
Dissolved Oxygen

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient								Down Gradient											
		OBGMW-123								OBGMW-124						CH2PP-1					
		9/8/2000	1/24/2001	4/6/2004	4/27/2005	10/25/2005	4/20/2006	4/18/2007	10/22/2007	4/20/2004	4/27/2005	10/26/2005	4/19/2006	4/19/2007	10/22/2007	4/7/2004	4/26/2005	10/25/2005	4/18/2006	4/16/2007	10/24/2007
Alkalinity	mg/L	-	-	-	-	-	-	-	-	300	430	410	390	350	-	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-	410 D	180	210	44	200	-	-	-	-	-	-	-
Ferrous Iron	mg/L	-	-	-	4.7	-	-	1.5	-	ND	1.8	1.72	ND	ND	-	-	ND	-	-	-	ND
Iron	mg/L			-	-	-	-	-	-	0.41	1.3	2.0	0.076	0.1	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	0.09	0.15	0.20	< 0.050	<0.050	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	0.14	<0.050	0.10	-	6.7	-	-	-	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.21	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-	310 D	170	190	60	150	-	-	-	-	-	-	-
Sulfide	mg/L	-	-	-	-	-	-	-	-	< 0.80	< 0.80	< 0.8	< 0.80	1.6	-	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-	-	-	< 2.0	38 H	< 2.0	2.1	<0.0021	-	-	-	-	-	-	-
Ethane	ug/L	-	-	-	-	-	-	-	-	< 4.0	< 0.5	< 4.0	< 4.2	<0.0042	-	-	-	-	-	-	-
Ethene	ug/L	-	-	-	-	-	-	-	-	< 4.0	< 0.5	< 4.0	< 4.2	<0.0042	-	-	-	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	-	-	-	5.1	6.3	17	5.8	3.4	-	-	-	-	-	-	-
Total Organic Carbon	mg/L	-	-	-	-	-	-	-	-	4.9	5.2	4.9	5.1	3.5	-	-	-	-	-	-	-
Carbon Dioxide	mg/L	-	-	-	18	-	-	50	-	-	50	70	15	75	-	-	12	-	-	-	20
pH	S.U.	4.60	6.06	5.94	6.27	5.25	5.29	4.75	-	6.82	6.40	6.82	6.55	7.25	-	5.22	5.93	5.01	4.56	5.53	5.28
pH (Downhole Probe)	S.U.	-	-	-	-	-	-	-	5.18	-	-	-	-	-	6.67	-	-	-	-	-	-
Conductivity	mS/cm	0.160	0.117	0.122	0.162	0.092	0.091	0.083	-	2.130	1.061	1.314	0.875	1.019	-	0.117	0.141	0.108	0.120	0.146	0.107
Conductivity (Downhole Probe)	mS/cm	-	-	-	-	-	-	-	0.020	-	-	-	-	-	0.344	-	-	-	-	-	-
Dissolved Oxygen	mg/L	7.00	7.73	0.51	0.41	0.52	7.22	0.66	-	1.34	1.11	0.63	1.85	5.83	-	4.11	4.75	3.19	7.51	6.98	3.95
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	-	-	2.14	-	-	-	-	-	3.46	-	-	-	-	-	-
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.0
Oxidation/Reduction Potential (ORP)	mV	231	201	280	76	115	480	429	-	125	140	98	326	318	171.2	466	325	207	439	330	122
Oxidation/Reduction Potential (Downhole Probe)	mV	-	-	-	-	-	-	-	185.0	-	-	-	-	-	-	-	-	-	-	-	-
Temperature	℃	19.10	-	20.18	20.10	24.64	19.99	19.76	-	19.80	20.30	21.83	21.65	20.96	-	20.05	20.72	25.77	21.84	21.57	25.27
Temperature (Downhole Probe)	℃	-	-	-	-	-	-	-	25.50	-	-	-	-	-	25.30	-	-	-	-	-	-

Field Parameters:
Ferrous Iron (2000-2007)
Carbon Dioxide (2004-2007)
pH
Conductivity
ORP
Manganese (2000-2006)
Temperature
Dissolved Oxygen

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
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mg/L Milligrams per liter
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Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)
Soluble Organic Carbon - EPA 415.1

Appendix B

Revised UIC Permit

Georgia Department of Natural Resources
2 Martin Luther King Jr. Drive, S.E., East Tower, Atlanta, Georgia 30334
Noel Holcomb, Commissioner
Carol A. Couch, Ph.D., Director
Environmental Protection Division
(404) 656-4713

Reply To:
Regulatory Support Program
Suite 400
19 Martin Luther King Jr. Drive, S.W.
Atlanta, Georgia 30334
(404) 656-3214

November 13, 2006

Ms. Rebecca Francisco
Miller Brewing Company
P.O. Box 482
Milwaukee, WI 53208-2866

RE: Revised Underground Injection Control Permit #R-229 for injection of Lactate Solution, Zero Valent Iron, and Potable Water at the Former Miller Brewing Company Can Plant located in Moultrie, Georgia. (EPD-HW ID#: 10425).

Dear Ms. Francisco:

Enclosed is revised Underground Injection Control (UIC) Permit #R-229 for the former Miller Brewing Company Can Plant located in Moultrie, Colquitt County, Georgia. This revised UIC permit allows Miller Brewing Company to utilize injection of lactate solution, zero valent iron, and potable water through twenty three (23) injection wells to assist with the remediation of soil and ground water contaminated with volatile organic compounds at this site for up to five (5) years. The UIC permit states two (2) standard conditions and seven (7) additional conditions in the attachment.

If you have any questions about the permit, please contact Mr. Bijan Rahbar, UIC Coordinator, at (404) 656-3229.

Sincerely,

Carol A. Couch, Ph. D
Director

Enclosure

cc: UIC Permit #R-229 File
Mary Jane Bartlett, O'Brien and Gere Engineers, Inc.
David Reuland, EPD-HWMP

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

INJECTION WELL OPERATING PERMIT

PERMIT NUMBER: #R-229 **DATE ISSUED: November 13, 2006**

FACILITY DATA: **INJECTION WELL TYPE: CLASS V (type 5X26)**

FACILITY: Former Miller Brewing Company Can Plant
278 South HWY 319
Moultrie, GA
Colquitt County

OPERATOR: Miller Brewing Company
P.O. Box 482
Milwaukee, WI 53208

LOCATION: Lat: 31° 06' 43" N
Long: 83° 47' 23" W

EPD-HW ID#: 10425

In accordance with the provisions of the Georgia Rules for Underground Injection Control, Chapter 391-3-6-.13, as amended 2001, this permit is issued for the operation of the herein described injection system. Unless appealed, this permit is effective thirty (30) days after its issuance and is conditioned upon the following:

1) The Permittee's continued compliance with the Georgia Rules for Underground Injection Control, Chapter 391-3-6-.13, the Georgia Rules for Water Quality Control (Revised) and the Georgia Rules for Safe Drinking Water (Revised); and

2) The Permittee's continued compliance with the Permittee's approved injection operation plan that is part of the approved Corrective Action Plan for this site, along with provisions of officially approved plan amendments, if any.

Additional conditions 1 through 7 are attached hereto.

This permit is issued in accordance with the application and supplemental information received on November 2, 2006. The injection operation plan was approved on November 13, 2006, and is based on the statements and supporting data entered herein or attached thereto, all of which are filed with the Environmental Protection Division of the Georgia Department of Natural Resources and hereby made a part of this permit.

This permit is subject to revocation for noncompliance with aforementioned conditions.
This permit expires on **November 13, 2011,** unless previously terminated.

Carol A. Couch, Ph. D, Director, Environmental Protection Division
Georgia Department of Natural Resources

*O'Brien and Gere Engineers, Inc. as consultant to Miller Brewing Company may be contacted regarding technical questions at (919) 931-2931.

INJECTION WELL OPERATING PERMIT
ADDITIONAL CONDITIONS

1. Permit Conditions.

   a. This permit is not transferable until any new operator shall agree in writing to all permit conditions. Any new operator also shall provide the Environmental Protection Division (Division) with appropriate documentation that they have adequate financial assurances to plug all existing Class V wells.

   b. If Miller Brewing Comapany (Operator) wishes to continue an activity regulated by this permit after the expiration of the permit, the Operator must apply for and obtain a new permit.

   c. The Operator shall report any instances of noncompliance with permit conditions to the Division in writing within five (5) working days of such noncompliance, and shall take all reasonable steps to minimize the impact on the environment resulting from noncompliance with this permit and the Georgia Rules for Underground Injection Control.

   d. The Operator shall notify the Division of any proposed changes to the performance of the lactate solution, zero valent iron, and potable water injection system in writing at least thirty (30) days prior to the change.

   e. All reports submitted to the Division shall be signed and stamped by a Georgia Registered Professional Engineer or Professional Geologist.

   f. All analyses shall be performed by a laboratory approved or accredited by EPD in accordance with the Georgia Rules for Commercial Laboratory Accreditation, Chapter 391-3-26.

2. System Parameters.

   a. This permit is issued to the Operator for the purpose of operating a lactate solution, zero valent iron, and potable water injection system at the above referenced site to aid in remediation of soil and ground water contaminated with volatile organic compounds.

   b. Number of Class V injection wells: twenty three (23).

   c. Injected fluid: lactate solution, zero valent iron, and potable water.

   d. Maximum injection rate per well: 8 gallons/min. (gpm)/well.
   Maximum total system injection rate: 184 gpm.

   e. Maximum injection volume per well: 125 gallons/day/well.
   Maximum total system injection volume: 2,875 gallons/day.

   f. Maximum daily average injection pressure (at well head): 75 psi .

Additional Conditions, UIC Permit #R-229 November 13, 2006, cont.

3. Monitoring and Reporting Requirements.

   a. The Operator shall report to the Underground Injection Control Program of the Division the number and exact location of all Class V injection wells it installs or plugs on a quarterly basis. The reports are to be submitted to the UIC Program in accordance with the reporting schedule stipulated by the Hazardous Waste Management Program.

   b. The Operator shall submit to the Division for its approval, a detailed schematic diagram and location map on any Class V injection well that is different in construction from the specifications contained in the UIC permit application, no later than 45 days prior to installation of the injection well. The Operator cannot install such a well until it receives approval from the Division.

   c. The Operator shall submit to the UIC Program one (1) copy of any report regarding this site that the Operator is required to submit to the Hazardous Waste Management Program, or any other program within the Division.

   d. The Operator shall submit to the UIC Program an annual report that will contain the following information.

      1. Status of the injection system operation;

      2. Results of any ground-water sampling and analyses;

      3. Results of any soil sampling and analyses;

      4. An evaluation of the plume movement through the ground water, if any;

      5. Comparisons of analyses to determine any changes in pollutant concentrations.

      The annual reports will be provided to the UIC Program in accordance with the schedule stipulated by the Hazardous Waste Management Program.

4. Emergency Situations.

   a. The Operator is to immediately notify the Division of any emergency situation that affects the injection system and describe the remedial activity that the Operator is utilizing to correct the situation.

   b. The Operator is to immediately notify the Division when the emergency situation ceases to exist.

5. The Operator shall grant the Division permission to enter the facility property to conduct inspections of the injection system.

6. The Operator shall maintain a copy of this permit at the facility site.

Additional Conditions, UIC Permit #R-229 November 13, 2006, cont.

7. The Operator shall, upon termination of the injection of lactate solution, zero valent iron, and potable water through twenty three Class V injection wells at this site, properly plug and abandon all Class V wells constructed on this site in accordance with EPD's *Manual for Groundwater Monitoring* (September 1991) and notify the division within thirty (30) days of such termination and abandonment.

Appendix C

Summary of Injection Quantities

Appendix C
Injection Volume Summary Table
October 2006 Injection
Former Miller Brewing Company Canning Plant
Moultrie, Georgia

Well Number	Depth (ft below surface)	Volume Injected (gal)	Concentration of Lactate Solution
1	20	30	Pure Product
2	20	30	Pure Product
3	20	25	Pure Product
4	20	25	Pure Product
5	20	25	Pure Product
6	20	30	Pure Product
7	20	30	Pure Product
8	20	30	Pure Product
9	20	30	Pure Product
10	20	30	Pure Product
11	20	30	Pure Product
12	20	30	Pure Product
13	25	30	Pure Product
14	25	30	Pure Product
15	25	30	Pure Product
16	20	25	Pure Product
17	20	30	Pure Product
18	20	30	Pure Product
19	20	30	Pure Product
20	12	10	Pure Product
	8	20	Pure Product
21	12	10	Pure Product
	8	10	Pure Product
	6	10	Pure Product
22	12	10	Pure Product
	8	10	Pure Product
	6	10	Pure Product
23	12	10	Pure Product
	8	10	Pure Product
	6	10	Pure Product

Appendix D

Laboratory Certification

ACCREDITATION STIPULATION

LABORATORY: Life Sciences Laboratories, Inc.

ACCREDITOR: New York Department of Health
(National Environmental Laboratory Accreditation Program)

ACCREDITATION ID: 10155

SCOPE: Non Potable Water

EXPIRES: 12:01 am April 1, 2008

Appendix E

Laboratory Analytical Results

Appendix E1

April 2007

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Wednesday, May 16, 2007

Sarah Slagle-Garrett
O'Brien & Gere Engineers, Inc.
2610 Wycliff Road
Suite 104
Raleigh, NC 27607

TEL: 919-783-7777

Project: MILLER BREWING COMPANY CAN PLANT
RE: Analytical Results Order No.: 0704103

Dear Sarah Slagle-Garrett:

Life Science Laboratories, Inc. received 9 sample(s) on 4/18/2007 for the analyses presented in the following report.

Very truly yours,
Life Science Laboratories, Inc.

Monika Santucci

Monika Santucci
Project Manager

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER
Inst. ID: MS02 12 **Sample Size:** 25 mL
ColumnID: Rtx-502.2 **%Moisture:**
Revision: 05/08/07 9:53 **TestCode** 8260W CAL
Col Type:

Lab ID: 0704103-001A
Client Sample ID: *CH2MW-3*
Collection Date: 04/17/07 14:50
Date Received: 04/18/07 9:20
PrepDate:
BatchNo: R9440
FileID: 1-SAMP-M0734.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/01/07 9:53
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/01/07 9:53
1,1-Dichloroethane	ND		0.50	µg/L	1	05/01/07 9:53
1,1-Dichloroethene	ND		0.50	µg/L	1	05/01/07 9:53
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 9:53
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/01/07 9:53
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 9:53
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/01/07 9:53
1,2-Dichloroethane	ND		0.50	µg/L	1	05/01/07 9:53
2-Butanone	ND		10.0	µg/L	1	05/01/07 9:53
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/01/07 9:53
Acetone	ND		10.0	µg/L	1	05/01/07 9:53
Benzene	ND		0.50	µg/L	1	05/01/07 9:53
Carbon disulfide	ND		0.50	µg/L	1	05/01/07 9:53
Chloroethane	ND		1.00	µg/L	1	05/01/07 9:53
Chloromethane	ND		1.00	µg/L	1	05/01/07 9:53
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 9:53
Dibromomethane	ND		0.50	µg/L	1	05/01/07 9:53
Ethylbenzene	ND		0.50	µg/L	1	05/01/07 9:53
Isobutyl alcohol	ND		50.0	µg/L	1	05/01/07 9:53
Methylene chloride	ND		2.00	µg/L	1	05/01/07 9:53
Naphthalene	ND		1.00	µg/L	1	05/01/07 9:53
Tetrachloroethene	ND		0.50	µg/L	1	05/01/07 9:53
Toluene	ND		0.50	µg/L	1	05/01/07 9:53
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 9:53
Trichloroethene	ND		0.50	µg/L	1	05/01/07 9:53
Trichlorofluoromethane	ND		1.00	µg/L	1	05/01/07 9:53
Vinyl acetate	ND		2.00	µg/L	1	05/01/07 9:53
Vinyl chloride	ND		1.00	µg/L	1	05/01/07 9:53
Xylenes (total)	ND		1.00	µg/L	1	05/01/07 9:53
Surr: 1,2-Dichloroethane-d4	100		75-134	%REC	1	05/01/07 9:53
Surr: 4-Bromofluorobenzene	111		75-125	%REC	1	05/01/07 9:53
Surr: Dibromofluoromethane	107		75-127	%REC	1	05/01/07 9:53
Surr: Toluene-d8	105		75-125	%REC	1	05/01/07 9:53

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER
Inst. ID: MS02 12 **Sample Size:** 25 mL
ColumnID: Rtx-502.2 **%Moisture:**
Revision: 05/08/07 9:53 **TestCode** 8260W CAL
Col Type:

Lab ID: **0704103-002A**
Client Sample ID: *CH2MW-1*
Collection Date: 04/17/07 14:05
Date Received: 04/18/07 9:20
PrepDate:
BatchNo: R9440
FileID: 1-SAMP-M0735.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/01/07 10:31
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/01/07 10:31
1,1-Dichloroethane	ND		0.50	µg/L	1	05/01/07 10:31
1,1-Dichloroethene	ND		0.50	µg/L	1	05/01/07 10:31
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 10:31
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/01/07 10:31
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 10:31
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/01/07 10:31
1,2-Dichloroethane	ND		0.50	µg/L	1	05/01/07 10:31
2-Butanone	ND		10.0	µg/L	1	05/01/07 10:31
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/01/07 10:31
Acetone	ND		10.0	µg/L	1	05/01/07 10:31
Benzene	ND		0.50	µg/L	1	05/01/07 10:31
Carbon disulfide	ND		0.50	µg/L	1	05/01/07 10:31
Chloroethane	ND		1.00	µg/L	1	05/01/07 10:31
Chloromethane	ND		1.00	µg/L	1	05/01/07 10:31
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 10:31
Dibromomethane	ND		0.50	µg/L	1	05/01/07 10:31
Ethylbenzene	ND		0.50	µg/L	1	05/01/07 10:31
Isobutyl alcohol	ND		50.0	µg/L	1	05/01/07 10:31
Methylene chloride	ND		2.00	µg/L	1	05/01/07 10:31
Naphthalene	ND		1.00	µg/L	1	05/01/07 10:31
Tetrachloroethene	ND		0.50	µg/L	1	05/01/07 10:31
Toluene	ND		0.50	µg/L	1	05/01/07 10:31
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 10:31
Trichloroethene	1.76		0.50	µg/L	1	05/01/07 10:31
Trichlorofluoromethane	ND		1.00	µg/L	1	05/01/07 10:31
Vinyl acetate	ND		2.00	µg/L	1	05/01/07 10:31
Vinyl chloride	ND		1.00	µg/L	1	05/01/07 10:31
Xylenes (total)	ND		1.00	µg/L	1	05/01/07 10:31
Surr: 1,2-Dichloroethane-d4	104		75-134	%REC	1	05/01/07 10:31
Surr: 4-Bromofluorobenzene	109		75-125	%REC	1	05/01/07 10:31
Surr: Dibromofluoromethane	108		75-127	%REC	1	05/01/07 10:31
Surr: Toluene-d8	106		75-125	%REC	1	05/01/07 10:31

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704103-003A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2PP-1*
W Order:	0704103	**Collection Date:**	04/17/07 13:55
Matrix:	WATER	**Date Received:**	04/18/07 9:20
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9440
Revision:	05/08/07 9:53	**TestCode** 8260W CAL	**FileID:** 1-SAMP-M0736.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/01/07 11:09
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/01/07 11:09
1,1-Dichloroethane	ND		0.50	µg/L	1	05/01/07 11:09
1,1-Dichloroethene	ND		0.50	µg/L	1	05/01/07 11:09
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 11:09
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/01/07 11:09
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 11:09
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/01/07 11:09
1,2-Dichloroethane	ND		0.50	µg/L	1	05/01/07 11:09
2-Butanone	ND		10.0	µg/L	1	05/01/07 11:09
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/01/07 11:09
Acetone	ND		10.0	µg/L	1	05/01/07 11:09
Benzene	ND		0.50	µg/L	1	05/01/07 11:09
Carbon disulfide	ND		0.50	µg/L	1	05/01/07 11:09
Chloroethane	ND		1.00	µg/L	1	05/01/07 11:09
Chloromethane	ND		1.00	µg/L	1	05/01/07 11:09
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 11:09
Dibromomethane	ND		0.50	µg/L	1	05/01/07 11:09
Ethylbenzene	ND		0.50	µg/L	1	05/01/07 11:09
Isobutyl alcohol	ND		50.0	µg/L	1	05/01/07 11:09
Methylene chloride	ND		2.00	µg/L	1	05/01/07 11:09
Naphthalene	ND		1.00	µg/L	1	05/01/07 11:09
Tetrachloroethene	ND		0.50	µg/L	1	05/01/07 11:09
Toluene	ND		0.50	µg/L	1	05/01/07 11:09
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 11:09
Trichloroethene	ND		0.50	µg/L	1	05/01/07 11:09
Trichlorofluoromethane	ND		1.00	µg/L	1	05/01/07 11:09
Vinyl acetate	ND		2.00	µg/L	1	05/01/07 11:09
Vinyl chloride	ND		1.00	µg/L	1	05/01/07 11:09
Xylenes (total)	ND		1.00	µg/L	1	05/01/07 11:09
Surr: 1,2-Dichloroethane-d4	102		75-134	%REC	1	05/01/07 11:09
Surr: 4-Bromofluorobenzene	108		75-125	%REC	1	05/01/07 11:09
Surr: Dibromofluoromethane	108		75-127	%REC	1	05/01/07 11:09
Surr: Toluene-d8	105		75-125	%REC	1	05/01/07 11:09

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704103-004A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-5*
W Order:	0704103	**Collection Date:**	04/17/07 13:35
Matrix:	WATER	**Date Received:**	04/18/07 9:20
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9440
Revision:	05/08/07 9:53	**TestCode** 8260W CAL	**FileID:** 1-SAMP-M0737.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/01/07 11:47
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/01/07 11:47
1,1-Dichloroethane	ND		0.50	µg/L	1	05/01/07 11:47
1,1-Dichloroethene	ND		0.50	µg/L	1	05/01/07 11:47
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 11:47
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/01/07 11:47
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 11:47
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/01/07 11:47
1,2-Dichloroethane	ND		0.50	µg/L	1	05/01/07 11:47
2-Butanone	ND		10.0	µg/L	1	05/01/07 11:47
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/01/07 11:47
Acetone	ND		10.0	µg/L	1	05/01/07 11:47
Benzene	ND		0.50	µg/L	1	05/01/07 11:47
Carbon disulfide	ND		0.50	µg/L	1	05/01/07 11:47
Chloroethane	ND		1.00	µg/L	1	05/01/07 11:47
Chloromethane	ND		1.00	µg/L	1	05/01/07 11:47
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 11:47
Dibromomethane	ND		0.50	µg/L	1	05/01/07 11:47
Ethylbenzene	ND		0.50	µg/L	1	05/01/07 11:47
Isobutyl alcohol	ND		50.0	µg/L	1	05/01/07 11:47
Methylene chloride	ND		2.00	µg/L	1	05/01/07 11:47
Naphthalene	ND		1.00	µg/L	1	05/01/07 11:47
Tetrachloroethene	ND		0.50	µg/L	1	05/01/07 11:47
Toluene	ND		0.50	µg/L	1	05/01/07 11:47
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 11:47
Trichloroethene	ND		0.50	µg/L	1	05/01/07 11:47
Trichlorofluoromethane	ND		1.00	µg/L	1	05/01/07 11:47
Vinyl acetate	ND		2.00	µg/L	1	05/01/07 11:47
Vinyl chloride	ND		1.00	µg/L	1	05/01/07 11:47
Xylenes (total)	ND		1.00	µg/L	1	05/01/07 11:47
Surr: 1,2-Dichloroethane-d4	109		75-134	%REC	1	05/01/07 11:47
Surr: 4-Bromofluorobenzene	111		75-125	%REC	1	05/01/07 11:47
Surr: Dibromofluoromethane	110		75-127	%REC	1	05/01/07 11:47
Surr: Toluene-d8	104		75-125	%REC	1	05/01/07 11:47

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704103-005A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-114*
W Order:	0704103	**Collection Date:**	04/17/07 10:40
Matrix:	WATER	**Date Received:**	04/18/07 9:20
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9440
Revision:	05/08/07 9:53	**TestCode** 8260W CAL	**FileID:** 1-SAMP-M0738.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		25.0	µg/L	50	05/01/07 12:24
1,1,2,2-Tetrachloroethane	ND		25.0	µg/L	50	05/01/07 12:24
1,1-Dichloroethane	102		25.0	µg/L	50	05/01/07 12:24
1,1-Dichloroethene	ND		25.0	µg/L	50	05/01/07 12:24
1,2,3-Trichlorobenzene	ND		50.0	µg/L	50	05/01/07 12:24
1,2,3-Trichloropropane	ND		25.0	µg/L	50	05/01/07 12:24
1,2,4-Trichlorobenzene	ND		50.0	µg/L	50	05/01/07 12:24
1,2-Dibromo-3-chloropropane	ND		50.0	µg/L	50	05/01/07 12:24
1,2-Dichloroethane	ND		25.0	µg/L	50	05/01/07 12:24
2-Butanone	ND		500	µg/L	50	05/01/07 12:24
4-Methyl-2-pentanone	ND		250	µg/L	50	05/01/07 12:24
Acetone	ND		500	µg/L	50	05/01/07 12:24
Benzene	ND		25.0	µg/L	50	05/01/07 12:24
Carbon disulfide	ND		25.0	µg/L	50	05/01/07 12:24
Chloroethane	ND		50.0	µg/L	50	05/01/07 12:24
Chloromethane	ND		50.0	µg/L	50	05/01/07 12:24
cis-1,2-Dichloroethene	1830		25.0	µg/L	50	05/01/07 12:24
Dibromomethane	ND		25.0	µg/L	50	05/01/07 12:24
Ethylbenzene	ND		25.0	µg/L	50	05/01/07 12:24
Isobutyl alcohol	ND		2500	µg/L	50	05/01/07 12:24
Methylene chloride	ND		100	µg/L	50	05/01/07 12:24
Naphthalene	ND		50.0	µg/L	50	05/01/07 12:24
Tetrachloroethene	ND		25.0	µg/L	50	05/01/07 12:24
Toluene	ND		25.0	µg/L	50	05/01/07 12:24
trans-1,2-Dichloroethene	ND		25.0	µg/L	50	05/01/07 12:24
Trichloroethene	ND		25.0	µg/L	50	05/01/07 12:24
Trichlorofluoromethane	ND		50.0	µg/L	50	05/01/07 12:24
Vinyl acetate	ND		100	µg/L	50	05/01/07 12:24
Vinyl chloride	3800	E	50.0	µg/L	50	05/01/07 12:24
Xylenes (total)	ND		50.0	µg/L	50	05/01/07 12:24
Surr: 1,2-Dichloroethane-d4	103		75-134	%REC	50	05/01/07 12:24
Surr: 4-Bromofluorobenzene	108		75-125	%REC	50	05/01/07 12:24
Surr: Dibromofluoromethane	106		75-127	%REC	50	05/01/07 12:24
Surr: Toluene-d8	106		75-125	%REC	50	05/01/07 12:24

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER
Inst. ID: MS02 12 **Sample Size:** 25 mL
ColumnID: Rtx-502.2 **%Moisture:**
Revision: 05/08/07 9:53 **TestCode** 8260W CAL
Col Type:

Lab ID: 0704103-005ADL
Client Sample ID: *ETMW-114*
Collection Date: 04/17/07 10:40
Date Received: 04/18/07 9:20
PrepDate:
BatchNo: R9440
FileID: 1-DL-M0743.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		100	µg/L	200	05/01/07 15:41
1,1,2,2-Tetrachloroethane	ND		100	µg/L	200	05/01/07 15:41
1,1-Dichloroethane	102		100	µg/L	200	05/01/07 15:41
1,1-Dichloroethene	ND		100	µg/L	200	05/01/07 15:41
1,2,3-Trichlorobenzene	ND		200	µg/L	200	05/01/07 15:41
1,2,3-Trichloropropane	ND		100	µg/L	200	05/01/07 15:41
1,2,4-Trichlorobenzene	ND		200	µg/L	200	05/01/07 15:41
1,2-Dibromo-3-chloropropane	ND		200	µg/L	200	05/01/07 15:41
1,2-Dichloroethane	ND		100	µg/L	200	05/01/07 15:41
2-Butanone	ND		2000	µg/L	200	05/01/07 15:41
4-Methyl-2-pentanone	ND		1000	µg/L	200	05/01/07 15:41
Acetone	ND		2000	µg/L	200	05/01/07 15:41
Benzene	ND		100	µg/L	200	05/01/07 15:41
Carbon disulfide	ND		100	µg/L	200	05/01/07 15:41
Chloroethane	ND		200	µg/L	200	05/01/07 15:41
Chloromethane	ND		200	µg/L	200	05/01/07 15:41
cis-1,2-Dichloroethene	1980		100	µg/L	200	05/01/07 15:41
Dibromomethane	ND		100	µg/L	200	05/01/07 15:41
Ethylbenzene	ND		100	µg/L	200	05/01/07 15:41
Isobutyl alcohol	ND		10000	µg/L	200	05/01/07 15:41
Methylene chloride	ND		400	µg/L	200	05/01/07 15:41
Naphthalene	ND		200	µg/L	200	05/01/07 15:41
Tetrachloroethene	ND		100	µg/L	200	05/01/07 15:41
Toluene	ND		100	µg/L	200	05/01/07 15:41
trans-1,2-Dichloroethene	ND		100	µg/L	200	05/01/07 15:41
Trichloroethene	ND		100	µg/L	200	05/01/07 15:41
Trichlorofluoromethane	ND		200	µg/L	200	05/01/07 15:41
Vinyl acetate	ND		400	µg/L	200	05/01/07 15:41
Vinyl chloride	3740		200	µg/L	200	05/01/07 15:41
Xylenes (total)	ND		200	µg/L	200	05/01/07 15:41
Surr: 1,2-Dichloroethane-d4	104		75-134	%REC	200	05/01/07 15:41
Surr: 4-Bromofluorobenzene	110		75-125	%REC	200	05/01/07 15:41
Surr: Dibromofluoromethane	111		75-127	%REC	200	05/01/07 15:41
Surr: Toluene-d8	106		75-125	%REC	200	05/01/07 15:41

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER
Inst. ID: MS02 12 **Sample Size:** 25 mL
ColumnID: Rtx-502.2 **%Moisture:**
Revision: 05/08/07 9:53 **TestCode** 8260W CAL
Col Type:

Lab ID: 0704103-006A
Client Sample ID: *DUP-01*
Collection Date: 04/17/07 10:40
Date Received: 04/18/07 9:20
PrepDate:
BatchNo: R9440
FileID: 1-SAMP-M0739.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		100	µg/L	200	05/01/07 13:04
1,1,2,2-Tetrachloroethane	ND		100	µg/L	200	05/01/07 13:04
1,1-Dichloroethane	ND		100	µg/L	200	05/01/07 13:04
1,1-Dichloroethene	ND		100	µg/L	200	05/01/07 13:04
1,2,3-Trichlorobenzene	ND		200	µg/L	200	05/01/07 13:04
1,2,3-Trichloropropane	ND		100	µg/L	200	05/01/07 13:04
1,2,4-Trichlorobenzene	ND		200	µg/L	200	05/01/07 13:04
1,2-Dibromo-3-chloropropane	ND		200	µg/L	200	05/01/07 13:04
1,2-Dichloroethane	ND		100	µg/L	200	05/01/07 13:04
2-Butanone	ND		2000	µg/L	200	05/01/07 13:04
4-Methyl-2-pentanone	ND		1000	µg/L	200	05/01/07 13:04
Acetone	ND		2000	µg/L	200	05/01/07 13:04
Benzene	ND		100	µg/L	200	05/01/07 13:04
Carbon disulfide	ND		100	µg/L	200	05/01/07 13:04
Chloroethane	ND		200	µg/L	200	05/01/07 13:04
Chloromethane	ND		200	µg/L	200	05/01/07 13:04
cis-1,2-Dichloroethene	1760		100	µg/L	200	05/01/07 13:04
Dibromomethane	ND		100	µg/L	200	05/01/07 13:04
Ethylbenzene	ND		100	µg/L	200	05/01/07 13:04
Isobutyl alcohol	ND		10000	µg/L	200	05/01/07 13:04
Methylene chloride	ND		400	µg/L	200	05/01/07 13:04
Naphthalene	ND		200	µg/L	200	05/01/07 13:04
Tetrachloroethene	ND		100	µg/L	200	05/01/07 13:04
Toluene	ND		100	µg/L	200	05/01/07 13:04
trans-1,2-Dichloroethene	ND		100	µg/L	200	05/01/07 13:04
Trichloroethene	ND		100	µg/L	200	05/01/07 13:04
Trichlorofluoromethane	ND		200	µg/L	200	05/01/07 13:04
Vinyl acetate	ND		400	µg/L	200	05/01/07 13:04
Vinyl chloride	3550		200	µg/L	200	05/01/07 13:04
Xylenes (total)	ND		200	µg/L	200	05/01/07 13:04
Surr: 1,2-Dichloroethane-d4	106		75-134	%REC	200	05/01/07 13:04
Surr: 4-Bromofluorobenzene	109		75-125	%REC	200	05/01/07 13:04
Surr: Dibromofluoromethane	109		75-127	%REC	200	05/01/07 13:04
Surr: Toluene-d8	105		75-125	%REC	200	05/01/07 13:04

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER
Inst. ID: MS02 12 **Sample Size:** 25 mL
ColumnID: Rtx-502.2 **%Moisture:**
Revision: 05/08/07 9:53 **TestCode** 8260W CAL
Col Type:

Lab ID: 0704103-007A
Client Sample ID: *ETMW-120*
Collection Date: 04/17/07 16:15
Date Received: 04/18/07 9:20
PrepDate:
BatchNo: R9440
FileID: 1-SAMP-M0740.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/01/07 13:49
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/01/07 13:49
1,1-Dichloroethane	ND		0.50	µg/L	1	05/01/07 13:49
1,1-Dichloroethene	ND		0.50	µg/L	1	05/01/07 13:49
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 13:49
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/01/07 13:49
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 13:49
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/01/07 13:49
1,2-Dichloroethane	ND		0.50	µg/L	1	05/01/07 13:49
2-Butanone	ND		10.0	µg/L	1	05/01/07 13:49
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/01/07 13:49
Acetone	ND		10.0	µg/L	1	05/01/07 13:49
Benzene	ND		0.50	µg/L	1	05/01/07 13:49
Carbon disulfide	ND		0.50	µg/L	1	05/01/07 13:49
Chloroethane	ND		1.00	µg/L	1	05/01/07 13:49
Chloromethane	ND		1.00	µg/L	1	05/01/07 13:49
cis-1,2-Dichloroethene	1.35		0.50	µg/L	1	05/01/07 13:49
Dibromomethane	ND		0.50	µg/L	1	05/01/07 13:49
Ethylbenzene	ND		0.50	µg/L	1	05/01/07 13:49
Isobutyl alcohol	ND		50.0	µg/L	1	05/01/07 13:49
Methylene chloride	ND		2.00	µg/L	1	05/01/07 13:49
Naphthalene	ND		1.00	µg/L	1	05/01/07 13:49
Tetrachloroethene	ND		0.50	µg/L	1	05/01/07 13:49
Toluene	ND		0.50	µg/L	1	05/01/07 13:49
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 13:49
Trichloroethene	ND		0.50	µg/L	1	05/01/07 13:49
Trichlorofluoromethane	ND		1.00	µg/L	1	05/01/07 13:49
Vinyl acetate	ND		2.00	µg/L	1	05/01/07 13:49
Vinyl chloride	ND		1.00	µg/L	1	05/01/07 13:49
Xylenes (total)	ND		1.00	µg/L	1	05/01/07 13:49
Surr: 1,2-Dichloroethane-d4	105		75-134	%REC	1	05/01/07 13:49
Surr: 4-Bromofluorobenzene	111		75-125	%REC	1	05/01/07 13:49
Surr: Dibromofluoromethane	111		75-127	%REC	1	05/01/07 13:49
Surr: Toluene-d8	104		75-125	%REC	1	05/01/07 13:49

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704103-008A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-119*
W Order:	0704103	**Collection Date:**	04/17/07 17:05
Matrix:	WATER	**Date Received:**	04/18/07 9:20
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9440
Revision:	05/08/07 9:53	**TestCode** 8260W CAL	**FileID:** 1-SAMP-M0741.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/01/07 14:26
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/01/07 14:26
1,1-Dichloroethane	ND		0.50	µg/L	1	05/01/07 14:26
1,1-Dichloroethene	ND		0.50	µg/L	1	05/01/07 14:26
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 14:26
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/01/07 14:26
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 14:26
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/01/07 14:26
1,2-Dichloroethane	ND		0.50	µg/L	1	05/01/07 14:26
2-Butanone	92.5	E	10.0	µg/L	1	05/01/07 14:26
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/01/07 14:26
Acetone	21.2		10.0	µg/L	1	05/01/07 14:26
Benzene	ND		0.50	µg/L	1	05/01/07 14:26
Carbon disulfide	ND		0.50	µg/L	1	05/01/07 14:26
Chloroethane	ND		1.00	µg/L	1	05/01/07 14:26
Chloromethane	ND		1.00	µg/L	1	05/01/07 14:26
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 14:26
Dibromomethane	ND		0.50	µg/L	1	05/01/07 14:26
Ethylbenzene	ND		0.50	µg/L	1	05/01/07 14:26
Isobutyl alcohol	ND		50.0	µg/L	1	05/01/07 14:26
Methylene chloride	ND		2.00	µg/L	1	05/01/07 14:26
Naphthalene	ND		1.00	µg/L	1	05/01/07 14:26
Tetrachloroethene	ND		0.50	µg/L	1	05/01/07 14:26
Toluene	ND		0.50	µg/L	1	05/01/07 14:26
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 14:26
Trichloroethene	0.74		0.50	µg/L	1	05/01/07 14:26
Trichlorofluoromethane	ND		1.00	µg/L	1	05/01/07 14:26
Vinyl acetate	ND		2.00	µg/L	1	05/01/07 14:26
Vinyl chloride	ND		1.00	µg/L	1	05/01/07 14:26
Xylenes (total)	ND		1.00	µg/L	1	05/01/07 14:26
Surr: 1,2-Dichloroethane-d4	104		75-134	%REC	1	05/01/07 14:26
Surr: 4-Bromofluorobenzene	109		75-125	%REC	1	05/01/07 14:26
Surr: Dibromofluoromethane	109		75-127	%REC	1	05/01/07 14:26
Surr: Toluene-d8	105		75-125	%REC	1	05/01/07 14:26

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704103-008ADL**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-119*
W Order:	0704103	**Collection Date:**	04/17/07 17:05
Matrix:	WATER	**Date Received:**	04/18/07 9:20
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R9614
Revision:	05/14/07 9:29	**TestCode** 8260W CAL	**FileID:** 1-DL-T8642.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND	H	1.00	µg/L	2	05/10/07 20:03
1,1,2,2-Tetrachloroethane	ND	H	1.00	µg/L	2	05/10/07 20:03
1,1-Dichloroethane	ND	H	1.00	µg/L	2	05/10/07 20:03
1,1-Dichloroethene	ND	H	1.00	µg/L	2	05/10/07 20:03
1,2,3-Trichlorobenzene	ND	H	2.00	µg/L	2	05/10/07 20:03
1,2,3-Trichloropropane	ND	H	1.00	µg/L	2	05/10/07 20:03
1,2,4-Trichlorobenzene	ND	H	2.00	µg/L	2	05/10/07 20:03
1,2-Dibromo-3-chloropropane	ND	H	2.00	µg/L	2	05/10/07 20:03
1,2-Dichloroethane	ND	H	1.00	µg/L	2	05/10/07 20:03
2-Butanone	99.8	H	20.0	µg/L	2	05/10/07 20:03
4-Methyl-2-pentanone	ND	H	10.0	µg/L	2	05/10/07 20:03
Acetone	30.1	H	20.0	µg/L	2	05/10/07 20:03
Benzene	ND	H	1.00	µg/L	2	05/10/07 20:03
Carbon disulfide	ND	H	1.00	µg/L	2	05/10/07 20:03
Chloroethane	ND	H	2.00	µg/L	2	05/10/07 20:03
Chloromethane	ND	H	2.00	µg/L	2	05/10/07 20:03
cis-1,2-Dichloroethene	ND	H	1.00	µg/L	2	05/10/07 20:03
Dibromomethane	ND	H	1.00	µg/L	2	05/10/07 20:03
Ethylbenzene	ND	H	1.00	µg/L	2	05/10/07 20:03
Isobutyl alcohol	ND	H	100	µg/L	2	05/10/07 20:03
Methylene chloride	ND	H	4.00	µg/L	2	05/10/07 20:03
Naphthalene	ND	H	2.00	µg/L	2	05/10/07 20:03
Tetrachloroethene	ND	H	1.00	µg/L	2	05/10/07 20:03
Toluene	ND	H	1.00	µg/L	2	05/10/07 20:03
trans-1,2-Dichloroethene	ND	H	1.00	µg/L	2	05/10/07 20:03
Trichloroethene	ND	H	1.00	µg/L	2	05/10/07 20:03
Trichlorofluoromethane	ND	H	2.00	µg/L	2	05/10/07 20:03
Vinyl acetate	ND	H	4.00	µg/L	2	05/10/07 20:03
Vinyl chloride	ND	H	2.00	µg/L	2	05/10/07 20:03
Xylenes (total)	ND	H	2.00	µg/L	2	05/10/07 20:03
Surr: 1,2-Dichloroethane-d4	108	H	75-134	%REC	2	05/10/07 20:03
Surr: 4-Bromofluorobenzene	98.5	H	75-125	%REC	2	05/10/07 20:03
Surr: Dibromofluoromethane	112	H	75-127	%REC	2	05/10/07 20:03
Surr: Toluene-d8	102	H	75-125	%REC	2	05/10/07 20:03

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704103-009A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*TB-041707*
W Order:	0704103	**Collection Date:**	04/17/07 0:00
Matrix:	WATER	**Date Received:**	04/18/07 9:20
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9440
Revision:	05/08/07 9:53	**TestCode** 8260W CAL	**FileID:** 1-SAMP-M0742.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/01/07 15:04
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/01/07 15:04
1,1-Dichloroethane	ND		0.50	µg/L	1	05/01/07 15:04
1,1-Dichloroethene	ND		0.50	µg/L	1	05/01/07 15:04
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 15:04
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/01/07 15:04
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 15:04
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/01/07 15:04
1,2-Dichloroethane	ND		0.50	µg/L	1	05/01/07 15:04
2-Butanone	ND		10.0	µg/L	1	05/01/07 15:04
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/01/07 15:04
Acetone	ND		10.0	µg/L	1	05/01/07 15:04
Benzene	ND		0.50	µg/L	1	05/01/07 15:04
Carbon disulfide	ND		0.50	µg/L	1	05/01/07 15:04
Chloroethane	ND		1.00	µg/L	1	05/01/07 15:04
Chloromethane	ND		1.00	µg/L	1	05/01/07 15:04
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 15:04
Dibromomethane	ND		0.50	µg/L	1	05/01/07 15:04
Ethylbenzene	ND		0.50	µg/L	1	05/01/07 15:04
Isobutyl alcohol	ND		50.0	µg/L	1	05/01/07 15:04
Methylene chloride	ND		2.00	µg/L	1	05/01/07 15:04
Naphthalene	ND		1.00	µg/L	1	05/01/07 15:04
Tetrachloroethene	ND		0.50	µg/L	1	05/01/07 15:04
Toluene	ND		0.50	µg/L	1	05/01/07 15:04
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 15:04
Trichloroethene	ND		0.50	µg/L	1	05/01/07 15:04
Trichlorofluoromethane	ND		1.00	µg/L	1	05/01/07 15:04
Vinyl acetate	ND		2.00	µg/L	1	05/01/07 15:04
Vinyl chloride	ND		1.00	µg/L	1	05/01/07 15:04
Xylenes (total)	ND		1.00	µg/L	1	05/01/07 15:04
Surr: 1,2-Dichloroethane-d4	104		75-134	%REC	1	05/01/07 15:04
Surr: 4-Bromofluorobenzene	110		75-125	%REC	1	05/01/07 15:04
Surr: Dibromofluoromethane	108		75-127	%REC	1	05/01/07 15:04
Surr: Toluene-d8	103		75-125	%REC	1	05/01/07 15:04

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0704103
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCS-9440** SampType: **LCS** TestCode: **8260W_CAL** Units: **µg/L** Prep Date: RunNo: **9440**
Client ID: **ZZZZZ** Batch ID: **R9440** Method: **SW8260B** Analysis Date: **5/1/2007** SeqNo: **260486**
Instrument: **MS02_12** ColumnID: **Rtx-502.2** **Rtx-502.2, 3.0 df**

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.2	0.500	10	0	103	80	127				
1,1,2,2-Tetrachloroethane	8.81	0.500	10	0	88	73	122				
1,1-Dichloroethane	9.43	0.500	10	0	94	80	120				
1,1-Dichloroethene	11.2	0.500	10	0	112	77	126				
1,2,3-Trichlorobenzene	11.7	1.00	10	0	117	75	123				
1,2,3-Trichloropropane	9.24	0.500	10	0	92	72	126				
1,2,4-Trichlorobenzene	12.0	1.00	10	0	120	73	123				
1,2-Dibromo-3-chloropropane	9.27	1.00	10	0	93	71	124				
1,2-Dichloroethane	9.16	0.500	10	0	92	73	126				
2-Butanone	13.5	10.0	20	0	67	49	153				
4-Methyl-2-pentanone	15.9	5.00	20	0	80	50	150				
Acetone	19.2	10.0	20	0	96	37	163				
Benzene	9.79	0.500	10	0	98	80	120				
Carbon disulfide	11.2	0.500	10	0	112	76	122				
Chloroethane	10.2	1.00	10	0	102	75	124				
Chloromethane	9.05	1.00	10	0	90	59	133				
cis-1,2-Dichloroethene	10.2	0.500	10	0	102	80	120				
Dibromomethane	9.42	0.500	10	0	94	79	120				
Ethylbenzene	10.7	0.500	10	0	107	80	120				
Isobutyl alcohol	120	50.0	100	0	120	50	150				
Methylene chloride	9.27	2.00	10	0	93	78	120				
Naphthalene	9.98	1.00	10	0	100	67	134				
Tetrachloroethene	11.0	0.500	10	0	110	80	120				
Toluene	9.40	0.500	10	0	94	80	120				
trans-1,2-Dichloroethene	9.69	0.500	10	0	97	80	120				
Trichloroethene	10.5	0.500	10	0	105	80	120				
Trichlorofluoromethane	10.4	1.00	10	0	104	73	132				

Qualifiers:
B Analyte detected in the associated Method Blank
ND Not Detected at the Practical Quantitation Limit (PQL)
U Not Detected at the MDC or RL
E Value exceeds the instrument calibration range
R RPD exceeds accepted precision limit
J Analyte detected below the PQL
S Spike Recovery outside accepted recovery limits

Date: *16-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0704103
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCS-9440**	SampType: **LCS**	TestCode: **8260W_CAL**	Units: **µg/L**		Prep Date:				RunNo: **9440**			
Client ID: **ZZZZZ**	Batch ID: **R9440**	Method: **SW8260B**			Analysis Date: **5/1/2007**				SeqNo: **260486**			
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**										
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Vinyl acetate	7.39	2.00	10	0	74	43	150					
Vinyl chloride	7.85	1.00	10	0	79	75	125					
Xylenes (total)	32.5	1.00	30	0	108	80	120					
Surr: 1,2-Dichloroethane-d4	9.98	0.100	10	0	100	75	134					
Surr: 4-Bromofluorobenzene	11.9	0.100	10	0	119	75	125					
Surr: Dibromofluoromethane	10.5	0.100	10	0	105	75	127					
Surr: Toluene-d8	9.77	0.100	10	0	98	75	125					

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *16-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCSD-9440** SampType: **LCSD** TestCode: **8260W_CAL** Units: **µg/L** Prep Date: RunNo: **9440**

Client ID: **ZZZZZ** Batch ID: **R9440** Method: **SW8260B** Analysis Date: **5/1/2007** SeqNo: **260487**

Instrument: **MS02_12** ColumnID: **Rtx-502.2** **Rtx-502.2, 3.0 df**

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.4	0.500	10	0	104	80	127	10.2	1	20	
1,1,2,2-Tetrachloroethane	9.13	0.500	10	0	91	73	122	8.81	4	20	
1,1-Dichloroethane	9.37	0.500	10	0	94	80	120	9.43	1	20	
1,1-Dichloroethene	11.5	0.500	10	0	115	77	126	11.2	3	20	
1,2,3-Trichlorobenzene	11.5	1.00	10	0	115	75	123	11.7	1	20	
1,2,3-Trichloropropane	9.49	0.500	10	0	95	72	126	9.24	3	20	
1,2,4-Trichlorobenzene	11.9	1.00	10	0	119	73	123	12	1	20	
1,2-Dibromo-3-chloropropane	9.00	1.00	10	0	90	71	124	9.27	3	20	
1,2-Dichloroethane	9.43	0.500	10	0	94	73	126	9.16	3	20	
2-Butanone	14.2	10.0	20	0	71	49	153	13.5	5	50	
4-Methyl-2-pentanone	16.6	5.00	20	0	83	50	150	15.9	4	50	
Acetone	19.4	10.0	20	0	97	37	163	19.2	1	50	
Benzene	9.89	0.500	10	0	99	80	120	9.79	1	20	
Carbon disulfide	10.3	0.500	10	0	103	76	122	11.2	8	20	
Chloroethane	9.48	1.00	10	0	95	75	124	10.2	7	20	
Chloromethane	8.66	1.00	10	0	87	59	133	9.05	4	20	
cis-1,2-Dichloroethene	10.1	0.500	10	0	101	80	120	10.2	1	20	
Dibromomethane	9.98	0.500	10	0	100	79	120	9.42	6	20	
Ethylbenzene	10.7	0.500	10	0	107	80	120	10.7	0	20	
Isobutyl alcohol	126	50.0	100	0	126	50	150	120	5	50	
Methylene chloride	9.17	2.00	10	0	92	78	120	9.27	1	20	
Naphthalene	9.91	1.00	10	0	99	67	134	9.98	1	20	
Tetrachloroethene	11.3	0.500	10	0	113	80	120	11	3	20	
Toluene	10.4	0.500	10	0	104	80	120	9.4	10	20	
trans-1,2-Dichloroethene	9.77	0.500	10	0	98	80	120	9.69	1	20	
Trichloroethene	10.8	0.500	10	0	108	80	120	10.5	2	20	
Trichlorofluoromethane	9.73	1.00	10	0	97	73	132	10.4	7	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *16-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCSD-9440** SampType: **LCSD** TestCode: **8260W_CAL** Units: **µg/L** Prep Date: RunNo: **9440**

Client ID: **ZZZZZ** Batch ID: **R9440** Method: **SW8260B** Analysis Date: **5/1/2007** SeqNo: **260487**

Instrument: **MS02_12** ColumnID: **Rtx-502.2** **Rtx-502.2, 3.0 df**

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	6.96	2.00	10	0	70	43	150	7.39	6	50	
Vinyl chloride	7.38	1.00	10	0	74	75	125	7.85	6	20	S
Xylenes (total)	32.4	1.00	30	0	108	80	120	32.5	0	20	
Surr: 1,2-Dichloroethane-d4	9.97	0.100	10	0	100	75	134	0		0	
Surr: 4-Bromofluorobenzene	11.2	0.100	10	0	112	75	125	0		0	
Surr: Dibromofluoromethane	10.3	0.100	10	0	103	75	127	0		0	
Surr: Toluene-d8	11.0	0.100	10	0	110	75	125	0		0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *16-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-9614**	SampType: **LCS**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:	RunNo: **9614**
Client ID: **ZZZZZ**	Batch ID: **R9614**	Method: **SW8260B**		Analysis Date: **5/10/2007**	SeqNo: **263073**
Instrument: **MS01_11**	ColumnID: **Rtx-VMS**	**Rtx-VMS, 1.0 df**			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	11.5	0.500	10	0	115	80	127				
1,1,2,2-Tetrachloroethane	9.05	0.500	10	0	90	73	122				
1,1-Dichloroethane	10.1	0.500	10	0	101	80	120				
1,1-Dichloroethene	11.6	0.500	10	0	116	77	126				
1,2,3-Trichlorobenzene	11.3	1.00	10	0	113	75	123				
1,2,3-Trichloropropane	8.61	0.500	10	0	86	72	126				
1,2,4-Trichlorobenzene	10.9	1.00	10	0	109	73	123				
1,2-Dibromo-3-chloropropane	9.68	1.00	10	0	97	71	124				
1,2-Dichloroethane	10.0	0.500	10	0	100	73	126				
2-Butanone	17.4	10.0	20	0	87	49	153				
4-Methyl-2-pentanone	17.3	5.00	20	0	87	50	150				
Acetone	19.8	10.0	20	0	99	37	163				
Benzene	10.4	0.500	10	0	104	80	120				
Carbon disulfide	10.7	0.500	10	0	107	76	122				
Chloroethane	10.1	1.00	10	0	101	75	124				
Chloromethane	9.64	1.00	10	0	96	59	133				
cis-1,2-Dichloroethene	10.8	0.500	10	0	108	80	120				
Dibromomethane	10.4	0.500	10	0	104	79	120				
Ethylbenzene	10.6	0.500	10	0	106	80	120				
Isobutyl alcohol	* ND	50.0									
Methylene chloride	10.3	2.00	10	0	103	78	120				
Naphthalene	10.8	1.00	10	0	108	67	134				
Tetrachloroethene	11.5	0.500	10	0	115	80	120				
Toluene	11.1	0.500	10	0	111	80	120				
trans-1,2-Dichloroethene	10.3	0.500	10	0	103	80	120				
Trichloroethene	10.6	0.500	10	0	106	80	120				
Trichlorofluoromethane	11.0	1.00	10	0	110	73	132				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *16-May-07*

* Not Spiked

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-9614**	SampType: **LCS**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:	RunNo: **9614**
Client ID: **ZZZZZ**	Batch ID: **R9614**	Method: **SW8260B**		Analysis Date: **5/10/2007**	SeqNo: **263073**
Instrument: **MS01_11**	ColumnID: **Rtx-VMS**	**Rtx-VMS, 1.0 df**			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	8.20	2.00	10	0	82	43	150				
Vinyl chloride	10.2	1.00	10	0	102	75	125				
Xylenes (total)	32.1	1.00	30	0	107	80	120				
Surr: 1,2-Dichloroethane-d4	10.7	0.100	10	0	107	75	134				
Surr: 4-Bromofluorobenzene	10.4	0.100	10	0	104	75	125				
Surr: Dibromofluoromethane	11.6	0.100	10	0	116	75	127				
Surr: Toluene-d8	11.5	0.100	10	0	115	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *16-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0704103
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCSD-9614** SampType: **LCSD** TestCode: **8260W_CAL** Units: **µg/L** Prep Date: RunNo: **9614**
Client ID: **ZZZZZ** Batch ID: **R9614** Method: **SW8260B** Analysis Date: **5/10/2007** SeqNo: **263074**
Instrument: **MS01_11** ColumnID: **Rtx-VMS** **Rtx-VMS, 1.0 df**

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	11.5	0.500	10	0	115	80	127	11.5	0	20	
1,1,2,2-Tetrachloroethane	9.01	0.500	10	0	90	73	122	9.05	0	20	
1,1-Dichloroethane	10.2	0.500	10	0	102	80	120	10.1	2	20	
1,1-Dichloroethene	11.4	0.500	10	0	114	77	126	11.6	2	20	
1,2,3-Trichlorobenzene	11.2	1.00	10	0	112	75	123	11.3	1	20	
1,2,3-Trichloropropane	8.92	0.500	10	0	89	72	126	8.61	4	20	
1,2,4-Trichlorobenzene	10.6	1.00	10	0	106	73	123	10.9	2	20	
1,2-Dibromo-3-chloropropane	10.2	1.00	10	0	102	71	124	9.68	5	20	
1,2-Dichloroethane	10.0	0.500	10	0	100	73	126	10	0	20	
2-Butanone	18.1	10.0	20	0	90	49	153	17.4	4	50	
4-Methyl-2-pentanone	17.1	5.00	20	0	86	50	150	17.3	1	50	
Acetone	19.8	10.0	20	0	99	37	163	19.8	0	50	
Benzene	10.6	0.500	10	0	106	80	120	10.4	2	20	
Carbon disulfide	10.5	0.500	10	0	105	76	122	10.7	2	20	
Chloroethane	9.88	1.00	10	0	99	75	124	10.1	2	20	
Chloromethane	9.32	1.00	10	0	93	59	133	9.64	3	20	
cis-1,2-Dichloroethene	11.0	0.500	10	0	110	80	120	10.8	2	20	
Dibromomethane	10.4	0.500	10	0	104	79	120	10.4	1	20	
Ethylbenzene	10.6	0.500	10	0	106	80	120	10.6	0	20	
Isobutyl alcohol	ND	50.0						0		50	
Methylene chloride	10.4	2.00	10	0	104	78	120	10.3	1	20	
Naphthalene	10.8	1.00	10	0	108	67	134	10.8	0	20	
Tetrachloroethene	11.8	0.500	10	0	118	80	120	11.5	2	20	
Toluene	11.0	0.500	10	0	110	80	120	11.1	1	20	
trans-1,2-Dichloroethene	10.5	0.500	10	0	105	80	120	10.3	2	20	
Trichloroethene	10.8	0.500	10	0	108	80	120	10.6	1	20	
Trichlorofluoromethane	11.0	1.00	10	0	110	73	132	11	1	20	

Qualifiers:
B Analyte detected in the associated Method Blank
ND Not Detected at the Practical Quantitation Limit (PQL)
U Not Detected at the MDC or RL
E Value exceeds the instrument calibration range
R RPD exceeds accepted precision limit
J Analyte detected below the PQL
S Spike Recovery outside accepted recovery limits

* Not Spiked

Date: *16-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCSD-9614**	SampType: **LCSD**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**9614**
Client ID: **ZZZZZ**	Batch ID: **R9614**	Method: **SW8260B**		Analysis Date: **5/10/2007**		SeqNo:	**263074**
Instrument: **MS01_11**	ColumnID: **Rtx-VMS**	**Rtx-VMS, 1.0 df**					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	8.00	2.00	10	0	80	43	150	8.2	2	50	
Vinyl chloride	10.0	1.00	10	0	100	75	125	10.2	2	20	
Xylenes (total)	32.4	1.00	30	0	108	80	120	32.1	1	20	
Surr: 1,2-Dichloroethane-d4	10.6	0.100	10	0	106	75	134	0		0	
Surr: 4-Bromofluorobenzene	10.4	0.100	10	0	104	75	125	0		0	
Surr: Dibromofluoromethane	11.6	0.100	10	0	116	75	127	0		0	
Surr: Toluene-d8	11.5	0.100	10	0	115	75	125	0		0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *16-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0704103
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **MB-9440**	SampType: **MBLK**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo: **9440**						
Client ID: **ZZZZZ**	Batch ID: **R9440**	Method: **SW8260B**		Analysis Date: **5/1/2007**		SeqNo: **260488**						
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**										

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	0.500									
1,1-Dichloroethane	ND	0.500									
1,1-Dichloroethene	ND	0.500									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	0.500									
1,2,4-Trichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dichloroethane	ND	0.500									
2-Butanone	ND	10.0									
4-Methyl-2-pentanone	ND	5.00									
Acetone	ND	10.0									
Benzene	ND	0.500									
Carbon disulfide	ND	0.500									
Chloroethane	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	0.500									
Dibromomethane	ND	0.500									
Ethylbenzene	ND	0.500									
Isobutyl alcohol	ND	50.0									
Methylene chloride	ND	2.00									
Naphthalene	ND	1.00									
Tetrachloroethene	ND	0.500									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
Trichloroethene	ND	0.500									
Trichlorofluoromethane	ND	1.00									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *16-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-9440**	SampType: **MBLK**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:			RunNo:	**9440**	
Client ID: **ZZZZZ**	Batch ID: **R9440**	Method: **SW8260B**		Analysis Date: **5/1/2007**			SeqNo:	**260488**	
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**							

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	ND	2.00									
Vinyl chloride	ND	1.00									
Xylenes (total)	ND	1.00									
Surr: 1,2-Dichloroethane-d4	10.5	0.100	10	0	105	75	134				
Surr: 4-Bromofluorobenzene	10.7	0.100	10	0	107	75	125				
Surr: Dibromofluoromethane	10.9	0.100	10	0	109	75	127				
Surr: Toluene-d8	10.5	0.100	10	0	105	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *16-May-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0704103
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **MB-9614**	SampType: **MBLK**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**9614**
Client ID: **ZZZZZ**	Batch ID: **R9614**	Method: **SW8260B**		Analysis Date: **5/10/07**		SeqNo:	**263075**
Instrument: **MS01_11**	ColumnID: **Rtx-VMS**	**Rtx-VMS, 1.0 df**					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	0.500									
1,1-Dichloroethane	ND	0.500									
1,1-Dichloroethene	ND	0.500									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	0.500									
1,2,4-Trichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dichloroethane	ND	0.500									
2-Butanone	ND	10.0									
4-Methyl-2-pentanone	ND	5.00									
Acetone	ND	10.0									
Benzene	ND	0.500									
Carbon disulfide	ND	0.500									
Chloroethane	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	0.500									
Dibromomethane	ND	0.500									
Ethylbenzene	ND	0.500									
Isobutyl alcohol	ND	50.0									
Methylene chloride	ND	2.00									
Naphthalene	ND	1.00									
Tetrachloroethene	ND	0.500									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
Trichloroethene	ND	0.500									
Trichlorofluoromethane	ND	1.00									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *14-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-9614**	SampType: **MBLK**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**9614**
Client ID: **ZZZZZ**	Batch ID: **R9614**	Method: **SW8260B**		Analysis Date: **5/10/07**		SeqNo:	**263075**
Instrument: **MS01_11**	ColumnID: **Rtx-VMS**	**Rtx-VMS, 1.0 df**					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	ND	2.00									
Vinyl chloride	ND	1.00									
Xylenes (total)	ND	1.00									
Surr: 1,2-Dichloroethane-d4	10.2	0.100	10	0	102	75	134				
Surr: 4-Bromofluorobenzene	9.79	0.100	10	0	98	75	125				
Surr: Dibromofluoromethane	10.6	0.100	10	0	106	75	127				
Surr: Toluene-d8	9.88	0.100	10	0	99	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *14-May-07*

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704103-001B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-3*
W Order:	0704103	**Collection Date:**	04/17/07 14:50
Matrix:	WATER	**Date Received:**	04/18/07 9:20
Inst. ID:	GCOS 17E	**Sample Size:** 30 mL	**PrepDate:** 04/19/07 14:47
ColumnID:	Alumina	**%Moisture:**	**BatchNo:** 5212/R9293
Revision:	04/19/07 15:45	**TestCode** 8015W RSK175	**FileID:** 1-SAMP-F:\Osiapr07\E041906.r
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		**(RSK 175)**
Ethane	ND		0.0045	mg/L	1	04/19/07 11:20
Ethene	ND		0.0045	mg/L	1	04/19/07 11:20
Methane	ND		0.0023	mg/L	1	04/19/07 11:20

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704103-004B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-5*
W Order:	0704103	**Collection Date:**	04/17/07 13:35
Matrix:	WATER	**Date Received:**	04/18/07 9:20
Inst. ID:	GCOS 17E	**Sample Size:** 32 mL	**PrepDate:** 04/19/07 14:47
ColumnID:	Alumina	**%Moisture:**	**BatchNo:** 5212/R9293
Revision:	04/19/07 15:45	**TestCode** 8015W RSK175	**FileID:** 1-SAMP-F:\Osiapr07\E041907.r
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		**(RSK 175)**
Ethane	ND		0.0042	mg/L	1	04/19/07 11:29
Ethene	ND		0.0042	mg/L	1	04/19/07 11:29
Methane	ND		0.0021	mg/L	1	04/19/07 11:29

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704103-005B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-114*
W Order:	0704103	**Collection Date:**	04/17/07 10:40
Matrix:	WATER	**Date Received:**	04/18/07 9:20
Inst. ID:	GCOS 17E	**Sample Size:** 31 mL	**PrepDate:** 04/19/07 14:47
ColumnID:	Alumina	**%Moisture:**	**BatchNo:** 5212/R9293
Revision:	04/19/07 15:45	**TestCode** 8015W RSK175	**FileID:** 1-SAMP-F:\Osiapr07\E041908.r
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		**(RSK 175)**
Ethane	ND		0.0044	mg/L	1	04/19/07 11:39
Ethene	0.0070		0.0044	mg/L	1	04/19/07 11:39
Methane	0.14		0.0022	mg/L	1	04/19/07 11:39

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704103-006B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*DUP-01*
W Order:	0704103	**Collection Date:**	04/17/07 10:40
Matrix:	WATER	**Date Received:**	04/18/07 9:20
Inst. ID:	GCOS 17E	**Sample Size:** 31 mL	**PrepDate:** 04/19/07 14:47
ColumnID:	Alumina	**%Moisture:**	**BatchNo:** 5212/R9293
Revision:	04/19/07 15:45	**TestCode** 8015W RSK175	**FileID:** 1-SAMP-F:\Osiapr07\E041909.r
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		**(RSK 175)**
Ethane	ND		0.0044	mg/L	1	04/19/07 11:48
Ethene	0.0076		0.0044	mg/L	1	04/19/07 11:48
Methane	0.14		0.0022	mg/L	1	04/19/07 11:48

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M
Work Order: 0704103
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCS-5212**	SampType: **LCS**	TestCode: **8015W_RSK1**	Units: **mg/L**	Prep Date: **4/19/07**		RunNo: **9293**	
Client ID: **ZZZZZ**	Batch ID: **5212**	Method: **8015M/RSK1 (RSK 175)**		Analysis Date: **4/19/07**		SeqNo: **252331**	
Instrument: **GCOS_17E**	ColumnID: **Alumina**	**J&W Alumina**					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.0361	0.0042	0.0382	0	94	18	138				
Ethene	0.0273	0.0042	0.0361	0	76	50	130				
Methane	0.0190	0.0021	0.0206	0	92	30	130				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *27-Apr-07*

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M
Work Order: 0704103
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCSD-5212**	SampType: **LCSD**	TestCode: **8015W_RSK1**	Units: **mg/L**	Prep Date: **4/19/07**		RunNo: **9293**	
Client ID: **ZZZZZ**	Batch ID: **5212**	Method: **8015M/RSK1 (RSK 175)**		Analysis Date: **4/19/07**		SeqNo: **252332**	
Instrument: **GCOS_17E**	ColumnID: **Alumina**		**J&W Alumina**				

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.0340	0.0042	0.0382	0	89	18	138	0.0361	6.2	50	
Ethene	0.0257	0.0042	0.0361	0	71	50	130	0.0273	6.0	50	
Methane	0.0179	0.0021	0.0206	0	87	30	130	0.019	5.7	50	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *27-Apr-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-5212**	SampType: **MBLK**	TestCode: **8015W_RSK1**	Units: **mg/L**	Prep Date: **4/19/07**		RunNo: **9293**			
Client ID: **ZZZZZ**	Batch ID: **5212**	Method: **8015M/RSK1 (RSK 175)**		Analysis Date: **4/19/07**		SeqNo: **252330**			
Instrument: **GCOS_17E**	ColumnID: **Alumina**		**J&W Alumina**						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	ND	0.0042									
Ethene	ND	0.0042									
Methane	ND	0.0021									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *27-Apr-07*

Life Science Laboratories, Inc.

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704103-001H**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-3*
W Order:	0704103	**Collection Date:**	04/17/07 14:50
Matrix:	WATER	**Date Received:**	04/18/07 9:20
Inst. ID:	ICAP 61E	**Sample Size:** 50 mL	**PrepDate:** 05/07/07 0:00
ColumnID:		**%Moisture:**	**BatchNo:** 5317/R9564
Revision:	05/09/07 9:04	**TestCode** 200.7W.4	**FileID:** 1-SAMP-19910
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.4)**
Iron	0.072		0.050	mg/L	1	05/08/07 14:50
Manganese	ND		0.050	mg/L	1	05/08/07 14:50

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704103-004H**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-5*
W Order:	0704103	**Collection Date:**	04/17/07 13:35
Matrix:	WATER	**Date Received:**	04/18/07 9:20
Inst. ID:	ICAP 61E	**Sample Size:** 50 mL	**PrepDate:** 05/07/07 0:00
ColumnID:		**%Moisture:**	**BatchNo:** 5317/R9564
Revision:	05/09/07 9:04	**TestCode** 200.7W.4	**FileID:** 1-SAMP-19914
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.4)**
Iron	0.81		0.050	mg/L	1	05/08/07 15:04
Manganese	ND		0.050	mg/L	1	05/08/07 15:04

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704103-005H**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-114*
W Order:	0704103	**Collection Date:**	04/17/07 10:40
Matrix:	WATER	**Date Received:**	04/18/07 9:20
Inst. ID:	ICAP 61E	**Sample Size:** 50 mL	**PrepDate:** 05/07/07 0:00
ColumnID:		**%Moisture:**	**BatchNo:** 5317/R9564
Revision:	05/09/07 9:04	**TestCode** 200.7W.4	**FileID:** 1-SAMP-19915
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.4)**
Iron	110		0.050	mg/L	1	05/08/07 15:10
Manganese	0.54		0.050	mg/L	1	05/08/07 15:10

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704103-006H**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	***DUP-01***
W Order:	0704103	**Collection Date:**	04/17/07 10:40
Matrix:	WATER	**Date Received:**	04/18/07 9:20
Inst. ID:	ICAP 61E	**Sample Size:** 50 mL	**PrepDate:** 05/07/07 0:00
ColumnID:		**%Moisture:**	**BatchNo:** 5317/R9564
Revision:	05/09/07 9:04	**TestCode** 200.7W.4	**FileID:** 1-SAMP-19916
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.4)**
Iron	110		0.050	mg/L	1	05/08/07 15:13
Manganese	0.55		0.050	mg/L	1	05/08/07 15:13

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **0704103-001HMS**	SampType: **MS**	TestCode: **200.7W.4**	Units: **mg/L**	Prep Date: **5/7/07**	RunNo: **9564**				
Client ID: **CH2MW-3**	Batch ID: **5317**	Method: **EPA 200.7**	**(E4.1.4)**	Analysis Date: **5/8/07**	SeqNo: **261256**				
Instrument:	ColumnID:								

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	1.18	0.050	1	0.0719	111	75	125				
Manganese	0.208	0.050	0.2	0.00343	102	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *10-May-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **0704103-001HMSD**	SampType: **MSD**	TestCode: **200.7W.4**	Units: **mg/L**	Prep Date: **5/7/07**	RunNo: **9564**		
Client ID: **CH2MW-3**	Batch ID: **5317**	Method: **EPA 200.7**	**(E4.1.4)**	Analysis Date: **5/8/07**	SeqNo: **261257**		
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	1.21	0.050	1	0.0719	114	75	125	1.18	3	10	
Manganese	0.206	0.050	0.2	0.00343	101	75	125	0.208	1	10	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *10-May-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7
Work Order: 0704103
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCS-5317**	SampType: **LCS**	TestCode: **200.7W.4**	Units: **mg/L**	Prep Date: **5/7/07**		RunNo: **9564**			
Client ID: **ZZZZZ**	Batch ID: **5317**	Method: **EPA 200.7**	**(E4.1.4)**	Analysis Date: **5/8/07**		SeqNo: **261239**			
Instrument:	ColumnID:								

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	1.04	0.050	1	0	104	85	115				
Manganese	0.201	0.050	0.2	0	100	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *10-May-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7

Work Order: 0704103

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **MB-5317**	SampType: **MBLK**	TestCode: **200.7W.4**	Units: **mg/L**	Prep Date: **5/7/07**		RunNo: **9564**	
Client ID: **ZZZZZ**	Batch ID: **5317**	Method: **EPA 200.7**	**(E4.1.4)**	Analysis Date: **5/8/07**		SeqNo: **261238**	
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	0.050									
Manganese	ND	0.050									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *10-May-07*

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-001C
Client Sample ID: CH2MW-3
Collection Date: 04/17/07 14:50
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC			**EPA 300.0**			
Chloride	6.7		2.0	mg/L	2	04/18/07 15:12
Nitrate (as N)	0.51		0.040	mg/L	2	04/18/07 15:12
Sulfate (as SO4)	44		2.0	mg/L	2	04/18/07 15:12

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

Print Date: 05/08/07 16:04

Project Supervisor: Monika Santucci

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-001D
Client Sample ID: *CH2MW-3*
Collection Date: 04/17/07 14:50
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON			**EPA 415.1**			
Total Organic Carbon	3.6		1.0	mg/L	1	04/30/07 12:02

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-001E
Client Sample ID: *CH2MW-3*
Collection Date: 04/17/07 14:50
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED ORGANIC CARBON			**EPA 415.1**			
Organic Carbon, Dissolved	1.7		1.0	mg/L	1	04/30/07 15:59

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-001F
Client Sample ID: *CH2MW-3*
Collection Date: 04/17/07 14:50
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, AS CACO3				**EPA 310.1**		
Alkalinity, as CaCO3	ND		10	mg/L	1	04/30/07

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-001G
Client Sample ID: *CH2MW-3*
Collection Date: 04/17/07 14:50
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE			**EPA 376.1**			
Sulfide	ND		1.0	mg/L	1	04/24/07 8:00

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-004C
Client Sample ID: *CH2MW-5*
Collection Date: 04/17/07 13:35
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC			**EPA 300.0**			
Chloride	5.1		2.0	mg/L	2	04/18/07 15:29
Nitrate (as N)	0.96		0.040	mg/L	2	04/18/07 15:29
Sulfate (as SO4)	2.8		2.0	mg/L	2	04/18/07 15:29

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-004D
Client Sample ID: *CH2MW-5*
Collection Date: 04/17/07 13:35
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON			**EPA 415.1**			
Total Organic Carbon	2.8		1.0	mg/L	1	04/30/07 12:23

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-004E
Client Sample ID: *CH2MW-5*
Collection Date: 04/17/07 13:35
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED ORGANIC CARBON			**EPA 415.1**			
Organic Carbon, Dissolved	2.1		1.0	mg/L	1	04/30/07 16:20

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-004F
Client Sample ID: *CH2MW-5*
Collection Date: 04/17/07 13:35
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, AS CACO3			**EPA 310.1**			
Alkalinity, as CaCO3	42		10	mg/L	1	04/30/07

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-004G
Client Sample ID: *CH2MW-5*
Collection Date: 04/17/07 13:35
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE			EPA 376.1			
Sulfide	1.7		1.0	mg/L	1	04/24/07 8:00

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-005C
Client Sample ID: *ETMW-114*
Collection Date: 04/17/07 10:40
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC			**EPA 300.0**			
Chloride	110		10	mg/L	10	04/18/07 15:45
Nitrate (as N)	ND		0.20	mg/L	10	04/18/07 15:45
Sulfate (as SO4)	ND		10	mg/L	10	04/18/07 15:45

NOTES:
* The reporting limits were raised due to sample matrix interference.

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-005D
Client Sample ID: *ETMW-114*
Collection Date: 04/17/07 10:40
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON			**EPA 415.1**			
Total Organic Carbon	51		5.0	mg/L	5	04/30/07 15:32

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-005E
Client Sample ID: *ETMW-114*
Collection Date: 04/17/07 10:40
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED ORGANIC CARBON			**EPA 415.1**			
Organic Carbon, Dissolved	41		5.0	mg/L	5	05/02/07 15:53

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-005F
Client Sample ID: *ETMW-114*
Collection Date: 04/17/07 10:40
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, AS CACO3				**EPA 310.1**		
Alkalinity, as CaCO3	470		10	mg/L	1	04/30/07

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-005G
Client Sample ID: *ETMW-114*
Collection Date: 04/17/07 10:40
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE			**EPA 376.1**			
Sulfide	ND		1.0	mg/L	1	04/24/07 8:00

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-006C
Client Sample ID: *DUP-01*
Collection Date: 04/17/07 10:40
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC			**EPA 300.0**			
Chloride	110		10	mg/L	10	04/18/07 16:02
Nitrate (as N)	ND		0.20	mg/L	10	04/18/07 16:02
Sulfate (as SO4)	ND		10	mg/L	10	04/18/07 16:02

NOTES:
* The reporting limits were raised due to sample matrix interference.

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-006D
Client Sample ID: *DUP-01*
Collection Date: 04/17/07 10:40
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	47		5.0	mg/L	5	04/30/07 15:39

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-006E
Client Sample ID: *DUP-01*
Collection Date: 04/17/07 10:40
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED ORGANIC CARBON			**EPA 415.1**			
Organic Carbon, Dissolved	42		5.0	mg/L	5	05/02/07 16:00

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-006F
Client Sample ID: *DUP-01*
Collection Date: 04/17/07 10:40
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, AS CACO3				**EPA 310.1**		
Alkalinity, as CaCO3	500		10	mg/L	1	04/30/07

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-006G
Client Sample ID: *DUP-01*
Collection Date: 04/17/07 10:40
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE			**EPA 376.1**			
Sulfide	1.8		1.0	mg/L	1	04/24/07 8:00

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704103
Matrix: WATER

Lab ID: 0704103-006GRA
Client Sample ID: *DUP-01*
Collection Date: 04/17/07 10:40
Date Received: 04/18/07 9:20

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE			**EPA 376.1**			
Sulfide	ND	H	1.0	mg/L	1	05/09/07

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0704103
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **0704103-001DMS** SampType: **MS** TestCode: **TOC415.1** Units: **mg/L** Prep Date: RunNo: **9460**
Client ID: **CH2MW-3** Batch ID: **R9460** Method: **EPA 415.1** Analysis Date: **4/30/2007** SeqNo: **258269**
Instrument: ColumnID:

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	12.5	1.0	10	3.64	88	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0704103
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **0704103-001DMSD**	SampType: **MSD**	TestCode: **TOC415.1**	Units: **mg/L**	Prep Date:		RunNo: **9460**			
Client ID: **CH2MW-3**	Batch ID: **R9460**	Method: **EPA 415.1**		Analysis Date: **4/30/2007**		SeqNo: **258270**			
Instrument:	ColumnID:								

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	12.2	1.0	10	3.64	85	75	125	12.5	2.6	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0704103
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **0704103-001EMS**	SampType: **MS**	TestCode: **DOC415.1**	Units: **mg/L**	Prep Date:		RunNo:	**9470**
Client ID: **CH2MW-3**	Batch ID: **R9470**	Method: **EPA 415.1**		Analysis Date: **4/30/2007**		SeqNo:	**258525**
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved	10.2	1.0	10	1.72	84	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **0704103-001EMSD**	SampType: **MSD**	TestCode: **DOC415.1**	Units: **mg/L**	Prep Date:		RunNo: **9470**			
Client ID: **CH2MW-3**	Batch ID: **R9470**	Method: **EPA 415.1**		Analysis Date: **4/30/2007**		SeqNo: **258526**			
Instrument:	ColumnID:								

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved	10.3	1.0	10	1.72	86	75	125	10.2	1.3	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-R9306** SampType: **LCS** TestCode: **300.0W** Units: **mg/L** Prep Date: RunNo: **9306**

Client ID: **ZZZZZ** Batch ID: **R9306** Method: **EPA 300.0** Analysis Date: **4/18/2007** SeqNo: **252549**

Instrument: ColumnID:

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	5.13	1.0	5	0	103	85	115				
Nitrate (as N)	0.503	0.050	0.5	0	101	85	115				
Sulfate (as SO4)	5.11	1.0	5	0	102	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-R9470** SampType: **LCS** TestCode: **DOC415.1** Units: **mg/L** Prep Date: RunNo: **9470**

Client ID: **ZZZZZ** Batch ID: **R9470** Method: **EPA 415.1** Analysis Date: **4/30/2007** SeqNo: **258523**

Instrument: ColumnID:

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved	10.2	1.0	10	0	102	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0704103
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCS-R9504** SampType: **LCS** TestCode: **DOC415.1** Units: **mg/L** Prep Date: RunNo: **9504**
Client ID: **ZZZZZ** Batch ID: **R9504** Method: **EPA 415.1** Analysis Date: **5/2/2007** SeqNo: **259238**
Instrument: ColumnID:

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved	10.3	1.0	10	0	103	90	110				

Qualifiers:
B Analyte detected in the associated Method Blank
ND Not Detected at the Practical Quantitation Limit (PQL)
U Not Detected at the MDC or RL
E Value exceeds the instrument calibration range
R RPD exceeds accepted precision limit
J Analyte detected below the PQL
S Spike Recovery outside accepted recovery limits

Date: *08-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0704103
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCS-R9460** SampType: **LCS** TestCode: **TOC415.1** Units: **mg/L** Prep Date: RunNo: **9460**
Client ID: **ZZZZZ** Batch ID: **R9460** Method: **EPA 415.1** Analysis Date: **4/30/2007** SeqNo: **258267**
Instrument: ColumnID:

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	10.0	1.0	10	0	101	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-R9444**	SampType: **LCS**	TestCode: **ALK310.1**	Units: **mg/L**	Prep Date:		RunNo:	**9444**	
Client ID: **ZZZZZ**	Batch ID: **R9444**	Method: **EPA 310.1**		Analysis Date: **4/30/2007**		SeqNo:	**257869**	
Instrument:	ColumnID:							

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, as CaCO3	50.0	10	50	0	100	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-R9349**	SampType: **LCS**	TestCode: **S376.1**	Units: **mg/L**	Prep Date:		RunNo:	**9349**
Client ID: **ZZZZZ**	Batch ID: **R9349**	Method: **EPA 376.1**		Analysis Date: **4/24/2007**		SeqNo:	**253926**
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	2.20	1.0	2.5	0	88	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID:	**LCS-R9581**	SampType:	**LCS**	TestCode:	**S376.1**	Units:	**mg/L**	Prep Date:		RunNo:	**9581**	
Client ID:	**ZZZZZ**	Batch ID:	**R9581**	Method:	**EPA 376.1**			Analysis Date:	**5/9/2007**	SeqNo:	**261545**	
Instrument:		ColumnID:										

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	2.40	1.0	2.5	0	96	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *10-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1
Work Order: 0704103
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCSD-R9581**	SampType: **LCSD**	TestCode: **S376.1**	Units: **mg/L**	Prep Date:			RunNo: **9581**					
Client ID: **ZZZZZ**	Batch ID: **R9581**	Method: **EPA 376.1**		Analysis Date: **5/9/2007**			SeqNo: **261548**					
Instrument:	ColumnID:											
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Sulfide	2.50	1.0	2.5	0	100	85	115	2.4	4.1	20		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *10-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-R9306**	SampType: **MBLK**	TestCode: **300.0W**	Units: **mg/L**	Prep Date:		RunNo:	**9306**
Client ID: **ZZZZZ**	Batch ID: **R9306**	Method: **EPA 300.0**		Analysis Date: **4/18/2007**		SeqNo:	**252548**
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.0									
Nitrate (as N)	ND	0.050									
Sulfate (as SO4)	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MBF-R9470**	SampType: **MBLK**	TestCode: **DOC415.1**	Units: **mg/L**		Prep Date:				RunNo:	**9470**		
Client ID: **ZZZZZ**	Batch ID: **R9470**	Method: **EPA 415.1**			Analysis Date: **4/30/2007**				SeqNo:	**258522**		
Instrument:	ColumnID:											
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Organic Carbon, Dissolved	ND	1.0										

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-R9504**	SampType: **MBLK**	TestCode: **DOC415.1**	Units: **mg/L**	Prep Date:		RunNo: **9504**			
Client ID: **ZZZZZ**	Batch ID: **R9504**	Method: **EPA 415.1**		Analysis Date: **5/2/2007**		SeqNo: **259237**			
Instrument:	ColumnID:								

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-R9460**	SampType: **MBLK**	TestCode: **TOC415.1**	Units: **mg/L**		Prep Date:					RunNo: **9460**			
Client ID: **ZZZZZ**	Batch ID: **R9460**	Method: **EPA 415.1**			Analysis Date: **4/30/2007**					SeqNo: **258266**			
Instrument:	ColumnID:												
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Total Organic Carbon	ND	1.0											

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-R9444**	SampType: **MBLK**	TestCode: **ALK310.1**	Units: **mg/L**	Prep Date:			RunNo:	**9444**	
Client ID: **ZZZZZ**	Batch ID: **R9444**	Method: **EPA 310.1**		Analysis Date: **4/30/2007**			SeqNo:	**257868**	
Instrument:	ColumnID:								

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, as CaCO3	ND	10									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
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ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1
Work Order: 0704103
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **MB-R9349**	SampType: **MBLK**	TestCode: **S376.1**	Units: **mg/L**	Prep Date:	RunNo: **9349**
Client ID: **ZZZZZ**	Batch ID: **R9349**	Method: **EPA 376.1**		Analysis Date: **4/24/2007**	SeqNo: **253925**
Instrument:	ColumnID:				

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1

Work Order: 0704103

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-R9581**	SampType: **MBLK**	TestCode: **S376.1**	Units: **mg/L**	Prep Date:		RunNo: **9581**			
Client ID: **ZZZZZ**	Batch ID: **R9581**	Method: **EPA 376.1**		Analysis Date: **5/9/2007**		SeqNo: **261544**			
Instrument:	ColumnID:								

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *10-May-07*

Life Science Laboratories, Inc.
Brittonfield Lab

5000 Brittonfield Parkway, Suite 200
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client: OBRIEN + GERE

Project: MILLER MOULTRIE

Sampled by: EB SESG

Client Contact: SARAH SLAGLE-GARRETT Phone # 919-414-6368

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	Analysis/Method: VOC 8260	MEE	NO_3, Chloride, SO_4	TDC	DOC	TALK	Sulfide	Fe/Mn	Comments
CH2MW-3	4/17/07	1450	W	G	12	3	2	1	1	1	1	2	1	
CH2MW-1	4/17/07	1405	W	G	3	3	–	–	–	–	–	–	–	
CH2PP-1	4/17/07	1355	W	G	3	3	–	–	–	–	–	–	–	
CH2MW-5	4/17/07	1335	W	G	12	3	2	1	1	1	1	2	1	
ETMW-114	4/17/07	1040	W	G	12	3	2	1	1	1	1	2	1	
DUP-01	4/17/07	–	W	G	12	3	2	1	1	1	1	2	1	
ETMW-120	4/16/07	1615	W	G	3	3	–	–	–	–	–	–	–	
ETMW-119	4/16/07	1705	W	G	3	3	–	–	–	–	–	–	–	
TB-041707	4/9/07	–	W	G	2	2	–	–	–	–	–	–	–	

Relinquished by: Sarah Slagle-Garrett	Date: 4/17/07	Time: 500	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by Lab:
Shipment Method:			Airbill Number:

Received by:	Date:	Time:
Received by:	Date:	Time:
Received by Lab:	Date: 4/18/07	Time: 0920
Airbill Number:		

Turnaround Time Required:
Routine_____
Rush (Specify)_____

Comments:

Cooler Temperature: 8°C on ice

Cust Seal present # 736

Original - Laboratory
Copy - Client

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name: **OBG-RALEIGH**

Date and Time Received: **4/18/2007 9:20:00 AM**

Work Order Number **0704103**

Received by: ads

Checklist completed by: _____ Initials  4/18/07 Date

Reviewed by: DNS Initials 4/18/07 Date

Matrix: Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☐	No ☑	
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

pH	Preservative	pH Acceptable	Sample ID	Volume of Preservative added in Lab.
>12	NaOH	Yes ☑ N ☐ NA ☐		
<2	HNO3	Yes ☑ N ☐ NA ☐		
<2	HSO4	Yes ☐ N ☐ NA ☑		
<2	1:1 HCL	Yes ☑ N ☐ NA ☐	TOC only	
5-9	Pest/PCBs (608/8081)	Yes ☐ N ☐ NA ☑		

Comments:

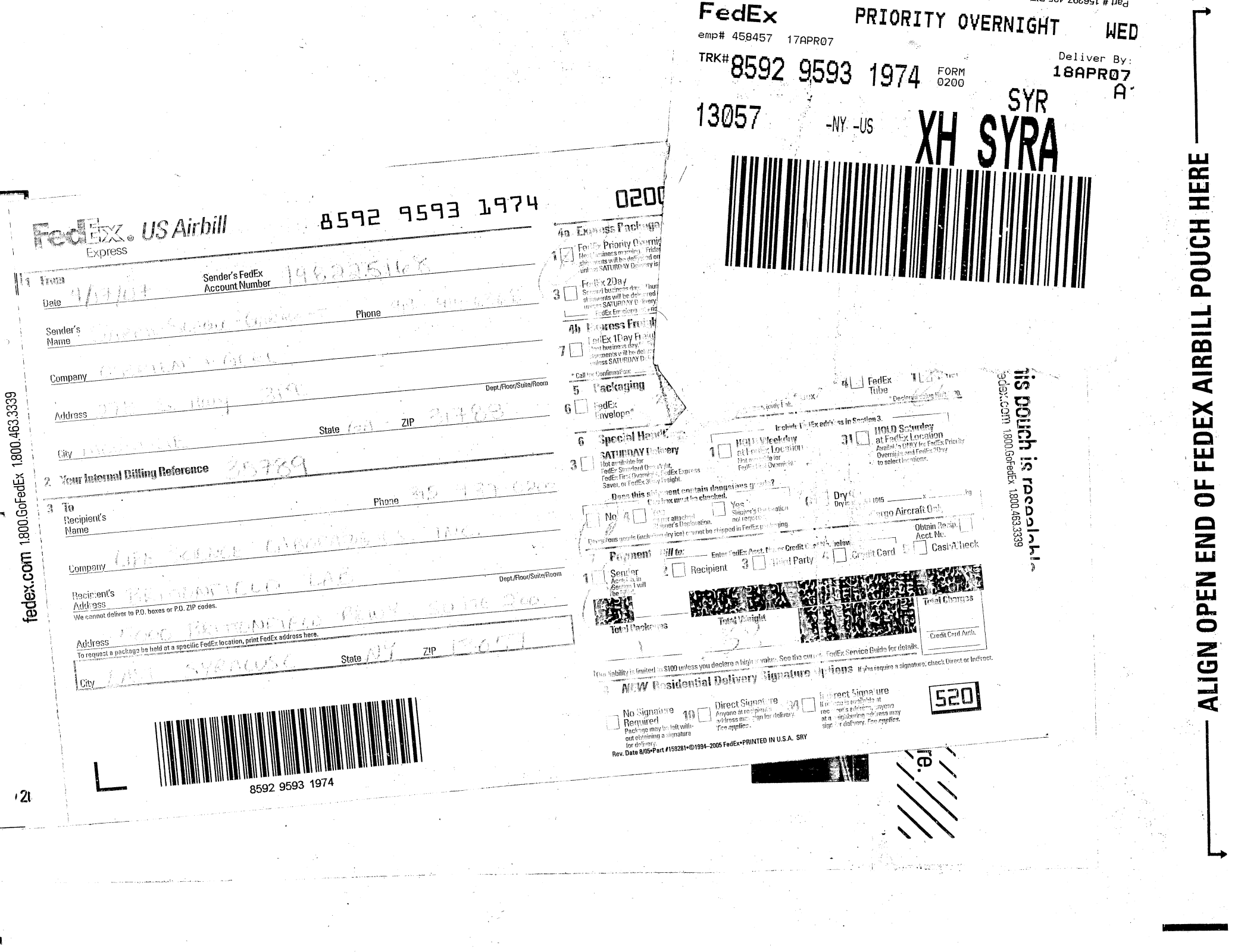
The client, Sarah Slagle-Garrett, was notified of the cooler temperature.

Corrective Action::

Table 1
Target Analyte List and Geochemistry Parameters
Miller Brewing Company Can Plant
Moultrie, Georgia

Target Analytes	Geochemistry Parameters
Acetone	Alkalinity
2-Butanone (MEK)	Chloride
Benzene	Nitrate
Carbon Disulfide	Sulfate
Chloroethane	Sulfide
Chloromethane	Methane
1,2-Dibromo-3-chloropropane (DBCP)	Ethane
Dibromomethane	Ethene
1,1-Dichloroethane (1,1-DCA)	Soluble Organic Carbon (Dissolved)
1,2-Dichloroethane (1-,2-DCA)	Total Organic Carbon
1,1-Dichloroethene (1,1-DCE)	Total Iron
cis-1,2-dichloroethene (cis-1,2-DCE)	Manganese
trans-1,2-dichloroethene (trans-1,2-DCE)	Carbon Dioxide*
1,2-Dichloroethene (total) (1,2-DCE-total)	Conductivity*
Ethylbenzene	Dissolved Oxygen*
Isobutyl Alcohol	Ferrous Iron*
Methylene Chloride	Oxidation/Reduction Potential (ORP)*
4-methyl-2-pentanone (MIBK)	pH*
Naphthalene	Temperature*
1,1,2,2-Tetrachloroethane	
Tetrachloroethene (PCE)	
Toluene	
1,2,3-Trichlorobenzene	
1,2,4-Trichlorobenzene	
1,1,1-Trichloroethane (TCA)	
Trichloroethene (TCE)	
Trichlorofluoromethane	
1,2,3-Trichloropropane	
Vinyl Acetate	
Vinyl Chloride	
Xylenes (total)	

* measured at time of sampling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East Syracuse, NY 13057 (315) 437-0200

Wednesday, May 16, 2007

Sarah Slagle-Garrett
O'Brien & Gere Engineers, Inc.
2610 Wycliff Road
Suite 104
Raleigh, NC 27607

TEL: 919-783-7777

Project: MILLER BREWING COMPANY CAN PLANT
RE: Analytical Results Order No.: 0704126

Dear Sarah Slagle-Garrett:

Life Science Laboratories, Inc. received 16 sample(s) on 4/20/2007 for the analyses presented in the following report.

Very truly yours,
Life Science Laboratories, Inc.

Monika Santucci
Project Manager

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-001A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*OBGMW-123*
W Order:	0704126	**Collection Date:**	04/18/07 9:00
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9440
Revision:	05/08/07 9:53	**TestCode** 8260W CAL	**FileID:** 1-SAMP-M0744.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/01/07 16:20
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/01/07 16:20
1,1-Dichloroethane	ND		0.50	µg/L	1	05/01/07 16:20
1,1-Dichloroethene	ND		0.50	µg/L	1	05/01/07 16:20
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 16:20
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/01/07 16:20
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 16:20
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/01/07 16:20
1,2-Dichloroethane	ND		0.50	µg/L	1	05/01/07 16:20
2-Butanone	ND		10.0	µg/L	1	05/01/07 16:20
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/01/07 16:20
Acetone	ND		10.0	µg/L	1	05/01/07 16:20
Benzene	ND		0.50	µg/L	1	05/01/07 16:20
Carbon disulfide	ND		0.50	µg/L	1	05/01/07 16:20
Chloroethane	ND		1.00	µg/L	1	05/01/07 16:20
Chloromethane	ND		1.00	µg/L	1	05/01/07 16:20
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 16:20
Dibromomethane	ND		0.50	µg/L	1	05/01/07 16:20
Ethylbenzene	ND		0.50	µg/L	1	05/01/07 16:20
Isobutyl alcohol	ND		50.0	µg/L	1	05/01/07 16:20
Methylene chloride	ND		2.00	µg/L	1	05/01/07 16:20
Naphthalene	ND		1.00	µg/L	1	05/01/07 16:20
Tetrachloroethene	ND		0.50	µg/L	1	05/01/07 16:20
Toluene	ND		0.50	µg/L	1	05/01/07 16:20
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 16:20
Trichloroethene	ND		0.50	µg/L	1	05/01/07 16:20
Trichlorofluoromethane	ND		1.00	µg/L	1	05/01/07 16:20
Vinyl acetate	ND		2.00	µg/L	1	05/01/07 16:20
Vinyl chloride	ND		1.00	µg/L	1	05/01/07 16:20
Xylenes (total)	ND		1.00	µg/L	1	05/01/07 16:20
Surr: 1,2-Dichloroethane-d4	113		75-134	%REC	1	05/01/07 16:20
Surr: 4-Bromofluorobenzene	112		75-125	%REC	1	05/01/07 16:20
Surr: Dibromofluoromethane	112		75-127	%REC	1	05/01/07 16:20
Surr: Toluene-d8	104		75-125	%REC	1	05/01/07 16:20

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-002A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-2*
W Order:	0704126	**Collection Date:**	04/18/07 9:30
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9440
Revision:	05/08/07 9:53	**TestCode** 8260W CAL	**FileID:** 1-SAMP-M0745.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/01/07 16:57
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/01/07 16:57
1,1-Dichloroethane	ND		0.50	µg/L	1	05/01/07 16:57
1,1-Dichloroethene	ND		0.50	µg/L	1	05/01/07 16:57
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 16:57
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/01/07 16:57
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 16:57
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/01/07 16:57
1,2-Dichloroethane	ND		0.50	µg/L	1	05/01/07 16:57
2-Butanone	ND		10.0	µg/L	1	05/01/07 16:57
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/01/07 16:57
Acetone	ND		10.0	µg/L	1	05/01/07 16:57
Benzene	ND		0.50	µg/L	1	05/01/07 16:57
Carbon disulfide	ND		0.50	µg/L	1	05/01/07 16:57
Chloroethane	ND		1.00	µg/L	1	05/01/07 16:57
Chloromethane	ND		1.00	µg/L	1	05/01/07 16:57
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 16:57
Dibromomethane	ND		0.50	µg/L	1	05/01/07 16:57
Ethylbenzene	ND		0.50	µg/L	1	05/01/07 16:57
Isobutyl alcohol	ND		50.0	µg/L	1	05/01/07 16:57
Methylene chloride	ND		2.00	µg/L	1	05/01/07 16:57
Naphthalene	ND		1.00	µg/L	1	05/01/07 16:57
Tetrachloroethene	ND		0.50	µg/L	1	05/01/07 16:57
Toluene	ND		0.50	µg/L	1	05/01/07 16:57
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 16:57
Trichloroethene	ND		0.50	µg/L	1	05/01/07 16:57
Trichlorofluoromethane	ND		1.00	µg/L	1	05/01/07 16:57
Vinyl acetate	ND		2.00	µg/L	1	05/01/07 16:57
Vinyl chloride	ND		1.00	µg/L	1	05/01/07 16:57
Xylenes (total)	ND		1.00	µg/L	1	05/01/07 16:57
Surr: 1,2-Dichloroethane-d4	106		75-134	%REC	1	05/01/07 16:57
Surr: 4-Bromofluorobenzene	105		75-125	%REC	1	05/01/07 16:57
Surr: Dibromofluoromethane	112		75-127	%REC	1	05/01/07 16:57
Surr: Toluene-d8	106		75-125	%REC	1	05/01/07 16:57

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-003A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	***DUP-02***
W Order:	0704126	**Collection Date:**	04/18/07 0:00
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9534
Revision:	05/08/07 9:53	**TestCode** 8260W CAL	**FileID:** 1-SAMP-M0753.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/02/07 14:18
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/02/07 14:18
1,1-Dichloroethane	ND		0.50	µg/L	1	05/02/07 14:18
1,1-Dichloroethene	ND		0.50	µg/L	1	05/02/07 14:18
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/02/07 14:18
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/02/07 14:18
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/02/07 14:18
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/02/07 14:18
1,2-Dichloroethane	ND		0.50	µg/L	1	05/02/07 14:18
2-Butanone	ND		10.0	µg/L	1	05/02/07 14:18
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/02/07 14:18
Acetone	ND		10.0	µg/L	1	05/02/07 14:18
Benzene	ND		0.50	µg/L	1	05/02/07 14:18
Carbon disulfide	ND		0.50	µg/L	1	05/02/07 14:18
Chloroethane	ND		1.00	µg/L	1	05/02/07 14:18
Chloromethane	ND		1.00	µg/L	1	05/02/07 14:18
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	05/02/07 14:18
Dibromomethane	ND		0.50	µg/L	1	05/02/07 14:18
Ethylbenzene	ND		0.50	µg/L	1	05/02/07 14:18
Isobutyl alcohol	ND		50.0	µg/L	1	05/02/07 14:18
Methylene chloride	ND		2.00	µg/L	1	05/02/07 14:18
Naphthalene	ND		1.00	µg/L	1	05/02/07 14:18
Tetrachloroethene	ND		0.50	µg/L	1	05/02/07 14:18
Toluene	ND		0.50	µg/L	1	05/02/07 14:18
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/02/07 14:18
Trichloroethene	ND		0.50	µg/L	1	05/02/07 14:18
Trichlorofluoromethane	ND		1.00	µg/L	1	05/02/07 14:18
Vinyl acetate	ND		2.00	µg/L	1	05/02/07 14:18
Vinyl chloride	ND		1.00	µg/L	1	05/02/07 14:18
Xylenes (total)	ND		1.00	µg/L	1	05/02/07 14:18
Surr: 1,2-Dichloroethane-d4	109		75-134	%REC	1	05/02/07 14:18
Surr: 4-Bromofluorobenzene	111		75-125	%REC	1	05/02/07 14:18
Surr: Dibromofluoromethane	113		75-127	%REC	1	05/02/07 14:18
Surr: Toluene-d8	105		75-125	%REC	1	05/02/07 14:18

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-004A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*OBGMW-122*
W Order:	0704126	**Collection Date:**	04/18/07 10:30
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9440
Revision:	05/08/07 9:53	**TestCode** 8260W CAL	**FileID:** 1-SAMP-M0746.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/01/07 17:35
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/01/07 17:35
1,1-Dichloroethane	ND		0.50	µg/L	1	05/01/07 17:35
1,1-Dichloroethene	ND		0.50	µg/L	1	05/01/07 17:35
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 17:35
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/01/07 17:35
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/01/07 17:35
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/01/07 17:35
1,2-Dichloroethane	ND		0.50	µg/L	1	05/01/07 17:35
2-Butanone	ND		10.0	µg/L	1	05/01/07 17:35
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/01/07 17:35
Acetone	ND		10.0	µg/L	1	05/01/07 17:35
Benzene	ND		0.50	µg/L	1	05/01/07 17:35
Carbon disulfide	ND		0.50	µg/L	1	05/01/07 17:35
Chloroethane	ND		1.00	µg/L	1	05/01/07 17:35
Chloromethane	ND		1.00	µg/L	1	05/01/07 17:35
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 17:35
Dibromomethane	ND		0.50	µg/L	1	05/01/07 17:35
Ethylbenzene	ND		0.50	µg/L	1	05/01/07 17:35
Isobutyl alcohol	ND		50.0	µg/L	1	05/01/07 17:35
Methylene chloride	ND		2.00	µg/L	1	05/01/07 17:35
Naphthalene	ND		1.00	µg/L	1	05/01/07 17:35
Tetrachloroethene	ND		0.50	µg/L	1	05/01/07 17:35
Toluene	ND		0.50	µg/L	1	05/01/07 17:35
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/01/07 17:35
Trichloroethene	ND		0.50	µg/L	1	05/01/07 17:35
Trichlorofluoromethane	ND		1.00	µg/L	1	05/01/07 17:35
Vinyl acetate	ND		2.00	µg/L	1	05/01/07 17:35
Vinyl chloride	ND		1.00	µg/L	1	05/01/07 17:35
Xylenes (total)	ND		1.00	µg/L	1	05/01/07 17:35
Surr: 1,2-Dichloroethane-d4	108		75-134	%REC	1	05/01/07 17:35
Surr: 4-Bromofluorobenzene	110		75-125	%REC	1	05/01/07 17:35
Surr: Dibromofluoromethane	113		75-127	%REC	1	05/01/07 17:35
Surr: Toluene-d8	105		75-125	%REC	1	05/01/07 17:35

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-005A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	***CH2MW-4D***
W Order:	0704126	**Collection Date:**	04/18/07 11:40
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9534
Revision:	05/08/07 9:53	**TestCode** 8260W CAL	**FileID:** 1-SAMP-M0754.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/02/07 14:56
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/02/07 14:56
1,1-Dichloroethane	ND		0.50	µg/L	1	05/02/07 14:56
1,1-Dichloroethene	ND		0.50	µg/L	1	05/02/07 14:56
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/02/07 14:56
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/02/07 14:56
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/02/07 14:56
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/02/07 14:56
1,2-Dichloroethane	ND		0.50	µg/L	1	05/02/07 14:56
2-Butanone	ND		10.0	µg/L	1	05/02/07 14:56
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/02/07 14:56
Acetone	ND		10.0	µg/L	1	05/02/07 14:56
Benzene	ND		0.50	µg/L	1	05/02/07 14:56
Carbon disulfide	ND		0.50	µg/L	1	05/02/07 14:56
Chloroethane	ND		1.00	µg/L	1	05/02/07 14:56
Chloromethane	ND		1.00	µg/L	1	05/02/07 14:56
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	05/02/07 14:56
Dibromomethane	ND		0.50	µg/L	1	05/02/07 14:56
Ethylbenzene	ND		0.50	µg/L	1	05/02/07 14:56
Isobutyl alcohol	ND		50.0	µg/L	1	05/02/07 14:56
Methylene chloride	ND		2.00	µg/L	1	05/02/07 14:56
Naphthalene	ND		1.00	µg/L	1	05/02/07 14:56
Tetrachloroethene	ND		0.50	µg/L	1	05/02/07 14:56
Toluene	ND		0.50	µg/L	1	05/02/07 14:56
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/02/07 14:56
Trichloroethene	ND		0.50	µg/L	1	05/02/07 14:56
Trichlorofluoromethane	ND		1.00	µg/L	1	05/02/07 14:56
Vinyl acetate	ND		2.00	µg/L	1	05/02/07 14:56
Vinyl chloride	ND		1.00	µg/L	1	05/02/07 14:56
Xylenes (total)	ND		1.00	µg/L	1	05/02/07 14:56
Surr: 1,2-Dichloroethane-d4	110		75-134	%REC	1	05/02/07 14:56
Surr: 4-Bromofluorobenzene	112		75-125	%REC	1	05/02/07 14:56
Surr: Dibromofluoromethane	115		75-127	%REC	1	05/02/07 14:56
Surr: Toluene-d8	105		75-125	%REC	1	05/02/07 14:56

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-006A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-115*
W Order:	0704126	**Collection Date:**	04/18/07 13:10
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9534
Revision:	05/08/07 9:53	**TestCode** 8260W CAL	**FileID:** 1-SAMP-M0755.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		1.25	µg/L	2.5	05/02/07 15:34
1,1,2,2-Tetrachloroethane	ND		1.25	µg/L	2.5	05/02/07 15:34
1,1-Dichloroethane	8.48		1.25	µg/L	2.5	05/02/07 15:34
1,1-Dichloroethene	ND		1.25	µg/L	2.5	05/02/07 15:34
1,2,3-Trichlorobenzene	ND		2.50	µg/L	2.5	05/02/07 15:34
1,2,3-Trichloropropane	ND		1.25	µg/L	2.5	05/02/07 15:34
1,2,4-Trichlorobenzene	ND		2.50	µg/L	2.5	05/02/07 15:34
1,2-Dibromo-3-chloropropane	ND		2.50	µg/L	2.5	05/02/07 15:34
1,2-Dichloroethane	ND		1.25	µg/L	2.5	05/02/07 15:34
2-Butanone	ND		25.0	µg/L	2.5	05/02/07 15:34
4-Methyl-2-pentanone	ND		12.5	µg/L	2.5	05/02/07 15:34
Acetone	ND		25.0	µg/L	2.5	05/02/07 15:34
Benzene	ND		1.25	µg/L	2.5	05/02/07 15:34
Carbon disulfide	ND		1.25	µg/L	2.5	05/02/07 15:34
Chloroethane	ND		2.50	µg/L	2.5	05/02/07 15:34
Chloromethane	ND		2.50	µg/L	2.5	05/02/07 15:34
cis-1,2-Dichloroethene	103	E	1.25	µg/L	2.5	05/02/07 15:34
Dibromomethane	ND		1.25	µg/L	2.5	05/02/07 15:34
Ethylbenzene	ND		1.25	µg/L	2.5	05/02/07 15:34
Isobutyl alcohol	ND		125	µg/L	2.5	05/02/07 15:34
Methylene chloride	ND		5.00	µg/L	2.5	05/02/07 15:34
Naphthalene	ND		2.50	µg/L	2.5	05/02/07 15:34
Tetrachloroethene	ND		1.25	µg/L	2.5	05/02/07 15:34
Toluene	ND		1.25	µg/L	2.5	05/02/07 15:34
trans-1,2-Dichloroethene	ND		1.25	µg/L	2.5	05/02/07 15:34
Trichloroethene	21.4		1.25	µg/L	2.5	05/02/07 15:34
Trichlorofluoromethane	ND		2.50	µg/L	2.5	05/02/07 15:34
Vinyl acetate	ND		5.00	µg/L	2.5	05/02/07 15:34
Vinyl chloride	9.15		2.50	µg/L	2.5	05/02/07 15:34
Xylenes (total)	ND		2.50	µg/L	2.5	05/02/07 15:34
Surr: 1,2-Dichloroethane-d4	107		75-134	%REC	2.5	05/02/07 15:34
Surr: 4-Bromofluorobenzene	97.7		75-125	%REC	2.5	05/02/07 15:34
Surr: Dibromofluoromethane	111		75-127	%REC	2.5	05/02/07 15:34
Surr: Toluene-d8	106		75-125	%REC	2.5	05/02/07 15:34

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-006ADL**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-115*
W Order:	0704126	**Collection Date:**	04/18/07 13:10
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9534
Revision:	05/08/07 9:54	**TestCode** 8260W CAL	**FileID:** 1-DL-M0759.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		2.50	µg/L	5	05/02/07 18:06
1,1,2,2-Tetrachloroethane	ND		2.50	µg/L	5	05/02/07 18:06
1,1-Dichloroethane	9.05		2.50	µg/L	5	05/02/07 18:06
1,1-Dichloroethene	ND		2.50	µg/L	5	05/02/07 18:06
1,2,3-Trichlorobenzene	ND		5.00	µg/L	5	05/02/07 18:06
1,2,3-Trichloropropane	ND		2.50	µg/L	5	05/02/07 18:06
1,2,4-Trichlorobenzene	ND		5.00	µg/L	5	05/02/07 18:06
1,2-Dibromo-3-chloropropane	ND		5.00	µg/L	5	05/02/07 18:06
1,2-Dichloroethane	ND		2.50	µg/L	5	05/02/07 18:06
2-Butanone	ND		50.0	µg/L	5	05/02/07 18:06
4-Methyl-2-pentanone	ND		25.0	µg/L	5	05/02/07 18:06
Acetone	ND		50.0	µg/L	5	05/02/07 18:06
Benzene	ND		2.50	µg/L	5	05/02/07 18:06
Carbon disulfide	ND		2.50	µg/L	5	05/02/07 18:06
Chloroethane	ND		5.00	µg/L	5	05/02/07 18:06
Chloromethane	ND		5.00	µg/L	5	05/02/07 18:06
cis-1,2-Dichloroethene	120		2.50	µg/L	5	05/02/07 18:06
Dibromomethane	ND		2.50	µg/L	5	05/02/07 18:06
Ethylbenzene	ND		2.50	µg/L	5	05/02/07 18:06
Isobutyl alcohol	ND		250	µg/L	5	05/02/07 18:06
Methylene chloride	ND		10.0	µg/L	5	05/02/07 18:06
Naphthalene	ND		5.00	µg/L	5	05/02/07 18:06
Tetrachloroethene	ND		2.50	µg/L	5	05/02/07 18:06
Toluene	ND		2.50	µg/L	5	05/02/07 18:06
trans-1,2-Dichloroethene	ND		2.50	µg/L	5	05/02/07 18:06
Trichloroethene	22.7		2.50	µg/L	5	05/02/07 18:06
Trichlorofluoromethane	ND		5.00	µg/L	5	05/02/07 18:06
Vinyl acetate	ND		10.0	µg/L	5	05/02/07 18:06
Vinyl chloride	11.1		5.00	µg/L	5	05/02/07 18:06
Xylenes (total)	ND		5.00	µg/L	5	05/02/07 18:06
Surr: 1,2-Dichloroethane-d4	118		75-134	%REC	5	05/02/07 18:06
Surr: 4-Bromofluorobenzene	111		75-125	%REC	5	05/02/07 18:06
Surr: Dibromofluoromethane	122		75-127	%REC	5	05/02/07 18:06
Surr: Toluene-d8	114		75-125	%REC	5	05/02/07 18:06

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-007A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-116*
W Order:	0704126	**Collection Date:**	04/18/07 14:16
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9534
Revision:	05/08/07 9:53	**TestCode** 8260W CAL	**FileID:** 1-SAMP-M0756.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		5.00	µg/L	10	05/02/07 16:12
1,1,2,2-Tetrachloroethane	ND		5.00	µg/L	10	05/02/07 16:12
1,1-Dichloroethane	9.10		5.00	µg/L	10	05/02/07 16:12
1,1-Dichloroethene	ND		5.00	µg/L	10	05/02/07 16:12
1,2,3-Trichlorobenzene	ND		10.0	µg/L	10	05/02/07 16:12
1,2,3-Trichloropropane	ND		5.00	µg/L	10	05/02/07 16:12
1,2,4-Trichlorobenzene	ND		10.0	µg/L	10	05/02/07 16:12
1,2-Dibromo-3-chloropropane	ND		10.0	µg/L	10	05/02/07 16:12
1,2-Dichloroethane	ND		5.00	µg/L	10	05/02/07 16:12
2-Butanone	ND		100	µg/L	10	05/02/07 16:12
4-Methyl-2-pentanone	ND		50.0	µg/L	10	05/02/07 16:12
Acetone	398		100	µg/L	10	05/02/07 16:12
Benzene	ND		5.00	µg/L	10	05/02/07 16:12
Carbon disulfide	ND		5.00	µg/L	10	05/02/07 16:12
Chloroethane	ND		10.0	µg/L	10	05/02/07 16:12
Chloromethane	ND		10.0	µg/L	10	05/02/07 16:12
cis-1,2-Dichloroethene	83.1		5.00	µg/L	10	05/02/07 16:12
Dibromomethane	ND		5.00	µg/L	10	05/02/07 16:12
Ethylbenzene	ND		5.00	µg/L	10	05/02/07 16:12
Isobutyl alcohol	ND		500	µg/L	10	05/02/07 16:12
Methylene chloride	ND		20.0	µg/L	10	05/02/07 16:12
Naphthalene	ND		10.0	µg/L	10	05/02/07 16:12
Tetrachloroethene	ND		5.00	µg/L	10	05/02/07 16:12
Toluene	ND		5.00	µg/L	10	05/02/07 16:12
trans-1,2-Dichloroethene	ND		5.00	µg/L	10	05/02/07 16:12
Trichloroethene	29.1		5.00	µg/L	10	05/02/07 16:12
Trichlorofluoromethane	ND		10.0	µg/L	10	05/02/07 16:12
Vinyl acetate	ND		20.0	µg/L	10	05/02/07 16:12
Vinyl chloride	58.1		10.0	µg/L	10	05/02/07 16:12
Xylenes (total)	ND		10.0	µg/L	10	05/02/07 16:12
Surr: 1,2-Dichloroethane-d4	107		75-134	%REC	10	05/02/07 16:12
Surr: 4-Bromofluorobenzene	109		75-125	%REC	10	05/02/07 16:12
Surr: Dibromofluoromethane	113		75-127	%REC	10	05/02/07 16:12
Surr: Toluene-d8	104		75-125	%REC	10	05/02/07 16:12

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-008A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-117*
W Order:	0704126	**Collection Date:**	04/18/07 13:40
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9534
Revision:	05/08/07 9:53	**TestCode** 8260W CAL	**FileID:** 1-SAMP-M0757.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		2.50	µg/L	5	05/02/07 16:50
1,1,2,2-Tetrachloroethane	ND		2.50	µg/L	5	05/02/07 16:50
1,1-Dichloroethane	9.35		2.50	µg/L	5	05/02/07 16:50
1,1-Dichloroethene	3.05		2.50	µg/L	5	05/02/07 16:50
1,2,3-Trichlorobenzene	ND		5.00	µg/L	5	05/02/07 16:50
1,2,3-Trichloropropane	ND		2.50	µg/L	5	05/02/07 16:50
1,2,4-Trichlorobenzene	ND		5.00	µg/L	5	05/02/07 16:50
1,2-Dibromo-3-chloropropane	ND		5.00	µg/L	5	05/02/07 16:50
1,2-Dichloroethane	ND		2.50	µg/L	5	05/02/07 16:50
2-Butanone	213		50.0	µg/L	5	05/02/07 16:50
4-Methyl-2-pentanone	ND		25.0	µg/L	5	05/02/07 16:50
Acetone	2000	E	50.0	µg/L	5	05/02/07 16:50
Benzene	ND		2.50	µg/L	5	05/02/07 16:50
Carbon disulfide	ND		2.50	µg/L	5	05/02/07 16:50
Chloroethane	ND		5.00	µg/L	5	05/02/07 16:50
Chloromethane	ND		5.00	µg/L	5	05/02/07 16:50
cis-1,2-Dichloroethene	31.5		2.50	µg/L	5	05/02/07 16:50
Dibromomethane	ND		2.50	µg/L	5	05/02/07 16:50
Ethylbenzene	ND		2.50	µg/L	5	05/02/07 16:50
Isobutyl alcohol	2930		250	µg/L	5	05/02/07 16:50
Methylene chloride	ND		10.0	µg/L	5	05/02/07 16:50
Naphthalene	ND		5.00	µg/L	5	05/02/07 16:50
Tetrachloroethene	4.35		2.50	µg/L	5	05/02/07 16:50
Toluene	ND		2.50	µg/L	5	05/02/07 16:50
trans-1,2-Dichloroethene	ND		2.50	µg/L	5	05/02/07 16:50
Trichloroethene	74.4		2.50	µg/L	5	05/02/07 16:50
Trichlorofluoromethane	ND		5.00	µg/L	5	05/02/07 16:50
Vinyl acetate	ND		10.0	µg/L	5	05/02/07 16:50
Vinyl chloride	ND		5.00	µg/L	5	05/02/07 16:50
Xylenes (total)	ND		5.00	µg/L	5	05/02/07 16:50
Surr: 1,2-Dichloroethane-d4	109		75-134	%REC	5	05/02/07 16:50
Surr: 4-Bromofluorobenzene	110		75-125	%REC	5	05/02/07 16:50
Surr: Dibromofluoromethane	113		75-127	%REC	5	05/02/07 16:50
Surr: Toluene-d8	106		75-125	%REC	5	05/02/07 16:50

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-008ADL**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-117*
W Order:	0704126	**Collection Date:**	04/18/07 13:40
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9534
Revision:	05/08/07 9:54	**TestCode** 8260W CAL	**FileID:** 1-DL-M0760.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		25.0	µg/L	50	05/02/07 18:44
1,1,2,2-Tetrachloroethane	ND		25.0	µg/L	50	05/02/07 18:44
1,1-Dichloroethane	ND		25.0	µg/L	50	05/02/07 18:44
1,1-Dichloroethene	ND		25.0	µg/L	50	05/02/07 18:44
1,2,3-Trichlorobenzene	ND		50.0	µg/L	50	05/02/07 18:44
1,2,3-Trichloropropane	ND		25.0	µg/L	50	05/02/07 18:44
1,2,4-Trichlorobenzene	ND		50.0	µg/L	50	05/02/07 18:44
1,2-Dibromo-3-chloropropane	ND		50.0	µg/L	50	05/02/07 18:44
1,2-Dichloroethane	ND		25.0	µg/L	50	05/02/07 18:44
2-Butanone	ND		500	µg/L	50	05/02/07 18:44
4-Methyl-2-pentanone	ND		250	µg/L	50	05/02/07 18:44
Acetone	2090		500	µg/L	50	05/02/07 18:44
Benzene	ND		25.0	µg/L	50	05/02/07 18:44
Carbon disulfide	ND		25.0	µg/L	50	05/02/07 18:44
Chloroethane	ND		50.0	µg/L	50	05/02/07 18:44
Chloromethane	ND		50.0	µg/L	50	05/02/07 18:44
cis-1,2-Dichloroethene	33.0		25.0	µg/L	50	05/02/07 18:44
Dibromomethane	ND		25.0	µg/L	50	05/02/07 18:44
Ethylbenzene	ND		25.0	µg/L	50	05/02/07 18:44
Isobutyl alcohol	3170		2500	µg/L	50	05/02/07 18:44
Methylene chloride	ND		100	µg/L	50	05/02/07 18:44
Naphthalene	ND		50.0	µg/L	50	05/02/07 18:44
Tetrachloroethene	ND		25.0	µg/L	50	05/02/07 18:44
Toluene	ND		25.0	µg/L	50	05/02/07 18:44
trans-1,2-Dichloroethene	ND		25.0	µg/L	50	05/02/07 18:44
Trichloroethene	75.0		25.0	µg/L	50	05/02/07 18:44
Trichlorofluoromethane	ND		50.0	µg/L	50	05/02/07 18:44
Vinyl acetate	ND		100	µg/L	50	05/02/07 18:44
Vinyl chloride	ND		50.0	µg/L	50	05/02/07 18:44
Xylenes (total)	ND		50.0	µg/L	50	05/02/07 18:44
Surr: 1,2-Dichloroethane-d4	110		75-134	%REC	50	05/02/07 18:44
Surr: 4-Bromofluorobenzene	108		75-125	%REC	50	05/02/07 18:44
Surr: Dibromofluoromethane	116		75-127	%REC	50	05/02/07 18:44
Surr: Toluene-d8	104		75-125	%REC	50	05/02/07 18:44

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER
Inst. ID: MS02 12 **Sample Size:** 25 mL
ColumnID: Rtx-502.2 **%Moisture:**
Revision: 05/08/07 9:53 **TestCode** 8260W CAL
Col Type:

Lab ID: **0704126-009A**
Client Sample ID: *ETMW-118*
Collection Date: 04/18/07 14:45
Date Received: 04/20/07 9:05
PrepDate:
BatchNo: R9534
FileID: 1-SAMP-M0758.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		2.50	µg/L	5	05/02/07 17:28
1,1,2,2-Tetrachloroethane	ND		2.50	µg/L	5	05/02/07 17:28
1,1-Dichloroethane	13.9		2.50	µg/L	5	05/02/07 17:28
1,1-Dichloroethene	5.75		2.50	µg/L	5	05/02/07 17:28
1,2,3-Trichlorobenzene	ND		5.00	µg/L	5	05/02/07 17:28
1,2,3-Trichloropropane	ND		2.50	µg/L	5	05/02/07 17:28
1,2,4-Trichlorobenzene	ND		5.00	µg/L	5	05/02/07 17:28
1,2-Dibromo-3-chloropropane	ND		5.00	µg/L	5	05/02/07 17:28
1,2-Dichloroethane	ND		2.50	µg/L	5	05/02/07 17:28
2-Butanone	ND		50.0	µg/L	5	05/02/07 17:28
4-Methyl-2-pentanone	ND		25.0	µg/L	5	05/02/07 17:28
Acetone	192		50.0	µg/L	5	05/02/07 17:28
Benzene	ND		2.50	µg/L	5	05/02/07 17:28
Carbon disulfide	3.70		2.50	µg/L	5	05/02/07 17:28
Chloroethane	ND		5.00	µg/L	5	05/02/07 17:28
Chloromethane	ND		5.00	µg/L	5	05/02/07 17:28
cis-1,2-Dichloroethene	117		2.50	µg/L	5	05/02/07 17:28
Dibromomethane	ND		2.50	µg/L	5	05/02/07 17:28
Ethylbenzene	ND		2.50	µg/L	5	05/02/07 17:28
Isobutyl alcohol	10200	E	250	µg/L	5	05/02/07 17:28
Methylene chloride	ND		10.0	µg/L	5	05/02/07 17:28
Naphthalene	ND		5.00	µg/L	5	05/02/07 17:28
Tetrachloroethene	4.60		2.50	µg/L	5	05/02/07 17:28
Toluene	ND		2.50	µg/L	5	05/02/07 17:28
trans-1,2-Dichloroethene	ND		2.50	µg/L	5	05/02/07 17:28
Trichloroethene	48.9		2.50	µg/L	5	05/02/07 17:28
Trichlorofluoromethane	ND		5.00	µg/L	5	05/02/07 17:28
Vinyl acetate	ND		10.0	µg/L	5	05/02/07 17:28
Vinyl chloride	ND		5.00	µg/L	5	05/02/07 17:28
Xylenes (total)	ND		5.00	µg/L	5	05/02/07 17:28
Surr: 1,2-Dichloroethane-d4	101		75-134	%REC	5	05/02/07 17:28
Surr: 4-Bromofluorobenzene	124		75-125	%REC	5	05/02/07 17:28
Surr: Dibromofluoromethane	110		75-127	%REC	5	05/02/07 17:28
Surr: Toluene-d8	108		75-125	%REC	5	05/02/07 17:28

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-009ADL**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-118*
W Order:	0704126	**Collection Date:**	04/18/07 14:45
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9534
Revision:	05/08/07 9:54	**TestCode** 8260W CAL	**FileID:** 1-DL-M0761.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		10.0	µg/L	20	05/02/07 19:22
1,1,2,2-Tetrachloroethane	ND		10.0	µg/L	20	05/02/07 19:22
1,1-Dichloroethane	12.4		10.0	µg/L	20	05/02/07 19:22
1,1-Dichloroethene	ND		10.0	µg/L	20	05/02/07 19:22
1,2,3-Trichlorobenzene	ND		20.0	µg/L	20	05/02/07 19:22
1,2,3-Trichloropropane	ND		10.0	µg/L	20	05/02/07 19:22
1,2,4-Trichlorobenzene	ND		20.0	µg/L	20	05/02/07 19:22
1,2-Dibromo-3-chloropropane	ND		20.0	µg/L	20	05/02/07 19:22
1,2-Dichloroethane	ND		10.0	µg/L	20	05/02/07 19:22
2-Butanone	512		200	µg/L	20	05/02/07 19:22
4-Methyl-2-pentanone	ND		100	µg/L	20	05/02/07 19:22
Acetone	ND		200	µg/L	20	05/02/07 19:22
Benzene	ND		10.0	µg/L	20	05/02/07 19:22
Carbon disulfide	ND		10.0	µg/L	20	05/02/07 19:22
Chloroethane	ND		20.0	µg/L	20	05/02/07 19:22
Chloromethane	ND		20.0	µg/L	20	05/02/07 19:22
cis-1,2-Dichloroethene	120		10.0	µg/L	20	05/02/07 19:22
Dibromomethane	ND		10.0	µg/L	20	05/02/07 19:22
Ethylbenzene	ND		10.0	µg/L	20	05/02/07 19:22
Isobutyl alcohol	18300	E	1000	µg/L	20	05/02/07 19:22
Methylene chloride	ND		40.0	µg/L	20	05/02/07 19:22
Naphthalene	ND		20.0	µg/L	20	05/02/07 19:22
Tetrachloroethene	ND		10.0	µg/L	20	05/02/07 19:22
Toluene	ND		10.0	µg/L	20	05/02/07 19:22
trans-1,2-Dichloroethene	ND		10.0	µg/L	20	05/02/07 19:22
Trichloroethene	45.4		10.0	µg/L	20	05/02/07 19:22
Trichlorofluoromethane	ND		20.0	µg/L	20	05/02/07 19:22
Vinyl acetate	ND		40.0	µg/L	20	05/02/07 19:22
Vinyl chloride	ND		20.0	µg/L	20	05/02/07 19:22
Xylenes (total)	ND		20.0	µg/L	20	05/02/07 19:22
Surr: 1,2-Dichloroethane-d4	103		75-134	%REC	20	05/02/07 19:22
Surr: 4-Bromofluorobenzene	112		75-125	%REC	20	05/02/07 19:22
Surr: Dibromofluoromethane	112		75-127	%REC	20	05/02/07 19:22
Surr: Toluene-d8	109		75-125	%REC	20	05/02/07 19:22

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-009ADL**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-118*
W Order:	0704126	**Collection Date:**	04/18/07 14:45
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9535
Revision:	05/08/07 9:54	**TestCode** 8260W CAL	**FileID:** 1-DL-M0787.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND	H	25.0	µg/L	50	05/03/07 18:37
1,1,2,2-Tetrachloroethane	ND	H	25.0	µg/L	50	05/03/07 18:37
1,1-Dichloroethane	ND	H	25.0	µg/L	50	05/03/07 18:37
1,1-Dichloroethene	ND	H	25.0	µg/L	50	05/03/07 18:37
1,2,3-Trichlorobenzene	ND	H	50.0	µg/L	50	05/03/07 18:37
1,2,3-Trichloropropane	ND	H	25.0	µg/L	50	05/03/07 18:37
1,2,4-Trichlorobenzene	ND	H	50.0	µg/L	50	05/03/07 18:37
1,2-Dibromo-3-chloropropane	ND	H	50.0	µg/L	50	05/03/07 18:37
1,2-Dichloroethane	ND	H	25.0	µg/L	50	05/03/07 18:37
2-Butanone	ND	H	500	µg/L	50	05/03/07 18:37
4-Methyl-2-pentanone	ND	H	250	µg/L	50	05/03/07 18:37
Acetone	ND	H	500	µg/L	50	05/03/07 18:37
Benzene	ND	H	25.0	µg/L	50	05/03/07 18:37
Carbon disulfide	ND	H	25.0	µg/L	50	05/03/07 18:37
Chloroethane	ND	H	50.0	µg/L	50	05/03/07 18:37
Chloromethane	ND	H	50.0	µg/L	50	05/03/07 18:37
cis-1,2-Dichloroethene	116	H	25.0	µg/L	50	05/03/07 18:37
Dibromomethane	ND	H	25.0	µg/L	50	05/03/07 18:37
Ethylbenzene	ND	H	25.0	µg/L	50	05/03/07 18:37
Isobutyl alcohol	25600	H	2500	µg/L	50	05/03/07 18:37
Methylene chloride	ND	H	100	µg/L	50	05/03/07 18:37
Naphthalene	ND	H	50.0	µg/L	50	05/03/07 18:37
Tetrachloroethene	ND	H	25.0	µg/L	50	05/03/07 18:37
Toluene	ND	H	25.0	µg/L	50	05/03/07 18:37
trans-1,2-Dichloroethene	ND	H	25.0	µg/L	50	05/03/07 18:37
Trichloroethene	44.0	H	25.0	µg/L	50	05/03/07 18:37
Trichlorofluoromethane	ND	H	50.0	µg/L	50	05/03/07 18:37
Vinyl acetate	ND	H	100	µg/L	50	05/03/07 18:37
Vinyl chloride	ND	H	50.0	µg/L	50	05/03/07 18:37
Xylenes (total)	ND	H	50.0	µg/L	50	05/03/07 18:37
Surr: 1,2-Dichloroethane-d4	105	H	75-134	%REC	50	05/03/07 18:37
Surr: 4-Bromofluorobenzene	122	H	75-125	%REC	50	05/03/07 18:37
Surr: Dibromofluoromethane	116	H	75-127	%REC	50	05/03/07 18:37
Surr: Toluene-d8	110	H	75-125	%REC	50	05/03/07 18:37

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-010A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-113*
W Order:	0704126	**Collection Date:**	04/18/07 15:10
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9534
Revision:	05/08/07 9:54	**TestCode** 8260W CAL	**FileID:** 1-SAMP-M0762.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		5.00	µg/L	10	05/02/07 20:00
1,1,2,2-Tetrachloroethane	ND		5.00	µg/L	10	05/02/07 20:00
1,1-Dichloroethane	17.3		5.00	µg/L	10	05/02/07 20:00
1,1-Dichloroethene	8.30		5.00	µg/L	10	05/02/07 20:00
1,2,3-Trichlorobenzene	ND		10.0	µg/L	10	05/02/07 20:00
1,2,3-Trichloropropane	ND		5.00	µg/L	10	05/02/07 20:00
1,2,4-Trichlorobenzene	ND		10.0	µg/L	10	05/02/07 20:00
1,2-Dibromo-3-chloropropane	ND		10.0	µg/L	10	05/02/07 20:00
1,2-Dichloroethane	ND		5.00	µg/L	10	05/02/07 20:00
2-Butanone	191		100	µg/L	10	05/02/07 20:00
4-Methyl-2-pentanone	ND		50.0	µg/L	10	05/02/07 20:00
Acetone	235		100	µg/L	10	05/02/07 20:00
Benzene	ND		5.00	µg/L	10	05/02/07 20:00
Carbon disulfide	8.10		5.00	µg/L	10	05/02/07 20:00
Chloroethane	ND		10.0	µg/L	10	05/02/07 20:00
Chloromethane	ND		10.0	µg/L	10	05/02/07 20:00
cis-1,2-Dichloroethene	178		5.00	µg/L	10	05/02/07 20:00
Dibromomethane	ND		5.00	µg/L	10	05/02/07 20:00
Ethylbenzene	ND		5.00	µg/L	10	05/02/07 20:00
Isobutyl alcohol	1450		500	µg/L	10	05/02/07 20:00
Methylene chloride	ND		20.0	µg/L	10	05/02/07 20:00
Naphthalene	ND		10.0	µg/L	10	05/02/07 20:00
Tetrachloroethene	6.40		5.00	µg/L	10	05/02/07 20:00
Toluene	ND		5.00	µg/L	10	05/02/07 20:00
trans-1,2-Dichloroethene	ND		5.00	µg/L	10	05/02/07 20:00
Trichloroethene	40.6		5.00	µg/L	10	05/02/07 20:00
Trichlorofluoromethane	ND		10.0	µg/L	10	05/02/07 20:00
Vinyl acetate	ND		20.0	µg/L	10	05/02/07 20:00
Vinyl chloride	ND		10.0	µg/L	10	05/02/07 20:00
Xylenes (total)	ND		10.0	µg/L	10	05/02/07 20:00
Surr: 1,2-Dichloroethane-d4	107		75-134	%REC	10	05/02/07 20:00
Surr: 4-Bromofluorobenzene	108		75-125	%REC	10	05/02/07 20:00
Surr: Dibromofluoromethane	120		75-127	%REC	10	05/02/07 20:00
Surr: Toluene-d8	108		75-125	%REC	10	05/02/07 20:00

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-011A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	***OBGMW-124***
W Order:	0704126	**Collection Date:**	04/19/07 8:00
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	MS02 12 **Sample Size:** 25 mL	**PrepDate:**	
ColumnID:	Rtx-502.2 **%Moisture:**	**BatchNo:**	R9534
Revision:	05/08/07 9:54 **TestCode** 8260W CAL	**FileID:**	1-SAMP-M0763.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/02/07 20:38
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/02/07 20:38
1,1-Dichloroethane	ND		0.50	µg/L	1	05/02/07 20:38
1,1-Dichloroethene	ND		0.50	µg/L	1	05/02/07 20:38
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/02/07 20:38
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/02/07 20:38
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/02/07 20:38
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/02/07 20:38
1,2-Dichloroethane	ND		0.50	µg/L	1	05/02/07 20:38
2-Butanone	ND		10.0	µg/L	1	05/02/07 20:38
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/02/07 20:38
Acetone	ND		10.0	µg/L	1	05/02/07 20:38
Benzene	ND		0.50	µg/L	1	05/02/07 20:38
Carbon disulfide	ND		0.50	µg/L	1	05/02/07 20:38
Chloroethane	ND		1.00	µg/L	1	05/02/07 20:38
Chloromethane	ND		1.00	µg/L	1	05/02/07 20:38
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	05/02/07 20:38
Dibromomethane	ND		0.50	µg/L	1	05/02/07 20:38
Ethylbenzene	ND		0.50	µg/L	1	05/02/07 20:38
Isobutyl alcohol	ND		50.0	µg/L	1	05/02/07 20:38
Methylene chloride	ND		2.00	µg/L	1	05/02/07 20:38
Naphthalene	ND		1.00	µg/L	1	05/02/07 20:38
Tetrachloroethene	ND		0.50	µg/L	1	05/02/07 20:38
Toluene	ND		0.50	µg/L	1	05/02/07 20:38
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/02/07 20:38
Trichloroethene	ND		0.50	µg/L	1	05/02/07 20:38
Trichlorofluoromethane	ND		1.00	µg/L	1	05/02/07 20:38
Vinyl acetate	ND		2.00	µg/L	1	05/02/07 20:38
Vinyl chloride	ND		1.00	µg/L	1	05/02/07 20:38
Xylenes (total)	ND		1.00	µg/L	1	05/02/07 20:38
Surr: 1,2-Dichloroethane-d4	113		75-134	%REC	1	05/02/07 20:38
Surr: 4-Bromofluorobenzene	110		75-125	%REC	1	05/02/07 20:38
Surr: Dibromofluoromethane	117		75-127	%REC	1	05/02/07 20:38
Surr: Toluene-d8	104		75-125	%REC	1	05/02/07 20:38

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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5000 Brittonfield Parkway, Suite 200
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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-012A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-1A*
W Order:	0704126	**Collection Date:**	04/19/07 8:45
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9534
Revision:	05/08/07 9:54	**TestCode** 8260W CAL	**FileID:** 1-SAMP-M0764.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/02/07 21:16
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/02/07 21:16
1,1-Dichloroethane	ND		0.50	µg/L	1	05/02/07 21:16
1,1-Dichloroethene	ND		0.50	µg/L	1	05/02/07 21:16
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/02/07 21:16
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/02/07 21:16
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/02/07 21:16
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/02/07 21:16
1,2-Dichloroethane	ND		0.50	µg/L	1	05/02/07 21:16
2-Butanone	ND		10.0	µg/L	1	05/02/07 21:16
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/02/07 21:16
Acetone	ND		10.0	µg/L	1	05/02/07 21:16
Benzene	ND		0.50	µg/L	1	05/02/07 21:16
Carbon disulfide	ND		0.50	µg/L	1	05/02/07 21:16
Chloroethane	ND		1.00	µg/L	1	05/02/07 21:16
Chloromethane	ND		1.00	µg/L	1	05/02/07 21:16
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	05/02/07 21:16
Dibromomethane	ND		0.50	µg/L	1	05/02/07 21:16
Ethylbenzene	ND		0.50	µg/L	1	05/02/07 21:16
Isobutyl alcohol	ND		50.0	µg/L	1	05/02/07 21:16
Methylene chloride	ND		2.00	µg/L	1	05/02/07 21:16
Naphthalene	ND		1.00	µg/L	1	05/02/07 21:16
Tetrachloroethene	ND		0.50	µg/L	1	05/02/07 21:16
Toluene	ND		0.50	µg/L	1	05/02/07 21:16
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/02/07 21:16
Trichloroethene	ND		0.50	µg/L	1	05/02/07 21:16
Trichlorofluoromethane	ND		1.00	µg/L	1	05/02/07 21:16
Vinyl acetate	ND		2.00	µg/L	1	05/02/07 21:16
Vinyl chloride	ND		1.00	µg/L	1	05/02/07 21:16
Xylenes (total)	ND		1.00	µg/L	1	05/02/07 21:16
Surr: 1,2-Dichloroethane-d4	110		75-134	%REC	1	05/02/07 21:16
Surr: 4-Bromofluorobenzene	112		75-125	%REC	1	05/02/07 21:16
Surr: Dibromofluoromethane	114		75-127	%REC	1	05/02/07 21:16
Surr: Toluene-d8	104		75-125	%REC	1	05/02/07 21:16

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER
Inst. ID: MS02 12 **Sample Size:** 25 mL
ColumnID: Rtx-502.2 **%Moisture:**
Revision: 05/08/07 13:01 **TestCode** 8260W CAL
Col Type:

Lab ID: **0704126-013A**
Client Sample ID: *ETMW-121*
Collection Date: 04/19/07 9:15
Date Received: 04/20/07 9:05
PrepDate:
BatchNo: R9535
FileID: 1-SAMP-M0774.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/03/07 10:23
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/03/07 10:23
1,1-Dichloroethane	ND		0.50	µg/L	1	05/03/07 10:23
1,1-Dichloroethene	ND		0.50	µg/L	1	05/03/07 10:23
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/03/07 10:23
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/03/07 10:23
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/03/07 10:23
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/03/07 10:23
1,2-Dichloroethane	ND		0.50	µg/L	1	05/03/07 10:23
2-Butanone	ND		10.0	µg/L	1	05/03/07 10:23
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/03/07 10:23
Acetone	ND		10.0	µg/L	1	05/03/07 10:23
Benzene	ND		0.50	µg/L	1	05/03/07 10:23
Carbon disulfide	ND		0.50	µg/L	1	05/03/07 10:23
Chloroethane	ND		1.00	µg/L	1	05/03/07 10:23
Chloromethane	ND		1.00	µg/L	1	05/03/07 10:23
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	05/03/07 10:23
Dibromomethane	ND		0.50	µg/L	1	05/03/07 10:23
Ethylbenzene	ND		0.50	µg/L	1	05/03/07 10:23
Isobutyl alcohol	ND		50.0	µg/L	1	05/03/07 10:23
Methylene chloride	ND		2.00	µg/L	1	05/03/07 10:23
Naphthalene	ND		1.00	µg/L	1	05/03/07 10:23
Tetrachloroethene	ND		0.50	µg/L	1	05/03/07 10:23
Toluene	ND		0.50	µg/L	1	05/03/07 10:23
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/03/07 10:23
Trichloroethene	ND		0.50	µg/L	1	05/03/07 10:23
Trichlorofluoromethane	ND		1.00	µg/L	1	05/03/07 10:23
Vinyl acetate	ND		2.00	µg/L	1	05/03/07 10:23
Vinyl chloride	ND		1.00	µg/L	1	05/03/07 10:23
Xylenes (total)	ND		1.00	µg/L	1	05/03/07 10:23
Surr: 1,2-Dichloroethane-d4	112		75-134	%REC	1	05/03/07 10:23
Surr: 4-Bromofluorobenzene	112		75-125	%REC	1	05/03/07 10:23
Surr: Dibromofluoromethane	118		75-127	%REC	1	05/03/07 10:23
Surr: Toluene-d8	108		75-125	%REC	1	05/03/07 10:23

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER
Inst. ID: MS02 12 **Sample Size:** 25 mL
ColumnID: Rtx-502.2 **%Moisture:**
Revision: 05/08/07 9:54 **TestCode** 8260W CAL
Col Type:

Lab ID: 0704126-014A
Client Sample ID: *CH2MW-114D*
Collection Date: 04/19/07 9:40
Date Received: 04/20/07 9:05
PrepDate:
BatchNo: R9535
FileID: 1-SAMP-M0775.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		5.00	µg/L	10	05/03/07 11:01
1,1,2,2-Tetrachloroethane	ND		5.00	µg/L	10	05/03/07 11:01
1,1-Dichloroethane	ND		5.00	µg/L	10	05/03/07 11:01
1,1-Dichloroethene	5.80		5.00	µg/L	10	05/03/07 11:01
1,2,3-Trichlorobenzene	ND		10.0	µg/L	10	05/03/07 11:01
1,2,3-Trichloropropane	ND		5.00	µg/L	10	05/03/07 11:01
1,2,4-Trichlorobenzene	ND		10.0	µg/L	10	05/03/07 11:01
1,2-Dibromo-3-chloropropane	ND		10.0	µg/L	10	05/03/07 11:01
1,2-Dichloroethane	ND		5.00	µg/L	10	05/03/07 11:01
2-Butanone	ND		100	µg/L	10	05/03/07 11:01
4-Methyl-2-pentanone	ND		50.0	µg/L	10	05/03/07 11:01
Acetone	ND		100	µg/L	10	05/03/07 11:01
Benzene	ND		5.00	µg/L	10	05/03/07 11:01
Carbon disulfide	ND		5.00	µg/L	10	05/03/07 11:01
Chloroethane	ND		10.0	µg/L	10	05/03/07 11:01
Chloromethane	ND		10.0	µg/L	10	05/03/07 11:01
cis-1,2-Dichloroethene	204		5.00	µg/L	10	05/03/07 11:01
Dibromomethane	ND		5.00	µg/L	10	05/03/07 11:01
Ethylbenzene	ND		5.00	µg/L	10	05/03/07 11:01
Isobutyl alcohol	ND		500	µg/L	10	05/03/07 11:01
Methylene chloride	ND		20.0	µg/L	10	05/03/07 11:01
Naphthalene	ND		10.0	µg/L	10	05/03/07 11:01
Tetrachloroethene	5.30		5.00	µg/L	10	05/03/07 11:01
Toluene	ND		5.00	µg/L	10	05/03/07 11:01
trans-1,2-Dichloroethene	ND		5.00	µg/L	10	05/03/07 11:01
Trichloroethene	135		5.00	µg/L	10	05/03/07 11:01
Trichlorofluoromethane	ND		10.0	µg/L	10	05/03/07 11:01
Vinyl acetate	ND		20.0	µg/L	10	05/03/07 11:01
Vinyl chloride	ND		10.0	µg/L	10	05/03/07 11:01
Xylenes (total)	ND		10.0	µg/L	10	05/03/07 11:01
Surr: 1,2-Dichloroethane-d4	102		75-134	%REC	10	05/03/07 11:01
Surr: 4-Bromofluorobenzene	117		75-125	%REC	10	05/03/07 11:01
Surr: Dibromofluoromethane	112		75-127	%REC	10	05/03/07 11:01
Surr: Toluene-d8	110		75-125	%REC	10	05/03/07 11:01

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-015A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	***TB1-041907***
W Order:	0704126	**Collection Date:**	04/18/07 0:00
Matrix:	WATER Q	**Date Received:**	04/20/07 9:05
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R9534
Revision:	05/16/07 11:17	**TestCode** 8260W CAL	**FileID:** 1-SAMP-M0767.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/02/07 23:09
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/02/07 23:09
1,1-Dichloroethane	ND		0.50	µg/L	1	05/02/07 23:09
1,1-Dichloroethene	ND		0.50	µg/L	1	05/02/07 23:09
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/02/07 23:09
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/02/07 23:09
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/02/07 23:09
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/02/07 23:09
1,2-Dichloroethane	ND		0.50	µg/L	1	05/02/07 23:09
2-Butanone	ND		10.0	µg/L	1	05/02/07 23:09
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/02/07 23:09
Acetone	ND		10.0	µg/L	1	05/02/07 23:09
Benzene	ND		0.50	µg/L	1	05/02/07 23:09
Carbon disulfide	ND		0.50	µg/L	1	05/02/07 23:09
Chloroethane	ND		1.00	µg/L	1	05/02/07 23:09
Chloromethane	ND		1.00	µg/L	1	05/02/07 23:09
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	05/02/07 23:09
Dibromomethane	ND		0.50	µg/L	1	05/02/07 23:09
Ethylbenzene	ND		0.50	µg/L	1	05/02/07 23:09
Isobutyl alcohol	ND		50.0	µg/L	1	05/02/07 23:09
Methylene chloride	ND		2.00	µg/L	1	05/02/07 23:09
Naphthalene	ND		1.00	µg/L	1	05/02/07 23:09
Tetrachloroethene	ND		0.50	µg/L	1	05/02/07 23:09
Toluene	ND		0.50	µg/L	1	05/02/07 23:09
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/02/07 23:09
Trichloroethene	ND		0.50	µg/L	1	05/02/07 23:09
Trichlorofluoromethane	ND		1.00	µg/L	1	05/02/07 23:09
Vinyl acetate	ND		2.00	µg/L	1	05/02/07 23:09
Vinyl chloride	ND		1.00	µg/L	1	05/02/07 23:09
Xylenes (total)	ND		1.00	µg/L	1	05/02/07 23:09
Surr: 1,2-Dichloroethane-d4	110		75-134	%REC	1	05/02/07 23:09
Surr: 4-Bromofluorobenzene	110		75-125	%REC	1	05/02/07 23:09
Surr: Dibromofluoromethane	114		75-127	%REC	1	05/02/07 23:09
Surr: Toluene-d8	105		75-125	%REC	1	05/02/07 23:09

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

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East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER Q
Inst. ID: MS02 12 **Sample Size:** 25 mL
ColumnID: Rtx-502.2 **%Moisture:**
Revision: 05/16/07 11:17 **TestCode** 8260W CAL
Col Type:

Lab ID: 0704126-016A
Client Sample ID: *TB2-041907*
Collection Date: 04/18/07 0:00
Date Received: 04/20/07 9:05
PrepDate:
BatchNo: R9534
FileID: 1-SAMP-M0768.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	05/02/07 23:47
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	05/02/07 23:47
1,1-Dichloroethane	ND		0.50	µg/L	1	05/02/07 23:47
1,1-Dichloroethene	ND		0.50	µg/L	1	05/02/07 23:47
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	05/02/07 23:47
1,2,3-Trichloropropane	ND		0.50	µg/L	1	05/02/07 23:47
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	05/02/07 23:47
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	05/02/07 23:47
1,2-Dichloroethane	ND		0.50	µg/L	1	05/02/07 23:47
2-Butanone	ND		10.0	µg/L	1	05/02/07 23:47
4-Methyl-2-pentanone	ND		5.00	µg/L	1	05/02/07 23:47
Acetone	ND		10.0	µg/L	1	05/02/07 23:47
Benzene	ND		0.50	µg/L	1	05/02/07 23:47
Carbon disulfide	ND		0.50	µg/L	1	05/02/07 23:47
Chloroethane	ND		1.00	µg/L	1	05/02/07 23:47
Chloromethane	ND		1.00	µg/L	1	05/02/07 23:47
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	05/02/07 23:47
Dibromomethane	ND		0.50	µg/L	1	05/02/07 23:47
Ethylbenzene	ND		0.50	µg/L	1	05/02/07 23:47
Methylene chloride	ND		2.00	µg/L	1	05/02/07 23:47
Naphthalene	ND		1.00	µg/L	1	05/02/07 23:47
Tetrachloroethene	ND		0.50	µg/L	1	05/02/07 23:47
Toluene	ND		0.50	µg/L	1	05/02/07 23:47
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	05/02/07 23:47
Trichloroethene	ND		0.50	µg/L	1	05/02/07 23:47
Trichlorofluoromethane	ND		1.00	µg/L	1	05/02/07 23:47
Vinyl acetate	ND		2.00	µg/L	1	05/02/07 23:47
Vinyl chloride	ND		1.00	µg/L	1	05/02/07 23:47
Xylenes (total)	ND		1.00	µg/L	1	05/02/07 23:47
Surr: 1,2-Dichloroethane-d4	121		75-134	%REC	1	05/02/07 23:47
Surr: 4-Bromofluorobenzene	108		75-125	%REC	1	05/02/07 23:47
Surr: Dibromofluoromethane	127		75-127	%REC	1	05/02/07 23:47
Surr: Toluene-d8	108		75-125	%REC	1	05/02/07 23:47

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **0704126-002AMS**	SampType: **MS**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**9534**
Client ID: **CH2MW-2**	Batch ID: **R9534**	Method: **SW8260B**		Analysis Date: **5/2/2007**		SeqNo:	**260444**
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.9	0.500	10	0	109	70	130				
1,1,2,2-Tetrachloroethane	9.63	0.500	10	0	96	68	136				
1,1-Dichloroethane	9.88	0.500	10	0	99	70	130				
1,1-Dichloroethene	11.8	0.500	10	0	118	70	135				
1,2,3-Trichlorobenzene	12.4	1.00	10	0	124	70	130				
1,2,3-Trichloropropane	9.14	0.500	10	0	91	63	143				
1,2,4-Trichlorobenzene	13.0	1.00	10	0	130	68	130				
1,2-Dibromo-3-chloropropane	9.51	1.00	10	0	95	55	149				
1,2-Dichloroethane	10.1	0.500	10	0	101	70	130				
2-Butanone	12.5	10.0	20	0	62	25	150				
4-Methyl-2-pentanone	15.0	5.00	20	0	75	44	150				
Acetone	15.7	10.0	20	0	79	25	150				
Benzene	10.6	0.500	10	0	106	70	132				
Carbon disulfide	10.7	0.500	10	0	107	66	130				
Chloroethane	9.95	1.00	10	0	100	70	130				
Chloromethane	8.61	1.00	10	0	86	58	135				
cis-1,2-Dichloroethene	10.6	0.500	10	0	106	48	151				
Dibromomethane	10.3	0.500	10	0	103	70	130				
Ethylbenzene	11.4	0.500	10	0	114	70	130				
Isobutyl alcohol	254	50.0	250	0	101	50	150				
Methylene chloride	9.49	2.00	10	0	95	70	130				
Naphthalene	10.7	1.00	10	0	107	46	158				
Tetrachloroethene	11.8	0.500	10	0	118	70	130				
Toluene	11.3	0.500	10	0	113	70	130				
trans-1,2-Dichloroethene	9.96	0.500	10	0	100	70	130				
Trichloroethene	11.4	0.500	10	0	114	42	167				
Trichlorofluoromethane	10.2	1.00	10	0	103	70	131				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **0704126-002AMS**	SampType: **MS**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**9534**	
Client ID: **CH2MW-2**	Batch ID: **R9534**	Method: **SW8260B**		Analysis Date: **5/2/2007**		SeqNo:	**260444**	
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	7.80	2.00	10	0	78	37	155				
Vinyl chloride	8.84	1.00	10	0	88	70	130				
Xylenes (total)	34.5	1.00	30	0	115	65	132				
Surr: 1,2-Dichloroethane-d4	9.87	0.100	10	0	99	75	134				
Surr: 4-Bromofluorobenzene	10.9	0.100	10	0	109	75	125				
Surr: Dibromofluoromethane	10.4	0.100	10	0	104	75	127				
Surr: Toluene-d8	10.9	0.100	10	0	109	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **0704126-002AMSD**	SampType: **MSD**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**9534**
Client ID: **CH2MW-2**	Batch ID: **R9534**	Method: **SW8260B**		Analysis Date: **5/2/2007**		SeqNo:	**260445**
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	11.1	0.500	10	0	111	70	130	10.9	2	20	
1,1,2,2-Tetrachloroethane	9.75	0.500	10	0	98	68	136	9.63	1	20	
1,1-Dichloroethane	10.2	0.500	10	0	102	70	130	9.88	3	20	
1,1-Dichloroethene	11.9	0.500	10	0	119	70	135	11.8	1	20	
1,2,3-Trichlorobenzene	12.5	1.00	10	0	125	70	130	12.4	1	20	
1,2,3-Trichloropropane	9.67	0.500	10	0	97	63	143	9.14	6	20	
1,2,4-Trichlorobenzene	12.8	1.00	10	0	128	68	130	13	1	20	
1,2-Dibromo-3-chloropropane	10.0	1.00	10	0	100	55	149	9.51	5	20	
1,2-Dichloroethane	10.2	0.500	10	0	102	70	130	10.1	1	20	
2-Butanone	13.2	10.0	20	0	66	25	150	12.5	5	50	
4-Methyl-2-pentanone	14.9	5.00	20	0	75	44	150	15	1	50	
Acetone	15.2	10.0	20	0	76	25	150	15.7	4	50	
Benzene	10.8	0.500	10	0	108	70	132	10.6	2	20	
Carbon disulfide	10.8	0.500	10	0	108	66	130	10.7	0	20	
Chloroethane	9.99	1.00	10	0	100	70	130	9.95	0	20	
Chloromethane	8.58	1.00	10	0	86	58	135	8.61	0	20	
cis-1,2-Dichloroethene	10.9	0.500	10	0	109	48	151	10.6	3	20	
Dibromomethane	10.8	0.500	10	0	108	70	130	10.3	4	20	
Ethylbenzene	11.2	0.500	10	0	112	70	130	11.4	2	20	
Isobutyl alcohol	271	50.0	250	0	108	50	150	254	7	50	
Methylene chloride	9.41	2.00	10	0	94	70	130	9.49	1	20	
Naphthalene	11.4	1.00	10	0	114	46	158	10.7	6	20	
Tetrachloroethene	11.7	0.500	10	0	117	70	130	11.8	1	20	
Toluene	11.5	0.500	10	0	115	70	130	11.3	2	20	
trans-1,2-Dichloroethene	10.2	0.500	10	0	102	70	130	9.96	3	20	
Trichloroethene	11.6	0.500	10	0	116	42	167	11.4	2	20	
Trichlorofluoromethane	10.3	1.00	10	0	103	70	131	10.2	0	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- R RPD exceeds accepted precision limit
- S Spike Recovery outside accepted recovery limits
- U Not Detected at the MDC or RL

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0704126
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **0704126-002AMSD**	SampType: **MSD**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo: **9534**			
Client ID: **CH2MW-2**	Batch ID: **R9534**	Method: **SW8260B**		Analysis Date: **5/2/2007**		SeqNo: **260445**			
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**							

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	7.79	2.00	10	0	78	37	155	7.8	0	50	
Vinyl chloride	8.53	1.00	10	0	85	70	130	8.84	4	20	
Xylenes (total)	34.0	1.00	30	0	114	65	132	34.5	1	20	
Surr: 1,2-Dichloroethane-d4	9.97	0.100	10	0	100	75	134	0		0	
Surr: 4-Bromofluorobenzene	11.2	0.100	10	0	112	75	125	0		0	
Surr: Dibromofluoromethane	10.7	0.100	10	0	107	75	127	0		0	
Surr: Toluene-d8	11.2	0.100	10	0	112	75	125	0		0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-9440** SampType: **LCS** TestCode: **8260W_CAL** Units: **µg/L** Prep Date: RunNo: **9440**

Client ID: **ZZZZZ** Batch ID: **R9440** Method: **SW8260B** Analysis Date: **5/1/2007** SeqNo: **260486**

Instrument: **MS02_12** ColumnID: **Rtx-502.2** **Rtx-502.2, 3.0 df**

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.2	0.500	10	0	103	80	127				
1,1,2,2-Tetrachloroethane	8.81	0.500	10	0	88	73	122				
1,1-Dichloroethane	9.43	0.500	10	0	94	80	120				
1,1-Dichloroethene	11.2	0.500	10	0	112	77	126				
1,2,3-Trichlorobenzene	11.7	1.00	10	0	117	75	123				
1,2,3-Trichloropropane	9.24	0.500	10	0	92	72	126				
1,2,4-Trichlorobenzene	12.0	1.00	10	0	120	73	123				
1,2-Dibromo-3-chloropropane	9.27	1.00	10	0	93	71	124				
1,2-Dichloroethane	9.16	0.500	10	0	92	73	126				
2-Butanone	13.5	10.0	20	0	67	49	153				
4-Methyl-2-pentanone	15.9	5.00	20	0	80	50	150				
Acetone	19.2	10.0	20	0	96	37	163				
Benzene	9.79	0.500	10	0	98	80	120				
Carbon disulfide	11.2	0.500	10	0	112	76	122				
Chloroethane	10.2	1.00	10	0	102	75	124				
Chloromethane	9.05	1.00	10	0	90	59	133				
cis-1,2-Dichloroethene	10.2	0.500	10	0	102	80	120				
Dibromomethane	9.42	0.500	10	0	94	79	120				
Ethylbenzene	10.7	0.500	10	0	107	80	120				
Isobutyl alcohol	120	50.0	100	0	120	50	150				
Methylene chloride	9.27	2.00	10	0	93	78	120				
Naphthalene	9.98	1.00	10	0	100	67	134				
Tetrachloroethene	11.0	0.500	10	0	110	80	120				
Toluene	9.40	0.500	10	0	94	80	120				
trans-1,2-Dichloroethene	9.69	0.500	10	0	97	80	120				
Trichloroethene	10.5	0.500	10	0	105	80	120				
Trichlorofluoromethane	10.4	1.00	10	0	104	73	132				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- ND Not Detected at the Practical Quantitation Limit (PQL)
- R RPD exceeds accepted precision limit
- S Spike Recovery outside accepted recovery limits
- U Not Detected at the MDC or RL

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0704126
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCS-9440**	SampType: **LCS**	TestCode: **8260W_CAL**	Units: **µg/L**		Prep Date:				RunNo: **9440**			
Client ID: **ZZZZZ**	Batch ID: **R9440**	Method: **SW8260B**			Analysis Date: **5/1/2007**				SeqNo: **260486**			
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**										
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Vinyl acetate	7.39	2.00	10	0	74	43	150					
Vinyl chloride	7.85	1.00	10	0	79	75	125					
Xylenes (total)	32.5	1.00	30	0	108	80	120					
Surr: 1,2-Dichloroethane-d4	9.98	0.100	10	0	100	75	134					
Surr: 4-Bromofluorobenzene	11.9	0.100	10	0	119	75	125					
Surr: Dibromofluoromethane	10.5	0.100	10	0	105	75	127					
Surr: Toluene-d8	9.77	0.100	10	0	98	75	125					

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCSD-9440**	SampType: **LCSD**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**9440**
Client ID: **ZZZZZ**	Batch ID: **R9440**	Method: **SW8260B**		Analysis Date: **5/1/2007**		SeqNo:	**260487**
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.4	0.500	10	0	104	80	127	10.2	1	20	
1,1,2,2-Tetrachloroethane	9.13	0.500	10	0	91	73	122	8.81	4	20	
1,1-Dichloroethane	9.37	0.500	10	0	94	80	120	9.43	1	20	
1,1-Dichloroethene	11.5	0.500	10	0	115	77	126	11.2	3	20	
1,2,3-Trichlorobenzene	11.5	1.00	10	0	115	75	123	11.7	1	20	
1,2,3-Trichloropropane	9.49	0.500	10	0	95	72	126	9.24	3	20	
1,2,4-Trichlorobenzene	11.9	1.00	10	0	119	73	123	12	1	20	
1,2-Dibromo-3-chloropropane	9.00	1.00	10	0	90	71	124	9.27	3	20	
1,2-Dichloroethane	9.43	0.500	10	0	94	73	126	9.16	3	20	
2-Butanone	14.2	10.0	20	0	71	49	153	13.5	5	50	
4-Methyl-2-pentanone	16.6	5.00	20	0	83	50	150	15.9	4	50	
Acetone	19.4	10.0	20	0	97	37	163	19.2	1	50	
Benzene	9.89	0.500	10	0	99	80	120	9.79	1	20	
Carbon disulfide	10.3	0.500	10	0	103	76	122	11.2	8	20	
Chloroethane	9.48	1.00	10	0	95	75	124	10.2	7	20	
Chloromethane	8.66	1.00	10	0	87	59	133	9.05	4	20	
cis-1,2-Dichloroethene	10.1	0.500	10	0	101	80	120	10.2	1	20	
Dibromomethane	9.98	0.500	10	0	100	79	120	9.42	6	20	
Ethylbenzene	10.7	0.500	10	0	107	80	120	10.7	0	20	
Isobutyl alcohol	126	50.0	100	0	126	50	150	120	5	50	
Methylene chloride	9.17	2.00	10	0	92	78	120	9.27	1	20	
Naphthalene	9.91	1.00	10	0	99	67	134	9.98	1	20	
Tetrachloroethene	11.3	0.500	10	0	113	80	120	11	3	20	
Toluene	10.4	0.500	10	0	104	80	120	9.4	10	20	
trans-1,2-Dichloroethene	9.77	0.500	10	0	98	80	120	9.69	1	20	
Trichloroethene	10.8	0.500	10	0	108	80	120	10.5	2	20	
Trichlorofluoromethane	9.73	1.00	10	0	97	73	132	10.4	7	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCSD-9440**	SampType: **LCSD**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**9440**
Client ID: **ZZZZZ**	Batch ID: **R9440**	Method: **SW8260B**		Analysis Date: **5/1/2007**		SeqNo:	**260487**
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	6.96	2.00	10	0	70	43	150	7.39	6	50	
Vinyl chloride	7.38	1.00	10	0	74	75	125	7.85	6	20	S
Xylenes (total)	32.4	1.00	30	0	108	80	120	32.5	0	20	
Surr: 1,2-Dichloroethane-d4	9.97	0.100	10	0	100	75	134	0		0	
Surr: 4-Bromofluorobenzene	11.2	0.100	10	0	112	75	125	0		0	
Surr: Dibromofluoromethane	10.3	0.100	10	0	103	75	127	0		0	
Surr: Toluene-d8	11.0	0.100	10	0	110	75	125	0		0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-9534**	SampType: **LCS**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**9534**
Client ID: **ZZZZZ**	Batch ID: **R9534**	Method: **SW8260B**		Analysis Date: **5/2/2007**		SeqNo:	**260443**
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**		**Rtx-502.2, 3.0 df**				

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	11.0	0.500	10	0	110	80	127				
1,1,2,2-Tetrachloroethane	10.5	0.500	10	0	105	73	122				
1,1-Dichloroethane	10.3	0.500	10	0	103	80	120				
1,1-Dichloroethene	12.4	0.500	10	0	124	77	126				
1,2,3-Trichlorobenzene	14.0	1.00	10	0	140	75	123				S
1,2,3-Trichloropropane	10.2	0.500	10	0	102	72	126				
1,2,4-Trichlorobenzene	14.4	1.00	10	0	144	73	123				S
1,2-Dibromo-3-chloropropane	10.4	1.00	10	0	104	71	124				
1,2-Dichloroethane	10.1	0.500	10	0	101	73	126				
2-Butanone	15.2	10.0	20	0	76	49	153				
4-Methyl-2-pentanone	18.0	5.00	20	0	90	50	150				
Acetone	18.8	10.0	20	0	94	37	163				
Benzene	10.7	0.500	10	0	107	80	120				
Carbon disulfide	11.4	0.500	10	0	114	76	122				
Chloroethane	10.4	1.00	10	0	104	75	124				
Chloromethane	9.03	1.00	10	0	90	59	133				
cis-1,2-Dichloroethene	11.0	0.500	10	0	110	80	120				
Dibromomethane	10.3	0.500	10	0	103	79	120				
Ethylbenzene	11.8	0.500	10	0	118	80	120				
Isobutyl alcohol	266	50.0	250	0	106	50	150				
Methylene chloride	10.0	2.00	10	0	100	78	120				
Naphthalene	12.0	1.00	10	0	120	67	134				
Tetrachloroethene	12.3	0.500	10	0	123	80	120				S
Toluene	11.5	0.500	10	0	115	80	120				
trans-1,2-Dichloroethene	10.7	0.500	10	0	107	80	120				
Trichloroethene	11.5	0.500	10	0	115	80	120				
Trichlorofluoromethane	10.6	1.00	10	0	106	73	132				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

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East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-9534**	SampType: **LCS**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**9534**
Client ID: **ZZZZZ**	Batch ID: **R9534**	Method: **SW8260B**		Analysis Date: **5/2/2007**		SeqNo:	**260443**
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**		**Rtx-502.2, 3.0 df**				

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	8.19	2.00	10	0	82	43	150				
Vinyl chloride	9.33	1.00	10	0	93	75	125				
Xylenes (total)	35.5	1.00	30	0	118	80	120				
Surr: 1,2-Dichloroethane-d4	9.81	0.100	10	0	98	75	134				
Surr: 4-Bromofluorobenzene	11.2	0.100	10	0	112	75	125				
Surr: Dibromofluoromethane	10.2	0.100	10	0	103	75	127				
Surr: Toluene-d8	10.8	0.100	10	0	108	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-9535**	SampType: **LCS**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**9535**
Client ID: **ZZZZZ**	Batch ID: **R9535**	Method: **SW8260B**		Analysis Date: **5/3/2007**		SeqNo:	**260461**
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.1	0.500	10	0	101	80	127				
1,1,2,2-Tetrachloroethane	9.15	0.500	10	0	92	73	122				
1,1-Dichloroethane	9.28	0.500	10	0	93	80	120				
1,1-Dichloroethene	11.7	0.500	10	0	117	77	126				
1,2,3-Trichlorobenzene	10.8	1.00	10	0	108	75	123				
1,2,3-Trichloropropane	9.27	0.500	10	0	93	72	126				
1,2,4-Trichlorobenzene	11.0	1.00	10	0	110	73	123				
1,2-Dibromo-3-chloropropane	10.0	1.00	10	0	100	71	124				
1,2-Dichloroethane	9.74	0.500	10	0	97	73	126				
2-Butanone	16.6	10.0	20	0	83	49	153				
4-Methyl-2-pentanone	19.2	5.00	20	0	96	50	150				
Acetone	18.8	10.0	20	0	94	37	163				
Benzene	9.72	0.500	10	0	97	80	120				
Carbon disulfide	10.5	0.500	10	0	105	76	122				
Chloroethane	10.6	1.00	10	0	106	75	124				
Chloromethane	9.38	1.00	10	0	94	59	133				
cis-1,2-Dichloroethene	9.95	0.500	10	0	100	80	120				
Dibromomethane	10.7	0.500	10	0	107	79	120				
Ethylbenzene	10.2	0.500	10	0	102	80	120				
Isobutyl alcohol	166	50.0	250	0	66	50	150				
Methylene chloride	9.71	2.00	10	0	97	78	120				
Naphthalene	10.2	1.00	10	0	102	67	134				
Tetrachloroethene	11.0	0.500	10	0	110	80	120				
Toluene	10.6	0.500	10	0	106	80	120				
trans-1,2-Dichloroethene	9.71	0.500	10	0	97	80	120				
Trichloroethene	11.2	0.500	10	0	112	80	120				
Trichlorofluoromethane	10.6	1.00	10	0	106	73	132				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-9535**	SampType: **LCS**	TestCode: **8260W_CAL**	Units: **µg/L**		Prep Date:				RunNo: **9535**			
Client ID: **ZZZZZ**	Batch ID: **R9535**	Method: **SW8260B**			Analysis Date: **5/3/2007**				SeqNo: **260461**			
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**										
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Vinyl acetate	8.20	2.00	10	0	82	43	150					
Vinyl chloride	10.9	1.00	10	0	109	75	125					
Xylenes (total)	31.0	1.00	30	0	103	80	120					
Surr: 1,2-Dichloroethane-d4	10.9	0.100	10	0	109	75	134					
Surr: 4-Bromofluorobenzene	12.0	0.100	10	0	120	75	125					
Surr: Dibromofluoromethane	10.8	0.100	10	0	108	75	127					
Surr: Toluene-d8	11.9	0.100	10	0	119	75	125					

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCSD-9535** SampType: **LCSD** TestCode: **8260W_CAL** Units: **µg/L** Prep Date: RunNo: **9535**

Client ID: **ZZZZZ** Batch ID: **R9535** Method: **SW8260B** Analysis Date: **5/3/2007** SeqNo: **260462**

Instrument: **MS02_12** ColumnID: **Rtx-502.2** **Rtx-502.2, 3.0 df**

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.0	0.500	10	0	100	80	127	10	0	20	
1,1,2,2-Tetrachloroethane	9.40	0.500	10	0	94	73	122	9.4	0	20	
1,1-Dichloroethane	9.38	0.500	10	0	94	80	120	9.38	0	20	
1,1-Dichloroethene	11.0	0.500	10	0	110	77	126	11	0	20	
1,2,3-Trichlorobenzene	10.8	1.00	10	0	108	75	123	10.8	0	20	
1,2,3-Trichloropropane	8.97	0.500	10	0	90	72	126	8.97	0	20	
1,2,4-Trichlorobenzene	11.3	1.00	10	0	113	73	123	11.3	0	20	
1,2-Dibromo-3-chloropropane	9.88	1.00	10	0	99	71	124	9.88	0	20	
1,2-Dichloroethane	9.54	0.500	10	0	95	73	126	9.54	0	20	
2-Butanone	15.0	10.0	20	0	75	49	153	15	0	50	
4-Methyl-2-pentanone	24.0	5.00	20	0	120	50	150	24	0	50	
Acetone	17.2	10.0	20	0	86	37	163	17.2	0	50	
Benzene	9.68	0.500	10	0	97	80	120	9.68	0	20	
Carbon disulfide	23.5	0.500	20	0	118	76	122	23.5	0	20	
Chloroethane	23.4	1.00	20	0	117	75	124	23.4	0	20	
Chloromethane	19.5	1.00	20	0	97	59	133	19.5	0	20	
cis-1,2-Dichloroethene	9.79	0.500	10	0	98	80	120	9.79	0	20	
Dibromomethane	10.1	0.500	10	0	101	79	120	10.1	0	20	
Ethylbenzene	10.1	0.500	10	0	101	80	120	10.1	0	20	
Isobutyl alcohol	* ND	50.0						66		50	
Methylene chloride	8.97	2.00	10	0	90	78	120	8.97	0	20	
Naphthalene	10.2	1.00	10	0	102	67	134	10.2	0	20	
Tetrachloroethene	10.6	0.500	10	0	106	80	120	10.6	0	20	
Toluene	10.1	0.500	10	0	101	80	120	10.1	0	20	
trans-1,2-Dichloroethene	9.71	0.500	10	0	97	80	120	9.71	0	20	
Trichloroethene	10.5	0.500	10	0	105	80	120	10.5	0	20	
Trichlorofluoromethane	23.9	1.00	20	0	120	73	132	23.9	0	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

* Not spiked

Date: *08-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCSD-9535**	SampType: **LCSD**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**9535**
Client ID: **ZZZZZ**	Batch ID: **R9535**	Method: **SW8260B**		Analysis Date: **5/3/2007**		SeqNo:	**260462**
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	22.6	2.00	20	0	113	43	150	22.6	0	50	
Vinyl chloride	24.4	1.00	20	0	122	75	125	24.4	0	20	
Xylenes (total)	30.8	1.00	30	0	103	80	120	30.8	0	20	
Surr: 1,2-Dichloroethane-d4	10.6	0.100	10	0	106	75	134	0		0	
Surr: 4-Bromofluorobenzene	11.8	0.100	10	0	118	75	125	0		0	
Surr: Dibromofluoromethane	10.9	0.100	10	0	109	75	127	0		0	
Surr: Toluene-d8	11.1	0.100	10	0	111	75	125	0		0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0704126
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **MB-9440** SampType: **MBLK** TestCode: **8260W_CAL** Units: **µg/L** Prep Date: RunNo: **9440**
Client ID: **ZZZZZ** Batch ID: **R9440** Method: **SW8260B** Analysis Date: **5/1/2007** SeqNo: **260488**
Instrument: **MS02_12** ColumnID: **Rtx-502.2** **Rtx-502.2, 3.0 df**

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	0.500									
1,1-Dichloroethane	ND	0.500									
1,1-Dichloroethene	ND	0.500									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	0.500									
1,2,4-Trichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dichloroethane	ND	0.500									
2-Butanone	ND	10.0									
4-Methyl-2-pentanone	ND	5.00									
Acetone	ND	10.0									
Benzene	ND	0.500									
Carbon disulfide	ND	0.500									
Chloroethane	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	0.500									
Dibromomethane	ND	0.500									
Ethylbenzene	ND	0.500									
Isobutyl alcohol	ND	50.0									
Methylene chloride	ND	2.00									
Naphthalene	ND	1.00									
Tetrachloroethene	ND	0.500									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
Trichloroethene	ND	0.500									
Trichlorofluoromethane	ND	1.00									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-9440**	SampType: **MBLK**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**9440**		
Client ID: **ZZZZZ**	Batch ID: **R9440**	Method: **SW8260B**		Analysis Date: **5/1/2007**		SeqNo:	**260488**		
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**							

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	ND	2.00									
Vinyl chloride	ND	1.00									
Xylenes (total)	ND	1.00									
Surr: 1,2-Dichloroethane-d4	10.5	0.100	10	0	105	75	134				
Surr: 4-Bromofluorobenzene	10.7	0.100	10	0	107	75	125				
Surr: Dibromofluoromethane	10.9	0.100	10	0	109	75	127				
Surr: Toluene-d8	10.5	0.100	10	0	105	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-9534**	SampType: **MBLK**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo:	**9534**
Client ID: **ZZZZZ**	Batch ID: **R9534**	Method: **SW8260B**		Analysis Date: **5/2/2007**		SeqNo:	**260446**
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	0.500									
1,1-Dichloroethane	ND	0.500									
1,1-Dichloroethene	ND	0.500									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	0.500									
1,2,4-Trichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dichloroethane	ND	0.500									
2-Butanone	ND	10.0									
4-Methyl-2-pentanone	ND	5.00									
Acetone	ND	10.0									
Benzene	ND	0.500									
Carbon disulfide	ND	0.500									
Chloroethane	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	0.500									
Dibromomethane	ND	0.500									
Ethylbenzene	ND	0.500									
Isobutyl alcohol	ND	50.0									
Methylene chloride	ND	2.00									
Naphthalene	ND	1.00									
Tetrachloroethene	ND	0.500									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
Trichloroethene	ND	0.500									
Trichlorofluoromethane	ND	1.00									

Qualifiers:

B	Analyte detected in the associated Method Blank
ND	Not Detected at the Practical Quantitation Limit (PQL)
U	Not Detected at the MDC or RL
E	Value exceeds the instrument calibration range
R	RPD exceeds accepted precision limit
J	Analyte detected below the PQL
S	Spike Recovery outside accepted recovery limits

Date: *08-May-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-9534**	SampType: **MBLK**	TestCode: **8260W_CAL**	Units: **µg/L**	Prep Date:		RunNo: **9534**			
Client ID: **ZZZZZ**	Batch ID: **R9534**	Method: **SW8260B**		Analysis Date: **5/2/2007**		SeqNo: **260446**			
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**							

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	ND	2.00									
Vinyl chloride	ND	1.00									
Xylenes (total)	ND	1.00									
Surr: 1,2-Dichloroethane-d4	10.7	0.100	10	0	107	75	134				
Surr: 4-Bromofluorobenzene	10.9	0.100	10	0	109	75	125				
Surr: Dibromofluoromethane	10.4	0.100	10	0	104	75	127				
Surr: Toluene-d8	10.5	0.100	10	0	105	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-9535** SampType: **MBLK** TestCode: **8260W_CAL** Units: **µg/L** Prep Date: RunNo: **9535**

Client ID: **ZZZZZ** Batch ID: **R9535** Method: **SW8260B** Analysis Date: **5/3/2007** SeqNo: **260463**

Instrument: **MS02_12** ColumnID: **Rtx-502.2** **Rtx-502.2, 3.0 df**

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	0.500									
1,1-Dichloroethane	ND	0.500									
1,1-Dichloroethene	ND	0.500									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	0.500									
1,2,4-Trichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dichloroethane	ND	0.500									
2-Butanone	ND	10.0									
4-Methyl-2-pentanone	ND	5.00									
Acetone	ND	10.0									
Benzene	ND	0.500									
Carbon disulfide	ND	0.500									
Chloroethane	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	0.500									
Dibromomethane	ND	0.500									
Ethylbenzene	ND	0.500									
Isobutyl alcohol	ND	50.0									
Methylene chloride	ND	2.00									
Naphthalene	ND	1.00									
Tetrachloroethene	ND	0.500									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
Trichloroethene	ND	0.500									
Trichlorofluoromethane	ND	1.00									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0704126
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **MB-9535** SampType: **MBLK** TestCode: **8260W_CAL** Units: **µg/L** Prep Date: RunNo: **9535**
Client ID: **ZZZZZ** Batch ID: **R9535** Method: **SW8260B** Analysis Date: **5/3/2007** SeqNo: **260463**
Instrument: **MS02_12** ColumnID: **Rtx-502.2** **Rtx-502.2, 3.0 df**

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	ND	2.00									
Vinyl chloride	ND	1.00									
Xylenes (total)	ND	1.00									
Surr: 1,2-Dichloroethane-d4	11.2	0.100	10	0	112	75	134				
Surr: 4-Bromofluorobenzene	10.4	0.100	10	0	104	75	125				
Surr: Dibromofluoromethane	11.5	0.100	10	0	115	75	127				
Surr: Toluene-d8	10.5	0.100	10	0	105	75	125				

Qualifiers:
B Analyte detected in the associated Method Blank
ND Not Detected at the Practical Quantitation Limit (PQL)
U Not Detected at the MDC or RL
E Value exceeds the instrument calibration range
R RPD exceeds accepted precision limit
J Analyte detected below the PQL
S Spike Recovery outside accepted recovery limits

Date: *08-May-07*

Life Science Laboratories, Inc.

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-011B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*OBGMW-124*
W Order:	0704126	**Collection Date:**	04/19/07 8:00
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	GCOS 17E **Sample Size:** 32 mL	**PrepDate:**	04/27/07 9:19
ColumnID:	Alumina **%Moisture:**	**BatchNo:**	5273/R9411
Revision:	04/27/07 11:31 **TestCode** 8015W RSK175	**FileID:**	1-SAMP-F:\Osiapr07\E042606.r
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		**(RSK 175)**
Ethane	ND		0.0042	mg/L	1	04/26/07 14:17
Ethene	ND		0.0042	mg/L	1	04/26/07 14:17
Methane	ND		0.0021	mg/L	1	04/26/07 14:17

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER
Inst. ID: GCOS 17E **Sample Size:** 32 mL
ColumnID: Alumina **%Moisture:**
Revision: 04/27/07 11:31 **TestCode** 8015W RSK175
Col Type:

Lab ID: 0704126-012B
Client Sample ID: *CH2MW-1A*
Collection Date: 04/19/07 8:45
Date Received: 04/20/07 9:05
PrepDate: 04/27/07 9:19
BatchNo: 5273/R9411
FileID: 1-SAMP-F:\Osiapr07\E042607.r

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		**(RSK 175)**
Ethane	ND		0.0042	mg/L	1	04/26/07 14:27
Ethene	ND		0.0042	mg/L	1	04/26/07 14:27
Methane	ND		0.0021	mg/L	1	04/26/07 14:27

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-013B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-121*
W Order:	0704126	**Collection Date:**	04/19/07 9:15
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	GCOS 17E	**Sample Size:** 32 mL	**PrepDate:** 04/27/07 9:19
ColumnID:	Alumina	**%Moisture:**	**BatchNo:** 5273/R9411
Revision:	04/27/07 11:31	**TestCode** 8015W RSK175	**FileID:** 1-SAMP-F:\Osiapr07\E042608.r
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		**(RSK 175)**
Ethane	ND		0.0042	mg/L	1	04/26/07 14:59
Ethene	ND		0.0042	mg/L	1	04/26/07 14:59
Methane	ND		0.0021	mg/L	1	04/26/07 14:59

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-014B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-114D*
W Order:	0704126	**Collection Date:**	04/19/07 9:40
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	GCOS 17E	**Sample Size:** 32 mL	**PrepDate:** 04/27/07 9:19
ColumnID:	Alumina	**%Moisture:**	**BatchNo:** 5273/R9411
Revision:	04/27/07 11:31	**TestCode** 8015W RSK175	**FileID:** 1-SAMP-F:\Osiapr07\E042610.r
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		**(RSK 175)**
Ethane	ND		0.21	mg/L	50	04/26/07 15:30
Ethene	ND		0.21	mg/L	50	04/26/07 15:30
Methane	2.8		0.11	mg/L	50	04/26/07 15:30

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-5273**	SampType: **MBLK**	TestCode: **8015W_RSK1**	Units: **mg/L**	Prep Date: **4/27/07**		RunNo: **9411**	
Client ID: **ZZZZZ**	Batch ID: **5273**	Method: **8015M/RSK1 (RSK 175)**		Analysis Date: **4/26/07**		SeqNo: **256603**	
Instrument: **GCOS_17E**	ColumnID: **Alumina**	**J&W Alumina**					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	ND	0.0042									
Ethene	ND	0.0042									
Methane	ND	0.0021									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *27-Apr-07*

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-5273**	SampType: **LCS**	TestCode: **8015W_RSK1**	Units: **mg/L**	Prep Date: **4/27/07**		RunNo: **9411**	
Client ID: **ZZZZZ**	Batch ID: **5273**	Method: **8015M/RSK1 (RSK 175)**		Analysis Date: **4/26/07**		SeqNo: **256604**	
Instrument: **GCOS_17E**	ColumnID: **Alumina**		**J&W Alumina**				

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.0350	0.0042	0.0382	0	92	18	138				
Ethene	0.0284	0.0042	0.0361	0	79	50	130				
Methane	0.0183	0.0021	0.0206	0	89	30	130				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *27-Apr-07*

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCSD-5273** SampType: **LCSD** TestCode: **8015W_RSK1** Units: **mg/L** Prep Date: **4/27/07** RunNo: **9411**

Client ID: **ZZZZZ** Batch ID: **5273** Method: **8015M/RSK1 (RSK 175)** Analysis Date: **4/26/07** SeqNo: **256605**

Instrument: **GCOS_17E** ColumnID: **Alumina** **J&W Alumina**

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.0363	0.0042	0.0382	0	95	18	138	0.035	3.5	50	
Ethene	0.0292	0.0042	0.0361	0	81	50	130	0.0284	2.6	50	
Methane	0.0190	0.0021	0.0206	0	92	30	130	0.0183	3.8	50	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *27-Apr-07*

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-011H**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*OBGMW-124*
W Order:	0704126	**Collection Date:**	04/19/07 8:00
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	ICAP 61E	**Sample Size:** 50 mL	**PrepDate:** 05/07/07 0:00
ColumnID:		**%Moisture:**	**BatchNo:** 5317/R9564
Revision:	05/09/07 9:04	**TestCode** 200.7W.4	**FileID:** 1-SAMP-19929
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.4)**
Iron	0.10		0.050	mg/L	1	05/08/07 16:20
Manganese	ND		0.050	mg/L	1	05/08/07 16:20

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-012H**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-1A*
W Order:	0704126	**Collection Date:**	04/19/07 8:45
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	ICAP 61E	**Sample Size:** 50 mL	**PrepDate:** 05/07/07 0:00
ColumnID:		**%Moisture:**	**BatchNo:** 5317/R9564
Revision:	05/09/07 9:04	**TestCode** 200.7W.4	**FileID:** 1-SAMP-19918
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.4)**
Iron	2.1		0.050	mg/L	1	05/08/07 15:20
Manganese	ND		0.050	mg/L	1	05/08/07 15:20

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0704126-013H**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-121*
W Order:	0704126	**Collection Date:**	04/19/07 9:15
Matrix:	WATER	**Date Received:**	04/20/07 9:05
Inst. ID:	ICAP 61E **Sample Size:** 50 mL	**PrepDate:**	05/07/07 0:00
ColumnID:	**%Moisture:**	**BatchNo:**	5317/R9564
Revision:	05/09/07 9:04 **TestCode** 200.7W.4	**FileID:**	1-SAMP-19919
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E4.1.4)**
Iron	0.89		0.050	mg/L	1	05/08/07 15:23
Manganese	ND		0.050	mg/L	1	05/08/07 15:23

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7
Work Order: 0704126
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCS-5317** SampType: **LCS** TestCode: **200.7W.4** Units: **mg/L** Prep Date: **5/7/07** RunNo: **9564**
Client ID: **ZZZZZ** Batch ID: **5317** Method: **EPA 200.7** **(E4.1.4)** Analysis Date: **5/8/07** SeqNo: **261239**
Instrument: ColumnID:

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	1.04	0.050	1	0	104	85	115				
Manganese	0.201	0.050	0.2	0	100	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *10-May-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7
Work Order: 0704126
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **MB-5317**	SampType: **MBLK**	TestCode: **200.7W.4**	Units: **mg/L**	Prep Date: **5/7/07**	RunNo: **9564**							
Client ID: **ZZZZZ**	Batch ID: **5317**	Method: **EPA 200.7**	**(E4.1.4)**	Analysis Date: **5/8/07**	SeqNo: **261238**							
Instrument:	ColumnID:											

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	0.050									
Manganese	ND	0.050									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *10-May-07*

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER

Lab ID: 0704126-011C
Client Sample ID: *OBGMW-124*
Collection Date: 04/19/07 8:00
Date Received: 04/20/07 9:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC			**EPA 300.0**			
Chloride	200		5.0	mg/L	5	04/20/07 17:20
Nitrate (as N)	6.7		0.25	mg/L	5	04/20/07 17:20
Sulfate (as SO4)	150		5.0	mg/L	5	04/20/07 17:20

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER

Lab ID: 0704126-011D
Client Sample ID: *OBGMW-124*
Collection Date: 04/19/07 8:00
Date Received: 04/20/07 9:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON			**EPA 415.1**			
Total Organic Carbon	3.5		1.0	mg/L	1	04/30/07 12:59

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER

Lab ID: 0704126-011E
Client Sample ID: OBGMW-124
Collection Date: 04/19/07 8:00
Date Received: 04/20/07 9:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED ORGANIC CARBON			**EPA 415.1**			
Organic Carbon, Dissolved	3.4		1.0	mg/L	1	04/30/07 17:03

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER

Lab ID: 0704126-011F
Client Sample ID: *OBGMW-124*
Collection Date: 04/19/07 8:00
Date Received: 04/20/07 9:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, AS CACO3			**EPA 310.1**			
Alkalinity, as CaCO3	350		10	mg/L	1	05/01/07

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER

Lab ID: 0704126-011G
Client Sample ID: *OBGMW-124*
Collection Date: 04/19/07 8:00
Date Received: 04/20/07 9:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	1.6		1.0	mg/L	1	04/24/07 8:00

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER

Lab ID: 0704126-012D
Client Sample ID: *CH2MW-1A*
Collection Date: 04/19/07 8:45
Date Received: 04/20/07 9:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON			**EPA 415.1**			
Total Organic Carbon	3.9		1.0	mg/L	1	04/30/07 13:19

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER

Lab ID: 0704126-012E
Client Sample ID: *CH2MW-1A*
Collection Date: 04/19/07 8:45
Date Received: 04/20/07 9:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED ORGANIC CARBON			**EPA 415.1**			
Organic Carbon, Dissolved	2.7		1.0	mg/L	1	04/30/07 17:10

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER

Lab ID: 0704126-013C
Client Sample ID: *ETMW-121*
Collection Date: 04/19/07 9:15
Date Received: 04/20/07 9:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC			**EPA 300.0**			
Chloride	7.8		1.0	mg/L	1	04/20/07 16:29
Nitrate (as N)	1.2		0.050	mg/L	1	04/20/07 16:29
Sulfate (as SO4)	7.7		1.0	mg/L	1	04/20/07 16:29

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER

Lab ID: 0704126-013D
Client Sample ID: *ETMW-121*
Collection Date: 04/19/07 9:15
Date Received: 04/20/07 9:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON			**EPA 415.1**			
Total Organic Carbon	2.1		1.0	mg/L	1	04/30/07 13:26

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER

Lab ID: 0704126-013E
Client Sample ID: *ETMW-121*
Collection Date: 04/19/07 9:15
Date Received: 04/20/07 9:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED ORGANIC CARBON			**EPA 415.1**			
Organic Carbon, Dissolved	1.6		1.0	mg/L	1	04/30/07 17:16

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER

Lab ID: 0704126-013F
Client Sample ID: *ETMW-121*
Collection Date: 04/19/07 9:15
Date Received: 04/20/07 9:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, AS CACO3				**EPA 310.1**		
Alkalinity, as CaCO3	38		10	mg/L	1	05/01/07

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER

Lab ID: 0704126-013G
Client Sample ID: *ETMW-121*
Collection Date: 04/19/07 9:15
Date Received: 04/20/07 9:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE			**EPA 376.1**			
Sulfide	1.8		1.0	mg/L	1	04/24/07 8:00

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT: O'Brien & Gere Engineers, Inc.
Project: Miller Brewing Company Can Plant
W Order: 0704126
Matrix: WATER

Lab ID: 0704126-014E
Client Sample ID: *CH2MW-114D*
Collection Date: 04/19/07 9:40
Date Received: 04/20/07 9:05

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED ORGANIC CARBON			**EPA 415.1**			
Organic Carbon, Dissolved	2.0		1.0	mg/L	1	04/30/07 17:23

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **0704126-013GDUP**	SampType: **DUP**	TestCode: **S376.1**	Units: **mg/L**	Prep Date:		RunNo: **9349**						
Client ID: **ETMW-121**	Batch ID: **R9349**	Method: **EPA 376.1**		Analysis Date: **4/24/2007**		SeqNo: **253936**						
Instrument:	ColumnID:											
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Sulfide	1.74	1.0						1.85	6.2	20		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0
Work Order: 0704126
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCS-R9327** SampType: **LCS** TestCode: **300.0W** Units: **mg/L** Prep Date: RunNo: **9327**
Client ID: **ZZZZZ** Batch ID: **R9327** Method: **EPA 300.0** Analysis Date: **4/20/2007** SeqNo: **253470**
Instrument: ColumnID:

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	5.12	1.0	5	0	102	85	115				
Nitrate (as N)	0.502	0.050	0.5	0	100	85	115				
Sulfate (as SO4)	5.14	1.0	5	0	103	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-R9460**	SampType: **LCS**	TestCode: **TOC415.1**	Units: **mg/L**	Prep Date:		RunNo: **9460**			
Client ID: **ZZZZZ**	Batch ID: **R9460**	Method: **EPA 415.1**		Analysis Date: **4/30/2007**		SeqNo: **258267**			
Instrument:	ColumnID:								

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	10.0	1.0	10	0	101	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **LCS-R9470**	SampType: **LCS**	TestCode: **DOC415.1**	Units: **mg/L**	Prep Date:		RunNo:	**9470**		
Client ID: **ZZZZZ**	Batch ID: **R9470**	Method: **EPA 415.1**		Analysis Date: **4/30/2007**		SeqNo:	**258523**		
Instrument:	ColumnID:								

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved	10.2	1.0	10	0	102	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1
Work Order: 0704126
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCS-R9456**	SampType: **LCS**	TestCode: **ALK310.1**	Units: **mg/L**	Prep Date:		RunNo:	**9456**	
Client ID: **ZZZZZ**	Batch ID: **R9456**	Method: **EPA 310.1**		Analysis Date:	**5/1/2007**	SeqNo:	**258157**	
Instrument:	ColumnID:							

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, as CaCO3	48.0	10	50	0	96	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1
Work Order: 0704126
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **LCS-R9349** SampType: **LCS** TestCode: **S376.1** Units: **mg/L** Prep Date: RunNo: **9349**
Client ID: **ZZZZZ** Batch ID: **R9349** Method: **EPA 376.1** Analysis Date: **4/24/2007** SeqNo: **253926**
Instrument: ColumnID:

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	2.20	1.0	2.5	0	88	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0
Work Order: 0704126
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **MB-R9327**	SampType: **MBLK**	TestCode: **300.0W**	Units: **mg/L**		Prep Date:				RunNo: **9327**				
Client ID: **ZZZZZ**	Batch ID: **R9327**	Method: **EPA 300.0**			Analysis Date: **4/20/2007**				SeqNo: **253459**				
Instrument:	ColumnID:												
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Chloride	ND	1.0											
Nitrate (as N)	ND	0.050											
Sulfate (as SO4)	ND	1.0											

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0704126
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID:	**MB-R9460**	SampType:	**MBLK**	TestCode:	**TOC415.1**	Units:	**mg/L**	Prep Date:		RunNo:	**9460**
Client ID:	**ZZZZZ**	Batch ID:	**R9460**	Method:	**EPA 415.1**			Analysis Date:	**4/30/2007**	SeqNo:	**258266**
Instrument:		ColumnID:									

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MBF-R9470**	SampType: **MBLK**	TestCode: **DOC415.1**	Units: **mg/L**		Prep Date:				RunNo: **9470**				
Client ID: **ZZZZZ**	Batch ID: **R9470**	Method: **EPA 415.1**			Analysis Date: **4/30/2007**				SeqNo: **258522**				
Instrument:	ColumnID:												
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Organic Carbon, Dissolved	ND	1.0											

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-R9456**	SampType: **MBLK**	TestCode: **ALK310.1**	Units: **mg/L**	Prep Date:		RunNo:	**9456**		
Client ID: **ZZZZZ**	Batch ID: **R9456**	Method: **EPA 310.1**		Analysis Date: **5/1/2007**		SeqNo:	**258156**		
Instrument:	ColumnID:								

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, as CaCO3	ND	10									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1

Work Order: 0704126

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: **MB-R9349**	SampType: **MBLK**	TestCode: **S376.1**	Units: **mg/L**	Prep Date:		RunNo:	**9349**		
Client ID: **ZZZZZ**	Batch ID: **R9349**	Method: **EPA 376.1**		Analysis Date: **4/24/2007**		SeqNo:	**253925**		
Instrument:	ColumnID:								

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *08-May-07*

Life Science Laboratories, Inc.
Brittonfield Lab

5000 Brittonfield Parkway, Suite 200
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client: OBRIEN + GERE

Project: MILLER MOULTRIE

Sampled by: ERIC BOMGARNER, SARAH SLAGLE-GARRETT

Client Contact: SARAH SLAGLE-GARRETT Phone # 919-783-7777

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	Analysis/Method: VOCs 8260	MEE	NO_3 Chloride, SO_4	TOC	DOC	TALK	Sulfide	Fe/Mn	Comments
OBG MW-123	4/18/07	0900	W	G	3	3	-	-	-	-	-	-	-	
CH2MW-2	4/18/07	0930	W	G	3	3	-	-	-	-	-	-	-	
DUP-02	4/18/07	-	W	G	3	3	-	-	-	-	-	-	-	
CH2MW-2-MS1-041807	4/18/07	-	W	G	3	3	-	-	-	-	-	-	-	
CH2MW-2-MSD1-041807	4/18/07	-	W	G	3	3	-	-	-	-	-	-	-	
OBGMW-122	4/18/07	1030	W	G	3	3	-	-	-	-	-	-	-	
CH2MW-4D	4/18/07	1140	W	G	3	3	-	-	-	-	-	-	-	
ETCMW-115	4/18/07	1310	W	G	3	3	-	-	-	-	-	-	-	
ETCMW-116	4/18/07	1416	W	G	3	3	-	-	-	-	-	-	-	
ETMW-117	4/18/07	1340	W	G	3	3	-	-	-	-	-	-	-	
ETMW-118	4/18/07	1445	W	G	3	3	-	-	-	-	-	-	-	
ETMW-113	4/18/07	1510	W	G	3	3	-	-	-	-	-	-	-	

Relinquished by: Sarah Slagle-Garrett	Date: 4/19/07	Time: 1400	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by Lab: Date: 4/20/07 Time: 0905
Shipment Method:			Airbill Number:

Turnaround Time Required:
Routine ✓
Rush (Specify)

Comments:

Cooler Temperature: 3.6, 2.0° C on ice
Custody Seals INTACT

Original - Laboratory
Copy - Client

Life Science Laboratories, Inc.
Brittonfield Lab

5000 Brittonfield Parkway, Suite 200
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client: O'BRIEN AND GERE

Project: MILLER MOULTRIE

Sampled by: ERIC BUMGARNER
SARAH SLAGLE-GARRETT

Client Contact: SARAH SLAGLE-GARRETT Phone # 919-783-7777

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	Analysis/Method: VOC 8260	MEE	NO_3, Chloride, SO_4	TOC	DOC	TALK	Sulfide	Fe/Mn	Comments
OBGMW-124	4/19/07	0800	W	G	12	3	2	1	1	1	1	2	1	
CH2MW-1A	4/19/07	0845	W	G	8	3	2		1	1			1	
ETMW-121	4/19/07	0915	W	G	12	3	2	1	1	1	1	2	1	
CH2MW-114D	4/19/07	0940	W	G	5	3	1	-	-	1	-	-	-	
TB1-041907	-	-	W	G	2	2	-	-	-	-	-	-	-	
TB2-041907	-	-	W	G	2	2	-	-	-	-	-	-	-	

Relinquished by: Sarah Slagle-Garrett	Date: 4/18/07	Time: 1400	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by Lab:
Shipment Method:			Airbill Number:

Date: 4/20/07 Time: 0905

Turnaround Time Required:
Routine ✓
Rush (Specify)

Comments:

Cooler Temperature: 3.6°, 2.0°C on ice
Custody Seals INTACT

Original - Laboratory
Copy - Client

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name: **OBG-RALEIGH**

Date and Time Received: **4/20/2007 9:05:00 AM**

Work Order Number **0704126**

Received by: ads

Checklist completed by: _____ 4/20/07 (Initials / Date)

Reviewed by: _____ 4/20/07 (Initials / Date)

Matrix:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

pH	Preservative	pH Acceptable	Sample ID	Volume of Preservative added in Lab.
>12	NaOH	Yes ☑ N ☐ NA ☐		
<2	HNO3	Yes ☑ N ☐ NA ☐		
<2	HSO4	Yes ☐ N ☐ NA ☑		
<2	1:1 HCL	Yes ☑ N ☐ NA ☐	TOC	
5-9	Pest/PCBs (608/8081)	Yes ☐ N ☐ NA ☑		

Comments:

Corrective Action::

Table 1
Target Analyte List and Geochemistry Parameters
Miller Brewing Company Can Plant
Moultrie, Georgia

Target Analytes	Geochemistry Parameters
Acetone	Alkalinity
2-Butanone (MEK)	Chloride
Benzene	Nitrate
Carbon Disulfide	Sulfate
Chloroethane	Sulfide
Chloromethane	Methane
1,2-Dibromo-3-chloropropane (DBCP)	Ethane
Dibromomethane	Ethene
1,1-Dichloroethane (1,1-DCA)	Soluble Organic Carbon (Dissolved)
1,2-Dichloroethane (1-,2-DCA)	Total Organic Carbon
1,1-Dichloroethene (1,1-DCE)	Total Iron
cis-1,2-dichloroethene (cis-1,2-DCE)	Conductivity*
trans-1,2-dichloroethene (trans-1,2-DCE)	Dissolved Oxygen*
1,2-Dichloroethene (total) (1,2-DCE-total)	Ferrous Iron*
Ethylbenzene	Manganese*
Isobutyl Alcohol	Oxidation/Reduction Potential (ORP)*
Methylene Chloride	pH*
4-methyl-2-pentanone (MIBK)	Temperature*
Naphthalene	
1,1,2,2-Tetrachloroethane	
Tetrachloroethene (PCE)	
Toluene	
1,2,3-Trichlorobenzene	
1,2,4-Trichlorobenzene	
1,1,1-Trichloroethane (TCA)	
Trichloroethene (TCE)	
Trichlorofluoromethane	
1,2,3-Trichloropropane	
Vinyl Acetate	
Vinyl Chloride	
Xylenes (total)	

* measured at time of sampling

FedEx Express **US Airbill**

8599 4500 2945

0200 Form ID No.

FedEx Retrieval Copy

fedex.com 1.800.GoFedEx 1.800.463.3339

1 From

Date 9/19/07 Sender's FedEx Account Number 1402251108

Sender's Name SARAH SLAGLE-GARRETT Phone 414-628-3

Company O'BRIEN & GERE

Address 278 S. Hwy 319 Dept./Floor/Suite/Room

City MOULTRIE State GA ZIP 31788

2 Your Internal Billing Reference 35789

3 To

Recipient's Name Phone 315 437-0200

Company LIFE SCIENCE LABORATORIES INC.

Recipient's Address BRITTON FIELD LAB Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address 5000 BRITTONFIELD PKWY SUITE 200

To request a package be held at a specific FedEx location, print FedEx address here.

City EAST SYRACUSE State NY ZIP 13057

4a Express Package Service *Packages up to 150 lbs.*

1 [X] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

5 [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

6 [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.

3 [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

20 [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

FedEx Envelope rate not available. Minimum charge: One-pound rate.

* To most locations.

4b Express Freight Service *Packages over 150 lbs.*

7 [ ] FedEx 1Day Freight* — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

8 [ ] FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

83 [ ] FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

* Call for Confirmation: ** To most locations.

5 Packaging

6 [ ] FedEx Envelope* 2 [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak. 3 [ ] FedEx Box 4 [ ] FedEx Tube 1 [X] Other

* Declared value limit $500.

6 Special Handling — Include FedEx address in Section 3.

3 [ ] SATURDAY Delivery — Not available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.

1 [ ] HOLD Weekday at FedEx Location — Not available for FedEx First Overnight.

31 [ ] HOLD Saturday at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.

[X] No 4 [ ] Yes — As per attached Shipper's Declaration. [ ] Yes — Shipper's Declaration not required. 6 [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging. [ ] Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No. [ ]

1 [X] Sender — Acct. No. in Section 1 will be billed. 2 [ ] Recipient 3 [ ] Third Party 4 [ ] Credit Card 5 [ ] Cash/Check

Total Packages	Total Weight	Total Charges
2	[redacted]	Credit Card Auth

†Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

8 NEW Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

[ ] No Signature Required — Package may be left without obtaining a signature for delivery.

10 [ ] Direct Signature — Anyone at recipient's address may sign for delivery. *Fee applies.*

34 [ ] Indirect Signature — If no one is available at recipient's address, anyone at a neighboring address may sign for delivery. *Fee applies.*

520

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Life Science Laboratories, Inc.
Brittonfield Lab

5000 Brittonfield Parkway, Suite 200
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client: OBRIEN + GERE

Project: MILLER MOULTRIE

Sampled by: ERIC BUMGARNER
SARAH SLAGLE-GARRETT

Client Contact: SARAH SLAGLE-GARRETT Phone # 919-783-7777

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	Analysis/Method: VOCs 8260	MEE	NO_3 Chloride, SO_4	TOC	DOC	TALK	Sulfide	Fe/Mn	Comments
OBG MW-123	4/18/07	0900	W	G	3	3	-	-	-	-	-	-	-	
CH2MW-2	4/18/07	0930	W	G	3	3	-	-	-	-	-	-	-	
DUP-02	4/18/07	-	W	G	3	3	-	-	-	-	-	-	-	
CH2MW-2-MS1-041807	4/18/07	-	W	G	3	3	-	-	-	-	-	-	-	
CH2MW-2-MSD1-041807	4/18/07	-	W	G	3	3	-	-	-	-	-	-	-	
OBGMW-122	4/18/07	1030	W	G	3	3	-	-	-	-	-	-	-	
CH2MW-4D	4/18/07	1140	W	G	3	3	-	-	-	-	-	-	-	
ETCMW-115	4/18/07	1310	W	G	3	3	-	-	-	-	-	-	-	
ETCMW-116	4/18/07	1416	W	G	3	3	-	-	-	-	-	-	-	
ETMW-117	4/18/07	1340	W	G	3	3	-	-	-	-	-	-	-	
ETMW-118	4/18/07	1445	W	G	3	3	-	-	-	-	-	-	-	
ETMW-113	4/18/07	1510	W	G	3	3	-	-	-	-	-	-	-	

Relinquished by: Sarah Slagle-Garrett	Date: 4/19/07	Time: 1400	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by Lab:
Shipment Method:			Airbill Number:

Turnaround Time Required:
Routine ✓
Rush (Specify)_____

Comments:

Cooler Temperature:_____

Original - Laboratory
Copy - Client

Life Science Laboratories, Inc.
Brittonfield Lab

5000 Brittonfield Parkway, Suite 200
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client: O'BRIEN AND GERE

Project: MILLER MOULTRIE

Sampled by: ERIC BUMGARNER
SARAH SLAGLE-GARRETT

Client Contact: SARAH SLAGLE-GARRETT Phone # 919-783-7773

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	VOC 8260	MEE	NO_3, Chloride, SO_4	TOC	DOC	TALK	Sulfide	Fe/Mn	Comments
OBG MW-124	4/19/07	0800	W	G	12	3	2	1	1	1	1	2	1	
CH2 MW-1A	4/19/07	0845	W	G	8	3	2		1	1			1	
ETMW-121	4/19/07	0915	W	G	12	3	2	1	1	1	1	2	1	
CH2 MW-114D	4/19/07	0940	W	G	5	3	1	-	-	1	-	-	-	
TB1-041907	-	-	W	G	2	2	-	-	-	-	-	-	-	
TB2-041907	-	-	W	G	2	2	-	-	-	-	-	-	-	

Relinquished by: Sarah Slagle-Garrett	Date: 4/18/07	Time: 1400	Received by: Date: Time:
Relinquished by:	Date:	Time:	Received by: Date: Time:
Relinquished by:	Date:	Time:	Received by Lab: Date: Time:
Shipment Method:			Airbill Number:

Turnaround Time Required:
Routine ✓
Rush (Specify)_____

Comments:

Cooler Temperature:_____

Original - Laboratory
Copy - Client

Appendix E2

October 2007

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Wednesday, December 19, 2007

Sarah Slagle-Garrett
O'Brien & Gere Engineers, Inc.
2610 Wycliff Road
Suite 104
Raleigh, NC 27607

TEL: 919-783-7777

Project: MILLER BREWING COMPANY CAN PLANT
RE: Analytical Results Order No.: 0710153

Dear Sarah Slagle-Garrett:

Life Science Laboratories, Inc. received 6 sample(s) on 10/24/2007 for the analyses presented in the following report.

Very truly yours,
Life Science Laboratories, Inc.

Monika Santucci

Monika Santucci
Project Manager

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200
StateCertNo:

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-001A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-120*
W Order:	0710153	**Collection Date:**	10/23/07 9:42
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11767
Revision:	12/17/07 17:03	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1094.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	11/04/07 20:38
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	11/04/07 20:38
1,1-Dichloroethane	ND		0.50	µg/L	1	11/04/07 20:38
1,1-Dichloroethene	ND		0.50	µg/L	1	11/04/07 20:38
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	11/04/07 20:38
1,2,3-Trichloropropane	ND		0.50	µg/L	1	11/04/07 20:38
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	11/04/07 20:38
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	11/04/07 20:38
1,2-Dichloroethane	ND		0.50	µg/L	1	11/04/07 20:38
2-Butanone	ND		10.0	µg/L	1	11/04/07 20:38
4-Methyl-2-pentanone	ND		5.00	µg/L	1	11/04/07 20:38
Acetone	ND		10.0	µg/L	1	11/04/07 20:38
Benzene	ND		0.50	µg/L	1	11/04/07 20:38
Carbon disulfide	ND		0.50	µg/L	1	11/04/07 20:38
Chloroethane	ND		1.00	µg/L	1	11/04/07 20:38
Chloromethane	ND		1.00	µg/L	1	11/04/07 20:38
cis-1,2-Dichloroethene	0.94		0.50	µg/L	1	11/04/07 20:38
Dibromomethane	ND		0.50	µg/L	1	11/04/07 20:38
Ethylbenzene	ND		0.50	µg/L	1	11/04/07 20:38
Isobutyl alcohol	ND		50.0	µg/L	1	11/04/07 20:38
Methylene chloride	ND		2.00	µg/L	1	11/04/07 20:38
Naphthalene	ND		1.00	µg/L	1	11/04/07 20:38
Tetrachloroethene	ND		0.50	µg/L	1	11/04/07 20:38
Toluene	ND		0.50	µg/L	1	11/04/07 20:38
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	11/04/07 20:38
Trichloroethene	ND		0.50	µg/L	1	11/04/07 20:38
Trichlorofluoromethane	ND		1.00	µg/L	1	11/04/07 20:38
Vinyl acetate	ND		2.00	µg/L	1	11/04/07 20:38
Vinyl chloride	ND		1.00	µg/L	1	11/04/07 20:38
Xylenes (total)	ND		1.00	µg/L	1	11/04/07 20:38
Surr: 1,2-Dichloroethane-d4	116		75-134	%REC	1	11/04/07 20:38
Surr: 4-Bromofluorobenzene	87.9		75-125	%REC	1	11/04/07 20:38
Surr: Dibromofluoromethane	101		75-127	%REC	1	11/04/07 20:38
Surr: Toluene-d8	108		75-125	%REC	1	11/04/07 20:38

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-002A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-115*
W Order:	0710153	**Collection Date:**	10/23/07 11:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11767
Revision:	12/17/07 17:03	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1095.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		1.25	µg/L	2.5	11/04/07 21:13
1,1,2,2-Tetrachloroethane	ND		1.25	µg/L	2.5	11/04/07 21:13
1,1-Dichloroethane	3.08		1.25	µg/L	2.5	11/04/07 21:13
1,1-Dichloroethene	ND		1.25	µg/L	2.5	11/04/07 21:13
1,2,3-Trichlorobenzene	ND		2.50	µg/L	2.5	11/04/07 21:13
1,2,3-Trichloropropane	ND		1.25	µg/L	2.5	11/04/07 21:13
1,2,4-Trichlorobenzene	ND		2.50	µg/L	2.5	11/04/07 21:13
1,2-Dibromo-3-chloropropane	ND		2.50	µg/L	2.5	11/04/07 21:13
1,2-Dichloroethane	ND		1.25	µg/L	2.5	11/04/07 21:13
2-Butanone	ND		25.0	µg/L	2.5	11/04/07 21:13
4-Methyl-2-pentanone	ND		12.5	µg/L	2.5	11/04/07 21:13
Acetone	ND		25.0	µg/L	2.5	11/04/07 21:13
Benzene	ND		1.25	µg/L	2.5	11/04/07 21:13
Carbon disulfide	ND		1.25	µg/L	2.5	11/04/07 21:13
Chloroethane	ND		2.50	µg/L	2.5	11/04/07 21:13
Chloromethane	ND		2.50	µg/L	2.5	11/04/07 21:13
cis-1,2-Dichloroethene	31.8		1.25	µg/L	2.5	11/04/07 21:13
Dibromomethane	ND		1.25	µg/L	2.5	11/04/07 21:13
Ethylbenzene	ND		1.25	µg/L	2.5	11/04/07 21:13
Isobutyl alcohol	ND		125	µg/L	2.5	11/04/07 21:13
Methylene chloride	ND		5.00	µg/L	2.5	11/04/07 21:13
Naphthalene	ND		2.50	µg/L	2.5	11/04/07 21:13
Tetrachloroethene	ND		1.25	µg/L	2.5	11/04/07 21:13
Toluene	ND		1.25	µg/L	2.5	11/04/07 21:13
trans-1,2-Dichloroethene	ND		1.25	µg/L	2.5	11/04/07 21:13
Trichloroethene	7.90		1.25	µg/L	2.5	11/04/07 21:13
Trichlorofluoromethane	ND		2.50	µg/L	2.5	11/04/07 21:13
Vinyl acetate	ND		5.00	µg/L	2.5	11/04/07 21:13
Vinyl chloride	ND		2.50	µg/L	2.5	11/04/07 21:13
Xylenes (total)	ND		2.50	µg/L	2.5	11/04/07 21:13
Surr: 1,2-Dichloroethane-d4	116		75-134	%REC	2.5	11/04/07 21:13
Surr: 4-Bromofluorobenzene	89.5		75-125	%REC	2.5	11/04/07 21:13
Surr: Dibromofluoromethane	101		75-127	%REC	2.5	11/04/07 21:13
Surr: Toluene-d8	106		75-125	%REC	2.5	11/04/07 21:13

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-003A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-121*
W Order:	0710153	**Collection Date:**	10/23/07 12:25
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11767
Revision:	12/17/07 17:03	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1096.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	11/04/07 21:47
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	11/04/07 21:47
1,1-Dichloroethane	ND		0.50	µg/L	1	11/04/07 21:47
1,1-Dichloroethene	ND		0.50	µg/L	1	11/04/07 21:47
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	11/04/07 21:47
1,2,3-Trichloropropane	ND		0.50	µg/L	1	11/04/07 21:47
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	11/04/07 21:47
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	11/04/07 21:47
1,2-Dichloroethane	ND		0.50	µg/L	1	11/04/07 21:47
2-Butanone	ND		10.0	µg/L	1	11/04/07 21:47
4-Methyl-2-pentanone	ND		5.00	µg/L	1	11/04/07 21:47
Acetone	ND		10.0	µg/L	1	11/04/07 21:47
Benzene	ND		0.50	µg/L	1	11/04/07 21:47
Carbon disulfide	ND		0.50	µg/L	1	11/04/07 21:47
Chloroethane	ND		1.00	µg/L	1	11/04/07 21:47
Chloromethane	ND		1.00	µg/L	1	11/04/07 21:47
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	11/04/07 21:47
Dibromomethane	ND		0.50	µg/L	1	11/04/07 21:47
Ethylbenzene	ND		0.50	µg/L	1	11/04/07 21:47
Isobutyl alcohol	ND		50.0	µg/L	1	11/04/07 21:47
Methylene chloride	ND		2.00	µg/L	1	11/04/07 21:47
Naphthalene	ND		1.00	µg/L	1	11/04/07 21:47
Tetrachloroethene	ND		0.50	µg/L	1	11/04/07 21:47
Toluene	ND		0.50	µg/L	1	11/04/07 21:47
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	11/04/07 21:47
Trichloroethene	ND		0.50	µg/L	1	11/04/07 21:47
Trichlorofluoromethane	ND		1.00	µg/L	1	11/04/07 21:47
Vinyl acetate	ND		2.00	µg/L	1	11/04/07 21:47
Vinyl chloride	ND		1.00	µg/L	1	11/04/07 21:47
Xylenes (total)	ND		1.00	µg/L	1	11/04/07 21:47
Surr: 1,2-Dichloroethane-d4	116		75-134	%REC	1	11/04/07 21:47
Surr: 4-Bromofluorobenzene	90.5		75-125	%REC	1	11/04/07 21:47
Surr: Dibromofluoromethane	99.4		75-127	%REC	1	11/04/07 21:47
Surr: Toluene-d8	108		75-125	%REC	1	11/04/07 21:47

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-004A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-114*
W Order:	0710153	**Collection Date:**	10/23/07 15:30
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11767
Revision:	12/17/07 17:03	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1097.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	11/04/07 22:21
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	11/04/07 22:21
1,1-Dichloroethane	52.0	E	0.50	µg/L	1	11/04/07 22:21
1,1-Dichloroethene	6.91		0.50	µg/L	1	11/04/07 22:21
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	11/04/07 22:21
1,2,3-Trichloropropane	ND		0.50	µg/L	1	11/04/07 22:21
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	11/04/07 22:21
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	11/04/07 22:21
1,2-Dichloroethane	0.82		0.50	µg/L	1	11/04/07 22:21
2-Butanone	ND		10.0	µg/L	1	11/04/07 22:21
4-Methyl-2-pentanone	ND		5.00	µg/L	1	11/04/07 22:21
Acetone	ND		10.0	µg/L	1	11/04/07 22:21
Benzene	1.70		0.50	µg/L	1	11/04/07 22:21
Carbon disulfide	ND		0.50	µg/L	1	11/04/07 22:21
Chloroethane	14.9		1.00	µg/L	1	11/04/07 22:21
Chloromethane	ND		1.00	µg/L	1	11/04/07 22:21
cis-1,2-Dichloroethene	185	E	0.50	µg/L	1	11/04/07 22:21
Dibromomethane	ND		0.50	µg/L	1	11/04/07 22:21
Ethylbenzene	ND		0.50	µg/L	1	11/04/07 22:21
Isobutyl alcohol	ND		50.0	µg/L	1	11/04/07 22:21
Methylene chloride	ND		2.00	µg/L	1	11/04/07 22:21
Naphthalene	ND		1.00	µg/L	1	11/04/07 22:21
Tetrachloroethene	ND		0.50	µg/L	1	11/04/07 22:21
Toluene	2.22		0.50	µg/L	1	11/04/07 22:21
trans-1,2-Dichloroethene	3.31		0.50	µg/L	1	11/04/07 22:21
Trichloroethene	8.79		0.50	µg/L	1	11/04/07 22:21
Trichlorofluoromethane	ND		1.00	µg/L	1	11/04/07 22:21
Vinyl acetate	ND		2.00	µg/L	1	11/04/07 22:21
Vinyl chloride	524	E	1.00	µg/L	1	11/04/07 22:21
Xylenes (total)	1.69		1.00	µg/L	1	11/04/07 22:21
Surr: 1,2-Dichloroethane-d4	116		75-134	%REC	1	11/04/07 22:21
Surr: 4-Bromofluorobenzene	89.7		75-125	%REC	1	11/04/07 22:21
Surr: Dibromofluoromethane	102		75-127	%REC	1	11/04/07 22:21
Surr: Toluene-d8	106		75-125	%REC	1	11/04/07 22:21

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-004ADL**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-114*
W Order:	0710153	**Collection Date:**	10/23/07 15:30
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R12246
Revision:	12/18/07 15:06	**TestCode** 8260W CAL	**FileID:** 1-DL-M3919.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1-Dichloroethane	40.8	H	12.5	µg/L	25	12/12/07 14:22
cis-1,2-Dichloroethene	229	H	12.5	µg/L	25	12/12/07 14:22
Vinyl chloride	999	H	25.0	µg/L	25	12/12/07 14:22
Surr: 1,2-Dichloroethane-d4	89.7	H	75-134	%REC	25	12/12/07 14:22
Surr: 4-Bromofluorobenzene	110	H	75-125	%REC	25	12/12/07 14:22
Surr: Dibromofluoromethane	113	H	75-127	%REC	25	12/12/07 14:22
Surr: Toluene-d8	112	H	75-125	%REC	25	12/12/07 14:22

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-005A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*DUP-02*
W Order:	0710153	**Collection Date:**	10/23/07 0:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11767
Revision:	12/17/07 17:03	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1098.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	11/04/07 22:55
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	11/04/07 22:55
1,1-Dichloroethane	50.5	E	0.50	µg/L	1	11/04/07 22:55
1,1-Dichloroethene	6.42		0.50	µg/L	1	11/04/07 22:55
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	11/04/07 22:55
1,2,3-Trichloropropane	ND		0.50	µg/L	1	11/04/07 22:55
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	11/04/07 22:55
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	11/04/07 22:55
1,2-Dichloroethane	0.80		0.50	µg/L	1	11/04/07 22:55
2-Butanone	ND		10.0	µg/L	1	11/04/07 22:55
4-Methyl-2-pentanone	ND		5.00	µg/L	1	11/04/07 22:55
Acetone	ND		10.0	µg/L	1	11/04/07 22:55
Benzene	1.65		0.50	µg/L	1	11/04/07 22:55
Carbon disulfide	ND		0.50	µg/L	1	11/04/07 22:55
Chloroethane	14.3		1.00	µg/L	1	11/04/07 22:55
Chloromethane	ND		1.00	µg/L	1	11/04/07 22:55
cis-1,2-Dichloroethene	179	E	0.50	µg/L	1	11/04/07 22:55
Dibromomethane	ND		0.50	µg/L	1	11/04/07 22:55
Ethylbenzene	ND		0.50	µg/L	1	11/04/07 22:55
Isobutyl alcohol	ND		50.0	µg/L	1	11/04/07 22:55
Methylene chloride	ND		2.00	µg/L	1	11/04/07 22:55
Naphthalene	ND		1.00	µg/L	1	11/04/07 22:55
Tetrachloroethene	ND		0.50	µg/L	1	11/04/07 22:55
Toluene	2.02		0.50	µg/L	1	11/04/07 22:55
trans-1,2-Dichloroethene	3.13		0.50	µg/L	1	11/04/07 22:55
Trichloroethene	8.23		0.50	µg/L	1	11/04/07 22:55
Trichlorofluoromethane	ND		1.00	µg/L	1	11/04/07 22:55
Vinyl acetate	ND		2.00	µg/L	1	11/04/07 22:55
Vinyl chloride	547	E	1.00	µg/L	1	11/04/07 22:55
Xylenes (total)	1.65		1.00	µg/L	1	11/04/07 22:55
Surr: 1,2-Dichloroethane-d4	116		75-134	%REC	1	11/04/07 22:55
Surr: 4-Bromofluorobenzene	91.1		75-125	%REC	1	11/04/07 22:55
Surr: Dibromofluoromethane	103		75-127	%REC	1	11/04/07 22:55
Surr: Toluene-d8	108		75-125	%REC	1	11/04/07 22:55

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-005ADL**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*DUP-02*
W Order:	0710153	**Collection Date:**	10/23/07 0:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R12246
Revision:	12/18/07 15:06	**TestCode** 8260W CAL	**FileID:** 1-DL-M3920.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1-Dichloroethane	37.2	H	12.5	µg/L	25	12/12/07 15:01
cis-1,2-Dichloroethene	204	H	12.5	µg/L	25	12/12/07 15:01
Vinyl chloride	806	H	25.0	µg/L	25	12/12/07 15:01
Surr: 1,2-Dichloroethane-d4	88.7	H	75-134	%REC	25	12/12/07 15:01
Surr: 4-Bromofluorobenzene	112	H	75-125	%REC	25	12/12/07 15:01
Surr: Dibromofluoromethane	113	H	75-127	%REC	25	12/12/07 15:01
Surr: Toluene-d8	113	H	75-125	%REC	25	12/12/07 15:01

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-006A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*TB-102307*
W Order:	0710153	**Collection Date:**	10/23/07 9:42
Matrix:	WATER Q	**Date Received:**	10/24/07 9:27
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11767
Revision:	12/17/07 17:03	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1093.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	11/04/07 20:04
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	11/04/07 20:04
1,1-Dichloroethane	ND		0.50	µg/L	1	11/04/07 20:04
1,1-Dichloroethene	ND		0.50	µg/L	1	11/04/07 20:04
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	11/04/07 20:04
1,2,3-Trichloropropane	ND		0.50	µg/L	1	11/04/07 20:04
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	11/04/07 20:04
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	11/04/07 20:04
1,2-Dichloroethane	ND		0.50	µg/L	1	11/04/07 20:04
2-Butanone	ND		10.0	µg/L	1	11/04/07 20:04
4-Methyl-2-pentanone	ND		5.00	µg/L	1	11/04/07 20:04
Acetone	ND		10.0	µg/L	1	11/04/07 20:04
Benzene	ND		0.50	µg/L	1	11/04/07 20:04
Carbon disulfide	ND		0.50	µg/L	1	11/04/07 20:04
Chloroethane	ND		1.00	µg/L	1	11/04/07 20:04
Chloromethane	ND		1.00	µg/L	1	11/04/07 20:04
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	11/04/07 20:04
Dibromomethane	ND		0.50	µg/L	1	11/04/07 20:04
Ethylbenzene	ND		0.50	µg/L	1	11/04/07 20:04
Isobutyl alcohol	ND		50.0	µg/L	1	11/04/07 20:04
Methylene chloride	ND		2.00	µg/L	1	11/04/07 20:04
Naphthalene	ND		1.00	µg/L	1	11/04/07 20:04
Tetrachloroethene	ND		0.50	µg/L	1	11/04/07 20:04
Toluene	ND		0.50	µg/L	1	11/04/07 20:04
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	11/04/07 20:04
Trichloroethene	ND		0.50	µg/L	1	11/04/07 20:04
Trichlorofluoromethane	ND		1.00	µg/L	1	11/04/07 20:04
Vinyl acetate	ND		2.00	µg/L	1	11/04/07 20:04
Vinyl chloride	ND		1.00	µg/L	1	11/04/07 20:04
Xylenes (total)	ND		1.00	µg/L	1	11/04/07 20:04
Surr: 1,2-Dichloroethane-d4	114		75-134	%REC	1	11/04/07 20:04
Surr: 4-Bromofluorobenzene	87.2		75-125	%REC	1	11/04/07 20:04
Surr: Dibromofluoromethane	100		75-127	%REC	1	11/04/07 20:04
Surr: Toluene-d8	105		75-125	%REC	1	11/04/07 20:04

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0710153
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-11767 SampType: LCS TestCode: 8260W_CAL Units: µg/L Prep Date: RunNo: 11767
Client ID: ZZZZZ Batch ID: R11767 Method: SW8260B Analysis Date: 11/4/2007 SeqNo: 319367
Instrument: MS01_11 ColumnID: Rtx-VMS Rtx-VMS, 1.0 df

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	9.55	0.500	10	0	96	80	127				
1,1,2,2-Tetrachloroethane	9.05	0.500	10	0	90	73	122				
1,1-Dichloroethane	9.15	0.500	10	0	92	80	120				
1,1-Dichloroethene	7.35	0.500	10	0	74	77	126				S
1,2,3-Trichlorobenzene	8.41	1.00	10	0	84	75	123				
1,2,3-Trichloropropane	9.23	0.500	10	0	92	72	126				
1,2,4-Trichlorobenzene	8.26	1.00	10	0	83	73	123				
1,2-Dibromo-3-chloropropane	7.58	1.00	10	0	76	71	124				
1,2-Dichloroethane	9.38	0.500	10	0	94	73	126				
2-Butanone	18.2	10.0	20	0	91	49	153				
4-Methyl-2-pentanone	15.6	5.00	20	0	78	50	150				
Acetone	21.4	10.0	20	0	107	37	163				
Benzene	9.34	0.500	10	0	93	80	120				
Carbon disulfide	9.42	0.500	10	0	94	76	122				
Chloroethane	7.59	1.00	10	0	76	75	124				
Chloromethane	8.32	1.00	10	0	83	59	133				
cis-1,2-Dichloroethene	8.30	0.500	10	0	83	80	120				
Dibromomethane	8.35	0.500	10	0	84	79	120				
Ethylbenzene	9.43	0.500	10	0	94	80	120				
Isobutyl alcohol	247	50.0	250	0	99	50	150				
Methylene chloride	7.81	2.00	10	0	78	78	120				
Naphthalene	8.09	1.00	10	0	81	67	134				
Tetrachloroethene	8.02	0.500	10	0	80	80	120				
Toluene	9.43	0.500	10	0	94	80	120				
trans-1,2-Dichloroethene	7.83	0.500	10	0	78	80	120				S
Trichloroethene	8.82	0.500	10	0	88	80	120				
Trichlorofluoromethane	8.37	1.00	10	0	84	73	132				

Qualifiers:
B Analyte detected in the associated Method Blank
ND Not Detected at the Practical Quantitation Limit (PQL)
U Not Detected at the MDC or RL
E Value exceeds the instrument calibration range
R RPD exceeds accepted precision limit
J Analyte detected below the PQL
S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0710153
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-11767 SampType: LCS TestCode: 8260W_CAL Units: µg/L Prep Date: RunNo: 11767
Client ID: ZZZZZ Batch ID: R11767 Method: SW8260B Analysis Date: 11/4/2007 SeqNo: 319367
Instrument: MS01_11 ColumnID: Rtx-VMS Rtx-VMS, 1.0 df

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	9.44	2.00	10	0	94	43	150				
Vinyl chloride	7.92	1.00	10	0	79	75	125				
Xylenes (total)	26.9	1.00	30	0	90	80	120				
Surr: 1,2-Dichloroethane-d4	10.8	0.100	10	0	108	75	134				
Surr: 4-Bromofluorobenzene	10.1	0.100	10	0	101	75	125				
Surr: Dibromofluoromethane	9.90	0.100	10	0	99	75	127				
Surr: Toluene-d8	11.0	0.100	10	0	110	75	125				

Qualifiers:
B Analyte detected in the associated Method Blank
ND Not Detected at the Practical Quantitation Limit (PQL)
U Not Detected at the MDC or RL
E Value exceeds the instrument calibration range
R RPD exceeds accepted precision limit
J Analyte detected below the PQL
S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710153

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-12246	SampType: LCS	TestCode: 8260W_CAL	Units: µg/L	Prep Date:	RunNo: 12246
Client ID: ZZZZZ	Batch ID: R12246	Method: SW8260B		Analysis Date: 12/12/2007	SeqNo: 328147
Instrument: MS02_12	ColumnID: Rtx-502.2	Rtx-502.2, 3.0 df			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.4	0.500	10	0	104	80	127				
1,1,2,2-Tetrachloroethane	8.19	0.500	10	0	82	73	122				
1,1-Dichloroethane	9.74	0.500	10	0	97	80	120				
1,1-Dichloroethene	10.2	0.500	10	0	102	77	126				
1,2,3-Trichlorobenzene	5.27	1.00	10	0	53	75	123				S
1,2,3-Trichloropropane	7.51	0.500	10	0	75	72	126				
1,2,4-Trichlorobenzene	7.10	1.00	10	0	71	73	123				S
1,2-Dibromo-3-chloropropane	6.53	1.00	10	0	65	71	124				S
1,2-Dichloroethane	8.58	0.500	10	0	86	73	126				
2-Butanone	15.0	10.0	20	0	75	49	153				
4-Methyl-2-pentanone	12.6	5.00	20	0	63	50	150				
Acetone	13.2	10.0	20	0	66	37	163				
Benzene	10.0	0.500	10	0	100	80	120				
Carbon disulfide	10.4	0.500	10	0	104	76	122				
Chloroethane	9.35	1.00	10	0	94	75	124				
Chloromethane	8.06	1.00	10	0	81	59	133				
cis-1,2-Dichloroethene	10.5	0.500	10	0	105	80	120				
Dibromomethane	9.28	0.500	10	0	93	79	120				
Ethylbenzene	10.5	0.500	10	0	105	80	120				
Isobutyl alcohol	197	50.0	250	0	79	50	150				
Methylene chloride	9.64	2.00	10	0	96	78	120				
Naphthalene	4.55	1.00	10	0	46	67	134				S
Tetrachloroethene	12.7	0.500	10	0	127	80	120				S
Toluene	10.4	0.500	10	0	104	80	120				
trans-1,2-Dichloroethene	11.3	0.500	10	0	113	80	120				
Trichloroethene	10.7	0.500	10	0	107	80	120				
Trichlorofluoromethane	10.1	1.00	10	0	101	73	132				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710153

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-12246	SampType: LCS	TestCode: 8260W_CAL	Units: µg/L	Prep Date:	RunNo: 12246
Client ID: ZZZZZ	Batch ID: R12246	Method: SW8260B		Analysis Date: 12/12/2007	SeqNo: 328147
Instrument: MS02_12	ColumnID: Rtx-502.2	Rtx-502.2, 3.0 df			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	6.98	2.00	10	0	70	43	150				
Vinyl chloride	8.69	1.00	10	0	87	75	125				
Xylenes (total)	33.6	1.00	30	0	112	80	120				
Surr: 1,2-Dichloroethane-d4	8.41	0.100	10	0	84	75	134				
Surr: 4-Bromofluorobenzene	10.6	0.100	10	0	106	75	125				
Surr: Dibromofluoromethane	10.8	0.100	10	0	108	75	127				
Surr: Toluene-d8	10.6	0.100	10	0	106	75	125				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710153

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCSD-12246 SampType: LCSD TestCode: 8260W_CAL Units: µg/L Prep Date: RunNo: 12246

Client ID: ZZZZZ Batch ID: R12246 Method: SW8260B Analysis Date: 12/12/2007 SeqNo: 328148

Instrument: MS02_12 ColumnID: Rtx-502.2 Rtx-502.2, 3.0 df

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	9.95	0.500	10	0	100	80	127	10.4	5	20	
1,1,2,2-Tetrachloroethane	9.03	0.500	10	0	90	73	122	8.19	10	20	
1,1-Dichloroethane	9.44	0.500	10	0	94	80	120	9.74	3	20	
1,1-Dichloroethene	10.7	0.500	10	0	107	77	126	10.2	5	20	
1,2,3-Trichlorobenzene	5.85	1.00	10	0	58	75	123	5.27	10	20	S
1,2,3-Trichloropropane	8.60	0.500	10	0	86	72	126	7.51	14	20	
1,2,4-Trichlorobenzene	7.55	1.00	10	0	76	73	123	7.1	6	20	
1,2-Dibromo-3-chloropropane	7.32	1.00	10	0	73	71	124	6.53	11	20	
1,2-Dichloroethane	9.04	0.500	10	0	90	73	126	8.58	5	20	
2-Butanone	19.5	10.0	20	0	98	49	153	15	26	50	
4-Methyl-2-pentanone	16.2	5.00	20	0	81	50	150	12.6	25	50	
Acetone	15.7	10.0	20	0	79	37	163	13.2	18	50	
Benzene	9.83	0.500	10	0	98	80	120	10	2	20	
Carbon disulfide	9.83	0.500	10	0	98	76	122	10.4	6	20	
Chloroethane	8.12	1.00	10	0	81	75	124	9.35	14	20	
Chloromethane	7.81	1.00	10	0	78	59	133	8.06	3	20	
cis-1,2-Dichloroethene	10.4	0.500	10	0	104	80	120	10.5	1	20	
Dibromomethane	10.5	0.500	10	0	105	79	120	9.28	12	20	
Ethylbenzene	10.2	0.500	10	0	102	80	120	10.5	3	20	
Isobutyl alcohol	258	50.0	250	0	103	50	150	197	27	50	
Methylene chloride	9.64	2.00	10	0	96	78	120	9.64	0	20	
Naphthalene	5.18	1.00	10	0	52	67	134	4.55	13	20	S
Tetrachloroethene	12.5	0.500	10	0	125	80	120	12.7	1	20	S
Toluene	10.3	0.500	10	0	103	80	120	10.4	1	20	
trans-1,2-Dichloroethene	10.8	0.500	10	0	108	80	120	11.3	5	20	
Trichloroethene	10.7	0.500	10	0	107	80	120	10.7	0	20	
Trichlorofluoromethane	10.2	1.00	10	0	102	73	132	10.1	1	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710153

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCSD-12246	SampType: LCSD	TestCode: 8260W_CAL	Units: µg/L	Prep Date:		RunNo:	12246
Client ID: ZZZZZ	Batch ID: R12246	Method: SW8260B		Analysis Date: 12/12/2007		SeqNo:	328148
Instrument: MS02_12	ColumnID: Rtx-502.2	Rtx-502.2, 3.0 df					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	7.21	2.00	10	0	72	43	150	6.98	3	50	
Vinyl chloride	8.01	1.00	10	0	80	75	125	8.69	8	20	
Xylenes (total)	32.3	1.00	30	0	108	80	120	33.6	4	20	
Surr: 1,2-Dichloroethane-d4	9.04	0.100	10	0	90	75	134	0		0	
Surr: 4-Bromofluorobenzene	10.7	0.100	10	0	107	75	125	0		0	
Surr: Dibromofluoromethane	11.2	0.100	10	0	112	75	127	0		0	
Surr: Toluene-d8	10.7	0.100	10	0	107	75	125	0		0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710153

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-11767	SampType: MBLK	TestCode: 8260W_CAL	Units: µg/L	Prep Date:		RunNo:	11767
Client ID: ZZZZZ	Batch ID: R11767	Method: SW8260B		Analysis Date: 11/4/2007		SeqNo:	319370
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	0.500									
1,1-Dichloroethane	ND	0.500									
1,1-Dichloroethene	ND	0.500									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	0.500									
1,2,4-Trichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dichloroethane	ND	0.500									
2-Butanone	ND	10.0									
4-Methyl-2-pentanone	ND	5.00									
Acetone	ND	10.0									
Benzene	ND	0.500									
Carbon disulfide	ND	0.500									
Chloroethane	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	0.500									
Dibromomethane	ND	0.500									
Ethylbenzene	ND	0.500									
Isobutyl alcohol	ND	50.0									
Methylene chloride	ND	2.00									
Naphthalene	ND	1.00									
Tetrachloroethene	ND	0.500									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
Trichloroethene	ND	0.500									
Trichlorofluoromethane	ND	1.00									

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710153

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-11767	SampType: MBLK	TestCode: 8260W_CAL	Units: µg/L	Prep Date:		RunNo:	11767
Client ID: ZZZZZ	Batch ID: R11767	Method: SW8260B		Analysis Date: 11/4/2007		SeqNo:	319370
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	ND	2.00									
Vinyl chloride	ND	1.00									
Xylenes (total)	ND	1.00									
Surr: 1,2-Dichloroethane-d4	11.0	0.100	10	0	110	75	134				
Surr: 4-Bromofluorobenzene	8.82	0.100	10	0	88	75	125				
Surr: Dibromofluoromethane	9.88	0.100	10	0	99	75	127				
Surr: Toluene-d8	10.9	0.100	10	0	109	75	125				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710153

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: MB-12246	SampType: MBLK	TestCode: 8260W_CAL	Units: µg/L	Prep Date:		RunNo:	12246
Client ID: ZZZZZ	Batch ID: R12246	Method: SW8260B		Analysis Date: 12/12/2007		SeqNo:	328149
Instrument: MS02_12	ColumnID: Rtx-502.2	Rtx-502.2, 3.0 df					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	0.500									
1,1-Dichloroethane	ND	0.500									
1,1-Dichloroethene	ND	0.500									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	0.500									
1,2,4-Trichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dichloroethane	ND	0.500									
2-Butanone	ND	10.0									
4-Methyl-2-pentanone	ND	5.00									
Acetone	ND	10.0									
Benzene	ND	0.500									
Carbon disulfide	ND	0.500									
Chloroethane	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	0.500									
Dibromomethane	ND	0.500									
Ethylbenzene	ND	0.500									
Isobutyl alcohol	ND	50.0									
Methylene chloride	ND	2.00									
Naphthalene	ND	1.00									
Tetrachloroethene	ND	0.500									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
Trichloroethene	ND	0.500									
Trichlorofluoromethane	ND	1.00									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *18-Dec-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710153

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-12246	SampType: MBLK	TestCode: 8260W_CAL	Units: µg/L	Prep Date:		RunNo:	12246
Client ID: ZZZZZ	Batch ID: R12246	Method: SW8260B		Analysis Date: 12/12/2007		SeqNo:	328149
Instrument: MS02_12	ColumnID: Rtx-502.2	Rtx-502.2, 3.0 df					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	ND	2.00									
Vinyl chloride	ND	1.00									
Xylenes (total)	ND	1.00									
Surr: 1,2-Dichloroethane-d4	9.35	0.100	10	0	94	75	134				
Surr: 4-Bromofluorobenzene	11.2	0.100	10	0	112	75	125				
Surr: Dibromofluoromethane	11.5	0.100	10	0	115	75	127				
Surr: Toluene-d8	11.0	0.100	10	0	110	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *18-Dec-07*

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-002B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-115*
W Order:	0710153	**Collection Date:**	10/23/07 11:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	GCOS 17E	**Sample Size:** 32 mL	**PrepDate:** 10/29/07 12:23
ColumnID:	Alumina	**%Moisture:**	**BatchNo:** 6476/R11675
Revision:	10/30/07 7:57	**TestCode** 8015W RSK175	**FileID:** 1-SAMP-E:\Osioct07\E102906.r
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		**(RSK 175)**
Ethane	ND		0.0042	mg/L	1	10/29/07 14:50
Ethene	ND		0.0042	mg/L	1	10/29/07 14:50
Methane	0.019		0.0021	mg/L	1	10/29/07 14:50

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-003B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-121*
W Order:	0710153	**Collection Date:**	10/23/07 12:25
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	GCOS 17E	**Sample Size:** 33 mL	**PrepDate:** 10/29/07 12:23
ColumnID:	Alumina	**%Moisture:**	**BatchNo:** 6476/R11675
Revision:	10/30/07 7:57	**TestCode** 8015W RSK175	**FileID:** 1-SAMP-E:\Osioct07\E102907.r
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		**(RSK 175)**
Ethane	ND		0.0041	mg/L	1	10/29/07 14:59
Ethene	ND		0.0041	mg/L	1	10/29/07 14:59
Methane	ND		0.0021	mg/L	1	10/29/07 14:59

Qualifiers:			
	* Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-004B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-114*
W Order:	0710153	**Collection Date:**	10/23/07 15:30
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	GCOS 17E **Sample Size:** 32 mL	**PrepDate:**	10/29/07 12:23
ColumnID:	Alumina **%Moisture:**	**BatchNo:**	6476/R11675
Revision:	10/30/07 7:57 **TestCode** 8015W RSK175	**FileID:**	1-SAMP-E:\Osioct07\E102908.r
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		**(RSK 175)**
Ethane	ND		0.0042	mg/L	1	10/29/07 15:11
Ethene	0.038		0.0042	mg/L	1	10/29/07 15:11
Methane	0.054		0.0021	mg/L	1	10/29/07 15:11

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-005B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*DUP-02*
W Order:	0710153	**Collection Date:**	10/23/07 0:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	GCOS 17E	**Sample Size:** 32 mL	**PrepDate:** 10/29/07 12:23
ColumnID:	Alumina	**%Moisture:**	**BatchNo:** 6476/R11675
Revision:	10/30/07 7:57	**TestCode** 8015W RSK175	**FileID:** 1-SAMP-E:\Osioct07\E102909.r
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		**(RSK 175)**
Ethane	ND		0.0042	mg/L	1	10/29/07 15:21
Ethene	0.043		0.0042	mg/L	1	10/29/07 15:21
Methane	0.070		0.0021	mg/L	1	10/29/07 15:21

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M

Work Order: 0710153

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCS-6476	SampType: LCS	TestCode: 8015W_RSK1	Units: mg/L	Prep Date: 10/29/2007		RunNo: 11675	
Client ID: ZZZZZ	Batch ID: 6476	Method: 8015M/RSK1 (RSK 175)		Analysis Date: 10/29/2007		SeqNo: 315394	
Instrument: GCOS_17E	ColumnID: Alumina	J&W Alumina					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.0376	0.0042	0.0382	0	98	18	138				
Ethene	0.0285	0.0042	0.0361	0	79	50	130				
Methane	0.0188	0.0021	0.0206	0	91	30	130				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *30-Oct-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M

Work Order: 0710153

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCSD-6476	SampType: LCSD	TestCode: 8015W_RSK1	Units: mg/L	Prep Date: 10/29/2007		RunNo: 11675	
Client ID: ZZZZZ	Batch ID: 6476	Method: 8015M/RSK1 (RSK 175)		Analysis Date: 10/29/2007		SeqNo: 315395	
Instrument: GCOS_17E	ColumnID: Alumina	J&W Alumina					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.0386	0.0042	0.0382	0	101	18	138	0.0376	2.6	50	
Ethene	0.0304	0.0042	0.0361	0	84	50	130	0.0285	6.6	50	
Methane	0.0193	0.0021	0.0206	0	94	30	130	0.0188	2.5	50	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *30-Oct-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M
Work Order: 0710153
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-6476	SampType: MBLK	TestCode: 8015W_RSK1	Units: mg/L	Prep Date: 10/29/2007	RunNo: 11675		
Client ID: ZZZZZ	Batch ID: 6476	Method: 8015M/RSK1 (RSK 175)		Analysis Date: 10/29/2007	SeqNo: 315393		
Instrument: GCOS_17E	ColumnID: Alumina		J&W Alumina				

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	ND	0.0042									
Ethene	ND	0.0042									
Methane	ND	0.0021									

Qualifiers:
- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *30-Oct-07*

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-002H**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-115*
W Order:	0710153	**Collection Date:**	10/23/07 11:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	ICAP 61E	**Sample Size:** 50 mL	**PrepDate:** 11/01/07 0:00
ColumnID:		**%Moisture:**	**BatchNo:** 6507/R11771
Revision:	11/06/07 9:02	**TestCode** 200.2W_200.7	**FileID:** 1-SAMP-32632
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E200.2)**
Iron	1.9		0.050	mg/L	1	11/05/07 13:20
Manganese	0.074		0.050	mg/L	1	11/05/07 13:20

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-003H**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-121*
W Order:	0710153	**Collection Date:**	10/23/07 12:25
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	ICAP 61E	**Sample Size:** 50 mL	**PrepDate:** 11/01/07 0:00
ColumnID:		**%Moisture:**	**BatchNo:** 6507/R11771
Revision:	11/06/07 9:02	**TestCode** 200.2W_200.7	**FileID:** 1-SAMP-32637
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E200.2)**
Iron	0.87		0.050	mg/L	1	11/05/07 13:38
Manganese	ND		0.050	mg/L	1	11/05/07 13:38

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-004H**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-114*
W Order:	0710153	**Collection Date:**	10/23/07 15:30
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	ICAP 61E	**Sample Size:** 50 mL	**PrepDate:** 11/01/07 0:00
ColumnID:		**%Moisture:**	**BatchNo:** 6507/R11771
Revision:	11/06/07 9:02	**TestCode** 200.2W_200.7	**FileID:** 1-SAMP-32638
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E200.2)**
Iron	0.85		0.050	mg/L	1	11/05/07 13:41
Manganese	0.080		0.050	mg/L	1	11/05/07 13:41

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-005H**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*DUP-02*
W Order:	0710153	**Collection Date:**	10/23/07 0:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	ICAP 61E	**Sample Size:** 50 mL	**PrepDate:** 11/01/07 0:00
ColumnID:		**%Moisture:**	**BatchNo:** 6507/R11771
Revision:	11/06/07 9:02	**TestCode** 200.2W_200.7	**FileID:** 1-SAMP-32639
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E200.2)**
Iron	0.80		0.050	mg/L	1	11/05/07 13:45
Manganese	0.081		0.050	mg/L	1	11/05/07 13:45

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7
Work Order: 0710153
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-6507	SampType: LCS	TestCode: 200.2W_200.	Units: mg/L	Prep Date: 11/1/07	RunNo: 11771
Client ID: ZZZZZ	Batch ID: 6507	Method: EPA 200.7	(E200.2)	Analysis Date: 11/5/07	SeqNo: 317781
Instrument:	ColumnID:				

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	1.04	0.050	1	0	104	85	115				
Manganese	0.206	0.050	0.2	0	103	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7

Work Order: 0710153

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: MB-6507	SampType: MBLK	TestCode: 200.2W_200.	Units: mg/L	Prep Date: 11/1/07		RunNo: 11771	
Client ID: ZZZZZ	Batch ID: 6507	Method: EPA 200.7	(E200.2)	Analysis Date: 11/5/07		SeqNo: 317780	
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	0.050									
Manganese	ND	0.050									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-002C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-115*
W Order:	0710153	**Collection Date:**	10/23/07 11:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	IC	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11625
Revision:	10/25/07 11:13	**TestCode** 300.0W	**FileID:** I-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	6.4		2.0	mg/L	2	10/24/07 14:37
Nitrate (as N)	2.5		0.10	mg/L	2	10/24/07 14:37
Sulfate (as SO4)	10		2.0	mg/L	2	10/24/07 14:37

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-002D**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-115*
W Order:	0710153	**Collection Date:**	10/23/07 11:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	TOC-5000A Sample Size: NA	**PrepDate:**	
ColumnID:	%Moisture:	**BatchNo:**	R11735
Revision:	11/02/07 9:50 TestCode TOC415.1	**FileID:**	1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	4.1		1.0	mg/L	1	11/01/07 16:23

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-002E**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-115*
W Order:	0710153	**Collection Date:**	10/23/07 11:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	TOC-5000A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11763
Revision:	11/05/07 13:23	**TestCode** DOC415.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED ORGANIC CARBON				**EPA 415.1**		
Organic Carbon, Dissolved	3.5		1.0	mg/L	1	11/02/07 13:41

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-002F**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-115*
W Order:	0710153	**Collection Date:**	10/23/07 11:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	pH meter	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11651
Revision:	10/27/07 16:09	**TestCode** ALK310.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, AS CACO3				**EPA 310.1**		
Alkalinity, as CaCO3	230		10	mg/L	1	10/27/07

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-002G**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-115*
W Order:	0710153	**Collection Date:**	10/23/07 11:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	Buret Type A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11631
Revision:	10/25/07 16:22	**TestCode** S376.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				EPA 376.1		
Sulfide	ND		1.0	mg/L	1	10/25/07 13:00

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-003C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-12I*
W Order:	0710153	**Collection Date:**	10/23/07 12:25
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	IC	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11625
Revision:	10/25/07 11:13	**TestCode** 300.0W	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	1.9		1.0	mg/L	1	10/24/07 14:55
Nitrate (as N)	0.20		0.050	mg/L	1	10/24/07 14:55
Sulfate (as SO4)	5.4		1.0	mg/L	1	10/24/07 14:55

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-003D**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-121*
W Order:	0710153	**Collection Date:**	10/23/07 12:25
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	TOC-5000A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11735
Revision:	11/02/07 9:50	**TestCode** TOC415.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	3.9		1.0	mg/L	1	11/01/07 16:30

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-003E**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-121*
W Order:	0710153	**Collection Date:**	10/23/07 12:25
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	TOC-5000A Sample Size: NA	**PrepDate:**	
ColumnID:	%Moisture:	**BatchNo:**	R11763
Revision:	11/05/07 13:23 TestCode DOC415.1	**FileID:**	1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED ORGANIC CARBON				**EPA 415.1**		
Organic Carbon, Dissolved	3.0		1.0	mg/L	1	11/02/07 14:08

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-003F**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-121*
W Order:	0710153	**Collection Date:**	10/23/07 12:25
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	pH meter	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11651
Revision:	10/27/07 16:09	**TestCode** ALK310.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, AS CACO3				**EPA 310.1**		
Alkalinity, as CaCO3	82		10	mg/L	1	10/27/07

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-003G**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-121*
W Order:	0710153	**Collection Date:**	10/23/07 12:25
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	Buret Type A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11631
Revision:	10/25/07 16:22	**TestCode** S376.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				EPA 376.1		
Sulfide	ND		1.0	mg/L	1	10/25/07 13:00

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-004C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-114*
W Order:	0710153	**Collection Date:**	10/23/07 15:30
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	IC	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11625
Revision:	10/25/07 11:13	**TestCode** 300.0W	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	73		5.0	mg/L	5	10/24/07 13:48
Nitrate (as N)	1.9		0.25	mg/L	5	10/24/07 13:48
Sulfate (as SO4)	35		5.0	mg/L	5	10/24/07 13:48

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-004D**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-114*
W Order:	0710153	**Collection Date:**	10/23/07 15:30
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	TOC-5000A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11735
Revision:	11/02/07 9:50	**TestCode** TOC415.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	4.4		1.0	mg/L	1	11/01/07 16:37

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-004E**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-114*
W Order:	0710153	**Collection Date:**	10/23/07 15:30
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	TOC-5000A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11763
Revision:	11/05/07 13:23	**TestCode** DOC415.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED ORGANIC CARBON				**EPA 415.1**		
Organic Carbon, Dissolved	3.4		1.0	mg/L	1	11/02/07 14:16

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-004F**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-114*
W Order:	0710153	**Collection Date:**	10/23/07 15:30
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	pH meter	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11651
Revision:	10/27/07 16:09	**TestCode** ALK310.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, AS CACO3				**EPA 310.1**		
Alkalinity, as CaCO3	350		10	mg/L	1	10/27/07

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	0710153-004G
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-114*
W Order:	0710153	**Collection Date:**	10/23/07 15:30
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	Buret Type A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11631
Revision:	10/25/07 16:22	**TestCode** S376.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		1.0	mg/L	1	10/25/07 13:00

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-005C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*DUP-02*
W Order:	0710153	**Collection Date:**	10/23/07 0:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	IC	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11625
Revision:	10/25/07 11:13	**TestCode** 300.0W	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	72		5.0	mg/L	5	10/24/07 14:06
Nitrate (as N)	1.9		0.25	mg/L	5	10/24/07 14:06
Sulfate (as SO4)	34		5.0	mg/L	5	10/24/07 14:06

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-005D**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*DUP-02*
W Order:	0710153	**Collection Date:**	10/23/07 0:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	TOC-5000A Sample Size: NA	**PrepDate:**	
ColumnID:	%Moisture:	**BatchNo:**	R11735
Revision:	11/02/07 9:50 TestCode TOC415.1	**FileID:**	1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	4.2		1.0	mg/L	1	11/01/07 16:44

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-005E**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*DUP-02*
W Order:	0710153	**Collection Date:**	10/23/07 0:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	TOC-5000A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11763
Revision:	11/05/07 13:23	**TestCode** DOC415.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED ORGANIC CARBON				**EPA 415.1**		
Organic Carbon, Dissolved	3.8		1.0	mg/L	1	11/02/07 12:00

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-005F**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*DUP-02*
W Order:	0710153	**Collection Date:**	10/23/07 0:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	pH meter	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11651
Revision:	10/27/07 16:09	**TestCode** ALK310.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, AS CACO3				EPA 310.1		
Alkalinity, as CaCO3	390		10	mg/L	1	10/27/07

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710153-005G**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*DUP-02*
W Order:	0710153	**Collection Date:**	10/23/07 0:00
Matrix:	WATER	**Date Received:**	10/24/07 9:27
Inst. ID:	Buret Type A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11631
Revision:	10/25/07 16:22	**TestCode** S376.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				EPA 376.1		
Sulfide	ND		1.0	mg/L	1	10/25/07 13:00

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0

Work Order: 0710153

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: 0710153-003CMS	SampType: MS	TestCode: 300.0W	Units: mg/L	Prep Date:	RunNo: 11625	
Client ID: ETMW-121	Batch ID: R11625	Method: EPA 300.0		Analysis Date: 10/24/2007	SeqNo: 314044	
Instrument:	ColumnID:					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	12.1	1.0	10	1.91	102	50	125				
Nitrate (as N)	1.23	0.050	1	0.195	103	69	113				
Sulfate (as SO4)	15.5	1.0	10	5.43	101	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0
Work Order: 0710153
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: 0710153-003CMSD	SampType: MSD	TestCode: 300.0W	Units: mg/L	Prep Date:		RunNo: 11625	
Client ID: ETMW-121	Batch ID: R11625	Method: EPA 300.0		Analysis Date: 10/24/2007		SeqNo: 314045	
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	12.1	1.0	10	1.91	101	50	125	12.1	1	17	
Nitrate (as N)	1.23	0.050	1	0.195	103	69	113	1.23	0	15	
Sulfate (as SO4)	15.5	1.0	10	5.43	100	75	125	15.5	1	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0710153
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: 0710153-002EMS	SampType: MS	TestCode: DOC415.1	Units: mg/L	Prep Date:		RunNo: 11763	
Client ID: ETCMW-115	Batch ID: R11763	Method: EPA 415.1		Analysis Date: 11/2/2007		SeqNo: 317621	
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved	13.2	1.0	10	3.53	97	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0710153
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: 0710153-002EMSD SampType: MSD TestCode: DOC415.1 Units: mg/L Prep Date: RunNo: 11763
Client ID: ETCMW-115 Batch ID: R11763 Method: EPA 415.1 Analysis Date: 11/2/2007 SeqNo: 317622
Instrument: ColumnID:

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved	13.2	1.0	10	3.53	96	75	125	13.2	0.5	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1

Work Order: 0710153

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID:	0710153-002GMS	SampType:	MS	TestCode:	S376.1	Units:	mg/L	Prep Date:		RunNo:	11631	
Client ID:	ETCMW-115	Batch ID:	R11631	Method:	EPA 376.1			Analysis Date:	10/25/2007	SeqNo:	314287	
Instrument:		ColumnID:										

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	2.25	1.0	2.08	0	108	75	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0

Work Order: 0710153

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCS-R11625	SampType: LCS	TestCode: 300.0W	Units: mg/L	Prep Date:		RunNo:	11625
Client ID: ZZZZZ	Batch ID: R11625	Method: EPA 300.0		Analysis Date: 10/24/2007		SeqNo:	314051
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	4.81	1.0	5	0	96	85	115				
Nitrate (as N)	0.470	0.050	0.5	0	94	85	115				
Sulfate (as SO4)	4.65	1.0	5	0	93	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1

Work Order: 0710153

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-R11651	SampType: LCS	TestCode: ALK310.1	Units: mg/L	Prep Date:			RunNo: 11651		
Client ID: ZZZZZ	Batch ID: R11651	Method: EPA 310.1		Analysis Date: 10/27/2007			SeqNo: 314980		
Instrument:	ColumnID:								

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, as CaCO3	52.0	10	50	0	104	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1

Work Order: 0710153

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-R11763	SampType: LCS	TestCode: DOC415.1	Units: mg/L		Prep Date:				RunNo: 11763			
Client ID: ZZZZZ	Batch ID: R11763	Method: EPA 415.1			Analysis Date: 11/2/2007				SeqNo: 317603			
Instrument:	ColumnID:											
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Organic Carbon, Dissolved	9.84	1.0	10	0	98	90	110					

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0710153
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-R11735	SampType: LCS	TestCode: TOC415.1	Units: mg/L	Prep Date:		RunNo: 11735	
Client ID: ZZZZZ	Batch ID: R11735	Method: EPA 415.1		Analysis Date: 11/1/2007		SeqNo: 317045	
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	10.2	1.0	10	0	102	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1

Work Order: 0710153

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCS-R11631 SampType: LCS TestCode: S376.1 Units: mg/L Prep Date: RunNo: 11631

Client ID: ZZZZZ Batch ID: R11631 Method: EPA 376.1 Analysis Date: 10/25/2007 SeqNo: 314280

Instrument: ColumnID:

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	2.50	1.0	2.5	0	100	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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East Syracuse, NY 13057 (315) 437-0200

CLIENT: O'Brien & Gere Engineers, Inc.

ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1
Work Order: 0710153
Project: Miller Brewing Company Can Plant

Sample ID: LCSD-R11631	SampType: LCSD	TestCode: S376.1	Units: mg/L		Prep Date:				RunNo: 11631			
Client ID: ZZZZZ	Batch ID: R11631	Method: EPA 376.1			Analysis Date: 10/25/2007				SeqNo: 314281			
Instrument:	ColumnID:											
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Sulfide	2.40	1.0	2.5	0	96	85	115	2.5	4.1	20		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0
Work Order: 0710153
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-R11625	SampType: MBLK	TestCode: 300.0W	Units: mg/L	Prep Date:	RunNo:	11625
Client ID: ZZZZZ	Batch ID: R11625	Method: EPA 300.0		Analysis Date: 10/24/2007	SeqNo:	314050
Instrument:	ColumnID:					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.0									
Nitrate (as N)	ND	0.050									
Sulfate (as SO4)	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1
Work Order: 0710153
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-R11651	SampType: MBLK	TestCode: ALK310.1	Units: mg/L		Prep Date:					RunNo: 11651			
Client ID: ZZZZZ	Batch ID: R11651	Method: EPA 310.1			Analysis Date: 10/27/2007					SeqNo: 314979			
Instrument:	ColumnID:												
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Alkalinity, as CaCO3	ND	10											

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1

Work Order: 0710153

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-R11763	SampType: MBLK	TestCode: DOC415.1	Units: mg/L	Prep Date:			RunNo: 11763				
Client ID: ZZZZZ	Batch ID: R11763	Method: EPA 415.1		Analysis Date: 11/2/2007			SeqNo: 317602				
Instrument:	ColumnID:										

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

CLIENT: O'Brien & Gere Engineers, Inc.

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0710153
Project: Miller Brewing Company Can Plant

Sample ID:	MB-R11735	SampType:	MBLK	TestCode:	TOC415.1	Units:	mg/L	Prep Date:		RunNo:	11735
Client ID:	ZZZZZ	Batch ID:	R11735	Method:	EPA 415.1			Analysis Date:	11/1/2007	SeqNo:	317044
Instrument:		ColumnID:									

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1
Work Order: 0710153
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-R11631	SampType: MBLK	TestCode: S376.1	Units: mg/L		Prep Date:				RunNo: 11631			
Client ID: ZZZZZ	Batch ID: R11631	Method: EPA 376.1			Analysis Date: 10/25/2007				SeqNo: 314279			
Instrument:	ColumnID:											

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.
Brittonfield Lab

5000 Brittonfield Parkway, Suite 200
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client: O'BRIEN + GERE - RALEIGH

Project: MILLER MOULTRIE

Sampled by: SARAH SLAGLE-GARRETT / LAUREN GLADSTONE

Client Contact: SARAH SLAGLE-GARRETT Phone # 919-783-7777

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	Analysis/Method: VOC	MEE	NO3, Chloride, SO4	TOC	DOC	TALK	Sulfide	Fe/Mn	Comments
ETMW-120	10/23/07	0942	W	G	3	3	02	0	0	0	0	0	0	
ETcMW-115	10/23/07	1100	W	G	12	3	2	1	1	1	1	2	1	
ETMW-121	10/23/07	1225	W	G	12	3	2	1	1	1	1	2	1	
ETcMW-114	10/23/07	1530	W	G	12	3	2	1	1	1	1	2	1	
DUP-02	10/23/07	—	W	G	12	3	2	1	1	1	1	2	1	
TB-102307	10/10/07	—	W	G	2	2	—	—	—	—	—	—	—	

Relinquished by: Sarah Slagle-Garrett	Date: 10/23/07	Time: 5:30pm	Received by: FEDEX	Date: 10/23/07	Time: 5:30 pm
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by Lab:	Date: 10/24/07	Time: 0927
Shipment Method:			Airbill Number:		

Turnaround Time Required:

Routine_____

Rush (Specify)_____

Comments: 'Custody Seal' INTACT

Cooler Temperature: 4.2°C ON ICE

Original - Laboratory
Copy - Client

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name: OBG-RALEIGH

Date and Time Received: 10/24/2007 9:27:00 AM

Work Order Number 0710153

Received by: ads

Checklist completed by: _____ 10/24/07 (Initials / Date)

Reviewed by: MS 10/24/07 (Initials / Date)

Matrix:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☐	No ☑	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	Yes ☐	No ☑	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

pH	Preservative	pH Acceptable	Sample ID	Volume of Preservative added in Lab.
>12	NaOH	Yes ☑ N ☐ NA ☐		
<2	HNO3	Yes ☑ N ☐ NA ☐		
<2	HSO4	Yes ☐ N ☐ NA ☑		
<2	1:1 HCL	Yes ☑ N ☐ NA ☐	TOC only	
5-9	Pest/PCBs (608/8081)	Yes ☐ N ☐ NA ☑		

Comments:

One vial for ETMW-120 received broken. Headspace (6mm each): ETMW-121: one vial for MEE, ETCMW-114: one vial for VOC and both Trip Blanks.

Corrective Action::

Table 1
Target Analyte List and Geochemistry Parameters
Miller Brewing Company Can Plant
Moultrie, Georgia

Target Analytes	Geochemistry Parameters
Acetone	Alkalinity
2-Butanone (MEK)	Chloride
Benzene	Nitrate
Carbon Disulfide	Sulfate
Chloroethane	Sulfide
Chloromethane	Methane
1,2-Dibromo-3-chloropropane (DBCP)	Ethane
Dibromomethane	Ethene
1,1-Dichloroethane (1,1-DCA)	Soluble Organic Carbon (Dissolved)
1,2-Dichloroethane (1-,2-DCA)	Total Organic Carbon
1,1-Dichloroethene (1,1-DCE)	Total Iron
cis-1,2-dichloroethene (cis-1,2-DCE)	Manganese
trans-1,2-dichloroethene (trans-1,2-DCE)	Carbon Dioxide*
1,2-Dichloroethene (total) (1,2-DCE-total)	Conductivity*
Ethylbenzene	Dissolved Oxygen*
Isobutyl Alcohol	Ferrous Iron*
Methylene Chloride	Oxidation/Reduction Potential (ORP)*
4-methyl-2-pentanone (MIBK)	pH*
Naphthalene	Temperature*
1,1,2,2-Tetrachloroethane	
Tetrachloroethene (PCE)	
Toluene	
1,2,3-Trichlorobenzene	
1,2,4-Trichlorobenzene	
1,1,1-Trichloroethane (TCA)	
Trichloroethene (TCE)	
Trichlorofluoromethane	
1,2,3-Trichloropropane	
Vinyl Acetate	
Vinyl Chloride	
Xylenes (total)	

* measured at time of sampling

FedEx

WED - 24 OCT .A1
PRIORITY OVERNIGHT

TRK# 0215 8619 5934 9720

XH-SYRA

SYR
NY-US
13057



61

28

FedEx. *US Airbill* Express

FedEx Tracking Number 8619 5934 9720

RECIPIENT: PEEL HERE

1 From This portion can be removed for Recipient's records.

Date 10/23/07 FedEx Tracking Number 861959349720

Sender's Name ANITA TRECARTIN Phone 919 783-7777

Company O'BRIEN & GERE ENGINEERS INC

Address 2610 WYCLIFF RD STE 104 Dept/Floor/Suite/Room

City RALEIGH State NC ZIP 27607-3073

2 Your Internal Billing Reference 35789

3 To

Recipient's Name Phone 315 437-0200

Company LIFE SCIENCE LABORATORIES, INC.

Recipient's Address 5000 BRITTONFIELD PARKWAY SUITE 200
We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept/Floor/Suite/Room

Address
To request a package be held at a specific FedEx location, print FedEx address here.

City EAST SYRACUSE State NY ZIP 13057

0361662873

8619 5934 9720

4a Express Package Service emc# 458457 230CT07 17:32

- FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

FedEx Envelope rate not available. Minimum charge: One-pound rate. * To most locations.

4b Express Freight Service

- FedEx 1Day Freight — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- FedEx 3Day Freight — Packages over 150 lbs. Third business day.** Saturday Delivery NOT available.

* Call for Confirmation. ** To most locations.

5 Packaging

- FedEx Envelope*
- FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
- FedEx Box
- FedEx Tube
- Other

* Declared value limit $500.

6 Special Handling — Include FedEx address in Section 3.

- SATURDAY Delivery — Not available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- HOLD Weekday at FedEx Location — Not available for FedEx First Overnight.
- HOLD Saturday at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.

- No
- Yes — As per attached Shipper's Declaration.
- Yes — Shipper's Declaration not required.
- Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below. Obtain Recipt Acct. No.

- Sender — Acct. No. in Section 1 will be billed.
- Recipient
- Third Party
- Credit Card
- Cash/Check

Total Packages 1 Total Weight

Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

8 Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

- No Signature Required — Package may be left without obtaining a signature for delivery.
- Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.
- Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. Fee applies.

519

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Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Wednesday, December 19, 2007

Sarah Slagle-Garrett
O'Brien & Gere Engineers, Inc.
2610 Wycliff Road
Suite 104
Raleigh, NC 27607

TEL: 919-783-7777

Project: MILLER BREWING COMPANY CAN PLANT
RE: Analytical Results Order No.: 0710163

Dear Sarah Slagle-Garrett:

Life Science Laboratories, Inc. received 7 sample(s) on 10/25/2007 for the analyses presented in the following report.

Very truly yours,
Life Science Laboratories, Inc.

Monika Santucci

Monika Santucci
Project Manager

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-001A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-3*
W Order:	0710163	**Collection Date:**	10/24/07 9:00
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11767
Revision:	12/17/07 17:03	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1086.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	11/04/07 16:04
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	11/04/07 16:04
1,1-Dichloroethane	ND		0.50	µg/L	1	11/04/07 16:04
1,1-Dichloroethene	ND		0.50	µg/L	1	11/04/07 16:04
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	11/04/07 16:04
1,2,3-Trichloropropane	ND		0.50	µg/L	1	11/04/07 16:04
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	11/04/07 16:04
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	11/04/07 16:04
1,2-Dichloroethane	ND		0.50	µg/L	1	11/04/07 16:04
2-Butanone	ND		10.0	µg/L	1	11/04/07 16:04
4-Methyl-2-pentanone	ND		5.00	µg/L	1	11/04/07 16:04
Acetone	ND		10.0	µg/L	1	11/04/07 16:04
Benzene	ND		0.50	µg/L	1	11/04/07 16:04
Carbon disulfide	ND		0.50	µg/L	1	11/04/07 16:04
Chloroethane	ND		1.00	µg/L	1	11/04/07 16:04
Chloromethane	ND		1.00	µg/L	1	11/04/07 16:04
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	11/04/07 16:04
Dibromomethane	ND		0.50	µg/L	1	11/04/07 16:04
Ethylbenzene	ND		0.50	µg/L	1	11/04/07 16:04
Isobutyl alcohol	ND		50.0	µg/L	1	11/04/07 16:04
Methylene chloride	ND		2.00	µg/L	1	11/04/07 16:04
Naphthalene	ND		1.00	µg/L	1	11/04/07 16:04
Tetrachloroethene	ND		0.50	µg/L	1	11/04/07 16:04
Toluene	ND		0.50	µg/L	1	11/04/07 16:04
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	11/04/07 16:04
Trichloroethene	ND		0.50	µg/L	1	11/04/07 16:04
Trichlorofluoromethane	ND		1.00	µg/L	1	11/04/07 16:04
Vinyl acetate	ND		2.00	µg/L	1	11/04/07 16:04
Vinyl chloride	ND		1.00	µg/L	1	11/04/07 16:04
Xylenes (total)	ND		1.00	µg/L	1	11/04/07 16:04
Surr: 1,2-Dichloroethane-d4	114		75-134	%REC	1	11/04/07 16:04
Surr: 4-Bromofluorobenzene	90.3		75-125	%REC	1	11/04/07 16:04
Surr: Dibromofluoromethane	101		75-127	%REC	1	11/04/07 16:04
Surr: Toluene-d8	107		75-125	%REC	1	11/04/07 16:04

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-002A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-4D*
W Order:	0710163	**Collection Date:**	10/24/07 11:05
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11767
Revision:	12/17/07 17:03	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1087.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	11/04/07 16:38
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	11/04/07 16:38
1,1-Dichloroethane	ND		0.50	µg/L	1	11/04/07 16:38
1,1-Dichloroethene	ND		0.50	µg/L	1	11/04/07 16:38
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	11/04/07 16:38
1,2,3-Trichloropropane	ND		0.50	µg/L	1	11/04/07 16:38
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	11/04/07 16:38
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	11/04/07 16:38
1,2-Dichloroethane	ND		0.50	µg/L	1	11/04/07 16:38
2-Butanone	ND		10.0	µg/L	1	11/04/07 16:38
4-Methyl-2-pentanone	ND		5.00	µg/L	1	11/04/07 16:38
Acetone	ND		10.0	µg/L	1	11/04/07 16:38
Benzene	ND		0.50	µg/L	1	11/04/07 16:38
Carbon disulfide	ND		0.50	µg/L	1	11/04/07 16:38
Chloroethane	ND		1.00	µg/L	1	11/04/07 16:38
Chloromethane	ND		1.00	µg/L	1	11/04/07 16:38
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	11/04/07 16:38
Dibromomethane	ND		0.50	µg/L	1	11/04/07 16:38
Ethylbenzene	ND		0.50	µg/L	1	11/04/07 16:38
Isobutyl alcohol	ND		50.0	µg/L	1	11/04/07 16:38
Methylene chloride	ND		2.00	µg/L	1	11/04/07 16:38
Naphthalene	ND		1.00	µg/L	1	11/04/07 16:38
Tetrachloroethene	ND		0.50	µg/L	1	11/04/07 16:38
Toluene	ND		0.50	µg/L	1	11/04/07 16:38
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	11/04/07 16:38
Trichloroethene	ND		0.50	µg/L	1	11/04/07 16:38
Trichlorofluoromethane	ND		1.00	µg/L	1	11/04/07 16:38
Vinyl acetate	ND		2.00	µg/L	1	11/04/07 16:38
Vinyl chloride	ND		1.00	µg/L	1	11/04/07 16:38
Xylenes (total)	ND		1.00	µg/L	1	11/04/07 16:38
Surr: 1,2-Dichloroethane-d4	114		75-134	%REC	1	11/04/07 16:38
Surr: 4-Bromofluorobenzene	89.5		75-125	%REC	1	11/04/07 16:38
Surr: Dibromofluoromethane	100		75-127	%REC	1	11/04/07 16:38
Surr: Toluene-d8	108		75-125	%REC	1	11/04/07 16:38

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-003A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-118*
W Order:	0710163	**Collection Date:**	10/24/07 12:35
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11767
Revision:	12/17/07 17:03	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1088.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		25.0	µg/L	50	11/04/07 17:12
1,1,2,2-Tetrachloroethane	ND		25.0	µg/L	50	11/04/07 17:12
1,1-Dichloroethane	ND		25.0	µg/L	50	11/04/07 17:12
1,1-Dichloroethene	ND		25.0	µg/L	50	11/04/07 17:12
1,2,3-Trichlorobenzene	ND		50.0	µg/L	50	11/04/07 17:12
1,2,3-Trichloropropane	ND		25.0	µg/L	50	11/04/07 17:12
1,2,4-Trichlorobenzene	ND		50.0	µg/L	50	11/04/07 17:12
1,2-Dibromo-3-chloropropane	ND		50.0	µg/L	50	11/04/07 17:12
1,2-Dichloroethane	ND		25.0	µg/L	50	11/04/07 17:12
2-Butanone	ND		500	µg/L	50	11/04/07 17:12
4-Methyl-2-pentanone	ND		250	µg/L	50	11/04/07 17:12
Acetone	ND		500	µg/L	50	11/04/07 17:12
Benzene	ND		25.0	µg/L	50	11/04/07 17:12
Carbon disulfide	ND		25.0	µg/L	50	11/04/07 17:12
Chloroethane	ND		50.0	µg/L	50	11/04/07 17:12
Chloromethane	ND		50.0	µg/L	50	11/04/07 17:12
cis-1,2-Dichloroethene	108		25.0	µg/L	50	11/04/07 17:12
Dibromomethane	ND		25.0	µg/L	50	11/04/07 17:12
Ethylbenzene	ND		25.0	µg/L	50	11/04/07 17:12
Isobutyl alcohol	13000		2500	µg/L	50	11/04/07 17:12
Methylene chloride	ND		100	µg/L	50	11/04/07 17:12
Naphthalene	ND		50.0	µg/L	50	11/04/07 17:12
Tetrachloroethene	ND		25.0	µg/L	50	11/04/07 17:12
Toluene	ND		25.0	µg/L	50	11/04/07 17:12
trans-1,2-Dichloroethene	ND		25.0	µg/L	50	11/04/07 17:12
Trichloroethene	39.0		25.0	µg/L	50	11/04/07 17:12
Trichlorofluoromethane	ND		50.0	µg/L	50	11/04/07 17:12
Vinyl acetate	ND		100	µg/L	50	11/04/07 17:12
Vinyl chloride	ND		50.0	µg/L	50	11/04/07 17:12
Xylenes (total)	ND		50.0	µg/L	50	11/04/07 17:12
Surr: 1,2-Dichloroethane-d4	113		75-134	%REC	50	11/04/07 17:12
Surr: 4-Bromofluorobenzene	92.2		75-125	%REC	50	11/04/07 17:12
Surr: Dibromofluoromethane	100		75-127	%REC	50	11/04/07 17:12
Surr: Toluene-d8	107		75-125	%REC	50	11/04/07 17:12

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-004A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*DUP-01*
W Order:	0710163	**Collection Date:**	10/24/07 0:00
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11767
Revision:	12/17/07 17:03	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1089.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		25.0	µg/L	50	11/04/07 17:47
1,1,2,2-Tetrachloroethane	ND		25.0	µg/L	50	11/04/07 17:47
1,1-Dichloroethane	ND		25.0	µg/L	50	11/04/07 17:47
1,1-Dichloroethene	ND		25.0	µg/L	50	11/04/07 17:47
1,2,3-Trichlorobenzene	ND		50.0	µg/L	50	11/04/07 17:47
1,2,3-Trichloropropane	ND		25.0	µg/L	50	11/04/07 17:47
1,2,4-Trichlorobenzene	ND		50.0	µg/L	50	11/04/07 17:47
1,2-Dibromo-3-chloropropane	ND		50.0	µg/L	50	11/04/07 17:47
1,2-Dichloroethane	ND		25.0	µg/L	50	11/04/07 17:47
2-Butanone	ND		500	µg/L	50	11/04/07 17:47
4-Methyl-2-pentanone	ND		250	µg/L	50	11/04/07 17:47
Acetone	ND		500	µg/L	50	11/04/07 17:47
Benzene	ND		25.0	µg/L	50	11/04/07 17:47
Carbon disulfide	ND		25.0	µg/L	50	11/04/07 17:47
Chloroethane	ND		50.0	µg/L	50	11/04/07 17:47
Chloromethane	ND		50.0	µg/L	50	11/04/07 17:47
cis-1,2-Dichloroethene	111		25.0	µg/L	50	11/04/07 17:47
Dibromomethane	ND		25.0	µg/L	50	11/04/07 17:47
Ethylbenzene	ND		25.0	µg/L	50	11/04/07 17:47
Isobutyl alcohol	13200		2500	µg/L	50	11/04/07 17:47
Methylene chloride	ND		100	µg/L	50	11/04/07 17:47
Naphthalene	ND		50.0	µg/L	50	11/04/07 17:47
Tetrachloroethene	ND		25.0	µg/L	50	11/04/07 17:47
Toluene	ND		25.0	µg/L	50	11/04/07 17:47
trans-1,2-Dichloroethene	ND		25.0	µg/L	50	11/04/07 17:47
Trichloroethene	40.0		25.0	µg/L	50	11/04/07 17:47
Trichlorofluoromethane	ND		50.0	µg/L	50	11/04/07 17:47
Vinyl acetate	ND		100	µg/L	50	11/04/07 17:47
Vinyl chloride	ND		50.0	µg/L	50	11/04/07 17:47
Xylenes (total)	ND		50.0	µg/L	50	11/04/07 17:47
Surr: 1,2-Dichloroethane-d4	113		75-134	%REC	50	11/04/07 17:47
Surr: 4-Bromofluorobenzene	95.2		75-125	%REC	50	11/04/07 17:47
Surr: Dibromofluoromethane	100		75-127	%REC	50	11/04/07 17:47
Surr: Toluene-d8	108		75-125	%REC	50	11/04/07 17:47

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-005A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETCMW-113*
W Order:	0710163	**Collection Date:**	10/24/07 13:28
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11767
Revision:	12/17/07 17:03	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1090.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
1,1,1-Trichloroethane	ND		5.00	µg/L	10	11/04/07 18:21
1,1,2,2-Tetrachloroethane	ND		5.00	µg/L	10	11/04/07 18:21
1,1-Dichloroethane	11.7		5.00	µg/L	10	11/04/07 18:21
1,1-Dichloroethene	ND		5.00	µg/L	10	11/04/07 18:21
1,2,3-Trichlorobenzene	ND		10.0	µg/L	10	11/04/07 18:21
1,2,3-Trichloropropane	ND		5.00	µg/L	10	11/04/07 18:21
1,2,4-Trichlorobenzene	ND		10.0	µg/L	10	11/04/07 18:21
1,2-Dibromo-3-chloropropane	ND		10.0	µg/L	10	11/04/07 18:21
1,2-Dichloroethane	ND		5.00	µg/L	10	11/04/07 18:21
2-Butanone	380		100	µg/L	10	11/04/07 18:21
4-Methyl-2-pentanone	ND		50.0	µg/L	10	11/04/07 18:21
Acetone	448		100	µg/L	10	11/04/07 18:21
Benzene	ND		5.00	µg/L	10	11/04/07 18:21
Carbon disulfide	ND		5.00	µg/L	10	11/04/07 18:21
Chloroethane	ND		10.0	µg/L	10	11/04/07 18:21
Chloromethane	ND		10.0	µg/L	10	11/04/07 18:21
cis-1,2-Dichloroethene	147		5.00	µg/L	10	11/04/07 18:21
Dibromomethane	ND		5.00	µg/L	10	11/04/07 18:21
Ethylbenzene	ND		5.00	µg/L	10	11/04/07 18:21
Isobutyl alcohol	ND		500	µg/L	10	11/04/07 18:21
Methylene chloride	ND		20.0	µg/L	10	11/04/07 18:21
Naphthalene	ND		10.0	µg/L	10	11/04/07 18:21
Tetrachloroethene	ND		5.00	µg/L	10	11/04/07 18:21
Toluene	ND		5.00	µg/L	10	11/04/07 18:21
trans-1,2-Dichloroethene	ND		5.00	µg/L	10	11/04/07 18:21
Trichloroethene	ND		5.00	µg/L	10	11/04/07 18:21
Trichlorofluoromethane	ND		10.0	µg/L	10	11/04/07 18:21
Vinyl acetate	ND		20.0	µg/L	10	11/04/07 18:21
Vinyl chloride	ND		10.0	µg/L	10	11/04/07 18:21
Xylenes (total)	ND		10.0	µg/L	10	11/04/07 18:21
Surr: 1,2-Dichloroethane-d4	112		75-134	%REC	10	11/04/07 18:21
Surr: 4-Bromofluorobenzene	93.5		75-125	%REC	10	11/04/07 18:21
Surr: Dibromofluoromethane	101		75-127	%REC	10	11/04/07 18:21
Surr: Toluene-d8	108		75-125	%REC	10	11/04/07 18:21

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-006A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-116*
W Order:	0710163	**Collection Date:**	10/24/07 14:55
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11802
Revision:	12/18/07 11:28	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1137.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		2.50	µg/L	5	11/07/07 3:40
1,1,2,2-Tetrachloroethane	ND		2.50	µg/L	5	11/07/07 3:40
1,1-Dichloroethane	6.60		2.50	µg/L	5	11/07/07 3:40
1,1-Dichloroethene	ND		2.50	µg/L	5	11/07/07 3:40
1,2,3-Trichlorobenzene	ND		5.00	µg/L	5	11/07/07 3:40
1,2,3-Trichloropropane	ND		2.50	µg/L	5	11/07/07 3:40
1,2,4-Trichlorobenzene	ND		5.00	µg/L	5	11/07/07 3:40
1,2-Dibromo-3-chloropropane	ND		5.00	µg/L	5	11/07/07 3:40
1,2-Dichloroethane	ND		2.50	µg/L	5	11/07/07 3:40
2-Butanone	ND		50.0	µg/L	5	11/07/07 3:40
4-Methyl-2-pentanone	ND		25.0	µg/L	5	11/07/07 3:40
Acetone	ND		50.0	µg/L	5	11/07/07 3:40
Benzene	ND		2.50	µg/L	5	11/07/07 3:40
Carbon disulfide	ND		2.50	µg/L	5	11/07/07 3:40
Chloroethane	ND		5.00	µg/L	5	11/07/07 3:40
Chloromethane	ND		5.00	µg/L	5	11/07/07 3:40
cis-1,2-Dichloroethene	ND		2.50	µg/L	5	11/07/07 3:40
Dibromomethane	ND		2.50	µg/L	5	11/07/07 3:40
Ethylbenzene	ND		2.50	µg/L	5	11/07/07 3:40
Isobutyl alcohol	ND		250	µg/L	5	11/07/07 3:40
Methylene chloride	ND		10.0	µg/L	5	11/07/07 3:40
Naphthalene	ND		5.00	µg/L	5	11/07/07 3:40
Tetrachloroethene	ND		2.50	µg/L	5	11/07/07 3:40
Toluene	ND		2.50	µg/L	5	11/07/07 3:40
trans-1,2-Dichloroethene	ND		2.50	µg/L	5	11/07/07 3:40
Trichloroethene	ND		2.50	µg/L	5	11/07/07 3:40
Trichlorofluoromethane	ND		5.00	µg/L	5	11/07/07 3:40
Vinyl acetate	ND		10.0	µg/L	5	11/07/07 3:40
Vinyl chloride	38.4		5.00	µg/L	5	11/07/07 3:40
Xylenes (total)	ND		5.00	µg/L	5	11/07/07 3:40
Surr: 1,2-Dichloroethane-d4	107		75-134	%REC	5	11/07/07 3:40
Surr: 4-Bromofluorobenzene	94.9		75-125	%REC	5	11/07/07 3:40
Surr: Dibromofluoromethane	103		75-127	%REC	5	11/07/07 3:40
Surr: Toluene-d8	106		75-125	%REC	5	11/07/07 3:40

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-007A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*TB-102407*
W Order:	0710163	**Collection Date:**	10/24/07 9:00
Matrix:	WATER Q	**Date Received:**	10/25/07 9:50
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11767
Revision:	12/17/07 17:03	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1092.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	11/04/07 19:30
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	11/04/07 19:30
1,1-Dichloroethane	ND		0.50	µg/L	1	11/04/07 19:30
1,1-Dichloroethene	ND		0.50	µg/L	1	11/04/07 19:30
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	11/04/07 19:30
1,2,3-Trichloropropane	ND		0.50	µg/L	1	11/04/07 19:30
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	11/04/07 19:30
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	11/04/07 19:30
1,2-Dichloroethane	ND		0.50	µg/L	1	11/04/07 19:30
2-Butanone	ND		10.0	µg/L	1	11/04/07 19:30
4-Methyl-2-pentanone	ND		5.00	µg/L	1	11/04/07 19:30
Acetone	ND		10.0	µg/L	1	11/04/07 19:30
Benzene	ND		0.50	µg/L	1	11/04/07 19:30
Carbon disulfide	ND		0.50	µg/L	1	11/04/07 19:30
Chloroethane	ND		1.00	µg/L	1	11/04/07 19:30
Chloromethane	ND		1.00	µg/L	1	11/04/07 19:30
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	11/04/07 19:30
Dibromomethane	ND		0.50	µg/L	1	11/04/07 19:30
Ethylbenzene	ND		0.50	µg/L	1	11/04/07 19:30
Isobutyl alcohol	ND		50.0	µg/L	1	11/04/07 19:30
Methylene chloride	ND		2.00	µg/L	1	11/04/07 19:30
Naphthalene	ND		1.00	µg/L	1	11/04/07 19:30
Tetrachloroethene	ND		0.50	µg/L	1	11/04/07 19:30
Toluene	ND		0.50	µg/L	1	11/04/07 19:30
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	11/04/07 19:30
Trichloroethene	ND		0.50	µg/L	1	11/04/07 19:30
Trichlorofluoromethane	ND		1.00	µg/L	1	11/04/07 19:30
Vinyl acetate	ND		2.00	µg/L	1	11/04/07 19:30
Vinyl chloride	ND		1.00	µg/L	1	11/04/07 19:30
Xylenes (total)	ND		1.00	µg/L	1	11/04/07 19:30
Surr: 1,2-Dichloroethane-d4	115		75-134	%REC	1	11/04/07 19:30
Surr: 4-Bromofluorobenzene	89.8		75-125	%REC	1	11/04/07 19:30
Surr: Dibromofluoromethane	100		75-127	%REC	1	11/04/07 19:30
Surr: Toluene-d8	109		75-125	%REC	1	11/04/07 19:30

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0710163
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: 0710163-003AMS	SampType: MS	TestCode: 8260W_CAL	Units: µg/L	Prep Date:	RunNo: 11767
Client ID: ETMW-118	Batch ID: R11767	Method: SW8260B		Analysis Date: 11/4/2007	SeqNo: 319368
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	474	25.0	500	0	95	70	130				
1,1,2,2-Tetrachloroethane	447	25.0	500	0	89	68	136				
1,1-Dichloroethane	502	25.0	500	15	97	70	130				
1,1-Dichloroethene	407	25.0	500	0	81	70	135				
1,2,3-Trichlorobenzene	394	50.0	500	0	79	70	130				
1,2,3-Trichloropropane	453	25.0	500	0	91	63	143				
1,2,4-Trichlorobenzene	390	50.0	500	0	78	68	130				
1,2-Dibromo-3-chloropropane	366	50.0	500	0	73	55	149				
1,2-Dichloroethane	456	25.0	500	0	91	70	130				
2-Butanone	904	500	1000	120	78	25	150				
4-Methyl-2-pentanone	810	250	1000	0	81	44	150				
Acetone	992	500	1000	331	66	25	150				
Benzene	457	25.0	500	0	91	70	132				
Carbon disulfide	505	25.0	500	5.5	100	66	130				
Chloroethane	368	50.0	500	0	74	70	130				
Chloromethane	407	50.0	500	0	81	58	135				
cis-1,2-Dichloroethene	547	25.0	500	108	88	48	151				
Dibromomethane	413	25.0	500	0	83	70	130				
Ethylbenzene	471	25.0	500	0	94	70	130				
Isobutyl alcohol	20400	2500	12500	13000	59	50	150				
Methylene chloride	386	100	500	0	77	70	130				
Naphthalene	378	50.0	500	0	76	46	158				
Tetrachloroethene	390	25.0	500	0	78	70	130				
Toluene	458	25.0	500	0	92	70	130				
trans-1,2-Dichloroethene	416	25.0	500	0	83	70	130				
Trichloroethene	469	25.0	500	39	86	42	167				
Trichlorofluoromethane	460	50.0	500	0	92	70	131				

Qualifiers:
- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0710163
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: 0710163-003AMS	SampType: MS	TestCode: 8260W_CAL	Units: µg/L	Prep Date:	RunNo: 11767
Client ID: ETMW-118	Batch ID: R11767	Method: SW8260B		Analysis Date: 11/4/2007	SeqNo: 319368
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	504	100	500	0	101	37	155				
Vinyl chloride	402	50.0	500	0	80	70	130				
Xylenes (total)	1370	50.0	1500	0	92	65	132				
Surr: 1,2-Dichloroethane-d4	530	5.00	500	0	106	75	134				
Surr: 4-Bromofluorobenzene	523	5.00	500	0	105	75	125				
Surr: Dibromofluoromethane	520	5.00	500	0	104	75	127				
Surr: Toluene-d8	547	5.00	500	0	109	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *18-Dec-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710163

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: 0710163-003AMSD	SampType: MSD	TestCode: 8260W_CAL	Units: µg/L	Prep Date:	RunNo: 11767
Client ID: ETMW-118	Batch ID: R11767	Method: SW8260B		Analysis Date: 11/4/2007	SeqNo: 319369
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	471	25.0	500	0	94	70	130	474	1	20	
1,1,2,2-Tetrachloroethane	437	25.0	500	0	87	68	136	447	2	20	
1,1-Dichloroethane	489	25.0	500	15	95	70	130	502	3	20	
1,1-Dichloroethene	392	25.0	500	0	78	70	135	407	4	20	
1,2,3-Trichlorobenzene	414	50.0	500	0	83	70	130	394	5	20	
1,2,3-Trichloropropane	459	25.0	500	0	92	63	143	453	1	20	
1,2,4-Trichlorobenzene	412	50.0	500	0	82	68	130	390	5	20	
1,2-Dibromo-3-chloropropane	368	50.0	500	0	74	55	149	366	1	20	
1,2-Dichloroethane	475	25.0	500	0	95	70	130	456	4	20	
2-Butanone	930	500	1000	120	81	25	150	904	3	50	
4-Methyl-2-pentanone	782	250	1000	0	78	44	150	810	4	50	
Acetone	1090	500	1000	331	76	25	150	992	9	50	
Benzene	472	25.0	500	0	94	70	132	457	3	20	
Carbon disulfide	483	25.0	500	5.5	96	66	130	505	4	20	
Chloroethane	368	50.0	500	0	74	70	130	368	0	20	
Chloromethane	398	50.0	500	0	80	58	135	407	2	20	
cis-1,2-Dichloroethene	544	25.0	500	108	87	48	151	547	1	20	
Dibromomethane	427	25.0	500	0	85	70	130	413	3	20	
Ethylbenzene	474	25.0	500	0	95	70	130	471	1	20	
Isobutyl alcohol	19700	2500	12500	13000	54	50	150	20400	4	50	
Methylene chloride	390	100	500	0	78	70	130	386	1	20	
Naphthalene	406	50.0	500	0	81	46	158	378	7	20	
Tetrachloroethene	400	25.0	500	0	80	70	130	390	2	20	
Toluene	464	25.0	500	0	93	70	130	458	1	20	
trans-1,2-Dichloroethene	410	25.0	500	0	82	70	130	416	1	20	
Trichloroethene	482	25.0	500	39	89	42	167	469	3	20	
Trichlorofluoromethane	442	50.0	500	0	88	70	131	460	4	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710163

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: 0710163-003AMSD	SampType: MSD	TestCode: 8260W_CAL	Units: µg/L	Prep Date:	RunNo: 11767
Client ID: ETMW-118	Batch ID: R11767	Method: SW8260B		Analysis Date: 11/4/2007	SeqNo: 319369
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	552	100	500	0	110	37	155	504	9	50	
Vinyl chloride	390	50.0	500	0	78	70	130	402	3	20	
Xylenes (total)	1370	50.0	1500	0	91	65	132	1370	0	20	
Surr: 1,2-Dichloroethane-d4	545	5.00	500	0	109	75	134	0		0	
Surr: 4-Bromofluorobenzene	516	5.00	500	0	103	75	125	0		0	
Surr: Dibromofluoromethane	508	5.00	500	0	102	75	127	0		0	
Surr: Toluene-d8	540	5.00	500	0	108	75	125	0		0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0710163
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-11767 SampType: LCS TestCode: 8260W_CAL Units: µg/L Prep Date: RunNo: 11767
Client ID: ZZZZZ Batch ID: R11767 Method: SW8260B Analysis Date: 11/4/2007 SeqNo: 319367
Instrument: MS01_11 ColumnID: Rtx-VMS Rtx-VMS, 1.0 df

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	9.55	0.500	10	0	96	80	127				
1,1,2,2-Tetrachloroethane	9.05	0.500	10	0	90	73	122				
1,1-Dichloroethane	9.15	0.500	10	0	92	80	120				
1,1-Dichloroethene	7.35	0.500	10	0	74	77	126				S
1,2,3-Trichlorobenzene	8.41	1.00	10	0	84	75	123				
1,2,3-Trichloropropane	9.23	0.500	10	0	92	72	126				
1,2,4-Trichlorobenzene	8.26	1.00	10	0	83	73	123				
1,2-Dibromo-3-chloropropane	7.58	1.00	10	0	76	71	124				
1,2-Dichloroethane	9.38	0.500	10	0	94	73	126				
2-Butanone	18.2	10.0	20	0	91	49	153				
4-Methyl-2-pentanone	15.6	5.00	20	0	78	50	150				
Acetone	21.4	10.0	20	0	107	37	163				
Benzene	9.34	0.500	10	0	93	80	120				
Carbon disulfide	9.42	0.500	10	0	94	76	122				
Chloroethane	7.59	1.00	10	0	76	75	124				
Chloromethane	8.32	1.00	10	0	83	59	133				
cis-1,2-Dichloroethene	8.30	0.500	10	0	83	80	120				
Dibromomethane	8.35	0.500	10	0	84	79	120				
Ethylbenzene	9.43	0.500	10	0	94	80	120				
Isobutyl alcohol	247	50.0	250	0	99	50	150				
Methylene chloride	7.81	2.00	10	0	78	78	120				
Naphthalene	8.09	1.00	10	0	81	67	134				
Tetrachloroethene	8.02	0.500	10	0	80	80	120				
Toluene	9.43	0.500	10	0	94	80	120				
trans-1,2-Dichloroethene	7.83	0.500	10	0	78	80	120				S
Trichloroethene	8.82	0.500	10	0	88	80	120				
Trichlorofluoromethane	8.37	1.00	10	0	84	73	132				

Qualifiers:
B Analyte detected in the associated Method Blank
ND Not Detected at the Practical Quantitation Limit (PQL)
U Not Detected at the MDC or RL
E Value exceeds the instrument calibration range
R RPD exceeds accepted precision limit
J Analyte detected below the PQL
S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0710163
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-11767	SampType: LCS	TestCode: 8260W_CAL	Units: µg/L	Prep Date:	RunNo: 11767
Client ID: ZZZZZ	Batch ID: R11767	Method: SW8260B		Analysis Date: 11/4/2007	SeqNo: 319367
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	9.44	2.00	10	0	94	43	150				
Vinyl chloride	7.92	1.00	10	0	79	75	125				
Xylenes (total)	26.9	1.00	30	0	90	80	120				
Surr: 1,2-Dichloroethane-d4	10.8	0.100	10	0	108	75	134				
Surr: 4-Bromofluorobenzene	10.1	0.100	10	0	101	75	125				
Surr: Dibromofluoromethane	9.90	0.100	10	0	99	75	127				
Surr: Toluene-d8	11.0	0.100	10	0	110	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit
U	Not Detected at the MDC or RL		

J	Analyte detected below the PQL		
S	Spike Recovery outside accepted recovery limits		

Date: *18-Dec-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0710163
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-11802	SampType: LCS	TestCode: 8260W_CAL	Units: µg/L	Prep Date:	RunNo: 11802
Client ID: ZZZZZ	Batch ID: R11802	Method: SW8260B		Analysis Date: 11/7/2007	SeqNo: 320139
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.6	0.500	10	0	106	80	127				
1,1,2,2-Tetrachloroethane	7.07	0.500	10	0	71	73	122				S
1,1-Dichloroethane	10.2	0.500	10	0	102	80	120				
1,1-Dichloroethene	11.2	0.500	10	0	112	77	126				
1,2,3-Trichlorobenzene	8.15	1.00	10	0	82	75	123				
1,2,3-Trichloropropane	7.59	0.500	10	0	76	72	126				
1,2,4-Trichlorobenzene	8.97	1.00	10	0	90	73	123				
1,2-Dibromo-3-chloropropane	6.78	1.00	10	0	68	71	124				S
1,2-Dichloroethane	9.38	0.500	10	0	94	73	126				
2-Butanone	14.0	10.0	20	0	70	49	153				
4-Methyl-2-pentanone	13.8	5.00	20	0	69	50	150				
Acetone	13.4	10.0	20	0	67	37	163				
Benzene	10.2	0.500	10	0	102	80	120				
Carbon disulfide	8.87	0.500	10	0	89	76	122				
Chloroethane	6.47	1.00	10	0	65	75	124				S
Chloromethane	7.30	1.00	10	0	73	59	133				
cis-1,2-Dichloroethene	9.85	0.500	10	0	98	80	120				
Dibromomethane	8.85	0.500	10	0	88	79	120				
Ethylbenzene	10.3	0.500	10	0	103	80	120				
Isobutyl alcohol	178	50.0	250	0	71	50	150				
Methylene chloride	8.70	2.00	10	0	87	78	120				
Naphthalene	8.16	1.00	10	0	82	67	134				
Tetrachloroethene	9.61	0.500	10	0	96	80	120				
Toluene	9.99	0.500	10	0	100	80	120				
trans-1,2-Dichloroethene	9.65	0.500	10	0	97	80	120				
Trichloroethene	10.5	0.500	10	0	105	80	120				
Trichlorofluoromethane	8.20	1.00	10	0	82	73	132				

Qualifiers:
B Analyte detected in the associated Method Blank
ND Not Detected at the Practical Quantitation Limit (PQL)
U Not Detected at the MDC or RL
E Value exceeds the instrument calibration range
R RPD exceeds accepted precision limit
J Analyte detected below the PQL
S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710163

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-11802	SampType: LCS	TestCode: 8260W_CAL	Units: µg/L	Prep Date:	RunNo: 11802
Client ID: ZZZZZ	Batch ID: R11802	Method: SW8260B		Analysis Date: 11/7/2007	SeqNo: 320139
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	2.09	2.00	10	0	21	43	150				S
Vinyl chloride	7.34	1.00	10	0	73	75	125				S
Xylenes (total)	32.3	1.00	30	0	108	80	120				
Surr: 1,2-Dichloroethane-d4	10.2	0.100	10	0	102	75	134				
Surr: 4-Bromofluorobenzene	10.6	0.100	10	0	106	75	125				
Surr: Dibromofluoromethane	10.0	0.100	10	0	100	75	127				
Surr: Toluene-d8	10.8	0.100	10	0	108	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *18-Dec-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0710163
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCSD-11802	SampType: LCSD	TestCode: 8260W_CAL	Units: µg/L	Prep Date:	RunNo: 11802
Client ID: ZZZZZ	Batch ID: R11802	Method: SW8260B		Analysis Date: 11/7/2007	SeqNo: 320140
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.6	0.500	10	0	106	80	127	10.6	1	20	
1,1,2,2-Tetrachloroethane	7.38	0.500	10	0	74	73	122	7.07	4	20	
1,1-Dichloroethane	10.4	0.500	10	0	104	80	120	10.2	2	20	
1,1-Dichloroethene	11.5	0.500	10	0	115	77	126	11.2	2	20	
1,2,3-Trichlorobenzene	8.32	1.00	10	0	83	75	123	8.15	2	20	
1,2,3-Trichloropropane	8.00	0.500	10	0	80	72	126	7.59	5	20	
1,2,4-Trichlorobenzene	9.02	1.00	10	0	90	73	123	8.97	1	20	
1,2-Dibromo-3-chloropropane	6.78	1.00	10	0	68	71	124	6.78	0	20	S
1,2-Dichloroethane	9.40	0.500	10	0	94	73	126	9.38	0	20	
2-Butanone	13.8	10.0	20	0	69	49	153	14	1	50	
4-Methyl-2-pentanone	14.1	5.00	20	0	70	50	150	13.8	2	50	
Acetone	13.8	10.0	20	0	69	37	163	13.4	3	50	
Benzene	10.2	0.500	10	0	102	80	120	10.2	1	20	
Carbon disulfide	9.11	0.500	10	0	91	76	122	8.87	3	20	
Chloroethane	6.53	1.00	10	0	65	75	124	6.47	1	20	S
Chloromethane	7.59	1.00	10	0	76	59	133	7.3	4	20	
cis-1,2-Dichloroethene	9.94	0.500	10	0	99	80	120	9.85	1	20	
Dibromomethane	8.97	0.500	10	0	90	79	120	8.85	1	20	
Ethylbenzene	10.4	0.500	10	0	104	80	120	10.3	1	20	
Isobutyl alcohol	180	50.0	250	0	72	50	150	178	1	50	
Methylene chloride	8.89	2.00	10	0	89	78	120	8.7	2	20	
Naphthalene	8.26	1.00	10	0	83	67	134	8.16	1	20	
Tetrachloroethene	9.65	0.500	10	0	97	80	120	9.61	0	20	
Toluene	10.2	0.500	10	0	102	80	120	9.99	2	20	
trans-1,2-Dichloroethene	9.84	0.500	10	0	98	80	120	9.65	2	20	
Trichloroethene	10.4	0.500	10	0	104	80	120	10.5	1	20	
Trichlorofluoromethane	8.42	1.00	10	0	84	73	132	8.2	3	20	

Qualifiers:
- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0710163
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCSD-11802	SampType: LCSD	TestCode: 8260W_CAL	Units: µg/L	Prep Date:	RunNo: 11802
Client ID: ZZZZZ	Batch ID: R11802	Method: SW8260B		Analysis Date: 11/7/2007	SeqNo: 320140
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	3.36	2.00	10	0	34	43	150	2.09	47	50	S
Vinyl chloride	7.55	1.00	10	0	76	75	125	7.34	3	20	
Xylenes (total)	32.8	1.00	30	0	109	80	120	32.3	1	20	
Surr: 1,2-Dichloroethane-d4	9.91	0.100	10	0	99	75	134	0		0	
Surr: 4-Bromofluorobenzene	10.4	0.100	10	0	104	75	125	0		0	
Surr: Dibromofluoromethane	9.96	0.100	10	0	100	75	127	0		0	
Surr: Toluene-d8	10.8	0.100	10	0	108	75	125	0		0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *18-Dec-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
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CLIENT: O'Brien & Gere Engineers, Inc.

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0710163
Project: Miller Brewing Company Can Plant

Sample ID: MB-11767	SampType: MBLK	TestCode: 8260W_CAL	Units: µg/L	Prep Date:	RunNo: 11767
Client ID: ZZZZZ	Batch ID: R11767	Method: SW8260B		Analysis Date: 11/4/2007	SeqNo: 319370
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	0.500									
1,1-Dichloroethane	ND	0.500									
1,1-Dichloroethene	ND	0.500									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	0.500									
1,2,4-Trichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dichloroethane	ND	0.500									
2-Butanone	ND	10.0									
4-Methyl-2-pentanone	ND	5.00									
Acetone	ND	10.0									
Benzene	ND	0.500									
Carbon disulfide	ND	0.500									
Chloroethane	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	0.500									
Dibromomethane	ND	0.500									
Ethylbenzene	ND	0.500									
Isobutyl alcohol	ND	50.0									
Methylene chloride	ND	2.00									
Naphthalene	ND	1.00									
Tetrachloroethene	ND	0.500									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
Trichloroethene	ND	0.500									
Trichlorofluoromethane	ND	1.00									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *18-Dec-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710163

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-11767	SampType: MBLK	TestCode: 8260W_CAL	Units: µg/L	Prep Date:	RunNo: 11767
Client ID: ZZZZZ	Batch ID: R11767	Method: SW8260B		Analysis Date: 11/4/2007	SeqNo: 319370
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	ND	2.00									
Vinyl chloride	ND	1.00									
Xylenes (total)	ND	1.00									
Surr: 1,2-Dichloroethane-d4	11.0	0.100	10	0	110	75	134				
Surr: 4-Bromofluorobenzene	8.82	0.100	10	0	88	75	125				
Surr: Dibromofluoromethane	9.88	0.100	10	0	99	75	127				
Surr: Toluene-d8	10.9	0.100	10	0	109	75	125				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0710163
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-11802	SampType: MBLK	TestCode: 8260W_CAL	Units: µg/L	Prep Date:	RunNo: 11802
Client ID: ZZZZZ	Batch ID: R11802	Method: SW8260B		Analysis Date: 11/7/2007	SeqNo: 320141
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	0.500									
1,1-Dichloroethane	ND	0.500									
1,1-Dichloroethene	ND	0.500									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	0.500									
1,2,4-Trichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dichloroethane	ND	0.500									
2-Butanone	ND	10.0									
4-Methyl-2-pentanone	ND	5.00									
Acetone	ND	10.0									
Benzene	ND	0.500									
Carbon disulfide	ND	0.500									
Chloroethane	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	0.500									
Dibromomethane	ND	0.500									
Ethylbenzene	ND	0.500									
Isobutyl alcohol	ND	50.0									
Methylene chloride	ND	2.00									
Naphthalene	ND	1.00									
Tetrachloroethene	ND	0.500									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
Trichloroethene	ND	0.500									
Trichlorofluoromethane	ND	1.00									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *18-Dec-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0710163
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-11802	SampType: MBLK	TestCode: 8260W_CAL	Units: µg/L	Prep Date:	RunNo: 11802
Client ID: ZZZZZ	Batch ID: R11802	Method: SW8260B		Analysis Date: 11/7/2007	SeqNo: 320141
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	ND	2.00									
Vinyl chloride	ND	1.00									
Xylenes (total)	ND	1.00									
Surr: 1,2-Dichloroethane-d4	10.6	0.100	10	0	106	75	134				
Surr: 4-Bromofluorobenzene	9.62	0.100	10	0	96	75	125				
Surr: Dibromofluoromethane	9.82	0.100	10	0	98	75	127				
Surr: Toluene-d8	10.6	0.100	10	0	106	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *18-Dec-07*

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-001B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-3*
W Order:	0710163	**Collection Date:**	10/24/07 9:00
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	GCOS 17E	**Sample Size:** 33 mL	**PrepDate:** 10/29/07 12:23
ColumnID:	Alumina	**%Moisture:**	**BatchNo:** 6476/R11675
Revision:	10/30/07 7:57	**TestCode** 8015W RSK175	**FileID:** 1-SAMP-E:\Osioct07\E102910.r
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				8015M/RSK175M		(RSK 175)
Ethane	ND		0.0041	mg/L	1	10/29/07 15:32
Ethene	ND		0.0041	mg/L	1	10/29/07 15:32
Methane	ND		0.0021	mg/L	1	10/29/07 15:32

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-006B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-116*
W Order:	0710163	**Collection Date:**	10/24/07 14:55
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	GCOS 17E	**Sample Size:** 32 mL	**PrepDate:** 10/29/07 12:23
ColumnID:	Alumina	**%Moisture:**	**BatchNo:** 6476/R11675
Revision:	10/30/07 7:57	**TestCode** 8015W RSK175	**FileID:** 1-SAMP-E:\Osioct07\E102914.r
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		**(RSK 175)**
Ethane	ND		0.21	mg/L	50	10/29/07 16:23
Ethene	ND		0.21	mg/L	50	10/29/07 16:23
Methane	3.5		0.11	mg/L	50	10/29/07 16:23

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M

Work Order: 0710153

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-6476 SampType: LCS TestCode: 8015W_RSK1 Units: mg/L Prep Date: 10/29/2007 RunNo: 11675

Client ID: ZZZZZ Batch ID: 6476 Method: 8015M/RSK1 (RSK 175) Analysis Date: 10/29/2007 SeqNo: 315394

Instrument: GCOS_17E ColumnID: Alumina J&W Alumina

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.0376	0.0042	0.0382	0	98	18	138				
Ethene	0.0285	0.0042	0.0361	0	79	50	130				
Methane	0.0188	0.0021	0.0206	0	91	30	130				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *30-Oct-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M

Work Order: 0710153

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCSD-6476 SampType: LCSD TestCode: 8015W_RSK1 Units: mg/L Prep Date: 10/29/2007 RunNo: 11675

Client ID: ZZZZZ Batch ID: 6476 Method: 8015M/RSK1 (RSK 175) Analysis Date: 10/29/2007 SeqNo: 315395

Instrument: GCOS_17E ColumnID: Alumina J&W Alumina

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.0386	0.0042	0.0382	0	101	18	138	0.0376	2.6	50	
Ethene	0.0304	0.0042	0.0361	0	84	50	130	0.0285	6.6	50	
Methane	0.0193	0.0021	0.0206	0	94	30	130	0.0188	2.5	50	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *30-Oct-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M

Work Order: 0710153

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: MB-6476	SampType: MBLK	TestCode: 8015W_RSK1	Units: mg/L	Prep Date: 10/29/2007	RunNo: 11675
Client ID: ZZZZZ	Batch ID: 6476	Method: 8015M/RSK1 (RSK 175)		Analysis Date: 10/29/2007	SeqNo: 315393
Instrument: GCOS_17E	ColumnID: Alumina	J&W Alumina			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	ND	0.0042									
Ethene	ND	0.0042									
Methane	ND	0.0021									

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *30-Oct-07*

LSL **Life Science Laboratories, Inc.**
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	Lab ID:	0710163-001H
Project:	Miller Brewing Company Can Plant	Client Sample ID:	*CH2MW-3*
W Order:	0710163	Collection Date:	10/24/07 9:00
Matrix:	WATER	Date Received:	10/25/07 9:50
Inst. ID:	ICAP 61E	PrepDate:	11/01/07 0:00
ColumnID:		BatchNo:	6507/R11771
Revision:	11/06/07 9:02	FileID:	1-SAMP-32645
Col Type:			

Sample Size: 50 mL
%Moisture:
TestCode 200.2W_200.7

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E200.2)**
Iron	0.16		0.050	mg/L	1	11/05/07 14:06
Manganese	ND		0.050	mg/L	1	11/05/07 14:06

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-006H**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-116*
W Order:	0710163	**Collection Date:**	10/24/07 14:55
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	ICAP 61E	**Sample Size:** 50 mL	**PrepDate:** 11/01/07 0:00
ColumnID:		**%Moisture:**	**BatchNo:** 6507/R11771
Revision:	11/06/07 9:02	**TestCode** 200.2W_200.7	**FileID:** 1-SAMP-32646
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E200.2)**
Iron	48		0.050	mg/L	1	11/05/07 14:10
Manganese	0.58		0.050	mg/L	1	11/05/07 14:10

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7

Work Order: 0710163

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-6507	SampType: LCS	TestCode: 200.2W_200.	Units: mg/L	Prep Date: 11/1/07		RunNo: 11771	
Client ID: ZZZZZ	Batch ID: 6507	Method: EPA 200.7	(E200.2)	Analysis Date: 11/5/07		SeqNo: 317781	
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	1.04	0.050	1	0	104	85	115				
Manganese	0.206	0.050	0.2	0	103	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7
Work Order: 0710163
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-6507	SampType: MBLK	TestCode: 200.2W_200.	Units: mg/L	Prep Date: 11/1/07		RunNo: 11771	
Client ID: ZZZZZ	Batch ID: 6507	Method: EPA 200.7	(E200.2)	Analysis Date: 11/5/07		SeqNo: 317780	
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	0.050									
Manganese	ND	0.050									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-001C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-3*
W Order:	0710163	**Collection Date:**	10/24/07 9:00
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	IC	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11635
Revision:	10/26/07 9:16	**TestCode** 300.0W	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	12		1.0	mg/L	1	10/25/07 11:41
Nitrate (as N)	1.1		0.050	mg/L	1	10/25/07 11:41
Sulfate (as SO4)	19		1.0	mg/L	1	10/25/07 11:41

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-001D**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-3*
W Order:	0710163	**Collection Date:**	10/24/07 9:00
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	TOC-5000A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11735
Revision:	11/02/07 9:50	**TestCode** TOC415.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	2.1		1.0	mg/L	1	11/01/07 16:50

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-001E**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-3*
W Order:	0710163	**Collection Date:**	10/24/07 9:00
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	TOC-5000A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11763
Revision:	11/05/07 13:23	**TestCode** DOC415.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED ORGANIC CARBON				**EPA 415.1**		
Organic Carbon, Dissolved	2.1		1.0	mg/L	1	11/02/07 12:08

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-001F**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-3*
W Order:	0710163	**Collection Date:**	10/24/07 9:00
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	pH meter	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11651
Revision:	10/27/07 16:09	**TestCode** ALK310.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, AS CACO3				**EPA 310.1**		
Alkalinity, as CaCO3	ND		10	mg/L	1	10/27/07

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-001G**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-3*
W Order:	0710163	**Collection Date:**	10/24/07 9:00
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	Buret Type A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11648
Revision:	10/26/07 16:29	**TestCode** S376.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		1.0	mg/L	1	10/26/07 16:00

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-006C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-116*
W Order:	0710163	**Collection Date:**	10/24/07 14:55
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	IC	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11635
Revision:	10/26/07 9:16	**TestCode** 300.0W	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	16		5.0	mg/L	5	10/25/07 11:59
Nitrate (as N)	ND		0.10	mg/L	5	10/25/07 11:59
Sulfate (as SO4)	ND		5.0	mg/L	5	10/25/07 11:59

NOTES:
The reporting limits were raised due to sample matrix interference.

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-006D**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-116*
W Order:	0710163	**Collection Date:**	10/24/07 14:55
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	TOC-5000A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11735
Revision:	11/02/07 9:50	**TestCode** TOC415.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				**EPA 415.1**		
Total Organic Carbon	16		1.0	mg/L	1	11/01/07 16:58

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-006E**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-116*
W Order:	0710163	**Collection Date:**	10/24/07 14:55
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	TOC-5000A Sample Size: NA	**PrepDate:**	
ColumnID:	%Moisture:	**BatchNo:**	R11763
Revision:	11/05/07 13:23 TestCode DOC415.1	**FileID:**	1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED ORGANIC CARBON				**EPA 415.1**		
Organic Carbon, Dissolved	9.6		1.0	mg/L	1	11/02/07 12:34

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-006F**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-116*
W Order:	0710163	**Collection Date:**	10/24/07 14:55
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	pH meter	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11651
Revision:	10/27/07 16:09	**TestCode** ALK310.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, AS CACO3				EPA 310.1		
Alkalinity, as CaCO3	670		10	mg/L	1	10/27/07

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710163-006G**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-116*
W Order:	0710163	**Collection Date:**	10/24/07 14:55
Matrix:	WATER	**Date Received:**	10/25/07 9:50
Inst. ID:	Buret Type A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11648
Revision:	10/26/07 16:29	**TestCode** S376.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		1.0	mg/L	1	10/26/07 16:00

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0
Work Order: 0710163
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-R11635 SampType: LCS TestCode: 300.0W Units: mg/L Prep Date: RunNo: 11635
Client ID: ZZZZZ Batch ID: R11635 Method: EPA 300.0 Analysis Date: 10/25/2007 SeqNo: 314324
Instrument: ColumnID:

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	4.79	1.0	5	0	96	85	115				
Nitrate (as N)	0.467	0.050	0.5	0	93	85	115				
Sulfate (as SO4)	4.63	1.0	5	0	93	85	115				

Qualifiers:
B Analyte detected in the associated Method Blank
E Value exceeds the instrument calibration range
J Analyte detected below the PQL
ND Not Detected at the Practical Quantitation Limit (PQL)
R RPD exceeds accepted precision limit
S Spike Recovery outside accepted recovery limits
U Not Detected at the MDC or RL

Date: *07-Nov-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1

Work Order: 0710163

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCS-R11651	SampType: LCS	TestCode: ALK310.1	Units: mg/L		Prep Date:			RunNo:	11651
Client ID: ZZZZZ	Batch ID: R11651	Method: EPA 310.1			Analysis Date: 10/27/2007			SeqNo:	314980
Instrument:	ColumnID:								

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, as CaCO3	52.0	10	50	0	104	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *07-Nov-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0710163
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-R11763	SampType: LCS	TestCode: DOC415.1	Units: mg/L	Prep Date:		RunNo:	11763
Client ID: ZZZZZ	Batch ID: R11763	Method: EPA 415.1		Analysis Date: 11/2/2007		SeqNo:	317603
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved	9.84	1.0	10	0	98	90	110				

Qualifiers:
- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *07-Nov-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0710163
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-R11735 SampType: LCS TestCode: TOC415.1 Units: mg/L Prep Date: RunNo: 11735
Client ID: ZZZZZ Batch ID: R11735 Method: EPA 415.1 Analysis Date: 11/1/2007 SeqNo: 317045
Instrument: ColumnID:

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	10.2	1.0	10	0	102	90	110				

Qualifiers:
B Analyte detected in the associated Method Blank
ND Not Detected at the Practical Quantitation Limit (PQL)
U Not Detected at the MDC or RL
E Value exceeds the instrument calibration range
R RPD exceeds accepted precision limit
J Analyte detected below the PQL
S Spike Recovery outside accepted recovery limits

Date: *07-Nov-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1
Work Order: 0710163
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-R11648 SampType: LCS TestCode: S376.1 Units: mg/L Prep Date: RunNo: 11648
Client ID: ZZZZZ Batch ID: R11648 Method: EPA 376.1 Analysis Date: 10/26/2007 SeqNo: 314918
Instrument: ColumnID:

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	2.60	1.0	2.5	0	104	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1

Work Order: 0710163

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCSD-R11648	SampType: LCSD	TestCode: S376.1	Units: mg/L		Prep Date:				RunNo: 11648			
Client ID: ZZZZZ	Batch ID: R11648	Method: EPA 376.1			Analysis Date: 10/26/2007				SeqNo: 314919			
Instrument:	ColumnID:											
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Sulfide	2.60	1.0	2.5	0	104	85	115	2.6	0	20		

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *07-Nov-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0
Work Order: 0710163
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-R11635	SampType: MBLK	TestCode: 300.0W	Units: mg/L	Prep Date:		RunNo:	11635
Client ID: ZZZZZ	Batch ID: R11635	Method: EPA 300.0		Analysis Date: 10/25/2007		SeqNo:	314323
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.0									
Nitrate (as N)	ND	0.050									
Sulfate (as SO4)	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1

Work Order: 0710163

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **MB-R11651**	SampType: **MBLK**	TestCode: **ALK310.1**	Units: **mg/L**	Prep Date:		RunNo:	**11651**
Client ID: **ZZZZZ**	Batch ID: **R11651**	Method: **EPA 310.1**		Analysis Date: **10/27/2007**		SeqNo:	**314979**
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, as CaCO3	ND	10									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Dctected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0710163
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID:	MB-R11763	SampType:	MBLK	TestCode:	DOC415.1	Units:	mg/L	Prep Date:			RunNo:	11763	
Client ID:	ZZZZZ	Batch ID:	R11763	Method:	EPA 415.1			Analysis Date:	11/2/2007		SeqNo:	317602	
Instrument:		ColumnID:											

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1

Work Order: 0710163

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-R11735	SampType: MBLK	TestCode: TOC415.1	Units: mg/L	Prep Date:		RunNo:	11735
Client ID: ZZZZZ	Batch ID: R11735	Method: EPA 415.1		Analysis Date: 11/1/2007		SeqNo:	317044
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1

Work Order: 0710163

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-R11648	SampType: MBLK	TestCode: S376.1	Units: mg/L		Prep Date:					RunNo: 11648			
Client ID: ZZZZZ	Batch ID: R11648	Method: EPA 376.1			Analysis Date: 10/26/2007					SeqNo: 314917			
Instrument:	ColumnID:												
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Sulfide	ND	1.0											

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.
Brittonfield Lab

5000 Brittonfield Parkway, Suite 200
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client: O'BRIEN + GERE - RALEIGH
Project: MILLER MOULTRIE
Sampled by: SARAH SLAGLE-GARRETT / LAUREN GLADSTONE
Client Contact: SARAH SLAGLE-GARRETT Phone # 919 - 783 - 7777

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	Analysis/Method: VOC	MEG	NO_3, Chloride, SO_4	TDC	DOC	TALK	Sulfide	Fe/Mn	Comments
CH2 MW-3	10/24/07	0900	W	G	12	3	2	1	1	1	1	2	1	
CH2MW-4D	10/24/07	1105	W	G	3	3	-	-	-	-	-	-	-	
ETMW-118	10/24/07	1235	W	G	3	3	-	-	-	-	-	-	-	
ETMW-118-MS1	10/24/07	-	W	G	3	3	-	-	-	-	-	-	-	
ETMW-118-MSD1	10/24/07	-	W	G	3	3	-	-	-	-	-	-	-	
DUP-01	10/24/07	-	W	G	3	3	-	-	-	-	-	-	-	
ETCMW-113	10/24/07	1328	W	G	3	3	-	-	-	-	-	-	-	
ETMW-116	10/24/07	1455	W	G	12	3	2	1	1	1	1	1	1	
TB-102407	10/10/07	-	W	G	2	2	-	-	-	-	-	-	-	

Relinquished by: Sarah Slagle-Garrett Date: 10/24/07 Time: 5:00
Received by: FEDEX Date: 10/24/07 Time: 5:00

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: Time:
Received by Lab: Date: 10/25/07 Time: 0950

Shipment Method:
Airbill Number:

Turnaround Time Required:
Routine
Rush (Specify)

Cooler Temperature: 3.4°C on ICE

Comments:
Custody Seal #1001 INTACT

Original - Laboratory
Copy - Client

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name: OBG-RALEIGH

Date and Time Received: 10/25/2007 9:50:00 AM

Work Order Number 0710163

Received by: ads

Checklist completed by: _____ 10/25/07 (Initials / Date)

Reviewed by: MS 10/25/07 (Initials / Date)

Matrix:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	Yes ☐	No ☑	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

pH	Preservative	pH Acceptable	Sample ID	Volume of Preservative added in Lab.
>12	NaOH	Yes ☑ N ☐ NA ☐		
<2	HNO3	Yes ☑ N ☐ NA ☐		
<2	HSO4	Yes ☐ N ☐ NA ☑		
<2	1:1 HCL	Yes ☑ N ☐ NA ☐	TOC	
5-9	Pest/PCBs (608/8081)	Yes ☐ N ☐ NA ☑		

Comments:

One vial from "ETMW-118-MS1" has headspace of 6mm.

Corrective Action::

Table 1
Target Analyte List and Geochemistry Parameters
Miller Brewing Company Can Plant
Moultrie, Georgia

Target Analytes	Geochemistry Parameters
Acetone	Alkalinity
2-Butanone (MEK)	Chloride
Benzene	Nitrate
Carbon Disulfide	Sulfate
Chloroethane	Sulfide
Chloromethane	Methane
1,2-Dibromo-3-chloropropane (DBCP)	Ethane
Dibromomethane	Ethene
1,1-Dichloroethane (1,1-DCA)	Soluble Organic Carbon (Dissolved)
1,2-Dichloroethane (1-,2-DCA)	Total Organic Carbon
1,1-Dichloroethene (1,1-DCE)	Total Iron
cis-1,2-dichloroethene (cis-1,2-DCE)	Manganese
trans-1,2-dichloroethene (trans-1,2-DCE)	Carbon Dioxide*
1,2-Dichloroethene (total) (1,2-DCE-total)	Conductivity*
Ethylbenzene	Dissolved Oxygen*
Isobutyl Alcohol	Ferrous Iron*
Methylene Chloride	Oxidation/Reduction Potential (ORP)*
4-methyl-2-pentanone (MIBK)	pH*
Naphthalene	Temperature*
1,1,2,2-Tetrachloroethane	
Tetrachloroethene (PCE)	
Toluene	
1,2,3-Trichlorobenzene	
1,2,4-Trichlorobenzene	
1,1,1-Trichloroethane (TCA)	
Trichloroethene (TCE)	
Trichlorofluoromethane	
1,2,3-Trichloropropane	
Vinyl Acetate	
Vinyl Chloride	
Xylenes (total)	

* measured at time of sampling

ALIGN OPEN END OF FEDEX AIRBILL POUCH HERE

PRIORITY OVERNIGHT

TRK# 0215 8619 5934 9731

XH-SYRA

SYR
NY-US
13057

28

FedEx Express US Airbill

FedEx Tracking Number 8619 5934 9731

458457 24OCT07 17:07

1 From: This portion can be removed for Recipient's records.

Date 10/24/07 FedEx Tracking Number 861958349731

Sender's Name ANITA TRECARTIN Phone 919 783-7777

Company O'BRIEN & GERE ENGINEERS INC

Address 2610 WYCLIFF RD STE 104 Dept./Floor/Suite/Room

City RALEIGH State NC ZIP 27607-3073

2 Your Internal Billing Reference 35789

3 To Recipient's Name Phone 315 437-0200

Company Life Science Laboratories

Recipient's Address 5000 Brittonfield Parkway-Suite 200
We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address
To request a package be held at a specific FedEx location, print FedEx address here.

City East Syracuse State NY ZIP 13057

0361662673

8619 5934 9731

RECIPIENT PEEL HERE

4a Express Package Service — Packages up to 150 lbs.

- [X] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

FedEx Envelope rate not available. Minimum charge: One-pound rate.

* To most locations.

4b Express Freight Service — Packages over 150 lbs.

- [ ] FedEx 1Day Freight* — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

* Call for Confirmation. ** To most locations.

5 Packaging

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
- [ ] FedEx Box
- [ ] FedEx Tube
- [X] Other

* Declared value limit $500.

6 Special Handling — Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Not available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- [ ] HOLD Weekday at FedEx Location — Not available for FedEx First Overnight.
- [ ] HOLD Saturday at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.

- [X] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No.

- [X] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages 1 Total Weight 3 Credit Card Auth.

*Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

8 Residential Delivery Signature Options — If you require a signature, check Direct or Indirect.

- [ ] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. Fee applies.

519

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Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Wednesday, December 19, 2007

Sarah Slagle-Garrett
O'Brien & Gere Engineers, Inc.
2610 Wycliff Road
Suite 104
Raleigh, NC 27607

TEL: 919-783-7777

Project: MILLER BREWING COMPANY CAN PLANT
RE: Analytical Results Order No.: 0710173

Dear Sarah Slagle-Garrett:

Life Science Laboratories, Inc. received 6 sample(s) on 10/26/2007 for the analyses presented in the following report.

Very truly yours,
Life Science Laboratories, Inc.

Monika Santucci

Monika Santucci
Project Manager

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-001A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-117*
W Order:	0710173	**Collection Date:**	10/25/07 8:00
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11802
Revision:	12/18/07 11:28	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1138.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		2.50	µg/L	5	11/07/07 4:14
1,1,2,2-Tetrachloroethane	ND		2.50	µg/L	5	11/07/07 4:14
1,1-Dichloroethane	8.25		2.50	µg/L	5	11/07/07 4:14
1,1-Dichloroethene	ND		2.50	µg/L	5	11/07/07 4:14
1,2,3-Trichlorobenzene	ND		5.00	µg/L	5	11/07/07 4:14
1,2,3-Trichloropropane	ND		2.50	µg/L	5	11/07/07 4:14
1,2,4-Trichlorobenzene	ND		5.00	µg/L	5	11/07/07 4:14
1,2-Dibromo-3-chloropropane	ND		5.00	µg/L	5	11/07/07 4:14
1,2-Dichloroethane	ND		2.50	µg/L	5	11/07/07 4:14
2-Butanone	78.5		50.0	µg/L	5	11/07/07 4:14
4-Methyl-2-pentanone	ND		25.0	µg/L	5	11/07/07 4:14
Acetone	513	E	50.0	µg/L	5	11/07/07 4:14
Benzene	ND		2.50	µg/L	5	11/07/07 4:14
Carbon disulfide	ND		2.50	µg/L	5	11/07/07 4:14
Chloroethane	ND		5.00	µg/L	5	11/07/07 4:14
Chloromethane	ND		5.00	µg/L	5	11/07/07 4:14
cis-1,2-Dichloroethene	76.2		2.50	µg/L	5	11/07/07 4:14
Dibromomethane	ND		2.50	µg/L	5	11/07/07 4:14
Ethylbenzene	ND		2.50	µg/L	5	11/07/07 4:14
Isobutyl alcohol	ND		250	µg/L	5	11/07/07 4:14
Methylene chloride	ND		10.0	µg/L	5	11/07/07 4:14
Naphthalene	ND		5.00	µg/L	5	11/07/07 4:14
Tetrachloroethene	ND		2.50	µg/L	5	11/07/07 4:14
Toluene	ND		2.50	µg/L	5	11/07/07 4:14
trans-1,2-Dichloroethene	ND		2.50	µg/L	5	11/07/07 4:14
Trichloroethene	30.2		2.50	µg/L	5	11/07/07 4:14
Trichlorofluoromethane	ND		5.00	µg/L	5	11/07/07 4:14
Vinyl acetate	ND		10.0	µg/L	5	11/07/07 4:14
Vinyl chloride	ND		5.00	µg/L	5	11/07/07 4:14
Xylenes (total)	ND		5.00	µg/L	5	11/07/07 4:14
Surr: 1,2-Dichloroethane-d4	103		75-134	%REC	5	11/07/07 4:14
Surr: 4-Bromofluorobenzene	92.2		75-125	%REC	5	11/07/07 4:14
Surr: Dibromofluoromethane	104		75-127	%REC	5	11/07/07 4:14
Surr: Toluene-d8	117		75-125	%REC	5	11/07/07 4:14

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-001ADL**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-117*
W Order:	0710173	**Collection Date:**	10/25/07 8:00
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R12261
Revision:	12/18/07 13:45	**TestCode** 8260W CAL	**FileID:** 1-DL-M3944.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
Acetone	408	H	100	µg/L	10	12/13/07 16:00
Surr: 1,2-Dichloroethane-d4	88.2	H	75-134	%REC	10	12/13/07 16:00
Surr: 4-Bromofluorobenzene	109	H	75-125	%REC	10	12/13/07 16:00
Surr: Dibromofluoromethane	113	H	75-127	%REC	10	12/13/07 16:00
Surr: Toluene-d8	115	H	75-125	%REC	10	12/13/07 16:00

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-002A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-119*
W Order:	0710173	**Collection Date:**	10/25/07 10:20
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11802
Revision:	12/18/07 11:28	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1139.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	11/07/07 4:48
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	11/07/07 4:48
1,1-Dichloroethane	ND		0.50	µg/L	1	11/07/07 4:48
1,1-Dichloroethene	ND		0.50	µg/L	1	11/07/07 4:48
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	11/07/07 4:48
1,2,3-Trichloropropane	ND		0.50	µg/L	1	11/07/07 4:48
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	11/07/07 4:48
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	11/07/07 4:48
1,2-Dichloroethane	ND		0.50	µg/L	1	11/07/07 4:48
2-Butanone	ND		10.0	µg/L	1	11/07/07 4:48
4-Methyl-2-pentanone	ND		5.00	µg/L	1	11/07/07 4:48
Acetone	ND		10.0	µg/L	1	11/07/07 4:48
Benzene	ND		0.50	µg/L	1	11/07/07 4:48
Carbon disulfide	ND		0.50	µg/L	1	11/07/07 4:48
Chloroethane	ND		1.00	µg/L	1	11/07/07 4:48
Chloromethane	ND		1.00	µg/L	1	11/07/07 4:48
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	11/07/07 4:48
Dibromomethane	ND		0.50	µg/L	1	11/07/07 4:48
Ethylbenzene	ND		0.50	µg/L	1	11/07/07 4:48
Isobutyl alcohol	ND		50.0	µg/L	1	11/07/07 4:48
Methylene chloride	ND		2.00	µg/L	1	11/07/07 4:48
Naphthalene	ND		1.00	µg/L	1	11/07/07 4:48
Tetrachloroethene	ND		0.50	µg/L	1	11/07/07 4:48
Toluene	ND		0.50	µg/L	1	11/07/07 4:48
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	11/07/07 4:48
Trichloroethene	ND		0.50	µg/L	1	11/07/07 4:48
Trichlorofluoromethane	ND		1.00	µg/L	1	11/07/07 4:48
Vinyl acetate	ND		2.00	µg/L	1	11/07/07 4:48
Vinyl chloride	ND		1.00	µg/L	1	11/07/07 4:48
Xylenes (total)	ND		1.00	µg/L	1	11/07/07 4:48
Surr: 1,2-Dichloroethane-d4	108		75-134	%REC	1	11/07/07 4:48
Surr: 4-Bromofluorobenzene	97.8		75-125	%REC	1	11/07/07 4:48
Surr: Dibromofluoromethane	103		75-127	%REC	1	11/07/07 4:48
Surr: Toluene-d8	107		75-125	%REC	1	11/07/07 4:48

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-003A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2PP-1*
W Order:	0710173	**Collection Date:**	10/25/07 11:05
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11802
Revision:	12/18/07 11:28	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1140.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	11/07/07 5:22
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	11/07/07 5:22
1,1-Dichloroethane	ND		0.50	µg/L	1	11/07/07 5:22
1,1-Dichloroethene	ND		0.50	µg/L	1	11/07/07 5:22
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	11/07/07 5:22
1,2,3-Trichloropropane	ND		0.50	µg/L	1	11/07/07 5:22
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	11/07/07 5:22
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	11/07/07 5:22
1,2-Dichloroethane	ND		0.50	µg/L	1	11/07/07 5:22
2-Butanone	ND		10.0	µg/L	1	11/07/07 5:22
4-Methyl-2-pentanone	ND		5.00	µg/L	1	11/07/07 5:22
Acetone	ND		10.0	µg/L	1	11/07/07 5:22
Benzene	ND		0.50	µg/L	1	11/07/07 5:22
Carbon disulfide	ND		0.50	µg/L	1	11/07/07 5:22
Chloroethane	ND		1.00	µg/L	1	11/07/07 5:22
Chloromethane	ND		1.00	µg/L	1	11/07/07 5:22
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	11/07/07 5:22
Dibromomethane	ND		0.50	µg/L	1	11/07/07 5:22
Ethylbenzene	ND		0.50	µg/L	1	11/07/07 5:22
Isobutyl alcohol	ND		50.0	µg/L	1	11/07/07 5:22
Methylene chloride	ND		2.00	µg/L	1	11/07/07 5:22
Naphthalene	ND		1.00	µg/L	1	11/07/07 5:22
Tetrachloroethene	ND		0.50	µg/L	1	11/07/07 5:22
Toluene	ND		0.50	µg/L	1	11/07/07 5:22
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	11/07/07 5:22
Trichloroethene	ND		0.50	µg/L	1	11/07/07 5:22
Trichlorofluoromethane	ND		1.00	µg/L	1	11/07/07 5:22
Vinyl acetate	ND		2.00	µg/L	1	11/07/07 5:22
Vinyl chloride	ND		1.00	µg/L	1	11/07/07 5:22
Xylenes (total)	ND		1.00	µg/L	1	11/07/07 5:22
Surr: 1,2-Dichloroethane-d4	110		75-134	%REC	1	11/07/07 5:22
Surr: 4-Bromofluorobenzene	96.6		75-125	%REC	1	11/07/07 5:22
Surr: Dibromofluoromethane	105		75-127	%REC	1	11/07/07 5:22
Surr: Toluene-d8	108		75-125	%REC	1	11/07/07 5:22

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-004A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-114D*
W Order:	0710173	**Collection Date:**	10/25/07 11:30
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11802
Revision:	12/18/07 11:28	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1141.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	11/07/07 5:56
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	11/07/07 5:56
1,1-Dichloroethane	2.49		0.50	µg/L	1	11/07/07 5:56
1,1-Dichloroethene	3.95		0.50	µg/L	1	11/07/07 5:56
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	11/07/07 5:56
1,2,3-Trichloropropane	ND		0.50	µg/L	1	11/07/07 5:56
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	11/07/07 5:56
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	11/07/07 5:56
1,2-Dichloroethane	ND		0.50	µg/L	1	11/07/07 5:56
2-Butanone	44.2		10.0	µg/L	1	11/07/07 5:56
4-Methyl-2-pentanone	ND		5.00	µg/L	1	11/07/07 5:56
Acetone	123	E	10.0	µg/L	1	11/07/07 5:56
Benzene	ND		0.50	µg/L	1	11/07/07 5:56
Carbon disulfide	ND		0.50	µg/L	1	11/07/07 5:56
Chloroethane	ND		1.00	µg/L	1	11/07/07 5:56
Chloromethane	ND		1.00	µg/L	1	11/07/07 5:56
cis-1,2-Dichloroethene	146	E	0.50	µg/L	1	11/07/07 5:56
Dibromomethane	ND		0.50	µg/L	1	11/07/07 5:56
Ethylbenzene	ND		0.50	µg/L	1	11/07/07 5:56
Isobutyl alcohol	622	E	50.0	µg/L	1	11/07/07 5:56
Methylene chloride	ND		2.00	µg/L	1	11/07/07 5:56
Naphthalene	ND		1.00	µg/L	1	11/07/07 5:56
Tetrachloroethene	2.88		0.50	µg/L	1	11/07/07 5:56
Toluene	ND		0.50	µg/L	1	11/07/07 5:56
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	11/07/07 5:56
Trichloroethene	56.0	E	0.50	µg/L	1	11/07/07 5:56
Trichlorofluoromethane	ND		1.00	µg/L	1	11/07/07 5:56
Vinyl acetate	ND		2.00	µg/L	1	11/07/07 5:56
Vinyl chloride	ND		1.00	µg/L	1	11/07/07 5:56
Xylenes (total)	ND		1.00	µg/L	1	11/07/07 5:56
Surr: 1,2-Dichloroethane-d4	105		75-134	%REC	1	11/07/07 5:56
Surr: 4-Bromofluorobenzene	108		75-125	%REC	1	11/07/07 5:56
Surr: Dibromofluoromethane	99.7		75-127	%REC	1	11/07/07 5:56
Surr: Toluene-d8	110		75-125	%REC	1	11/07/07 5:56

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-004ADL**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-114D*
W Order:	0710173	**Collection Date:**	10/25/07 11:30
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R12246
Revision:	12/17/07 15:46	**TestCode** 8260W CAL	**FileID:** 1-DL-M3922.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
Acetone	25.0	H	20.0	µg/L	2	12/12/07 16:20
Isobutyl alcohol	939	H	100	µg/L	2	12/12/07 16:20
Trichloroethene	54.9	H	1.00	µg/L	2	12/12/07 16:20
Surr: 1,2-Dichloroethane-d4	81.4	H	75-134	%REC	2	12/12/07 16:20
Surr: 4-Bromofluorobenzene	108	H	75-125	%REC	2	12/12/07 16:20
Surr: Dibromofluoromethane	112	H	75-127	%REC	2	12/12/07 16:20
Surr: Toluene-d8	114	H	75-125	%REC	2	12/12/07 16:20

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-004ADL**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-114D*
W Order:	0710173	**Collection Date:**	10/25/07 11:30
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	MS02 12	**Sample Size:** 25 mL	**PrepDate:**
ColumnID:	Rtx-502.2	**%Moisture:**	**BatchNo:** R12261
Revision:	12/18/07 13:45	**TestCode** 8260W CAL	**FileID:** 1-DL-M3945.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**SW8260B**		
cis-1,2-Dichloroethene	214	H	5.00	µg/L	10	12/13/07 16:40
Surr: 1,2-Dichloroethane-d4	88.9	H	75-134	%REC	10	12/13/07 16:40
Surr: 4-Bromofluorobenzene	112	H	75-125	%REC	10	12/13/07 16:40
Surr: Dibromofluoromethane	114	H	75-127	%REC	10	12/13/07 16:40
Surr: Toluene-d8	115	H	75-125	%REC	10	12/13/07 16:40

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-005A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-1*
W Order:	0710173	**Collection Date:**	10/24/07 17:00
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11802
Revision:	12/17/07 15:44	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1142.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	11/07/07 6:30
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	11/07/07 6:30
1,1-Dichloroethane	ND		0.50	µg/L	1	11/07/07 6:30
1,1-Dichloroethene	ND		0.50	µg/L	1	11/07/07 6:30
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	11/07/07 6:30
1,2,3-Trichloropropane	ND		0.50	µg/L	1	11/07/07 6:30
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	11/07/07 6:30
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	11/07/07 6:30
1,2-Dichloroethane	ND		0.50	µg/L	1	11/07/07 6:30
2-Butanone	ND		10.0	µg/L	1	11/07/07 6:30
4-Methyl-2-pentanone	ND		5.00	µg/L	1	11/07/07 6:30
Acetone	ND		10.0	µg/L	1	11/07/07 6:30
Benzene	ND		0.50	µg/L	1	11/07/07 6:30
Carbon disulfide	ND		0.50	µg/L	1	11/07/07 6:30
Chloroethane	ND		1.00	µg/L	1	11/07/07 6:30
Chloromethane	ND		1.00	µg/L	1	11/07/07 6:30
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	11/07/07 6:30
Dibromomethane	ND		0.50	µg/L	1	11/07/07 6:30
Ethylbenzene	ND		0.50	µg/L	1	11/07/07 6:30
Isobutyl alcohol	ND		50.0	µg/L	1	11/07/07 6:30
Methylene chloride	ND		2.00	µg/L	1	11/07/07 6:30
Naphthalene	ND		1.00	µg/L	1	11/07/07 6:30
Tetrachloroethene	ND		0.50	µg/L	1	11/07/07 6:30
Toluene	ND		0.50	µg/L	1	11/07/07 6:30
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	11/07/07 6:30
Trichloroethene	0.82		0.50	µg/L	1	11/07/07 6:30
Trichlorofluoromethane	ND		1.00	µg/L	1	11/07/07 6:30
Vinyl acetate	ND		2.00	µg/L	1	11/07/07 6:30
Vinyl chloride	ND		1.00	µg/L	1	11/07/07 6:30
Xylenes (total)	ND		1.00	µg/L	1	11/07/07 6:30
Surr: 1,2-Dichloroethane-d4	99.8		75-134	%REC	1	11/07/07 6:30
Surr: 4-Bromofluorobenzene	101		75-125	%REC	1	11/07/07 6:30
Surr: Dibromofluoromethane	100		75-127	%REC	1	11/07/07 6:30
Surr: Toluene-d8	132	S	75-125	%REC	1	11/07/07 6:30

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-006A**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*TB-102507*
W Order:	0710173	**Collection Date:**	10/24/07 17:00
Matrix:	WATER Q	**Date Received:**	10/26/07 9:55
Inst. ID:	MS01 11	**Sample Size:** 10 mL	**PrepDate:**
ColumnID:	Rtx-VMS	**%Moisture:**	**BatchNo:** R11802
Revision:	12/17/07 15:44	**TestCode** 8260W CAL	**FileID:** 1-SAMP-T1143.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
1,1,1-Trichloroethane	ND		0.50	µg/L	1	11/07/07 7:05
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	11/07/07 7:05
1,1-Dichloroethane	ND		0.50	µg/L	1	11/07/07 7:05
1,1-Dichloroethene	ND		0.50	µg/L	1	11/07/07 7:05
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	11/07/07 7:05
1,2,3-Trichloropropane	ND		0.50	µg/L	1	11/07/07 7:05
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	11/07/07 7:05
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	11/07/07 7:05
1,2-Dichloroethane	ND		0.50	µg/L	1	11/07/07 7:05
2-Butanone	ND		10.0	µg/L	1	11/07/07 7:05
4-Methyl-2-pentanone	ND		5.00	µg/L	1	11/07/07 7:05
Acetone	ND		10.0	µg/L	1	11/07/07 7:05
Benzene	ND		0.50	µg/L	1	11/07/07 7:05
Carbon disulfide	ND		0.50	µg/L	1	11/07/07 7:05
Chloroethane	ND		1.00	µg/L	1	11/07/07 7:05
Chloromethane	ND		1.00	µg/L	1	11/07/07 7:05
cis-1,2-Dichloroethene	ND		0.50	µg/L	1	11/07/07 7:05
Dibromomethane	ND		0.50	µg/L	1	11/07/07 7:05
Ethylbenzene	ND		0.50	µg/L	1	11/07/07 7:05
Isobutyl alcohol	ND		50.0	µg/L	1	11/07/07 7:05
Methylene chloride	ND		2.00	µg/L	1	11/07/07 7:05
Naphthalene	ND		1.00	µg/L	1	11/07/07 7:05
Tetrachloroethene	ND		0.50	µg/L	1	11/07/07 7:05
Toluene	ND		0.50	µg/L	1	11/07/07 7:05
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	11/07/07 7:05
Trichloroethene	ND		0.50	µg/L	1	11/07/07 7:05
Trichlorofluoromethane	ND		1.00	µg/L	1	11/07/07 7:05
Vinyl acetate	ND		2.00	µg/L	1	11/07/07 7:05
Vinyl chloride	ND		1.00	µg/L	1	11/07/07 7:05
Xylenes (total)	ND		1.00	µg/L	1	11/07/07 7:05
Surr: 1,2-Dichloroethane-d4	103		75-134	%REC	1	11/07/07 7:05
Surr: 4-Bromofluorobenzene	96.6		75-125	%REC	1	11/07/07 7:05
Surr: Dibromofluoromethane	102		75-127	%REC	1	11/07/07 7:05
Surr: Toluene-d8	119		75-125	%REC	1	11/07/07 7:05

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

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East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCS-11802 SampType: LCS TestCode: 8260W_CAL Units: µg/L Prep Date: RunNo: 11802

Client ID: ZZZZZ Batch ID: R11802 Method: SW8260B Analysis Date: 11/7/2007 SeqNo: 320139

Instrument: MS01_11 ColumnID: Rtx-VMS Rtx-VMS, 1.0 df

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.6	0.500	10	0	106	80	127				
1,1,2,2-Tetrachloroethane	7.07	0.500	10	0	71	73	122				S
1,1-Dichloroethane	10.2	0.500	10	0	102	80	120				
1,1-Dichloroethene	11.2	0.500	10	0	112	77	126				
1,2,3-Trichlorobenzene	8.15	1.00	10	0	82	75	123				
1,2,3-Trichloropropane	7.59	0.500	10	0	76	72	126				
1,2,4-Trichlorobenzene	8.97	1.00	10	0	90	73	123				
1,2-Dibromo-3-chloropropane	6.78	1.00	10	0	68	71	124				S
1,2-Dichloroethane	9.38	0.500	10	0	94	73	126				
2-Butanone	14.0	10.0	20	0	70	49	153				
4-Methyl-2-pentanone	13.8	5.00	20	0	69	50	150				
Acetone	13.4	10.0	20	0	67	37	163				
Benzene	10.2	0.500	10	0	102	80	120				
Carbon disulfide	8.87	0.500	10	0	89	76	122				
Chloroethane	6.47	1.00	10	0	65	75	124				S
Chloromethane	7.30	1.00	10	0	73	59	133				
cis-1,2-Dichloroethene	9.85	0.500	10	0	98	80	120				
Dibromomethane	8.85	0.500	10	0	88	79	120				
Ethylbenzene	10.3	0.500	10	0	103	80	120				
Isobutyl alcohol	178	50.0	250	0	71	50	150				
Methylene chloride	8.70	2.00	10	0	87	78	120				
Naphthalene	8.16	1.00	10	0	82	67	134				
Tetrachloroethene	9.61	0.500	10	0	96	80	120				
Toluene	9.99	0.500	10	0	100	80	120				
trans-1,2-Dichloroethene	9.65	0.500	10	0	97	80	120				
Trichloroethene	10.5	0.500	10	0	105	80	120				
Trichlorofluoromethane	8.20	1.00	10	0	82	73	132				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *14-Dec-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCS-11802	SampType: LCS	TestCode: 8260W_CAL	Units: µg/L	Prep Date:		RunNo:	11802
Client ID: ZZZZZ	Batch ID: R11802	Method: SW8260B		Analysis Date: 11/7/2007		SeqNo:	320139
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	2.09	2.00	10	0	21	43	150				S
Vinyl chloride	7.34	1.00	10	0	73	75	125				S
Xylenes (total)	32.3	1.00	30	0	108	80	120				
Surr: 1,2-Dichloroethane-d4	10.2	0.100	10	0	102	75	134				
Surr: 4-Bromofluorobenzene	10.6	0.100	10	0	106	75	125				
Surr: Dibromofluoromethane	10.0	0.100	10	0	100	75	127				
Surr: Toluene-d8	10.8	0.100	10	0	108	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *14-Dec-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710173

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCSD-11802 SampType: LCSD TestCode: 8260W_CAL Units: µg/L Prep Date: RunNo: 11802

Client ID: ZZZZZ Batch ID: R11802 Method: SW8260B Analysis Date: 11/7/2007 SeqNo: 320140

Instrument: MS01_11 ColumnID: Rtx-VMS Rtx-VMS, 1.0 df

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.6	0.500	10	0	106	80	127	10.6	1	20	
1,1,2,2-Tetrachloroethane	7.38	0.500	10	0	74	73	122	7.07	4	20	
1,1-Dichloroethane	10.4	0.500	10	0	104	80	120	10.2	2	20	
1,1-Dichloroethene	11.5	0.500	10	0	115	77	126	11.2	2	20	
1,2,3-Trichlorobenzene	8.32	1.00	10	0	83	75	123	8.15	2	20	
1,2,3-Trichloropropane	8.00	0.500	10	0	80	72	126	7.59	5	20	
1,2,4-Trichlorobenzene	9.02	1.00	10	0	90	73	123	8.97	1	20	
1,2-Dibromo-3-chloropropane	6.78	1.00	10	0	68	71	124	6.78	0	20	S
1,2-Dichloroethane	9.40	0.500	10	0	94	73	126	9.38	0	20	
2-Butanone	13.8	10.0	20	0	69	49	153	14	1	50	
4-Methyl-2-pentanone	14.1	5.00	20	0	70	50	150	13.8	2	50	
Acetone	13.8	10.0	20	0	69	37	163	13.4	3	50	
Benzene	10.2	0.500	10	0	102	80	120	10.2	1	20	
Carbon disulfide	9.11	0.500	10	0	91	76	122	8.87	3	20	
Chloroethane	6.53	1.00	10	0	65	75	124	6.47	1	20	S
Chloromethane	7.59	1.00	10	0	76	59	133	7.3	4	20	
cis-1,2-Dichloroethene	9.94	0.500	10	0	99	80	120	9.85	1	20	
Dibromomethane	8.97	0.500	10	0	90	79	120	8.85	1	20	
Ethylbenzene	10.4	0.500	10	0	104	80	120	10.3	1	20	
Isobutyl alcohol	180	50.0	250	0	72	50	150	178	1	50	
Methylene chloride	8.89	2.00	10	0	89	78	120	8.7	2	20	
Naphthalene	8.26	1.00	10	0	83	67	134	8.16	1	20	
Tetrachloroethene	9.65	0.500	10	0	97	80	120	9.61	0	20	
Toluene	10.2	0.500	10	0	102	80	120	9.99	2	20	
trans-1,2-Dichloroethene	9.84	0.500	10	0	98	80	120	9.65	2	20	
Trichloroethene	10.4	0.500	10	0	104	80	120	10.5	1	20	
Trichlorofluoromethane	8.42	1.00	10	0	84	73	132	8.2	3	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *14-Dec-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCSD-11802	SampType: LCSD	TestCode: 8260W_CAL	Units: µg/L	Prep Date:	RunNo: 11802
Client ID: ZZZZZ	Batch ID: R11802	Method: SW8260B		Analysis Date: 11/7/2007	SeqNo: 320140
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df			

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	3.36	2.00	10	0	34	43	150	2.09	47	50	S
Vinyl chloride	7.55	1.00	10	0	76	75	125	7.34	3	20	
Xylenes (total)	32.8	1.00	30	0	109	80	120	32.3	1	20	
Surr: 1,2-Dichloroethane-d4	9.91	0.100	10	0	99	75	134	0		0	
Surr: 4-Bromofluorobenzene	10.4	0.100	10	0	104	75	125	0		0	
Surr: Dibromofluoromethane	9.96	0.100	10	0	100	75	127	0		0	
Surr: Toluene-d8	10.8	0.100	10	0	108	75	125	0		0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *14-Dec-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: MB-11802	SampType: MBLK	TestCode: 8260W_CAL	Units: µg/L	Prep Date:		RunNo:	11802
Client ID: ZZZZZ	Batch ID: R11802	Method: SW8260B		Analysis Date: 11/7/2007		SeqNo:	320141
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	0.500									
1,1-Dichloroethane	ND	0.500									
1,1-Dichloroethene	ND	0.500									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	0.500									
1,2,4-Trichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dichloroethane	ND	0.500									
2-Butanone	ND	10.0									
4-Methyl-2-pentanone	ND	5.00									
Acetone	ND	10.0									
Benzene	ND	0.500									
Carbon disulfide	ND	0.500									
Chloroethane	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	0.500									
Dibromomethane	ND	0.500									
Ethylbenzene	ND	0.500									
Isobutyl alcohol	ND	50.0									
Methylene chloride	ND	2.00									
Naphthalene	ND	1.00									
Tetrachloroethene	ND	0.500									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
Trichloroethene	ND	0.500									
Trichlorofluoromethane	ND	1.00									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *14-Dec-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: MB-11802	SampType: MBLK	TestCode: 8260W_CAL	Units: µg/L	Prep Date:		RunNo:	11802
Client ID: ZZZZZ	Batch ID: R11802	Method: SW8260B		Analysis Date: 11/7/2007		SeqNo:	320141
Instrument: MS01_11	ColumnID: Rtx-VMS	Rtx-VMS, 1.0 df					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	ND	2.00									
Vinyl chloride	ND	1.00									
Xylenes (total)	ND	1.00									
Surr: 1,2-Dichloroethane-d4	10.6	0.100	10	0	106	75	134				
Surr: 4-Bromofluorobenzene	9.62	0.100	10	0	96	75	125				
Surr: Dibromofluoromethane	9.82	0.100	10	0	98	75	127				
Surr: Toluene-d8	10.6	0.100	10	0	106	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *14-Dec-07*

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East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCS-12246	SampType: LCS	TestCode: 8260W_CAL	Units: µg/L	Prep Date:		RunNo:	12246
Client ID: ZZZZZ	Batch ID: R12246	Method: SW8260B		Analysis Date: 12/12/2007		SeqNo:	328147
Instrument: MS02_12	ColumnID: Rtx-502.2	Rtx-502.2, 3.0 df					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.4	0.500	10	0	104	80	127				
1,1,2,2-Tetrachloroethane	8.19	0.500	10	0	82	73	122				
1,1-Dichloroethane	9.74	0.500	10	0	97	80	120				
1,1-Dichloroethene	10.2	0.500	10	0	102	77	126				
1,2,3-Trichlorobenzene	5.27	1.00	10	0	53	75	123				S
1,2,3-Trichloropropane	7.51	0.500	10	0	75	72	126				
1,2,4-Trichlorobenzene	7.10	1.00	10	0	71	73	123				S
1,2-Dibromo-3-chloropropane	6.53	1.00	10	0	65	71	124				S
1,2-Dichloroethane	8.58	0.500	10	0	86	73	126				
2-Butanone	15.0	10.0	20	0	75	49	153				
4-Methyl-2-pentanone	12.6	5.00	20	0	63	50	150				
Acetone	13.2	10.0	20	0	66	37	163				
Benzene	10.0	0.500	10	0	100	80	120				
Carbon disulfide	10.4	0.500	10	0	104	76	122				
Chloroethane	9.35	1.00	10	0	94	75	124				
Chloromethane	8.06	1.00	10	0	81	59	133				
cis-1,2-Dichloroethene	10.5	0.500	10	0	105	80	120				
Dibromomethane	9.28	0.500	10	0	93	79	120				
Ethylbenzene	10.5	0.500	10	0	105	80	120				
Isobutyl alcohol	197	50.0	250	0	79	50	150				
Methylene chloride	9.64	2.00	10	0	96	78	120				
Naphthalene	4.55	1.00	10	0	46	67	134				S
Tetrachloroethene	12.7	0.500	10	0	127	80	120				S
Toluene	10.4	0.500	10	0	104	80	120				
trans-1,2-Dichloroethene	11.3	0.500	10	0	113	80	120				
Trichloroethene	10.7	0.500	10	0	107	80	120				
Trichlorofluoromethane	10.1	1.00	10	0	101	73	132				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *14-Dec-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCS-12246	SampType: LCS	TestCode: 8260W_CAL	Units: µg/L	Prep Date:		RunNo:	12246
Client ID: ZZZZZ	Batch ID: R12246	Method: SW8260B		Analysis Date: 12/12/2007		SeqNo:	328147
Instrument: MS02_12	ColumnID: Rtx-502.2	Rtx-502.2, 3.0 df					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	6.98	2.00	10	0	70	43	150				
Vinyl chloride	8.69	1.00	10	0	87	75	125				
Xylenes (total)	33.6	1.00	30	0	112	80	120				
Surr: 1,2-Dichloroethane-d4	8.41	0.100	10	0	84	75	134				
Surr: 4-Bromofluorobenzene	10.6	0.100	10	0	106	75	125				
Surr: Dibromofluoromethane	10.8	0.100	10	0	108	75	127				
Surr: Toluene-d8	10.6	0.100	10	0	106	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *14-Dec-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCSD-12246 SampType: LCSD TestCode: 8260W_CAL Units: µg/L Prep Date: RunNo: 12246

Client ID: ZZZZZ Batch ID: R12246 Method: SW8260B Analysis Date: 12/12/2007 SeqNo: 328148

Instrument: MS02_12 ColumnID: Rtx-502.2 Rtx-502.2, 3.0 df

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	9.95	0.500	10	0	100	80	127	10.4	5	20	
1,1,2,2-Tetrachloroethane	9.03	0.500	10	0	90	73	122	8.19	10	20	
1,1-Dichloroethane	9.44	0.500	10	0	94	80	120	9.74	3	20	
1,1-Dichloroethene	10.7	0.500	10	0	107	77	126	10.2	5	20	
1,2,3-Trichlorobenzene	5.85	1.00	10	0	58	75	123	5.27	10	20	S
1,2,3-Trichloropropane	8.60	0.500	10	0	86	72	126	7.51	14	20	
1,2,4-Trichlorobenzene	7.55	1.00	10	0	76	73	123	7.1	6	20	
1,2-Dibromo-3-chloropropane	7.32	1.00	10	0	73	71	124	6.53	11	20	
1,2-Dichloroethane	9.04	0.500	10	0	90	73	126	8.58	5	20	
2-Butanone	19.5	10.0	20	0	98	49	153	15	26	50	
4-Methyl-2-pentanone	16.2	5.00	20	0	81	50	150	12.6	25	50	
Acetone	15.7	10.0	20	0	79	37	163	13.2	18	50	
Benzene	9.83	0.500	10	0	98	80	120	10	2	20	
Carbon disulfide	9.83	0.500	10	0	98	76	122	10.4	6	20	
Chloroethane	8.12	1.00	10	0	81	75	124	9.35	14	20	
Chloromethane	7.81	1.00	10	0	78	59	133	8.06	3	20	
cis-1,2-Dichloroethene	10.4	0.500	10	0	104	80	120	10.5	1	20	
Dibromomethane	10.5	0.500	10	0	105	79	120	9.28	12	20	
Ethylbenzene	10.2	0.500	10	0	102	80	120	10.5	3	20	
Isobutyl alcohol	258	50.0	250	0	103	50	150	197	27	50	
Methylene chloride	9.64	2.00	10	0	96	78	120	9.64	0	20	
Naphthalene	5.18	1.00	10	0	52	67	134	4.55	13	20	S
Tetrachloroethene	12.5	0.500	10	0	125	80	120	12.7	1	20	S
Toluene	10.3	0.500	10	0	103	80	120	10.4	1	20	
trans-1,2-Dichloroethene	10.8	0.500	10	0	108	80	120	11.3	5	20	
Trichloroethene	10.7	0.500	10	0	107	80	120	10.7	0	20	
Trichlorofluoromethane	10.2	1.00	10	0	102	73	132	10.1	1	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *14-Dec-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCSD-12246	SampType: LCSD	TestCode: 8260W_CAL	Units: µg/L	Prep Date:		RunNo:	12246
Client ID: ZZZZZ	Batch ID: R12246	Method: SW8260B		Analysis Date: 12/12/2007		SeqNo:	328148
Instrument: MS02_12	ColumnID: Rtx-502.2	Rtx-502.2, 3.0 df					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	7.21	2.00	10	0	72	43	150	6.98	3	50	
Vinyl chloride	8.01	1.00	10	0	80	75	125	8.69	8	20	
Xylenes (total)	32.3	1.00	30	0	108	80	120	33.6	4	20	
Surr: 1,2-Dichloroethane-d4	9.04	0.100	10	0	90	75	134	0		0	
Surr: 4-Bromofluorobenzene	10.7	0.100	10	0	107	75	125	0		0	
Surr: Dibromofluoromethane	11.2	0.100	10	0	112	75	127	0		0	
Surr: Toluene-d8	10.7	0.100	10	0	107	75	125	0		0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *14-Dec-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0710173
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: **MB-12246**	SampType: **MBLK**	TestCode: **8260W_CAL**	Units: **µg/L**		Prep Date:				RunNo:	**12246**		
Client ID: **ZZZZZ**	Batch ID: **R12246**	Method: **SW8260B**			Analysis Date: **12/12/2007**				SeqNo:	**328149**		
Instrument: **MS02_12**	ColumnID: **Rtx-502.2**	**Rtx-502.2, 3.0 df**										

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	0.500									
1,1-Dichloroethane	ND	0.500									
1,1-Dichloroethene	ND	0.500									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	0.500									
1,2,4-Trichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dichloroethane	ND	0.500									
2-Butanone	ND	10.0									
4-Methyl-2-pentanone	ND	5.00									
Acetone	ND	10.0									
Benzene	ND	0.500									
Carbon disulfide	ND	0.500									
Chloroethane	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	0.500									
Dibromomethane	ND	0.500									
Ethylbenzene	ND	0.500									
Isobutyl alcohol	ND	50.0									
Methylene chloride	ND	2.00									
Naphthalene	ND	1.00									
Tetrachloroethene	ND	0.500									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
Trichloroethene	ND	0.500									
Trichlorofluoromethane	ND	1.00									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *14-Dec-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: MB-12246	SampType: MBLK	TestCode: 8260W_CAL	Units: µg/L	Prep Date:		RunNo:	12246
Client ID: ZZZZZ	Batch ID: R12246	Method: SW8260B		Analysis Date: 12/12/2007		SeqNo:	328149
Instrument: MS02_12	ColumnID: Rtx-502.2	Rtx-502.2, 3.0 df					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	ND	2.00									
Vinyl chloride	ND	1.00									
Xylenes (total)	ND	1.00									
Surr: 1,2-Dichloroethane-d4	9.35	0.100	10	0	94	75	134				
Surr: 4-Bromofluorobenzene	11.2	0.100	10	0	112	75	125				
Surr: Dibromofluoromethane	11.5	0.100	10	0	115	75	127				
Surr: Toluene-d8	11.0	0.100	10	0	110	75	125				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *14-Dec-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B
Work Order: 0710173
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-12261 SampType: LCS TestCode: 8260W_CAL Units: µg/L Prep Date: RunNo: 12261
Client ID: ZZZZZ Batch ID: R12261 Method: SW8260B Analysis Date: 12/13/2007 SeqNo: 328580
Instrument: MS02_12 ColumnID: Rtx-502.2 Rtx-502.2, 3.0 df

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	9.75	0.500	10	0	98	80	127				
1,1,2,2-Tetrachloroethane	8.75	0.500	10	0	88	73	122				
1,1-Dichloroethane	9.12	0.500	10	0	91	80	120				
1,1-Dichloroethene	10.9	0.500	10	0	109	77	126				
1,2,3-Trichlorobenzene	5.70	1.00	10	0	57	75	123				S
1,2,3-Trichloropropane	8.22	0.500	10	0	82	72	126				
1,2,4-Trichlorobenzene	7.52	1.00	10	0	75	73	123				
1,2-Dibromo-3-chloropropane	5.92	1.00	10	0	59	71	124				S
1,2-Dichloroethane	7.83	0.500	10	0	78	73	126				
2-Butanone	12.3	10.0	20	0	62	49	153				
4-Methyl-2-pentanone	14.9	5.00	20	0	75	50	150				
Acetone	13.9	10.0	20	0	69	37	163				
Benzene	10.1	0.500	10	0	101	80	120				
Carbon disulfide	11.0	0.500	10	0	110	76	122				
Chloroethane	9.97	1.00	10	0	100	75	124				
Chloromethane	8.51	1.00	10	0	85	59	133				
cis-1,2-Dichloroethene	10.9	0.500	10	0	109	80	120				
Dibromomethane	9.70	0.500	10	0	97	79	120				
Ethylbenzene	11.1	0.500	10	0	111	80	120				
Methylene chloride	10.1	2.00	10	0	101	78	120				
Naphthalene	4.95	1.00	10	0	50	67	134				S
Tetrachloroethene	12.8	0.500	10	0	128	80	120				S
Toluene	10.6	0.500	10	0	106	80	120				
trans-1,2-Dichloroethene	11.1	0.500	10	0	111	80	120				
Trichloroethene	10.7	0.500	10	0	107	80	120				
Trichlorofluoromethane	10.5	1.00	10	0	105	73	132				
Vinyl acetate	6.79	2.00	10	0	68	43	150				

Qualifiers:
B Analyte detected in the associated Method Blank
ND Not Detected at the Practical Quantitation Limit (PQL)
U Not Detected at the MDC or RL
E Value exceeds the instrument calibration range
R RPD exceeds accepted precision limit
J Analyte detected below the PQL
S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCS-12261	SampType: LCS	TestCode: 8260W_CAL	Units: µg/L	Prep Date:		RunNo:	12261
Client ID: ZZZZZ	Batch ID: R12261	Method: SW8260B		Analysis Date: 12/13/2007		SeqNo:	328580
Instrument: MS02_12	ColumnID: Rtx-502.2	Rtx-502.2, 3.0 df					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	9.82	1.00	10	0	98	75	125				
Xylenes (total)	34.7	1.00	30	0	116	80	120				
Surr: 1,2-Dichloroethane-d4	8.07	0.100	10	0	81	75	134				
Surr: 4-Bromofluorobenzene	10.5	0.100	10	0	105	75	125				
Surr: Dibromofluoromethane	11.1	0.100	10	0	111	75	127				
Surr: Toluene-d8	10.6	0.100	10	0	106	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *18-Dec-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCSD-12261 SampType: LCSD TestCode: 8260W_CAL Units: µg/L Prep Date: RunNo: 12261

Client ID: ZZZZZ Batch ID: R12261 Method: SW8260B Analysis Date: 12/13/2007 SeqNo: 328581

Instrument: MS02_12 ColumnID: Rtx-502.2 Rtx-502.2, 3.0 df

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	9.75	0.500	10	0	98	80	127	9.75	0	20	
1,1,2,2-Tetrachloroethane	9.23	0.500	10	0	92	73	122	8.75	5	20	
1,1-Dichloroethane	9.35	0.500	10	0	94	80	120	9.12	2	20	
1,1-Dichloroethene	10.5	0.500	10	0	105	77	126	10.9	4	20	
1,2,3-Trichlorobenzene	6.07	1.00	10	0	61	75	123	5.7	6	20	S
1,2,3-Trichloropropane	7.22	0.500	10	0	72	72	126	8.22	13	20	
1,2,4-Trichlorobenzene	7.69	1.00	10	0	77	73	123	7.52	2	20	
1,2-Dibromo-3-chloropropane	6.32	1.00	10	0	63	71	124	5.92	7	20	S
1,2-Dichloroethane	8.23	0.500	10	0	82	73	126	7.83	5	20	
2-Butanone	13.8	10.0	20	0	69	49	153	12.3	11	50	
4-Methyl-2-pentanone	16.4	5.00	20	0	82	50	150	14.9	10	50	
Acetone	14.7	10.0	20	0	73	37	163	13.9	6	50	
Benzene	10.1	0.500	10	0	101	80	120	10.1	0	20	
Carbon disulfide	10.6	0.500	10	0	106	76	122	11	4	20	
Chloroethane	9.73	1.00	10	0	97	75	124	9.97	2	20	
Chloromethane	8.15	1.00	10	0	82	59	133	8.51	4	20	
cis-1,2-Dichloroethene	11.0	0.500	10	0	110	80	120	10.9	1	20	
Dibromomethane	10.3	0.500	10	0	103	79	120	9.7	6	20	
Ethylbenzene	11.0	0.500	10	0	110	80	120	11.1	1	20	
Methylene chloride	10.3	2.00	10	0	103	78	120	10.1	2	20	
Naphthalene	5.33	1.00	10	0	53	67	134	4.95	7	20	S
Tetrachloroethene	12.2	0.500	10	0	122	80	120	12.8	4	20	S
Toluene	10.6	0.500	10	0	106	80	120	10.6	0	20	
trans-1,2-Dichloroethene	10.9	0.500	10	0	109	80	120	11.1	1	20	
Trichloroethene	10.7	0.500	10	0	107	80	120	10.7	0	20	
Trichlorofluoromethane	10.3	1.00	10	0	103	73	132	10.5	2	20	
Vinyl acetate	7.10	2.00	10	0	71	43	150	6.79	4	50	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *18-Dec-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCSD-12261	SampType: LCSD	TestCode: 8260W_CAL	Units: µg/L	Prep Date:		RunNo:	12261
Client ID: ZZZZZ	Batch ID: R12261	Method: SW8260B		Analysis Date: 12/13/2007		SeqNo:	328581
Instrument: MS02_12	ColumnID: Rtx-502.2	Rtx-502.2, 3.0 df					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	7.94	1.00	10	0	79	75	125	9.82	21	20	
Xylenes (total)	34.2	1.00	30	0	114	80	120	34.7	1	20	
Surr: 1,2-Dichloroethane-d4	8.58	0.100	10	0	86	75	134	0		0	
Surr: 4-Bromofluorobenzene	10.6	0.100	10	0	106	75	125	0		0	
Surr: Dibromofluoromethane	11.2	0.100	10	0	112	75	127	0		0	
Surr: Toluene-d8	10.8	0.100	10	0	108	75	125	0		0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *18-Dec-07*

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: MB-12261	SampType: MBLK	TestCode: 8260W_CAL	Units: µg/L	Prep Date:		RunNo:	12261
Client ID: ZZZZZ	Batch ID: R12261	Method: SW8260B		Analysis Date: 12/13/2007		SeqNo:	328582
Instrument: MS02_12	ColumnID: Rtx-502.2	Rtx-502.2, 3.0 df					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	0.500									
1,1-Dichloroethane	ND	0.500									
1,1-Dichloroethene	ND	0.500									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	0.500									
1,2,4-Trichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dichloroethane	ND	0.500									
2-Butanone	ND	10.0									
4-Methyl-2-pentanone	ND	5.00									
Acetone	ND	10.0									
Benzene	ND	0.500									
Carbon disulfide	ND	0.500									
Chloroethane	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	0.500									
Dibromomethane	ND	0.500									
Ethylbenzene	ND	0.500									
Isobutyl alcohol	ND	50.0									
Methylene chloride	ND	2.00									
Naphthalene	ND	1.00									
Tetrachloroethene	ND	0.500									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
Trichloroethene	ND	0.500									
Trichlorofluoromethane	ND	1.00									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *14-Dec-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: SW8260B

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: MB-12261	SampType: MBLK	TestCode: 8260W_CAL	Units: µg/L	Prep Date:		RunNo:	12261
Client ID: ZZZZZ	Batch ID: R12261	Method: SW8260B		Analysis Date: 12/13/2007		SeqNo:	328582
Instrument: MS02_12	ColumnID: Rtx-502.2	Rtx-502.2, 3.0 df					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl acetate	ND	2.00									
Vinyl chloride	ND	1.00									
Xylenes (total)	ND	1.00									
Surr: 1,2-Dichloroethane-d4	8.94	0.100	10	0	89	75	134				
Surr: 4-Bromofluorobenzene	11.2	0.100	10	0	112	75	125				
Surr: Dibromofluoromethane	11.6	0.100	10	0	116	75	127				
Surr: Toluene-d8	11.6	0.100	10	0	116	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *14-Dec-07*

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-001B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-117*
W Order:	0710173	**Collection Date:**	10/25/07 8:00
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	GCOS 17E	**Sample Size:** 32 mL	**PrepDate:** 10/29/07 12:23
ColumnID:	Alumina	**%Moisture:**	**BatchNo:** 6476/R11675
Revision:	10/30/07 7:57	**TestCode** 8015W RSK175	**FileID:** 1-SAMP-E:\Osioct07\E102916.r
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		**(RSK 175)**
Ethane	ND		0.21	mg/L	50	10/29/07 16:43
Ethene	ND		0.21	mg/L	50	10/29/07 16:43
Methane	3.6		0.11	mg/L	50	10/29/07 16:43

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
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East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-004B**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-114D*
W Order:	0710173	**Collection Date:**	10/25/07 11:30
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	GCOS 17E	**Sample Size:** 33 mL	**PrepDate:** 10/29/07 12:23
ColumnID:	Alumina	**%Moisture:**	**BatchNo:** 6476/R11675
Revision:	10/30/07 7:57	**TestCode** 8015W RSK175	**FileID:** 1-SAMP-E:\Osioct07\E102918.r
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED GASES BY GC/FID				**8015M/RSK175M**		**(RSK 175)**
Ethane	ND		0.21	mg/L	50	10/29/07 17:03
Ethene	ND		0.21	mg/L	50	10/29/07 17:03
Methane	1.1		0.10	mg/L	50	10/29/07 17:03

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M

Work Order: 0710153

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCS-6476	SampType: LCS	TestCode: 8015W_RSK1	Units: mg/L	Prep Date: 10/29/2007		RunNo: 11675	
Client ID: ZZZZZ	Batch ID: 6476	Method: 8015M/RSK1 (RSK 175)		Analysis Date: 10/29/2007		SeqNo: 315394	
Instrument: GCOS_17E	ColumnID: Alumina	J&W Alumina					

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.0376	0.0042	0.0382	0	98	18	138				
Ethene	0.0285	0.0042	0.0361	0	79	50	130				
Methane	0.0188	0.0021	0.0206	0	91	30	130				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *30-Oct-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M

Work Order: 0710153

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCSD-6476	SampType: LCSD	TestCode: 8015W_RSK1	Units: mg/L	Prep Date: 10/29/2007		RunNo: 11675	
Client ID: ZZZZZ	Batch ID: 6476	Method: 8015M/RSK1 (RSK 175)		Analysis Date: 10/29/2007		SeqNo: 315395	
Instrument: GCOS_17E	ColumnID: Alumina		J&W Alumina				

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	0.0386	0.0042	0.0382	0	101	18	138	0.0376	2.6	50	
Ethene	0.0304	0.0042	0.0361	0	84	50	130	0.0285	6.6	50	
Methane	0.0193	0.0021	0.0206	0	94	30	130	0.0188	2.5	50	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Practical Quantitation Limit (PQL)
- U Not Detected at the MDC or RL
- E Value exceeds the instrument calibration range
- R RPD exceeds accepted precision limit
- J Analyte detected below the PQL
- S Spike Recovery outside accepted recovery limits

Date: *30-Oct-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: 8015M/RSK175M
Work Order: 0710153
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-6476	SampType: MBLK	TestCode: 8015W_RSK1	Units: mg/L	Prep Date: 10/29/2007	RunNo: 11675				
Client ID: ZZZZZ	Batch ID: 6476	Method: 8015M/RSK1 (RSK 175)		Analysis Date: 10/29/2007	SeqNo: 315393				
Instrument: GCOS_17E	ColumnID: Alumina	J&W Alumina							

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	ND	0.0042									
Ethene	ND	0.0042									
Methane	ND	0.0021									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *30-Oct-07*

LSL **Life Science Laboratories, Inc.**
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East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-001H**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-117*
W Order:	0710173	**Collection Date:**	10/25/07 8:00
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	ICAP 61E	**Sample Size:** 50 mL	**PrepDate:** 11/01/07 0:00
ColumnID:		**%Moisture:**	**BatchNo:** 6507/R11771
Revision:	11/06/07 9:02	**TestCode** 200.2W_200.7	**FileID:** 1-SAMP-32647
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				**EPA 200.7**		**(E200.2)**
Iron	50		0.050	mg/L	1	11/05/07 14:13
Manganese	0.76		0.050	mg/L	1	11/05/07 14:13

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-004E**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-114D*
W Order:	0710173	**Collection Date:**	10/25/07 11:30
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	ICAP 61E	**PrepDate:**	11/01/07 0:00
ColumnID:		**BatchNo:**	6507/R11771
Revision:	11/06/07 9:02	**FileID:**	1-SAMP-32648
Col Type:			

Sample Size: 50 mL
%Moisture:
TestCode 200.2W_200.7

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				EPA 200.7		(E200.2)
Iron	150		0.050	mg/L	1	11/05/07 14:17
Manganese	0.22		0.050	mg/L	1	11/05/07 14:17

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7
Work Order: 0710173
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-6507	SampType: LCS	TestCode: 200.2W_200.	Units: mg/L	Prep Date: 11/1/07		RunNo: 11771	
Client ID: ZZZZZ	Batch ID: 6507	Method: EPA 200.7	(E200.2)	Analysis Date: 11/5/07		SeqNo: 317781	
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	1.04	0.050	1	0	104	85	115				
Manganese	0.206	0.050	0.2	0	103	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 200.7

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: MB-6507	SampType: MBLK	TestCode: 200.2W_200.	Units: mg/L		Prep Date: 11/1/07		RunNo: 11771					
Client ID: ZZZZZ	Batch ID: 6507	Method: EPA 200.7	(E200.2)		Analysis Date: 11/5/07		SeqNo: 317780					
Instrument:	ColumnID:											
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Iron	ND	0.050										
Manganese	ND	0.050										

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-001C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-117*
W Order:	0710173	**Collection Date:**	10/25/07 8:00
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	IC	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11691
Revision:	10/31/07 8:50	**TestCode** 300.0W	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC				**EPA 300.0**		
Chloride	8.8		5.0	mg/L	5	10/26/07 12:53
Nitrate (as N)	ND		0.10	mg/L	5	10/26/07 12:53
Sulfate (as SO4)	ND		5.0	mg/L	5	10/26/07 12:53

NOTES:
The reporting limits were raised due to sample matrix interference.

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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East Syracuse, NY 13057 (315) 437-0200

Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-001D**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-117*
W Order:	0710173	**Collection Date:**	10/25/07 8:00
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	TOC-5000A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11735
Revision:	11/02/07 9:50	**TestCode** TOC415.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				EPA 415.1		
Total Organic Carbon	930		100	mg/L	100	11/01/07 17:19

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-001E**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-117*
W Order:	0710173	**Collection Date:**	10/25/07 8:00
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	TOC-5000A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11763
Revision:	11/05/07 13:23	**TestCode** DOC415.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED ORGANIC CARBON				**EPA 415.1**		
Organic Carbon, Dissolved	910		100	mg/L	100	11/02/07 12:43

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-001F**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-117*
W Order:	0710173	**Collection Date:**	10/25/07 8:00
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	pH meter	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11651
Revision:	10/27/07 16:09	**TestCode** ALK310.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
ALKALINITY, AS CACO3				**EPA 310.1**		
Alkalinity, as CaCO3	86		10	mg/L	1	10/27/07

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-001G**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*ETMW-117*
W Order:	0710173	**Collection Date:**	10/25/07 8:00
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	Buret Type A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11648
Revision:	10/26/07 16:29	**TestCode** S376.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
SULFIDE				**EPA 376.1**		
Sulfide	ND		1.0	mg/L	1	10/26/07 16:00

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-004C**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-114D*
W Order:	0710173	**Collection Date:**	10/25/07 11:30
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	TOC-5000A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11735
Revision:	11/02/07 9:50	**TestCode** TOC415.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON				EPA 415.1		
Total Organic Carbon	1700		200	mg/L	200	11/01/07 17:26

Qualifiers:					
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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Analytical Results

StateCertNo:

CLIENT:	O'Brien & Gere Engineers, Inc.	**Lab ID:**	**0710173-004D**
Project:	Miller Brewing Company Can Plant	**Client Sample ID:**	*CH2MW-114D*
W Order:	0710173	**Collection Date:**	10/25/07 11:30
Matrix:	WATER	**Date Received:**	10/26/07 9:55
Inst. ID:	TOC-5000A	**Sample Size:** NA	**PrepDate:**
ColumnID:		**%Moisture:**	**BatchNo:** R11763
Revision:	11/05/07 13:23	**TestCode** DOC415.1	**FileID:** 1-SAMP-
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
DISSOLVED ORGANIC CARBON				**EPA 415.1**		
Organic Carbon, Dissolved	1600		200	mg/L	200	11/02/07 12:51

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0
Work Order: 0710173
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-R11691	SampType: LCS	TestCode: 300.0W	Units: mg/L	Prep Date:		RunNo:	11691
Client ID: ZZZZZ	Batch ID: R11691	Method: EPA 300.0		Analysis Date: 10/26/2007		SeqNo:	315896
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	4.85	1.0	5	0	97	85	115				
Nitrate (as N)	0.477	0.050	0.5	0	95	85	115				
Sulfate (as SO4)	4.69	1.0	5	0	94	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1

Work Order: 0710173

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-R11651	SampType: LCS	TestCode: ALK310.1	Units: mg/L	Prep Date:		RunNo: 11651			
Client ID: ZZZZZ	Batch ID: R11651	Method: EPA 310.1		Analysis Date: 10/27/2007		SeqNo: 314980			
Instrument:	ColumnID:								

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, as CaCO3	52.0	10	50	0	104	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0710173
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-R11763	SampType: LCS	TestCode: DOC415.1	Units: mg/L	Prep Date:		RunNo:	11763
Client ID: ZZZZZ	Batch ID: R11763	Method: EPA 415.1		Analysis Date: 11/2/2007		SeqNo:	317603
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved	9.84	1.0	10	0	98	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1

Work Order: 0710173

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCS-R11735	SampType: LCS	TestCode: TOC415.1	Units: mg/L	Prep Date:		RunNo: 11735			
Client ID: ZZZZZ	Batch ID: R11735	Method: EPA 415.1		Analysis Date: 11/1/2007		SeqNo: 317045			
Instrument:	ColumnID:								

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	10.2	1.0	10	0	102	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1

Work Order: 0710173

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Miller Brewing Company Can Plant

Sample ID: LCS-R11648	SampType: LCS	TestCode: S376.1	Units: mg/L	Prep Date:		RunNo: 11648			
Client ID: ZZZZZ	Batch ID: R11648	Method: EPA 376.1		Analysis Date: 10/26/2007		SeqNo: 314918			
Instrument:	ColumnID:								

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	2.60	1.0	2.5	0	104	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1

Work Order: 0710173

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: LCSD-R11648	SampType: LCSD	TestCode: S376.1	Units: mg/L	Prep Date:		RunNo: 11648	
Client ID: ZZZZZ	Batch ID: R11648	Method: EPA 376.1		Analysis Date: 10/26/2007		SeqNo: 314919	
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	2.60	1.0	2.5	0	104	85	115	2.6	0	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 300.0

Work Order: 0710173

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-R11691	SampType: MBLK	TestCode: 300.0W	Units: mg/L	Prep Date:		RunNo:	11691
Client ID: ZZZZZ	Batch ID: R11691	Method: EPA 300.0		Analysis Date: 10/26/2007		SeqNo:	315895
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.0									
Nitrate (as N)	ND	0.050									
Sulfate (as SO4)	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 310.1
Work Order: 0710173
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID:	MB-R11651	SampType:	MBLK	TestCode:	ALK310.1	Units:	mg/L
Client ID:	ZZZZZ	Batch ID:	R11651	Method:	EPA 310.1		
Instrument:		ColumnID:					

Prep Date:				RunNo:	11651						
Analysis Date:	10/27/2007			SeqNo:	314979						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, as CaCO3	ND	10									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

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ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1
Work Order: 0710173
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-R11763	SampType: MBLK	TestCode: DOC415.1	Units: mg/L	Prep Date:		RunNo:	11763
Client ID: ZZZZZ	Batch ID: R11763	Method: EPA 415.1		Analysis Date: 11/2/2007		SeqNo:	317602
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057 (315) 437-0200

ANALYTICAL QC SUMMARY REPORT

Method: EPA 415.1

Work Order: 0710173

Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-R11735	SampType: MBLK	TestCode: TOC415.1	Units: mg/L	Prep Date:		RunNo: 11735	
Client ID: ZZZZZ	Batch ID: R11735	Method: EPA 415.1		Analysis Date: 11/1/2007		SeqNo: 317044	
Instrument:	ColumnID:						

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200
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ANALYTICAL QC SUMMARY REPORT

Method: EPA 376.1
Work Order: 0710173
Project: Miller Brewing Company Can Plant

CLIENT: O'Brien & Gere Engineers, Inc.

Sample ID: MB-R11648 SampType: MBLK TestCode: S376.1 Units: mg/L Prep Date: RunNo: 11648
Client ID: ZZZZZ Batch ID: R11648 Method: EPA 376.1 Analysis Date: 10/26/2007 SeqNo: 314917
Instrument: ColumnID:

Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range	J	Analyte detected below the PQL
ND	Not Detected at the Practical Quantitation Limit (PQL)	R	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted recovery limits
U	Not Detected at the MDC or RL				

Date: *07-Nov-07*

Life Science Laboratories, Inc.
Brittonfield Lab

5000 Brittonfield Parkway, Suite 200
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client: O'BRIEN + GERE - RALEIGH
Project: MILLER MOULTRIE
Sampled by: SARAH SLAGLE-GARRETT / LAUREN GLADSTONE
Client Contact: SARAH SLAGLE-GARRETT Phone # 919-783-7777

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	Analysis/Method: VOC	MEE	NO3, Chloride, SO4	TOC	DOC	TALK	Sulfide	Ferm	Comments
ETMW-117	10/25/07	0800	W	G	12	3	2	1	1	1	1	2	1	
ETMW-119	10/25/07	1020	W	G	3	3	-	-	-	-	-	-	-	
CH2PP-1	10/25/07	1105	W	G	3	3	-	-	-	-	-	-	-	
CH2MW-1140	10/25/07	1130	W	G	8	3	2	-	1	1	-	-	1	
CH2MW-1	10/24/07	1700	W	G	3	3	-	-	-	-	-	-	-	
TB-102507	10/10/07	-	W	G	2	2	-	-	-	-	-	-	-	

Relinquished by: Sarah Slagle-Garrett	Date: 10/25/07	Time: 1400	Received by: FEDEX	Date: 10/26/07	Time: 1400
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by Lab:	Date: 10/26/07	Time: 0955
Shipment Method:			Airbill Number:		

Turnaround Time Required:
Routine_____
Rush (Specify)_____

Comments:

Cooler Temperature: 5.6°C avg. ON ICE Custody Seal / INTACT

Original - Laboratory
Copy - Client

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name: OBG-RALEIGH

Date and Time Received: 10/26/2007 9:55:00 AM

Work Order Number 0710173

Received by: ads

Checklist completed by: _____ 10/26/07 (Initials / Date)

Reviewed by: _____ 10/26/07 (Initials / Date)

Matrix:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	Yes ☐	No ☑	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

pH	Preservative	pH Acceptable	Sample ID	Volume of Preservative added in Lab.
>12	NaOH	Yes ☑ N ☐ NA ☐		
<2	HNO3	Yes ☐ N ☑ NA ☐	CH2MW-114D	0.5 MLS
<2	HSO4	Yes ☐ N ☐ NA ☑		
<2	1:1 HCL	Yes ☑ N ☐ NA ☐	TOC	
5-9	Pest/PCBs (608/8081)	Yes ☐ N ☐ NA ☑		

Comments:

Trip Blank vials had 6mm of headspace each.

Corrective Action::

Table 1
Target Analyte List and Geochemistry Parameters
Miller Brewing Company Can Plant
Moultrie, Georgia

Target Analytes	Geochemistry Parameters
Acetone	Alkalinity
2-Butanone (MEK)	Chloride
Benzene	Nitrate
Carbon Disulfide	Sulfate
Chloroethane	Sulfide
Chloromethane	Methane
1,2-Dibromo-3-chloropropane (DBCP)	Ethane
Dibromomethane	Ethene
1,1-Dichloroethane (1,1-DCA)	Soluble Organic Carbon (Dissolved)
1,2-Dichloroethane (1-,2-DCA)	Total Organic Carbon
1,1-Dichloroethene (1,1-DCE)	Total Iron
cis-1,2-dichloroethene (cis-1,2-DCE)	Manganese
trans-1,2-dichloroethene (trans-1,2-DCE)	Carbon Dioxide*
1,2-Dichloroethene (total) (1,2-DCE-total)	Conductivity*
Ethylbenzene	Dissolved Oxygen*
Isobutyl Alcohol	Ferrous Iron*
Methylene Chloride	Oxidation/Reduction Potential (ORP)*
4-methyl-2-pentanone (MIBK)	pH*
Naphthalene	Temperature*
1,1,2,2-Tetrachloroethane	
Tetrachloroethene (PCE)	
Toluene	
1,2,3-Trichlorobenzene	
1,2,4-Trichlorobenzene	
1,1,1-Trichloroethane (TCA)	
Trichloroethene (TCE)	
Trichlorofluoromethane	
1,2,3-Trichloropropane	
Vinyl Acetate	
Vinyl Chloride	
Xylenes (total)	

* measured at time of sampling

8

28

FedEx. US Airbill Express

FedEx Tracking Number 8619 5934 9742

Recipient's Copy

1 From This portion can be removed for Recipient's records.

Date 10/25/07 FedEx Tracking Number 861959349742

Sender's Name ANITA TRECARTIN Phone 919 783-7777

Company O'BRIEN & GERE ENGINEERS INC

Address 2610 WYCLIFF RD STE 104 Dept/Floor/Suite/Room

City RALEIGH State NC ZIP 27607-3073

2 Your Internal Billing Reference

3 To

Recipient's Name Phone 315 437-0200

Company LIFE SCIENCE LABORATORIES

Recipient's Address 5000 BRITTONFIELD PARKWAY SUITE 200

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept/Floor/Suite/Room

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City EAST SYRACUSE State NY ZIP 13057

0361662873

8619 5934 9742

RECIPIENT: PEEL HERE

fedex.com 1.800.GoFedEx 1.800.463.3339

4a Express Package Service *Packages up to 150 lbs.*

- [X] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

FedEx Envelope rate not available. Minimum charge: One-pound rate. * To most locations.

4b Express Freight Service *Packages over 150 lbs.*

- [X] FedEx 1Day Freight* — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

* Call for Confirmation: ** To most locations.

5 Packaging

- [X] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
- [ ] FedEx Box
- [ ] FedEx Tube
- [X] Other

* Declared value limit $500.

6 Special Handling Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Not available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- [ ] HOLD Weekday at FedEx Location — Not available for FedEx First Overnight.
- [ ] HOLD Saturday at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.

- [X] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No. [ ]

- [X] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages 1 Total Weight 34 Credit Card Auth.

Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

8 Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

- [ ] No Signature Required — Package may be left without obtaining a signature for delivery.
- [X] Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. Fee applies.

519

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Appendix F

Ground Water Sampling Log Forms

Appendix F1

April 2007

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-1
SITE NAME:	MILLER
LOCATION:	MOULTRIE, GA
PROJECT NO.:	35759

PURGE START DATE/TIME:	4/16/07		PURGE END DATE/TIME:	1526	
WEATHER CONDITIONS:	SUNNY ~70°F		WELL CONDITION:	GOOD	
WELL DEPTH:	10'	CONVERSION FACTORS		TOTAL PURGE VOLUME:	800 gal. mL
SWL:	~3.30	1 in. Dia.	0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	1"	2 in. Dia.	0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:		4 in. Dia.	0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

3 10 0.1 10 10

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1520	7.95 150	—	21.38	0.215	6.94	6.18	319	34.4
1522	8.40 150	300	21.52	0.152	5.25	5.46	324	11.7
1524	8.60 100	600	21.45	0.150	4.88	5.32	330	10.9
1526	8.85 100	800	21.62	0.155	4.96	5.05	340	10.6

DRY

SAMPLING DATA

SAMPLE DATE/TIME:	4/17/07 1405
DEPTH TO WATER AFTER PURGING:	ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

Clear No Odor IRON = 0

CO_2 OUT OF RANGE

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: CP2MW-7A
SITE NAME: MILLER
LOCATION: MOULTRIE, GA
PROJECT NO.: 35789

PURGE START DATE/TIME: 853 4/17/07		PURGE END DATE/TIME: 903 4/17/07	
WEATHER CONDITIONS: SUNNY ~45°F		WELL CONDITION:	
WELL DEPTH: 15'	CONVERSION FACTORS	TOTAL PURGE VOLUME: 2000 ~~gal.~~ mL	
SWL: 11.7	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (~~gal~~) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
			3%	10%	0.1	10%	10%	
853	11.7 200	—	18.68	0.900	6.07	5.77	357	129
855	12.25 200	400	19.23	0.095	1.94	5.65	356	134
857	12.65 200	800	19.36	0.094	1.39	5.56	356	174
859	13.15 200	1200	19.59	0.092	0.82	5.39	354	233
901	13.50 200	1600	19.57	0.092	0.79	5.36	353	234
903	13.50 200	2000						
			DRY					

SAMPLING DATA

SAMPLE DATE/TIME: 4/19/07 ~~0800~~ 0845		PARAMETERS	
DEPTH TO WATER AFTER PURGING: ft.	☑ VOCs	☐ Metals (U)	
APPEARANCE:	☐ SVOCs	☐ Metals (F)	
SAMPLING DEVICE:	☐ OTHER	☐ PCBs	

NOTES: Cloudy, Some Sediment Fe = 0.6 mg/L CO_2 = 180 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-2
SITE NAME:	MILLER
LOCATION:	MAULTRIE, GA
PROJECT NO.:	35785

PURGE START DATE/TIME:	0925 4/18/07		PURGE END DATE/TIME:	0933	4/18/07
WEATHER CONDITIONS:	Cloudy ~60°F		WELL CONDITION:		
WELL DEPTH:	13.5'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	1600	~~gal~~ mL
SWL:	5.55	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:		4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:		Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (~~gal~~) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0925	5.55 200	—	~~19~~ 19.05	0.248	7.57	5.45	402	27.3
0927	6.08 200	~~400~~ 200	19.51	0.236	5.66	5.58	399	17.2
0929	6.35 200	800	19.65	0.216	5.26	5.53	399	11.5
0931	6.50 200	1200	19.66	0.209	4.96	5.49	400	10.4
0933	6.62 200	1600	19.66	0.207	4.86	5.47	399	10.2

SAMPLING DATA

SAMPLE DATE/TIME:	4/18/07 0930
DEPTH TO WATER AFTER PURGING:	6.60 ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Clear No odor CO_2 = 95 mg/L RON = 0 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: CHOMW-3
SITE NAME: MILLER
LOCATION: MACON, GA
PROJECT NO.: 35789

PURGE START DATE/TIME: 1435 4/17/07		PURGE END DATE/TIME: 1449	4/17/07
WEATHER CONDITIONS: SUNNY ~80°F		WELL CONDITION: GOOD	
WELL DEPTH: ~~80~~ 13'	CONVERSION FACTORS	TOTAL PURGE VOLUME: 2400 ~~gal.~~ mL	
SWL: 5.9	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1437	5.9 200	—	25.87	0.154	7.23	5.91	345	~~1985~~
1439	6.50 200	400	23.98	0.153	7.03	5.43	343	542
1441	6.84 200	800	23.14	0.152	6.92	5.20	342	162
1443	7.10 200	1200	23.12	0.152	6.90	5.11	340	106
1445	7.40 200	1600	23.00	0.151	6.82	5.08	340	81.9
1447	7.60 200	2000	22.86	0.151	6.91	5.10	339	74.2
1449	7.80 200	2400	22.91	0.152	6.90	5.10	339	76.8

SAMPLING DATA

SAMPLE DATE/TIME: 4/17/07 1450		PARAMETERS	
DEPTH TO WATER AFTER PURGING: ft.	☑ VOCs	☐ Metals (U)	
APPEARANCE:	☐ SVOCs	☐ Metals (F)	
SAMPLING DEVICE:	☐ OTHER	☐ PCBs	

NOTES: VERY CLOUDY CO_2 = 75 mg/L Fe = 0.5 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	SH2MW-4D
SITE NAME:	MILLER
LOCATION:	MOULTRIE, GA
PROJECT NO.:	35789

PURGE START DATE/TIME:	1132 4/18/07		PURGE END DATE/TIME:	~~4/19~~ 1140 4/18/07	
WEATHER CONDITIONS:	Cloudy ~85° F		WELL CONDITION:	Good	
WELL DEPTH:	45.93	CONVERSION FACTORS	TOTAL PURGE VOLUME:	1600 ~~gal~~ mL	
SWL:	16.70	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.	
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.	
WELL VOLUME:		4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1132	17.35 200	—	24.05	0.069	7.43	6.47	376	25.9
1134	17.78 200	400	23.28	0.065	7.25	6.40	373	24.5
1136	18.12 200	800	23.14	0.066	7.10	6.50	368	21.0
1138	15.55 200	1200	23.15	0.066	7.15	6.59	364	19.3
1140	19.25 200	1600	23.19	0.066	7.10	6.66	360	17.8

SAMPLING DATA

SAMPLE DATE/TIME:	1140 4/18/07
DEPTH TO WATER AFTER PURGING:	19.25 ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

CO_2 = 30 mg/L

Clear No odor

IRON = 0 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	02MW-5
SITE NAME:	MILLER
LOCATION:	MOULTRIE, GA
PROJECT NO.:	35739

PURGE START DATE/TIME:	1312 4/17/07		PURGE END DATE/TIME:	1334	4/17/07
WEATHER CONDITIONS:	SUNNY ~65°F		WELL CONDITION:	MANHOLE COVER BROKEN	
WELL DEPTH:	15'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	4400 ~~gal.~~ mL	
SWL:	7.88	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:		4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:		Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1312	7.88 200	—	22.11	0.133	4.49	6.42	331	223
1314	8.09 200	400	21.14	0.132	1.24	6.39	328	121
1316	8.20 200	800	20.82	0.132	0.89	6.34	326	84.3
1318	8.28 200	1200	20.67	0.132	0.75	6.29	324	74.9
1320	8.37 200	1600	20.65	0.132	0.73	6.29	323	66.6
1322	8.45 200	2000	20.55	0.132	0.94	6.29	322	58.4
1324	8.60 200	2400	20.34	0.131	1.40	6.31	321	46.5
1324	8.70 200	2800	20.39	0.130	1.60	6.24	320	44.0
1328	8.80 200	3200	20.39	0.128	1.79	6.25	320	41.5
1330	8.90 200	3600	20.44	0.126	2.01	6.22	320	39.9
1332	8.98 200	4000	20.45	0.123	2.43	6.20	320	37.7
1334	9.07 200	4400	20.50	0.122	2.45	6.22	320	37.4

SAMPLING DATA

SAMPLE DATE/TIME:	4/17/07 1335
DEPTH TO WATER AFTER PURGING:	ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

CO_2 = 55 mg/L IRON = 1 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: ETMW-13
SITE NAME: MILLER
LOCATION: MOULTRIE, GA
PROJECT NO.: 35789

PURGE START DATE/TIME: 1501 4/18/07		PURGE END DATE/TIME: 1509	4/18/07
WEATHER CONDITIONS: CLOUDY ~70°F		WELL CONDITION: GOOD	
WELL DEPTH: 12'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	1600 ~~gal.~~ mL
SWL: ~~5.50~~ 5.75	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (~~gal~~) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1501	6.10 200	—	19.47	0.663	2.75	4.70	289	12.7
1503	6.50 200	400	19.01	0.666	1.22	4.64	275	11.7
1505	7.00 200	800	18.86	0.659	0.87	4.61	268	12.3
1507	7.60 200	1200	18.77	0.664	0.66	4.62	262	13.0
1509	7.90 200	1600	18.75	0.668	0.62	4.67	259	14.1

SAMPLING DATA

SAMPLE DATE/TIME:	4/18/07 1510
DEPTH TO WATER AFTER PURGING:	7.90 ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Clear, odor CO_2 OUT OF RANGE
IRON = 4.2 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETcMW-11d
SITE NAME:	MILLER
LOCATION:	MOULTRIE GA
PROJECT NO.:	35789

PURGE START DATE/TIME:	10:16 4/17/07		PURGE END DATE/TIME:	10:38	4/17/07
WEATHER CONDITIONS:	SUNNY ~ 65°F		WELL CONDITION:	GOOD	
WELL DEPTH:	15'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	4400 ~~gal~~ mL	
SWL:	7.98	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	4"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:		4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:		Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
10:16	7.98 200	—	17.30	1.294	8.04	6.52	284	16.0
10:18	8.03 200	400	18.06	1.292	5.40	6.68	279	8.9
10:20	8.11 200	800	18.10	1.294	3.92	6.69	274	7.8
10:22	8.16 200	1200	18.11	1.294	2.65	6.67	271	7.1
10:24	8.22 200	1600	18.06	1.294	1.93	6.84	268	7.2
10:26	8.25 200	2000	18.11	1.295	1.56	6.71	265	6.8
10:28	8.30 200	2400	18.12	1.295	1.46	6.88	263	8.0
10:30	8.36 200	2800	18.11	1.295	1.14	6.86	261	7.4
10:32	8.40 200	3200	18.14	1.295	0.95	6.70	259	7.1
10:34	8.43 200	3600	18.14	1.295	0.79	~~6.66~~	257	6.9
10:36	8.49 200	4000	18.15	1.295	0.70	6.80	256	6.9
10:38	8.51 200	4400	18.14	1.295	0.68	6.73	255	7.0

SAMPLING DATA

SAMPLE DATE/TIME:	4/17/07 1040		PARAMETERS		
DEPTH TO WATER AFTER PURGING:	ft.	☑	VOCs	☐	Metals (U)
APPEARANCE:		☐	SVOCs	☐	Metals (F)
SAMPLING DEVICE:		☐	OTHER	☐	PCBs

NOTES: SOME ODOR CO_2 = 400 mg/L 4.2 mg/L = IRON

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: C112MW-114D
SITE NAME: MILLER
LOCATION: MAULDIN, SC
PROJECT NO.: 35789

PURGE START DATE/TIME: 1128 4/17/07		PURGE END DATE/TIME:	4/17/07
WEATHER CONDITIONS: SUNNY ~70°F		WELL CONDITION: GOOD	
WELL DEPTH: 22.5	CONVERSION FACTORS	TOTAL PURGE VOLUME:	2400 gal. mL
SWL: 9.17 9.10	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 1"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1129	11.50 200	—	20.69	2.70	5.44	5.83	318	99.8
1131	13.78 200	400	20.34	2.77	3.22	5.69	317	127
1133	15.55 200	800	20.36	2.78	2.31	5.62	316	252
1135	16.70 200	1200	20.45	2.78	1.57	5.53	313	884
1137	20.90 200	1600	20.47	2.78	1.25	5.53	311	1473
1139	22.50 200	2000	20.60	2.78	0.90	5.55	309	2000
1141	22.72 200	2400	20.59	2.58				

DRY

SAMPLING DATA

SAMPLE DATE/TIME:	4/19/07 0940
DEPTH TO WATER AFTER PURGING:	22.75 ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

ODOR Cloudy Slight Brown
CO_2 BID mg/L IRON = 4.2 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: E-CMW-115
SITE NAME: MILLER
LOCATION: MOULTRIE, GA
PROJECT NO.:

4/18/07

PURGE START DATE/TIME: 1247 PURGE END DATE/TIME: 1307 4/18/07
WEATHER CONDITIONS: CLOUDY ~65°F WELL CONDITION: GOOD
WELL DEPTH: 11.5 TOTAL PURGE VOLUME: 4000 gal. mL
SWL: 10.49 DEPTH TO TOP OF SCREEN: ft.
WELL DIAMETER: PUMP SETTING: ft.
WELL VOLUME: PURGING DEVICE: Peristaltic

CONVERSION FACTORS	
1 in. Dia.	0.041 gal./ft.
2 in. Dia.	0.163 gal./ft.
4 in. Dia.	0.653 gal./ft.

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1247	6.70 200	—	22.67	0.232	6.75	6.29	311	46.3
1249	6.83 200	400	21.82	0.229	1.47	6.05	301	34.8
1251	7.05 200	800	21.60	0.222	1.00	5.96	303	25.7
1253	7.16 200	1200	21.56	0.218	0.83	5.92	306	23.8
1255	7.23 200	1600	21.55	0.214	0.81	5.88	308	20.1
1257	7.35 200	2000	21.55	0.208	0.75	5.86	311	15.6
1259	7.52 200	2400	21.51	0.200	0.67	5.81	313	12.5
1301	7.65 200	2800	21.50	0.193	0.60	5.76	314	8.0
1303	7.75 200	3200	21.48	0.191	0.56	5.74	313	6.7
1305	7.88 200	3600	21.45	0.186	0.53	5.71	313	5.7
1307	7.98 200	4000	21.45	0.184	0.49	5.70	312	5.6

SAMPLING DATA

SAMPLE DATE/TIME: 4/18/07 1310
DEPTH TO WATER AFTER PURGING: ft.
APPEARANCE:
SAMPLING DEVICE:

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Slight Brown, No odor CO_2 = 130 mg/L
IRON = 4.8 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: ETMW-116
SITE NAME: MILLER
LOCATION: MOULTRIE, GA
PROJECT NO.: 357889

PURGE START DATE/TIME: 1357 4/18/07		PURGE END DATE/TIME: 1413 4/18/07	
WEATHER CONDITIONS: cloudy ~70°F		WELL CONDITION: Good	
WELL DEPTH: ~~0.5~~ 11'	CONVERSION FACTORS	TOTAL PURGE VOLUME: 3200 ~~gal~~ mL	
SWL: 0.55	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm) ✓	D.O. (mg/L) ✓	pH (SUs) ✓	REDOX (mV) ✓	TURB. (NTUs) ✓
1357	0.55 / 200	—	20.17	1.460	3.73	5.07	340	27.4
1359	1.30 / 200	400	17.20	1.460	1.93	4.98	331	23.2
1401	1.85 / 200	800	19.01	1.460	1.06	4.93	325	26.0
1403	2.02 / 200	1200	18.91	1.460	0.80	4.91	320	28.9
1405	2.10 / 200	1600	18.89	1.460	0.68	4.90	318	30.6
1407	2.25 / 200	2000	18.86	1.459	0.60	4.89	315	31.9
1409	2.28 / 200	2400	18.83	1.458	0.49	4.89	312	34.0
1411	2.38 / 200	2800	18.83	1.457	0.45	4.89	310	36.8
1413	2.55 / 200	3200	18.82	1.456	0.42	4.89	309	33.5

SAMPLING DATA

SAMPLE DATE/TIME: 4/18/07 1416		PARAMETERS	
DEPTH TO WATER AFTER PURGING: ft.	☑ VOCs	☐ Metals (U)	
APPEARANCE:	☐ SVOCs	☐ Metals (F)	
SAMPLING DEVICE:	☐ OTHER	☐ PCBs	

NOTES:

Clear, strong odor

CO_2 = OUT OF RANGE
IRON = 6.0 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: ETMW-117
SITE NAME: MILLER
LOCATION: MOUNTRIE, GA
PROJECT NO.: 35789

PURGE START DATE/TIME: 1330 4/18/07		PURGE END DATE/TIME: 1340 4/18/07	
WEATHER CONDITIONS:		WELL CONDITION: GOOD	
WELL DEPTH: 11'	CONVERSION FACTORS	TOTAL PURGE VOLUME: 2000 ~~gal.~~ mL	
SWL: 2.3	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1330	2.25 200	-	22.59	1.56	2.09	4.74	335	18.5
1332	3.20 200	400	22.13	1.55	0.75	4.55	331	14.6
1334	3.45 200	800	22.14	1.52	0.56	4.45	332	18.5
1336	3.53 200	1200	22.16	1.51	0.50	4.43	332	20.5
1338	3.52 200	1600	22.21	1.47	0.43	4.41	334	22.7
1340	4.08 200	2000	22.27	1.45	0.42	4.40	335	24.6

SAMPLING DATA

SAMPLE DATE/TIME: 4/18/07 1340		PARAMETERS	
DEPTH TO WATER AFTER PURGING: 4.08 ft.	☑ VOCs	☐ Metals (U)	
APPEARANCE:	☐ SVOCs	☐ Metals (F)	
SAMPLING DEVICE:	☐ OTHER	☐ PCBs	

NOTES:

STRONG ODOR

IRON = 5.8 mg/L

CO_2 → OVER RANGE

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-18
SITE NAME:	MILLER
LOCATION:	MOULTRIE, GA
PROJECT NO.:	35789

PURGE START DATE/TIME:	1432 4/18/07	PURGE END DATE/TIME:	1441 4/18/07
WEATHER CONDITIONS:	CLOUDY ~70°F	WELL CONDITION:	
WELL DEPTH:	~~11'~~	TOTAL PURGE VOLUME:	1600 ~~gal.~~ mL
SWL:	1.58	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	2"	PUMP SETTING:	ft.
WELL VOLUME:		PURGING DEVICE:	Peristaltic

CONVERSION FACTORS

1 in. Dia.	0.041 gal./ft.
2 in. Dia.	0.163 gal./ft.
4 in. Dia.	0.653 gal./ft.

PURGING DATA ✓ ✓ ✓

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1433	1.96 200	—	21.02	0.918	2.53	4.40	339	17.8
1435	2.40 200	400	20.93	0.921	0.96	4.44	334	13.6
1437	2.80 200	800	21.00	0.920	0.64	4.37	330	17.6
1439	3.15 200	1200	21.00	0.914	0.53	4.38	328	19.3
1441	3.33 200	1600	21.01	0.909	0.50	4.38	327	19.1

SAMPLING DATA

SAMPLE DATE/TIME:	4/18/07 1445
DEPTH TO WATER AFTER PURGING:	ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: CLEAR ODOR CO_2 = OVER RANGE IRON = 5.0 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

5

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-119
SITE NAME:	MILLER
LOCATION:	MOULTRIE, GA
PROJECT NO.:	35789

PURGE START DATE/TIME:	1635 4/16/07		PURGE END DATE/TIME:	1704 4/16/07	
WEATHER CONDITIONS:	SUNNY ~ 70° F		WELL CONDITION:	GOOD	
WELL DEPTH:	11'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	5200	gal. mL
SWL:	6.41	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:		4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm) 3% ✓	D.O. (mg/L) 10%	pH (SUs) 0.1 ✓	REDOX (mV) 10% ✓	TURB. (NTUs) 10% ✓
1638	6.93 200	~	21.05	0.571	5.32	6.79	262	12.4
1640	7.15 200	400	19.91	0.590	2.65	6.79	258	4.8
1642	7.41 200	800	19.67	0.592	1.66	6.69	256	7.4
1644	7.30 200	1200	19.65	0.595	1.16	6.65	254	8.1
1646	8.05 200	1600	19.60	0.601	0.93	6.59	252	7.5
1648	8.25 200	2000	19.57	0.606	0.75	6.52	250	7.4
1650	8.34 200	2400	19.58	0.606	0.69	6.49	248	8.9
1652	8.00 200	2800	19.54	0.574	0.56	6.40	248	12.1
1654	8.85 200	3200	19.50	0.543	0.52	6.33	247	14.6
1656	8.85 200	3600	19.53	0.491	0.67	6.30	248	15.9
1658	9.30 200	4000	20.40	0.499	3.01	6.26	251	19.5
1700	9.33 200	4400	20.00	0.556	4.03	6.25	252	15.7
1702	9.55 200	4800	19.35	0.556	2.71	6.24	252	13.9
1704	9.56 200	5200	19.18	0.554	2.78	6.20	251	13.9

SAMPLING DATA

SAMPLE DATE/TIME:	1705 4/16/07
DEPTH TO WATER AFTER PURGING:	9.56 ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Slight odor, CLEAR

IRON = 4.2 mg/L

CO_2 = 180 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-120
SITE NAME:	MILLER
LOCATION:	MONTREAL, GA
PROJECT NO.:	3578[09]

PURGE START DATE/TIME:	1553 4/16/07		PURGE END DATE/TIME:	1611 4/16/07	
WEATHER CONDITIONS:	SUNNY ~ 70°F		WELL CONDITION:	GOOD	
WELL DEPTH:	11'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	3600 gal.	ML
SWL:	7.13	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:		4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

0.3 ✓ 10% ✓ 0.1 ✓ 10 ✓ 10% ✓

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1553	7.47 200	—	20.82	0.200	4.22	6.22	316	50.4
1555	7.65 200	400	20.61	0.180	1.97	5.90	326	50.8
1557	7.92 200	800	20.39	0.163	1.51	5.81	328	57.5
1559	8.21 200	1200	20.20	0.156	0.99	5.67	329	47.0
1601	8.50 200	1600	20.15	0.151	1.06	5.59	329	46.3
1603	8.74 200	2000	20.16	0.127	1.15	5.51	330	47.6
1605	8.76 200	2400	20.15	0.119	1.34	5.50	328	43.6
1607	8.75 200	2800	20.97	0.162	4.69	5.43	329	68.8
1609	8.75 200	3200	21.63	0.160	4.99	5.47	327	77.8
1611	8.89 200	3600	21.74	0.161	5.00	5.50	327	74.7

SAMPLING DATA

SAMPLE DATE/TIME:	4/16/07 1615		PARAMETERS		
DEPTH TO WATER AFTER PURGING:	8.89 ft.	☒	VOCs	☐	Metals (U)
APPEARANCE:		☐	SVOCs	☐	Metals (F)
SAMPLING DEVICE:		☐	OTHER	☐	PCBs

NOTES:

Clear No odor

IRON = 6 mg/L

CO_2 = 65 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETNW-121
SITE NAME:	MILLER
LOCATION:	MOULTRIE, GA
PROJECT NO.:	35789

PURGE START DATE/TIME:	1220 4/17/07		PURGE END DATE/TIME:	4/17/07	
WEATHER CONDITIONS:	SUNNY ~75°		WELL CONDITION:		
WELL DEPTH:	~~15.75~~ 13.9	CONVERSION FACTORS	TOTAL PURGE VOLUME:	5600 gal.	MC
SWL:	8.75	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.	
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.	
WELL VOLUME:		4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1220	8.75 200	—	21.36	0.179	8.86	6.27	338	135
1222	9.23 200	400	20.04	0.152	5.67	6.21	337	81.5
1224	9.53 200	800	19.64	0.142	5.94	6.16	336	50.9
1226	9.73 200	1200	19.64	0.136	6.22	6.13	335	44.4
1228	10.00 200	1600	19.55	0.129	6.40	6.13	334	44.1
1230	10.24 200	2000	19.60	0.125	6.36	6.14	333	187
1232	10.48 200	2400	19.62	0.122	6.43	6.14	332	104
1234	10.60 200	2800	19.67	0.116	6.53	6.12	332	75.3
1236	10.89 200	3200	19.65	0.108	6.61	6.07	332	65.0
1240	11.20 200	4000	19.64	0.100	6.73	6.00	333	51.0
1248	11.68 200	4800	19.53	0.101	6.93	5.95	333	26.8
1248	12.09 200	5600	19.56	0.107	6.74	6.00	332	25.7
1250								

DRY

SAMPLING DATA

SAMPLE DATE/TIME:	4/19/07 0915
DEPTH TO WATER AFTER PURGING:	12.4 ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Clear No odor

CO_2 = 40 mg/L

IRON = ~~4~~ 2.4 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: 086MW-12
SITE NAME: MILLER
LOCATION: MOULTRIE, GA
PROJECT NO.: 35789

PURGE START DATE/TIME: 1020 4/18/07		PURGE END DATE/TIME: 1028 4/18/07	
WEATHER CONDITIONS: CLOUDY ~ 60° F		WELL CONDITION: GOOD	
WELL DEPTH: 15'	CONVERSION FACTORS	TOTAL PURGE VOLUME: 1600 ~~gal.~~ mL	
SWL: 9.20	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (~~gal~~) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1020	9.20 200	—	19.58	0.237	5.93	6.05	377	10.4
1022	9.40 200	400	19.44	0.237	4.77	6.19	374	5.5
1024	9.53 200	800	19.33	0.237	4.41	6.23	373	5.9
1026	9.65 200	1200	19.32	0.234	4.22	6.28	372	6.5
1028	9.80 200	1600	19.27	0.233	4.08	6.31	370	6.8

SAMPLING DATA

SAMPLE DATE/TIME:	1030 4/18/07
DEPTH TO WATER AFTER PURGING:	9.80 ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

Clear No odor

CO_2 = 70 mg/L
IRON = 0 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	OBGMW-123
SITE NAME:	MILLER
LOCATION:	MCKEESPORT, PA
PROJECT NO.:	35789

PURGE START DATE/TIME: 0829 4/18/07		PURGE END DATE/TIME: 0853 4/18/07	
WEATHER CONDITIONS: CLOUDY ~50°F		WELL CONDITION: FIRE ANT INFESTED	
WELL DEPTH: 13'	CONVERSION FACTORS	TOTAL PURGE VOLUME: 4800 ~~gal~~ mL	
SWL: 7.05	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

✓ PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs) ✓	REDOX (mV) ✓	TURB. (NTUs) ✓
829	7.05 200	-	17.55	0.101	3.97	5.37	455	632
831	7.40 200	400	19.33	0.092	1.97	5.43	445	583
833	7.60 200	800	19.61	0.091	1.32	5.30	442	408
835	7.75 200	1,200	19.68	0.087	1.49	5.11	442	144
837	7.85 200	1600	19.70	0.086	1.67	4.98	441	108
839	7.93 200	2000	19.96	0.084	1.77	4.91	439	82.9
841	8.10 200	2400	19.75	0.083	1.51	4.75	438	58.7
843	8.20 200	2800	19.78	0.082	1.31	4.74	437	52.6
845	8.32 200	3200	19.76	0.082	0.97	4.72	435	52.7
847	8.40 200	3600	19.74	0.082	0.83	4.73	433	55.1
849	8.60 200	4000	19.74	0.083	0.80	4.75	431	92.7
851	8.70 200	4400	19.75	0.083	0.71	4.75	430	85.0
853	8.80 200	4800	19.76	0.083	0.66	4.75	429	92.2

SAMPLING DATA

SAMPLE DATE/TIME: 4/18/07 0900	
DEPTH TO WATER AFTER PURGING: 8.80 ft.	
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: SAND FROM FIRE ANTS FELL IN

Cloudy CO_2 = 50 mg/L Fe = 1.5 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: OBGMW-124
SITE NAME: MILLER
LOCATION: MOULTRIE, GA
PROJECT NO.: 35789

PURGE START DATE/TIME:	1553 4/18/07		PURGE END DATE/TIME:	1623 4/18/07	
WEATHER CONDITIONS:	SOME CLOUDS ~ 35°F		WELL CONDITION:	GOOD	
WELL DEPTH:	13.67	CONVERSION FACTORS	TOTAL PURGE VOLUME:	6000 gal. mL	
SWL:	8.90	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.	
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.	
WELL VOLUME:		4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1553	9.07 200	—	21.01	0.970	3.04	6.51	323	15.0
1555	9.10 200	400	20.81	0.947	2.22	6.65	322	14.9
1557	9.30 200	800	20.79	0.851	3.05	6.82	321	22.8
1559	9.35 200	1200	20.75	0.809	3.64	6.91	320	20.8
1601	9.55 200	1600	20.91	0.782	3.93	6.96	320	11.0
1603	9.68 200	2000	20.71	0.775	3.76	7.00	320	12.8
1607	10.05 200	2800	20.67	0.871	3.15	7.04	319	13.2
1611	10.55 300	3600	20.60	0.900	2.14	7.03	319	60.8
1615	11.10 200	4400	20.61	0.993	2.34	7.06	318	146
1619	11.30 200	5200	21.20	1.006	7.40	7.32	318	58.0
1623	11.40	6000	20.96	1.019	5.83	7.25	318	49.5

DRY

SAMPLING DATA

SAMPLE DATE/TIME:	4/19/07 0800
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

Clear No odor CO_2 = 75 mg/L
IRON = 0 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

DO/ORP/TURB 10% pH 0.1
COND 3%

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: MW-2PP-1
SITE NAME: MILLER
LOCATION: MOULTRIE, GA
PROJECT NO.: 35789

PURGE START DATE/TIME:	1446 4/16/07		PURGE END DATE/TIME:	1452	4/16/07
WEATHER CONDITIONS:	SUNNY ~70°F		WELL CONDITION:	GOOD	
WELL DEPTH:	12'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	600 ~~gal.~~ mL	
SWL:	9.94	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	1"	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:		4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:		Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1446	9.94 100	-	21.46	0.172	6.41	6.07	321	145
1448	10.35 100	200	21.40	0.159	6.94	5.70	326	109
1450	11.50 100	600	21.57	0.146	6.98	5.53	330	105
1452 ~~1457~~								

DRY

SAMPLING DATA

SAMPLE DATE/TIME:	4/17/07 1355
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: CLEAR, NO ODOR

NO CO_2 OR IRON SAMPLED - WENT DRY
DRY AT RETURN

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

Appendix F2

October 2007

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-1
SITE NAME:	MILLER
LOCATION:	MOULTRIE, GA
PROJECT NO.:	35789

PURGE START DATE/TIME: 10/24/07 1637		PURGE END DATE/TIME: 10/24/07 1650	
WEATHER CONDITIONS: CLOUDY ~70°F		WELL CONDITION: GOOD	
WELL DEPTH: 10 ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	gal.
SWL: 3.18	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 1 in	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1638	4.51 / 100	—	24.82	0.147	4.72	5.37	120	3.7
1640	5.39 / 100	200	25.22	0.147	4.64	5.47	119	3.8
1642	5.44 / 100	400	25.41	0.148	4.15	5.47	119	3.7
1644	5.54 / 100	600	25.65	0.150	3.94	5.49	120	3.6
1646	5.74 / 100	800	25.71	0.147	3.94	5.46	120	3.8
1648	5.91 / 100	1000	25.71	0.142	3.74	5.42	122	3.7
1650	6.09 / 100	1200	25.77	0.134	3.53	5.33	124	3.7

SAMPLING DATA

SAMPLE DATE/TIME: 10/24/07 1700	
DEPTH TO WATER AFTER PURGING: ft.	
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: CO_2 = 80 mg/L DO = 4 mg/L IRON = 0 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: CH2MW-3
SITE NAME: MILLER
LOCATION: MOULTRIE, GA
PROJECT NO.: 35789

PURGE START DATE/TIME: 10/24/07 0823		PURGE END DATE/TIME: 10/24/07 0856	
WEATHER CONDITIONS: CLOUDY, DRIZZLE ~65°F		WELL CONDITION: GOOD	
WELL DEPTH: 13 Ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	gal.
SWL: 7.98 ft	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2 in	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0826	8.14 / 100	300	23.56	0.108	3.85	4.75	219	6.9
0831	8.47 / 100	800	24.16	0.107	3.29	4.46	215	6.3
0836	8.76 / 100	1300	24.41	0.100	3.35	4.44	212	6.7
0841	9.71 / 100	1800	24.15	0.097	3.65	4.45	210	8.3
0846	9.86 / 100	2200	24.06	0.096	3.68	4.47	209	8.6
0851	10.45 / 100	2700	23.72	0.095	3.83	4.53	207	8.4
0856	10.9 / 100	3200	23.95	0.095	3.85	4.56	206	9.8

SAMPLING DATA

SAMPLE DATE/TIME: 10/24/07 9:00		PARAMETERS			
DEPTH TO WATER AFTER PURGING: ft.	☑	VOCs	☐	Metals (U)	
APPEARANCE:	☐	SVOCs	☐	Metals (F)	
SAMPLING DEVICE:	☑	OTHER	☐	PCBs	

NOTES:

CO_2 = 30 mg/L IRON = 0 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-40
SITE NAME:	MILLER
LOCATION:	MOULTRIE, GA
PROJECT NO.:	35789

PURGE START DATE/TIME: 10/24/07 0956		PURGE END DATE/TIME: 10/24/07 1102	
WEATHER CONDITIONS: CLOUDY, DRIZZLE ~65°F		WELL CONDITION: GOOD	
WELL DEPTH: 45.93 ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	gal.
SWL: 16.95 ft	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2 in	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (~~gal~~) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0959	17.12 / 200	600	22.11	0.045	5.69	5.36	189	9.2
1004	17.65 / 300	1100	22.86	0.046	6.50	5.77	192	7.6
1009	17.72 / 300	2600	23.02	0.046	6.23	5.89	190	6.1
1014	18.12 / 300	4100	23.01	0.050	6.30	5.82	188	7.3
1022	19.77 / 300	6200	22.90	0.050	5.84	6.08	189	6.5
1027	19.92 / 300	7700	22.61	0.056	5.00	6.02	189	5.0
1032	20.16 / 300	9300	22.65	0.048	4.99	6.08	190	5.9
1037	20.39 / 300	10700	22.58	0.046	4.92	6.15	189	5.6
1042	21.36 / 300	12200	22.80	0.049	4.87	6.17	189	4.9
1047	21.93 / 300	13700	22.91	0.059	4.78	6.40	190	4.2
1052	22.31 / 300	15200	23.05	0.055	4.78	6.50	189	4.4
1057	21.94 / 300	16700	23.11	0.056	4.76	6.50	188	4.2
1102	22.44 / 300	18200	23.03	0.059	4.76	6.56	188	4.1

SAMPLING DATA

SAMPLE DATE/TIME: 10/24/07 1105	
DEPTH TO WATER AFTER PURGING: 22.44 ft.	
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: IRON = 0.2 mg/L CO_2 = 14 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-113
SITE NAME:	MILLER
LOCATION:	MOULTRIE, GA
PROJECT NO.:	35789

PURGE START DATE/TIME:	10/24/07 1303		PURGE END DATE/TIME:	10/24/07 1326	
WEATHER CONDITIONS:	CLOUDY ~65°		WELL CONDITION:	GOOD	
WELL DEPTH:	12 ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:		gal.
SWL:	5.95 ft	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2 in	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:		ft.
WELL VOLUME:		4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:		Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1307	7.01 100	400	23.36	0.330	2.94	4.58	74	21.9
1312	7.63 200	1000	23.77	0.329	1.02	4.58	68	24.5
1317	8.91 200	2000	24.11	0.321	0.64	4.63	63	32.9
1322	9.32 200	3000	23.64	0.313	2.91	4.64	69	35.3
1326	9.63 200	4000	23.52	0.320	2.93	4.64	67	42.0

SAMPLING DATA

SAMPLE DATE/TIME:	10/24/07 1328
DEPTH TO WATER AFTER PURGING:	9.63 ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: SOUR ODOR

DO: 1 mg/L IRON: 6.4 mg/L CO_2: > 100 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETZMW-114
SITE NAME:	MILLER
LOCATION:	MAXTRIE, GA
PROJECT NO.:	35789

PURGE START DATE/TIME: 10/23/07 1354		PURGE END DATE/TIME: 10/23/07 1528	
WEATHER CONDITIONS: SUNNY ~85°F		WELL CONDITION: GOOD	
WELL DEPTH: 11.7 ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	gal.
SWL: 6.50	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 4 in	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1357	6.61 200	300	26.32	0.933	27.06	6.13	138	17.3
1402	6.72 200	1300	25.08	0.945	3.90	6.08	150	62.9
1407	6.73 200	2300	24.84	0.945	2.64	6.07	152	51.3
1412	6.84 200	3300	24.79	0.945	2.19	6.08	151	53.6
1417	6.96 200	4300	24.75	0.945	2.49	6.09	153	39.0
1422	7.12 200	5300	24.80	0.945	1.38	6.10	153	33.3
1427	7.14 200	6300	24.73	0.945	1.26	6.11	153	30.9
1432	7.21 200	7300	24.69	0.945	1.26	6.11	153	30.9
1437	7.24 200	8300	24.40	0.946	0.83	6.12	153	34.0
1443	7.35 200	9500	24.23	0.944	0.67	6.13	152	36.0
1448	7.52 200	10500	24.22	0.945	0.66	6.14	152	34.7
1453	7.61 200	11500	24.24	0.945	0.68	6.15	152	33.3
1458	7.97 200	12500	24.25	0.945	0.75	6.16	152	30.5
1503	8.01 200	13500	24.28	0.946	0.80	6.16	152	31.4
1508	8.26 200	14500	24.25	0.947	0.88	6.17	151	30.8
1513	8.28 200	15500	24.29	0.949	0.92	6.18	151	31.4
1518	8.31 200	16500	24.30	0.952	0.92	6.18	151	32.1
1523	8.44 200	17500	24.37	0.955	0.96	6.19	152	33.8
1528	8.53 200	18500	24.36	0.958	0.96	6.20	150	35.3

SAMPLING DATA

SAMPLE DATE/TIME: 10/23/07 1530	
DEPTH TO WATER AFTER PURGING: 8.54 ft.	
APPEARANCE: slight brown	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☑	OTHER	☐	PCBs

NOTES: slight brown

CO_2 = 90 mg/L IRON = 1.2 mg/L DO = 1.5 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: CH2MW-114D
SITE NAME: MILLER
LOCATION: MOULTRIE, GA
PROJECT NO.: 35789

PURGE START DATE/TIME: 10/24/07 1531		PURGE END DATE/TIME: 10/24/07 1553	
WEATHER CONDITIONS: CLOUDY ~75° F		WELL CONDITION:	
WELL DEPTH: 22.5 ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	gal.
SWL: 9.99 ft	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 1-in	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1531	11.65 / 100	—	22.62	1.86	3.09	5.00	89	20.0
1533	12.49 / 100	200	22.73	2.01	2.25	4.93	89	20.2
1535	13.82 / 100	400	22.92	2.01	1.38	4.91	90	19.4
1537	14.72 / 100	600	22.94	2.01	1.18	4.89	91	16.8
1539	15.70 / 100	800	22.94	2.01	0.88	4.88	92	16.4
1541	17.24 / 100	1000	22.89	2.01	0.73	4.88	93	19.9
1543	18.00 / 100	1200	22.89	2.01	0.66	4.87	94	24.1
1545	19.31 / 100	1400	22.85	2.02	0.61	4.88	95	31.4
1547	20.10 / 100	1600	22.88	2.02	0.58	4.87	96	45.0
1549	20.74 / 100	1800	22.89	2.02	0.56	4.88	96	53.2
1551	21.84 / 100	2000	22.89	2.02	0.54	4.88	97	103
1553	/ 100	2200						
			DRY AT 1553					

SAMPLING DATA

SAMPLE DATE/TIME: 10/25/07 1130		PARAMETERS			
DEPTH TO WATER AFTER PURGING: DRY ft.	☑	VOCs	☐	Metals (U)	
APPEARANCE:	☐	SVOCs	☐	Metals (F)	
SAMPLING DEVICE:	☑	OTHER	☐	PCBs	

NOTES: SOUR MILK SMELL

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.: ETCMW-115
SITE NAME: MILLER
LOCATION: MOULTRIE, GA
PROJECT NO.: 35789

PURGE START DATE/TIME: 10/23/07 1010		PURGE END DATE/TIME: 10/23/07 1053	
WEATHER CONDITIONS: SUNNY ~85°F		WELL CONDITION: GOOD	
WELL DEPTH: 11.5 ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	gal.
SWL: 4.70	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2 in	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1013	4.88 100	300	28.26	0.289	3.57	5.86	172	97.2
1018	4.92 100	800	27.81	0.296	1.95	5.82	171	101
1023	5.29 100	1300	27.72	0.309	1.53	5.82	169	90.4
1028	5.31 100	1800	27.51	0.354	1.64	5.87	168	83.8
1033	5.49 100	2300	27.50	0.377	1.84	5.90	167	74.9
1038	5.41 100	2800	27.48	0.410	2.08	5.95	166	69.6
1043	5.72 100	3300	27.43	0.438	2.34	5.99	165	60.7
1048	5.84 100	3800	27.50	0.457	2.54	6.01	163	53.8
1053	5.89 100	4300	27.50	0.456	2.65	6.01	162	50.4

SAMPLING DATA

SAMPLE DATE/TIME: 10/23/07 1100	
DEPTH TO WATER AFTER PURGING: 5.89 ft.	
APPEARANCE: slightly brown	
SAMPLING DEVICE:	

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES: CO_2 = 60 mg/L DO = 2 mg/L IRON = 2.8 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-116
SITE NAME:	MILLER
LOCATION:	MOULTRIE, GA
PROJECT NO.:	35789

PURGE START DATE/TIME: 10/24/07 1346		PURGE END DATE/TIME: 10/24/07 1451	
WEATHER CONDITIONS: CLOUDY ~68°F		WELL CONDITION: GOOD	
WELL DEPTH: 11 ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	gal.
SWL: 0.66 ft	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 4 - in	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (~~gal~~) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1351	1.0 / 400	10000	24.33	1.036	1.23	6.11	-9	23.6
1356	1.39 / 400	30000	24.26	1.037	0.49	6.16	-17	25.2
1401	1.89 / 400	50000	24.43	1.039	0.33	6.17	-23	26.3
1406	2.04 / 400	70000	24.29	1.042	0.32	6.18	-25	27.4
1411	2.56 / 400	90000	24.34	1.050	0.27	6.18	-29	27.4
1416	2.78 / 400	110000	24.30	1.058	0.23	6.19	-31	27.1
1421	3.26 / 400	130000	24.34	1.064	0.27	6.19	-34	27.0
1426	3.62 / 400	150000	24.41	1.065	0.21	6.20	-31	26.9
1431	4.00 / 400	170000	24.43	1.058	0.21	6.20	-36	26.9
1436	4.34 / 400	190000	24.43	1.039	0.21	6.19	-36	26.7
1441	4.75 / 400	210000	24.43	1.025	0.21	6.18	-36	26.6
1446	5.01 / 400	230000	24.44	1.009	0.22	6.18	-36	27.6
1451	5.38 / 400	250000	24.43	0.988	0.24	6.17	-34	28.0
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SAMPLING DATA

SAMPLE DATE/TIME: 10/24/07 1455		PARAMETERS			
DEPTH TO WATER AFTER PURGING: 5.38 ft.	☑	VOCs	☐	Metals (U)	
APPEARANCE:	☐	SVOCs	☐	Metals (F)	
SAMPLING DEVICE:	☑	OTHER	☐	PCBs	

NOTES: Water in well bubbly - had a sheen

DO = 2 mg/L IRON = 6.2 mg/L CO_2 = >100 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	EMW-117
SITE NAME:	MILLER
LOCATION:	MOULTRIE, GA
PROJECT NO.:	35789

PURGE START DATE/TIME: 10/25/07 0758		PURGE END DATE/TIME: 10/25/07 0901	
WEATHER CONDITIONS: Cool ~50°		WELL CONDITION:	
WELL DEPTH: 11 Ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	gal.
SWL: 0.99 ft	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2 in	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0801	1.46 / 100	300	24.30	0.745	4.16	4.04	149	12.1
0806	1.97 / 100	800	25.27	0.742	1.17	4.08	147	11.2
0811	2.09 / 100	1300	25.44	0.750	0.71	4.02	144	11.5
0816	2.44 / 100	1800	25.46	0.750	0.59	4.01	142	11.9
0821	2.79 / 100	2300	25.44	0.752	0.55	4.03	140	11.8
0826	3.12 / 100	2800	25.51	0.749	0.56	4.05	137	11.7
0831	3.46 / 100	3300	25.44	0.750	0.50	4.10	134	12.1
0836	3.79 / 100	3800	25.49	0.749	0.46	4.14	131	11.8
0841	4.13 / 100	4300	25.48	0.745	0.43	4.17	128	12.2
0846	4.45 / 100	4800	25.43	0.739	0.41	4.16	127	12.2
0851	4.82 / 100	5300	25.37	0.731	0.41	4.13	126	11.8
0856	4.95 / 100	5800	25.49	0.718	0.38	4.08	126	12.2
0901	5.22 / 100	6300	25.49	0.696	0.38	4.04	127	11.9
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SAMPLING DATA

SAMPLE DATE/TIME: 10/25/07 0905	
DEPTH TO WATER AFTER PURGING: 5.22 ft.	
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☑	OTHER	☐	PCBs

NOTES: Bubbly water, strong sour odor

CO_2 = >100 mg/L IRON = 7.4 mg/L DO = 1 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-118
SITE NAME:	MILLER
LOCATION:	MOULTRIE GA
PROJECT NO.:	35789

PURGE START DATE/TIME: 1156 10/24/07		PURGE END DATE/TIME: 1231	
WEATHER CONDITIONS: CLOUDY ~70°F		WELL CONDITION: GOOD	
WELL DEPTH: 11 Ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	gal.
SWL: 1.12	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2 in	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (~~gal~~ mL)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1156	1.56 / 150	–	24.24	2.22	2.18	4.49	149	5.8
1201	2.02 / 150	750	25.34	2.23	1.01	4.50	150	4.9
1206	2.61 / 200	1750	25.34	2.22	0.55	4.53	149	5.2
1211	2.98 / 200	2750	25.38	2.23	0.40	4.54	147	5.1
1216	3.75 / 200	3750	25.39	2.26	0.34	4.57	145	5.5
1221	3.98 / 200	4750	25.41	2.29	0.36	4.59	143	5.3
1226	4.51 / 200	5750	25.16	2.22	0.38	4.60	142	5.4
1231	5.21 / 200	6750	25.30	2.20	0.40	4.60	141	5.5
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GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	EMW-119
SITE NAME:	MILLER
LOCATION:	MOULTRIE, GA
PROJECT NO.:	35789

PURGE START DATE/TIME: 10/25/07 0939		PURGE END DATE/TIME: 10/25/07 1016	
WEATHER CONDITIONS: COOL ~55°F		WELL CONDITION: GOOD	
WELL DEPTH: 11 Ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	gal.
SWL: 6.01 Ft	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2 in	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0941	6.09 100	300	21.70	0.328	2.38	5.48	148	8.6
0946	6.24 100	800	22.78	0.326	1.15	5.65	148	7.0
0951	6.45 100	1300	22.79	0.326	0.99	5.69	149	6.9
0956	6.71 100	1800	23.03	0.330	0.80	5.73	149	6.7
1001	6.90 100	2300	23.28	0.339	0.71	5.78	148	5.9
1006	7.19 100	2800	23.43	0.349	0.65	5.81	146	5.5
1011	7.41 100	3300	23.63	0.356	0.60	5.82	136	5.5
1016	7.69 100	3800	23.71	0.342	0.57	5.78	128	5.4

SAMPLING DATA

SAMPLE DATE/TIME: 10/25/07 1020	
DEPTH TO WATER AFTER PURGING: 7.69 ft.	
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: DO = 2 mg/L CO_2 = 70 mg/L IRON = 4.8 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-126
SITE NAME:	MILLER
LOCATION:	MOULTRIE, GA
PROJECT NO.:	35789

PURGE START DATE/TIME: 10/23/07 0903		PURGE END DATE/TIME: 10/23/07 0945	
WEATHER CONDITIONS: OVERCAST ~70°F		WELL CONDITION: GOOD	
WELL DEPTH: 11 Ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	gal.
SWL: 4.90 ft	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2-in	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0905	5.1 / 100	200	25.16	0.209	4.55	5.47	180	30.2
0907	5.25 / 100	400	25.18	0.210	3.57	5.64	178	30.4
0909	5.42 / 100	600	25.19	0.208	3.32	5.69	177	32.4
0911	5.45 / 100	800	25.18	0.211	3.26	5.74	177	35.6
0913	5.58 / 100	1000	25.20	0.214	3.28	5.78	176	36.1
0918	5.82 / 100	1500	25.21	0.226	3.59	5.86	176	36.4
0923	6.21 / 100	2000	25.24	0.240	3.97	5.93	176	31.7
0928	6.55 / 100	2500	25.27	0.252	4.33	5.98	175	37.7
0933	6.71 / 100	3000	25.33	0.255	4.39	5.98	175	50.0
0938	6.95 / 100	3500	25.48	0.247	4.07	5.96	175	49.0
0941	7.15 / 100	3800	25.53	0.235	3.63	5.94	175	50.1
0943	7.23 / 100	4000	25.56	0.221	3.24	5.90	175	55.1
0945	7.33 / 100	4200	25.67	0.216	3.05	5.87	175	53.9

SAMPLING DATA

SAMPLE DATE/TIME:	10/23/07 0942
DEPTH TO WATER AFTER PURGING:	7.33 ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

IRON = 0.6 mg/L DO = 3.5 mg/L CO_2 = 40 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-121
SITE NAME:	MILLER
LOCATION:	MOULTRIE, GA
PROJECT NO.:	35789

PURGE START DATE/TIME: 10/23/07 1133		PURGE END DATE/TIME: 10/23/07 1220	
WEATHER CONDITIONS: SUNNY ~85°F		WELL CONDITION:	
WELL DEPTH: 11 ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	gal.
SWL: 6.80	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 2 in	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1135	7.15 / 100	200	27.30	0.169	7.09	6.16	174	80.4
1140	7.52 / 100	700	26.29	0.172	7.02	6.17	171	75.2
1145	7.84 / 100	1200	26.05	0.170	6.91	6.18	169	66.9
1150	8.09 / 100	1700	25.83	0.170	6.95	6.20	168	68.4
1155	8.36 / 100	2200	25.88	0.170	6.95	6.21	167	68.9
1200	8.75 / 100	2700	25.74	0.170	6.96	6.22	167	68.6
1205	9.14 / 100	3200	25.90	0.167	6.97	6.23	166	67.0
1210	9.26 / 100	3700	25.90	0.167	6.95	6.23	166	66.8
1215	9.57 / 100	4200	26.17	0.167	6.93	6.24	166	66.1
1220	9.82 / 100	4700	26.03	0.167	7.00	6.23	164	62.7
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SAMPLING DATA

SAMPLE DATE/TIME:	10/23/07
DEPTH TO WATER AFTER PURGING:	9.82 ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES: CLOUDY

CO_2 = 18 mg/L IRON = 0.4 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CHAPP-1
SITE NAME:	MILLER MOULTRIE
LOCATION:	MOULTRIE, GA
PROJECT NO.:	35789

PURGE START DATE/TIME: 10/24/07 1607		PURGE END DATE/TIME: 10/24/07 1624	
WEATHER CONDITIONS: CLOUDY ~65°F		WELL CONDITION: GOOD	
WELL DEPTH: 12 ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	gal.
SWL: 6.0 ft	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER: 1 in	2 in. Dia. 0.163 gal./ft.	PUMP SETTING:	ft.
WELL VOLUME:	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1609	6.70 / 100	—	24.57	0.100	4.41	4.89	122	10.9
1612	7.05 / 100	300	25.05	0.102	4.09	4.98	122	10.2
1615	7.71 / 100	600	25.22	0.105	4.09	5.12	120	14.1
1618	8.84 / 100	900	25.31	0.106	3.93	5.25	120	12.9
1621	9.67 / 100	1200	25.27	0.107	3.95	5.28	120	15.0
1624	/ 100	1500						
			WELL DRY AT 1624					

SAMPLING DATA

SAMPLE DATE/TIME:	
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

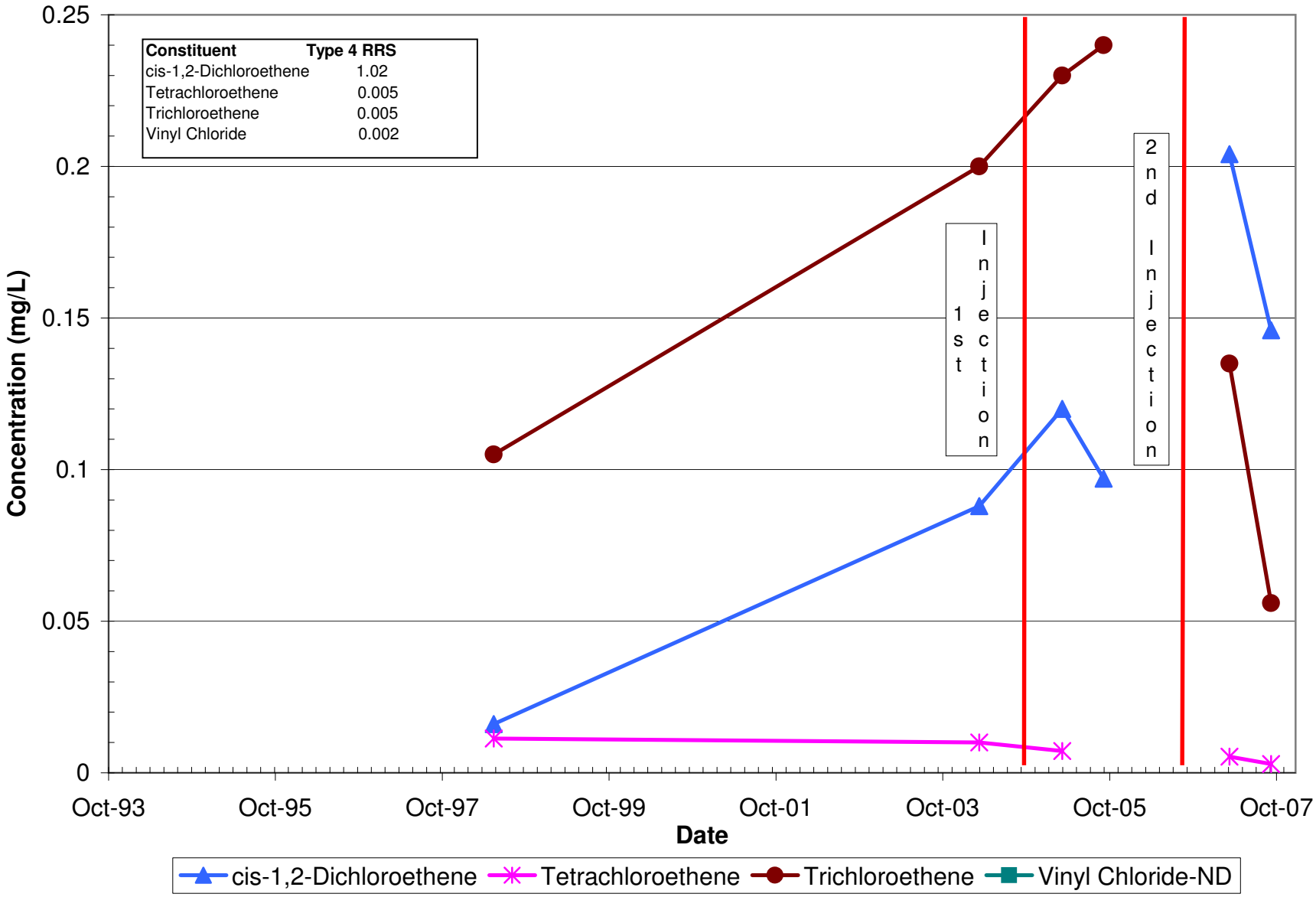
NOTES: CO_2 = 20 mg/L Fe = 0 mg/L DO = 3 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett/ Eric Bum

Appendix G

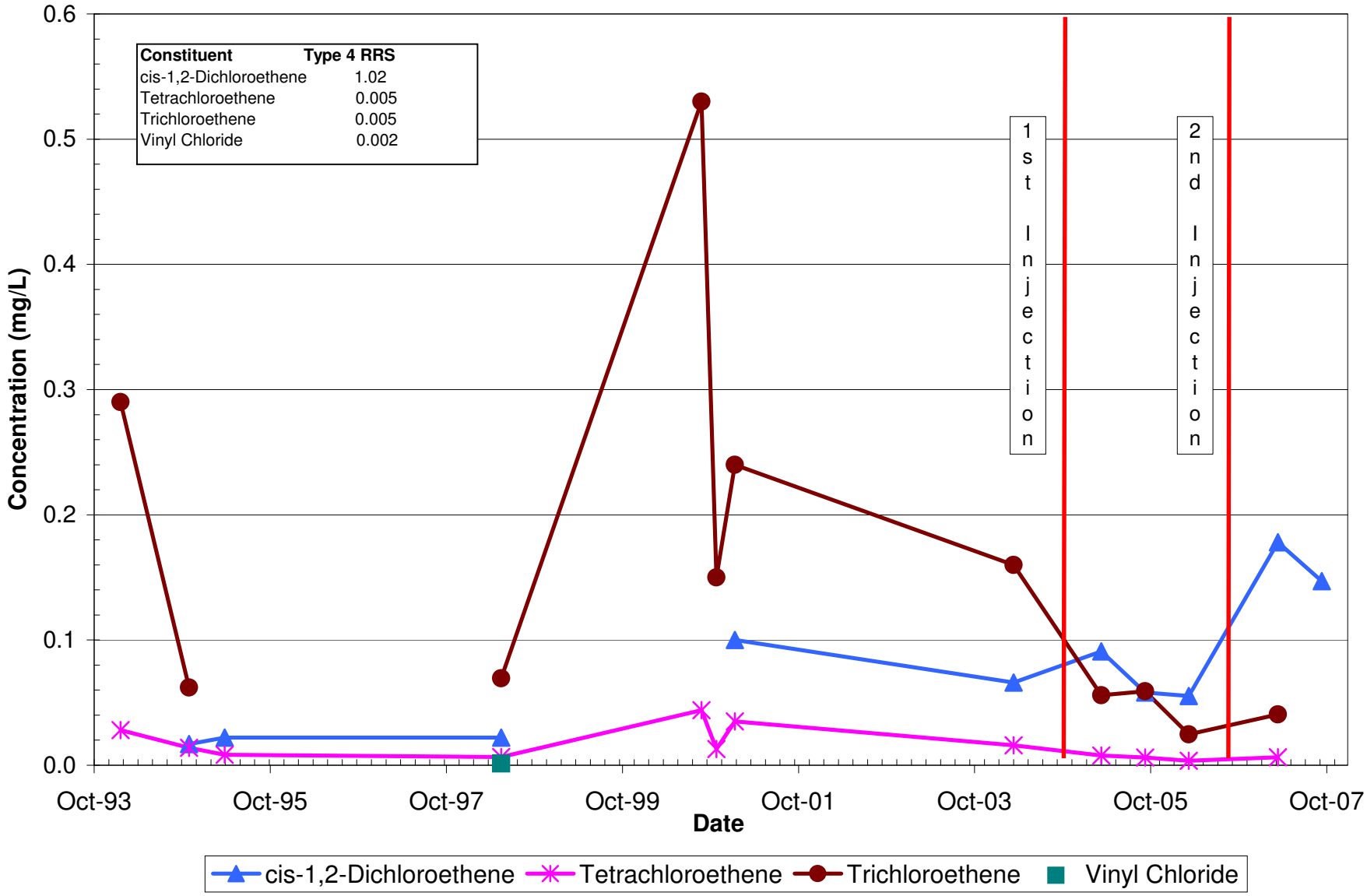
Trend Graphs for Volatile Organic Constituents

CH2MW-114D



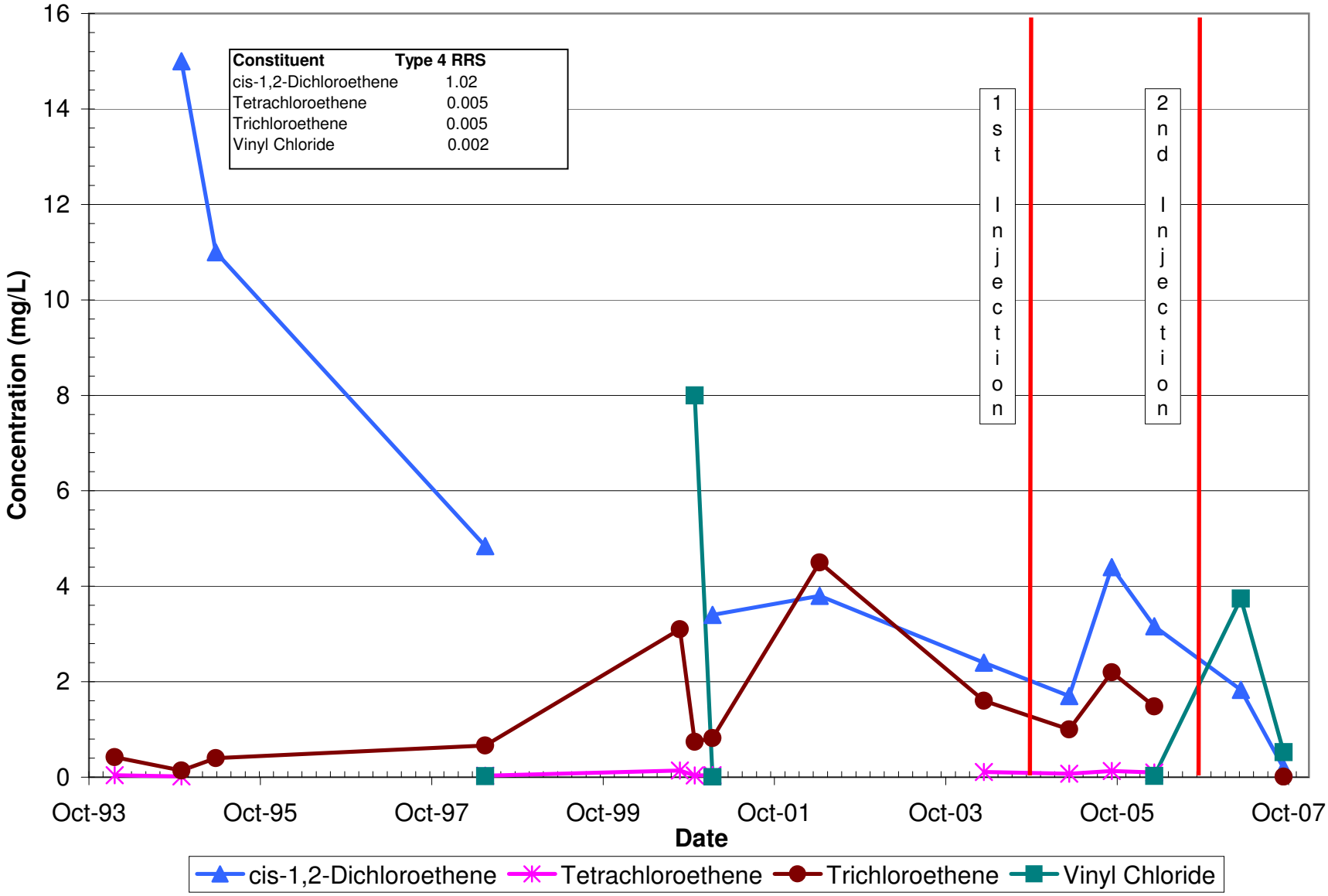
Note: Gaps in data incidate constituent was below detectable limits
October 2007 values for cis-1,2-Dichlroethene and Trichloroethene exceeded the instrument calibration range

ETCMW-113



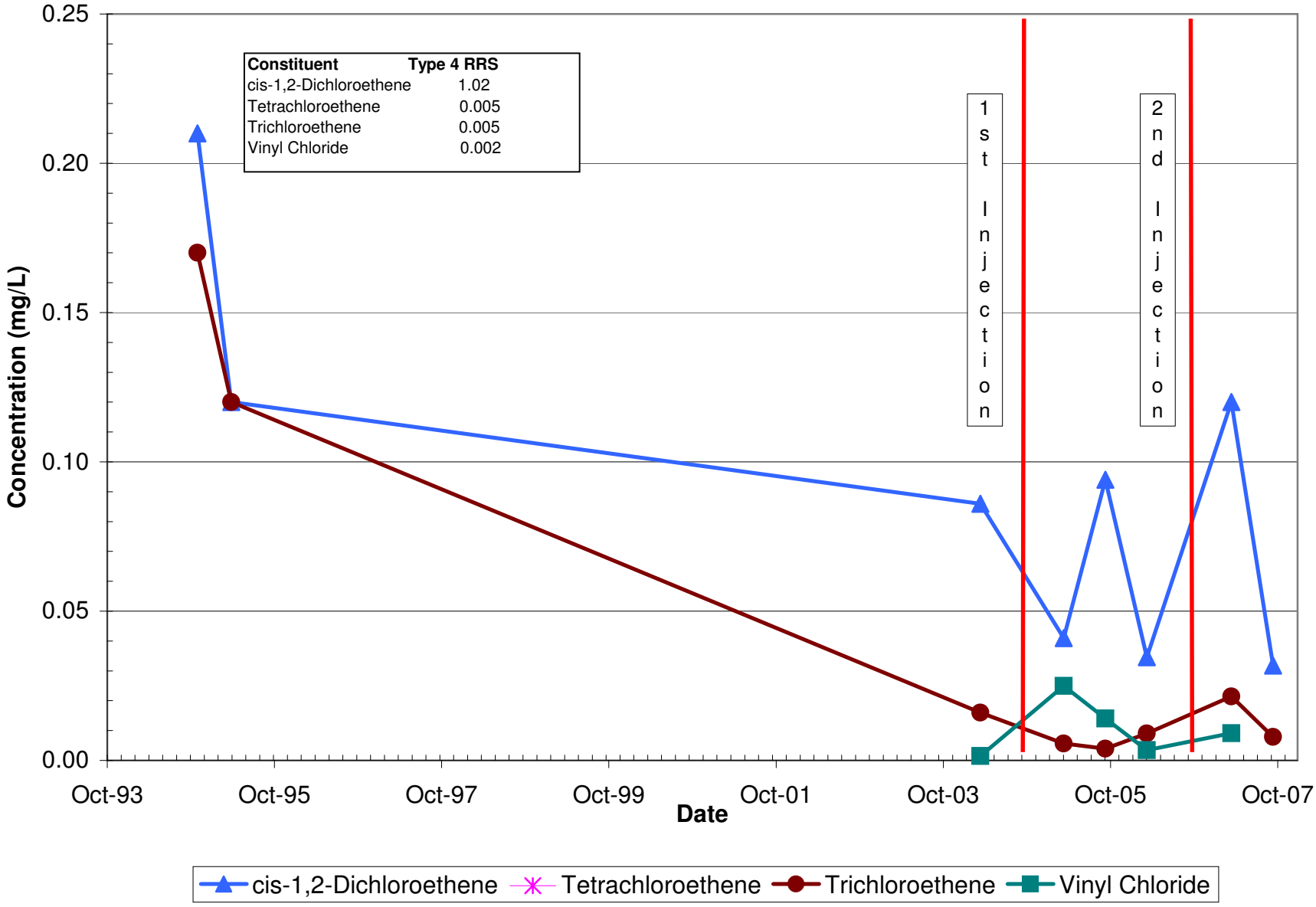
Note: Gaps in data indicate constituent was below detectable limits

ETCMW-114



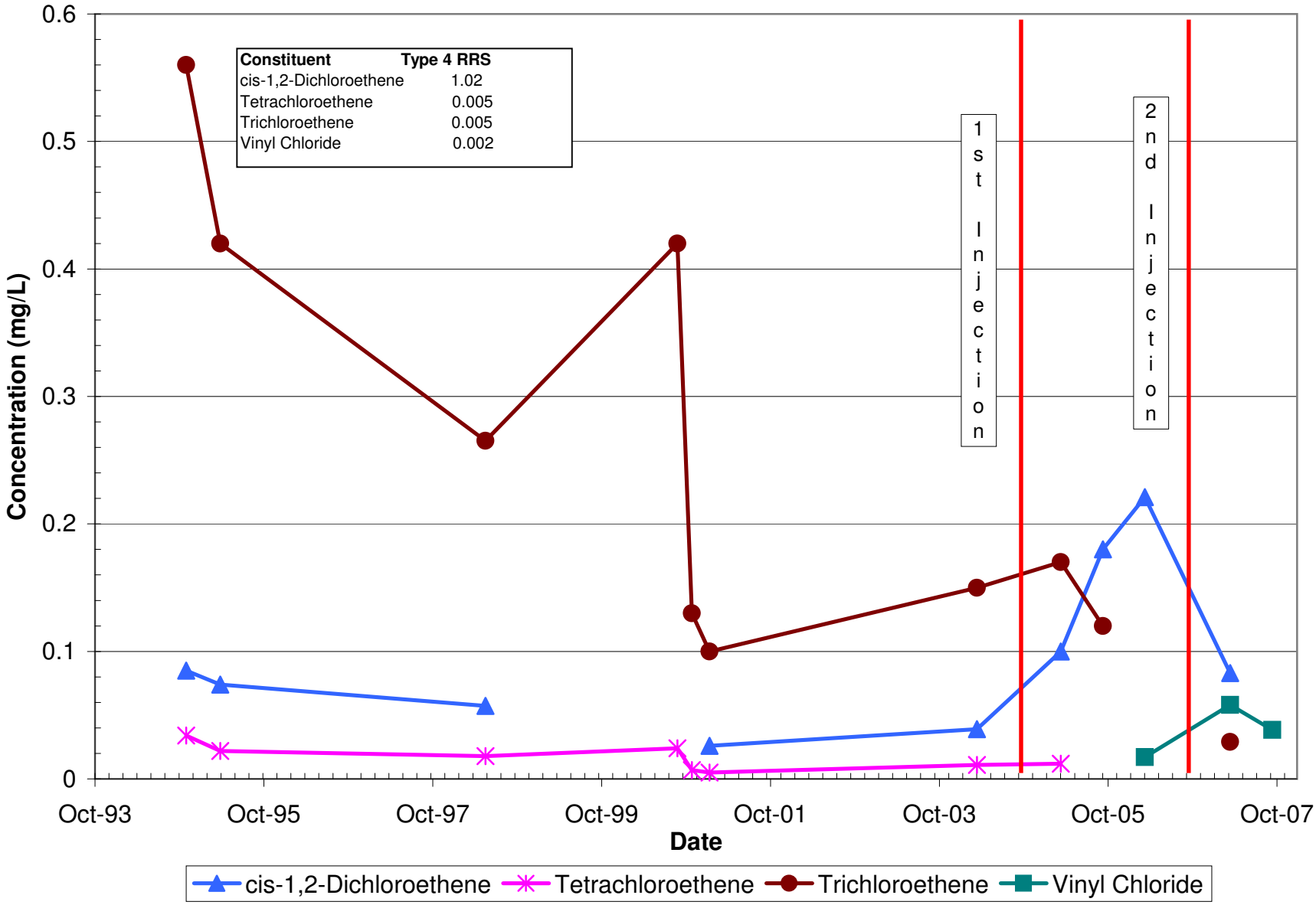
Note: Gaps in data incidate constituent was below detectable limits
October 2007 values for cis-1,2-Dichlroethene and Vinyl Chloride exceeded the instrument calibration

ETCMW-115



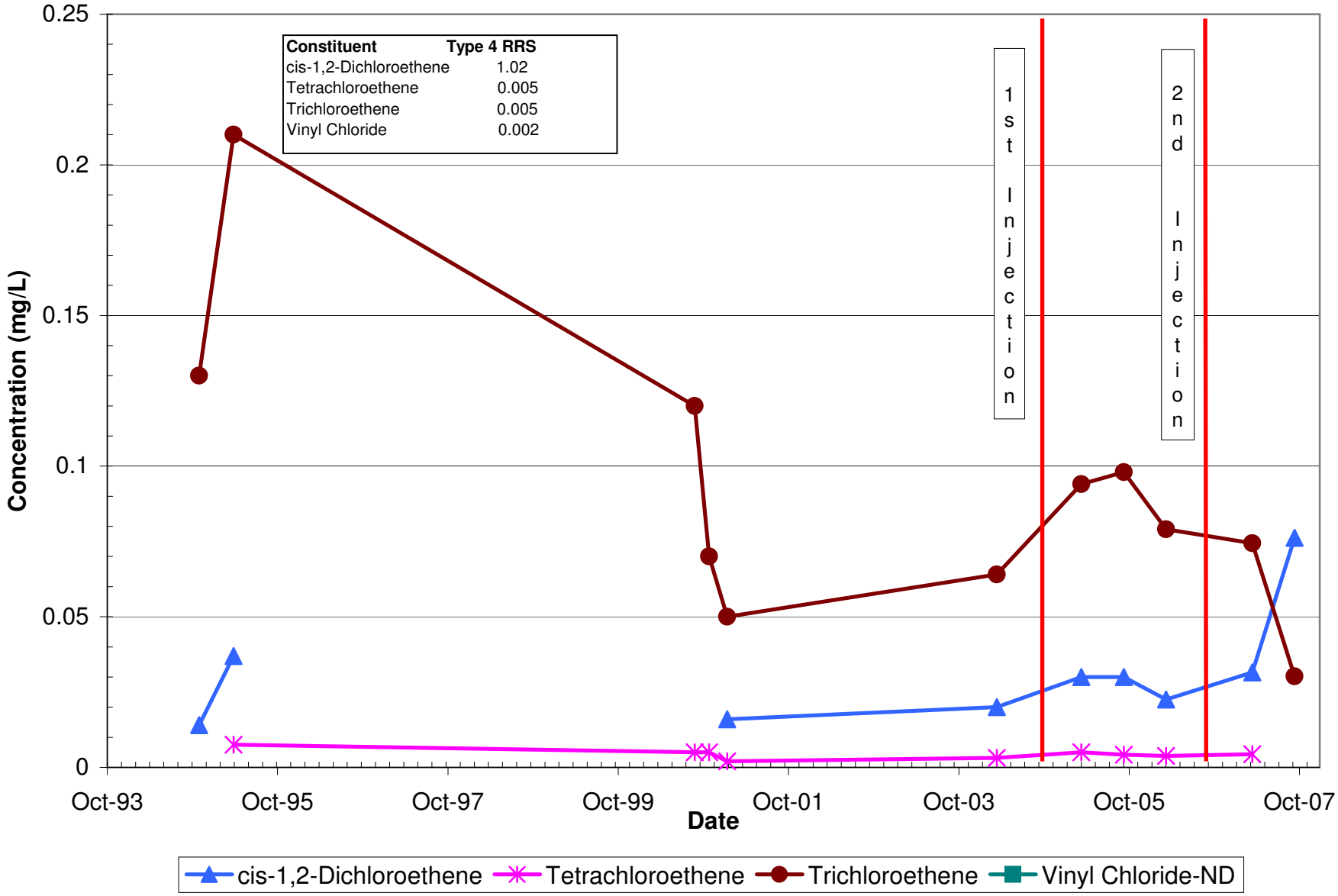
Note: Gaps in data incidate constituent was below detectable limits

ETMW-116

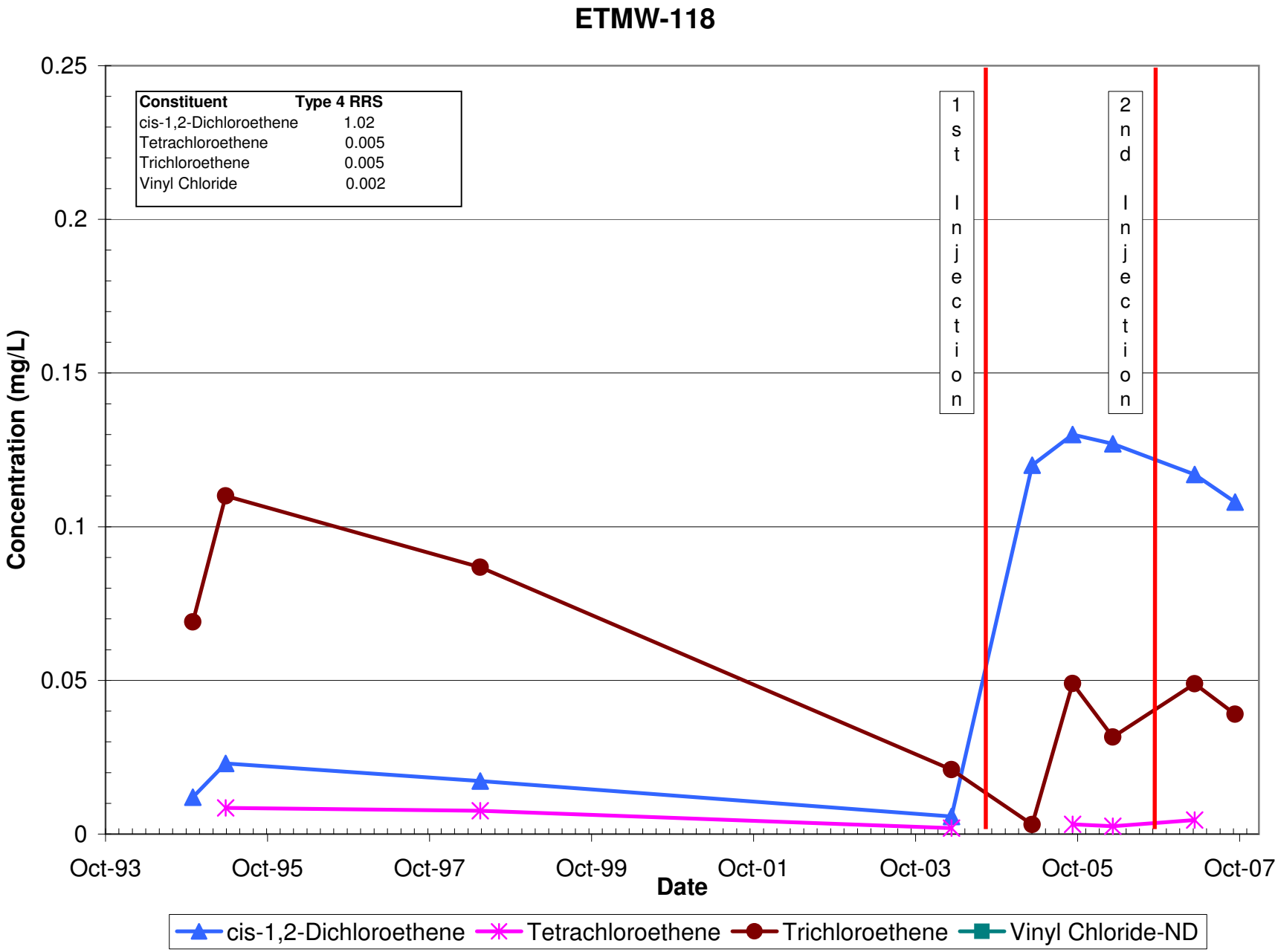


Note: Gaps in data incidate constituent was below detectable limits

ETMW-117



Note: Gaps in data incidate constituent was below detectable limits



Note: Gaps in data incidate constituent was below detectable limits

Appendix H

Biochlor Assumptions

BIOCHLOR MODELING ASSUMPTIONS
FORMER MILLER BREWING FACILITY
MOULTRIE, GEORGIA

Pre-Treatment Models

Used to calibrate model, and determine values for use in predictive models.

Parameter	Basis
1. Advection	
Seepage Velocity	Calculated in Biochlor II based on hydraulic conductivity, gradient, and effective porosity.
Hydraulic Conductivity	Originally used mean value calculated from slug tests (from CSR); however, because of low hydraulic conductivity at site, the calculated value is probably not reliable. Because of this, the value in the model was adjusted up to a reasonable number of for the lithology (clay to silt) until the model matched the field data.
Gradient	Mean value from CSR.
Effective porosity	Default value based on lithology (clay-silt)
2. Dispersivity	
Alpha x	Used 10% of plum length (~ 100 feet)
Alpha y	Value adjusted to fit field data both along the plume axis, and longitudinally. Value is within reasonable range, and low enough to avoid significant error with degradation calculations.
Alpha z	Used default value from Biochlor II.
3. Adsorption	
Retardation Factor	Calculated from defaults values in Biochlor II.
4. Biotransformation	
λ (TCE, PCE, DCE, DCA)	Calculated using Buschek/Alcantar method in Biochlor II.
λ (VC, ETH, TCA, CA)	Values adjusted to fit field data, using range of values provided by Biochlor II. Estimate was in middle of the range of provided values.
5. General	
Simulation Time	Period modeled assumed time of release (1980) to last groundwater monitoring event before bioenhancement (2004)
Model Area Width/Length	Used approximate width/length of plume.
6. Source Data	
Stable Source	Used because of relatively stable concentrations observed in monitoring well ETCMW-114, which is in source area.
Source Thickness	Based on observed thickness of groundwater constituents.
Source Width	Based on width of original excavation area.
Source Concentrations	Used values from monitoring well ETCMW-114, given that this well is in the source area, and has shown stable concentrations over time.
7. Field Data For Comparison	
April 7-8, 2004	Last data set obtained prior to injection of lactate bioenhancement.
Wells used	0 ft.--ETCMW-114 25 ft.—ETCMW-116 35 ft.—ETCMW-117 50 ft.—ETCMW-118 110 ft.—ETCMW-110

BIOCHLOR MODELING ASSUMPTIONS
FORMER MILLER BREWING FACILITY
MOULTRIE, GEORGIA

Post-Treatment Models
Used to calibrate model, and determine values for use in post-treatment models.

Parameter	Basis
1. Advection	
Seepage Velocity	Calculated in Biochlor II based on hydraulic conductivity, gradient, and effective porosity.
Hydraulic Conductivity	Originally used mean value calculated from slug tests (from CSR); however, because of low hydraulic conductivity at site, the calculated value is probably not reliable. Because of this, the value in the model was adjusted up to a reasonable number of for the lithology (clay to silt) until the model matched the field data.
Gradient	Mean value from CSR.
Effective porosity	Default value based on lithology (clay-silt)
2. Dispersivity	
Alpha x	Used 10% of plum length (~ 100 feet)
Alpha y	Value adjusted to fit field data both along the plume axis, and longitudinally. Value is within reasonable range, and low enough to avoid significant error with degradation calculations.
Alpha z	Used default value from Biochlor II.
3. Adsorption	
Retardation Factor	Calculated from defaults values in Biochlor II.
4. Biotransformation	
λ (TCE, PCE, DCE, DCA)	Calculated using Buschek/Alcantar method in Biochlor II.
λ (VC, ETH, TCA, CA)	Values adjusted to fit field data, using range of values provided by Biochlor II. Estimate was in middle of the range of provided values.
5. General	
Simulation Time	Varies for each analysis. Represents the number of years in the future.
Model Area Width/Length	Used approximate width/length of plume.
6. Source Data	
Stable Source	ETMW-118 used because it is on the edge of the plume.
Source Thickness	Based on observed thickness of groundwater constituents.
Source Width	Based on width of original excavation area.
Source Concentrations	Used values from monitoring well ETMW-118, given that this well is on the edge of the plume.
7. Field Data For Comparison	
April 7-8, 2004	October 2007 ground water monitoring results from ETMW-118
Wells used	0 ft.—ETMW-118

Appendix I

Biochlor Results

Appendix I1

Pre-Treatment

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel '97

Miller Brewing
Moultrie Facility
Run Name

Data Input Instructions:
115 → 1. Enter value directly....or
or
0.02 → 2. Calculate by filling in gray cells. Press Enter, then C
(To restore formulas, hit "Restore Formulas" button)
Variable* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	2.1	(ft/yr)
or			
Hydraulic Conductivity	K	7.9E-05	(cm/sec)
Hydraulic Gradient	i	0.0052	(ft/ft)
Effective Porosity	n	0.2	(-)

2. DISPERSION

Calc. Alpha x

Alpha x*	10	(ft)
(Alpha y) / (Alpha x)*	0.5	(-)
(Alpha z) / (Alpha x)*	5.E-02	(-)

3. ADSORPTION

Retardation Factor* → R

or

	Koc		R	
Soil Bulk Density, rho	1.6	(kg/L)		
FractionOrganicCarbon, foc	1.8E-3	(-)		
Partition Coefficient				
PCE	426	(L/kg)	7.13	(-)
TCE	130	(L/kg)	2.87	(-)
DCE	125	(L/kg)	2.80	(-)
VC	30	(L/kg)		(-)
ETH	302	(L/kg)		(-)

Common R (used in model)* = 2.87

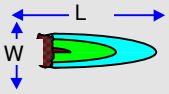
4. BIOTRANSFORMATION -1st Order Decay Coefficient*

		λ (1/yr)	half-life (yrs)	Yield
Zone 1				
PCE	TCE	0.341		0.79
TCE	DCE	0.168		0.74
DCE	VC	0.578		0.64
VC	ETH	2.000		0.45
Zone 2		λ (1/yr)	half-life (yrs)	
PCE	TCE	0.000		
TCE	DCE	0.000		
DCE	VC	0.000		
VC	ETH	0.000		

λ HELP

5. GENERAL

Simulation Time*	24	(yr)
Modeled Area Width*	100	(ft)
Modeled Area Length*	100	(ft)
Zone 1 Length*	100	(ft)
Zone 2 Length*	0	(ft)



Zone 2= L - Zone 1

6. SOURCE DATA TYPE: Continuous Single Planar

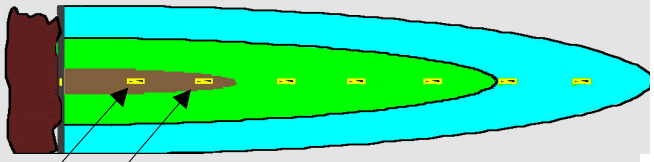
Source Options

Source Thickness in Sat. Zone* 15 (ft)

Width* (ft) Y1: 10

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE	.12	0
TCE	1.7	0
DCE	2.4	0
VC		0
ETH		0

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

PCE Conc. (mg/L)	.12	.011	.003	.002							
TCE Conc. (mg/L)	1.7	.15	.064	.021	.004						
DCE Conc. (mg/L)	2.4	.039	.02	.006							
VC Conc. (mg/L)											
ETH Conc. (mg/L)											
Distance from Source (ft)	0	25	35	50	110						
Date Data Collected	2004										

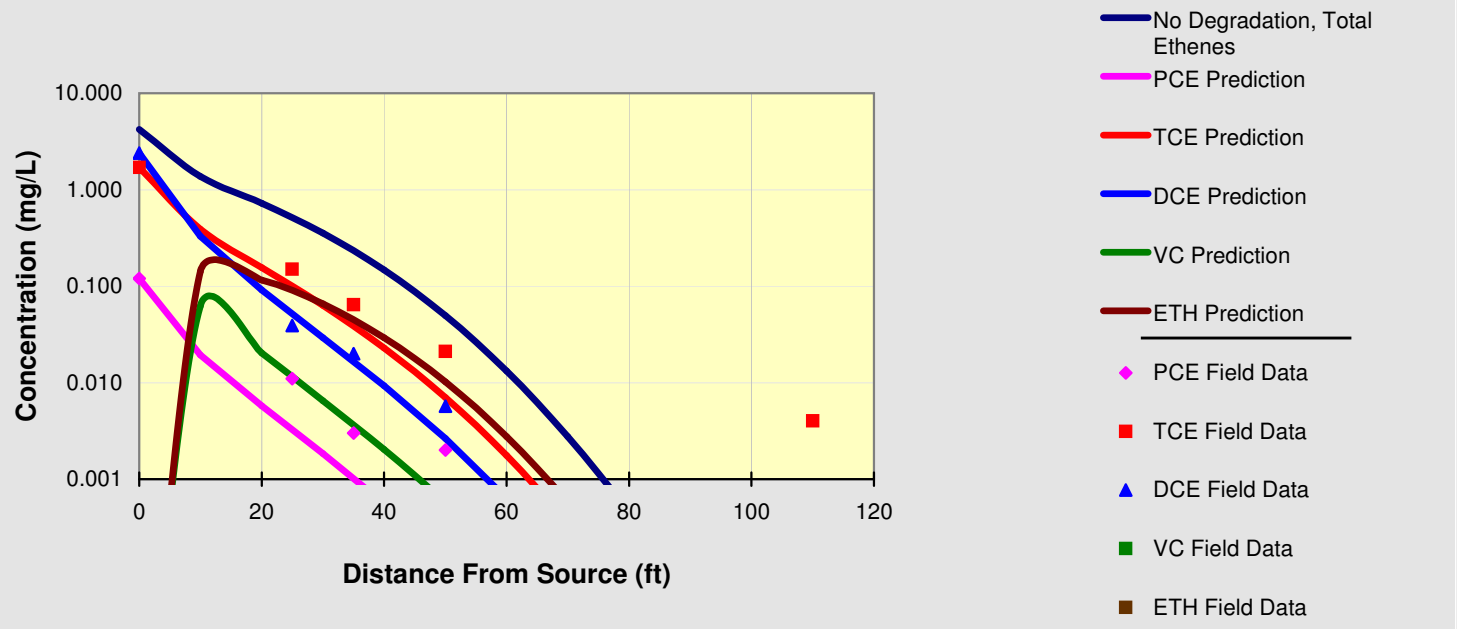
8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE | **RUN ARRAY**

Help | Restore Formulas | RESET

SEE OUTPUT | Paste Example

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE



Log ⇔ Linear

Time:

24 Years

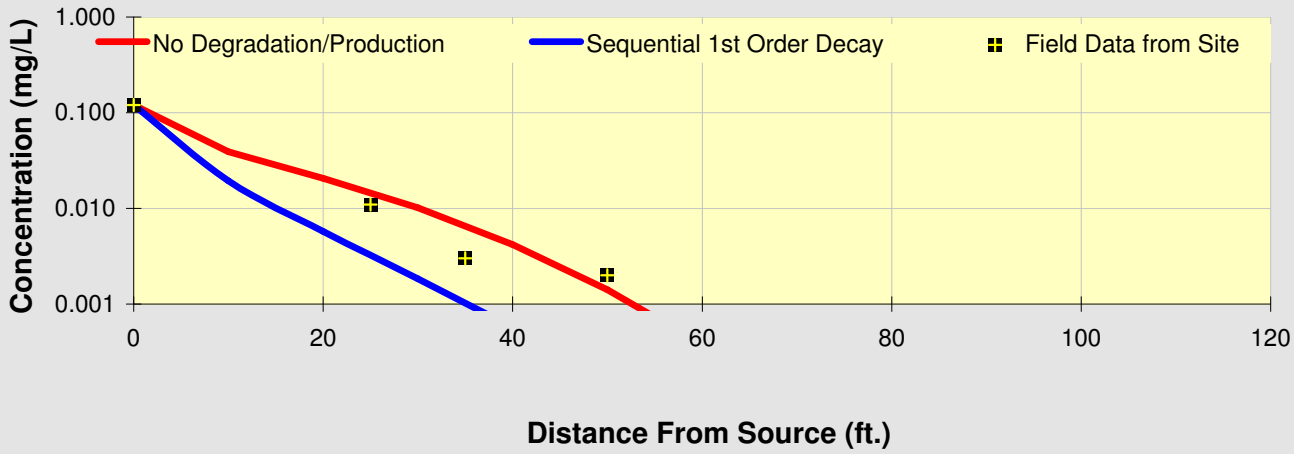
To Input

To Individual Compounds

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

PCE	Distance from Source (ft)										
	0	10	20	30	40	50	60	70	80	90	100
No Degradation	0.120	0.039	0.021	0.010	0.004	0.001	0.000	0.000	0.000	0.000	0.000
Biotransformation	0.1200	0.019	0.006	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000

	Monitoring Well Locations (ft)										
	0	25	35	50	110						
Field Data from Site	0.120	0.011	0.003	0.002							



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

24.0 Years

Log ⇔ Linear

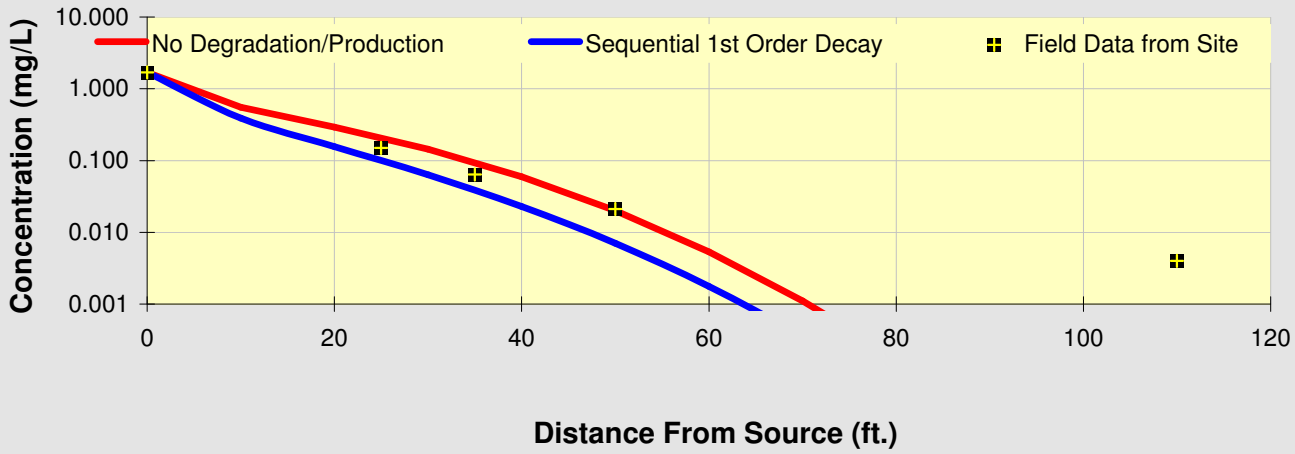
Return to Input

To All

To Array

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

TCE	Distance from Source (ft)										
	0	10	20	30	40	50	60	70	80	90	100
No Degradation	1.700	0.555	0.292	0.143	0.060	0.020	0.005	0.001	0.000	0.000	0.000
Biotransformation	1.7000	0.389	0.156	0.063	0.023	0.007	0.002	0.000	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
	0	25	35	50	110						
Field Data from Site	1.700	0.150	0.064	0.021	0.004						



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

24.0 Years

Log ⇔ Linear

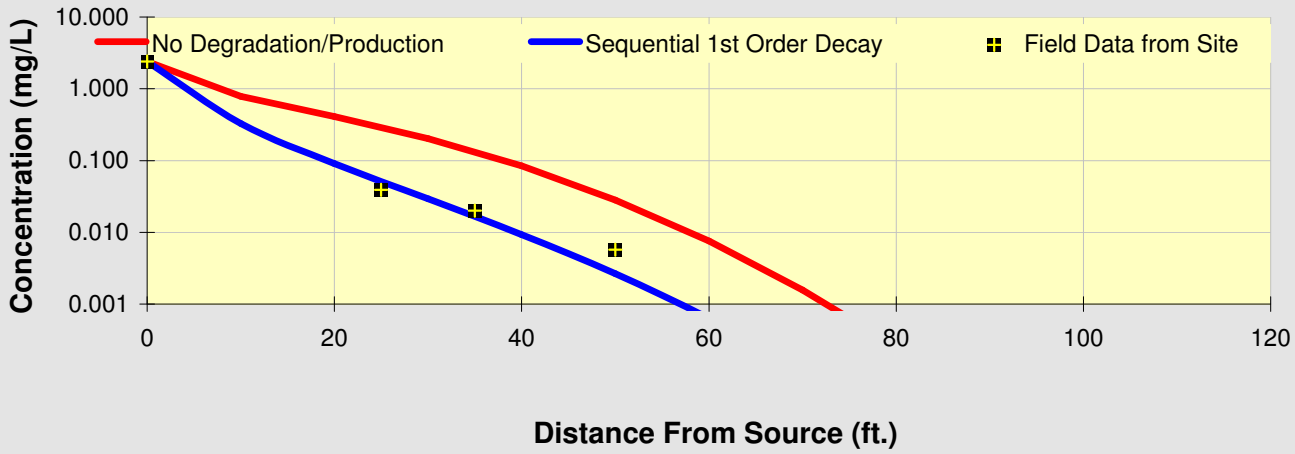
Return to Input

To All

To Array

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

DCE	Distance from Source (ft)										
	0	10	20	30	40	50	60	70	80	90	100
No Degradation	2.400	0.783	0.412	0.203	0.084	0.028	0.008	0.002	0.000	0.000	0.000
Biotransformation	2.4000	0.329	0.091	0.029	0.009	0.003	0.001	0.000	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
	0	25	35	50	110						
Field Data from Site	2.400	0.039	0.020	0.006							



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

24.0 Years

Log ⇔ Linear

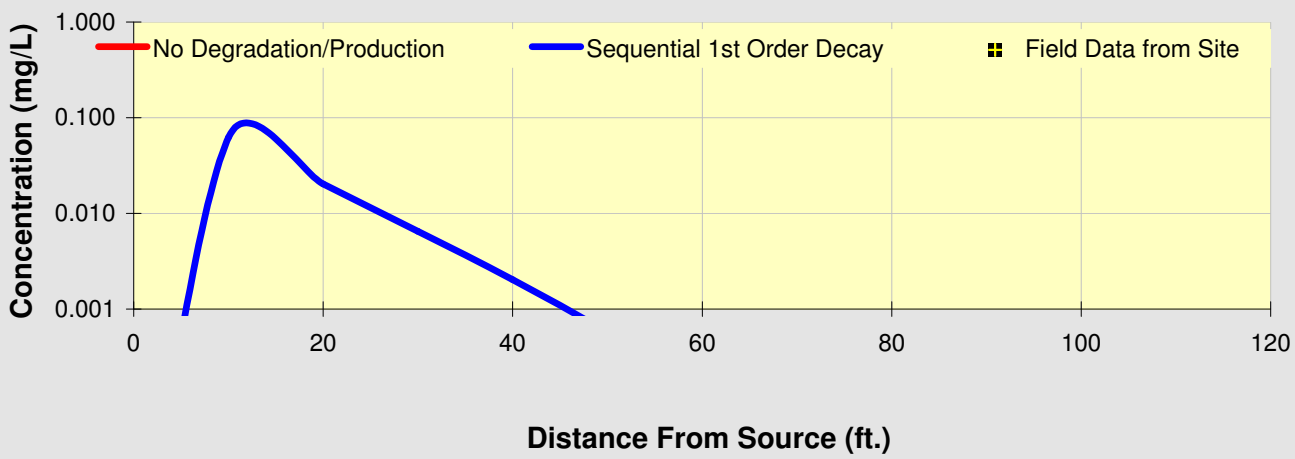
Return to Input

To All

To Array

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

VC	Distance from Source (ft)										
	0	10	20	30	40	50	60	70	80	90	100
No Degradation	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	0.0000	0.062	0.020	0.007	0.002	0.001	0.000	0.000	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
	0	25	35	50	110						
Field Data from Site											



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

24.0 Years

Log ⟺ Linear

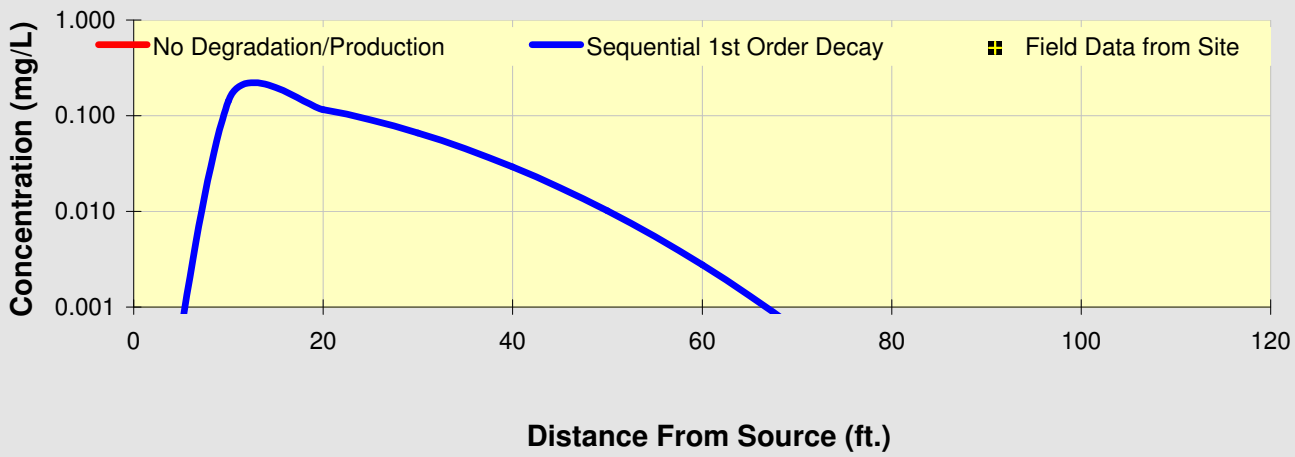
Return to Input

To All

To Array

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

ETH	Distance from Source (ft)										
	0	10	20	30	40	50	60	70	80	90	100
No Degradation	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	0.0000	0.143	0.115	0.066	0.029	0.010	0.003	0.001	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
	0	25	35	50	110						
Field Data from Site											



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

24.0 Years

Log ⟺ Linear

Return to Input

To All

To Array

Appendix I2

Post-Treatment

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel '97

Miller Brewing
Moultrie Facility
Run Name

Data Input Instructions:
115 → 1. Enter value directly....or
or
0.02 → 2. Calculate by filling in gray cells. Press Enter, then C
(To restore formulas, hit "Restore Formulas" button)
Variable* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	2.1	(ft/yr)
or			
Hydraulic Conductivity	K	7.9E-05	(cm/sec)
Hydraulic Gradient	i	0.0052	(ft/ft)
Effective Porosity	n	0.2	(-)

2. DISPERSION

Alpha x*	10	(ft)
(Alpha y) / (Alpha x)*	0.5	(-)
(Alpha z) / (Alpha x)*	5.E-02	(-)

Calc. Alpha x

3. ADSORPTION

Retardation Factor* → R
or

Soil Bulk Density, rho	1.6	(kg/L)		
FractionOrganicCarbon, foc	1.8E-3	(-)		
Partition Coefficient	Koc			
PCE	426	(L/kg)	7.13	(-)
TCE	130	(L/kg)	2.87	(-)
DCE	125	(L/kg)	2.80	(-)
VC	30	(L/kg)		(-)
ETH	302	(L/kg)		(-)
Common R (used in model)* =			**2.87**	

4. BIOTRANSFORMATION

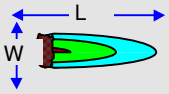
-1st Order Decay Coefficient*

		λ (1/yr)	half-life (yrs)	Yield
Zone 1				
PCE	TCE	0.341		0.79
TCE	DCE	0.168		0.74
DCE	VC	0.578		0.64
VC	ETH	2.000		0.45
Zone 2		λ (1/yr)	half-life (yrs)	
PCE	TCE	0.000		
TCE	DCE	0.000		
DCE	VC	0.000		
VC	ETH	0.000		

λ HELP

5. GENERAL

Simulation Time*	5	(yr)
Modeled Area Width*	100	(ft)
Modeled Area Length*	100	(ft)
Zone 1 Length*	100	(ft)
Zone 2 Length*	0	(ft)



Zone 2= L - Zone 1

6. SOURCE DATA

TYPE: Continuous Single Planar

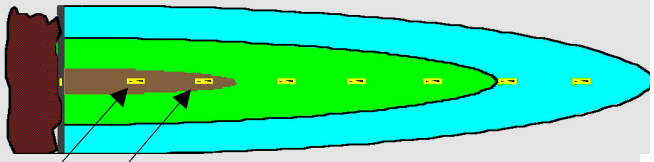
Source Options

Source Thickness in Sat. Zone* 15 (ft)

Width* (ft) Y1: 10

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE	.0	0
TCE	.009	0
DCE	.185	0
VC	.524	0
ETH		0

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

PCE Conc. (mg/L)	.0										
TCE Conc. (mg/L)	.009										
DCE Conc. (mg/L)	.185										
VC Conc. (mg/L)	0.5										
ETH Conc. (mg/L)											
Distance from Source (ft)	0										
Date Data Collected	2007										

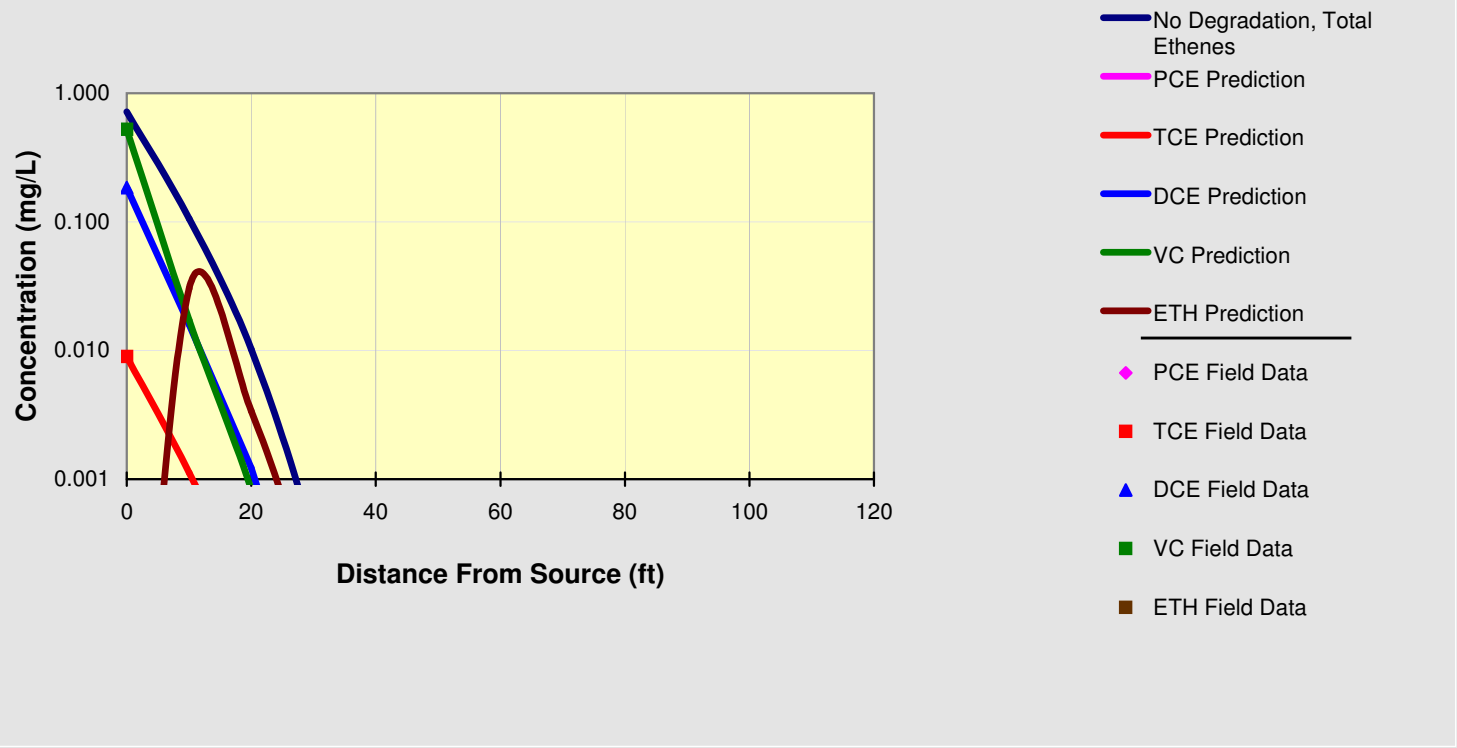
8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE | **RUN ARRAY**

Help | Restore Formulas | RESET

SEE OUTPUT | Paste Example

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE



Log ⇔ Linear

Time:

5 Years

To Input

To Individual Compounds

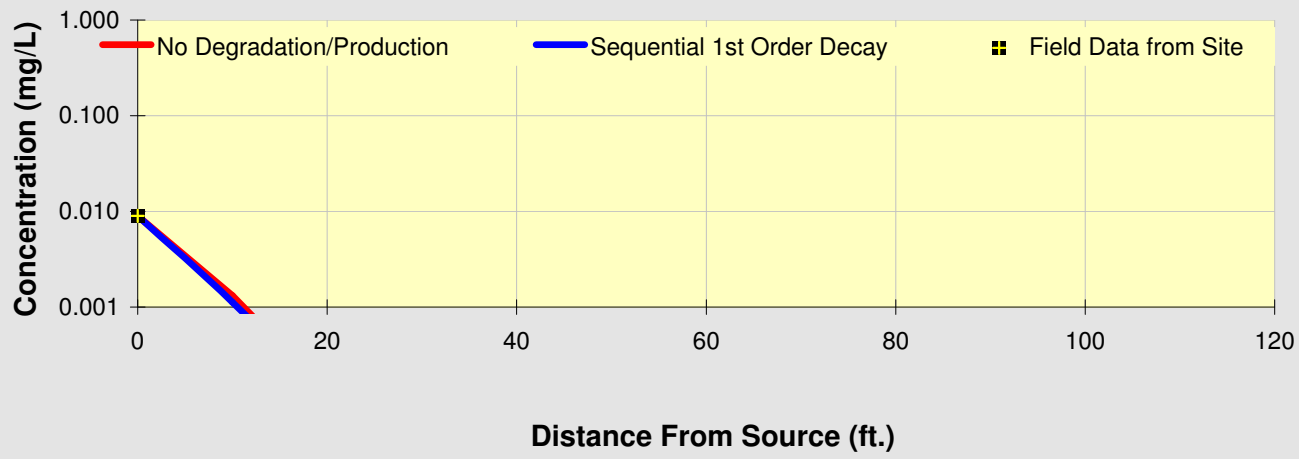
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

Distance from Source (ft)

TCE	0	10	20	30	40	50	60	70	80	90	100
No Degradation	0.009	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	0.0090	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Monitoring Well Locations (ft)

	0										
Field Data from Site	0.009										



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

5.0 Years

Log ⇔ Linear

Return to Input

To All

To Array

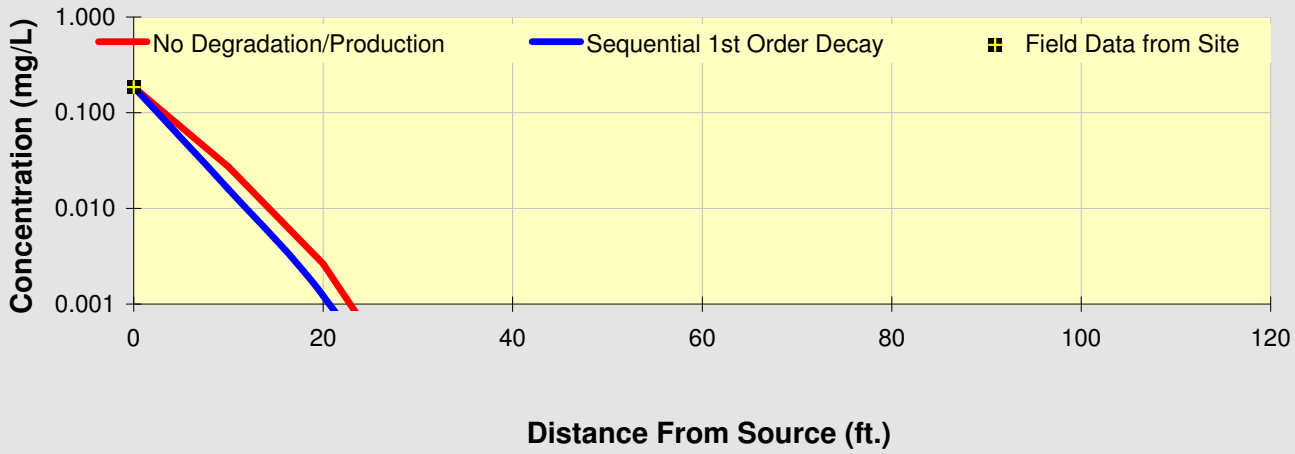
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

Distance from Source (ft)

DCE	0	10	20	30	40	50	60	70	80	90	100
No Degradation	0.185	0.027	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	0.1850	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Monitoring Well Locations (ft)

	0										
Field Data from Site	0.185										



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

5.0 Years

Log ⇔ Linear

Return to Input

To All

To Array

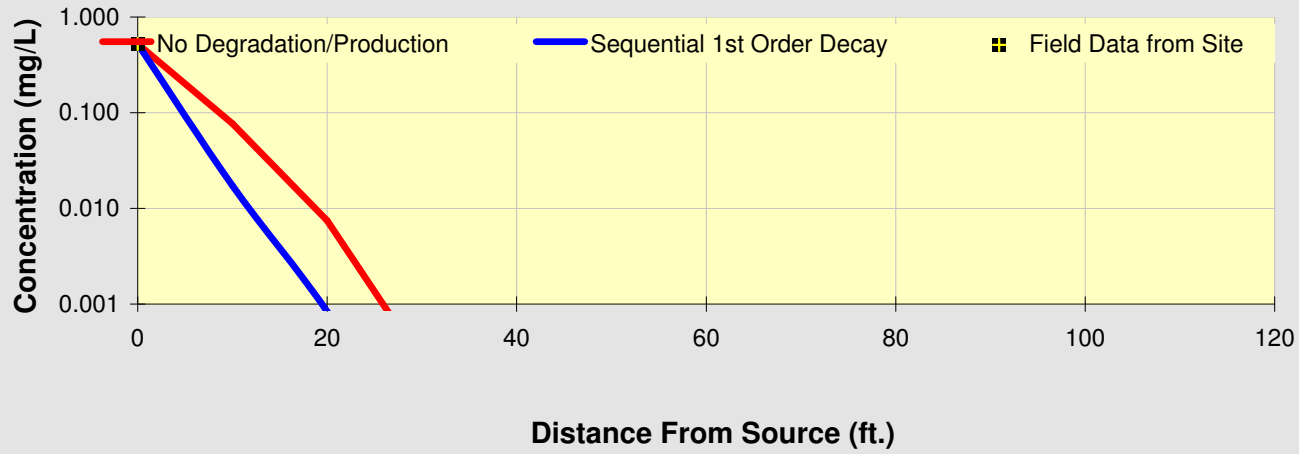
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

Distance from Source (ft)

VC	0	10	20	30	40	50	60	70	80	90	100
No Degradation	0.524	0.077	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	0.5240	0.017	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Monitoring Well Locations (ft)

	0										
Field Data from Site	0.524										



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

5.0 Years

Log ⟺ Linear

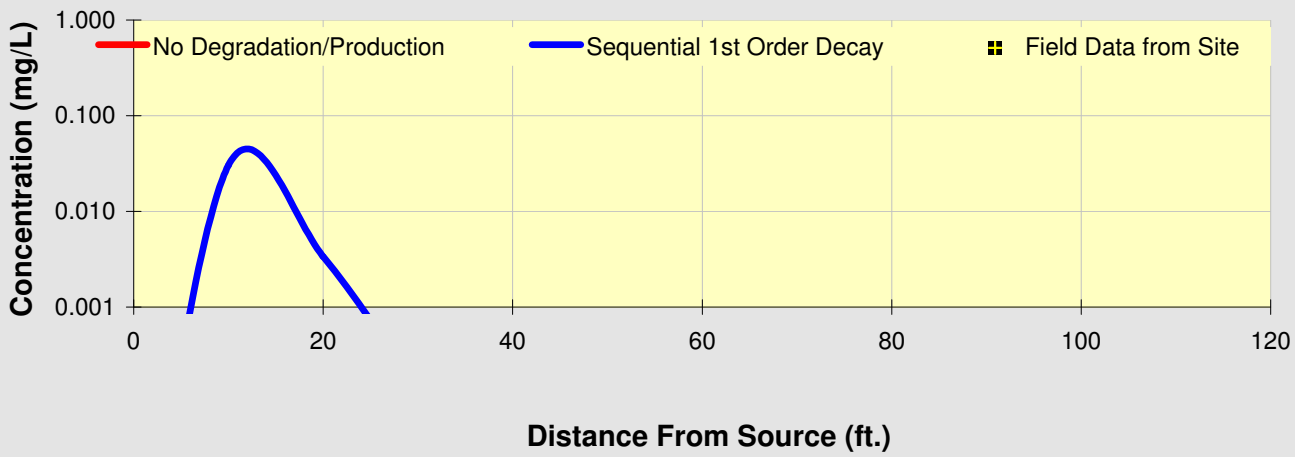
Return to Input

To All

To Array

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

ETH	Distance from Source (ft)										
	0	10	20	30	40	50	60	70	80	90	100
No Degradation	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	0.0000	0.030	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
	0										
Field Data from Site											



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

5.0 Years

Log ⇔ Linear

Return to Input

To All

To Array

Appendix I3

Post-Treatment
Edge of Plume

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel '97

Miller Brewing
Moultrie Facility
Run Name

Data Input Instructions:
115 → 1. Enter value directly....or
or
0.02 → 2. Calculate by filling in gray cells. Press Enter, then C
(To restore formulas, hit "Restore Formulas" button)
Variable* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	2.1	(ft/yr)
or			
Hydraulic Conductivity	K	7.9E-05	(cm/sec)
Hydraulic Gradient	i	0.0052	(ft/ft)
Effective Porosity	n	0.2	(-)

2. DISPERSION

Calc. Alpha x

Alpha x*	10	(ft)
(Alpha y) / (Alpha x)*	0.5	(-)
(Alpha z) / (Alpha x)*	5.E-02	(-)

3. ADSORPTION

Retardation Factor* → R

or

	Koc		R	
Soil Bulk Density, rho	1.6	(kg/L)		
FractionOrganicCarbon, foc	1.8E-3	(-)		
Partition Coefficient				
PCE	426	(L/kg)	7.13	(-)
TCE	130	(L/kg)	2.87	(-)
DCE	125	(L/kg)	2.80	(-)
VC	30	(L/kg)		(-)
ETH	302	(L/kg)		(-)

Common R (used in model)* = 2.87

4. BIOTRANSFORMATION -1st Order Decay Coefficient*

		λ (1/yr)	half-life (yrs)	Yield
Zone 1				
PCE	TCE	0.341		0.79
TCE	DCE	0.168		0.74
DCE	VC	0.578		0.64
VC	ETH	2.000		0.45
Zone 2		λ (1/yr)	half-life (yrs)	
PCE	TCE	0.000		
TCE	DCE	0.000		
DCE	VC	0.000		
VC	ETH	0.000		

λ HELP

5. GENERAL

Simulation Time*	20	(yr)	
Modeled Area Width*	100	(ft)	W
Modeled Area Length*	100	(ft)	L
Zone 1 Length*	100	(ft)	
Zone 2 Length*	0	(ft)	Zone 2= L - Zone 1

6. SOURCE DATA TYPE: Continuous Single Planar

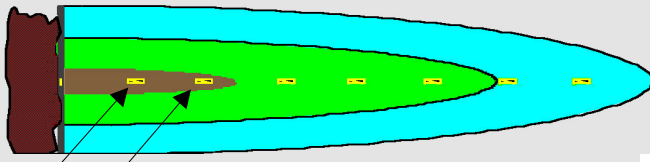
Source Options

Source Thickness in Sat. Zone* 15 (ft)

Width* (ft) Y1: 10

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE	.0	0
TCE	.009	0
DCE	.185	0
VC	.524	0
ETH		0

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

PCE Conc. (mg/L)	.0										
TCE Conc. (mg/L)	.009										
DCE Conc. (mg/L)	.185										
VC Conc. (mg/L)	0.5										
ETH Conc. (mg/L)											
Distance from Source (ft)	0										
Date Data Collected	2007										

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE | **RUN ARRAY** | ***Help*** | Restore Formulas | RESET | ***SEE OUTPUT*** | Paste Example

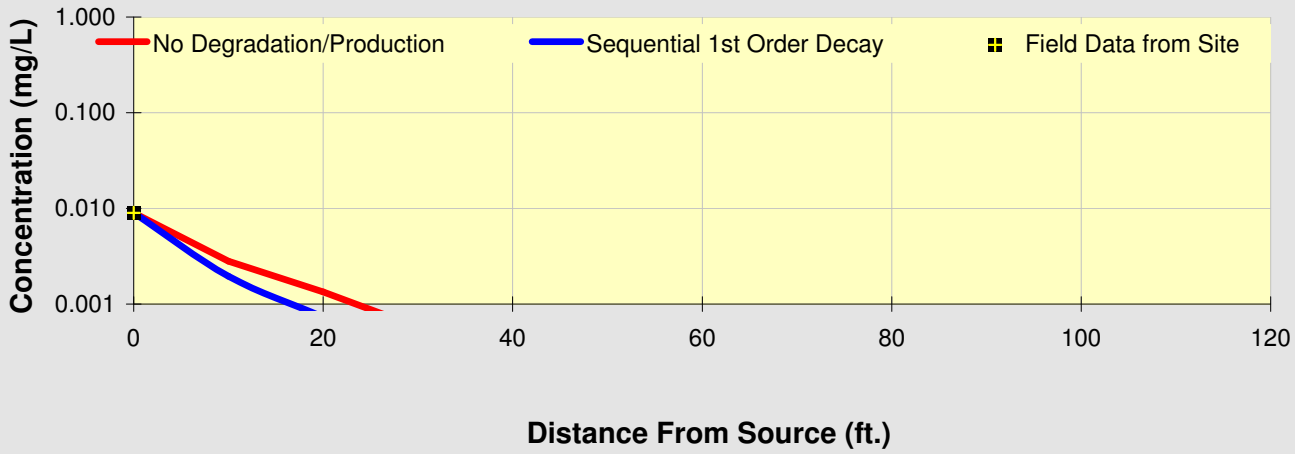
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

Distance from Source (ft)

TCE	0	10	20	30	40	50	60	70	80	90	100
No Degradation	0.009	0.003	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	0.0090	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Monitoring Well Locations (ft)

	0										
Field Data from Site	0.009										



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

20.0 Years

Log ⟺ Linear

Return to Input

To All

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DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

Distance from Source (ft)

DCE	0	10	20	30	40	50	60	70	80	90	100
No Degradation	0.185	0.058	0.028	0.012	0.004	0.001	0.000	0.000	0.000	0.000	0.000
Biotransformation	0.1850	0.021	0.005	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Monitoring Well Locations (ft)

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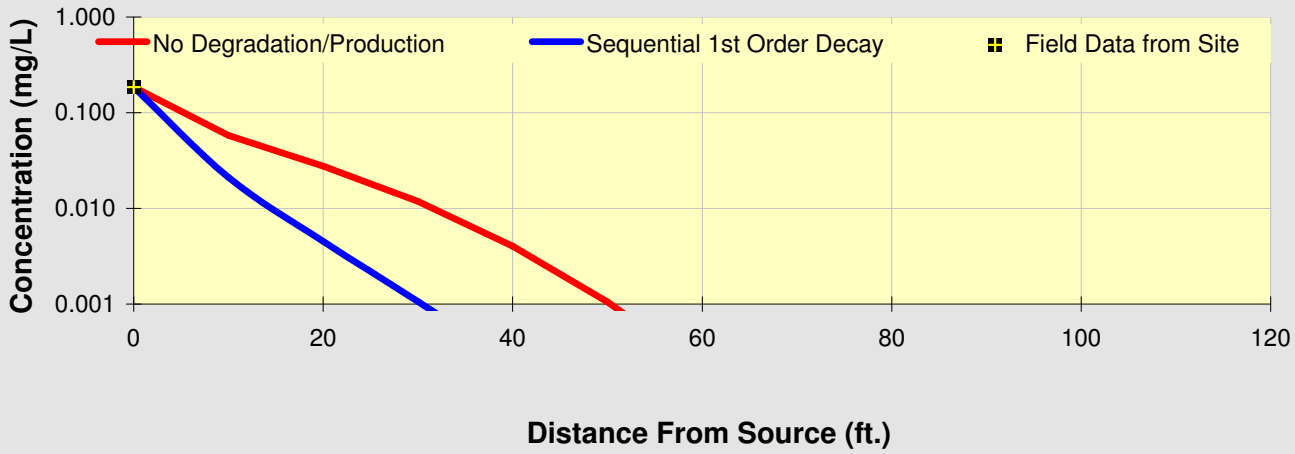
Field Data from Site	0.185										



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

20.0 Years

Log ⟺ Linear

Return to Input

To All

To Array

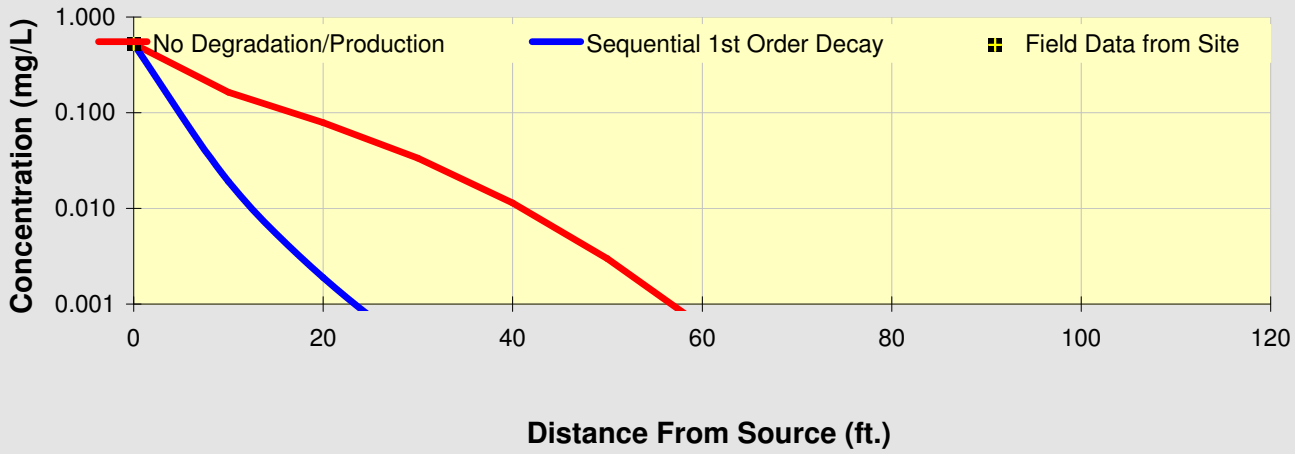
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

Distance from Source (ft)

VC	0	10	20	30	40	50	60	70	80	90	100
No Degradation	0.524	0.163	0.079	0.034	0.011	0.003	0.001	0.000	0.000	0.000	0.000
Biotransformation	0.5240	0.019	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Monitoring Well Locations (ft)

	0										
Field Data from Site	0.524										



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

20.0 Years

Log ⟺ Linear

Return to Input

To All

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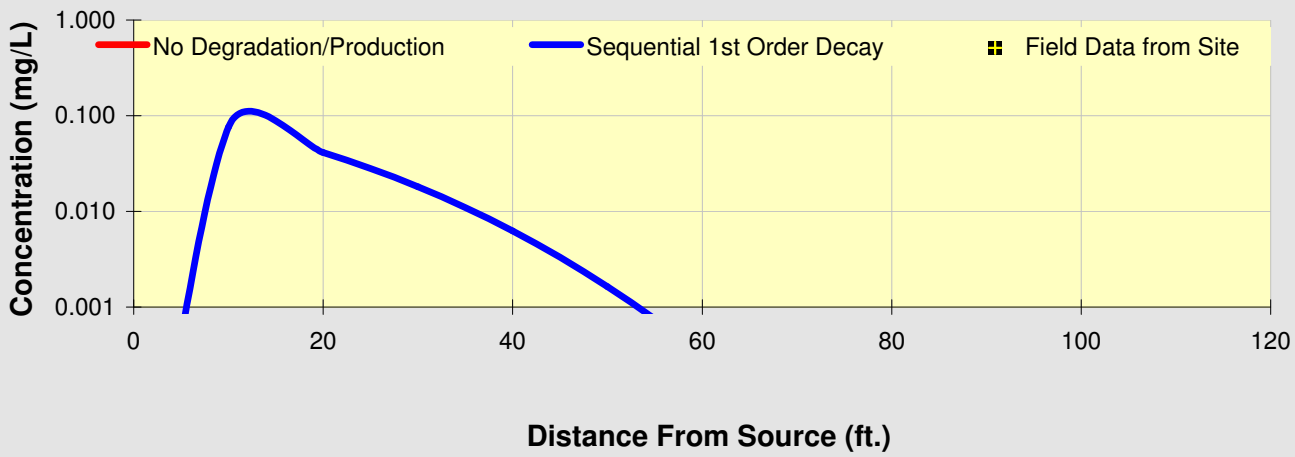
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

ETH	Distance from Source (ft)										
	0	10	20	30	40	50	60	70	80	90	100
No Degradation	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	0.0000	0.076	0.041	0.018	0.006	0.002	0.000	0.000	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
	0										
Field Data from Site											



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

20.0 Years

Log ⟺ Linear

Return to Input

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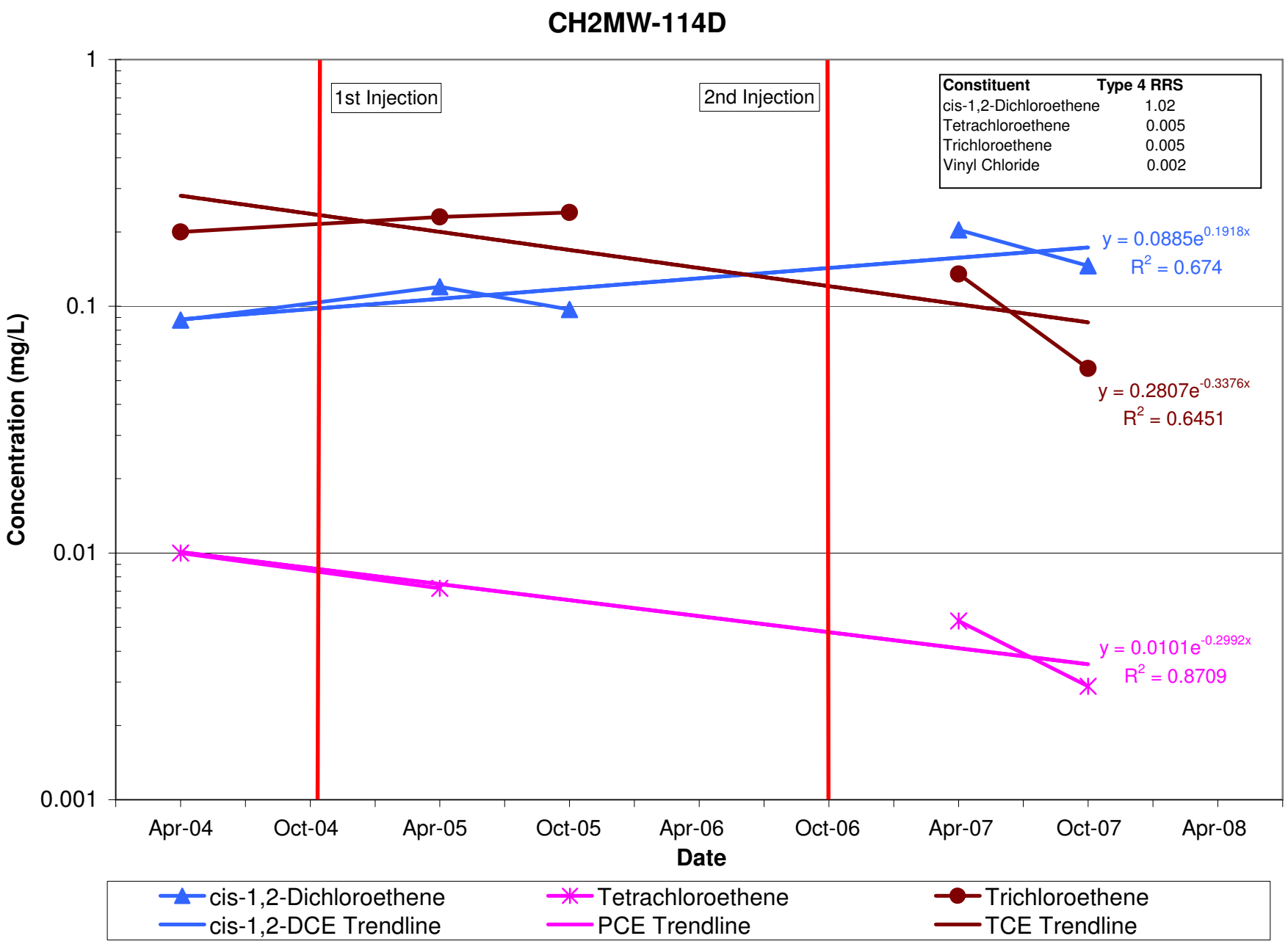
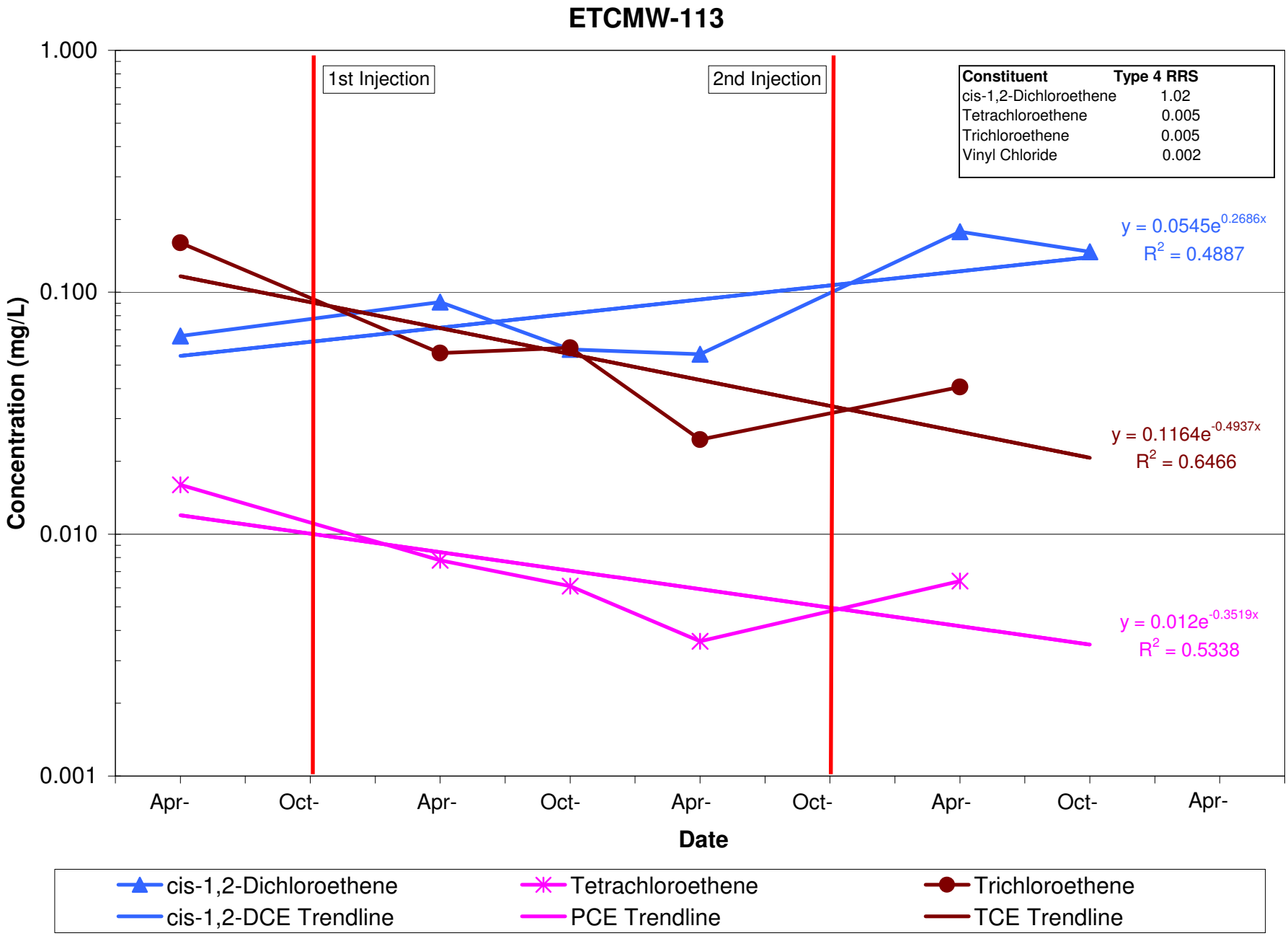
Appendix J

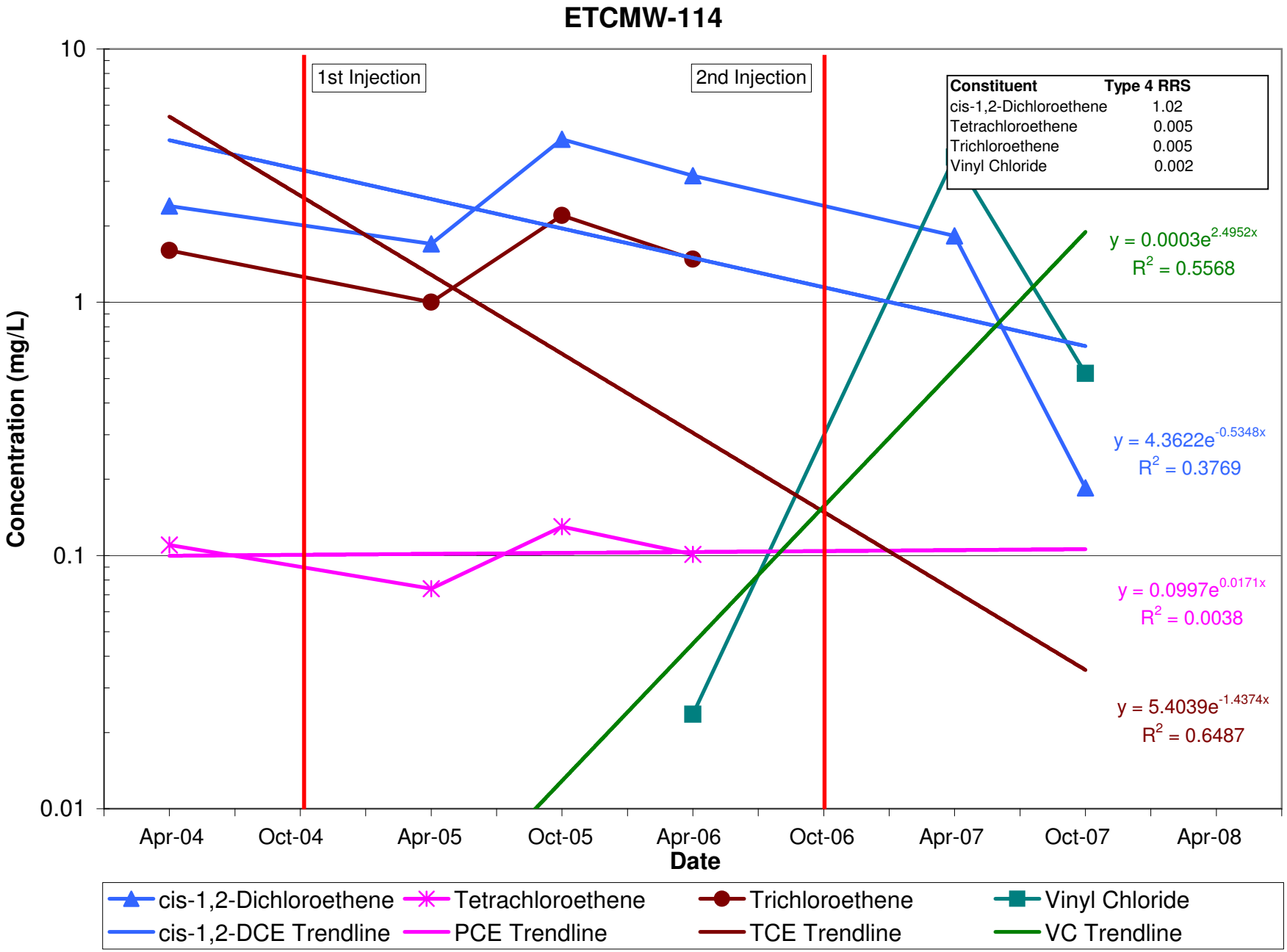
Bioattenuation Rate Graphs



Note: Gaps in data incidate constituent was below detectable limits
October 2007 values for cis-1,2-Dichlroethene and Trichloroethene exceeded the instrument calibration range

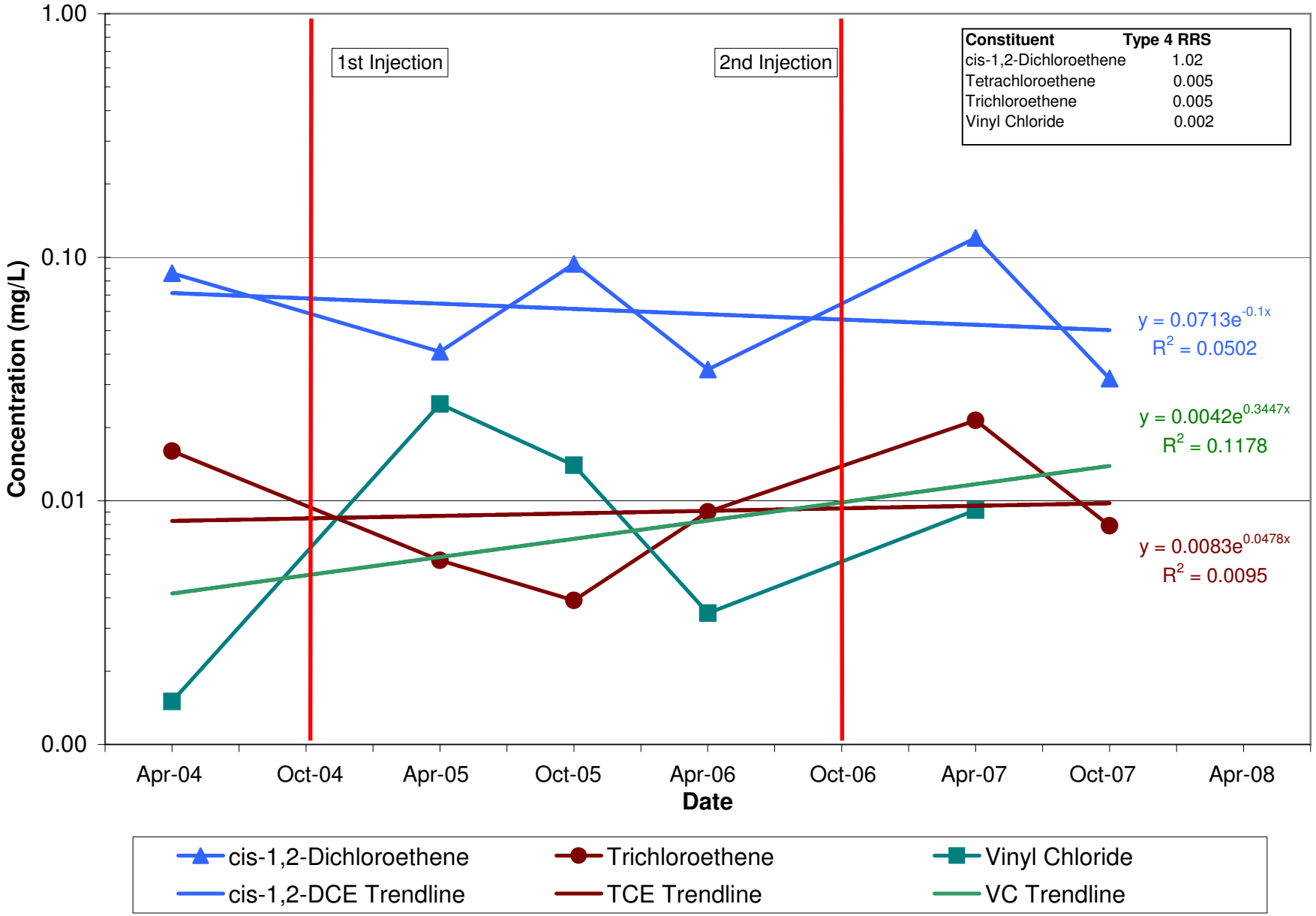


Note: Gaps in data indicate constituent was below detectable limits

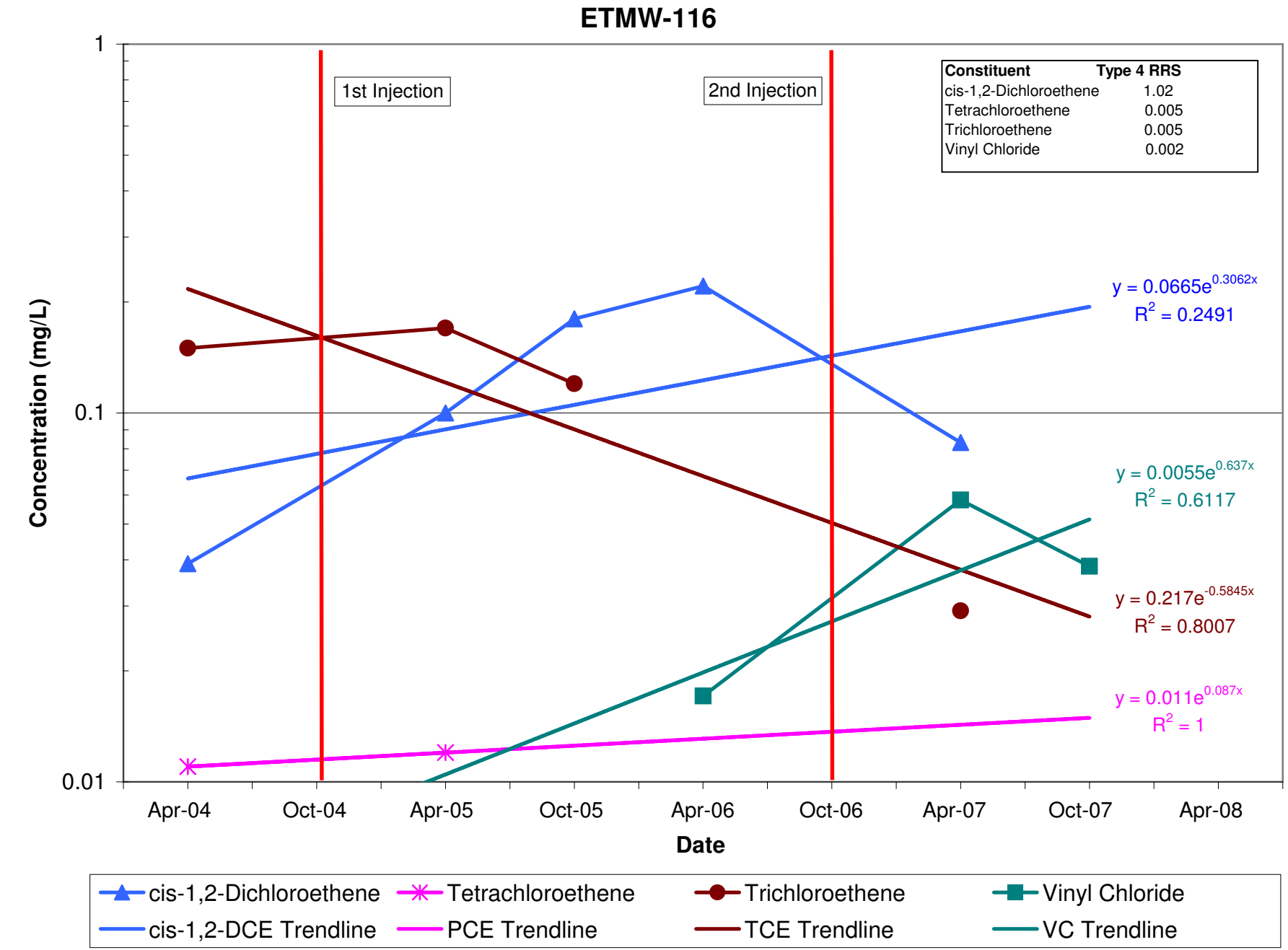


Note: Gaps in data incidate constituent was below detectable limits
October 2007 values for cis-1,2-Dichlroethene and Vinyl Chloride exceeded the instrument calibration

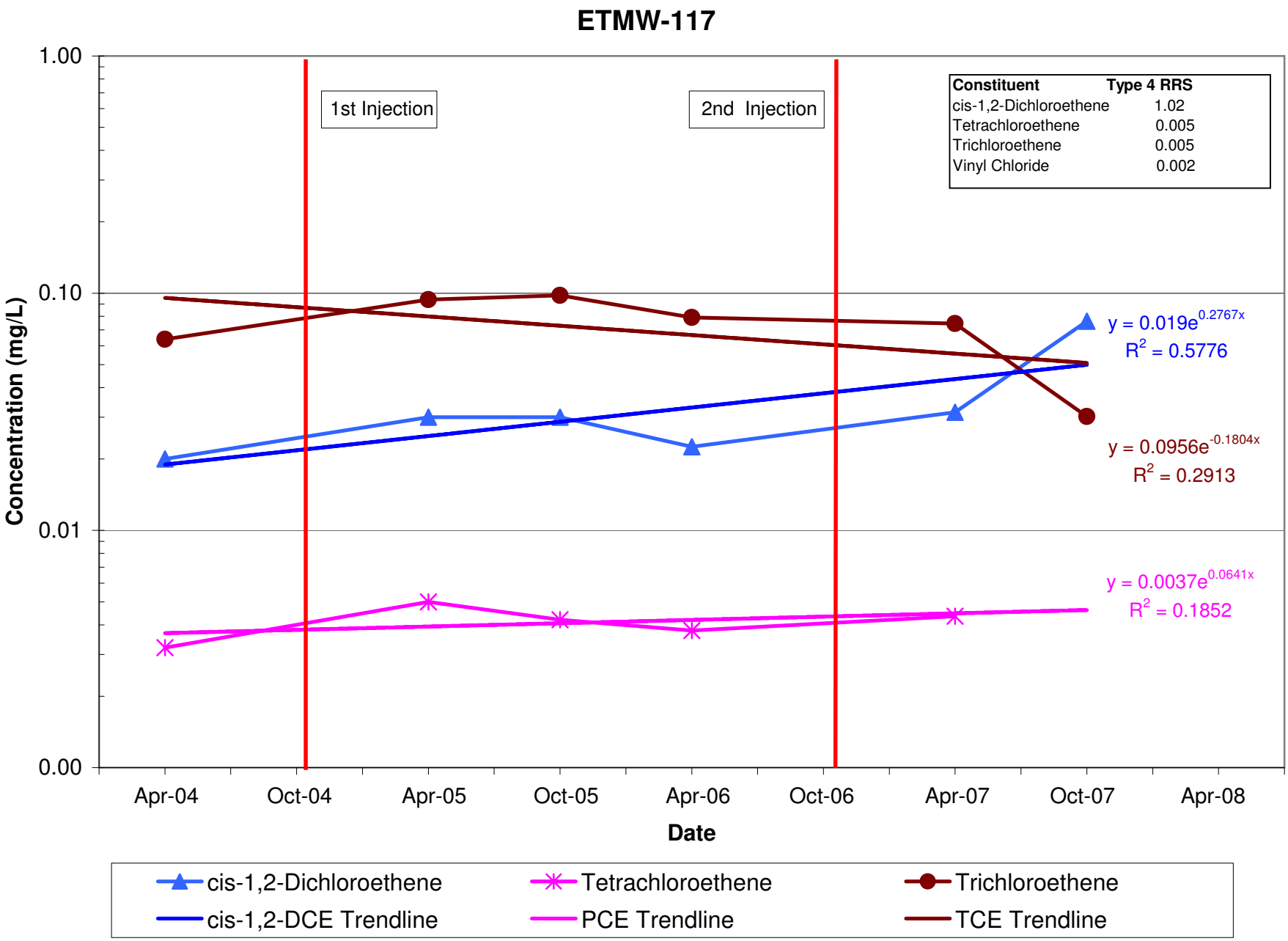
ETCMW-115



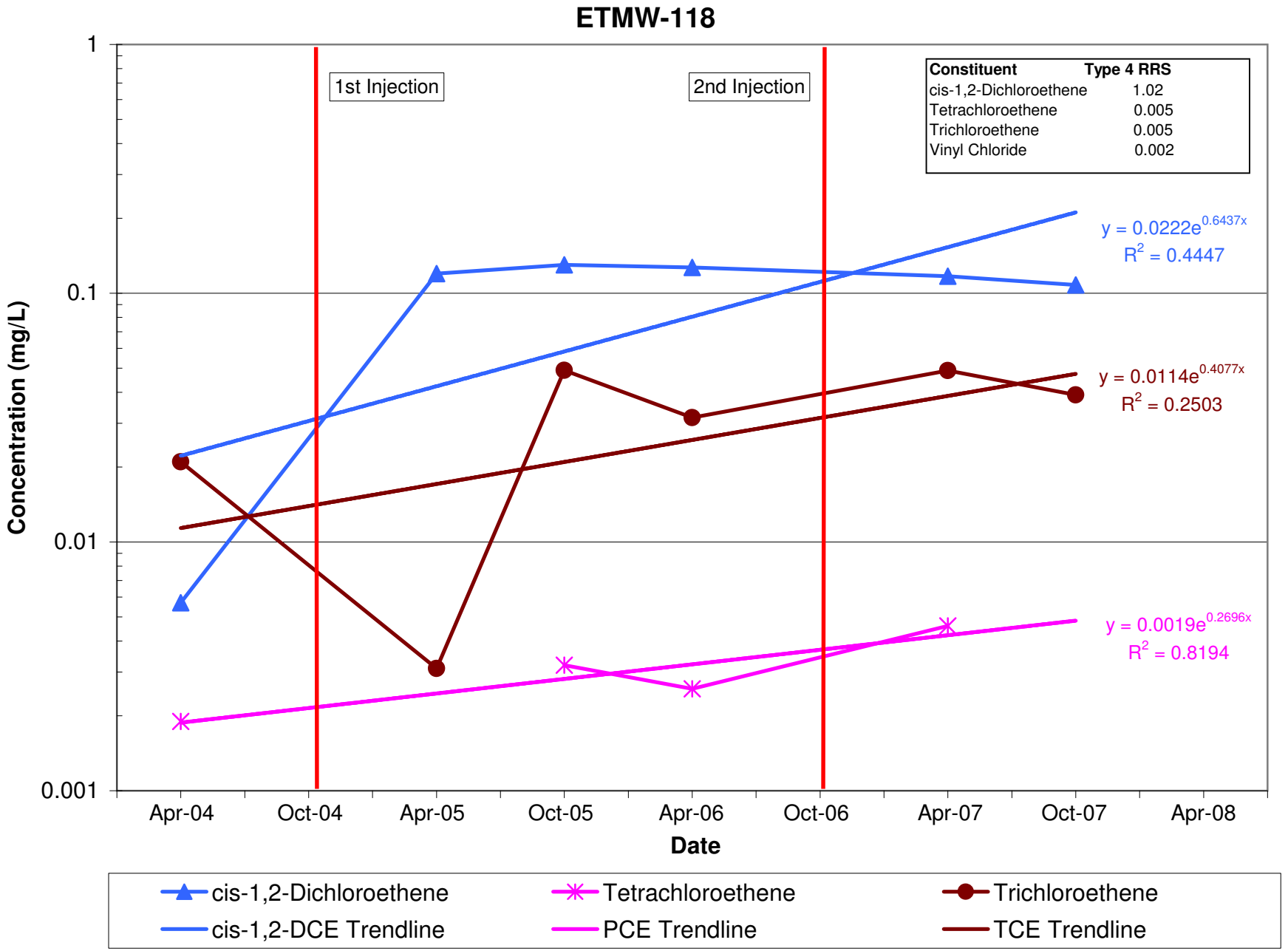
Note: Gaps in data incidate constituent was below detectable limits



Note: Gaps in data incidate constituent was below detectable limits



Note: Gaps in data incidate constituent was below detectable limits



Note: Gaps in data incidate constituent was below detectable limits

Appendix K

Time to RRS Calculations

Time to RRS Calculations- TCE

$V_{GW} = P_L * P_w * t_{sar} * n$

V_{GW} = Volume of ground water in the plume
P_L = Length of plume (ft)
P_w = Width of plume (ft)
t_{sat} = saturated thickness (ft)
n = Porosity

$V_{GW} = (100 \text{ ft})(100\text{ft})(15 \text{ ft})(0.2)$
$V_{GW} = 30{,}000 \text{ ft}^3$

$1 \text{ ft}^3 = 28.32 \text{ L}$

$V_{GW} = (30{,}000 \text{ ft}^3)(28.32 \text{ L/ft}^3) = 849{,}505 \text{ L}$

Area of plume separated into four quadrants and the concentration are averaged:
Quadrant 1 consists of wells ETMW-114D, ETMW-115, ETMW-119 and ETMW-120.
Quadrant 2 consists of wells ETCMW-113, ETCMW-114, ETMW-116, ETMW-117 and ETMW-118.
Quadrant 3 consists of no wells and is conservatively assumed to contain the RRS value.
Quadrant 4 consists of no wells and is conservatively assumed to contain the RRS value.

All four quadrants are averaged together to calculate the average concentration for the plume. Wells with no detections were calculated using the detection limit as the concentration.

An example for the calculations of TCE is included:

Quadrant 1 = [(0.056) + (0.0079) + (0.0005) + (0.0005)] / 4 = 0.0162 mg/L
Quadrant 2 = [(0.0005) + (0.00897) + (0.0025) + (0.0302) + (0.039)] /5 = 0.0162 mg/L
Quadrant 3 = 0.005 (Type 1 / Type 4 RRS)
Quadrant 4 = 0.005 (Type 1 / Type 4 RRS)
Avg concentration = 0.0106 mg/L

Mass of TCE = V_{GW} * Avg concentration
Mass of TCE = 849,505 L * 0.0106 mg/L = 9005 mg of TCE

Type 1 / Type 4 RRS = 0.005 mg/L

Mass of TCE at RRS = V_{GW} * RRS value
Mass of TCE at RRS = 849,505 L * 0.005 mg/L
Mass of TCE at RRS = 4248 mg

Mass of TCE to be removed to reach RRS = Mass of TCE – Mass of TCE at RRS
Mass of TCE to be removed to reach RRS = 9005 mg – 4248 mg
Mass of TCE to be removed to reach RRS = 4757 mg

TCE Mass Reduction Rate = 8.05 mg/yr

Years to RRS = 4757 mg / 8.05 mg/yr
Years to RRS = 591 years

Time to RRS Calculations- DCE

$V_{GW} = P_L * P_w * t_{sar} * n$
V_{GW} = Volume of ground water in the plume
P_L = Length of plume (ft)
P_w = Width of plume (ft)
t_{sat} = saturated thickness (ft)
n = Porosity

$V_{GW} = (100 \text{ ft})(100\text{ft})(15 \text{ ft})(0.2)$
$V_{GW} = 30{,}000 \text{ ft}^3$

$1 \text{ ft}^3 = 28.32 \text{ L}$

$V_{GW} = (30{,}000 \text{ ft}^3)(28.32 \text{ L/ft}^3) = 849{,}505 \text{ L}$

Area of plume separated into four quadrants and the concentration are averaged:
Quadrant 1 consists of wells ETMW-114D, ETMW-115, ETMW-119 and ETMW-120.
Quadrant 2 consists of wells ETCMW-113, ETCMW-114, ETMW-116, ETMW-117 and ETMW-118.
Quadrant 3 consists of no wells and is conservatively assumed to contain the RRS value.
Quadrant 4 consists of no wells and is conservatively assumed to contain the RRS value.

All four quadrants are averaged together to calculate the average concentration for the plume. Wells with no detections were calculated using the detection limit as the concentration.

An example for the calculations of DCE is included:
Type 1 RRS was calculated because all wells are currently below the type 4 RRS
Quadrant 1 = [(0.146) + (0.0318) + (0.0005) + (0.0005)] / 4 = 0.0447 mg/L
Quadrant 2 = [(0.147) + (0.185) + (0.0025) + (0.0762) + (0.108)] /5 = 0.10374 mg/L
Quadrant 3 = 0.07 (Type 1 RRS)
Quadrant 4 = 0.07 (Type 1 RRS)
Avg concentration = 0.07211 mg/L

Mass of DCE = V_{GW} * Avg concentration
Mass of DCE = 849,505 L * 0.07211 mg/L = 61,258 mg

Type 1 RRS = 0.07 mg/L

Mass of DCE at RRS = V_{GW} * RRS value
Mass of DCE at RRS = 849,505 L * 0.07 mg/L
Mass of DCE at RRS = 59,465 mg

Mass of DCE to be removed to reach RRS = Mass of DCE – Mass of DCE at Type 1 RRS
Mass of DCE to be removed to reach RRS = 61,258 mg – 59,465 mg
Mass of TCE to be removed to reach RRS = 1,793 mg

DCE Mass Reduction Rate = 308.93 mg/yr

Years to RRS = 1,793 mg / 308.93 mg/yr
Years to RRS = 5.8 years

Time to RRS Calculations- VC

$V_{GW} = P_L * P_w * t_{sar} * n$

V_{GW} = Volume of ground water in the plume
P_L = Length of plume (ft)
P_w = Width of plume (ft)
t_{sat} = saturated thickness (ft)
n = Porosity

$V_{GW} = (100 \text{ ft})(100\text{ft})(15 \text{ ft})(0.2)$
$V_{GW} = 30{,}000 \text{ ft}^3$

$1 \text{ ft}^3 = 28.32 \text{ L}$

$V_{GW} = (30{,}000 \text{ ft}^3)(28.32 \text{ L/ft}^3) = 849{,}505 \text{ L}$

Area of plume separated into four quadrants and the concentration are averaged:
Quadrant 1 consists of wells ETMW-114D, ETMW-115, ETMW-119 and ETMW-120.
Quadrant 2 consists of wells ETCMW-113, ETCMW-114, ETMW-116, ETMW-117 and ETMW-118.
Quadrant 3 consists of no wells and is conservatively assumed to contain the RRS value.
Quadrant 4 consists of no wells and is conservatively assumed to contain the RRS value.

All four quadrants are averaged together to calculate the average concentration for the plume. Wells with no detections were calculated using the detection limit as the concentration.

An example for the calculations of VC is included:
Quadrant 1 = [(0.001) + (0.524) + (0.001) + (0.001)] / 4 = 0.13175 mg/L
Quadrant 2 = [(0.01) + (0.524) + (0.0384) + (0.005) + (0.05)] /5 = 0.12548 mg/L
Quadrant 3 = 0.002 (Type 1 / Type 4 RRS)
Quadrant 4 = 0.002 (Type 1 / Type 4 RRS)
Avg concentration = 0.0653 mg/L

Mass of VC = V_{GW} * Avg concentration
Mass of VC = 849,505 L * 0.0653 mg/L = 55,473 mg

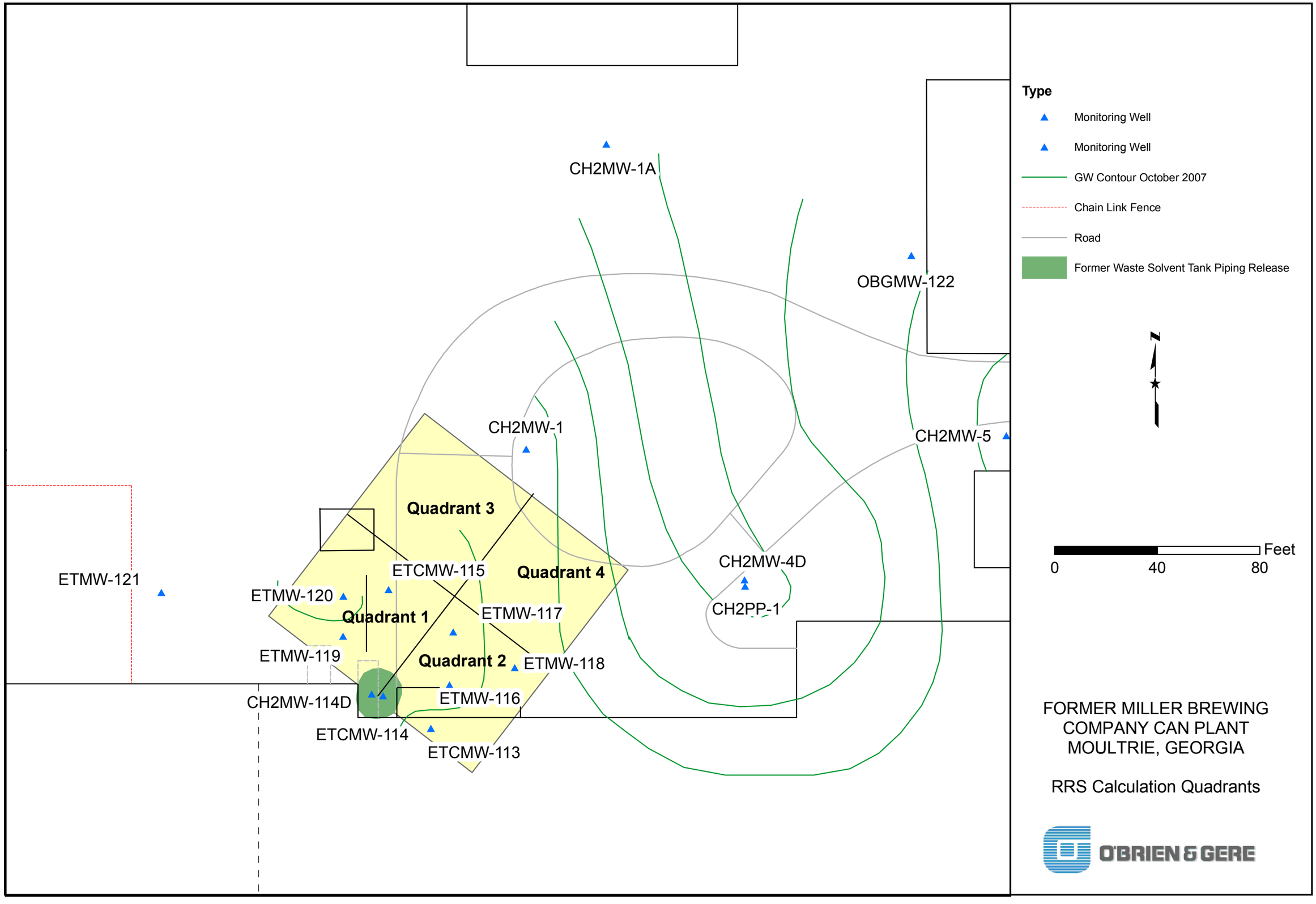
Type 1 / Type 4 RRS = 0.002 mg/L

Mass of VC at RRS = V_{GW} * RRS value
Mass of VC at RRS = 849,505 L * 0.002 mg/L
Mass of VC at RRS = 1,699 mg

Mass of VC to be removed to reach RRS = Mass of VC – Mass of VC at Type 1 / Type 4 RRS
Mass of VC to be removed to reach RRS = 55,473 mg – 1,699 mg
Mass of VC to be removed to reach RRS = 53,774 mg

VC Mass Reduction Rate = 1073.92 mg/yr

Years to RRS = 53774 mg / 1073.92 mg/yr
Years to RRS = 50.1 years


CH2MW-1A
OBGMW-122
CH2MW-1
CH2MW-5
Quadrant 3
Quadrant 4
Quadrant 1
Quadrant 2
ETCMW-115
ETMW-121
ETMW-120
ETMW-117
ETMW-119
ETMW-118
ETMW-116
CH2MW-114D
ETCMW-114
ETCMW-113
CH2MW-4D
CH2PP-1
Type
Monitoring Well
Monitoring Well
GW Contour October 2007
Chain Link Fence
Road
Former Waste Solvent Tank Piping Release
N
Feet
0
40
80
FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA
RRS Calculation Quadrants
O'BRIEN & GERE

Appendix J

2008 Annual Monitoring Report (O'Brien & Gere, February 2009)

February 20, 2009

Ms. Katie Ross
Georgia Department of Natural Resources
205 Butler Street, SE
Floyd Towers East, Suite 1462
Atlanta, GA 30334

Re: Former Miller Brewing Company
Can Plant, Moultrie, Georgia
Hazardous Site Inventory No. 10425
2008 MNA Evaluation

File: 43718 #2

Dear Ms. Ross

On December 8-11, 2008, O'Brien & Gere performed natural attenuation monitoring at the former Miller Brewing Company Can Plant in Moultrie, Georgia (Site). This sampling was performed in support of ongoing corrective action at the Site. The approved corrective action for the Site was bioremediation through underground injection of a lactate formulation followed by monitored natural attenuation (MNA). Two injection events were performed two years apart in October 2004 and October 2006. These injection events were followed by semiannual ground water monitoring which took place in April 2005, October 2005, April 2006, April 2007, and October 2007. Following completion of this monitoring, the *Corrective Action Monitoring and Evaluation Report* (O'Brien & Gere, April 2008) recommended the implementation of MNA at the Site. This recommendation was accepted by the Georgia Department of Natural Resources, Environmental Protection Division (GAEPD) for a five year evaluation period. After five years of MNA at the site, additional MNA screening and Biochlor© modeling will be performed.

The goal of the lactate injection was to bring site ground water into compliance with non-residential (Type 4) risk reduction standards (RRS). The lactate injection at the site reduced volatile organic constituents (VOCs) to levels below the Type 4 RRS, where possible (for some constituents, the Type 4 and Type 1 RRS are the same). The goal of MNA is to reduce VOC concentrations to meet the Type 1 or Type 3 RRS. The attached report documents the results of the first natural attenuation monitoring event performed in December, 2008.

Analytical data for the December, 2008 ground water monitoring event indicate that active biodegradation of chlorinated ethenes is taking place across the treatment area. In one well within the treatment zone, ETCMW-115, all constituents have decreased to concentrations below the Type 1/3 RRS. Analyses of ground water samples from other wells in the treatment area also indicate a general decrease in the concentration of chlorinated ethenes. In addition, the area where elevated concentrations of chlorinated ethenes are detected has shrunk, and is currently surrounded by portions of the treatment area where the concentration of chlorinated ethenes has fallen below Type 1/3 RRS.

Miller recommends that MNA ground water monitoring continue at the Site on an annual basis. Analysis of the analytical data at the site indicates active biodegradation is occurring within the treatment zone and this has reduced the extent of the affected area. The hydraulic conductivity at the Site is extremely low, and no migration of the plume has been observed in over fourteen years of sampling at the Site. Given the fact that the affected area has shrunk, and the limited potential for migration, annual monitoring appears protective, and adequate to assess the progress of natural attenuation.

The next ground water sampling event is scheduled for December 2009. In the mean time, please feel free to contact me at (919) 783-7777, if you have any questions or concerns.

Sincerely,

O'BRIEN & GERE ENGINEERS, INC.



Michael Hall, P.G.
Managing Scientist

Attachments: 2008 MNA Ground Water Monitoring Report

Cc: David Reuland, Georgia Department of Natural Resources
Audrey Templeton, Miller Brewing Company

REPORT

2008 Annual Monitoring Report
Miller Brewing Company Can Plant
Moultrie, Georgia

Miller Brewing Company
Moultrie, Georgia

February 2009

O'BRIEN & GERE

TABLE OF CONTENTS

1. Introduction 1
1.1 Background 1
1.2 Corrective Action Objectives 2
2. Scope and Methodology 3
2.1 Well Abandonment 3
2.2 Ground Water Monitoring Field Activities 3
3. Ground Water Monitoring Results 5
3.1 Hydrogeologic Conditions 5
3.2 Ground Water Analytical Results 5
3.3 Ground Water Geochemical Results 7
4. Conclusions 10
5. Recommendations 11
6. References 12

Tables

1. Summary of Monitoring Parameters
2. Monitoring Wells Sampled
3. Summary of Well Construction Details and Ground Water Elevations
4. Summary of Volatile Organic Constituents Detected in Ground Water
5. Summary of Ground Water Geochemical Data Parameters
6. Proposed Ground Water Sampling Schedule

Figures

1. Site Location
2. Site Plan I
3. Site Plan II
4. Ground Water Monitoring Network
5. Potentiometric Surface, December 2008
6. PCE Concentration above RRS
7. TCE Concentration above RRS
8. Cis-1,2-DCE Concentration above RRS
9. Vinyl Chloride Concentration above RRS

Appendices

A. Historical Ground Water Results Summary
A.1. Historical Summary of Volatile Organic Constituents in Ground Water
A.2. Historical Summary of Ground Water Geochemical Parameters
B. Well Abandonment Logs
C. Ground Water Sampling Log Forms
D. Laboratory Certification
E. Laboratory Analytical Results
F. Trend Graphs for Volatile Organic Constituents

1. Introduction

This report presents the progress of corrective measures performed on the surficial ground water zone at the former Miller Brewing Company Facility (site) in Moultrie, Georgia (Figure 1). Corrective action at the site is being conducted under the Georgia Hazardous Site Response Act (HSRA). The Corrective Action Plan (CAP) was submitted to the Georgia Department of Natural Resources, Environmental Protection Division (GAEPD) in January 2004 (O'Brien & Gere, January 2004) and with minor amendments, approved by GAEPD in March 2004. The corrective measure approved by GAEPD was enhanced bioremediation by underground injection of a lactate formula followed by monitored natural attenuation (MNA).

The first lactate injection occurred in October 2004. This was followed by semiannual ground water monitoring in April 2005, October 2005, and April 2006. A second lactate injection occurred in October 2006 followed by ground water monitoring in April and October 2007. Following the October 2007 event, natural attenuation screening was performed following the Office of Solid Waste and Emergency Response (OSWER) directive on MNA (9200.4-17). The MNA evaluation also included Biochlor® modeling to predict future migration and attenuation of the chlorinated ethene plume. The results of these analyses are presented in the *Corrective Action Monitoring and Evaluation Report* (O'Brien & Gere, April 2008). This report proposed that the site proceed with MNA as the primary remedy. The GAEPD agreed to this approach during an October 28, 2008 conference call, for a five year evaluation period. At the end of the five year period, MNA screening and Biochlor modeling will again be performed and the efficacy of MNA will be re-evaluated.

The purpose of this report is to document the results of the December 2008 natural attenuation ground water monitoring, and to interpret the results in the context of the overall corrective action at the site.

1.1 Background

In September 1988, four underground storage tanks (USTs) were removed from the site. These consisted of two No. 2 fuel oil USTs, a waste oil UST, and a waste solvent UST. During the removal, a release was discovered from a portion of the piping that was connected to the waste solvent UST. In response to this release, the following activities and investigations were performed:

- Closure of four USTs in September 1988
- Removal of piping associated with the former waste solvent tank, and excavation and disposal of soils contaminated with chlorinated solvents in 1988
- Phase II Site Assessment performed in 1993
- Site Investigation performed in 1994
- Supplemental Site Investigation performed in 1995
- Phase II Subsurface Investigation performed in 1998
- Compliance status investigation performed in 1998
- Supplemental compliance status investigations performed in 2000, 2001, and 2004
- Ground water monitoring in 2002.

The final Compliance Status Report (CSR) (O'Brien & Gere, June 2004) was submitted to GAEPD in June 2004. Analytical data provided in the CSR delineated the nature and extent of chlorinated

ethenes in soil and ground water and defined the area of ground water affected by the concentrations of chlorinated aliphatic hydrocarbons (CAHs) above the risk reduction standards (RRS). Site soil meets the Type 4 site-specific, non-residential property RRS and has been certified as doing so in the CSR. No further action is required with respect to site soil.

CAHs, and in particular, chlorinated ethenes have been detected in ground water at concentrations above the RRS in a number of wells surrounding the former waste solvent tank piping (Figure 2). The migration of these constituents has been limited because of the extremely low hydraulic conductivity of the soil. It is likely that these constituents are derived from a historic release from the waste solvent tank piping.

The conservative risk evaluation performed for the site ground water constituents indicates that site ground water meets neither non-residential nor residential RRS. The area of ground water constituents that exceed non-residential RRS is well contained, and extends approximately 100 ft downgradient of the suspected source area (Figure 3). Further details of the site background are presented in the approved CSR. A summary of historical ground water analytical results is provided in Appendix A.1.

Corrective Action at the Moultrie Facility was prompted by the determination that site ground water does not meet Georgia RRS. The approved Corrective Action Program details the selected remedial measures and provides the basis for corrective action at the site. As described in the CAP, the first component of corrective action on site ground water was enhanced bioremediation consisting of injection of a lactate formulation, *ABC©*, into the ground water with concentrations of chlorinated ethenes above RRS. The lactate formulation accelerates microbial activity, which, in turn facilitates reductive dechlorination of the chlorinated ethenes. Injection was performed with a Geoprobe® at injection nodes laid out on a grid pattern. The injection events occurred two years apart in October 2004 and October 2006. During the second injection event, in October 2006, zero valent iron was added to the lactate solution in order to improve its efficacy by creating reducing conditions. These injection events were followed by semiannual monitoring which took place in April 2005, October 2005, April 2006, April 2007, and October 2007. The second component of the approved corrective action is MNA. The *Corrective Action Monitoring and Evaluation Report* (O'Brien & Gere, April 2008) recommended the implementation of MNA at the site. This recommendation was accepted by GAEPD for a five year evaluation period. After five years of MNA at the site, additional MNA screening and Biochlor© modeling will be performed.

1.2 Corrective Action Objectives

The goal of the lactate injection was to bring site ground water into compliance with non-residential (Type 4) RRS. These were calculated for the CSR following the requirements as set forth in Chapter 391-3-19 of the HSRA. The RRS values represent an acceptable level of theoretical human health risk associated with analytes found in soil and ground water at the site. The lactate injection at the site has reduced most VOCs to levels below the Type 4 RRS where possible. Following the October 2007 ground water monitoring event, two constituents (trichloroethene and vinyl chloride) remained above the Type 4 RRS; however, these are the same as the Type 1/3 RRS for these constituents. To the extent possible, therefore, the corrective action has met the requirements of the CAP for implementation of MNA.

2. Scope and Methodology

For this program, O'Brien & Gere abandoned several unused monitoring wells, and performed routine groundwater monitoring, as described below.

2.1 Well Abandonment

As recommended by the *Corrective Action Monitoring and Evaluation Report* (O'Brien & Gere, April 2008), six monitoring wells (CH2MW-1A, CH2MW-2, CH2MW-5, OBGMW-122, OBGMW-123 and OBGMW-124) were abandoned on December 8, 2008 (Figure 4). The wells were abandoned by Betts Environmental Recovery, in accordance with the guidelines outlined in the *U.S EPA Region 4 Field Branches Quality System and Technical Procedures for Well Abandonment* (February 18, 2008). The wells were abandoned by over drilling the well casing with a hollow-stem auger to the bottom of the borehole. The well casing was then removed and the entire length of the borehole was backfilled with neat cement. Well abandonment logs are provided in Appendix B.

2.2 Ground Water Monitoring Field Activities

Ground water monitoring activities took place in December 2008. Except where noted, field activities were performed following procedures described in the *Corrective Action Investigation Work Plan* (O'Brien & Gere, February 2004). The paragraphs that follow provide an overview of field activities.

Upon arrival at the site, monitoring wells were opened and allowed to equilibrate to atmospheric pressure for a minimum of one hour prior to measuring water levels. Water levels were measured with a decontaminated electronic water level meter to the nearest 0.01-ft relative to the top of the well casing.

After completion of the water level survey, each monitoring well was purged following low-flow purging protocols. Each well was purged at the lowest feasible rate, with the majority of wells purged at 100 mL/min or less. Due to equipment and time limitations, two wells (CH2MW-4D and ETMW-116) were purged at 125 mL/min (Appendix C). During purging, water quality parameters-temperature, pH, conductivity, dissolved oxygen, and oxidation reduction potential (ORP) – as listed on Table 1, were measured continuously with a Horiba U-22® equipped with a flow-through cell. Three wells (CH2MW-4D, ETCMW-114, and ETMW-121) were measured with a Hydrolab Quanta®. Due to a defective sensor, continuous dissolved oxygen readings could not be taken with the Hydrolab meter. Rather, following well purging, the Horiba U-22® was placed in the well to take down hole measurements of dissolved oxygen. Purging continued until at least one well volume of water was removed from the well, and until water quality parameters had stabilized. Following purging, samples were collected. At seven wells (CH2MW-3, ETCMW-113, ETCMW-114, ETCMW-115, ETMW-116 and ETMW-117) samples for geochemical analysis were collected directly from the peristaltic pump discharge. Samples for VOC analysis were collected at all fourteen wells using the "straw method". Under this method, the peristaltic pump was turned off and the end of the tubing was sealed, trapping the water in the tubing. The tubing was removed from the well and the seal was released, emptying the sample into 40-mL sample vials preserved with hydrochloric acid. Following the collection of ground water samples for laboratory analyses, ground water samples were collected for field measurement of iron, carbon dioxide and dissolved oxygen levels using titration kits.

Hydraulic conductivity at the site is extremely low, and in general, monitoring wells had the tendency to run dry during purging. Wells CH2MW-114D, ETMW-120, ETMW-121, and CH2PP-1 went dry during the December 2008 ground water monitoring event. If the well ran dry prior to stabilization, no additional purging was considered necessary. The wells were allowed to recover (often overnight) until a sufficient quantity of water was present in the well to collect the ground water sample.

One field duplicate was collected for every ten field samples for VOC and geochemical analyses. A matrix spike/matrix spike duplicate sample was collected for every twenty field samples.

Once sample containers were properly labeled and filled, they were wrapped, sealed, and placed immediately in a cooler with ice. A chain of custody form listing each sample and the analyses requested was also included with each cooler. At the conclusion of each day, additional ice was provided in the cooler, if necessary, prior to shipping the samples to the lab via overnight delivery. Samples were delivered to Shealy Laboratories of Columbia, South Carolina, which holds an accreditation approved by GAEPD (Appendix D).

Ground water samples were analyzed for VOCs, following SW 846 Method 8260 for the target list parameters identified on Table 1. In addition, ground water samples from seven monitoring wells, as identified on Table 2, were analyzed for geochemical parameters listed on Table 1.

3. Ground Water Monitoring Results

This section presents the results of the December 2008 monitoring event. The analytical data reports, provided by the laboratory are included as Appendix E. Ground water purging and sampling logs, which include field data obtained, are provided as Appendix C.

3.1 Hydrogeologic Conditions

The following provides a summary of current hydrogeologic conditions. For a more detailed description of hydrogeologic conditions, please refer to the *Compliance Status Report* (O'Brien & Gere, June 2004). Ground water at the site is unconfined and encountered at depths ranging from less than 1 foot to greater than 13 feet below surface (fbs) (Table 3). Shallow monitoring wells in the surficial ground water zone range in depth from 10 to 15 fbs and have either 5 or 10 ft screen lengths. Water levels obtained in December 2008 were similar to previous monitoring events with the exception of wells CH2MW-2 and OBGMW-123, both of which exhibited water levels at elevations more than 5 ft higher than the ground water elevations measured during the October 2008 monitoring event (Figure 5). This increase in water levels may be because these wells are located in an open, grassy lawn where they may be receiving more surface recharge than the wells located to the north, which are primarily located in generally impervious areas within the building, and along the concrete driveway.

Hydraulic conductivity at the site is extremely low (1.4×10^{-7} cm/sec to 7.5×10^{-6} cm/sec), and ground water flow is minimal (0.053 ft/yr to 0.53 ft/yr). Because of the low hydraulic conductivity and varied recharge rates resulting from the impermeable cover provided by the building and paved areas, ground water flow at this site is highly irregular. In general, ground water on the western edge of the facility flows to the northeast and then to the north. Ground water on the eastern edge of the facility flows to the northwest and then to the north (Figure 5). Flow direction and gradient in December 2008 was consistent with previous monitoring events.

The primary potential ground water receptors at the site are two small ponds that are located to the southwest and southeast of the Moultrie facility (Figure 1). The damming of an ephemeral creek that originates near the Moultrie facility formed the pond to the southeast. Given the northward flow direction, and low hydraulic conductivity, ground water originating at the site is not expected to be a contributing source to these ponds; it is likely that precipitation is the predominant source of water in the creek and pond.

3.2 Ground Water Analytical Results

During the December 2008 sampling event, four of the fourteen wells sampled for VOCs had no detections. These wells include CH2MW-3, ETMW-119, ETMW-121 and CH2PP-1 (Table 4). Samples collected from the remaining ten wells contained VOCs, with six wells (ETCMW-113, ETCMW-114, CH2MW-114D, ETMW-116, ETMW-117, and ETMW-118) with concentrations above the Type 1/3 RRS.

Six constituents – chloroethane, cis-1,2-dichloroethene (cis-1,2-DCE), 1-1-dichloroethene, tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride were detected at concentrations above the Type 1/3 RRS.

An idealized distribution of chlorinated ethenes undergoing biodegradation via reductive dechlorination would consist of concentrations of PCE or TCE highest in the source area with elevated cis-1,2-DCE concentrations in the source area and extending downgradient, and vinyl chloride present in the source area with the highest concentration near the downgradient extent of the plume. The distribution of PCE, TCE cis-1,2-DCE and vinyl chloride at the site matches this distribution, with few exceptions, as represented in Figures 6-9. These figures represent the concentration of each of the key constituents in excess of the Type 1/3 RRS. For example, vinyl chloride was detected in ETMW-113 at 0.0092 mg/L. Because the Type 1/3 RRS for vinyl chloride is 0.002 mg/L, a value of 0.0072 mg/L is represented on the map as the concentration of vinyl chloride in excess of the Type 1/3 RRS (0.0092 mg/L – 0.002 mg/L = 0.0072 mg/L). The contour maps indicate that PCE is present in excess of the Type 1/3 RSS only in the source area around ETCMW-114 (Figure 6). TCE concentrations in excess of the Type 1/3 RRS are also present in the source area around ETCMW-114 and CH2MW-114D, but extend slightly further downgradient than PCE (Figure 7). The highest concentrations of cis-1,2-DCE in excess of the Type 1/3 RRS remains centered around ETCMW-114, and CH2MW-114D (Figure 8). The constituent cis-1,2-DCE, which is a daughter product of the biodegradation of PCE and TCE, extends further downgradient of the source area. Vinyl chloride concentrations in excess of the Type 1/3 RRS are present further downgradient of the source area and across a wider area of the treatment zone, primarily around wells ETMW-116, ETMW-117 and ETMW-118 (Figure 9). The one exception to the near idealized distribution of chlorinated ethenes is the detection of TCE and cis-1,2-DCE, at concentrations in excess of the Type 1/3 RRS, from monitoring well ETMW-118.

Overall, VOC concentrations in groundwater samples decreased from October 2007 to December 2008, which suggests active biodegradation is occurring. The sections that follow provide an overview of the results from each of the affected wells in the treatment area. The treatment area consists of the area where lactate injection was performed and includes wells ETCMW-113, ETCMW-114, CH2MW-114D, ETCMW-115, ETMW-116, ETMW-117 and ETMW-118. Graphs of the concentrations of chlorinated ethenes for samples from each of these wells are included in Appendix F.

ETCMW-113

The constituent PCE is no longer detected in samples from this well and TCE has degraded to levels below the Type 1/3 RRS. The constituent cis-1,2-DCE was detected at an increased concentration relative to October 2007, and is currently at a concentration above the Type 1/3 RRS. This constituent is a produced by the degradation of PCE and TCE, and the increased concentration of this constituent following the injections, and concurrent with the decrease in the concentration of TCE and PCE is likely the result of the active biodegradation of these constituents. Vinyl chloride was detected for the first time in 2008, at a concentration above the Type 1/3 RRS. Vinyl chloride is produced by the degradation of cis-1,2-DCE and the increase observed in the concentration of vinyl chloride is likely derived from the degradation of this constituent.

ETCMW-114

Samples from this well, which is located in the source area, have consistently had the highest concentration of chlorinated ethenes. There has been an increase in the concentrations of PCE, TCE, and cis-1,2-DCE as compared to the concentrations detected in October 2007, and all of these

constituents are at concentration above the Type 1/3 RRS. Vinyl chloride, which was detected in October 2007, was not detected in December 2008. The increasing concentrations may represent rebound caused by the migration of constituents from the soil matrix back into the groundwater. The concentrations of these constituents are still significantly lower than those detected prior to injection, and indicate that the injections have enhanced biodegradation in the groundwater surrounding this well.

CH2MW-114D

Samples from this well, located in the source area, indicate PCE continues to remain below the Type 1/3 RRS. Relative to October 2007, TCE was detected at an increased concentration and is currently at a concentration above the Type 1/3 RRS. The constituent cis-1,2-DCE has decreased in concentration, but remains above the Type 1/3 RRS. There have been no detections of vinyl chloride in this well. As with ETCMW-114, the increasing concentrations of TCE may represent rebound caused by the migration of these constituents from the soil matrix back into the ground water.

ETMW-115

All constituents detected in the samples from this well are currently below the Type 1/3 RRS. The constituent PCE has not been detected in this well. Since the second injection event in October 2006, TCE, and cis-1,2-DCE have shown consistently decreasing concentrations and both are currently at concentrations below the Type 1/3 RRS. Vinyl chloride, which was not detected in October 2007, was detected in December 2008, but remains below the Type 1/3 RRS.

ETMW-116

This well appears to have responded well to treatment. Neither PCE nor TCE were detected in October 2007 or December 2008. The constituent cis-1,2-DCE has steadily decreased following the second injection event and was not detected in October 2007. Although cis-1,2-DCE was detected again in 2008, it remains below the Type 1/3 RRS. The constituent vinyl chloride has increased relative to the October 2007 monitoring event. This increase is most likely due to the degradation of cis-1,2-DCE. Vinyl chloride is currently the only constituent in excess of the Type 1/3 RRS.

ETMW-117

The constituent PCE has not been detected in this well during the past two monitoring events. Relative to the October 2007 monitoring event, both TCE and cis-1,2-DCE have decreased in concentration and both constituents are now below the Type 1/3 RRS. Vinyl chloride was detected for the first time in 2008, at a concentration above the Type 1/3 RRS. The vinyl chloride detected is likely produced by the degradation of cis-1,2-DCE.

ETMW-118

The constituent PCE was detected in samples from this well, but remains below the Type 1/3 RRS. Minimal decreases in the concentration of TCE and cis-1,2-DCE were observed in 2008, and both constituents remain above the Type 1/3 RRS. Vinyl chloride was detected for the first time in 2008. Although vinyl chloride was detected above the Type 1/3 RRS, it is produced by the degradation of cis-1,2-DCE and this increase is most likely due to the degradation of cis-1,2-DCE.

3.3 Ground Water Geochemical Results

The ground water sampling event at the site has included laboratory analyses of the following geochemical parameters: alkalinity, chloride, nitrate, sulfate, sulfide, methane, ethane, ethene, soluble organic carbon (dissolved), total organic carbon, and total iron to provide data necessary to further

evaluate potential biologically mediated attenuative processes. These data are summarized along with geochemical parameters measured in the field (pH, temperature, specific conductance, ORP, turbidity, dissolved oxygen and ferrous iron) on Table 5. The geochemical data were collected to assess the effectiveness of treatment, and to provide indirect evidence of natural attenuation via biodegradation. The site geochemistry in regards to natural attenuation is discussed below.

Dissolved Oxygen

To support microorganisms capable of dechlorinating the constituents present within the aquifer, anaerobic conditions and a reducing environment must be present. To assess these conditions, DO was analyzed in the field. Anaerobic bacteria cannot function at DO levels above 0.5 mg/L and therefore, reductive dechlorination cannot occur. Within the treatment area, DO readings were at 0 mg/L in five wells (ETCMW-113, CH2MW-114D, ETMW-116, ETMW-117 and ETMW-118) suggesting that conditions in the groundwater surrounding these wells are favorable for biodegradation. The oxygen concentrations measured in wells ETCMW-114 and ETCMW-115 were slightly above 0.5 mg/L, and are marginally favorable for biodegradation.

Oxidation Reduction Potential

The ORP of ground water is a measure of electron activity and is an indicator of the relative tendency of a solution to accept or transfer electrons. Redox reactions in ground water containing organic compounds are usually biologically mediated, and therefore the ORP of a ground water system depends upon and influences rates of biodegradation. In order to indicate a reducing environment within the aquifer, ORP values must be strongly negative. ORP measurements from the treatment area indicate three wells with negative ORP readings (ETCMW-113, ETMW-116 and ETMW-117) suggesting conditions favorable to biodegradation in groundwater in these areas. The remaining ORP measurements in the treatment area are positive, and appear to conflict with the low oxygen concentrations that were measured. The positive ORP suggest conditions that are marginally favorable to biodegradation.

Chloride

During anaerobic biodegradation of chlorinated ethenes, chloride is released into ground water in stoichiometric amounts equivalent to the amount of chlorinated solvent degraded. This results in elevated chloride concentrations in a contaminant plume compound compared to background concentrations. Because of the neutral chemical behavior of chloride, it can be used as a conservative estimate of biodegradation rates. Concentrations of chloride elevated above background levels (in monitoring well CH2MW-3) were observed in the treatment area in wells ETCMW-113, ETCMW-114, ETMW-116, ETMW-117 and ETMW-118. These wells represent the areas in which constituents remain above the Type 1/3 RRS. The elevated chloride concentrations suggest biodegradation is occurring in these wells.

Nitrate

Subsequent to depletion of dissolved oxygen, nitrate may be used as an electron acceptor for anaerobic degradation or organic carbon via a metabolic process known as denitrification. In order for reductive dechlorination to occur, in addition to anaerobic conditions, nitrate concentrations in the contaminated portion of the aquifer must be depleted. While nitrate concentrations within the plume are not entirely depleted, very low concentrations (< 1 mg/L) were observed in wells ETCMW-113, ETCMW-115, ETMW-116, ETMW-117 and ETMW-118.

Ferrous Iron

Ferric iron, Fe (III), may be used as an electron acceptor during anaerobic biodegradation of organic carbon via a metabolic process known as iron reduction. During iron reduction, Fe (III) is reduced to ferrous iron, Fe (II). Biodegradation within a contaminated plume via Fe (III) reduction is evidenced by increasing concentrations of Fe (II) in the plume compared to background concentrations.

Ferrous iron data for the site shows sporadic detections of ferrous iron, primarily within the plume. The presence of ferrous iron suggests that organic material is available for biodegradation through iron reduction and therefore is a strong indicator of microbial activity.

Sulfate

Subsequent to depletion of dissolved oxygen and nitrate, sulfate may be used as an electron acceptor for anaerobic biodegradation via a metabolic process known as sulfate reduction, where sulfate is reduced to sulfide. Decreasing sulfate concentrations and increasing sulfide concentrations within a contaminant plume indicates sulfate reduction. No clear trend of decreasing sulfate and increasing sulfide could be observed, although only limited analyses for these constituents have been performed in the past. These data will continue to be evaluated as more data are made available to identify trends going forward.

Methane

Methane is a by-product of biodegradation of organic carbon. The presence of methane in ground water is indicative of strongly reducing conditions, and indicates that the ground water chemistry is favorable for reductive dechlorination. High levels of methane (>4000 mg/L) were observed in wells ETCMW-113, ETMW-116, ETMW-117 and ETMW-118. These high levels of methane suggest that the ground water chemistry in this area is favorable for reducing conditions. Methane levels at ETMW-115 were detected at a lower concentration of 41 mg/L; however, all constituents in this well are currently below the Type 1/3 RRS.

Alkalinity

An increase in alkalinity levels over background concentration can serve as an indication of reductive dechlorination. During biodegradation, carbon dioxide is produced. If the aquifer matrix consists of carbonate materials, the carbon dioxide will form carbonic acid and dissolve these materials. This dissolution increases the alkalinity of the ground water. Therefore, alkalinity levels above background levels can indicate biodegradation. All of the wells analyzed in the treatment area, (ETCMW-113, ETCMW-114, ETCMW-115, ETMW-116, ETMW-117 and ETMW-118 indicated alkalinity levels from 100 mg/L to 370 mg/L. These levels indicate an increase over background levels of alkalinity (58 mg/L), and suggest reductive dechlorination is taking place in these wells.

pH

Optimal pH conditions for reductive dechlorination are between 5 and 9 (standard units). The wells at the site typically have had pH measurements at the low end of this range. ETMW-118 has fallen below a pH of 5, although the other wells in the treatment zone remain within the acceptable range for pH.

4. Conclusions

The analytical data for the December 2008 ground water monitoring event indicate that active biodegradation of chlorinated ethenes is taking place across the treatment area. In one well within the treatment zone, ETCMW-115, all constituents have decreased to concentrations below the Type 1/3 RRS. Analyses of ground water samples from other wells in the treatment area also indicate a general decrease in the concentration of chlorinated ethenes. Analytical results for the ground water samples indicate that PCE has degraded to levels below the Type 1/3 RRS in all wells, with the exception of ETCMW-114, which is located in the source area. TCE and cis-1,2-DCE were detected at concentrations above the Type 1/3 RRS in two areas of the treatment site, around wells ETCMW-114 and CH2MW-114D and around ETMW-118. Vinyl chloride is present above the Type 1/3 RRS downgradient of the source area, around wells ETCMW-113, ETMW-116, ETMW-117 and ETMW-118. With one exception, this distribution of constituents represents a near ideal for a site undergoing biodegradation of chlorinated ethenes, with elevated concentrations (above the Type 1/3 RRS) of PCE and TCE in the source area (around monitoring well ETCMW-114), grading to elevated concentrations of cis-1,2-DCE in the area downgradient of the source area, and elevated concentrations of vinyl chloride throughout, and extending further downgradient of the source (Figures 6-9).

The one exception to the distribution described was observed in the samples from monitoring well ETMW-118. The chlorinated ethenes in the samples from this well seem to be degrading at a slower rate than in the other wells in the treatment area. While both TCE and cis-1,2-DCE have shown only a small decreases in concentration following the injection treatment, the presence of vinyl chloride in 2008 suggests that some degradation is taking place. Unlike the other wells in the treatment area, ETMW-118 had a pH of 4.7 in 2008, below the optimal range for biodegradation. While degradation at this well appears to be occurring more slowly, the well has exhibited other positive signs for degradation, including depleted oxygen, levels of methane above background concentrations, and the presence of daughter products (cis-1,2-DCE and vinyl chloride) in samples from the well.

One other observation is that the area where elevated concentrations of chlorinated ethenes are detected has shrunk, and is currently surrounded by portions of the treatment area where the concentration of chlorinated ethenes has fallen below the Type 1/3 RRS.

The low hydraulic conductivity at the site continues to limit the migration of the contaminant plume. As with previous monitoring events, no constituents were detected above the RRS outside of the treatment area, and there is no indication that the contaminant plume is migrating downgradient. In fact, it appears that the injection has successfully enhanced biodegradation, and reduced the overall extent of the affected area within the treatment zone.

5. Recommendations

Miller recommends that MNA ground water monitoring continue at the site on an annual basis with the next ground water monitoring event in December 2009. Given the extremely low hydraulic conductivity at the site, annual sampling is appropriate. Over fourteen years of sampling at the site have shown no migration of the plume. The low potential for migration of constituents is further supported by the Biochlor modeling that was performed and included in the *Corrective Action Monitoring and Evaluation Report* (O'Brien & Gere, April 2008). Furthermore, analysis of the analytical data at the site indicates active biodegradation is occurring within the treatment zone and that this has reduced the extent of the affected area. The chlorinated ethenes are showing a generally decreasing concentration trend overall, with increasing concentrations observed only for degradation by-products.

Along with annual ground water sampling, an MNA summary report will be provided to GAEPD each year providing the results of the sampling for that year (Table 6). At the end of the five year evaluation period, an extended MNA report will include screening and Biochlor modeling to assess the efficacy of this corrective action.

6. References

O'Brien & Gere, *Corrective Action Investigation Work Plan, Miller Brewing Company Can Plant, Moultrie, Georgia*, February 2004.

O'Brien & Gere, *Corrective Action Monitoring and Evaluation Report, Miller Brewing Company Can Plant, Moultrie, Georgia*, April 2008.

O'Brien & Gere, *Corrective Action Plan, Former Miller Brewing Company Can Plant, Moultrie, Georgia*, January 2004.

O'Brien & Gere, *Revised Compliance Status Report, Miller Brewing Company, Moultrie, Georgia*, June 2004.

TABLES

Table 1
Summary of Monitoring Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Target Analytes	Laboratory Geochemical Parameters	Field Geochemical Parameters
Acetone	Alkalinity	Temperature
2-Butanone (MEK)	Chloride	Conductivity
Benzene	Nitrate	Dissolved Oxygen
Carbon Disulfide	Sulfate	pH
Chloroethane	Sulfide	Oxidation/Reduction Potential (ORP)
1,1-Dichloroethane (1,1-DCA)	Methane	Carbon Dioxide
1,2-Dichloroethane (1-,2-DCA)	Ethane	Ferrous Iron
1,1-Dichloroethene (1,1-DCE)	Ethene	
cis-1,2-dichloroethene (cis-1,2-DCE)	Soluble Organic Carbon (Dissolved)	
trans-1,2-dichloroethene (trans-1,2-DCE)	Total Organic Carbon	
Isobutyl Alcohol	Total Iron	
Tetrachloroethene (PCE)		
Toluene		
1,1,1-Trichloroethane (TCA)		
Trichloroethene (TCE)		
Trichlorofluoromethane		
Vinyl Chloride		
Xylenes (total)		

Table 2
Monitoring Wells Sampled
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Monitoring Well	December 2008			
	Water Level	VOC Analysis	Geochemical Field Parameters	Geochemical Lab Analysis
CH2MW-1	X	X	X	
CH2MW-1A	X			
CH2MW-2	X			
CH2MW-3	X	X	X	X
CH2MW-4D	X	X	X	
CH2MW-5	X			
ETCMW-113	X	X	X	X
ETCMW-114	X	X	X	X
CH2MW-114D	X	X	X	
ETCMW-115	X	X	X	X
ETMW-116	X	X	X	X
ETMW-117	X	X	X	X
ETMW-118	X	X	X	X
ETMW-119	X	X	X	
ETMW-120	X	X	X	
ETMW-121	X	X	X	
OBGMW-122	X			
OBGMW-123	X			
OBGMW-124	X			
CH2PP-1	X	X	X	

Table 3
Summary of Well Construction Details and Ground Water Elevations
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Well	Ground Surface Elevation[a] (ft msl)	TOC Elevation[a] (ft msl)	Total Well Depth from Ground Surface (ft)	Screened Interval (ft bgs)	Well Diameter (in)	Depth to Water Below Top of Casing (ft)							Water Level Elevation (ft msl)						
						4/6/2004	4/25/2005	10/24/2005	4/17/2006	4/16/2007	10/22/2007	12/8/2008	4/6/2004	4/25/2005	10/24/2005	4/17/2006	4/16/2007	10/22/2007	12/8/2008
CH2MW-1	293.62	293.84	10	5 - 10	1	6.45	4.55	8.13	5.43	7.33	3.18	2.62	287.39	289.29	285.71	288.41	286.51	290.66	291.22
CH2MW-1A[b]	292.87	293.01	15	5 - 15	2	11.21	6.38	13.36	8.75	11.67	5.02	4.78	281.80	286.63	279.65	284.26	281.34	287.99	288.23
CH2MW-2[b]	295.34	295.43	13.5	3.5 - 13.5	2	4.86	3.55	8.48	3.98	5.53	9.87	3.97	290.57	291.88	286.95	291.45	289.90	285.56	291.46
CH2MW-3	295.45	295.53	13	3 -13	2	4.92	3.55	8.10	4.72	5.85	0.97	3.69	290.61	291.98	287.43	290.81	289.68	294.56	291.84
CH2MW-4D	293.65	293.54	45.93	36 - 46	2	16.05	16.10	19.44	15.62	16.71	18.88	13.79	277.49	277.44	274.10	277.92	276.83	274.66	279.75
CH2MW-5[b]	295.28	295.44	15	5 - 15	2	7.43	2.90	9.66	5.35	7.79	3.80	4.91	288.01	292.54	285.78	290.09	287.65	291.64	290.53
ETCMW-113	296.32	296.32	12	2 - 12	2	6.25	4.40	7.07	5.58	5.75	5.94	5.12	290.07	291.92	289.25	290.74	290.57	290.38	291.20
ETCMW-114	294.02	297.66	11.7	1.7 - 11.7	4	7.78	6.60	8.15	7.36	7.94	6.52	6.67	289.88	291.06	289.51	290.30	289.72	291.14	290.99
CH2MW-114D	294.16	297.45	22.5	17.5 - 22.5	1	8.54	7.00	9.88	8.40	9.32	9.99	8.64	288.91	290.45	287.57	289.05	288.13	287.46	288.81
ETCMW-115	293.22	296.10	11.5	1.5 - 11.5	2	6.19	5.14	6.96	5.39	6.49	4.79	4.72	289.91	290.96	289.14	290.71	289.61	291.31	291.38
ETMW-116	292.29	292.29	11	1 - 11	4	1.98	0.70	1.81	1.16	1.46	0.89	0.70	290.31	291.59	290.48	291.13	290.83	291.40	291.59
ETMW-117	292.3	292.30	11	1 - 11	2	2.40	0.89	2.71	1.29	2.42	0.71	1.30	289.90	291.41	289.59	291.01	289.88	291.59	291.00
ETMW-118	292.34	292.34	11	1 - 11	2	2.90	0.40	3.42	2.15	1.61	1.73	2.20	289.44	291.94	288.92	290.19	290.73	290.61	290.14
ETMW-119	294.26	297.05	11	1 - 11	2	6.86	5.70	8.02	6.31	6.65	5.66	5.32	290.19	291.35	289.03	290.74	290.40	291.39	291.73
ETMW-120	293.76	296.84	11	1 - 11	2	6.69	4.50	9.42	5.46	7.18	4.77	4.56	290.15	292.34	287.42	291.38	289.66	292.07	292.28
ETMW-121	294.84	298.02	11	1 - 11	2	7.70	5.78	11.72	6.43	8.72	6.75	4.53	290.32	292.24	286.30	291.59	289.30	291.27	293.49
OBGMW-122[b]	NA	295.98	15	5-15	2	8.13	6.40	10.58	7.02	9.01	6.00	6.17	287.85	289.58	285.40	288.96	286.97	289.98	289.81
OBGMW-123[b]	NA	296.09	13	3-13	2	6.45	4.70	9.28	5.40	6.80	8.44	3.24	289.64	291.39	286.81	290.69	289.29	287.65	292.85
OBGMW-124[b]	NA	NA	14	4-14	2	NA	5.70	10.08	7.29	8.78	7.43	4.90	NA	NA	NA	NA	NA	NA	NA
CH2PP-1	293.56	293.72	12	7 - 12	1	7.67	5.55	9.45	7.63	8.81	6.00	3.56	286.05	288.17	284.27	286.09	284.91	287.72	290.16

Notes
a Elevations based on a survey performed by H.J. Griffen and Associates in June 1998. Elevations reference a DOT benchmark.
Monitoring Wells OBGMW-122 and OBGMW-123 surveyed back to CH2WMW-4D and CH2MW-3, respectively.
No survey performed on OBGMW-124. Well was installed on 4/5/04.
b Well abandonded on 12/8/2008
NA Data not available

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume ETCMW-113						In Plume ETCMW-114								In Plume CH2MW-114D					
					4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008	4/28/2005	10/27/2005	4/20/2006	4/17/2007	DUP-01 (4/17/2007)	10/24/2007	10/24/2007 (DUP-02)	12/10/2008	4/28/2005	10/26/2005	4/20/2006	4/18/2007	10/24/2007	12/11/2008
Acetone	67-64-1	mg/L	4		< 0.04	< 0.01	< 0.01	**0.235 D**	**0.448 D**	**0.038**	< 0.1	< 0.5	<0.100	<0.50	<2	<0.01	<0.01	< 0.1	**0.190 D**	**0.52**	< 0.01	<0.1	**.123 E**	<0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.04	< 0.01	< 0.01	**0.191 D**	**0.380 D**	**0.014**	< 0.1	< 0.5	<0.100	<0.50	<2	<0.01	<0.01	< 0.1	**0.430 D**	<0.1	< 0.01	<0.1	**0.0442**	**0.063**
Benzene	71-43-2	mg/L	0.005		< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	**0.0016**	< 0.005	< 0.005	<0.005	<0.025	<0.10	**0.00170**	**0.00165**	< 0.005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		**0.0056 D**	< 0.001	< 0.0005	**0.00810 D**	<0.005	**0.00072**	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	< 0.005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	**0.00074**
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	**0.0057**	< 0.010	< 0.001	<0.010	<0.05	<0.20	**0.0149**	**0.0143**	< 0.005	< 0.001	< 0.01	< 0.001	<0.010	<0.001	<0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-	< 0.010	< 0.001	<0.010	<0.05	<0.20	<0.001	<0.001	-	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-	< 0.01	< 0.05	<0.010	<0.050	<0.20	<0.001	<0.001	-	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	-	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	-	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.018 D**	**0.011**	**0.00884**	**0.0173 D**	**0.0117 D**	**0.0089**	**0.062 D**	**0.13**	**0.0839 D**	**0.102 D**	<0.10	**0.0520 E**	**0.0505 E**	**0.045**	**0.00830 D**	< 0.01	< 0.001	<0.005	**0.00249**	**0.0007**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	<0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	**0.00082**	**0.00080**	< 0.005	< 0.0005	< 0.005 J	< 0.001	<0.005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0051 D**	**0.003**	**0.00274**	**0.0083 D**	<0.005	**0.0055**	**0.100 D**	**0.24**	**0.138 D**	<0.025	<0.10	**0.00691**	**0.00642**	**0.066**	**0.0060 D**	< 0.01	< 0.001	**0.00580 D**	**0.00395**	**0.0051**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.091 D**	**0.058**	**0.0554 D**	**0.178 D**	**0.147 D**	**0.200**	**1.7 D**	**4.4**	**3.160 D**	**1.830 D**	**1.760 D**	**0.185 E**	**0.179 E**	**1.1**	**0.120 D**	**0.097**	< 0.001	**0.204 D**	**0.146 E**	**0.120**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	<0.0005	< 0.005	< 0.05	**0.0314 D**	<0.025	<0.10	**0.00331**	**0.00313**	< 0.005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	-	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	-	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.200	< 0.1	< 0.050	**1.45 D**	<0.5	<0.050	< 0.500	< 5	<0.5	<2.5	<10	<0.05	<0.05	<0.5	< 0.500	< 1	< 0.1	<0.005	**.622 E**	**1.300**
Methylene Chloride	75-09-2	mg/L	0.005		< 0.0008	< 0.002	< 0.002	<0.02	<0.02	-	< 0.020	< 0.1	<0.020	<0.10	<0.40	<0.002	<0.002	-	< 0.002	< 0.02	< 0.002	<0.020	<0.002	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.02	< 0.01	< 0.005	<0.050	<0.05	-	< 0.05	< 0.5	<0.050	<0.25	<1.0	<0.005	<0.005	-	< 0.005	< 0.1	< 0.01	<0.050	<0.005	-
Naphthalene	91-20-3	mg/L	0.02		< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-	< 0.01	< 0.05	<0.010	<0.05	<0.2	<0.001	<0.001	-	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0002	< 0.001	< 0.0005	<0.05	<0.005	-	< 0.005	< 0.05	<0.005	<0.025	<0.1	<0.0005	<0.0005	-	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.0078 D**	**0.0061**	**0.00361**	**0.00640 D**	<0.005	<0.0005	**0.074 D**	**0.13**	**0.101 D**	<0.025	<0.10	<0.0005	<0.0005	**0.006**	**0.0072 D**	< 0.01	< 0.001	**0.00530 D**	**0.00288**	**0.0042**
Toluene	108-88-3	mg/L	1		< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	<0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	**0.00222**	**0.00202**	< 0.005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-	< 0.01	< 0.05	<0.010	<0.025	<0.10	<0.001	<0.001	-	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-	< 0.01	< 0.05	<0.010	<0.050	<0.20	<0.001	<0.001	-	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	<0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	< 0.005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.056 D**	**0.059**	**0.0246**	**0.0406 D**	<0.0005	**0.0025**	**1.0 D**	**2.2**	**1.480 D**	<0.025	<0.10	**0.00897**	**0.00823**	**0.44**	**0.230 D**	**0.240**	< 0.001	**0.135 D**	**0.056 E**	**0.140**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.0004	< 0.001	< 0.001	<0.010	<0.01	<0.0005	< 0.010	< 0.05	<0.010	<0.05	<0.001	<0.001	<0.001	< 0.005	< 0.001	< 0.01	< 0.001	<0.010	<0.001	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	-	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	-	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.0008	< 0.005	< 0.002	<0.020	<0.02	-	< 0.020	< 0.1	<0.020	<0.10	<0.40	<0.002	<0.002	-	< 0.002	< 0.05	< 0.005	<0.020	<0.002	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.0004	< 0.001	< 0.001	<0.010	<0.01	**0.0092**	< 0.010	**0.026**	**0.0236 D**	**3.740 D**	**3.550 D**	**.524 E**	**0.547 E**	< 0.005	< 0.001	< 0.005 J	< 0.001	<0.010	<0.001	<0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0002	< 0.001	< 0.0005	<0.010	<0.01	<0.0005	< 0.005	< 0.05	<0.010	<0.05	<0.20	**0.00169**	**0.00165**	< 0.005	< 0.0005	< 0.01	< 0.001	<0.010	<0.001	<0.0005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)
Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)
May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)
August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)
April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume ETCMW-115						In Plume ETMW-116						In Plume ETMW-117						
					4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/2008 DUP-2
Acetone	67-64-1	mg/L	4		< 0.010	< 0.01	< 0.010	<0.025	<0.025	< 0.010	**0.360 D**	**1.6**	**0.968 D**	**0.398 D**	<0.05	**0.29**	< 0.04	< 0.01	< 0.01	**2.090 D**	**.513 ED**	**0.016**	**0.012**
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.01	< 0.010	<0.025	<0.025	< 0.010	**0.053 D**	**0.38**	**0.163 D**	<0.1	<0.05	<0.01	< 0.04	< 0.01	< 0.01	**0.213 D**	**0.0785 D**	<0.01	<.01
Benzene	71-43-2	mg/L	0.005		**0.00062**	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	<0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	**0.0015**	**0.0017**
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	**0.0037 D**	< 0.01	<0.005	<0.005	<0.0025	<0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	**0.00054**	**0.0007**
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	< 0.0005	< 0.005	< 0.01	<0.01	<0.010	<0.005	**0.007**	< 0.004	< 0.001	< 0.001	<0.005	<0.005	**0.0027**	**0.0029**
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	-	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.0063**	**0.0076**	**0.00367**	**0.00848 D**	**0.00308 D**	**0.00087**	**0.023 D**	< 0.01	**0.00870 D**	**0.00910 D**	**0.00660 D**	**0.0065**	**0.014 D**	**0.013**	**0.0105**	**0.00935 D**	**0.00825 D**	**0.0048**	**0.0056**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	< 0.0025	< 0.005 J	<0.005	<0.005	<0.0025	<0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0025	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	**0.0090 D**	< 0.007 J	**0.00540 D**	<0.005	<0.0025	<0.0005	**0.0038 D**	**0.0026**	**0.00075**	**0.00305 D**	<0.0025	< 0.0005	**0.0010**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.041 D**	**0.094**	**0.0346**	**0.120 D**	**0.0318 D**	**0.0078**	**0.100 D**	**0.18**	**0.221 D**	**0.0831 D**	<0.0025	**0.011**	**0.030 D**	**0.03**	**0.0225**	**0.0315 D**	**0.0762 D**	**0.041**	**0.050**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		**0.00067**	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	<0.0005	< 0.002	< 0.001	**0.00213**	<0.0025	<0.0025	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	-	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.250	< 0.1	< 0.050	<0.125	<0.125	< 0.050	**1.8**	**1.5**	<0.5	<0.005	<0.25	<.05	< 0.2	< 0.1	< 0.050	**2.930 D**	<0.25	< 0.0005	< 0.0005
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.002	< 0.002	<0.005	<0.005	-	< 0.001	< 0.002	<0.005	<0.020	<0.01	-	< 0.008	< 0.002	< 0.002	<0.010	<0.010	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.01	< 0.005	<0.0125	<0.0125	-	< 0.025	< 0.1	<0.05	<0.050	<0.025	-	< 0.02	< 0.01	< 0.005	<0.025	<0.025	-	-
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	-	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	**0.012 D**	**0.0062 J**	<0.005	<0.005	<0.0025	<0.0005	**0.0050 D**	**0.0042**	**0.00378**	**0.00435 D**	<0.0025	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	**0.0025**	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.001	< 0.0005	<0.0025	<0.00125	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	<0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005[7]	**0.0057**	**0.0039**	**0.00901**	**0.0214 D**	**0.0079 D**	**0.0027**	**0.170 D**	**0.12**	<0.005	**0.0291 D**	<0.0025	<0.0005	**0.094 D**	**0.098**	**0.079 D**	**0.0744 D**	**0.0302 D**	**0.00056**	**0.00066**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	< 0.0005	< 0.005	< 0.01	<0.01	<0.010	<0.005	<0.0005	< 0.004	< 0.001	< 0.001	<0.005	<0.005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	-	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.005	< 0.002	<0.005	<0.005	-	< 0.01	< 0.05	<0.02	<0.020	<0.01	-	< 0.008	< 0.005	< 0.002	<0.010	<0.010	-	
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	**0.025**	**0.014**	**0.00346**	**0.00915 D**	<0.0025	**0.0011**	< 0.005	< 0.005 J	**0.0171 D**	**0.0581 D**	**0.0384 D**	**0.120**	< 0.004	< 0.001	< 0.001	<0.005	<0.005	**0.024**	**0.025**
Xylenes (total)	1330-20-7	mg/L	0.01		**0.00061**	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0025	< 0.01	<0.01	<0.010	<0.005	<0.0005	< 0.002	< 0.001	< 0.0005	<0.005	<0.005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)
Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)
May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)
August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)
April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume							Upgradient							Cross Gradient						
					ETMW-118							CH2MW-3							ETMW-119						
					4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	10/24/2007 (DUP-01)	12/9/2008	4/27/2005	4/27/2005 (DUP2)	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008	4/28/2005	10/25/2005	10/25/2005 (DUP 1)	4/18/2006	4/17/2007	10/25/2007	12/9/2008	12/9/2008 DUP-1
Acetone	67-64-1	mg/L	4		**0.021**	< 0.02	< 0.01	**0.192 D**	<0.5	<0.5	**0.37**	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0212**	<0.01	<0.01	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.02	< 0.01	<0.050	<0.5	<0.5	**0.26**	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0998 DH**	<0.01	<0.01	<0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		**0.00079**	< 0.002	< 0.0005	**0.00370 D**	<0.025	<0.025	**0.0028**	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	**0.0038**	**0.00437**	<0.005	<0.05	<0.05	**0.0032**	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.014**	**0.011**	**0.00961**	**0.0139 D**	<0.025	<0.025	**0.014**	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0037**	**0.0054**	**0.00489**	**0.00575 D**	<0.025	<0.025	**0.003**	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.120 D**	**0.13**	**0.127 D**	**0.117 D**	**0.108 D**	**0.111 D**	**0.088**	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.2	< 0.050	**25.6 DH**	**13.0 D**	**13.2 D**	**0.069**	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	<0.05	<0.050	< 0.050	< 0.1	< 0.1	< 0.050	< 0.050	<0.050	<0.050	<0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.004	< 0.002	<0.010	<0.100	<0.100	-	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.02	< 0.005	<0.025	<0.25	<0.25	-	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	<0.005	-	< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	<0.005	-	-
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	**0.0032**	**0.00257**	**0.00460 D**	<0.025	<0.025	**0.0032**	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.005	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005[7]	**0.0031**	**0.049**	**0.0316**	**0.0489 D**	**0.0390 D**	**0.0400 D**	**0.037**	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	**0.00061**	< 0.001	< 0.001	**0.00053**	**0.00074**	<0.0005	<0.0005	<0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.01	< 0.002	<0.010	<0.100	<0.100	-	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	<0.002	-	< 0.002	< 0.005	< 0.005	< 0.002	< 0.002	<0.002	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	**< 0.001**	< 0.002	< 0.001	<0.005	<0.05	<0.05	**0.033**	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.002	< 0.0005	<0.005	<0.05	<0.05	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	<0.0005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)
Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)
May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)
August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)
April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient ETMW-120						Cross Gradient ETMW-121						Cross Gradient CH2PP-1					
					4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/23/2007	12/11/2008	4/28/2005	10/26/2005	4/19/2006	4/18/2007	10/23/2007	12/11/2008	4/26/2005	10/25/2005	4/19/2006	4/17/2007	10/24/2007	12/10/2008
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.010	< 0.01	**0.021**	< 0.01	< 0.01	<0.01	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.010	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	**0.00055**	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.0012**	**0.0052**	< 0.0005	**0.00135**	**0.00094**	**0.00056**	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.1	< 0.050	< 0.050	<0.05	<0.05	< 0.050	< 0.1	< 0.050	< 0.050	<0.05	<0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.050	<0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.01	< 0.005	< 0.005	<0.005	-	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	-	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	-
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005[7]	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.005	< 0.002	< 0.002	<0.002	-	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	-	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)
Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)
May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)
August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)
April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient							Downgradient					
					CH2MW-4D							CH2MW-1					
					4/26/2005	4/26/2005 (DUP1)	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/24/2007	12/8/2008
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.001
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	**0.0013**	< 0.001	**0.00059**	<0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	**0.0011**	**0.0011**	**0.00052**	<0.0005	<0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.050	< 0.1	< 0.050	<0.05	<0.05	<0.05	< 0.050	< 0.1	< 0.050	<0.05	<0.05	<0.05
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	-	< 0.002	< 0.002	< 0.002	<0.002	<0.002	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.005	< 0.01	< 0.005	<0.005	<0.005	-	< 0.005	< 0.01	< 0.005	<0.005	<0.005	-
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	**0.00071**	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	**0.0041**	**0.0044**	**0.00202**	**0.00176**	**0.00082**	**0.0012**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.002	< 0.005	< 0.002	<0.002	<0.002	-	< 0.002	< 0.005	< 0.002	<0.002	<0.002	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)
Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)
May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)
August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)
April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 5
Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume						In Plume							In Plume						In Plume						In Plume	
		ETCMW-113						ETCMW-114							CH2MW-114D						ETCMW-115						
		4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008	4/29/2005	10/27/2005	4/20/2006	4/17/2007	DUP-01 (4/17/2007)	10/23/2007	12/10/2008	4/29/2005	10/26/2005	4/20/2006	4/19/2007	10/24/2007	12/8/2008	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008
Lab Parameters																											
Alkalinity	mg/L	-	-	-	-	-	**100**	**120**	**120**	**140**	**470**	**500**	**350**	**220**	**3000**	**2200**	**830**	-	-	-	-	-	-	-	**230**	**260**
Chloride	mg/L	**-**	-	-	-	-	**10**	**26**	**32**	**29**	**110**	**110**	**73 D**	**26**	**89**	**190**	**200**	-	-	-	-	-	-	-	**6.4 D**	**4.4**
Iron	mg/L	-	-	-	-	-	**7.9**	**0.22**	**0.88**	**1.0**	**11**	**11**	**0.85**	**0.96**	**55**	**79**	**160**	-	**150**	-	-	-	-	-	**1.9**	**2.9**
Manganese	mg/L	<0.05	-	-	-	-	-	<0.05	< 0.050	< 0.050	**0.54**	**0.55**	**0.080**	**-**	**0.64**	**0.53**	**0.26**	-	**0.22**	-	-	-	-	-	**0.074**	**-**
Nitrate (as N)	mg/L	**-**	-	-	-	-	**0.021**	**8.2 H**	**1.4**	**-**	<0.02	<0.02	**1.9 D**	**3.4**	<0.5 H	**1.2**	< 0.50	-	-	-	-	-	-	-	**2.5 D**	**0.24**
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-	-	-	-	-	**-**
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	< 0.050	-	-	**-**	**-**	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Sulfate	mg/L	-	-	-	-	-	**12**	**39**	**31**	**51 D**	<1.0	<1.0	**35 D**	**22**	**47**	**100**	**150**	-	-	-	-	-	-	-	**10 D**	**28**
Sulfide	mg/L	-	-	-	-	-	**<1.0**	< 0.8	< 0.8	< 0.80	<1.0	**1.8**	<1.0	<1.0	<0.8	< 0.8	**1.4**	-	-	-	-	-	-	-	<1.0	<1.0
Methane	ug/L	**-**	-	-	-	-	**4100**	< 5.0	**14**	**14**	**0.14**	**0.14**	**54**	<10	< 5.0	< 2.0	-	**2.8**	**-**	-	-	-	-	-	**0.019**	**41**
Ethane	ug/L	**-**	-	-	-	-	<10	< 5.0	< 4.0	< 4.5	<44	<44	<4.2	<10	< 5.0	< 4.0	-	<0.21	-	-	-	-	-	-	<0.42	<10
Ethene	ug/L	**-**	-	-	-	-	<10	< 5.0	< 4.0	< 4.5	**7.0**	**7.6**	**38**	<10	< 5.0	< 4.0	-	<0.21	-	-	-	-	-	-	<0.42	<10
Soluble Organic Carbon (DOC) - Lab Filtered	mg/L	**-**	-	-	-	-	**5**	**2.9**	**12**	**17**	**41**	**42**	**3.4**	**3.8**	**8,900**	**4800**	-	**2**	**1600 D**	-	-	-	-	-	**3.5**	**4.4**
Field Parameters:																											
Ferrous Iron	mg/L	**1**	-	-	**4.2**	**6.6**	**6.8**	ND	**0.19**	ND	**4.2**	**-**	**1.2**	ND	**5.0**	**2.0**	-	**4.2**	**-**	**5.2**	**4.3**	-	-	**4.8**	**2.8**	**0.6**
Total Organic Carbon	mg/L	**-**	-	-	-	-	**5.2**	**2.2**	**3.2**	**14.0**	**51.0**	**47.0**	**4.4**	**2.8**	**9,800**	**3500**	**3800**	-	**1700 D**	-	-	-	-	-	**4.1**	**3.6**
Carbon Dioxide	mg/L	**14**	-	-	**>100**	**>100**	**>100**	**14**	**30**	**14**	**>100**	-	**90**	**80**	**50**	**350 D**	-	**>100**	**-**	**>100**	**19**	-	-	**>100**	**60**	**10**
pH	S.U.	**6.53**	**6.21**	**5.71**	**4.67**	**4.64**	**6.38**	**6.61**	**6.46**	**6.16**	**6.73**	**-**	**6.20**	**6.67**	**5.95**	**6.08**	**5.58**	**5.55**	**4.88**	**5.12**	**6.37**	**5.82**	**5.70**	**5.70**	**6.01**	**6.76**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**4.72**	**-**	**-**	**-**	**-**	**-**	**-**	**6.34**	**6.76**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.01**	**-**
Conductivity	mS/cm	**0.342**	**0.352**	**0.298**	**0.668**	**0.320**	**0.263**	**0.485**	**0.342**	**0.437**	**1.295**	**-**	**0.958**	**0.566**	**3.620**	**4.650**	**2.050**	**2.780**	**2.020**	**2.560**	**0.366**	**0.174**	**0.205**	**0.184**	**0.456**	**0.462**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**0.097**	**-**	**-**	**-**	**-**	**-**	**-**	**0.210**	**0.496**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.063**	**-**
Dissolved Oxygen	mg/L	**2.47**	**1.27**	**6.39**	**0.62**	**2.93**	**0.0**	**3.02**	**1.31**	**0.70**	**0.68**	**-**	**0.96**	**-**	**0.97**	**0.51**	**3.00**	**0.90**	**0.54**	**0**	**0.23**	**0.54**	**2.09**	**0.49**	**2.65**	**0.62**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**7.85**	**-**	**-**	**-**	**-**	**-**	**-**	**6.67**	**1.01**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.87**	**-**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**1.0**	**3**	**-**	**-**	**-**	**-**	**-**	**1.5**	**3**	**-**	**-**	**-**	**-**	**-**	**1.5**	**-**	**-**	**-**	**-**	**2**	**1.0**
Oxidation/Reduction Potential (ORP)	mV	**217**	**192**	**348**	**259**	**67**	**-8**	**66**	**160**	**356**	**255**	**-**	**150**	**356**	**-8**	**-76**	**289**	**309**	**97**	**22**	**131**	**84**	**377**	**312**	**162**	**68**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**89**	**-**	**-**	**-**	**-**	**-**	**-**	**97.2**	**115**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**133.3**	**-**
Temperature	℃	**18.02**	**23.34**	**20.43**	**18.75**	**23.53**	**19.86**	**17.98**	**22.88**	**18.56**	**18.14**	**-**	**24.36**	**18.10**	**20.43**	**21.06**	**21.65**	**20.59**	**22.89**	**18.88**	**20.32**	**22.58**	**22.36**	**21.45**	**27.50**	**18.61**
Temperature (Downhole Probe)	℃	-	-	-	-	**24.64**	**-**	-	-	-	-	-	**23.91**	**18.27**	-	-	-	-	-	-	-	-	-	-	**27.02**	**-**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)

Table 5
Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume						In Plume							In Plume						Upgradient						
		ETMW-116						ETMW-117							ETMW-118						CH2MW-3						
		4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/08 DUP-2	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/24/2007	12/9/2008	4/27/2005	4/27/2005 (DUP2)	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008
Lab Parameters																											
Alkalinity	mg/L	-	-	-	-	670	370	-	-	-	-	86	180	200	-	-	-	-	-	180	18	18	< 10	12	<10	<10	58
Chloride	mg/L	-	-	-	-	16	19	-	-	-	-	8.8 D	21	20	-	-	-	-	-	18	9.9	13	18	9.3	6.7	12	3.1
Iron	mg/L	-	-	-	-	48	25	-	-	-	-	50	36	36	-	-	-	-	-	96	0.11	<0.05	< 0.050	0.094	0.072	0.16	<0.10
Manganese	mg/L	-	-	-	-	0.58	-	-	-	-	-	0.76	-	-	-	-	-	-	-	-	<0.05	<0.05	< 0.050	< 0.050	<0.050	<0.050	-
Nitrate (as N)	mg/L	-	-	-	-	<0.10	0.065	-	-	-	-	<0.10	0.051	<.020	-	-	-	-	-	0.062	0.55	0.79	1.6	0.61	0.51	1.1	0.25
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	<5.0	9.8	-	-	-	-	<5.0	<1.0	<1.0	-	-	-	-	-	2.3	39	32	16	38	44	19	34
Sulfide	mg/L	-	-	-	-	<1.0	2.8	-	-	-	-	<1.0	1.3	1.2	-	-	-	-	-	3.1	< 0.8	< 0.8	< 0.8	< 0.80	<1.0	<1.0	<1.0
Methane	ug/L	-	-	-	-	3500 D	5800	-	-	-	-	3600 D	5900	5100	-	-	-	-	-	4900	< 5.0	< 5.0	< 2.0	< 2.1	<2.3	<2.1	<10
Ethane	ug/L	-	-	-	-	<210	<10	-	-	-	-	<210	<10	<10	-	-	-	-	-	<10	< 5.0	< 5.0	< 4.0	< 4.2	<4.5	<4.1	<10
Ethene	ug/L	-	-	-	-	<210	<10	-	-	-	-	<210	<10	<10	-	-	-	-	-	<10	< 5.0	< 5.0	< 4.0	< 4.2	<4.5	<4.1	<10
Soluble Organic Carbon (DOC) - Lab Filtered	mg/L	-	-	-	-	9.6	19	-	-	-	-	910 D	51	33	-	-	-	-	-	2300	3.8	3.9	6.8	16	1.7	2.1	4.2
Field Parameters:																											
Ferrous Iron	mg/L	5.0	-	-	6.0	6.2	6.4	2.2	-	-	5.8	7.4	6	-	4.4	-	-	5.0	6.4	5.2	ND	-	0.31	ND	0.5	ND	ND
Total Organic Carbon	mg/L	-	-	-	-	16	17	-	-	-	-	930 D	55	38	-	-	-	-	-	2400	2.6	3.0	2.4	3.1	3.6	2.1	4.1
Carbon Dioxide	mg/L	15	-	-	>100	>100	>100	10	-	-	>100	>100	>100	-	15	-	-	>100	>100	>100	14	-	50	14	75	30	50
pH	S.U.	5.03	4.99	5.56	4.89	6.17	6.38	6.03	5.60	5.23	4.40	4.04	5.9	-	5.86	5.10	5.35	4.38	4.60	4.70	5.12	-	4.57	4.91	5.10	4.56	6.45
pH (Downhole Probe)	S.U.	-	-	-	-	6.29	-	-	-	-	-	4.82	-	-	-	-	-	-	4.58	-	-	-	-	-	-	4.49	
Conductivity	mS/cm	2.370	1.540	0.983	1.456	0.988	0.710	0.303	0.163	0.188	1.450	0.696	0.9	-	0.307	0.089	0.152	0.909	2.20	1.54	0.186	-	0.106	0.170	0.152	0.095	0.178
Conductivity (Downhole Probe)	mS/cm	-	-	-	-	0.301	-	-	-	-	-	0.207	-	-	-	-	-	-	0.56	-	-	-	-	-	-	0.032	
Dissolved Oxygen	mg/L	0.15	0.45	0.35	0.42	0.24	0	0.49	1.05	1.86	0.42	0.38	0	-	0.34	0.46	0.59	0.50	0.40	0.00	2.36	-	1.83	6.66	6.90	3.85	5.7
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	13.32	-	-	-	-	-	12.96	-	-	-	-	-	-	12.49	-	-	-	-	-	-	5.20	-
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	2.0	1.5	-	-	-	-	1.0	3.0	-	-	-	-	-	1.5	1.5	-	-	-	-	-	-	5
Oxidation/Reduction Potential (ORP)	mV	141	108	281	309	-34	-79	278	144	363	335	127	-13	-	125	155	346	327	141	133	446	-	187	370	339	206	190
Oxidation/Reduction Potential (Downhole Probe)	mV	-	-	-	-	-92.5	-	-	-	-	-	90.7	-	-	-	-	-		134.3	-	-	-	-	-	-	354.1	
Temperature	°C	18.23	23.81	19.10	18.82	24.43	19.13	21.41	26.20	22.82	22.27	25.48	19.9	-	20.50	24.86	22.71	21.01	25.30	18.08	20.78	-	23.80	21.91	22.91	23.95	20.45
Temperature (Downhole Probe)	°C	-	-	-	-	24.55	-	-	-	-	-	27.39	-	-					25.81	-	-	-	-	-	-	25.60	

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)

Table 5
Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient						Cross Gradient						Cross Gradient						Cross Gradient					
		ETMW-119						ETMW-120						ETMW-121						CH2PP-1					
		4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/25/2007	12/9/2008	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/23/2007	12/9/2008	4/28/2005	10/26/2005	4/19/2006	4/19/2007	10/23/2007	12/11/2008	4/26/2005	10/25/2005	4/18/2006	4/16/2007	10/24/2007	12/8/2008
Lab Parameters																									
Alkalinity	mg/L	-	-	-	-	-		-	-	-	-	-	-	**5.8**	**26**	**28**	**38**	**82**	**-**	-	-	-	-	-	-
Chloride	mg/L	**-**	-	-	-	-		**-**	-	-	-	-	-	**5.2**	**11**	**6**	-	**1.9**	**-**	-	-	-	-	-	-
Iron	mg/L	**-**	-	-	-	-		**-**	-	-	-	-	-	**0.84**	**16**	**0.52**	**0.89**	**0.87**	**-**	**-**	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-		-	-	-	-	-	-	< 0.05	**0.15**	< 0.050	<0.050	<0.050	**-**	**-**	-	-	-	**-**	-
Nitrate (as N)	mg/L	**-**	-	-	-	-		**-**	-	-	-	-	-	**0.59**	**1.2**	**0.35**	-	**0.20**	**-**	-	-	-	-	-	-
Nitrite	mg/L	**-**	-	-	-	-		**-**	-	-	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	**-**	-	-	-	-		**-**	-	-	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-
Sulfate	mg/L	**-**	-	-	-	-		**-**	-	-	-	-	-	**9.9**	**4.6**	**13**	-	**5.4**	**-**	-	-	-	-	-	-
Sulfide	mg/L	-	-	-	-	-		**-**	-	-	-	-	-	< 0.8	< 0.8	< 0.8	**1.8**	<1.0	**-**	-	-	-	-	**-**	-
Methane	ug/L	**-**	-	-	-	-		**-**	-	-	-	-	-	< 5.0	< 2.0	< 2.1	<2.1	<2.1	**-**	-	-	-	-	-	-
Ethane	ug/L	**-**	-	-	-	-		**-**	-	-	-	-	-	< 5.0	< 4.0	< 4.2	<4.2	<4.1	**-**	-	-	-	-	-	-
Ethene	ug/L	**-**	-	-	-	-		**-**	-	-	-	-	-	< 5.0	< 4.0	< 4.2	<4.2	<4.1	**-**	-	-	-	-	**-**	-
Soluble Organic Carbon (DOC) - Lab Filtered	mg/L	-	-	-	-	-		**-**	-	-	-	-	-	**7.9**	**12**	**9.7**	**1.6**	**3.0**	**-**	**-**	-	-	-	**-**	-
Field Parameters:																									
Ferrous Iron	mg/L	**1.0**	-	-	**4.2**	**4.8**	**1.2**	**3.5**	-	-	**6.0**	**0.6**	ND	ND	**0.39**	ND	**2.4**	**0.4**	ND	ND	-	-	-	ND	ND
Total Organic Carbon	mg/L	-	-	-	-	-		-	-	-	-	-	-	**4.9**	**3.3**	**4.5**	**2.1**	**3.9**	**-**	**-**	-	-	-	**-**	-
Carbon Dioxide	mg/L	**18**	-	-	**>100**	**70**	**95**	**15**	-	-	**65**	**40**	**50**	**15**	**35**	**25**	**40**	**18**	**30**	**12**	-	-	-	**20**	**45**
pH	S.U.	**6.25**	**5.64**	**5.82**	**6.20**	**5.78**	**6.87**	**6.19**	**5.36**	**5.64**	**5.5 D**	**5.87**	**6.50**	**6.25**	**5.94**	**5.83**	**6.00**	**6.23**	**6.78**	**5.93**	**5.01**	**4.56**	**5.53**	**5.28**	**6.14**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**6.22**	**-**	**-**	**-**	**-**	**-**	**5.97**	**-**	**-**	**-**	**-**	**-**	**6.45**	**8.05**	**-**	**-**	**-**	**-**	**-**	**-**
Conductivity	mS/cm	**0.449**	**0.203**	**0.281**	**0.554**	**0.342**	**0.512**	**0.218**	**0.097**	**0.144**	**0.161**	**0.216**	**0.237**	**0.142**	**0.116**	**0.192**	**0.107**	**0.167**	**0.199**	**0.141**	**0.108**	**0.120**	**0.146**	**0.107**	**0.222**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**0.13**	**-**	**-**	**-**	**-**	**-**	**0.048**	**-**	**-**	**-**	**-**	**-**	**0.038**	**0.195**	**-**	**-**	**-**	**-**	**-**	**-**
Dissolved Oxygen	mg/L	**0.33**	**1.34**	**1.31**	**2.78**	**0.57**	**0**	**0.69**	**0.67**	**2.19**	**5.00**	**3.05**	**1.94**	**3.34**	**1.00**	**3.27**	**6.74**	**7.00**	**-**	**4.75**	**3.19**	**7.51**	**6.98**	**3.95**	**3.8**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**6.55**	**-**	**-**	**-**	**-**	**-**	**3.64**	**-**	**-**	**-**	**-**	**-**	**6.39**	**8.26**	**-**	**-**	**-**	**-**	**-**	**-**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**2.0**	**2.0**	**-**	**-**	**-**	**-**	**3.5**	**5**	**-**	**-**	**-**	**-**	**-**	**4**	**-**	**-**	**-**	**-**	**3.0**	**3.0**
Oxidation/Reduction Potential (ORP)	mV	**138**	**115**	**370**	**251**	**128**	**157**	**169**	**92**	**379**	**327**	**175**	**361**	**197**	**176**	**347**	**332**	**166**	**367**	**325**	**207**	**439**	**330**	**122**	**119**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**57.5**	**-**	**-**	**-**	**-**	**-**	**286.8**	**-**	**-**	**-**	**-**	**-**	**232.5**	**282**	**-**	**-**	**-**	**-**	**-**	**-**
Temperature	℃	**19.97**	**20.86**	**20.73**	**19.18**	**23.71**	**16.63**	**20.43**	**20.88**	**21.94**	**21.74**	**25.67**	**16.88**	**19.22**	**23.60**	**19.36**	**19.56**	**26.03**	**18.72**	**20.72**	**25.77**	**21.84**	**21.57**	**25.27**	**19.81**
Temperature (Downhole Probe)	℃	-	-	-	-	**24.98**	**-**	-	-	-	-	**25.33**	**-**	-	-	-	-	**25.02**	**16.39**	-	-	-	-	-	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
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mg/L Milligrams per liter
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H Hold time for preparation or analysis exceeded
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Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
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Table 5
Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient						Down Gradient					
		CH2MW-4D						CH2MW-1					
		4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/24/2007	12/8/2008
Lab Parameters													
Alkalinity	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-
Soluble Organic Carbon (DOC) - Lab Filtered	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Field Parameters:													
Ferrous Iron	mg/L	ND	-	-	ND	**0.2**	ND	ND	-	-	ND	ND	ND
Total Organic Carbon	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Dioxide	mg/L	**14**	-	-	**30**	**14**	**15**	**20**	-	-	**>100**	**80**	**75**
pH	S.U.	**8.67**	**7.66**	**7.86**	**6.66**	**6.56**	**7.30**	**5.51**	**4.52**	**5.11**	**5.05**	**5.33**	**5.16**
pH (Downhole Probe)	S.U.	-	-	-	-	**7.01**	**7.54**	-	-	-	-	-	-
Conductivity	mS/cm	**0.081**	**0.067**	**0.069**	**0.066**	**0.059**	**0.078**	**0.183**	**0.128**	**0.137**	**0.115**	**0.134**	**0.218**
Conductivity (Downhole Probe)	mS/cm	-	-	-	-	**0.016**	**0.061**	-	-	-	-	-	-
Dissolved Oxygen	mg/L	**4.11**	**5.16**	**7.05**	**7.10**	**4.76**	-	**3.93**	**3.44**	**5.93**	**4.96**	**3.53**	**0.01**
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	**5.35**	**7.06**	-	-	-	-	-	-
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	-	**5**	-	-	-	-	**4.0**	**2.5**
Oxidation/Reduction Potential (ORP)	mV	**282**	**172**	**411**	**360**	**188**	**380**	**222**	**179**	**414**	**340**	**124**	**403**
Oxidation/Reduction Potential (Downhole Probe)	mV	-	-	-	-	**158**	**79**	-	-	-	-	-	-
Temperature	°C	**21.87**	**23.39**	**23.13**	**23.19**	**23.03**	**22.77**	**20.57**	**20.35**	**23.07**	**21.62**	**25.71**	**20.84**
Temperature (Downhole Probe)	°C	-	-	-	-	**24.99**	**23.94**	-	-	-	-	-	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)

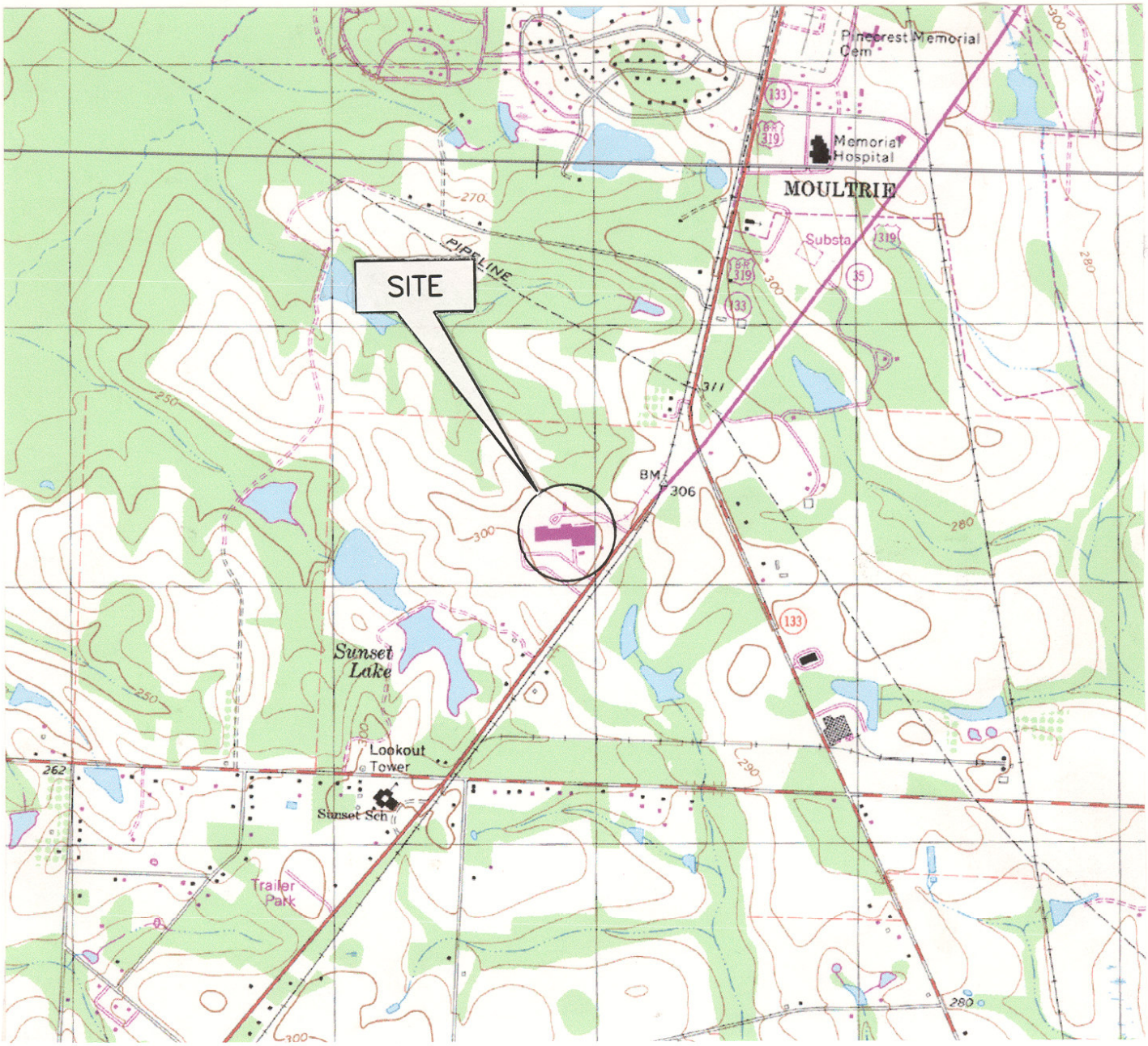
Table 6
Proposed Ground Water Sampling Schedule
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Event	Date
2009 Ground Water Sampling	December 2009
2009 Ground Water Report Submittal	February 2010
2010 Ground Water Sampling	December 2010
2010 Ground Water Report Submittal	February 2011
2011 Ground Water Sampling	December 2011
2011 Ground Water Report Submittal	February 2012
2012 Ground Water Sampling	December 2012
5-year MNA Evaluation Report	March 2013

FIGURES

I:\RALEIGH\PROJECTS\1669\26765\DWGS\SITELOC.dwg

FIGURE 1



SITE LOCATION MAP

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GA.

MAP SOURCE: USGS 7.5–MIN. SERIES TOPOGRAPHIC QUADRANGLE "COOLIDGE, GA" AND "MOULTRIE, GA".

1 0 1/2 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

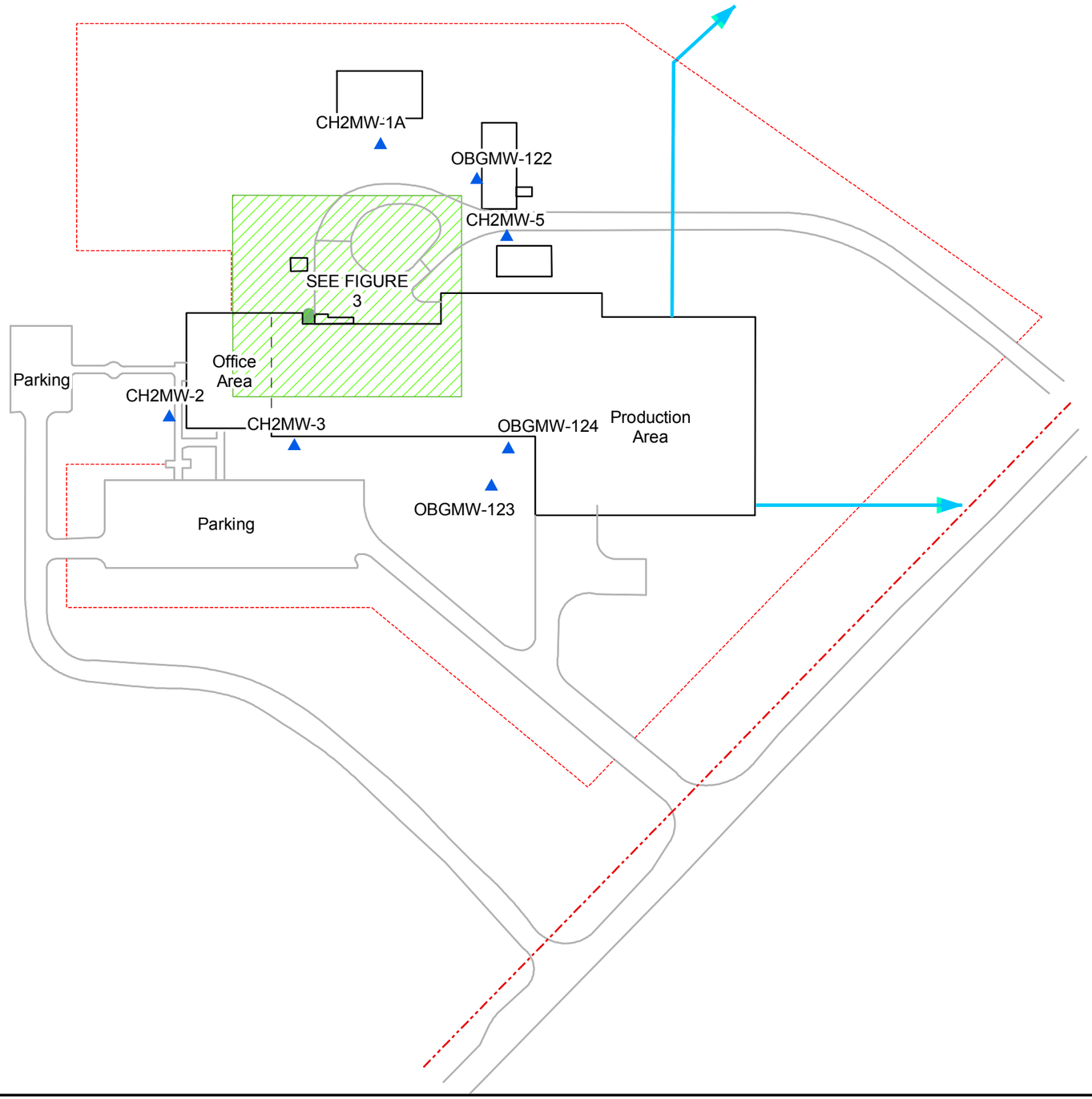
1 0 5 1 KILOMETER

SCALE: 1:24000

O'BRIEN & GERE ENGINEERS, INC.

FILE NO. 26765

FIGURE 2



Chain Link Fence

Property Boundary

Road

Storm Water Drainage

Existing Monitoring Well

Area shown on Figure 3

Former Waste Solvent Tank Piping Release

N

Feet

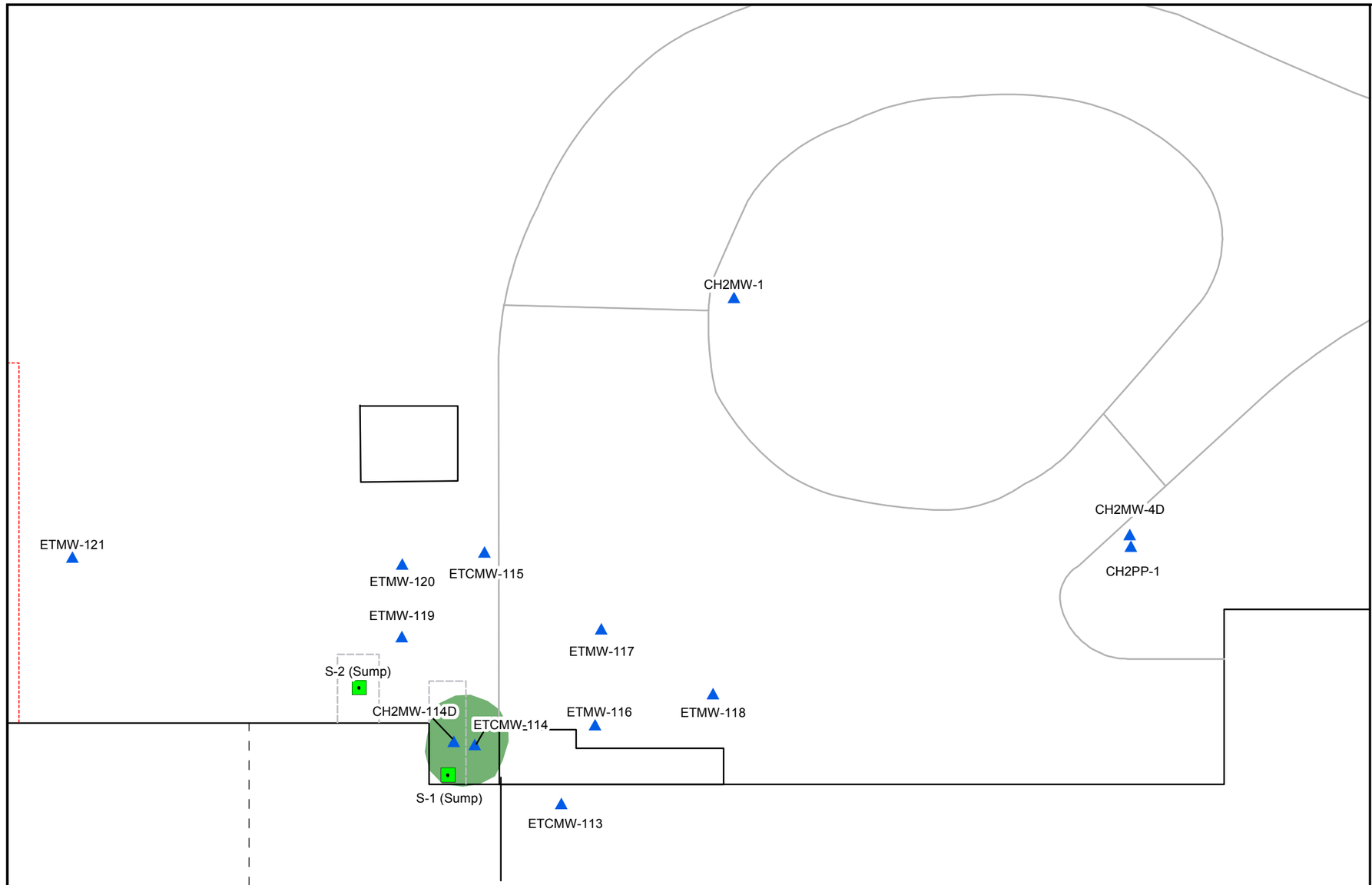
0 150 300

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

SITE PLAN I

O'BRIEN & GERE

FIGURE 3



Monitoring Well

Sump

Chain Link Fence

Road

Former Waste Solvent Tank Piping Release

N

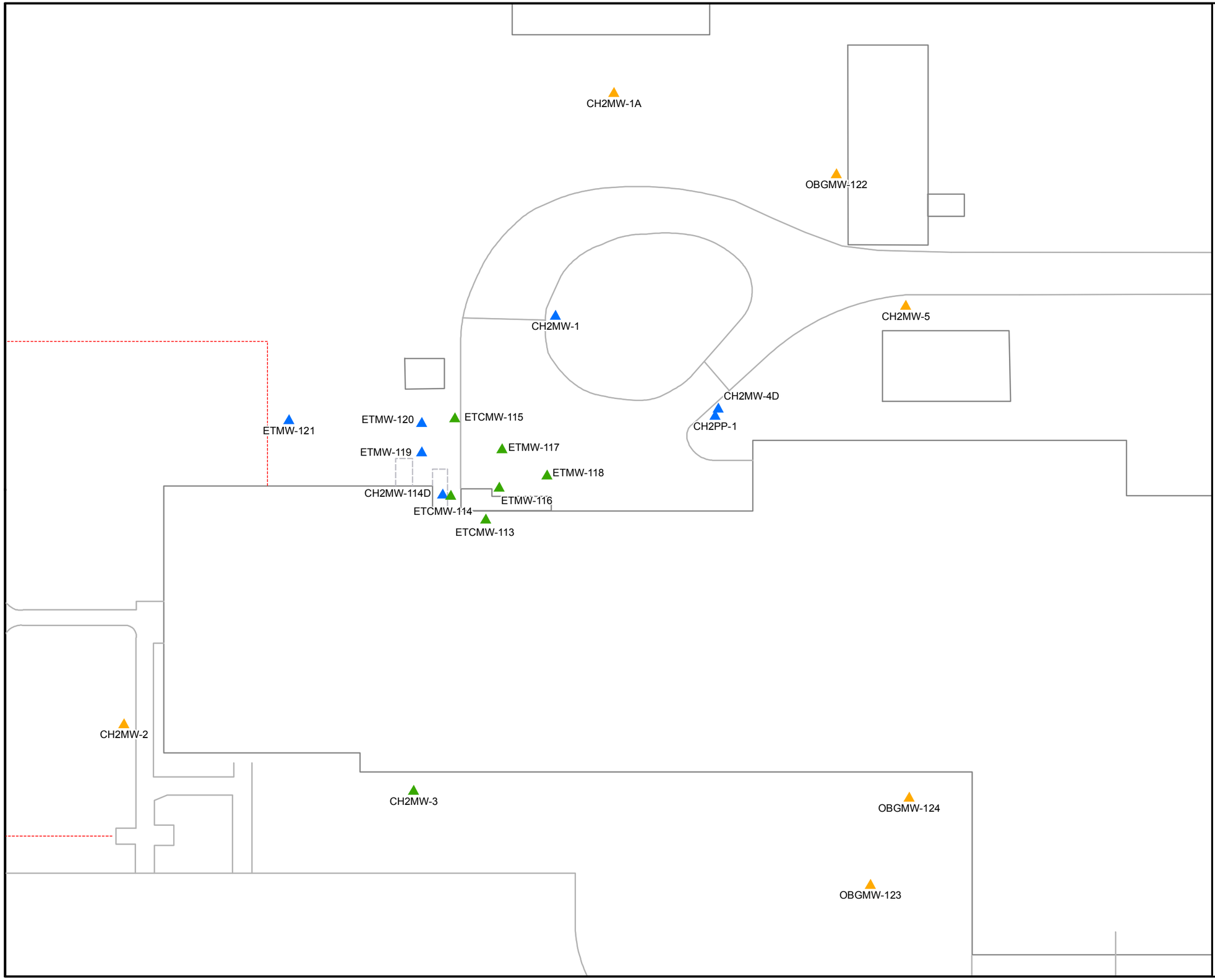
0 25 50 Feet

FORMER MILLER BREWING COMPANY CAN PLANT
MOULTRIE, GEORGIA

SITE PLAN II

O'BRIEN & GERE

Figure 4



Monitoring Wells

- VOCs
- VOCs and Geochemical
- Abandoned

N

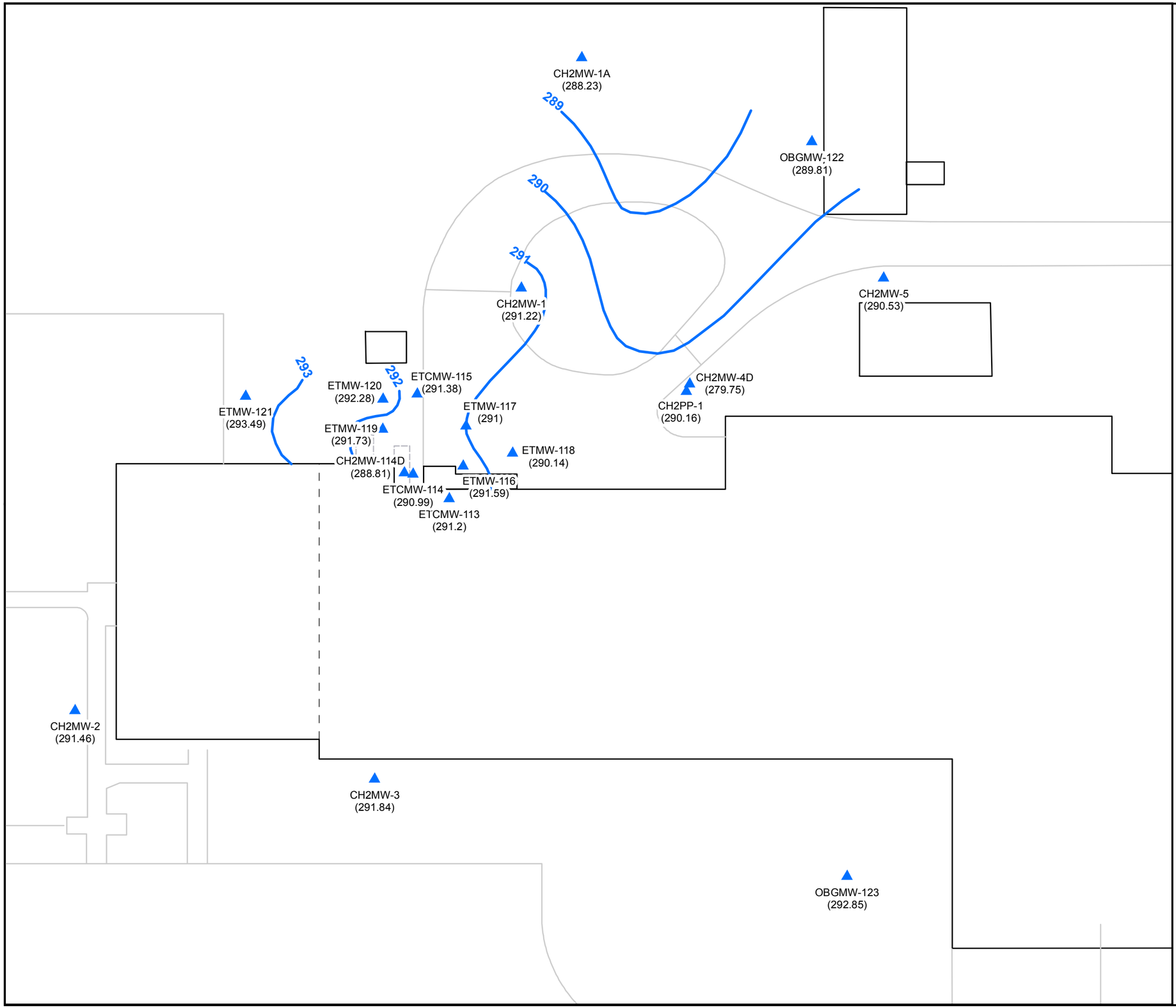
0 25 50 100 Feet

GROUND WATER
MONITORING NETWORK

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GEORGIA

O'BRIEN & GERE

Figure 5



Monitoring Well

Ground Water Elevation (ft msl)

N

Feet

0 50 100

POTENTIOMETRIC SURFACE
DECEMBER 2008

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GEORGIA

O'BRIEN & GERE

Figure 6

ETMW-120
(ND)

ETCMW-115
(ND)

ETMW-119
(ND)

ETMW-117
(ND)

ETMW-118
(ND)

CH2MW-114D
(ND)

ETMW-116
(ND)

ETCMW-114
(0.001)

ETCMW-113
(ND)

Monitoring Well

Treatment Area

Tetrachloroethene (PCE)

Concentration above RRS (mg/L)

0.0010-0.0090

0.0001-0.0009

ND indicates that PCE was not detected above the Type 1/3 RRS

PCE Type 1/3 RRS = 0.005 mg/L

N

0 10 20 Feet

PCE CONCENTRATION
ABOVE RRS
DECEMBER 2008

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GEORGIA

O'BRIEN & GERE

Figure 7

ETMW-120
(ND)

ETCMW-115
(ND)

ETMW-119
(ND)

ETMW-117
(ND)

ETMW-118
(0.032)

CH2MW-114D
(0.135)

ETCMW-114
(0.435)

ETMW-116
(ND)

ETCMW-113
(ND)

Monitoring Well

Treatment Area

Trichloroethene (TCE)

Concentration above RRS (mg/L)

- 0.1000-0.9000
- 0.0100-0.0999
- 0.0010-0.0090
- 0.0001-0.0009

ND indicates that TCE was not detected above the Type 1/3 RRS

TCE Type 1/3 RRS = 0.005 mg/L

N

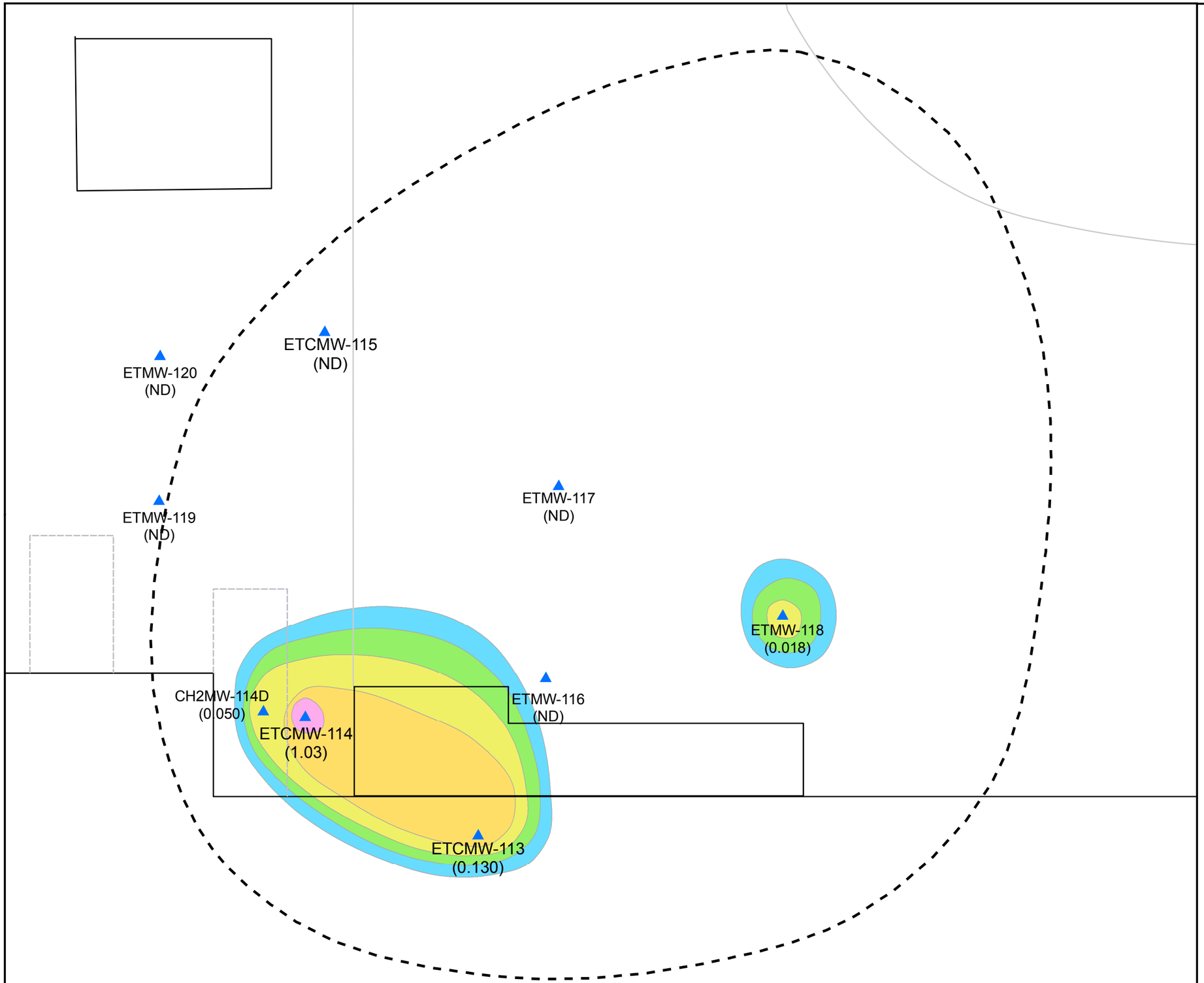
0 10 20 Feet

TCE CONCENTRATION
ABOVE RRS
DECEMBER 2008

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GEORGIA

O'BRIEN & GERE

Figure 8



Monitoring Well

Treatment Area

cis-1,2-dichloroethene (cis-1,2-DCE)

Concentration above RRS (mg/L)

- >1.0000
- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

ND indicates that cis-1,2-DCE was not detected above the Type 1/3 RRS

cis-1,2-DCE Type 1/3 RRS = 0.07 mg/L

N

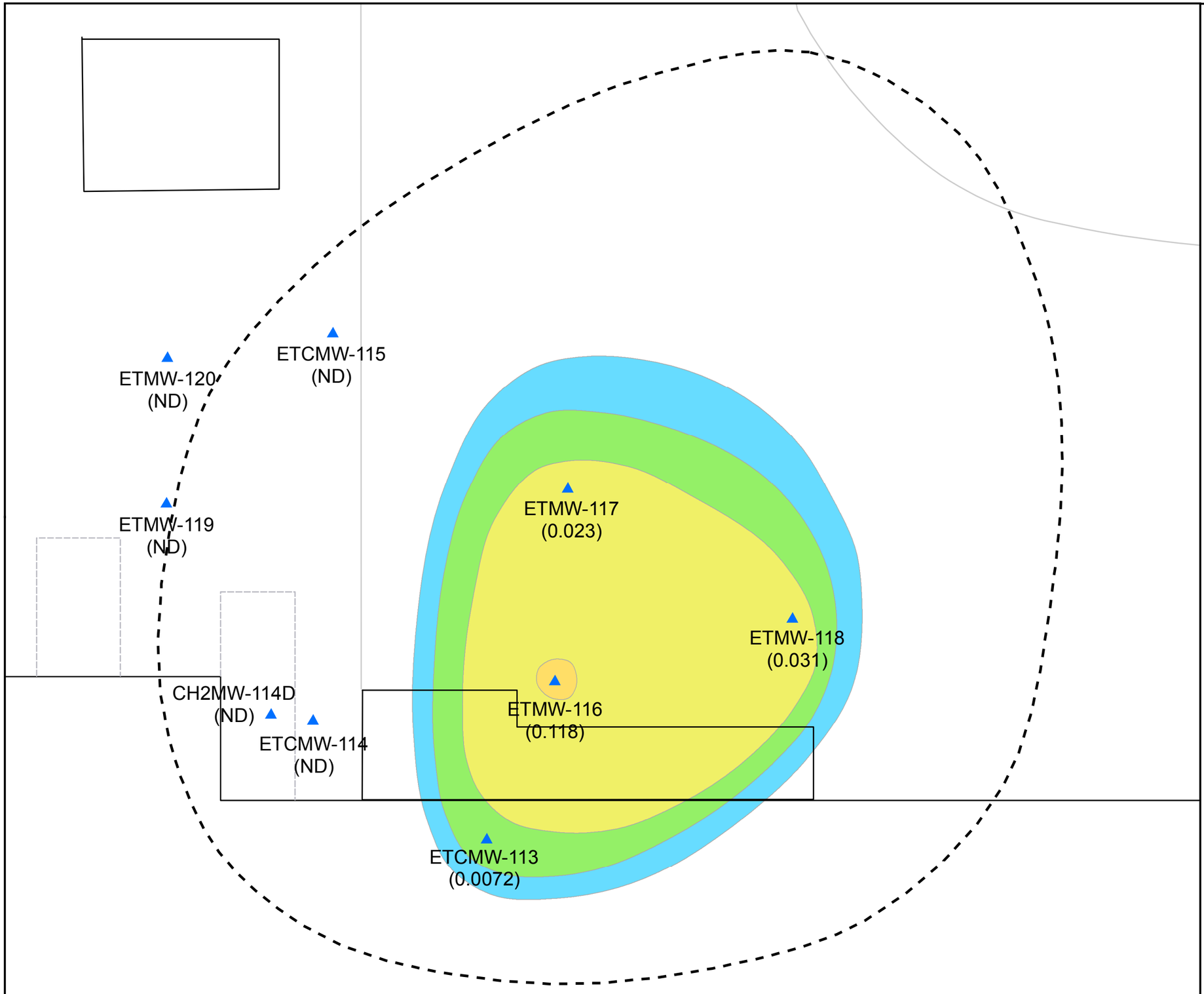
0 10 20 Feet

cis-1,2-DCE CONCENTRATION
ABOVE RRS
DECEMBER 2008

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GEORGIA

O'BRIEN & GERE

Figure 9



▲ Monitoring Well

Treatment Area

Vinyl chloride concentration above RRS (mg/L)

- >1.0000
- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

ND indicates that vinyl chloride was not detected above the Type 1/3 RRS

Vinyl chloride Type 1/3 RRS = 0.002 mg/L

N

0 10 20 Feet

VINYL CHLORIDE
CONCENTRATION ABOVE RRS
DECEMBER 2008

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GEORGIA

O'BRIEN & GERE

APPENDICES

Appendix A

Historical Ground Water Results Summary

Historical Summary of Volatile Organic Constituents in Ground Water

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Downgradient									Downgradient							Upgradient									
					CH2MW-1									CH2MW-1A							CH2MW-2									
					5/29/1998	4/29/2002	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/24/2007	12/8/2008	6/4/1998	4/29/2002	4/7/2004	4/28/2005	10/26/2005	4/18/2006	4/18/2007	5/29/1998	6/4/1998	8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	DUP1-041806	4/18/2007	DUP-02 (4/18/2007)
Acetone	67-64-1	mg/L	4		-		< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	-		< 0.01	< 0.01	**0.031**	< 0.01	<0.01	-	-	**0.003**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	<0.01	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	-	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	-	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	<0.01	<0.01
Benzene	71-43-2	mg/L	0.005		-		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	-		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
Chloromethane	74-87-3	mg/L	0.001 [2]		-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	<0.0005	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0001	< 0.001	< 0.0001	< 0.0001	<0.001	<0.001
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.001	-	**0.0015**	**0.0013**	< 0.001	**0.00059**	<0.0005	<0.0005	<0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.00284**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.00107**	**0.003**	**0.0013**	**0.0011**	**0.0011**	**0.00052**	<0.0005	<0.0005	<0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	<0.0005	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	**0.003**	-	-	-	-	-	-	-	-	< 0.0005	-	-	-	-	-	-	-	<0.0005	<0.0005	<0.0005	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	<0.05	<0.05	-	-	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	-	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.05	<0.05
Methylene Chloride	75-09-2	mg/L	0.005		-	-	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	-	**0.0007**	**0.0006**	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	-	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	<0.005	-	-	-	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	-	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	<0.005
Naphthalene	91-20-3	mg/L	0.02		-	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Toluene	108-88-3	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.001	**0.0012**	**0.0039**	**0.0041**	**0.0044**	**0.00202**	**0.00176**	**0.00082**	**0.0012**	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	<0.002	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	-	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	<0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
Xylenes (total)	1330-20-7	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.001	<0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	Upgradient												Cross Gradient											
					CH2MW-3												CH2MW-4D											
					5/29/1998	6/4/1998	8/23/2000	11/9/2000	11/9/2000 DUP	1/24/2001	4/6/2004	4/27/2005	4/27/2005 (DUP2)	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008	8/6/1998	8/23/2000	11/9/2000	1/25/2001	4/8/2004	4/26/2005	4/26/2005 (DUP1)	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008
Acetone	67-64-1	mg/L	4		-	-	< 0.003	< 0.003	**0.003**	**0.003**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	-	**0.007**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	< 0.010	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01
Benzene	71-43-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	-	**0.0007**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 (2)	1.23	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005
Chloromethane	74-87-3	mg/L	0.001 (2)		-	-	<0.0005	<0.0005	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	<0.0005	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.0005	**0.0006**	**0.0005**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-
Dibromomethane	74-95-3	mg/L	0.0005 (2)		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 (3)	1.02	< 0.001	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 (4)	0.92	-	-	<0.0005	<0.0005	< 0.0005	<0.0005	-	-	-	-	-	-	-	-	-	<0.0005	<0.0005	<0.0005	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	<0.05	<0.050	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	<0.05	<0.05
Methylene Chloride	75-09-2	mg/L	0.005		-	-	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	-	-	**0.0008**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 (2)		-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	<0.005	-	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	<0.005	-
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.0005	**0.002**	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 (9)	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
Toluene	108-88-3	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	**0.00071**
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 (2)	0.01	-	-	< 0.0005	**0.001**	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.0005	**0.0007**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 (7)	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-
Vinyl Acetate	108-05-4	mg/L	0.002 (2)		-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	<0.002	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	<0.002	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 (7)	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
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May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient								In Plume											
					CH2MW-5								ETCMW-113											
					8/5/1998	4/7/2004	4/27/2005	10/26/2005	10/26/2005 (DUP 2)	4/20/2006	DUP2 042006	4/17/2007	1/21/1994	11/3/1994	3/31/1995	5/27/1998	9/7/2000	11/9/2000	1/25/2001	4/6/2004	4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008
Acetone	67-64-1	mg/L	4		-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.100	< 0.001	< 0.050	-	**0.007**	**0.026**	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.235 D**	**0.448 D**	**0.038**
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.100	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.191 D**	**0.380 D**	**0.014**
Benzene	71-43-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	**0.0006**	< 0.005	**0.002**	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	**0.0016**
Carbon Disulfide	75-15-0	mg/L	4		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.100	< 0.005	< 0.005	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0056 D**	< 0.001	< 0.0005	**0.00810 D**	<0.005	**0.00072**
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.010	< 0.001	< 0.001	-	**0.001**	< 0.005	**0.002**	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	**0.0057**
Chloromethane	74-87-3	mg/L	0.001 [2]		-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.005	< 0.010	< 0.001	-	<0.0005	<0.005	<0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.010	-	-	-	<0.0005	< 0.005	<0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.063**	**0.035**	**0.026**	**0.01006**	**0.056 D**	**0.024**	**0.036 D**	**0.022**	**0.018 D**	**0.011**	**0.00884**	**0.0173 D**	**0.0117 D**	**0.0089**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	**0.0008**	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.017**	< 0.005	**0.003**	**0.00244**	**0.027 E**	< 0.005	**0.020 D**	**0.007**	**0.0051 D**	**0.003**	**0.00274**	**0.0083 D**	<0.005	**0.0055**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	-	**0.017**	**0.022**	**0.02213**	-	-	**0.100 D**	**0.066 D**	**0.091 D**	**0.058**	**0.0554 D**	**0.178 D**	**0.147 D**	**0.200**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	-	-	0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	<0.0005	<0.005	**0.110 D**	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.1	< 0.1	<0.05	< 0.100	-	-	-	-	-	-	< 0.050	< 0.200	< 0.1	< 0.050	**1.45 D**	<0.5	<0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	< 0.005	< 0.005	< 0.001	-	**0.002**	< 0.005	**0.0006**	< 0.002	< 0.0008	< 0.002	< 0.002	<0.02	<0.02	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	<0.005	< 0.050	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.005	< 0.02	< 0.01	< 0.005	<0.050	<0.05	-
Naphthalene	91-20-3	mg/L	0.02		-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.0005	< 0.005	<0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.05	<0.005	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.028**	**0.014**	**0.0084**	**0.00649**	**0.044 D**	**0.013**	**0.035 E**	**0.016**	**0.0078 D**	**0.0061**	**0.00361**	**0.00640 D**	<0.005	<0.0005
Toluene	108-88-3	mg/L	1		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.002	-	< 0.0005	< 0.005	<0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.003	-	< 0.0005	< 0.005	<0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.004	< 0.001	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.290**	**0.062**	< 0.005	**0.06938**	**0.530 D**	**0.150**	**0.240 D**	**0.16 D**	**0.056 D**	**0.059**	**0.0246**	**0.0406 D**	<0.0005	**0.0025**
Trichlorofluoromethane	75-69-4	mg/L	2		-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.006	-	**0.0009**	< 0.005	**0.001**	< 0.001	< 0.0004	< 0.001	< 0.001	<0.010	<0.01	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	<0.005	-	< 0.007	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	< 0.002	< 0.002	< 0.005	< 0.005	< 0.005	< 0.005	<0.002	< 0.100	< 0.005	< 0.008	-	-	-	-	< 0.002	< 0.0008	< 0.005	< 0.002	<0.020	<0.02	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.009	**0.00137**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	<0.010	<0.01	**0.0092**
Xylenes (total)	1330-20-7	mg/L	0.01		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.005	< 0.005	< 0.010	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.010	<0.01	<0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume																			
					ETCMW-114																			
					1/21/1994	1/21/94 DUP	11/3/1994	11/3/94 DUP	3/31/1995	3/31/95 DUP	5/27/1998	8/23/2000	11/10/2000	1/24/2001	1/24/01 DUP	4/29/2002	4/29/02 DUP	4/7/2004	4/7/2004 DUP	4/28/2005	10/27/2005	4/20/2006	4/17/2007	DUP-01 (4/17/2007)	10/24/2007	10/24/2007 (DUP-02)	12/10/2008
Acetone	67-64-1	mg/L	4		**3.300**	**2.300**	**0.060**	< 0.010	< 5	<5	-	**1.8**	< 0.089	< 0.003	< 0.003	-	-	< 0.001	< 0.01	< 0.1	< 0.5	<0.100	<0.50	<2	<0.01	<0.01	< 0.1
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	**2.600**	**1.500**	**0.030**	**0.020**	< 5	< 5	-	**3.9**	< 0.089	< 0.003	< 0.003	< 0.003	< 0.003	< 0.001	< 0.01	< 0.1	< 0.5	<0.100	<0.50	<2	<0.01	<0.01	< 0.1
Benzene	71-43-2	mg/L	0.005		**0.0075**	**0.018**	**0.011**	**0.008**	< 0.10	< 0.10	-	< 0.042	< 0.018	**0.003**	**0.003**	-	-	**0.0016**	**0.0017**	< 0.005	< 0.005	<0.005	<0.025	<0.10	**0.00170**	**0.00165**	< 0.005
Carbon Disulfide	75-15-0	mg/L	4		< 0.100	< 0.100	< 0.005	< 0.005	< 0.5	< 0.5	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	< 0.005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	**0.410**	**1.300**	**1.2**	< 0.010	**0.930**	**1.200**	-	< 0.042	**0.120**	**0.061 E**	**0.062 E**	-	-	**0.0053**	**0.0053**	< 0.010	< 0.001	<0.010	<0.05	<0.20	**0.0149**	**0.0143**	< 0.005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.005	< 0.005	< 0.010	**1.100**	< 0.100	< 0.100	-	<0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.010	< 0.001	<0.010	<0.05	<0.20	<0.001	<0.001	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.010	< 0.010	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	<0.010	<0.050	<0.20	<0.001	<0.001	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.690**	**1.200**	**0.710**	**0.580**	**0.400**	**0.450**	**0.09321**	**0.230**	**0.200**	**0.12 D**	**0.12 D**	-	-	**0.11 D**	**0.11 D**	**0.062 D**	**0.13**	**0.0839 D**	**0.102 D**	<0.10	**0.0520 E**	**0.0505 E**	**0.045**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		**0.011**	**0.015**	< 0.005	<0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	**0.004**	**0.004**	-	-	**0.0029**	**0.0029**	< 0.005	< 0.05	<0.005	<0.025	<0.10	**0.00082**	**0.00080**	< 0.005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.019**	**0.110**	**0.570**	**0.260**	**0.310**	**0.330**	**0.20412**	**0.260**	**0.120**	**0.12 D**	**0.11 D**	**0.39 D**	**0.33 D**	**0.13 D**	**0.13 D**	**0.100 D**	**0.24**	**0.138 D**	<0.025	<0.10	**0.00691**	**0.00642**	**0.066**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	-	-	**15**	**12**	**11**	**12**	**4.841**	-	-	**3.4 D**	**3.3 D**	**3.8 D**	**3.7 D**	**2.4 D**	**2.4 D**	**1.7 D**	**4.4**	**3.160 D**	**1.830 D**	**1.760 D**	**0.185 E**	**0.179 E**	**1.1**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	< 0.005	< 0.005	< 0.1	< 0.1	-	-	-	**0.004**	**0.003**	**0.009**	**0.007**	**0.0025**	**0.0025**	< 0.005	< 0.05	**0.0314 D**	<0.025	<0.10	**0.00331**	**0.00313**	< 0.005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	< 0.042	< 0.018	**3.1 D**	**3.1 D**	**3.9 D**	**3.8 D**	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		**0.0085**	**0.020**	**0.007**	**0.005**	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	-
Isobutyl Alcohol	78-83-1	mg/L	10		**0.310**	**0.330**	-	-	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050	< 0.500	< 5	<0.5	<2.5	<10	<0.05	<0.05	<0.5
Methylene Chloride	75-09-2	mg/L	0.005		**0.0088**	**0.0052**	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	**0.001**	**0.003**	-	-	< 0.002	< 0.002	< 0.020	< 0.1	<0.020	<0.10	<0.40	<0.002	<0.002	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		**0.077**	**0.080**	**0.018**	**0.015**	< 5	< 5	-	< 0.210	< 0.089	< 0.003	< 0.003	-	-	< 0.005	< 0.005	< 0.05	< 0.5	<0.050	<0.25	<1.0	<0.005	<0.005	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.001	< 0.001	< 0.01	< 0.05	<0.010	<0.05	<0.2	<0.001	<0.001	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	<0.001	<0.001	<0.005	< 0.005	<0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.1	<0.0005	<0.0005	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.039**	**0.120**	**0.013**	**0.012**	< 0.100	< 0.100	**0.03293**	**0.140**	**0.036**	**0.039 E**	**0.039 E**	-	-	**0.11 D**	**0.12 D**	**0.074 D**	**0.13**	**0.101 D**	<0.025	<0.10	<0.0005	<0.0005	**0.006**
Toluene	108-88-3	mg/L	1		**0.072**	**0.150**	**0.057**	**0.049**	< 0.100	< 0.1 00	-	< 0.042	< 0.018	**0.008**	**0.008**	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	**0.00222**	**0.00202**	< 0.005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	<0.010	<0.025	<0.10	<0.001	<0.001	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	<0.010	<0.050	<0.20	<0.001	<0.001	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		**0.041**	**0.170**	< 0.005	< 0.005	< 0.100	< 0.100	< 0.001	< 0.042	< 0.018	**0.002**	**0.002**	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	< 0.005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.420**	**0.670**	**0.14**	**0.120**	**0.400**	**0.440**	**0.662**	**3.100 D**	**0.740**	**0.82 D**	**0.79 D**	**4.5 D**	**4.0 D**	**1.6 D**	**1.7 D**	**1.0 D**	**2.2**	**1.480 D**	<0.025	<0.10	**0.00897**	**0.00823**	**0.44**
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.010	< 0.05	<0.010	<0.05	<0.001	<0.001	<0.001	< 0.005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		<0.0057	< 0.0058	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		**3.800**	**3.600**	< 0.005	< 0.010	< 1.000	< 1.0	-	-	-	-	-	-	-	< 0.002	< 0.002	< 0.020	< 0.1	<0.020	<0.10	<0.40	<0.002	<0.002	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.01	< 0.01	< 0.100	< 0.100	**0.01956**	< 0.042	< 0.018	**0.001**	**0.001**	-	-	< 0.001	< 0.001	< 0.010	**0.026**	**0.0236 D**	**3.740 D**	**3.550 D**	**.524 E**	**0.547 E**	< 0.005
Xylenes (total)	1330-20-7	mg/L	0.01		**0.045**	**0.095**	**0.024**	**0.020**	< 0.300	< 0.300	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.010	<0.05	<0.20	**0.00169**	**0.00165**	< 0.005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume								In Plume							
					CH2MW-114D								ETCMW-115							
					6/4/1998	4/7/2004	4/28/2005	10/26/2005	4/20/2006	4/18/2007	10/24/2007	12/11/2008	11/3/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008
Acetone	67-64-1	mg/L	4		-	< 0.01	**0.190 D**	**0.52**	< 0.01	<0.1	**.123 E**	<0.010	< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	<0.025	<0.025	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	< 0.01	**0.430 D**	<0.1	< 0.01	<0.1	**0.0442**	**0.063**	< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	<0.025	<0.025	< 0.010
Benzene	71-43-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.0005	**0.00062**	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	**0.00074**	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	<0.0005	< 0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.0018**	**0.0077**	**0.00830 D**	< 0.01	< 0.001	<0.005	**0.00249**	**0.0007**	**0.042**	**0.025**	**0.0064**	**0.0063**	**0.0076**	**0.00367**	**0.00848 D**	**0.00308 D**	**0.00087**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.005 J	< 0.001	<0.005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0046**	**0.0053**	**0.0060 D**	< 0.01	< 0.001	**0.00580 D**	**0.00395**	**0.0051**	< 0.005	< 0.001	< 0.0005	< 0.0025	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.0161**	**0.088 D**	**0.120 D**	**0.097**	< 0.001	**0.204 D**	**0.146 E**	**0.120**	**0.210**	**0.120**	**0.086 D**	**0.041 D**	**0.094**	**0.0346**	**0.120 D**	**0.0318 D**	**0.0078**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.0005	**0.00067**	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	< 0.050	< 0.500	< 1	< 0.1	<0.005	**.622 E**	**1.300**	-	-	< 0.050	< 0.250	< 0.1	< 0.050	<0.125	<0.125	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	< 0.002	< 0.002	< 0.02	< 0.002	<0.020	<0.002	-	< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	<0.005	<0.005	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	< 0.005	< 0.005	< 0.1	< 0.01	<0.050	<0.005	-	< 0.01	< 0.50	< 0.005	< 0.005	< 0.01	< 0.005	<0.0125	<0.0125	-
Naphthalene	91-20-3	mg/L	0.02		-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.011**	**0.010**	**0.0072 D**	< 0.01	< 0.001	**0.00530 D**	**0.00288**	**0.0042**	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005
Toluene	108-88-3	mg/L	1		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0025	<0.00125	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.105**	**0.200 D**	**0.230 D**	**0.240**	< 0.001	**0.135 D**	**0.056 E**	**0.140**	**0.170**	**0.120**	**0.016**	**0.0057**	**0.0039**	**0.00901**	**0.0214 D**	**0.0079 D**	**0.0027**
Trichlorofluoromethane	75-69-4	mg/L	2		-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	<0.0005	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	< 0.002	< 0.002	< 0.05	< 0.005	<0.020	<0.002	-	< 0.005	< 0.010	< 0.002	< 0.002	< 0.005	< 0.002	<0.005	<0.005	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.005 J	< 0.001	<0.010	<0.001	<0.0005	< 0.001	< 0.001	**0.0015**	**0.025**	**0.014**	**0.00346**	**0.00915 D**	<0.0025	**0.0011**
Xylenes (total)	1330-20-7	mg/L	0.01		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.010	<0.001	<0.0005	< 0.005	<0.003	< 0.0005	**0.00061**	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume ETMW-116												In Plume ETMW-117											
					12/20/1994	3/31/1995	5/26/1998	8/23/2000	8/23/2000 DUP	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/21/1994	3/31/1995	8/23/2000	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/2008 DUP-2
Acetone	67-64-1	mg/L	4		< 0.010	< 0.25	-	**0.010**	**0.011**	**0.036 B**	< 0.003	< 0.01	**0.360 D**	**1.6**	**0.968 D**	**0.398 D**	<0.05	**0.29**	< 0.010	< 0.1	< 0.018	< 0.003	**0.003**	< 0.01	< 0.04	< 0.01	< 0.01	**2.090 D**	**.513 ED**	**0.016**	**0.012**
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.25	-	< 0.003	< 0.003	< 0.025	< 0.003	< 0.01	**0.053 D**	**0.38**	**0.163 D**	<0.1	<0.05	<0.01	< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.213 D**	**0.0785 D**	<0.01	<.01
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	<0.0005	< 0.005	< 0.002	< 0.004	**0.0008**	**0.002**	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	**0.0015**	**0.0017**
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.025	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0037 D**	< 0.01	<0.005	<0.005	<0.0025	<0.0005	< 0.005	< 0.010	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	**0.00054**	**0.0007**
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.010	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	**0.007**	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	**0.0027**	**0.0029**
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.005	-	<0.0005	< 0.0005	<0.005	<0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	< 0.010	< 0.002	<0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	**0.0007**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	-	-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.062**	**0.045**	**0.03585**	**0.045 D**	**0.039 D**	**0.012**	**0.012**	**0.018**	**0.023 D**	< 0.01	**0.00870 D**	**0.00910 D**	**0.00660 D**	**0.0065**	**0.012**	**0.025**	**0.017**	**0.017**	**0.008**	**0.0098**	**0.014 D**	**0.013**	**0.0105**	**0.00935 D**	**0.00825 D**	**0.0048**	**0.0056**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.005	-	**0.0007**	**0.0007**	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.005 J	<0.005	<0.005	<0.0025	<0.0005	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.008**	**0.012**	**0.01349**	**0.016**	**0.018**	< 0.005	**0.004**	**0.0055**	**0.0090 D**	< 0.007 J	**0.00540 D**	<0.005	<0.0025	<0.0005	< 0.005	**0.005**	< 0.004	**0.003**	**0.002**	**0.0022**	**0.0038 D**	**0.0026**	**0.00075**	**0.00305 D**	<0.0025	< 0.0005	**0.0010**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.085**	**0.074**	**0.05735**	-	-	-	**0.026 D**	**0.039**	**0.100 D**	**0.18**	**0.221 D**	**0.0831 D**	<0.0025	**0.011**	**0.014**	`	-	-	**0.016**	**0.02**	**0.030 D**	**0.03**	**0.0225**	**0.0315 D**	**0.0762 D**	**0.041**	**0.050**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	-	-	-	-	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	<0.0005	< 0.005	< 0.002	-	-	< 0.0005	< 0.0005	< 0.002	< 0.001	**0.00213**	<0.0025	<0.0025	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	<0.0005	< 0.0005	< 0.005	**0.024**	-	-	-	-	-	-	-	-	-	<0.004	< 0.0005	**0.015**	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	-	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	-	-	< 0.050	**1.8**	**1.5**	<0.5	<0.005	<0.25	<.05	-	-	-	-	-	< 0.050	< 0.2	< 0.1	< 0.050	**2.930 D**	<0.25	< 0.0005	< 0.0005
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.005	-	**0.001**	**0.0009**	< 0.005	< 0.0005	< 0.002	< 0.001	< 0.002	<0.005	<0.020	<0.01	-	< 0.005	< 0.002	< 0.004	**0.0006**	**0.002**	< 0.002	< 0.008	< 0.002	< 0.002	<0.010	<0.010	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.25	-	< 0.003	<0.003	<0.025	< 0.003	< 0.005	< 0.025	< 0.1	<0.05	<0.050	<0.025	-	< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.005	< 0.02	< 0.01	< 0.005	<0.025	<0.025	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	-	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.034**	**0.022**	**0.018**	**0.024**	**0.022 D**	**0.007**	**0.005**	**0.011**	**0.012 D**	**0.0062 J**	<0.005	<0.005	<0.0025	<0.0005	< 0.005	**0.008**	**0.005**	**0.005**	**0.002**	**0.0032**	**0.0050 D**	**0.0042**	**0.00378**	**0.00435 D**	<0.0025	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	**0.0025**	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	<0.0005	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005[7]	**0.560**	**0.420**	**0.26512**	**0.420 D**	**0.350 D**	**0.130**	**0.100 D**	**0.15 D**	**0.170 D**	**0.12**	<0.005	**0.0291 D**	<0.0025	<0.0005	**0.130**	**0.210**	**0.120**	**0.070**	**0.050 D**	**0.064 D**	**0.094 D**	**0.098**	**0.079 D**	**0.0744 D**	**0.0302 D**	**0.00056**	**0.00066**
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	**0.001**	**0.001**	<0.0005	< 0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	<0.0005	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	-	-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.050	-	-	-	-	-	< 0.002	< 0.01	< 0.05	<0.02	<0.020	<0.01	-	< 0.010	< 0.020	-	-	-	< 0.002	< 0.008	< 0.005	< 0.002	<0.010	<0.010	-	
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.005 J	**0.0171 D**	**0.0581 D**	**0.0384 D**	**0.120**	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	**0.024**	**0.025**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.015	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.01	<0.010	<0.005	<0.0005	< 0.005	< 0.006	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.005	<0.005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume										Cross Gradient									
					ETMW-118										ETMW-119									
					12/20/1994	3/31/1995	5/26/1998	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	10/24/2007 (DUP-01)	12/9/2008	12/20/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	10/25/2005 (DUP 1)	4/18/2006	4/17/2007	10/25/2007	12/9/2008	12/9/2008 DUP-1
Acetone	67-64-1	mg/L	4		< 0.005	< 0.05	-	< 0.01	**0.021**	< 0.02	< 0.01	**0.192 D**	<0.5	<0.5	**0.37**	< 0.005	< 0.050	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0212**	<0.01	<0.01	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.05	-	< 0.01	< 0.01	< 0.02	< 0.01	<0.050	<0.5	<0.5	**0.26**	< 0.01	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0998 DH**	<0.01	<0.01	<0.01
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	-	< 0.0005	**0.00079**	< 0.002	< 0.0005	**0.00370 D**	<0.025	<0.025	**0.0028**	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.001	-	< 0.001	< 0.001	**0.0038**	**0.00437**	<0.005	<0.05	<0.05	**0.0032**	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.001	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.014**	**0.021**	**0.01884**	**0.0033**	**0.014**	**0.011**	**0.00961**	**0.0139 D**	<0.025	<0.025	**0.014**	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	**0.0046**	**0.00292**	**0.00061**	**0.0037**	**0.0054**	**0.00489**	**0.00575 D**	<0.025	<0.025	**0.003**	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.012**	**0.023**	**0.01722**	**0.0057**	**0.120 D**	**0.13**	**0.127 D**	**0.117 D**	**0.108 D**	**0.111 D**	**0.088**	< 0.05	**0.0016**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	< 0.050	< 0.050	< 0.2	< 0.050	**25.6 DH**	**13.0 D**	**13.2 D**	**0.069**	-	-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.050	< 0.050	<0.050	<0.050	<0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.002	< 0.002	< 0.004	< 0.002	<0.010	<0.100	<0.100	-	< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.05	-	< 0.005	< 0.005	< 0.02	< 0.005	<0.025	<0.25	<0.25	-	< 0.010	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	<0.005	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.010	**0.009**	**0.008**	**0.0019**	< 0.0005	**0.0032**	**0.00257**	**0.00460 D**	<0.025	<0.025	**0.0032**	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.069**	**0.110**	**0.08682**	**0.021**	**0.0031**	**0.049**	**0.0316**	**0.0489 D**	**0.0390 D**	**0.0400 D**	**0.037**	<0.005	**0.0034**	< 0.0005	**0.00061**	< 0.001	< 0.001	**0.00053**	**0.00074**	<0.0005	<0.0005	<0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	<0.0005	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.010	-	< 0.002	< 0.002	< 0.01	< 0.002	<0.010	<0.100	<0.100	-	< 0.010	< 0.010	< 0.002	< 0.002	< 0.005	< 0.005	< 0.002	< 0.002	<0.002	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.001	< 0.001	< 0.001	**< 0.001**	< 0.002	< 0.001	<0.005	<0.05	<0.05	**0.033**	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.005	<0.05	<0.05	<0.0005	< 0.005	< 0.003	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	<0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient										Upgradient										
					ETMW-120										ETMW-121										
					12/20/1994	3/31/1995	5/26/1998	5/26/98 DUP	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/23/2007	12/11/2008	12/20/1994	3/31/1995	5/27/1998	8/23/2000	11/10/2000	1/24/2001	4/7/2004	4/28/2005	10/26/2005	4/19/2006	4/18/2007	10/23/2007	12/11/2008
Acetone	67-64-1	mg/L	4		< 0.005	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	< 0.005	< 0.05	-	**0.009**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	< 0.010	< 0.001	-	<0.0005	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.001	**0.00184**	**0.00166**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	< 0.05	**0.0048**	**0.00543**	**0.00525**	**0.0011**	**0.0012**	**0.0052**	< 0.0005	**0.00135**	**0.00094**	**0.00056**	< 0.05	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0005	<0.0005	<0.0005	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.05	<0.05	-	-	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.05	<0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	< 0.005	< 0.001	-	**0.0009**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.05	-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	-	< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.010	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.010	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	**0.0018**	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005[7]	<0.005	**0.0017**	**0.00138**	**0.00128**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.001	**0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.010	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	-	< 0.010	< 0.010	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	< 0.010	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	Cross Gradient OBGMW-122								Cross Gradient OBGMW-123									
					8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	9/8/2000	11/9/2000	1/24/2001	4/29/2002	4/6/2004	4/6/2004 DUP	4/27/2005	10/25/2005	4/20/2006	4/18/2007
Acetone	67-64-1	mg/L	4		**0.016**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.003	< 0.003	< 0.003	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	**0.003**	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 (2)	1.23	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0.001 (2)		<0.0005	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	<0.0005	<0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.0005	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	<0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 (2)		< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07(3)	1.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 (4)	0.92	< 0.0005	< 0.0005	<0.0005	-	-	-	-	-	<0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	< 0.050	< 0.050	<0.050	< 0.050	< 0.050	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		**0.001**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	**0.001**	< 0.0005	< 0.0005	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 (2)		< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	<0.005	< 0.005	< 0.005	< 0.003	< 0.003	< 0.003	-	< 0.005	< 0.005	< 0.005	**< 0.01**	< 0.005	< 0.005
Naphthalene	91-20-3	mg/L	0.02		< 0.0005	**0.001**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 (9)	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 (2)	0.01	< 0.0005	**0.002**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.0005	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 (7)	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 (2)		-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 (7)	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)

- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)

- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)

- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation

- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring

- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Down Gradient					Down Gradient								Upgradient		In Plume	
					OBGMW-124					CH2PP-1								CH2PP-2	CH2PP-3[8]	Sump 1	Sump 2
					4/21/2004	4/27/2005	10/26/2005	4/20/2006	4/18/2007	6/30/1998	4/7/2004	4/26/2005	10/25/2005	4/19/2006	4/17/2007	10/24/2007	12/10/2008	5/29/1998	(not sampled)	11/3/1994	11/3/1994
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	**0.021**	< 0.01	< 0.01	<0.01	<0.01	-	-	**0.790**	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	-	-	**0.420**	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	-	-	< 0.005	< 0.005
Carbon Disulfide	75-15-0	mg/L	4		**0.00063**	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	-	-	< 0.005	< 0.005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	-	-	< 0.010	< 0.010
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	**1.3**	< 0.010
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	**0.00057**	**0.00055**	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.001	-	**0.240**	< 0.005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	-	-	< 0.005	< 0.005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.001	-	**0.046**	< 0.005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	**0.013**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.001	-	**1.5**	< 0.005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	-	-	< 0.005	< 0.005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	< 0.005	< 0.005
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.050	<0.050	-	-	-	-
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	-	-	< 0.005	< 0.005
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	-	-	-	< 0.010	< 0.010
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	< 0.005	< 0.005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.001	-	**0.077**	< 0.005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	-	-	**0.018**	< 0.005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.001	-	**0.140**	< 0.005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.001	-	**0.250**	**0.016**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	-	-	-	-
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	-	-	-	< 0.010	< 0.010
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	< 0.001	-	< 0.010	< 0.010
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	-	-	< 0.005	< 0.005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
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May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
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August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
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April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

A.2

Historical Summary of Ground Water Geochemical Parameters

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Downgradient CH2MW-1								Downgradient CH2MW-1A							Upgradient CH2MW-2									
		4/29/2002	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/24/2007	12/8/2008	4/29/2002	4/7/2004	4/28/2005	10/26/2005	4/20/2006	4/19/2007	10/22/2007	5/29/1998	8/23/2000	11/21/2000	1/24/2001	4/6/2004	4/27/2005	10/25/2005	4/18/2006	4/18/2007	10/22/2007
Laboratory Parameters																										
Alkalinity	mg/L	-	-	-	-	-	-	-	-	-	**22**	**2.6**	NA	**24**	NA	-	**2.0**	< 10	< 10	< 10	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-	-	**15**	**8.8**	**11**	**9.4**	**7.8**	**-**	**38.5**	**37.6**	**33.7**	**39.3**	**-**	**-**	-	-	-	-
Iron	mg/L		-	-	-	-	-	-	-	-	**0.63**	**1.2**	NA	**1.8**	**2.1**	**-**	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	-	< 0.05	< 0.05	NA	< 0.050	<0.050	-	-	**15.1**	**0.3**	**0.2**	**-**	**-**	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	**1.6**	**0.27**	**0.64**	**0.71**	**1.2**	**-**	**5.6**	**6.12**	**6.2**	**6.95**	**-**	**-**	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.07	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-	-	**1.3**	**2.7**	< 2.0	**1.6**	**7.7**	**-**	**14**	**19.7**	**27**	**20.2**	**-**	**-**	-	-	-	-
Sulfide	mg/L	-	-	-	-	-	-	-	-	-	< 0.8	< 0.9	NA	< 0.80	NA	-	< 1.0	< 0.2	< 0.5	< 0.5	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-	-	-	-	< 2.0	< 5.0	< 2.0	< 2.1	<0.0021	-	**0.747**	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-
Ethane	ug/L	-	-	-	-	-	-	-	-	-	< 4.0	< 5.0	< 4.0	< 4.2	<0.0042	-	**0.039**	< 0.01	< 0.01	< 0.01	-	-	-	-	-	-
Ethene	ug/L	-	-	-	-	-	-	-	-	-	< 4.0	< 5.0	< 4.0	< 4.2	<0.0042	-	**0.055**	**0.02**	< 0.01	< 0.01	-	-	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	-	-	-	-	**1.3**	**11**	NA	-	**2.7**	**-**	**2.7**	**18.4**	**23.1**	**37**	**-**	**-**	-	-	-	-
Field Parameters																										
Ferrous Iron	mg/L	-	-	ND	**-**	**-**	ND	ND	ND	-	**0.3**	ND	**2.87**	**-**	**0.6**	**-**	< 0.20	**0.7**	**0.4**	**0.01**	**-**	ND	-	-	ND	-
Carbon Dioxide	mg/L	**-**	**-**	**20**	**-**	**-**	**>100**	**80**	**75**	**-**	**14**	**13**	**70**	**-**	**>100**	**-**	**-**	**-**	**-**	**-**	**-**	**13**	-	-	**95**	**-**
pH	S.U.	**4.60**	**4.54**	**5.51**	**4.52**	**5.11**	**5.05**	**5.33**	**5.16**	**5.50**	**5.47**	**5.90**	**5.33**	**5.13**	**5.36**	**-**	**4.36**	**4.50**	**4.40**	**3.78**	**4.11**	**3.71**	**4.41**	**5.03**	**5.47**	**-**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.9**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.29**
Conductivity	mS/cm	**0.090**	**0.139**	**0.183**	**0.128**	**0.137**	**0.115**	**0.134**	**0.218**	**0.080**	**0.102**	**0.137**	**0.088**	**0.098**	**0.092**	**-**	**0.220**	**0.270**	**0.317**	**0.215**	**0.232**	**0.284**	**0.206**	**0.217**	**0.207**	**-**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.019**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.039**
Dissolved Oxygen	mg/L	**5.50**	**4.53**	**3.93**	**3.44**	**5.93**	**4.96**	**3.53**	**0.01**	**5.30**	**4.07**	**2.52**	**1.12**	**4.78**	**0.79**	**-**	**4.39**	**8.70**	**9.60**	**4.70**	**2.20**	**1.45**	**1.86**	**4.12**	**4.86**	**-**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.74**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.52**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**4.0**	**2.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Oxidation/Reduction Potential (ORP)	mV	**293**	**527**	**222**	**179**	**414**	**340**	**124**	**403**	**231**	**499**	**181**	**186**	**357**	**353**	**-**	**252.9**	**32.5**	**404**	**248**	**553**	**387**	**234**	**448**	**399**	**-**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**262.4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**251**
Temperature	℃	-	**21.30**	**20.57**	**20.35**	**23.07**	**21.62**	**25.71**	**20.84**	-	**19.75**	**19.46**	**23.99**	**19.97**	**19.57**	**-**	-	**27.88**	-	**14.60**	**20.64**	**19.51**	**24.79**	**20.24**	**19.66**	**-**
Temperature (Downhole Probe)	℃	-	-	-	-	-	-	-	**-**	-	-	-	-	-	**-**	**25.96**	-	-	-	-	-	-	-	-	-	**25.84**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Upgradient													Cross Gradient									
		CH2MW-3													CH2MW-4D									
		5/29/1998	8/23/2000	11/21/2000	11/21/00 DUP	1/24/2001	4/6/2004	4/27/2005	4/27/2005 (DUP2)	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008	8/23/2000	11/21/2000	1/25/2001	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008
Laboratory Parameters																								
Alkalinity	mg/L	**4.0**	< 10	< 10	< 10	< 10	< 10	**18**	**18**	< 10	**12**	<10	<10	**58**	**39.5**	**62**	**32**	**-**	**-**	-	-	-	-	-
Chloride	mg/L	**14**	**18.6**	**19**	**18.8**	**13.2**	**14**	**9.9**	**13**	**18**	**9.3**	**6.7**	**12**	**3.1**	< 3.0	< 3.0	< 3.0	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	<0.05	0.11	<0.05	< 0.050	**0.094**	**0.072**	**0.16**	<0.10	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	**-**	**1.8**	**0.6**	**-**	**0.3**	<0.05	<0.05	<0.05	< 0.050	< 0.050	<0.050	<0.050	-	<0.05	**1.5**	**0.2**	**-**	**-**	-	-	-	-	-
Nitrate (as N)	mg/L	**0.8**	**2.26**	**2.38**	**2.36**	**0.906**	**0.65**	**0.55**	**0.79**	**1.6**	**0.61**	**0.51**	**1.1**	**0.25**	**0.87**	**-**	**0.896**	**-**	**-**	-	-	-	-	-
Nitrite	mg/L	< 0.07	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	**-**	**-**	< 0.05	-	< 0.05	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**	-	**0.89**	-	-	-	-	-	-	-	-
Sulfate	mg/L	**5.8**	**6.71**	**5.4**	**6.0**	**49.8**	**41**	**39**	**32**	**16**	**38**	**44**	**19**	**34**	< 5.0	< 5.0	< 5.0	-	-	-	-	-	-	-
Sulfide	mg/L	< 1.0	< 0.2	**0.6**	**0.6**	< 0.5	< 1.6	< 0.8	< 0.8	< 0.8	< 0.80	<1.0	<1.0	<1.0	< 0.2	< 0.5	< 0.5	-	-	-	-	-	-	-
Methane	ug/L	**0.559**	<0.2	< 0.2	< 0.2	< 0.2	< 2.0	< 5.0	< 5.0	< 2.0	< 2.1	<2.3	<2.1	<10	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-	-
Ethane	ug/L	**0.016**	< 0.01	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0	< 5.0	< 4.0	< 4.2	<4.5	<4.1	<10	**0.01**	< 0.01	**0.02**	**-**	**-**	-	-	-	-	-
Ethene	ug/L	**0.017**	< 0.01	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0	< 5.0	< 4.0	< 4.2	<4.5	<4.1	<10	**0.08**	**0.01**	**0.01**	**-**	**-**	-	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	< 2.00	**9.98**	**8.75**	**19.1**	**19.4**	**1.8**	**3.8**	**3.9**	**6.8**	**16**	**1.7**	**2.1**	**4.2**	**5.95**	**3.91**	**4.44**	**-**	**-**	-	-	-	-	-
Field Parameters																								
Ferrous Iron	mg/L	< 0.20	**0.23**	**0.02**	**-**	**0.02**	**0.1**	ND	-	**0.31**	ND	**0.5**	ND	ND	**0.4**	**0.38**	**0.01**	**-**	ND	-	-	ND	**0.2**	ND
Carbon Dioxide	mg/L	**-**	**-**	**-**	**-**	**-**	**14**	**14**	-	**50**	**14**	**75**	**30**	**50**	**-**	**-**	**-**	**-**	**14**	-	-	**30**	**14**	**15**
pH	S.U.	**4.56**	**4.35**	**4.61**	**-**	**4.35**	**5.06**	**5.12**	-	**4.57**	**4.91**	**5.10**	**4.56**	**6.45**	**6.50**	**4.87**	**6.01**	**8.59**	**8.67**	**7.66**	**7.86**	**6.66**	**6.56**	**7.30**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**4.49**		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**7.01**	**7.54**
Conductivity	mS/cm	**0.086**	**0.130**	**0.146**	**-**	**0.167**	**0.150**	**0.186**	-	**0.106**	**0.170**	**0.152**	**0.095**	**0.178**	**0.100**	**0.122**	**0.09**	**0.071**	**0.081**	**0.067**	**0.069**	**0.066**	**0.059**	**0.078**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**0.032**		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.016**	**0.061**
Dissolved Oxygen	mg/L	**4.23**	**4.80**	**6.85**	**-**	**6.01**	**5.50**	**2.36**	-	**1.83**	**6.66**	**6.90**	**3.85**	**5.7**	**9.50**	**9.18**	**5.14**	**4.70**	**4.11**	**5.16**	**7.05**	**7.10**	**4.76**	**-**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**5.20**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.35**	**7.06**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	**5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5**
Oxidation/Reduction Potential (ORP)	mV	**271.6**	**353**	**363**	**-**	**209**	**644**	**446**	-	**187**	**370**	**339**	**206**	**190**	**193**	**60**	**59**	**436**	**282**	**172**	**411**	**360**	**188**	**380**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**354.1**		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**158**	**79**
Temperature	℃	-	**27.97**	-	-	**20.72**	**20.31**	**20.78**	-	**23.80**	**21.91**	**22.91**	**23.95**	**20.45**	**27.90**	-	**22.77**	**22.85**	**21.87**	**23.39**	**23.13**	**23.19**	**23.03**	**22.77**
Temperature (Downhole Probe)	℃	-	-	-	-	-	-	-	-	-	-	-	**25.60**		-	-	-	-	-	-	-	-	**24.99**	**23.94**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was r
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient								In Plume										
		CH2MW-5								ETCMW-113										
		4/7/2004	4/27/2005	10/26/2005	10/26/2005 (DUP02)	4/20/2006	DUP2-042006	4/17/2007	10/22/2007	5/27/1998	9/7/2000	11/21/2000	1/25/2001	4/6/2004	4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008
Laboratory Parameters																				
Alkalinity	mg/L	**60**	**98**	**36**	**34**	**110**	**120**	**42**	**-**	**8**	< 10	< 10	< 10	-	-	-	-	-	-	**100**
Chloride	mg/L	**5.6**	**2.8**	**6.6**	**7.2**	**8.3**	**8.2**	**5.1**	**-**	**13.5**	**12.9**	**11.7**	**13.4**	**-**	**-**	-	-	-	-	**10**
Iron	mg/L	**4.2**	**1.3**	**2.7**	**3.5**	**0.077**	< 0.050	**0.81**	**-**	-	-	-	-	-	-	-	-	-	-	**7.9**
Manganese	mg/L	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	<0.050	-	**-**	**5.6**	**0.3**	**0.2**	<0.05	<0.05	-	-	-	-	-
Nitrate (as N)	mg/L	**1**	**0.57**	**1.6**	**1.7**	**1.6**	**1.6**	**0.96**	**-**	**10.2**	**7.05**	**10.7**	**11.8**	**-**	**-**	-	-	-	-	**0.021**
Nitrite	mg/L	-	-	-	-	-	-	-	-	< 0.07	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**4.5**	**2.2**	**2.5**	**2.5**	**1.4**	**1.4**	**2.8**	**-**	**10.1**	< 5	**5.8**	< 5	-	-	-	-	-	-	**12**
Sulfide	mg/L	< 0.8	< 0.8	< 0.8	< 0.8	< 0.80	< 0.80	**1.7**	**-**	< 1.0	< 0.2	**0.8**	< 0.5	-	-	-	-	-	-	**<1.0**
Methane	ug/L	< 0.002	< 5.0	< 2.0	< 2.0	**7.30**	**2000**	<0.0021	-	**0.149**	< 0.2	< 0.2	**0.3**	**-**	**-**	-	-	-	-	**4100**
Ethane	ug/L	< 0.004	< 5.0	< 4.0	< 4.0	< 4.9	< 49	<0.0042	-	**0.029**	**0.09**	< 0.01	**0.13**	**-**	**-**	-	-	-	-	<10
Ethene	ug/L	< 0.004	< 5.0	< 4.0	< 4.0	< 4.9	< 49	<0.0042	-	< 0.005	**0.02**	< 0.01	**0.03**	**-**	**-**	-	-	-	-	<10
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	**1.8**	**11**	**2.9**	**11**	**2.5**	**16**	**2.1**	**-**	-	**4.42**	**6.65**	**8.51**	**-**	**-**	-	-	-	-	**5**
Field Parameters																				
Ferrous Iron	mg/L	**0.2**	**0.5**	**2.2**	-	ND	-	**1.0**	**-**	< 0.20	**11**	**0.03**	**0.05**	**-**	**1**	-	-	**4.2**	**6.6**	**6.8**
Carbon Dioxide	mg/L	**18**	**15**	**40**	-	**14**	-	**55**	**-**	**-**	**-**	**-**	**-**	**-**	**14**	-	-	**>100**	**>100**	**>100**
pH	S.U.	**6.10**	**6.40**	**5.51**	-	**5.79**	-	**6.22**	**-**	**5.83**	**4.94**	**4.70**	**4.09**	**6.12**	**6.53**	**6.21**	**5.71**	**4.67**	**4.64**	**6.38**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	-	**-**	-	**-**	**6.20**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.72**	**-**
Conductivity	mS/cm	**0.126**	**0.196**	**0.100**	-	**0.263**	-	**0.122**	**-**	**0.169**	**0.190**	**0.220**	**0.293**	**0.197**	**0.342**	**0.352**	**0.298**	**0.668**	**0.320**	**0.263**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	-	**-**	-	**-**	**0.038**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.097**	**-**
Dissolved Oxygen	mg/L	**5.10**	**2.85**	**1.77**	-	**4.00**	-	**2.45**	**-**	**6.79**	**6.30**	**8.89**	**6.71**	**6.12**	**2.47**	**1.27**	**6.39**	**0.62**	**2.93**	**0.0**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	-	**-**	-	**-**	**2.15**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**7.85**	**-**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	-	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.0**	**3**
Oxidation/Reduction Potential (ORP)	mV	**457**	**156**	**184**	-	**395**	-	**320**	**-**	**192.2**	**261**	**196**	**217**	**446**	**217**	**192**	**348**	**259**	**67**	**-8**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	-	**-**	-	**-**	**249.2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**89**	**-**
Temperature	℃	**17.99**	**19.79**	**22.40**	-	**19.42**	-	**20.50**	**-**	-	**24.10**	-	**19.28**	**18.06**	**18.02**	**23.34**	**20.43**	**18.75**	**23.53**	**19.86**
Temperature (Downhole Probe)	℃	-	-	-	-	-	-	-	**25.15**	-	-	-	-	-	-	-	-	-	**24.64**	**-**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was r
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume ETCMW-114																In Plume CH2MW-114D						
		5/27/1998	8/23/2000	9/7/2000	11/21/2000	1/24/2001	1/24/2001 DUP	4/29/2002	4/7/2004	4/7/2004 (DUP-2)	4/29/2005	10/27/2005	4/20/2006	4/17/2007	DUP-01 (4/17/2007)	10/23/2007	12/10/2008	4/7/2004	4/29/2005	10/26/2005	4/20/2006	4/19/2007	10/24/2007	12/8/2008
Laboratory Parameters																								
Alkalinity	mg/L	**112**	**82.2**	-	**128**	**134**	**135**	-	**94**	**96**	**120**	**120**	**140**	**470**	**500**	**350**	**220**	< 10	**3000**	**2200**	**830**	-	-	-
Chloride	mg/L	**32.5**	**90.1**	-	**108**	**82.8**	**82.1**	-	**37**	**37**	**26**	**32**	**29**	**110**	**110**	**73 D**	**26**	**2.1**	**89**	**190**	**200**	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	**2**	**1.8**	**0.22**	**0.88**	**1.0**	**11**	**11**	**0.85**	**0.96**	**17**	**55**	**79**	**160**	-	**150**	-
Manganese	mg/L	**-**	**0.5**	-	**0.3**	**0.3**	-	-	< 0.05	< 0.05	<0.05	< 0.050	< 0.050	**0.54**	**0.55**	**0.080**	**-**	< 0.05	**0.64**	**0.53**	**0.26**	-	**0.22**	-
Nitrate (as N)	mg/L	**7.6**	**18.15**	-	-	**44.8**	**45.8**	-	**1.2**	**1.1**	**8.2 H**	**1.4**	**-**	<0.02	<0.02	**1.9 D**	**3.4**	**0.46**	<0.5 H	**1.2**	< 0.50	-	-	-
Nitrite	mg/L	< 0.07	**0.053**	-	-	< 0.05	< 0.05	-	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	**-**	-	**58**	-	-	-	-	-	-	-	< 0.050	-	-	**-**	**-**	-	-	-	-	-	-	-
Sulfate	mg/L	**12.8**	**54.1**	-	**110**	**75.6**	**75.6**	-	**33**	**33**	**39**	**31**	**51 D**	<1.0	<1.0	**35 D**	**22**	**3.6**	**47**	**100**	**150**	-	-	-
Sulfide	mg/L	< 1.0	-	< 0.2	**0.5**	< 0.5	< 0.5	-	< 0.8	< 0.8	< 0.8	< 0.8	< 0.80	<1.0	**1.8**	<1.0	<1.0	< 0.8	<0.8	< 0.8	**1.4**	-	-	-
Methane	ug/L	**129.2**	**43.9**	-	**0.5**	< 0.2	< 0.2	-	< 2.0	< 2.0	< 5.0	**14**	**14**	**0.14**	**0.14**	**54**	<10	< 2.0	< 5.0	< 2.0	-	**2.8**	**-**	-
Ethane	ug/L	**0.249**	**0.16**	-	**0.03**	**0.03**	**0.02**	-	< 4.0	< 4.0	< 5.0	< 4.0	< 4.5	<44	<44	<4.2	<10	< 4.0	< 5.0	< 4.0	-	<0.21	-	-
Ethene	ug/L	**0.205**	**0.51**	-	**0.03**	**0.01**	**0.01**	-	< 4.0	< 4.0	< 5.0	< 4.0	< 4.5	**7.0**	**7.6**	**38**	<10	< 4.0	< 5.0	< 4.0	-	<0.21	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	**32.9**	**40.6**	**27.3**	-	**2.3**	**2.2**	**2.9**	**12**	**17**	**41**	**42**	**3.4**	**3.8**	**1.1**	**8,900**	**4800**	-	**2**	**1600 D**	-
Field Parameters																								
Ferrous Iron	mg/L	< 0.20	**0.2**	-	**0.05**	**0.03**	-	-	**0.8**	**0.8**	ND	**0.19**	ND	**4.2**	**-**	**1.2**	ND	**0.2**	**5.0**	**2.0**	-	**4.2**	**-**	**5.2**
Carbon Dioxide	mg/L	**-**	-	**-**	**-**	-	**-**	**-**	**20**	**22**	**14**	**30**	**14**	**>100**	-	**90**	**80**	**> 100**	**50**	**350 D**	-	**>100**	**-**	**>100**
pH	S.U.	**6.36**	-	**6.60**	**4.70**	**4.80**	-	**6.10**	**6.38**	**-**	**6.61**	**6.46**	**6.16**	**6.73**	**-**	**6.20**	**6.67**	**5.60**	**5.95**	**6.08**	**5.58**	**5.55**	**4.88**	**5.12**
pH (Downhole Probe)	S.U.	**-**	-	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.34**	**6.76**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Conductivity	mS/cm	**0.375**	-	**0.0012**	**1.26**	**0.7350**	-	**0.330**	**0.333**	**-**	**0.485**	**0.342**	**0.437**	**1.295**	**-**	**0.958**	**0.566**	**0.030**	**3.620**	**4.650**	**2.050**	**2.780**	**2.020**	**2.560**
Conductivity (Downhole Probe)	mS/cm	**-**	-	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.210**	**0.496**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Dissolved Oxygen	mg/L	**0.19**	-	**3.10**	**10.55**	**6.40**	-	**0.0**	**2.76**	**-**	**3.02**	**1.31**	**0.70**	**0.68**	**-**	**0.96**	**-**	**3.30**	**0.97**	**0.51**	**3.00**	**0.90**	**0.54**	**0**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	-	**-**	**-**	**-**	-	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.67**	**1.01**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	-	**-**	**-**	**-**	-	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.5**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**1.5**
Oxidation/Reduction Potential (ORP)	mV	**167.5**	-	**98**	**134**	**127**	-	**171**	**471**	**-**	**66**	**160**	**356**	**255**	**-**	**150**	**356**	**463**	**-8**	**-76**	**289**	**309**	**97**	**22**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	-	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**97.2**	**115**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Temperature	℃	-	**26.55**	-	-	**16.40**	-	-	**17.26**	-	**17.98**	**22.88**	**18.56**	**18.14**	**-**	**24.36**	**18.10**	**19.36**	**20.43**	**21.06**	**21.65**	**20.59**	**22.89**	**18.88**
Temperature (Downhole Probe)	℃	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**23.91**	**18.27**	-	-	-	-	-	-	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was r
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume ETCMW-115							In Plume ETMW-116										
		4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008	5/26/1998	8/23/2000	11/21/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008
Laboratory Parameters																			
Alkalinity	mg/L	-	-	-	-	-	**230**	**260**	**38**	**12.5**	< 10	**62**	**-**	**-**	-	-	-	**670**	**370**
Chloride	mg/L	-	-	-	-	-	**6.4 D**	**4.4**	**12**	**11.7**	**8.77**	**11.6**	**-**	**-**	-	-	-	**16**	**19**
Iron	mg/L	-	-	-	-	-	**1.9**	**2.9**	-	-	-	-	-	-	-	-	-	**48**	**25**
Manganese	mg/L	-	-	-	-	-	**0.074**	**-**	-	**0.2**	**0.3**	**0.1**	**-**	**-**	-	-	-	**0.58**	**-**
Nitrate (as N)	mg/L	-	-	-	-	-	**2.5 D**	**0.24**	**6.2**	**8.25**	**-**	**7.7**	**-**	**-**	-	-	-	<0.10	**0.065**
Nitrite	mg/L	-	-	-	-	-	-	**-**	< 0.07	< 0.05	-	**0.405**	**-**	**-**	-	-	-	-	**-**
Nitrate-Nitrite	mg/L	-	-	-	-	-	**-**	**-**	-	-	**7.72**	**-**	**-**	**-**	-	-	-	-	**-**
Sulfate	mg/L	-	-	-	-	-	**10 D**	**28**	**14.8**	**5.12**	**5.2**	**42.8**	**-**	**-**	-	-	-	<5.0	**9.8**
Sulfide	mg/L	-	-	-	-	-	<1.0	<1.0	< 1.0	< 0.2	-	< 0.5	-	-	-	-	-	<1.0	**2.8**
Methane	ug/L	-	-	-	-	-	**0.019**	**41**	**0.247**	< 0.2	< 0.2	< 0.2	-	-	-	-	-	**3500 D**	**5800**
Ethane	ug/L	-	-	-	-	-	<0.42	<10	**0.093**	**0.07**	**0.01**	**0.01**	**-**	**-**	-	-	-	<210	<10
Ethene	ug/L	-	-	-	-	-	<0.42	<10	**0.023**	**0.04**	**0.03**	**0.02**	**-**	**-**	-	-	-	<210	<10
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	**3.5**	**4.4**	-	**9.14**	**7.7**	**25.4**	**-**	**-**	-	-	-	**9.6**	**19**
Field Parameters																			
Ferrous Iron	mg/L	**-**	**4.3**	-	-	**4.8**	**2.8**	**0.6**	< 0.20	ND	**0.02**	ND	-	**5.0**	-	-	**6.0**	**6.2**	**6.4**
Carbon Dioxide	mg/L	**276**	**19**	-	-	**>100**	**60**	**10**	**-**	**-**	**-**	**-**	**-**	**15**	-	-	**>100**	**>100**	**>100**
pH	S.U.	**5.87**	**6.37**	**5.82**	**5.70**	**5.70**	**6.01**	**6.76**	**6.18**	**5.50**	**4.35**	**4.76**	**5.88**	**5.03**	**4.99**	**5.56**	**4.89**	**6.17**	**6.38**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**6.01**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.29**	**-**
Conductivity	mS/cm	**0.166**	**0.366**	**0.174**	**0.205**	**0.184**	**0.456**	**0.462**	**0.181**	**0.180**	**0.186**	**0.220**	**0.141**	**2.370**	**1.540**	**0.983**	**1.456**	**0.988**	**0.710**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**0.063**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.301**	**-**
Dissolved Oxygen	mg/L	**0.38**	**0.23**	**0.54**	**2.09**	**0.49**	**2.65**	**0.62**	**1.51**	**3.90**	**9.93**	**7.59**	**3.63**	**0.15**	**0.45**	**0.35**	**0.42**	**0.24**	**0**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**4.87**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**13.32**	**-**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**2**	**1.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2.0**	**1.5**
Oxidation/Reduction Potential (ORP)	mV	**276**	**131**	**84**	**377**	**312**	**162**	**68**	**190.5**	**199**	**157**	**119**	**560**	**141**	**108**	**281**	**309**	**-34**	**-79**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**133.3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-92.5**	**-**
Temperature	℃	**20.07**	**20.32**	**22.58**	**22.36**	**21.45**	**27.50**	**18.61**	-	-	**17.55**	-	**17.42**	**18.23**	**23.81**	**19.10**	**18.82**	**24.43**	**19.13**
Temperature (Downhole Probe)	℃	-	-	-	-	-	**27.02**	**-**	-	-	-	-	-	-	-	-	-	**24.55**	**-**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was r
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume ETMW-117											In Plume ETMW-118							
		8/23/2000	11/21/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/08 DUP-2	5/26/1998	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/24/2007	12/9/2008
Laboratory Parameters																				
Alkalinity	mg/L	**13.9**	< 10	**58**	**-**	**-**	-	-	-	**86**	**180**	**200**	< 2.0	-	-	-	-	-	-	**180**
Chloride	mg/L	**10.7**	**12**	**6.73**	**-**	**-**	-	-	-	**8.8 D**	**21**	**20**	**11.5**	**-**	**-**	-	-	-	-	**18**
Iron	mg/L	-	-	-	-	-	-	-	-	**50**	**36**	**36**	-	-	-	-	-	-	-	**96**
Manganese	mg/L	**6.3**	**0.2**	<0.05	-	-	-	-	-	**0.76**	**-**	**-**	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	**6.72**	-	**4.47**	**-**	**-**	-	-	-	<0.10	**0.051**	<.020	**9.4**	**-**	**-**	-	-	-	-	**0.062**
Nitrite	mg/L	< 0.05	-	< 0.05	-	-	-	-	-	-	**-**	**-**	< 0.07	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	**6.72**	**7.64**	-	-	-	-	-	-	-	**-**	**-**	-	-	-	-	-	-	-	-
Sulfate	mg/L	**7.62**	**5.2**	**19.7**	**-**	**-**	-	-	-	<5.0	<1.0	<1.0	**8.1**	**-**	**-**	-	-	-	-	**2.3**
Sulfide	mg/L	-	**0.6**	< 0.5	-	-	-	-	-	<1.0	**1.3**	**1.2**	< 1.0	-	-	-	-	-	-	**3.1**
Methane	ug/L	< 0.2	< 0.2	< 0.2	-	-	-	-	-	**3600 D**	**5900**	**5100**	**0.508**	**-**	**-**	-	-	-	-	**4900**
Ethane	ug/L	**0.02**	**0.02**	**0.01**	**-**	**-**	-	-	-	<210	<10	<10	**0.044**	**-**	**-**	-	-	-	-	<10
Ethene	ug/L	**0.03**	**0.02**	**0.03**	**-**	**-**	-	-	-	<210	<10	<10	**0.036**	**-**	**-**	-	-	-	-	<10
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	**8.44**	**28.3**	**-**	**-**	-	-	-	**910 D**	**51**	**33**	-	-	-	-	-	-	-	**2300**
Field Parameters																				
Ferrous Iron	mg/L	ND	**0.03**	**0.01**	**-**	**2.2**	-	-	**5.8**	**7.4**	**6**	**-**	< 0.20	-	**4.4**	-	-	**5.0**	**6.4**	**5.2**
Carbon Dioxide	mg/L	**-**	**-**	**-**	**-**	**10**	-	-	**>100**	**>100**	**>100**	**-**	**-**	**-**	**15**	-	-	**>100**	**>100**	**>100**
pH	S.U.	**5.74**	**3.46**	**4.68**	**5.57**	**6.03**	**5.60**	**5.23**	**4.40**	**4.04**	**5.9**	**-**	**4.30**	**5.91**	**5.86**	**5.10**	**5.35**	**4.38**	**4.60**	**4.70**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.82**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.58**	**-**
Conductivity	mS/cm	**0.170**	**0.189**	**0.181**	**0.152**	**0.303**	**0.163**	**0.188**	**1.450**	**0.696**	**0.9**	**-**	**0.150**	**0.067**	**0.307**	**0.089**	**0.152**	**0.909**	**2.20**	**1.54**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.207**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.56**	**-**
Dissolved Oxygen	mg/L	**7.40**	**10.58**	**7.52**	**2.38**	**0.49**	**1.05**	**1.86**	**0.42**	**0.38**	**0**	**-**	**0.07**	**4.23**	**0.34**	**0.46**	**0.59**	**0.50**	**0.40**	**0.00**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**12.96**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**12.49**	**-**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.0**	**3.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.5**	**1.5**
Oxidation/Reduction Potential (ORP)	mV	**212**	**157**	**108**	**555**	**278**	**144**	**363**	**335**	**127**	**-13**	**-**	**218**	**519**	**125**	**155**	**346**	**327**	**141**	**133**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**90.7**	**-**	**-**	**-**	**-**	**-**	**-**	**-**		**134.3**	**-**
Temperature	℃	**27.14**	-	**18.20**	**20.91**	**21.41**	**26.20**	**22.82**	**22.27**	**25.48**	**19.9**	**-**	-	**19.68**	**20.50**	**24.86**	**22.71**	**21.01**	**25.30**	**18.08**
Temperature (Downhole Probe)	℃	-	-	-	-	-	-	-	-	**27.39**	**-**	**-**							**25.81**	**-**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was r
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mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
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Nitrite - EPA 353.1
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Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient ETMW-119							Cross Gradient ETMW-120						
		4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/25/2007	12/9/2008	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/23/2007	12/9/2008
Laboratory Parameters															
Alkalinity	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-
Sulfide	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-		-	-	-	-	-	-	-
Ethane	ug/L	-	-	-	-	-	-		-	-	-	-	-	-	-
Ethene	ug/L	-	-	-	-	-	-		-	-	-	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-
Field Parameters															
Ferrous Iron	mg/L	-	1.0	-	-	4.2	4.8	1.2	-	3.5	-	-	6.0	0.6	ND
Carbon Dioxide	mg/L	-	18	-	-	>100	70	95	-	15	-	-	65	40	50
pH	S.U.	6.21	6.25	5.64	5.82	6.20	5.78	6.87	5.93	6.19	5.36	5.64	5.5 D	5.87	6.50
pH (Downhole Probe)	S.U.	-	-	-	-	-	6.22	-	-	-	-	-	-	5.97	-
Conductivity	mS/cm	0.295	0.449	0.203	0.281	0.554	0.342	0.512	0.136	0.218	0.097	0.144	0.161	0.216	0.237
Conductivity (Downhole Probe)	mS/cm	-	-	-	-	-	0.13	-	-	-	-	-	-	0.048	-
Dissolved Oxygen	mg/L	3.47	0.33	1.34	1.31	2.78	0.57	0	2.66	0.69	0.67	2.19	5.00	3.05	1.94
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	6.55	-	-	-	-	-	-	3.64	-
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	-	2.0	2.0	-	-	-	-	-	3.5	5
Oxidation/Reduction Potential (ORP)	mV	486	138	115	370	251	128	157	485	169	92	379	327	175	361
Oxidation/Reduction Potential (Downhole Probe)	mV	-	-	-	-	-	57.5	-	-	-	-	-	-	286.8	-
Temperature	℃	19.07	19.97	20.86	20.73	19.18	23.71	16.63	19.41	20.43	20.88	21.94	21.74	25.67	16.88
Temperature (Downhole Probe)	℃	-	-	-	-	-	24.98	-	-	-	-	-	-	25.33	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was r
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mg/L Milligrams per liter
- Not Analyzed
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Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Upgradient											Cross Gradient								
		ETMW-121											OBGMW-122								
		5/27/1998	8/24/2000	11/21/2000	1/24/2001	4/7/2004	4/28/2005	10/26/2005	4/19/2006	4/19/2007	10/23/2007	12/11/2008	8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/22/2007
Laboratory Parameters																					
Alkalinity	mg/L	**28**	**30.7**	**32**	**57**	**38**	**5.8**	**26**	**28**	**38**	**82**	**-**	-	**-**	-	-	-	-	-	-	-
Chloride	mg/L	**15.5**	**10.5**	**10.8**	**3.34**	**7.8**	**5.2**	**11**	**6**	-	**1.9**	**-**	-	**-**	**-**	**-**	**-**	-	-	-	-
Iron	mg/L	-	-	-	-	**1.1**	**0.84**	**16**	**0.52**	**0.89**	**0.87**	**-**	-			**-**	**-**	-	-	-	-
Manganese	mg/L	-	-	**0.1**	<0.05	< 0.05	< 0.05	**0.15**	< 0.050	<0.050	<0.050	**-**	-	-	**-**	**-**	**-**	-	-	-	-
Nitrate (as N)	mg/L	**1.8**	**1.94**	**-**	**1.19**	**0.65**	**0.59**	**1.2**	**0.35**	-	**0.20**	**-**	-	**-**	**-**	**-**	**-**	-	-	-	-
Nitrite	mg/L	< 0.07	< 0.05	-	< 0.05	-	-	-	-	-	-	**-**	-	**-**	**-**	**-**	**-**	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	**1.86**	-	-	-	-	-	-	-	**-**	-	**-**	**-**	**-**	**-**	-	-	-	-
Sulfate	mg/L	**10.1**	**10.3**	**12.6**	**8.93**	**8.5**	**9.9**	**4.6**	**13**	-	**5.4**	**-**	-	**-**	**-**	**-**	**-**	-	-	-	-
Sulfide	mg/L	< 1.0	-	< 0.5	< 0.5	< 0.8	< 0.8	< 0.8	< 0.8	**1.8**	<1.0	**-**	-	**-**	**-**	**-**	**-**	-	-	-	-
Methane	ug/L	**0.195**	< 0.2	< 0.2	< 0.2	< 2.0	< 5.0	< 2.0	< 2.1	<2.1	<2.1	**-**	-	**-**	**-**	**-**	**-**	-	-	-	-
Ethane	ug/L	< 0.005	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0	< 4.0	< 4.2	<4.2	<4.1	**-**	-	**-**	**-**	**-**	**-**	-	-	-	-
Ethene	ug/L	**0.005**	**0.02**	**0.01**	**0.02**	< 4.0	< 5.0	< 4.0	< 4.2	<4.2	<4.1	**-**	-	**-**	**-**	**-**	**-**	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	**12.9**	**7.74**	**21.1**	**1.9**	**7.9**	**12**	**9.7**	**1.6**	**3.0**	**-**	-	**-**	**-**	**-**	**-**	-	-	-	-
Field Parameters																					
Ferrous Iron	mg/L	< 0.20	**0.25**	**0.05**	**0.03**	**0.1**	ND	**0.39**	ND	**2.4**	**0.4**	ND	-	-	**-**	**-**	ND	-	-	ND	-
Carbon Dioxide	mg/L	**-**	-	**-**	**-**	**26**	**15**	**35**	**25**	**40**	**18**	**30**	**-**	**-**	**-**	**-**	**5**	-	-	**70**	**-**
pH	S.U.	**5.32**	-	**4.50**	**5.11**	**6.20**	**6.25**	**5.94**	**5.83**	**6.00**	**6.23**	**6.78**	**6.31**	**4.80**	**4.65**	**6.27**	**6.08**	**6.38**	**6.18**	**6.31**	**-**
pH (Downhole Probe)	S.U.	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.45**	**8.05**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.70**
Conductivity	mS/cm	**0.112**	-	**0.214**	**0.134**	**0.134**	**0.142**	**0.116**	**0.192**	**0.107**	**0.167**	**0.199**	**0.640**	**0.810**	**0.393**	**0.272**	**0.076**	**0.183**	**0.226**	**0.233**	**-**
Conductivity (Downhole Probe)	mS/cm	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.038**	**0.195**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.03**
Dissolved Oxygen	mg/L	**5.12**	-	**10.86**	**8.07**	**4.88**	**3.34**	**1.00**	**3.27**	**6.74**	**7.00**	**-**	**6.40**	**7.81**	**6.20**	**0.98**	**3.25**	**0.77**	**3.58**	**4.08**	**-**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.39**	**8.26**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.99**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Oxidation/Reduction Potential (ORP)	mV	**146.4**	-	**134**	**123**	**482**	**197**	**176**	**347**	**332**	**166**	**367**	**109**	**1.0**	**164**	**392**	**17.6**	**106**	**395**	**370**	**-**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**232.5**	**282**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**219.4**
Temperature	℃	-	**25.91**	-	**17.40**	**19.17**	**19.22**	**23.60**	**19.36**	**19.56**	**26.03**	**18.72**	**25.53**	-	**20.00**	**20.16**	**18.40**	**22.45**	**19.79**	**19.27**	**-**
Temperature (Downhole Probe)	℃	-	-	-	-	-	-	-	-	-	**25.02**	**16.39**	-	-	-	-	-	-	-	-	**24.82**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was r
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient								Down Gradient						Down Gradient						
		OBGMW-123								OBGMW-124						CH2PP-1						
		9/8/2000	1/24/2001	4/6/2004	4/27/2005	10/25/2005	4/20/2006	4/18/2007	10/22/2007	4/20/2004	4/27/2005	10/26/2005	4/19/2006	4/19/2007	10/22/2007	4/7/2004	4/26/2005	10/25/2005	4/18/2006	4/16/2007	10/24/2007	12/8/2008
Laboratory Parameters																						
Alkalinity	mg/L	-	-	-	-	-	-	-	-	300	430	410	390	350	-	-	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-	410 D	180	210	44	200	-	-	-	-	-	-	-	-
Iron	mg/L			-	-	-	-	-	-	0.41	1.3	2.0	0.076	0.1	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	0.09	0.15	0.20	< 0.050	<0.050	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	0.14	<0.050	0.10	-	6.7	-	-	-	-	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	0.21	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-	310 D	170	190	60	150	-	-	-	-	-	-	-	-
Sulfide	mg/L	-	-	-	-	-	-	-	-	< 0.80	< 0.80	< 0.8	< 0.80	1.6	-	-	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-	-	-	< 2.0	38 H	< 2.0	2.1	<0.0021	-	-	-	-	-	-	-	-
Ethane	ug/L	-	-	-	-	-	-	-	-	< 4.0	< 0.5	< 4.0	< 4.2	<0.0042	-	-	-	-	-	-	-	-
Ethene	ug/L	-	-	-	-	-	-	-	-	< 4.0	< 0.5	< 4.0	< 4.2	<0.0042	-	-	-	-	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	-	-	-	5.1	6.3	17	5.8	3.4	-	-	-	-	-	-	-	-
Field Parameters																						
Ferrous Iron	mg/L	-	-	-	4.7	-	-	1.5	-	ND	1.8	1.72	ND	ND	-	-	ND	-	-	-	ND	ND
Carbon Dioxide	mg/L	-	-	-	18	-	-	50	-	-	50	70	15	75	-	-	12	-	-	-	20	45
pH	S.U.	4.60	6.06	5.94	6.27	5.25	5.29	4.75	-	6.82	6.40	6.82	6.55	7.25	-	5.22	5.93	5.01	4.56	5.53	5.28	6.14
pH (Downhole Probe)	S.U.	-	-	-	-	-	-	-	5.18	-	-	-	-	-	6.67	-	-	-	-	-	-	-
Conductivity	mS/cm	0.160	0.117	0.122	0.162	0.092	0.091	0.083	-	2.130	1.061	1.314	0.875	1.019	-	0.117	0.141	0.108	0.120	0.146	0.107	0.222
Conductivity (Downhole Probe)	mS/cm	-	-	-	-	-	-	-	0.020	-	-	-	-	-	0.344	-	-	-	-	-	-	-
Dissolved Oxygen	mg/L	7.00	7.73	0.51	0.41	0.52	7.22	0.66	-	1.34	1.11	0.63	1.85	5.83	-	4.11	4.75	3.19	7.51	6.98	3.95	3.8
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	-	-	2.14	-	-	-	-	-	3.46	-	-	-	-	-	-	-
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.0	3.0
Oxidation/Reduction Potential (ORP)	mV	231	201	280	76	115	480	429	-	125	140	98	326	318	171.2	466	325	207	439	330	122	119
Oxidation/Reduction Potential (Downhole Probe)	mV	-	-	-	-	-	-	-	185.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Temperature	℃	19.10	-	20.18	20.10	24.64	19.99	19.76	-	19.80	20.30	21.83	21.65	20.96	-	20.05	20.72	25.77	21.84	21.57	25.27	19.81
Temperature (Downhole Probe)	℃	-	-	-	-	-	-	-	25.50	-	-	-	-	-	25.30	-	-	-	-	-	-	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was r
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2
Soluble Organic Carbon - EPA 415.1

Appendix B

Well Abandonment Logs

BETTS
ENVIRONMENTAL RECOVERY
INCORPORATED

Corporate Office 361 Airport Square Adel, Georgia 31620 Office 229-896-557
Conyers, Georgia Office 770-929-3839 Jacksonville, Florida Office 904-598-149

Well # 1 12-8-08 OBGMW-123

Depth 15'

Abandoned well by pressure grouting through 4¼" hollow-stem augers.
470 lbs. of neat cement ~~@~~ used. (dry weight).

Mark Coursey

BETTS
ENVIRONMENTAL RECOVERY
INCORPORATED

Corporate Office 361 Airport Square Adel, Georgia 31620 Office 229-896-557
Conyers, Georgia Office 770-929-3839 Jacksonville, Florida Office 904-598-140

Well #2 12-8-08 OBGMW-124
Depth 15'

Abandoned well by pressure grouting through 4¼" hollow-stem augers.
470 lbs. of neat cement used. (dry weight).

Clark Casey

BETTS
ENVIRONMENTAL RECOVERY
INCORPORATED

Corporate Office 361 Airport Square Adel, Georgia 31620 Office 229-896-557
Conyers, Georgia Office 770-929-3839 Jacksonville, Florida Office 904-598-149

Well #[redacted]3 12-8-08 CHAMW-2
Depth 15'
Abandoned well by pressure grouting through 4¼" augers (hollow-stem).
470 lbs. neat cement used (dry weight).

Chuck C

BETTS
ENVIRONMENTAL RECOVERY
INCORPORATED

Corporate Office 361 Airport Square Adel, Georgia 31620 Office 229-896-557
Conyers, Georgia Office 770-929-3839 Jacksonville, Florida Office 904-598-149

Well # 4 12-8-08 CH2MW-5
Depth 15'
Abandoned well by pressure grouting through 4 1/4" hollow-stem augers.
470 lbs. of neat cement used. (dry weight).

Charles Conroy

BETTS
ENVIRONMENTAL RECOVERY
INCORPORATED

Corporate Office 361 Airport Square Adel, Georgia 31620 Office 229-896-557
Conyers, Georgia Office 770-929-3839 Jacksonville, Florida Office 904-598-149

Well #5 12-8-08 OBGMW-122
Depth 15'
Abandoned well by pressure grouting through 4¼" hollow stem augers.
470 lbs. of neat cement used. (Dry weight).

Clark Causey

BETTS
ENVIRONMENTAL RECOVERY
INCORPORATED

Corporate Office 361 Airport Square Adel, Georgia 31620 Office 229-896-557
Convers, Georgia Office 770-929-3839 Jacksonville, Florida Office 904-598-149

Well # 6 12-8-08 CH2MW-1A

Depth 15'

Abandoned well by pressure grouting through 4 1/4" hollow-stem augers, 470 lbs neat cement used. (dry weight).

Clark Coats

Appendix C

Ground Water Sampling Log Forms

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-1
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	43718

PURGE START DATE/TIME:	12/8/08 1300		PURGE END DATE/TIME:	12/8/08	1346
WEATHER CONDITIONS:	SUNNY ~60°F		WELL CONDITION:	GOOD	
WELL DEPTH:	10 ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	2400	mL
SWL:	2.50	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	5	ft.
WELL DIAMETER:	1"	2 in. Dia. 0.163 gal./ft.	DEPTH OF TUBING:	8	ft.
WELL VOLUME:	1.16 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (~~gal~~) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1300	5.29 / 50	--	19.31	0.730	1.70	6.04	384	0.6
1305	5.45 / 50	250	19.65	0.597	1.48	5.40	391	0.0
1310	5.43 / 50	500	20.10	0.494	1.28	5.29	403	0.0
1315	5.46 / 50	750	20.63	0.439	1.07	5.29	419	0.0
1317	5.54 / 50	850	20.76	0.405	0.88	5.25	419	0.0
1319	5.65 / 50	950	20.90	0.394	0.87	5.27	422	0.0
1322	5.73 / 50	1200	20.83	0.380	0.72	5.28	417	0.0
1325	5.89 / 50	1350	20.96	0.312	0.72	5.32	420	0.0
1328	6.00 / 50	1500	20.81	0.273	0.62	5.36	417	0.0
1331	6.13 / 50	1650	20.76	0.240	0.21	5.32	421	0.0
1334	6.26 / 50	1800	20.90	0.228	0.01	5.31	415	0.0
1337	6.39 / 50	1950	21.03	0.233	0.01	5.22	410	0.0
1340	6.53 / 50	2100	20.97	0.219	0.01	5.24	410	0.0
1343	6.67 / 50	2250	21.02	0.215	0.01	5.19	405	0.0
1346	6.71 / 66	2400	20.84	0.218	0.01	5.16	403	0.0

SAMPLING DATA

SAMPLE DATE/TIME:	12/8/08 1348		PARAMETERS		
DEPTH TO WATER AFTER PURGING:	6.71 ft.	☒	VOCs	☐	Metals (U)
APPEARANCE:	Clear, No Odor	☐	SVOCs	☐	Metals (F)
SAMPLING DEVICE:	Straw Method	☐	OTHER	☐	PCBs

NOTES: Fe = 0.0 mg/L CO_2 = 75 mg/L DO = 2.5 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-3
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	43718

PURGE START DATE/TIME: 12/11/08 1150			PURGE END DATE/TIME: 12/11/08 1328		
WEATHER CONDITIONS: Sunny ~60° F			WELL CONDITION: GOOD		
WELL DEPTH:	13'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	7600	mL
SWL:	1.07	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	3	ft.
WELL DIAMETER:	2	2 in. Dia. 0.163 gal./ft.	DEPTH OF TUBING:	8	ft.
WELL VOLUME:	7.35 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1153	1.52 / 80	–	20.30	0.200	6.46	6.69	113	5.5
1158	1.70 / 80	400	20.18	0.199	5.93	6.62	117	3.8
1203	1.79 / 80	800	20.25	0.199	5.72	6.63	121	3.8
1208	1.83 / 80	1200	20.18	0.199	5.81	6.64	127	4.3
1213	1.86 / 80	1600	20.33	0.199	5.73	6.64	131	4.7
1218	1.89 / 80	2000	20.16	0.200	5.77	6.65	138	4.8
1223	1.90 / 80	2400	20.11	0.199	5.81	6.65	143	4.5
1228	1.93 / 80	2800	20.16	0.197	5.86	6.64	148	5.0
1233	1.94 / 80	3200	20.14	0.196	5.81	6.65	152	5.1
1238	1.95 / 80	3600	20.27	0.195	5.85	6.63	156	4.5
1243	1.95 / 80	4000	20.07	0.194	5.90	6.63	162	5.1
1248	1.95 / 80	4400	20.10	0.192	5.86	6.61	165	4.7
1253	1.95 / 80	4800	20.28	0.190	5.79	6.60	168	5.0
1258	1.95 / 80	5200	20.18	0.190	5.81	6.59	170	5.1
1303	1.95 / 80	5600	20.18	0.187	5.80	6.56	175	5.9
1308	1.96 / 80	6000	20.47	0.185	5.84	6.56	178	4.9
1313	1.96 / 80	6400	20.52	0.184	5.63	6.54	180	4.1
1318	1.96 / 80	6800	20.48	0.182	5.71	6.52	182	4.2
1323	1.96 / 80	7200	20.52	0.180	5.67	6.50	184	4.4
1328	1.96 / 80	7600	20.45	0.178	5.70	6.45	190	4.6

SAMPLING DATA

SAMPLE DATE/TIME: 12/11/08 1330			PARAMETERS		
DEPTH TO WATER AFTER PURGING: 1.96 ft.	☒	VOCs	☐	Metals (U)	
APPEARANCE: Clear, no odor	☐	SVOCs	☐	Metals (F)	
SAMPLING DEVICE: Peristaltic Pump/Straw Method	☒	OTHER	☐	PCBs	

NOTES: DO = 5 mg/L CO_2 = 50 mg/L Fe = 0 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-4D
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	43718

PURGE START DATE/TIME:	12/10/08 0800			PURGE END DATE/TIME:	12/10/08 1049
WEATHER CONDITIONS:	CLOUDY ~60°F			WELL CONDITION:	GOOD
WELL DEPTH:	45.93	CONVERSION FACTORS		TOTAL PURGE VOLUME:	20625 mL
SWL:	13.84	1 in. Dia.	0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	36 ft.
WELL DIAMETER:	2"	2 in. Dia.	0.163 gal./ft.	DEPTH OF TUBING:	30 ft.
WELL VOLUME:	19.77 L	4 in. Dia.	0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0804	14.22 / 125	–	22.09	0.075	–	8.13	420	9.7
0809	15.60 / 125	625	22.66	0.072	–	7.64	413	7.3
0819	16.56 / 125	1875	22.77	0.069	–	7.50	406	7.9
0829	17.66 / 125	3125	22.71	0.067	–	7.31	401	11.8
0839	18.29 / 125	4375	22.19	0.067	–	7.23	397	12.5
0849	19.03 / 125	5625	22.80	0.069	–	7.19	394	14.8
0859	19.65 / 125	6875	22.82	0.071	–	7.17	391	16.3
0909	20.01 / 125	8125	22.82	0.072	–	7.14	389	18.6
0919	20.44 / 125	9375	22.77	0.074	–	7.15	387	16.6
0929	20.72 / 125	10625	22.73	0.076	–	7.17	386	15.4
0939	20.96 / 125	11875	22.66	0.079	–	7.18	385	18.2
0949	21.02 / 125	13125	22.68	0.077	–	7.18	384	16.5
0959	21.07 / 125	14375	22.65	0.079	–	7.20	386	23.4
1009	21.07 / 125	15625	22.75	0.078	–	7.21	383	12.1
1019	21.11 / 125	16875	22.73	0.079	–	7.24	383	13.4
1029	21.13 / 125	18125	22.75	0.080	–	7.32	381	12.4
1039	21.15 / 125	19375	22.80	0.079	–	7.31	379	13.1
1049	21.19 / 125	20625	22.77	0.078	–	7.30	380	13.3
1455	DOWNHOLE	PROBE	23.94	0.061	7.06	7.54	79	3.4

SAMPLING DATA

SAMPLE DATE/TIME:	12/10/08 10:55
DEPTH TO WATER AFTER PURGING:	21.19 ft.
APPEARANCE:	Clear, No odor
SAMPLING DEVICE:	Straw Method

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: WORKERS PAINTING NEARBY

Fe. = 0 mg/L CO_2 = 15 mg/L DO = 5 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-113
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	43718

PURGE START DATE/TIME:	12/11/08 0805		PURGE END DATE/TIME:	12/11/08	0920
WEATHER CONDITIONS:	HEAVY RAIN ~60°F		WELL CONDITION:	GOOD	
WELL DEPTH:	12 ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	4800	mL
SWL:	5.09	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	2	ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	DEPTH OF TUBING:	9	ft.
WELL VOLUME:	4.25L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0815	5.69 75	--	18.96	0.237	1.19	7.01	226	22.5
0819	6.15 75	300	19.12	0.263	0.0	6.67	161	22.0
0823	6.29 75	600	19.15	0.264	0.0	6.63	105	18.8
0827	6.64 75	900	19.20	0.266	0.0	6.58	64	16.3
0831	6.89 75	1200	19.20	0.269	0.0	6.54	44	15.8
0835	7.02 75	1500	19.28	0.278	0.0	6.50	20	17.2
0839	7.19 75	1800	19.34	0.271	0.0	6.42	15	20.5
0843	7.29 75	2100	19.25	0.275	0.0	6.53	10	18.0
0847	7.38 75	2400	19.83	0.271	0.0	6.48	5	17.9
0851	7.60 75	2700	19.92	0.271	0.0	6.46	0	13.9
0855	7.72 75	3000	19.90	0.270	0.0	6.46	-3	14.2
0859	7.91 75	3300	19.87	0.270	0.0	6.44	-4	13.9
0903	8.08 75	3600	19.82	0.268	0.0	6.42	-6	13.8
0907	8.23 75	3900	19.81	0.264	0.0	6.40	-7	13.6
0911	8.28 75	4200	19.82	0.263	0.0	6.40	-8	13.4
0915	8.30 75	4500	19.84	0.263	0.0	6.40	-7	13.3
0919	8.35 75	4800	19.86	0.263	0.0	6.38	-8	13.3

SAMPLING DATA

SAMPLE DATE/TIME:	12/11/08 0920
DEPTH TO WATER AFTER PURGING:	8.35 ft.
APPEARANCE:	Clear, slight odor
SAMPLING DEVICE:	Peristaltic / Straw Method

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES:

Fe = 6.8 mg/L CO_2 => 100 mg/L DO = 3 mg/L

WORKERS PAINTING NEARBY - VERY STRONG ODOR

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-114
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	43718

PURGE START DATE/TIME: 12/10/08 1210			PURGE END DATE/TIME: 12/10/08 1420		
WEATHER CONDITIONS: RAINY ~60°F			WELL CONDITION: GOOD		
WELL DEPTH:	11.7	CONVERSION FACTORS	TOTAL PURGE VOLUME:	13000	mL
SWL:	6.66	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	1.7	ft.
WELL DIAMETER:	4"	2 in. Dia. 0.163 gal./ft.	DEPTH OF TUBING:	9	ft.
WELL VOLUME:	12.44L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1210	6.82 / 100	–	18.66	0.567	–	6.87	369	9.0
1220	7.01 / 100	1000	17.93	0.578	–	6.62	366	8.2
1230	7.14 / 100	2000	18.10	0.572	–	6.60	365	8.1
1240	7.22 / 100	3000	17.47	0.572	–	6.61	364	8.1
1250	7.39 / 100	4000	18.08	0.570	–	6.62	363	7.8
1300	7.41 / 100	5000	18.02	0.572	–	6.62	362	7.8
1310	7.49 / 100	6000	18.11	0.570	–	6.63	361	7.7
1320	7.58 / 100	7000	18.14	0.569	–	6.63	361	7.8
1330	7.64 / 100	8000	18.11	0.571	–	6.63	360	7.9
1340	7.76 / 100	9000	18.04	0.569	–	6.63	359	8.0
1350	7.80 / 100	10000	18.07	0.569	–	6.64	350	11.8
1400	7.94 / 100	11000	18.08	0.564	–	6.66	357	10.9
1410	7.98 / 100	12000	18.11	0.566	–	6.66	357	10.7
1420	7.99 / 100	13000	18.10	0.566	–	6.67	356	10.6
1520	DOWNHOLE	PROBE	18.27	0.496	1.01	6.76	115	19.6

SAMPLING DATA

SAMPLE DATE/TIME:	1425 12/10/08
DEPTH TO WATER AFTER PURGING:	7.99 ft.
APPEARANCE:	Clear
SAMPLING DEVICE:	Peristaltic Pump + Straw Method

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES: Fe = 0 mg/L DO = 3 mg/L CO_2 = 80 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-114D
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	43718

PURGE START DATE/TIME:	1445 12/8/08		PURGE END DATE/TIME:	1518 12/8/08 - DRY	
WEATHER CONDITIONS:	SUNNY ~60°F		WELL CONDITION:		
WELL DEPTH:	22.5 ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	1350	mL
SWL:	8.31	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	17.5	ft.
WELL DIAMETER:	1 inch	2 in. Dia. 0.163 gal./ft.	DEPTH OF TUBING:	21	ft.
WELL VOLUME:	2.20 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (~~gal~~) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1448	12.46 / 50	—	19.03	2.55	0.0	5.06	48	251.0
1451	13.12 / 50	150	18.72	2.54	0.0	5.06	44	248.0
1454	13.91 / 50	300	18.65	2.54	0.0	5.07	38	243.0
1457	14.89 / 50	450	18.60	2.55	0.0	5.08	34	262.0
1500	15.98 / 50	600	18.59	2.56	0.0	5.09	31	257.0
1503	16.85 / 50	750	18.66	2.56	0.0	5.09	29	252.0
1506	17.78 / 50	900	18.76	2.57	0.0	5.10	26	264.0
1509	18.68 / 50	1050	18.81	2.56	0.0	5.11	25	261.0
1512	19.61 / 50	1200	18.92	2.56	0.0	5.12	24	283.6
1515	20.55 / 50	1350	18.88	2.56	0.0	5.12	22	297.0
			DRY AT 1517					

SAMPLING DATA

SAMPLE DATE/TIME:	12/11/08 1050
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	Clear, strong odor
SAMPLING DEVICE:	Straw Method

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Fe = 5.2 mg/L CO_2 = >100 mg/L DO=1.5 mg/L

PURGING/SAMPLING PERSONNEL:	Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-11 S
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	43718

PURGE START DATE/TIME:	12/10/08 1257			PURGE END DATE/TIME:	12/10/08 1347
WEATHER CONDITIONS:	RAINY ~ 60°F			WELL CONDITION:	GOOD
WELL DEPTH:	11.5	CONVERSION FACTORS		TOTAL PURGE VOLUME:	5000 mL
SWL:	3.92	1 in. Dia.	0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	1.5 ft.
WELL DIAMETER:	2"	2 in. Dia.	0.163 gal./ft.	DEPTH OF TUBING:	8 ft.
WELL VOLUME:	4.67 L	4 in. Dia.	0.653 gal./ft.	PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1257	4.45 / 100	-	19.27	0.397	0.0	6.62	54	21.0
1302	4.51 / 100	500	19.33	0.397	0.81	6.63	53	35.3
1307	4.56 / 100	1000	19.23	0.403	0.0	6.64	53	19.6
1312	4.61 / 100	1500	19.27	0.400	0.0	6.65	55	15.7
1317	4.68 / 100	2000	19.20	0.414	0.0	6.64	57	11.7
1322	4.97 / 100	2500	18.98	0.424	0.0	6.68	59	13.1
1327	5.01 / 100	3000	18.84	0.430	0.35	6.71	62	13.2
1332	5.05 / 100	3500	18.94	0.436	0.0	6.72	63	13.9
1337	5.21 / 100	4000	18.67	0.450	0.52	6.72	67	13.0
1342	5.32 / 100	4500	18.68	0.453	0.74	6.75	66	12.8
1347	5.45 / 100	5000	18.61	0.462	0.62	6.76	68	11.3

SAMPLING DATA

SAMPLE DATE/TIME:	12/10/08 1400
DEPTH TO WATER AFTER PURGING:	5.45 ft.
APPEARANCE:	Clear, No odor
SAMPLING DEVICE:	Peristaltic / Straw Method

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES:

Fe = 0.6 mg/L DO = 1.0 mg/L CO_2 = 10 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-116
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	43718

PURGE START DATE/TIME:	12/10/08 0728		PURGE END DATE/TIME:	12/10/08 1123	
WEATHER CONDITIONS:	Cloudy ~60°F		WELL CONDITION:		
WELL DEPTH:	11'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	28125	mL
SWL:	0.5	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	4"	2 in. Dia. 0.163 gal./ft.	DEPTH OF TUBING:	9	ft.
WELL VOLUME:	25.92 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0728	0.80 / 125	-	17.95	0.767	0.25	7.12	73	72.7
0733	1.99 / 125	625	17.67	0.779	0.0	6.36	-23	62.8
0743	1.55 / 125	1875	17.64	0.795	0.0	6.41	-52	59.3
0803	2.11 / 125	4375	17.61	0.778	0.0	6.44	-68	65.9
0823	2.93 / 125	6875	17.56	0.772	0.0	6.45	-77	45.1
0843	3.44 / 125	9375	17.71	0.770	0.0	6.44	-80	48.6
0903	4.10 / 125	11875	17.88	0.773	0.0	6.46	-83	45.9
0923	4.82 / 125	13125	17.99	0.772	0.0	6.45	-84	49.4
0943	5.48 / 125	15625	18.13	0.761	0.0	6.43	-81	84.4
1003	6.12 / 125	18125	18.28	0.742	0.0	6.41	-77	114.0
1023	6.85 / 125	20625	18.48	0.723	0.0	6.41	-76	128.0
1043	7.53 / 125	23125	18.72	0.718	0.0	6.40	-76	49.7
1103	8.26 / 125	25625	18.95	0.712	0.0	6.39	-77	44.5
1123	8.75 / 125	28125	19.13	0.710	0.0	6.38	-79	44.3

SAMPLING DATA

SAMPLE DATE/TIME:	12/10/08 1130
DEPTH TO WATER AFTER PURGING:	8.75 ft.
APPEARANCE:	Brown, slight odor
SAMPLING DEVICE:	Peristaltic Pump + Straw method

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES: Workers painting during sampling

Fe = 6.4 mg/L DO = 1.5 mg/L CO_2 = >100 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	E.MW-117
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	43718

PURGE START DATE/TIME: 12/9/08 1308			PURGE END DATE/TIME: 12/9/08 1422		
WEATHER CONDITIONS: SUNNY ~70°F			WELL CONDITION: GOOD		
WELL DEPTH:	11 ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	7000	mL
SWL:	0.68	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	DEPTH OF TUBING:	7.5	ft.
WELL VOLUME:	6.36 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1312	1.13 / 100	—	18.93	0.502	0.0	6.00	47	73.1
1317	1.49 / 100	500	18.95	0.547	0.0	5.98	33	64.9
1322	1.89 / 100	1000	18.79	0.836	0.0	6.02	19	64.0
1327	2.13 / 100	1500	18.67	0.900	0.0	6.08	13	59.8
1332	2.43 / 100	2000	18.72	0.999	0.0	6.08	3	57.4
1337	2.69 / 100	2500	18.73	0.900	0.0	6.04	-4	56.2
1342	2.97 / 100	3000	18.92	0.900	0.0	6.11	-9	55.7
1347	3.41 / 100	3500	19.11	0.900	0.0	6.14	-16	53.9
1352	3.65 / 100	4000	18.95	0.900	0.0	6.12	-19	54.2
1357	3.87 / 100	4500	19.01	0.900	0.0	6.13	-20	55.1
1402	4.35 / 100	5000	19.05	0.900	0.0	6.15	-22	54.7
1407	4.51 / 100	5500	19.06	0.900	0.0	6.15	-21	55.0
1412	4.87 / 100	6000	19.67	0.900	0.0	6.05	-19	56.3
1417	5.19 / 100	6500	19.79	0.900	0.0	6.02	-14	60.7
1422	5.91 / 100	7000	19.90	0.900	0.0	5.98	-13	61.7

SAMPLING DATA

SAMPLE DATE/TIME:	1430 12/9/08
DEPTH TO WATER AFTER PURGING:	5.9 ft.
APPEARANCE:	Clear, no odor
SAMPLING DEVICE:	Peristaltic Straw Method

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES: OILY FILM ON WATER SURFACE Fe = 6.0 mg/L DO = 3 mg/L CO_2 = >100 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-118
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	43718

PURGE START DATE/TIME:	12/9/08 1115		PURGE END DATE/TIME:	12/9/08 1219	
WEATHER CONDITIONS:	CLOUDY ~60° F		WELL CONDITION:	GOOD	
WELL DEPTH:	11	CONVERSION FACTORS	TOTAL PURGE VOLUME:	6000	mL
SWL:	2.01	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	DEPTH OF TUBING:	7.5	ft.
WELL VOLUME:	5.55L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (~~gal~~) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1119	2.48 / 100	–	17.75	1.64	2.00	4.74	184	13.3
1124	2.82 / 100	500	17.70	1.63	0.0	4.72	173	10.5
1129	3.15 / 100	1000	17.40	1.64	0.0	4.72	164	8.6
1134	3.51 / 100	1500	17.39	1.66	0.0	4.74	157	10.6
1139	3.71 / 100	2000	17.48	1.67	0.0	4.74	152	8.4
1144	3.95 / 100	2500	17.59	1.68	0.0	4.76	147	9.2
1149	4.29 / 100	3000	17.64	1.67	0.0	4.75	143	10.0
1154	4.64 / 100	3500	17.64	1.67	0.0	4.75	140	10.3
1159	4.98 / 100	4000	17.73	1.66	0.0	4.73	139	8.4
1204	5.28 / 100	4500	17.87	1.63	0.0	4.73	137	7.7
1209	5.61 / 100	5000	17.97	1.61	0.0	4.72	135	7.8
1214	5.94 / 100	5500	18.02	1.54	0.0	4.72	134	8.4
1219	6.29 / 100	6000	18.08	1.54	0.0	4.70	133	8.1

SAMPLING DATA

SAMPLE DATE/TIME:	1225 12/9/08
DEPTH TO WATER AFTER PURGING:	6.29 ft.
APPEARANCE:	Clear, No odor
SAMPLING DEVICE:	Peristaltic, Straw Method

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES: FILM ON WATER SURFACE

$Fe = 5.2$ mg/L $CO_2 = >100$ mg/L DO = 1.5 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-119
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	43718

PURGE START DATE/TIME:	12/9/08 0938		PURGE END DATE/TIME:	12/9/08 1030	
WEATHER CONDITIONS:	SUNNY ~50°F		WELL CONDITION:	GOOD	
WELL DEPTH:	11 Ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	3600	mL
SWL:	5.37	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	DEPTH OF TUBING:	8.5	ft.
WELL VOLUME:	3.47 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0942	5.56 / 75	-	16.58	0.468	0.0	6.60	288	44.0
0946	5.59 / 75	300	16.48	0.488	0.0	6.71	264	33.4
0950	5.67 / 75	600	16.37	0.493	0.0	6.75	253	24.5
0954	5.73 / 75	900	16.45	0.492	0.0	6.77	244	24.7
0958	5.83 / 75	1200	16.18	0.502	0.0	6.81	236	15.3
1002	5.89 / 75	1500	16.41	0.498	0.0	6.82	228	20.0
1006	5.93 / 75	1800	16.38	0.498	0.0	6.81	221	16.2
1010	6.01 / 75	2100	16.31	0.501	0.0	6.84	212	17.1
1014	6.08 / 75	2400	16.31	0.504	0.0	6.86	200	13.7
1018	6.13 / 75	2700	16.44	0.507	0.0	6.88	184	12.4
1022	6.22 / 75	3000	16.47	0.509	0.0	6.87	166	10.0
1026	6.24 / 75	3300	16.58	0.511	0.0	6.90	159	10.0
1030	6.39 / 75	3600	16.63	0.512	0.0	6.87	157	10.2

SAMPLING DATA

SAMPLE DATE/TIME:	12/9/08 1030
DEPTH TO WATER AFTER PURGING:	6.39 ft.
APPEARANCE:	Clear, No odor
SAMPLING DEVICE:	~~Peristaltic~~ Straw Method

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☑ (556)	OTHER	☐	PCBs

NOTES: Fe = 1.2 mg/L CO_2 = 95 mg/L DO = 2 mg/L

PURGING/SAMPLING PERSONNEL:	Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-120
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	43718

PURGE START DATE/TIME:	0751 12/9/08		PURGE END DATE/TIME:	DRY AT 0859	12/9/08
WEATHER CONDITIONS:	SUNNY ~50°F		WELL CONDITION:	GOOD	
WELL DEPTH:	11'	CONVERSION FACTORS	TOTAL PURGE VOLUME:	4200	mL
SWL:	4.63	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	DEPTH OF TUBING:	8.5	ft.
WELL VOLUME:	3.93L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0759	4.99 / 75	—	16.32	0.262	2.19	6.86	378	20.7
0803	5.16 / 75	300	16.27	0.243	2.00	6.53	385	19.8
0807	5.34 / 75	600	16.30	0.240	2.05	6.44	384	17.5
0811	5.53 / 75	900	16.22	0.242	2.11	6.41	384	15.2
0815	5.67 / 75	1200	16.17	0.244	2.31	6.44	381	17.7
0819	5.96 / 75	1500	16.26	0.246	2.39	6.48	379	14.1
0823	6.11 / 75	1800	16.22	0.249	2.45	6.50	377	17.1
0827	6.19 / 75	2100	16.27	0.255	2.63	6.52	375	13.5
0831	6.32 / 75	2400	16.40	0.253	2.60	6.52	374	15.8
0835	6.48 / 75	2700	16.47	0.253	2.62	6.53	372	13.6
0839	6.63 / 75	3000	16.50	0.252	2.75	6.54	369	13.3
0843	6.77 / 75	3300	16.50	0.251	2.75	6.53	368	14.6
0847	6.94 / 75	3600	16.65	0.247	2.65	6.54	365	13.6
0851	7.12 / 75	3900	16.76	0.242	2.21	6.53	363	15.8
0855	7.24 / 75	4200	16.88	0.237	1.94	6.52	361	13.8
			DRY AT 0859					

SAMPLING DATA

SAMPLE DATE/TIME:	1110 12/11/08
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	Clear, no odor
SAMPLING DEVICE:	Straw Method

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Fe = 0 mg/L CO_2 = 50 mg/L DO = 5 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-121
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	43718

PURGE START DATE/TIME: 12/9/08 1438			PURGE END DATE/TIME: DRY @ 12/9/08 1538		
WEATHER CONDITIONS: SUNNY ~70°F			WELL CONDITION: GOOD		
WELL DEPTH:	11 ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	~4200	mL
SWL:	4.81	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	2 in. Dia. 0.163 gal./ft.	DEPTH OF TUBING:	8	ft.
WELL VOLUME:	3.81 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1440	5.01 / 75	–	19.09	0.201	–	7.40	402	72.4
1445	5.31 / 75	450	18.86	0.195	–	7.10	393	45.3
1450	5.51 / 75	750	18.82	0.193	–	7.06	396	47.3
1454	5.99 / 75	1050	18.83	0.193	–	7.01	387	47.1
1468	6.00 / 75	1350	18.71	0.193	–	6.97	383	46.9
1504	6.01 / 75	1800	18.84	0.195	–	6.93	379	50.8
1508	6.02 / 75	2100	19.00	0.194	–	6.93	378	50.2
1512	6.07 / 75	2400	19.10	0.195	–	6.96	376	49.1
1516	6.16 / 75	2700	18.55	0.196	–	6.89	374	54.7
1520	6.28 / 75	3000	18.51	0.196	–	6.89	372	54.4
1524	6.51 / 75	3300	18.51	0.198	–	6.85	370	53.5
1528	6.61 / 75	3600	18.62	0.198	–	6.86	369	53.6
1532	6.81 / 75	3900	18.63	0.200	–	6.78	368	51.8
1536	6.91 / 75	4200	18.72	0.199	–	6.78	367	51.1
		WELL DRY AT 1538						
12/11/08 0730	DOWNHOLE	PROBE	16.39	0.195	8.26	8.05	282	63.6

SAMPLING DATA

SAMPLE DATE/TIME: 1130 12/11/08			PARAMETERS		
DEPTH TO WATER AFTER PURGING: DRY ft.	☒	VOCs	☐	Metals (U)	
APPEARANCE: Clear, No odor	☐	SVOCs	☐	Metals (F)	
SAMPLING DEVICE: Straw method	☐	OTHER	☐	PCBs	

NOTES: Fe = 0 mg/L DO = 4 mg/L CO_2 = 30 mg/L

PURGING/SAMPLING PERSONNEL:	Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2PP-1
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	43718

PURGE START DATE/TIME:	1555 12/8/08		PURGE END DATE/TIME:	DRY 12/8/08 1645	
WEATHER CONDITIONS:	SUNNY ~60°F		WELL CONDITION:	GOOD	
WELL DEPTH:	12 Ft	CONVERSION FACTORS	TOTAL PURGE VOLUME:	2050	mL
SWL:	3.53	1 in. Dia. 0.041 gal./ft.	DEPTH TO TOP OF SCREEN:	7	ft.
WELL DIAMETER:	1"	2 in. Dia. 0.163 gal./ft.	DEPTH OF TUBING:	9.5	ft.
WELL VOLUME:	1.315 L	4 in. Dia. 0.653 gal./ft.	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1600	5.08 50	--	19.54	0.183	5.94	5.95	107	9.2
1603	5.22 50	150	19.47	0.189	5.69	5.96	104	7.6
1606	5.48 50	300	19.49	0.204	5.20	5.99	101	10.1
1609	5.65 50	450	19.44	0.216	4.43	6.04	98	7.5
1612	5.81 50	600	19.42	0.225	4.10	6.07	97	9.2
1615	5.97 50	750	19.51	0.224	4.21	6.10	98	9.0
1618	6.20 50	900	19.42	0.234	3.60	6.10	100	5.7
1621	6.41 50	1050	19.41	0.237	3.50	6.11	102	4.2
1624	6.64 50	1200	19.35	0.241	3.25	6.13	103	4.7
1627	6.85 50	1350	19.45	0.238	3.43	6.14	106	4.1
1630	7.33 50	1500	19.42	0.242	3.16	6.14	109	8.4
1633	7.92 50	1650	19.52	0.234	3.55	6.15	112	7.0
1636	8.59 50	1800	19.30	0.235	3.48	6.12	118	59.1
1641	9.11 50	2050	19.81	0.222	3.80	6.14	119	45.5
			DRY AT 1645					

SAMPLING DATA

SAMPLE DATE/TIME:	12/10/08 1520
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	Clear, No odor
SAMPLING DEVICE:	Straw Method

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: $Fe = 0$ mg/L $CO_2 = 45$ mg/L DO = 3 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

Appendix D

Laboratory Certification

Laboratory Stipulation

LABORATORY:	Shealy Environmental Services, Inc.
ACCREDITOR:	State of Florida, Department of Health, Bureau of Laboratories (NELAP Accrediting Authority)
ACCREDITATION ID:	E87653
SCOPE:	Non-potable water
EFFECTIVE:	July 1, 2008
EXPIRES:	June 30, 2009

Appendix E

Laboratory Analytical Data

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

O'Brien and Gere
2610 Wycliff Road
Suite 104
Raleigh, NC 27607
Attention: Sarah Slagle-Garrett

Project Name: **Miller Moultrie**

Project Number: **43718**

Lot Number: **JL10054**

Date Completed: **12/22/2008**

Michael Casalena
Project Manager

This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* J L 1 0 0 5 4 *

Case Narrative
O'Brien and Gere
Lot Number: JL10054

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
O'Brien and Gere
Lot Number: JL10054

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	CH2MW-1	Aqueous	12/08/2008 1348	12/10/2008
002	ETMW-119	Aqueous	12/09/2008 1030	12/10/2008
003	ETMW-118	Aqueous	12/09/2008 1225	12/10/2008
004	Dup-2	Aqueous	12/09/2008	12/10/2008
005	ETMW-117	Aqueous	12/09/2008 1430	12/10/2008
006	Trip Blank	Aqueous	12/10/2008 1000	12/10/2008
007	Dup-01	Aqueous	12/09/2008	12/10/2008

(7 samples)

Executive Summary
O'Brien and Gere
Lot Number: JL10054

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	CH2MW-1	Aqueous	Trichloroethene	8260B	1.2		ug/L	6
003	ETMW-118	Aqueous	Alkalinity	SM 2320B	180		mg/L	8
003	ETMW-118	Aqueous	Chloride	300.0	18		mg/L	8
003	ETMW-118	Aqueous	DOC	SM 5310D	2300		mg/L	8
003	ETMW-118	Aqueous	Nitrate - N	353.2	0.062		mg/L	8
003	ETMW-118	Aqueous	Sulfate	300.0	2.3		mg/L	8
003	ETMW-118	Aqueous	Sulfide	SM 4500-S2 F	3.1		mg/L	8
003	ETMW-118	Aqueous	TOC	SM 5310D	2400		mg/L	8
003	ETMW-118	Aqueous	Acetone	8260B	370		ug/L	9
003	ETMW-118	Aqueous	2-Butanone (MEK)	8260B	260		ug/L	9
003	ETMW-118	Aqueous	Carbon disulfide	8260B	2.8		ug/L	9
003	ETMW-118	Aqueous	Chloroethane	8260B	3.2		ug/L	9
003	ETMW-118	Aqueous	1,1-Dichloroethane	8260B	14		ug/L	9
003	ETMW-118	Aqueous	1,1-Dichloroethene	8260B	3.0		ug/L	9
003	ETMW-118	Aqueous	cis-1,2-Dichloroethene	8260B	88		ug/L	9
003	ETMW-118	Aqueous	Isobutyl alcohol	8260B	69		ug/L	9
003	ETMW-118	Aqueous	Tetrachloroethene	8260B	3.2		ug/L	9
003	ETMW-118	Aqueous	Trichloroethene	8260B	37		ug/L	9
003	ETMW-118	Aqueous	Vinyl chloride	8260B	33		ug/L	9
003	ETMW-118	Aqueous	Methane	RSK - 175	4900		ug/L	10
003	ETMW-118	Aqueous	Iron	6010B	96		mg/L	11
004	Dup-2	Aqueous	Alkalinity	SM 2320B	200		mg/L	12
004	Dup-2	Aqueous	Chloride	300.0	20		mg/L	12
004	Dup-2	Aqueous	DOC	SM 5310D	33		mg/L	12
004	Dup-2	Aqueous	Sulfide	SM 4500-S2 F	1.2		mg/L	12
004	Dup-2	Aqueous	TOC	SM 5310D	38		mg/L	12
004	Dup-2	Aqueous	Acetone	8260B	12		ug/L	13
004	Dup-2	Aqueous	Benzene	8260B	1.7		ug/L	13
004	Dup-2	Aqueous	Carbon disulfide	8260B	0.70		ug/L	13
004	Dup-2	Aqueous	Chloroethane	8260B	2.9		ug/L	13
004	Dup-2	Aqueous	1,1-Dichloroethane	8260B	5.6		ug/L	13
004	Dup-2	Aqueous	1,1-Dichloroethene	8260B	1.0		ug/L	13
004	Dup-2	Aqueous	cis-1,2-Dichloroethene	8260B	50		ug/L	13
004	Dup-2	Aqueous	Trichloroethene	8260B	0.66		ug/L	13
004	Dup-2	Aqueous	Vinyl chloride	8260B	25		ug/L	13
004	Dup-2	Aqueous	Methane	RSK - 175	5100		ug/L	14
004	Dup-2	Aqueous	Iron	6010B	36		mg/L	15
005	ETMW-117	Aqueous	Alkalinity	SM 2320B	180		mg/L	16
005	ETMW-117	Aqueous	Chloride	300.0	21		mg/L	16
005	ETMW-117	Aqueous	DOC	SM 5310D	51		mg/L	16
005	ETMW-117	Aqueous	Nitrate - N	353.2	0.051		mg/L	16
005	ETMW-117	Aqueous	Sulfide	SM 4500-S2 F	1.3		mg/L	16
005	ETMW-117	Aqueous	TOC	SM 5310D	55		mg/L	16
005	ETMW-117	Aqueous	Acetone	8260B	16		ug/L	17
005	ETMW-117	Aqueous	Benzene	8260B	1.5		ug/L	17

Executive Summary (Continued)

Lot Number: JL10054

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
005	ETMW-117	Aqueous	Carbon disulfide	8260B	0.54		ug/L	17
005	ETMW-117	Aqueous	Chloroethane	8260B	2.7		ug/L	17
005	ETMW-117	Aqueous	1,1-Dichloroethane	8260B	4.8		ug/L	17
005	ETMW-117	Aqueous	cis-1,2-Dichloroethene	8260B	41		ug/L	17
005	ETMW-117	Aqueous	Trichloroethene	8260B	0.56		ug/L	17
005	ETMW-117	Aqueous	Vinyl chloride	8260B	24		ug/L	17
005	ETMW-117	Aqueous	Methane	RSK - 175	5900		ug/L	18
005	ETMW-117	Aqueous	Iron	6010B	36		mg/L	19

(53 detections)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **JL10054-001**

Description: **CH2MW-1** Matrix: **Aqueous**

Date Sampled: **12/08/2008 1348**

Date Received: **12/10/2008**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/22/2008 1437	IVC		92186

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**1.2**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	52-138
Bromofluorobenzene		106	70-147
Toluene-d8		101	76-125

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **JL10054-002**
Description: **ETMW-119**
Matrix: **Aqueous**
Date Sampled: **12/09/2008 1030**
Date Received: **12/10/2008**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/19/2008 1145	DLB		92122

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	52-138
Bromofluorobenzene		105	70-147
Toluene-d8		96	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Inorganic non-metals

Client: **O'Brien and Gere**
Laboratory ID: **JL10054-003**
Description: **ETMW-118**
Matrix: **Aqueous**
Date Sampled: **12/09/2008 1225**
Date Received: **12/10/2008**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/20/2008 1733	SLH		92136
1		(Chloride) 300.0	1	12/22/2008 1234	DAS		92199
1		(DOC) SM 5310D	50	12/16/2008 0022	PMM		91787
1		(Nitrate - N) 353.2	1	12/11/2008 1104	MML		91495
1		(Sulfate) 300.0	1	12/22/2008 1234	DAS		92200
1		(Sulfide) SM 4500-S2 F	1	12/15/2008 1040	BM		91751
1		(TOC) SM 5310D	50	12/16/2008 1036	PMM		91786

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		**SM 2320B**	**180**		**10**	**mg/L**	**1**
Chloride		**300.0**	**18**		**1.0**	**mg/L**	**1**
DOC		**SM 5310D**	**2300**		**50**	**mg/L**	**1**
Nitrate - N		**353.2**	**0.062**		**0.020**	**mg/L**	**1**
Sulfate		**300.0**	**2.3**		**1.0**	**mg/L**	**1**
Sulfide	**18496-25-8**	**SM 4500-S2 F**	**3.1**		**1.0**	**mg/L**	**1**
TOC		**SM 5310D**	**2400**		**50**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **JL10054-003**

Description: **ETMW-118** Matrix: **Aqueous**

Date Sampled: **12/09/2008 1225**

Date Received: **12/10/2008**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/18/2008 2130	DLB		91997

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	**67-64-1**	**8260B**	**370**		**10**	**ug/L**	**1**
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	**78-93-3**	**8260B**	**260**		**10**	**ug/L**	**1**
Carbon disulfide	**75-15-0**	**8260B**	**2.8**		**0.50**	**ug/L**	**1**
Chloroethane	**75-00-3**	**8260B**	**3.2**		**0.50**	**ug/L**	**1**
1,1-Dichloroethane	**75-34-3**	**8260B**	**14**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	**75-35-4**	**8260B**	**3.0**		**0.50**	**ug/L**	**1**
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**88**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	**78-83-1**	**8260B**	**69**		**50**	**ug/L**	**1**
Tetrachloroethene	**127-18-4**	**8260B**	**3.2**		**0.50**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**37**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**33**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	52-138
Bromofluorobenzene		106	70-147
Toluene-d8		101	76-125

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Dissolved Gases

Client: **O'Brien and Gere**
Laboratory ID: **JL10054-003**
Description: **ETMW-118**
Matrix: **Aqueous**
Date Sampled: **12/09/2008 1225**
Date Received: **12/10/2008**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/18/2008 2140	LBS		91996

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	**74-82-8**	**RSK - 175**	**4900**		**10**	**ug/L**	**1**

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

ICP-AES

Client: **O'Brien and Gere**
Laboratory ID: **JL10054-003**
Description: **ETMW-118**
Matrix: **Aqueous**
Date Sampled: **12/09/2008 1225**
Date Received: **12/10/2008**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010B	1	12/11/2008 2105	KJC	12/11/2008 1200	91462

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	**7439-89-6**	**6010B**	**96**		**0.10**	**mg/L**	**1**

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Inorganic non-metals

Client: **O'Brien and Gere**
Laboratory ID: **JL10054-004**
Description: **Dup-2**
Matrix: **Aqueous**
Date Sampled: **12/09/2008**
Date Received: **12/10/2008**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/20/2008 1746	SLH		92136
1		(Chloride) 300.0	1	12/22/2008 1257	DAS		92199
1		(DOC) SM 5310D	1	12/16/2008 0042	PMM		91787
1		(Nitrate - N) 353.2	1	12/11/2008 1103	MML		91495
1		(Sulfate) 300.0	1	12/22/2008 1257	DAS		92200
1		(Sulfide) SM 4500-S2 F	1	12/15/2008 1040	BM		91751
1		(TOC) SM 5310D	1	12/16/2008 1056	PMM		91786

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		**SM 2320B**	**200**		**10**	**mg/L**	**1**
Chloride		**300.0**	**20**		**1.0**	**mg/L**	**1**
DOC		**SM 5310D**	**33**		**1.0**	**mg/L**	**1**
Nitrate - N		353.2	ND		0.020	mg/L	1
Sulfate		300.0	ND		1.0	mg/L	1
Sulfide	**18496-25-8**	**SM 4500-S2 F**	**1.2**		**1.0**	**mg/L**	**1**
TOC		**SM 5310D**	**38**		**1.0**	**mg/L**	**1**

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **JL10054-004**

Description: **Dup-2** Matrix: **Aqueous**

Date Sampled: **12/09/2008**

Date Received: **12/10/2008**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/18/2008 2048	DLB		91997

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	**67-64-1**	**8260B**	**12**		**10**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**1.7**		**0.50**	**ug/L**	**1**
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	**75-15-0**	**8260B**	**0.70**		**0.50**	**ug/L**	**1**
Chloroethane	**75-00-3**	**8260B**	**2.9**		**0.50**	**ug/L**	**1**
1,1-Dichloroethane	**75-34-3**	**8260B**	**5.6**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	**75-35-4**	**8260B**	**1.0**		**0.50**	**ug/L**	**1**
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**50**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**0.66**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**25**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		115	52-138
Bromofluorobenzene		104	70-147
Toluene-d8		102	76-125

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Dissolved Gases

Client: **O'Brien and Gere** Laboratory ID: **JL10054-004**

Description: **Dup-2** Matrix: **Aqueous**

Date Sampled: **12/09/2008**

Date Received: **12/10/2008**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/18/2008 2158	LBS		91996

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	**74-82-8**	**RSK - 175**	**5100**		**10**	**ug/L**	**1**

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

ICP-AES

Client: **O'Brien and Gere**
Laboratory ID: **JL10054-004**
Description: **Dup-2**
Matrix: **Aqueous**
Date Sampled: **12/09/2008**
Date Received: **12/10/2008**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010B	1	12/11/2008 2111	KJC	12/11/2008 1200	91462

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	**7439-89-6**	**6010B**	**36**		**0.10**	**mg/L**	**1**

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Inorganic non-metals

Client: **O'Brien and Gere**
Laboratory ID: **JL10054-005**
Description: **ETMW-117**
Matrix: **Aqueous**
Date Sampled: **12/09/2008 1430**
Date Received: **12/10/2008**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/20/2008 1800	SLH		92136
1		(Chloride) 300.0	1	12/22/2008 1319	DAS		92199
1		(DOC) SM 5310D	2	12/16/2008 0123	PMM		91787
1		(Nitrate - N) 353.2	1	12/11/2008 1105	MML		91495
1		(Sulfate) 300.0	1	12/22/2008 1319	DAS		92200
1		(Sulfide) SM 4500-S2 F	1	12/15/2008 1040	BM		91751
1		(TOC) SM 5310D	2	12/16/2008 1218	PMM		91786

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		**SM 2320B**	**180**		**10**	**mg/L**	**1**
Chloride		**300.0**	**21**		**1.0**	**mg/L**	**1**
DOC		**SM 5310D**	**51**		**2.0**	**mg/L**	**1**
Nitrate - N		**353.2**	**0.051**		**0.020**	**mg/L**	**1**
Sulfate		300.0	ND		1.0	mg/L	1
Sulfide	**18496-25-8**	**SM 4500-S2 F**	**1.3**		**1.0**	**mg/L**	**1**
TOC		**SM 5310D**	**55**		**2.0**	**mg/L**	**1**

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **JL10054-005**

Description: **ETMW-117** Matrix: **Aqueous**

Date Sampled: **12/09/2008 1430**

Date Received: **12/10/2008**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/18/2008 2109	DLB		91997

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	**67-64-1**	**8260B**	**16**		**10**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**1.5**		**0.50**	**ug/L**	**1**
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	**75-15-0**	**8260B**	**0.54**		**0.50**	**ug/L**	**1**
Chloroethane	**75-00-3**	**8260B**	**2.7**		**0.50**	**ug/L**	**1**
1,1-Dichloroethane	**75-34-3**	**8260B**	**4.8**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**41**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**0.56**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**24**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		117	52-138
Bromofluorobenzene		105	70-147
Toluene-d8		102	76-125

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Dissolved Gases

Client: **O'Brien and Gere**
Laboratory ID: **JL10054-005**
Description: **ETMW-117**
Matrix: **Aqueous**
Date Sampled: **12/09/2008 1430**
Date Received: **12/10/2008**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/18/2008 2213	LBS		91996

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	**74-82-8**	**RSK - 175**	**5900**		**10**	**ug/L**	**1**

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

ICP-AES

Client: **O'Brien and Gere**
Laboratory ID: **JL10054-005**
Description: **ETMW-117**
Matrix: **Aqueous**
Date Sampled: **12/09/2008 1430**
Date Received: **12/10/2008**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010B	1	12/11/2008 2117	KJC	12/11/2008 1200	91462

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	**7439-89-6**	**6010B**	**36**		**0.10**	**mg/L**	**1**

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **JL10054-006**

Description: **Trip Blank** Matrix: **Aqueous**

Date Sampled: **12/10/2008 1000**

Date Received: **12/10/2008**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/18/2008 1527	DLB		91997

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	52-138
Bromofluorobenzene		103	70-147
Toluene-d8		100	76-125

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **JL10054-007**

Description: **Dup-01** Matrix: **Aqueous**

Date Sampled: **12/09/2008**

Date Received: **12/10/2008**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/17/2008 1931	DLB		91894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	52-138
Bromofluorobenzene		101	70-147
Toluene-d8		100	76-125

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Inorganic non-metals - MB

Sample ID: JQ91495-001
Batch: 91495
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	12/11/2008 1225

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ91495-002
Batch: 91495
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.75		1	94	90-110	12/11/2008 1226

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ91495-003 **Matrix:** Aqueous
Batch: 91495
Analytical Method: 353.2

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.80	0.80		1	100	6.8	90-110	20	12/11/2008 1228

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ91751-001
Batch: 91751
Analytical Method: SM 4500-S2 F
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Sulfide	ND		1	1.0	mg/L	12/15/2008 1040

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ91751-002
Batch: 91751
Analytical Method: SM 4500-S2 F

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfide	10	9.3		1	93	80-120	12/15/2008 1040

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ91751-003 **Matrix:** Aqueous
Batch: 91751
Analytical Method: SM 4500-S2 F

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfide	10	9.6		1	96	3.7	80-120	20	12/15/2008 1040

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - Duplicate

Sample ID: JL10054-003DU
Batch: 91751
Analytical Method: SM 4500-S2 F
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Result (mg/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Sulfide	3.1	2.9		1	5.8	20	12/15/2008 1040

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - Duplicate

Sample ID: JL10054-004DU
Batch: 91751
Analytical Method: SM 4500-S2 F
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Result (mg/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Sulfide	1.2	1.2		1	0.0	20	12/15/2008 1040

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ91786-001
Batch: 91786
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
TOC	ND		1	1.0	mg/L	12/16/2008 0326

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ91786-002
Batch: 91786
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
TOC	20	21		1	104	90-110	12/16/2008 0347

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ91786-003 **Matrix:** Aqueous
Batch: 91786
Analytical Method: SM 5310D

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
TOC	20	21		1	104	0.13	90-110	20	12/16/2008 0407

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ91787-001
Batch: 91787
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
DOC	ND		1	1.0	mg/L	12/15/2008 1955

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ91787-002
Batch: 91787
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
DOC	20	20		1	102	90-110	12/15/2008 2015

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ91787-003 **Matrix:** Aqueous
Batch: 91787
Analytical Method: SM 5310D

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
DOC	20	20		1	103	0.97	90-110	20	12/15/2008 2036

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N - Recovery is out of criteria
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ92136-001
Batch: 92136
Analytical Method: SM 2320B
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Alkalinity	ND		1	10	mg/L	12/20/2008 1430

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ92136-002
Batch: 92136
Analytical Method: SM 2320B
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Alkalinity	100	98		1	98	90-110	12/20/2008 1449

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ92136-003 **Matrix:** Aqueous
Batch: 92136
Analytical Method: SM 2320B

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Alkalinity	100	98		1	98	0.79	90-110	20	12/20/2008 1505

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ92199-001
Batch: 92199
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Chloride	ND		1	1.0	mg/L	12/22/2008 1020

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ92199-002
Batch: 92199
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	101	90-110	12/22/2008 1042

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ92199-003 **Matrix:** Aqueous
Batch: 92199
Analytical Method: 300.0

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	20	20		1	102	0.37	90-110	20	12/22/2008 1105

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ92200-001
Batch: 92200
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Sulfate	ND		1	1.0	mg/L	12/22/2008 1020

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ92200-002
Batch: 92200
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	99	90-110	12/22/2008 1042

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ92200-003
Batch: 92200
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	20	20		1	99	0.26	90-110	20	12/22/2008 1105

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: JQ91894-001
Batch: 91894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/17/2008 1639
Benzene	ND		1	0.50	ug/L	12/17/2008 1639
2-Butanone (MEK)	ND		1	10	ug/L	12/17/2008 1639
Carbon disulfide	ND		1	0.50	ug/L	12/17/2008 1639
Chloroethane	ND		1	0.50	ug/L	12/17/2008 1639
1,2-Dichloroethane	ND		1	0.50	ug/L	12/17/2008 1639
1,1-Dichloroethane	ND		1	0.50	ug/L	12/17/2008 1639
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/17/2008 1639
1,1-Dichloroethene	ND		1	0.50	ug/L	12/17/2008 1639
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/17/2008 1639
Isobutyl alcohol	ND		1	50	ug/L	12/17/2008 1639
Tetrachloroethene	ND		1	0.50	ug/L	12/17/2008 1639
Toluene	ND		1	0.50	ug/L	12/17/2008 1639
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/17/2008 1639
Trichloroethene	ND		1	0.50	ug/L	12/17/2008 1639
Trichlorofluoromethane	ND		1	0.50	ug/L	12/17/2008 1639
Vinyl chloride	ND		1	0.50	ug/L	12/17/2008 1639
Xylenes (total)	ND		1	0.50	ug/L	12/17/2008 1639

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-147
1,2-Dichloroethane-d4		107	52-138
Toluene-d8		100	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: JQ91894-002
Batch: 91894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	103	46-153	12/17/2008 1513
Benzene	50	50		1	101	70-130	12/17/2008 1513
2-Butanone (MEK)	100	95		1	95	60-140	12/17/2008 1513
Carbon disulfide	50	46		1	92	60-140	12/17/2008 1513
Chloroethane	50	51		1	102	42-163	12/17/2008 1513
1,2-Dichloroethane	50	54		1	107	70-130	12/17/2008 1513
1,1-Dichloroethane	50	51		1	101	70-130	12/17/2008 1513
cis-1,2-Dichloroethene	50	49		1	99	70-130	12/17/2008 1513
1,1-Dichloroethene	50	53		1	105	70-130	12/17/2008 1513
trans-1,2-Dichloroethene	50	51		1	102	70-130	12/17/2008 1513
Isobutyl alcohol	500	450		1	90	70-130	12/17/2008 1513
Tetrachloroethene	50	54		1	109	70-130	12/17/2008 1513
Toluene	50	53		1	105	70-130	12/17/2008 1513
1,1,1-Trichloroethane	50	55		1	110	70-130	12/17/2008 1513
Trichloroethene	50	54		1	108	70-130	12/17/2008 1513
Trichlorofluoromethane	50	60		1	120	60-140	12/17/2008 1513
Vinyl chloride	50	54		1	108	60-140	12/17/2008 1513
Xylenes (total)	100	100		1	105	70-130	12/17/2008 1513

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-147
1,2-Dichloroethane-d4		112	52-138
Toluene-d8		105	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: JQ91894-003
Batch: 91894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	100		1	105	2.2	46-153	20	12/17/2008 1534
Benzene	50	53		1	107	5.7	70-130	20	12/17/2008 1534
2-Butanone (MEK)	100	94		1	94	2.0	60-140	20	12/17/2008 1534
Carbon disulfide	50	50		1	101	8.8	60-140	20	12/17/2008 1534
Chloroethane	50	55		1	110	7.8	42-163	20	12/17/2008 1534
1,2-Dichloroethane	50	58		1	116	7.7	70-130	20	12/17/2008 1534
1,1-Dichloroethane	50	55		1	110	8.7	70-130	20	12/17/2008 1534
cis-1,2-Dichloroethene	50	53		1	106	7.3	70-130	20	12/17/2008 1534
1,1-Dichloroethene	50	56		1	111	5.5	70-130	20	12/17/2008 1534
trans-1,2-Dichloroethene	50	55		1	110	7.6	70-130	20	12/17/2008 1534
Isobutyl alcohol	500	460		1	93	3.0	70-130	20	12/17/2008 1534
Tetrachloroethene	50	57		1	113	4.2	70-130	20	12/17/2008 1534
Toluene	50	56		1	111	5.3	70-130	20	12/17/2008 1534
1,1,1-Trichloroethane	50	60		1	120	8.7	70-130	20	12/17/2008 1534
Trichloroethene	50	58		1	115	5.8	70-130	20	12/17/2008 1534
Trichlorofluoromethane	50	64		1	129	7.3	60-140	20	12/17/2008 1534
Vinyl chloride	50	58		1	116	6.9	60-140	20	12/17/2008 1534
Xylenes (total)	100	110		1	109	3.8	70-130	20	12/17/2008 1534

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-147
1,2-Dichloroethane-d4		112	52-138
Toluene-d8		104	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: JQ91997-001
Batch: 91997
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/18/2008 1448
Benzene	ND		1	0.50	ug/L	12/18/2008 1448
2-Butanone (MEK)	ND		1	10	ug/L	12/18/2008 1448
Carbon disulfide	ND		1	0.50	ug/L	12/18/2008 1448
Chloroethane	ND		1	0.50	ug/L	12/18/2008 1448
1,1-Dichloroethane	ND		1	0.50	ug/L	12/18/2008 1448
1,2-Dichloroethane	ND		1	0.50	ug/L	12/18/2008 1448
1,1-Dichloroethene	ND		1	0.50	ug/L	12/18/2008 1448
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/18/2008 1448
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/18/2008 1448
Isobutyl alcohol	ND		1	50	ug/L	12/18/2008 1448
Tetrachloroethene	ND		1	0.50	ug/L	12/18/2008 1448
Toluene	ND		1	0.50	ug/L	12/18/2008 1448
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/18/2008 1448
Trichloroethene	ND		1	0.50	ug/L	12/18/2008 1448
Trichlorofluoromethane	ND		1	0.50	ug/L	12/18/2008 1448
Vinyl chloride	ND		1	0.50	ug/L	12/18/2008 1448
Xylenes (total)	ND		1	0.50	ug/L	12/18/2008 1448

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-147
1,2-Dichloroethane-d4		107	52-138
Toluene-d8		102	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: JQ91997-002
Batch: 91997
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	102	46-153	12/18/2008 1308
Benzene	50	52		1	104	70-130	12/18/2008 1308
2-Butanone (MEK)	100	110		1	106	60-140	12/18/2008 1308
Carbon disulfide	50	50		1	99	60-140	12/18/2008 1308
Chloroethane	50	55		1	110	42-163	12/18/2008 1308
1,1-Dichloroethane	50	54		1	108	70-130	12/18/2008 1308
1,2-Dichloroethane	50	56		1	113	70-130	12/18/2008 1308
1,1-Dichloroethene	50	54		1	107	70-130	12/18/2008 1308
trans-1,2-Dichloroethene	50	55		1	110	70-130	12/18/2008 1308
cis-1,2-Dichloroethene	50	52		1	104	70-130	12/18/2008 1308
Isobutyl alcohol	500	530		1	107	70-130	12/18/2008 1308
Tetrachloroethene	50	56		1	112	70-130	12/18/2008 1308
Toluene	50	53		1	106	70-130	12/18/2008 1308
1,1,1-Trichloroethane	50	58		1	117	70-130	12/18/2008 1308
Trichloroethene	50	57		1	114	70-130	12/18/2008 1308
Trichlorofluoromethane	50	63		1	126	60-140	12/18/2008 1308
Vinyl chloride	50	57		1	114	60-140	12/18/2008 1308
Xylenes (total)	100	110		1	107	70-130	12/18/2008 1308

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		114	70-147
1,2-Dichloroethane-d4		124	52-138
Toluene-d8		107	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: JQ91997-003
Batch: 91997
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	86		1	86	16	46-153	20	12/18/2008 1329
Benzene	50	48		1	97	7.1	70-130	20	12/18/2008 1329
2-Butanone (MEK)	100	97		1	97	9.5	60-140	20	12/18/2008 1329
Carbon disulfide	50	44		1	88	12	60-140	20	12/18/2008 1329
Chloroethane	50	52		1	103	6.3	42-163	20	12/18/2008 1329
1,1-Dichloroethane	50	50		1	100	7.5	70-130	20	12/18/2008 1329
1,2-Dichloroethane	50	52		1	104	8.0	70-130	20	12/18/2008 1329
1,1-Dichloroethene	50	50		1	100	6.9	70-130	20	12/18/2008 1329
trans-1,2-Dichloroethene	50	51		1	102	7.6	70-130	20	12/18/2008 1329
cis-1,2-Dichloroethene	50	48		1	96	7.1	70-130	20	12/18/2008 1329
Isobutyl alcohol	500	420	+	1	84	24	70-130	20	12/18/2008 1329
Tetrachloroethene	50	53		1	106	5.8	70-130	20	12/18/2008 1329
Toluene	50	49		1	98	7.7	70-130	20	12/18/2008 1329
1,1,1-Trichloroethane	50	54		1	107	8.3	70-130	20	12/18/2008 1329
Trichloroethene	50	52		1	103	9.9	70-130	20	12/18/2008 1329
Trichlorofluoromethane	50	58		1	116	8.3	60-140	20	12/18/2008 1329
Vinyl chloride	50	52		1	104	9.0	60-140	20	12/18/2008 1329
Xylenes (total)	100	100		1	100	6.9	70-130	20	12/18/2008 1329

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-147
1,2-Dichloroethane-d4		110	52-138
Toluene-d8		102	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: JQ92122-001
Batch: 92122
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/19/2008 1039
Benzene	ND		1	0.50	ug/L	12/19/2008 1039
2-Butanone (MEK)	ND		1	10	ug/L	12/19/2008 1039
Carbon disulfide	ND		1	0.50	ug/L	12/19/2008 1039
Chloroethane	ND		1	0.50	ug/L	12/19/2008 1039
1,1-Dichloroethane	ND		1	0.50	ug/L	12/19/2008 1039
1,2-Dichloroethane	ND		1	0.50	ug/L	12/19/2008 1039
1,1-Dichloroethene	ND		1	0.50	ug/L	12/19/2008 1039
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/19/2008 1039
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/19/2008 1039
Isobutyl alcohol	ND		1	50	ug/L	12/19/2008 1039
Tetrachloroethene	ND		1	0.50	ug/L	12/19/2008 1039
Toluene	ND		1	0.50	ug/L	12/19/2008 1039
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/19/2008 1039
Trichloroethene	ND		1	0.50	ug/L	12/19/2008 1039
Trichlorofluoromethane	ND		1	0.50	ug/L	12/19/2008 1039
Vinyl chloride	ND		1	0.50	ug/L	12/19/2008 1039
Xylenes (total)	ND		1	0.50	ug/L	12/19/2008 1039

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-147
1,2-Dichloroethane-d4		110	52-138
Toluene-d8		98	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: JQ92122-002
Batch: 92122
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	98		1	98	46-153	12/19/2008 0935
Benzene	50	49		1	98	70-130	12/19/2008 0935
2-Butanone (MEK)	100	97		1	97	60-140	12/19/2008 0935
Carbon disulfide	50	44		1	89	60-140	12/19/2008 0935
Chloroethane	50	49		1	98	42-163	12/19/2008 0935
1,1-Dichloroethane	50	50		1	99	70-130	12/19/2008 0935
1,2-Dichloroethane	50	58		1	115	70-130	12/19/2008 0935
1,1-Dichloroethene	50	51		1	102	70-130	12/19/2008 0935
cis-1,2-Dichloroethene	50	48		1	96	70-130	12/19/2008 0935
trans-1,2-Dichloroethene	50	50		1	101	70-130	12/19/2008 0935
Isobutyl alcohol	500	460		1	93	70-130	12/19/2008 0935
Tetrachloroethene	50	55		1	111	70-130	12/19/2008 0935
Toluene	50	51		1	102	70-130	12/19/2008 0935
1,1,1-Trichloroethane	50	58		1	116	70-130	12/19/2008 0935
Trichloroethene	50	55		1	110	70-130	12/19/2008 0935
Trichlorofluoromethane	50	64		1	128	60-140	12/19/2008 0935
Vinyl chloride	50	53		1	105	60-140	12/19/2008 0935
Xylenes (total)	100	100		1	104	70-130	12/19/2008 0935

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		110	70-147
1,2-Dichloroethane-d4		122	52-138
Toluene-d8		104	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: JQ92122-003
Batch: 92122
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	81		1	81	19	46-153	20	12/19/2008 0956
Benzene	50	48		1	97	1.5	70-130	20	12/19/2008 0956
2-Butanone (MEK)	100	66	+	1	66	39	60-140	20	12/19/2008 0956
Carbon disulfide	50	43		1	86	4.2	60-140	20	12/19/2008 0956
Chloroethane	50	49		1	98	0.20	42-163	20	12/19/2008 0956
1,1-Dichloroethane	50	48		1	97	2.5	70-130	20	12/19/2008 0956
1,2-Dichloroethane	50	55		1	110	4.6	70-130	20	12/19/2008 0956
1,1-Dichloroethene	50	49		1	98	4.2	70-130	20	12/19/2008 0956
cis-1,2-Dichloroethene	50	47		1	93	3.5	70-130	20	12/19/2008 0956
trans-1,2-Dichloroethene	50	49		1	98	2.7	70-130	20	12/19/2008 0956
Isobutyl alcohol	500	280	N,+	1	56	49	70-130	20	12/19/2008 0956
Tetrachloroethene	50	55		1	109	1.3	70-130	20	12/19/2008 0956
Toluene	50	50		1	100	2.4	70-130	20	12/19/2008 0956
1,1,1-Trichloroethane	50	56		1	112	3.4	70-130	20	12/19/2008 0956
Trichloroethene	50	53		1	106	4.0	70-130	20	12/19/2008 0956
Trichlorofluoromethane	50	61		1	122	4.5	60-140	20	12/19/2008 0956
Vinyl chloride	50	50		1	101	3.9	60-140	20	12/19/2008 0956
Xylenes (total)	100	100		1	102	1.9	70-130	20	12/19/2008 0956

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-147
1,2-Dichloroethane-d4		116	52-138
Toluene-d8		100	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: JL10054-002MS
Batch: 92122
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
2-Butanone (MEK)	ND	100	66		1	66	60-140	12/19/2008 1857
Carbon disulfide	ND	50	40		1	80	60-140	12/19/2008 1857
Chloroethane	ND	50	53		1	106	42-163	12/19/2008 1857
1,1-Dichloroethane	ND	50	48		1	96	70-130	12/19/2008 1857
1,1-Dichloroethene	ND	50	52		1	103	70-130	12/19/2008 1857
cis-1,2-Dichloroethene	ND	50	47		1	93	70-130	12/19/2008 1857
trans-1,2-Dichloroethene	ND	50	51		1	101	70-130	12/19/2008 1857
Isobutyl alcohol	ND	500	150	N	1	29	70-130	12/19/2008 1857
Tetrachloroethene	ND	50	57		1	114	70-130	12/19/2008 1857
1,1,1-Trichloroethane	ND	50	59		1	117	70-130	12/19/2008 1857
Trichloroethene	ND	50	55		1	110	70-130	12/19/2008 1857
Trichlorofluoromethane	ND	50	68		1	136	60-140	12/19/2008 1857
Vinyl chloride	ND	50	57		1	113	60-140	12/19/2008 1857

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: JL10054-002MD
Batch: 92122
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
2-Butanone (MEK)	ND	100	71		1	71	7.4	60-140	20	12/19/2008 1919
Carbon disulfide	ND	50	44		1	87	8.7	60-140	20	12/19/2008 1919
Chloroethane	ND	50	57		1	114	8.0	42-163	20	12/19/2008 1919
1,1-Dichloroethane	ND	50	52		1	105	8.3	70-130	20	12/19/2008 1919
1,1-Dichloroethene	ND	50	55		1	110	6.6	70-130	20	12/19/2008 1919
cis-1,2-Dichloroethene	ND	50	52		1	104	10	70-130	20	12/19/2008 1919
trans-1,2-Dichloroethene	ND	50	55		1	110	7.7	70-130	20	12/19/2008 1919
Isobutyl alcohol	ND	500	160	N	1	31	6.6	70-130	20	12/19/2008 1919
Tetrachloroethene	ND	50	62		1	123	7.9	70-130	20	12/19/2008 1919
1,1,1-Trichloroethane	ND	50	64		1	127	8.2	70-130	20	12/19/2008 1919
Trichloroethene	ND	50	59		1	118	7.5	70-130	20	12/19/2008 1919
Trichlorofluoromethane	ND	50	72	N	1	144	5.9	60-140	20	12/19/2008 1919
Vinyl chloride	ND	50	60		1	121	6.4	60-140	20	12/19/2008 1919

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: JQ92186-001
Batch: 92186
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/22/2008 1331
Benzene	ND		1	0.50	ug/L	12/22/2008 1331
2-Butanone (MEK)	ND		1	10	ug/L	12/22/2008 1331
Carbon disulfide	ND		1	0.50	ug/L	12/22/2008 1331
Chloroethane	ND		1	0.50	ug/L	12/22/2008 1331
1,2-Dichloroethane	ND		1	0.50	ug/L	12/22/2008 1331
1,1-Dichloroethane	ND		1	0.50	ug/L	12/22/2008 1331
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/22/2008 1331
1,1-Dichloroethene	ND		1	0.50	ug/L	12/22/2008 1331
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/22/2008 1331
Isobutyl alcohol	ND		1	50	ug/L	12/22/2008 1331
Tetrachloroethene	ND		1	0.50	ug/L	12/22/2008 1331
Toluene	ND		1	0.50	ug/L	12/22/2008 1331
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/22/2008 1331
Trichloroethene	ND		1	0.50	ug/L	12/22/2008 1331
Trichlorofluoromethane	ND		1	0.50	ug/L	12/22/2008 1331
Vinyl chloride	ND		1	0.50	ug/L	12/22/2008 1331
Xylenes (total)	ND		1	0.50	ug/L	12/22/2008 1331

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		107	70-147
1,2-Dichloroethane-d4		112	52-138
Toluene-d8		102	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: JQ92186-002
Batch: 92186
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	104	46-153	12/22/2008 1205
Benzene	50	48		1	96	70-130	12/22/2008 1205
2-Butanone (MEK)	100	97		1	97	60-140	12/22/2008 1205
Carbon disulfide	50	42		1	84	60-140	12/22/2008 1205
Chloroethane	50	47		1	94	42-163	12/22/2008 1205
1,2-Dichloroethane	50	56		1	111	70-130	12/22/2008 1205
1,1-Dichloroethane	50	49		1	98	70-130	12/22/2008 1205
trans-1,2-Dichloroethene	50	48		1	96	70-130	12/22/2008 1205
1,1-Dichloroethene	50	47		1	94	70-130	12/22/2008 1205
cis-1,2-Dichloroethene	50	46		1	92	70-130	12/22/2008 1205
Isobutyl alcohol	500	440		1	89	70-130	12/22/2008 1205
Tetrachloroethene	50	52		1	104	70-130	12/22/2008 1205
Toluene	50	48		1	96	70-130	12/22/2008 1205
1,1,1-Trichloroethane	50	54		1	109	70-130	12/22/2008 1205
Trichloroethene	50	53		1	105	70-130	12/22/2008 1205
Trichlorofluoromethane	50	57		1	115	60-140	12/22/2008 1205
Vinyl chloride	50	48		1	96	60-140	12/22/2008 1205
Xylenes (total)	100	98		1	98	70-130	12/22/2008 1205

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		107	70-147
1,2-Dichloroethane-d4		117	52-138
Toluene-d8		104	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: JQ92186-003
Batch: 92186
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	86		1	86	19	46-153	20	12/22/2008 1143
Benzene	50	46		1	92	3.6	70-130	20	12/22/2008 1143
2-Butanone (MEK)	100	82		1	82	17	60-140	20	12/22/2008 1143
Carbon disulfide	50	40		1	80	4.7	60-140	20	12/22/2008 1143
Chloroethane	50	47		1	94	0.97	42-163	20	12/22/2008 1143
1,2-Dichloroethane	50	54		1	107	3.7	70-130	20	12/22/2008 1143
1,1-Dichloroethane	50	46		1	93	5.2	70-130	20	12/22/2008 1143
trans-1,2-Dichloroethene	50	47		1	95	1.4	70-130	20	12/22/2008 1143
1,1-Dichloroethene	50	45		1	90	4.0	70-130	20	12/22/2008 1143
cis-1,2-Dichloroethene	50	45		1	91	1.7	70-130	20	12/22/2008 1143
Isobutyl alcohol	500	260	N,+	1	53	51	70-130	20	12/22/2008 1143
Tetrachloroethene	50	51		1	102	1.9	70-130	20	12/22/2008 1143
Toluene	50	47		1	94	2.4	70-130	20	12/22/2008 1143
1,1,1-Trichloroethane	50	52		1	105	3.4	70-130	20	12/22/2008 1143
Trichloroethene	50	50		1	99	6.0	70-130	20	12/22/2008 1143
Trichlorofluoromethane	50	54		1	108	5.8	60-140	20	12/22/2008 1143
Vinyl chloride	50	44		1	88	9.2	60-140	20	12/22/2008 1143
Xylenes (total)	100	98		1	98	0.33	70-130	20	12/22/2008 1143

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		108	70-147
1,2-Dichloroethane-d4		118	52-138
Toluene-d8		103	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - MB

Sample ID: JQ91996-001
Batch: 91996
Analytical Method: RSK - 175
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Ethane	ND		1	10	ug/L	12/18/2008 2125
Ethene	ND		1	10	ug/L	12/18/2008 2125
Methane	ND		1	10	ug/L	12/18/2008 2125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - LCS

Sample ID: JQ91996-002
Batch: 91996
Analytical Method: RSK - 175
Matrix: Aqueous

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Methane	17	18		1	108	70-130	12/18/2008 2023

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - LCSD

Sample ID: JQ91996-003 **Matrix:** Aqueous
Batch: 91996
Analytical Method: RSK - 175

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Methane	17	19		1	113	4.0	70-130	40	12/18/2008 2036

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N - Recovery is out of criteria
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - MB

Sample ID: JQ91462-001
Batch: 91462
Analytical Method: 6010B
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/11/2008 1200

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Iron	ND		1	0.10	mg/L	12/11/2008 2047

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - LCS

Sample ID: JQ91462-002
Batch: 91462
Analytical Method: 6010B
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/11/2008 1200

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Iron	20	20		1	103	80-120	12/11/2008 2053

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - LCSD

Sample ID: JQ91462-003
Batch: 91462
Analytical Method: 6010B
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/11/2008 1200

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Iron	20	20		1	102	0.72	80-120	20	12/11/2008 2059

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY **Chain of Custody Record**

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111

Number 96811

Client: O'BRIEN + GERE	Report to Contact: SARAH SLAGLE-GARRETT	Telephone No. / Fax No. / E-mail: (919) 783-7777	Quote No.: 11910
Address: 2610 WYCLIFF RD. SUITE 104	Sampler's Signature: X Sarah Slagle-Garrett	Waybill No.: 8659 6382 3928	Page 1 of 1
City: RALEIGH; State: NC; Zip Code: 27607	Printed Name: SARAH SLAGLE-GARRETT	Analysis (Attach list if more space is needed.)	
Project Name: MILLER MOULTRIE			
Project No.: 43718	P.O. No.:		Lot No.: JL10054

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G-Grab C-Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No. of Containers by Preservative Type: Unpres	H2SO4	HNO3	HCl	NaOH	5035 KI	NaOH/Zn Acc	VOCs (SEE ATTACHED TABLE)	GASES	TOC	Alk, Cl, NO3, SO4	IRON	Sulfide	DOC				Remarks / Cooler I.D.
CH2MW-1	12/8/08	1348	G	X						3				3										
ETMW-119	12/9/08	1030	G	X						3				3										
ETMW-118	12/9/08	1225	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
Dup-2	12-9-08	–	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
ETMW-117	12/9/08	1430	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
Trip Blank	12/1/08	1230		X						3				3										2 bottles
Dup-01	12/9/08	–	G	X						3				3										
ETMW-119-MS	12/9/08	–	G	X						3				3										
ETMW-119-MSD	12/9/08	–	G	X						3				3										

Possible Hazard Identification: X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

Sample Disposal: ☐ Return to Client X Disposal by Lab

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

Turn Around Time Required (Prior lab approval required for expedited TAT.): X Standard ☐ Rush (Specify)

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: FEDEX	12/2/08	1530	1. Received by: Sarah Slagle-Garrett	12/2/08	1540
2. Relinquished by: Sarah Slagle-Garrett	12/9/08	1720	2. Received by: FEDEX	12/9/08	1725
3. Relinquished by: FEDEX	12-10-08	1000	3. Laboratory received by: [signature]	12-10-08	1000

Comments:

LAB USE ONLY
Received on ice (Circle) Yes No Ice Pack TB
Receipt Temp. 2.6 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-012 Effective Date: 08-04-02

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 6

Replaces Date: 09/22/06
Effective Date: 05/29/07

Sample Receipt Checklist (SRC)

Client: O Brien & Gere Cooler Inspected by/date: EC / 12/10/08 Lot #: JL10054

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Airborne Exp ☐ Other			
Yes ☑	No ☐	NA ☐	1. Were custody seals present on the cooler?
Yes ☑	No ☐	NA ☐	2. If custody seals were present, were they intact and unbroken?
Cooler ID/temperature upon receipt 2 / 6 °C / °C / °C / °C / °C / °C / °C / °C Method: ☑ Temperature Blank ☐ Against Bottles Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None			
If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.			
Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☑	No ☐	NA ☐	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐	NA ☐	5. Were proper custody procedures (relinquished/received) followed?
Yes ☑	No ☐	NA ☐	6. Were sample IDs listed?
Yes ☑	No ☐	NA ☐	7. Was collection date & time listed?
Yes ☑	No ☐	NA ☐	8. Were tests to be performed listed on the COC or was quote # provided?
Yes ☑	No ☐	NA ☐	9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐	NA ☐	10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐	NA ☐	11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐	NA ☐	12. Was adequate sample volume available?
Yes ☑	No ☐	NA ☐	13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑	NA ☐	14. Were any samples containers missing?
Yes ☐	No ☑	NA ☐	15. Were there any excess samples not listed on COC?
Yes ☐	No ☑	NA ☐	16. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☑	No ☐	NA ☐	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☑	No ☐	NA ☐	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) and toxicity (<0.1mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number) _____

Sample(s) _____ were received with bubbles >6 mm in diameter.

Sample(s) _____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb.

Toxicity sample(s) _____ were received with TRC >0.1 mg/L and were analyzed by method 330.5.

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐

SESI employee: _____

Comments: _____

Date 12-9-08 FedEx Tracking Number 865963823928

Sender's Name ANITA TRECARTIN Phone 919 783-7777

Company O'BRIEN & GERE ENGINEERS INC

Address 2610 WYCLIFF RD STE 104

City RALEIGH State NC ZIP 27607-3073

Your Internal Billing Reference

Report of Analysis

O'Brien and Gere
2610 Wycliff Road
Suite 104
Raleigh, NC 27607
Attention: Sarah Slagle-Garrett

Project Name: Miller Moultrie

Project Number: 43718

Lot Number: JL11002

Date Completed: 12/23/2008

Michael Casalena
Project Manager

This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* J L 1 1 0 0 2 *

Case Narrative
O'Brien and Gere
Lot Number: JL11002

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
O'Brien and Gere
Lot Number: JL11002

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	ETCMW-115	Aqueous	12/10/2008 1400	12/11/2008
002	ETCMW-114	Aqueous	12/10/2008 1425	12/11/2008
003	ETMW-116	Aqueous	12/10/2008 1130	12/11/2008
004	CH2MW-4D	Aqueous	12/10/2008 1055	12/11/2008
005	CH2PP-1	Aqueous	12/10/2008 1520	12/11/2008
006	Trip Blank	Aqueous	12/10/2008 1230	12/11/2008

(6 samples)

Executive Summary
O'Brien and Gere
Lot Number: JL11002

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	ETCMW-115	Aqueous	Alkalinity	SM 2320B	260		mg/L	5
001	ETCMW-115	Aqueous	Chloride	300.0	4.4		mg/L	5
001	ETCMW-115	Aqueous	DOC	SM 5310D	4.4		mg/L	5
001	ETCMW-115	Aqueous	Nitrate - N	353.2	0.24		mg/L	5
001	ETCMW-115	Aqueous	Sulfate	300.0	28		mg/L	5
001	ETCMW-115	Aqueous	TOC	SM 5310D	3.6		mg/L	5
001	ETCMW-115	Aqueous	1,1-Dichloroethane	8260B	0.87		ug/L	6
001	ETCMW-115	Aqueous	cis-1,2-Dichloroethene	8260B	7.8		ug/L	6
001	ETCMW-115	Aqueous	Trichloroethene	8260B	2.7		ug/L	6
001	ETCMW-115	Aqueous	Vinyl chloride	8260B	1.1		ug/L	6
001	ETCMW-115	Aqueous	Methane	RSK - 175	41		ug/L	7
001	ETCMW-115	Aqueous	Iron	6010B	2.9		mg/L	8
002	ETCMW-114	Aqueous	Alkalinity	SM 2320B	220		mg/L	9
002	ETCMW-114	Aqueous	Chloride	300.0	26		mg/L	9
002	ETCMW-114	Aqueous	DOC	SM 5310D	3.8		mg/L	9
002	ETCMW-114	Aqueous	Nitrate - N	353.2	3.4		mg/L	9
002	ETCMW-114	Aqueous	Sulfate	300.0	22		mg/L	9
002	ETCMW-114	Aqueous	TOC	SM 5310D	2.8		mg/L	9
002	ETCMW-114	Aqueous	1,1-Dichloroethane	8260B	45		ug/L	10
002	ETCMW-114	Aqueous	1,1-Dichloroethene	8260B	66		ug/L	10
002	ETCMW-114	Aqueous	cis-1,2-Dichloroethene	8260B	1100		ug/L	10
002	ETCMW-114	Aqueous	Tetrachloroethene	8260B	6.0		ug/L	10
002	ETCMW-114	Aqueous	Trichloroethene	8260B	440		ug/L	10
002	ETCMW-114	Aqueous	Iron	6010B	0.96		mg/L	12
003	ETMW-116	Aqueous	Alkalinity	SM 2320B	370		mg/L	13
003	ETMW-116	Aqueous	Chloride	300.0	19		mg/L	13
003	ETMW-116	Aqueous	DOC	SM 5310D	19		mg/L	13
003	ETMW-116	Aqueous	Nitrate - N	353.2	0.065		mg/L	13
003	ETMW-116	Aqueous	Sulfate	300.0	9.8		mg/L	13
003	ETMW-116	Aqueous	Sulfide	SM 4500-S2 F	2.8		mg/L	13
003	ETMW-116	Aqueous	TOC	SM 5310D	17		mg/L	13
003	ETMW-116	Aqueous	Acetone	8260B	290		ug/L	14
003	ETMW-116	Aqueous	Chloroethane	8260B	7.0		ug/L	14
003	ETMW-116	Aqueous	1,1-Dichloroethane	8260B	6.5		ug/L	14
003	ETMW-116	Aqueous	cis-1,2-Dichloroethene	8260B	11		ug/L	14
003	ETMW-116	Aqueous	Toluene	8260B	2.5		ug/L	14
003	ETMW-116	Aqueous	Vinyl chloride	8260B	120		ug/L	14
003	ETMW-116	Aqueous	Methane	RSK - 175	5800		ug/L	15
003	ETMW-116	Aqueous	Iron	6010B	25		mg/L	16
004	CH2MW-4D	Aqueous	Toluene	8260B	0.71		ug/L	17

(40 detections)

Inorganic non-metals

Client: O'Brien and Gere
Description: ETCMW-115
Date Sampled: 12/10/2008 1400
Date Received: 12/11/2008

Laboratory ID: JL11002-001
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/20/2008 2355	SLH		92147
1		(Chloride) 300.0	1	12/22/2008 1833	DAS		92199
1		(DOC) SM 5310D	1	12/15/2008 2056	PMM		91787
1		(Nitrate - N) 353.2	1	12/11/2008 1118	MML		91495
1		(Sulfate) 300.0	1	12/22/2008 1833	DAS		92200
1		(Sulfide) SM 4500-S2 F	1	12/15/2008 1040	BM		91751
1		(TOC) SM 5310D	1	12/19/2008 2118	PMM		92094

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		SM 2320B	260		10	mg/L	1
Chloride		300.0	4.4		1.0	mg/L	1
DOC		SM 5310D	4.4		1.0	mg/L	1
Nitrate - N		353.2	0.24		0.020	mg/L	1
Sulfate		300.0	28		1.0	mg/L	1
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		SM 5310D	3.6		1.0	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: ETCMW-115
Date Sampled: 12/10/2008 1400
Date Received: 12/11/2008

Laboratory ID: JL11002-001
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/17/2008 2020	DLB		91894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	0.87		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	7.8		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	2.7		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	1.1		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	52-138
Bromofluorobenzene		104	70-147
Toluene-d8		102	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Dissolved Gases

Client: O'Brien and Gere
Description: ETCMW-115
Date Sampled: 12/10/2008 1400
Date Received: 12/11/2008

Laboratory ID: JL11002-001
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/18/2008 2225	LBS		91996

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	74-82-8	RSK - 175	41		10	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

ICP-AES

Client: O'Brien and Gere
Description: ETCMW-115
Date Sampled: 12/10/2008 1400
Date Received: 12/11/2008

Laboratory ID: JL11002-001
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010B	1	12/11/2008 2135	KJC	12/11/2008 1200	91462

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	7439-89-6	6010B	2.9		0.10	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Inorganic non-metals

Client: O'Brien and Gere
Description: ETCMW-114
Date Sampled: 12/10/2008 1425
Date Received: 12/11/2008

Laboratory ID: JL11002-002
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/21/2008 0010	SLH		92147
1		(Chloride) 300.0	1	12/22/2008 1855	DAS		92199
1		(DOC) SM 5310D	1	12/16/2008 0144	PMM		91787
1		(Nitrate - N) 353.2	2	12/11/2008 1121	MML		91495
1		(Sulfate) 300.0	1	12/22/2008 1855	DAS		92200
1		(Sulfide) SM 4500-S2 F	1	12/15/2008 1040	BM		91751
1		(TOC) SM 5310D	1	12/19/2008 2138	PMM		92094

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		SM 2320B	220		10	mg/L	1
Chloride		300.0	26		1.0	mg/L	1
DOC		SM 5310D	3.8		1.0	mg/L	1
Nitrate - N		353.2	3.4		0.040	mg/L	1
Sulfate		300.0	22		1.0	mg/L	1
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		SM 5310D	2.8		1.0	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: ETCMW-114
Date Sampled: 12/10/2008 1425
Date Received: 12/11/2008

Laboratory ID: JL11002-002
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	12/17/2008 2355	DLB		91894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		100	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	45		5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	66		5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	1100		5.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		500	ug/L	1
Tetrachloroethene	127-18-4	8260B	6.0		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	ug/L	1
Trichloroethene	79-01-6	8260B	440		5.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	52-138
Bromofluorobenzene		106	70-147
Toluene-d8		101	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Dissolved Gases

Client: O'Brien and Gere
Description: ETCMW-114
Date Sampled: 12/10/2008 1425
Date Received: 12/11/2008

Laboratory ID: JL11002-002
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/18/2008 2238	LBS		91996

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	74-82-8	RSK - 175	ND		10	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

ICP-AES

Client: O'Brien and Gere
Description: ETCMW-114
Date Sampled: 12/10/2008 1425
Date Received: 12/11/2008

Laboratory ID: JL11002-002
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010B	1	12/11/2008 2141	KJC	12/11/2008 1200	91462

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	7439-89-6	6010B	0.96		0.10	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Inorganic non-metals

Client: O'Brien and Gere
Description: ETMW-116
Date Sampled: 12/10/2008 1130
Date Received: 12/11/2008

Laboratory ID: JL11002-003
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/21/2008 0023	SLH		92147
1		(Chloride) 300.0	1	12/22/2008 2003	DAS		92199
1		(DOC) SM 5310D	1	12/16/2008 0204	PMM		91787
1		(Nitrate - N) 353.2	1	12/11/2008 1122	MML		91495
1		(Sulfate) 300.0	1	12/22/2008 2003	DAS		92200
1		(Sulfide) SM 4500-S2 F	1	12/15/2008 1040	BM		91751
1		(TOC) SM 5310D	1	12/19/2008 2159	PMM		92094

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		SM 2320B	370		10	mg/L	1
Chloride		300.0	19		1.0	mg/L	1
DOC		SM 5310D	19		1.0	mg/L	1
Nitrate - N		353.2	0.065		0.020	mg/L	1
Sulfate		300.0	9.8		1.0	mg/L	1
Sulfide	18496-25-8	SM 4500-S2 F	2.8		1.0	mg/L	1
TOC		SM 5310D	17		1.0	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: ETMW-116
Date Sampled: 12/10/2008 1130
Date Received: 12/11/2008

Laboratory ID: JL11002-003
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/17/2008 2042	DLB		91894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	290		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	7.0		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	6.5		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	11		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	2.5		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	120		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	52-138
Bromofluorobenzene		103	70-147
Toluene-d8		101	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Dissolved Gases

Client: O'Brien and Gere
Description: ETMW-116
Date Sampled: 12/10/2008 1130
Date Received: 12/11/2008

Laboratory ID: JL11002-003
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/18/2008 2253	LBS		91996

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	74-82-8	RSK - 175	5800		10	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

ICP-AES

Client: O'Brien and Gere
Description: ETMW-116
Date Sampled: 12/10/2008 1130
Date Received: 12/11/2008

Laboratory ID: JL11002-003
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010B	1	12/11/2008 2159	KJC	12/11/2008 1200	91462

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	7439-89-6	6010B	25		0.10	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: CH2MW-4D
Date Sampled: 12/10/2008 1055
Date Received: 12/11/2008

Laboratory ID: JL11002-004
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/17/2008 2103	DLB		91894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	0.71		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	52-138
Bromofluorobenzene		104	70-147
Toluene-d8		102	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: CH2PP-1
Date Sampled: 12/10/2008 1520
Date Received: 12/11/2008

Laboratory ID: JL11002-005
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/17/2008 2125	DLB		91894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	52-138
Bromofluorobenzene		104	70-147
Toluene-d8		100	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: Trip Blank
Date Sampled: 12/10/2008 1230
Date Received: 12/11/2008

Laboratory ID: JL11002-006
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/17/2008 1959	DLB		91894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	52-138
Bromofluorobenzene		104	70-147
Toluene-d8		101	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

QC Summary

Inorganic non-metals - MB

Sample ID: JQ91495-001
Batch: 91495
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	12/11/2008 1225

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ91495-002
Batch: 91495
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.75		1	94	90-110	12/11/2008 1226

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ91495-003
Batch: 91495
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.80	0.80		1	100	6.8	90-110	20	12/11/2008 1228

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: JL11002-001MS
Batch: 91495
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.24	0.80	0.91	N	1	84	90-110	12/11/2008 1242

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: JL11002-001MD
Batch: 91495
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.24	0.80	0.91	N	1	84	0.22	90-110	20	12/11/2008 1243

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N - Recovery is out of criteria
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ91751-001
Batch: 91751
Analytical Method: SM 4500-S2 F

Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Sulfide	ND		1	1.0	mg/L	12/15/2008 1040

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ91751-002
Batch: 91751
Analytical Method: SM 4500-S2 F

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfide	10	9.3		1	93	80-120	12/15/2008 1040

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ91751-003
Batch: 91751
Analytical Method: SM 4500-S2 F

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfide	10	9.6		1	96	3.7	80-120	20	12/15/2008 1040

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ91787-001
Batch: 91787
Analytical Method: SM 5310D

Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
DOC	ND		1	1.0	mg/L	12/15/2008 1955

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ91787-002
Batch: 91787
Analytical Method: SM 5310D

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
DOC	20	20		1	102	90-110	12/15/2008 2015

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ91787-003
Batch: 91787
Analytical Method: SM 5310D

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
DOC	20	20		1	103	0.97	90-110	20	12/15/2008 2036

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: JL11002-001MS
Batch: 91787
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
DOC	4.4	20	26		1	106	70-130	12/15/2008 2117

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: JL11002-001MD
Batch: 91787
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
DOC	4.4	20	26		1	106	0.070	70-130	20	12/15/2008 2138

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ92094-001
Batch: 92094
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
TOC	ND		1	1.0	mg/L	12/19/2008 1956

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ92094-002
Batch: 92094
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
TOC	20	20		1	100	90-110	12/19/2008 2016

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ92094-003
Batch: 92094
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
TOC	20	20		1	101	0.90	90-110	20	12/19/2008 2037

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ92147-001
Batch: 92147
Analytical Method: SM 2320B

Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Alkalinity	ND		1	10	mg/L	12/20/2008 2152

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ92147-002
Batch: 92147
Analytical Method: SM 2320B
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Alkalinity	100	99		1	99	90-110	12/20/2008 2209

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ92147-003
Batch: 92147
Analytical Method: SM 2320B
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Alkalinity	100	98		1	98	1.2	90-110	20	12/20/2008 2225

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ92199-001
Batch: 92199
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Chloride	ND		1	1.0	mg/L	12/22/2008 1020

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ92199-002
Batch: 92199
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	101	90-110	12/22/2008 1042

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ92199-003
Batch: 92199
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	20	20		1	102	0.37	90-110	20	12/22/2008 1105

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - Duplicate

Sample ID: JL11002-003DU
Batch: 92199
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Result (mg/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Chloride	19	18		1	3.8	20	12/22/2008 2025

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ92200-001
Batch: 92200
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Sulfate	ND		1	1.0	mg/L	12/22/2008 1020

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ92200-002
Batch: 92200
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	99	90-110	12/22/2008 1042

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ92200-003
Batch: 92200
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	20	20		1	99	0.26	90-110	20	12/22/2008 1105

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - Duplicate

Sample ID: JL11002-003DU
Batch: 92200
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Result (mg/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Sulfate	9.8	10		1	6.0	20	12/22/2008 2025

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: JQ91894-001
Batch: 91894
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/17/2008 1639
Benzene	ND		1	0.50	ug/L	12/17/2008 1639
2-Butanone (MEK)	ND		1	10	ug/L	12/17/2008 1639
Carbon disulfide	ND		1	0.50	ug/L	12/17/2008 1639
Chloroethane	ND		1	0.50	ug/L	12/17/2008 1639
1,2-Dichloroethane	ND		1	0.50	ug/L	12/17/2008 1639
1,1-Dichloroethane	ND		1	0.50	ug/L	12/17/2008 1639
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/17/2008 1639
1,1-Dichloroethene	ND		1	0.50	ug/L	12/17/2008 1639
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/17/2008 1639
Isobutyl alcohol	ND		1	50	ug/L	12/17/2008 1639
Tetrachloroethene	ND		1	0.50	ug/L	12/17/2008 1639
Toluene	ND		1	0.50	ug/L	12/17/2008 1639
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/17/2008 1639
Trichloroethene	ND		1	0.50	ug/L	12/17/2008 1639
Trichlorofluoromethane	ND		1	0.50	ug/L	12/17/2008 1639
Vinyl chloride	ND		1	0.50	ug/L	12/17/2008 1639
Xylenes (total)	ND		1	0.50	ug/L	12/17/2008 1639

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-147
1,2-Dichloroethane-d4		107	52-138
Toluene-d8		100	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: JQ91894-002
Batch: 91894
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	103	46-153	12/17/2008 1513
Benzene	50	50		1	101	70-130	12/17/2008 1513
2-Butanone (MEK)	100	95		1	95	60-140	12/17/2008 1513
Carbon disulfide	50	46		1	92	60-140	12/17/2008 1513
Chloroethane	50	51		1	102	42-163	12/17/2008 1513
1,2-Dichloroethane	50	54		1	107	70-130	12/17/2008 1513
1,1-Dichloroethane	50	51		1	101	70-130	12/17/2008 1513
cis-1,2-Dichloroethene	50	49		1	99	70-130	12/17/2008 1513
1,1-Dichloroethene	50	53		1	105	70-130	12/17/2008 1513
trans-1,2-Dichloroethene	50	51		1	102	70-130	12/17/2008 1513
Isobutyl alcohol	500	450		1	90	70-130	12/17/2008 1513
Tetrachloroethene	50	54		1	109	70-130	12/17/2008 1513
Toluene	50	53		1	105	70-130	12/17/2008 1513
1,1,1-Trichloroethane	50	55		1	110	70-130	12/17/2008 1513
Trichloroethene	50	54		1	108	70-130	12/17/2008 1513
Trichlorofluoromethane	50	60		1	120	60-140	12/17/2008 1513
Vinyl chloride	50	54		1	108	60-140	12/17/2008 1513
Xylenes (total)	100	100		1	105	70-130	12/17/2008 1513

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-147
1,2-Dichloroethane-d4		112	52-138
Toluene-d8		105	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: JQ91894-003
Batch: 91894
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	100		1	105	2.2	46-153	20	12/17/2008 1534
Benzene	50	53		1	107	5.7	70-130	20	12/17/2008 1534
2-Butanone (MEK)	100	94		1	94	2.0	60-140	20	12/17/2008 1534
Carbon disulfide	50	50		1	101	8.8	60-140	20	12/17/2008 1534
Chloroethane	50	55		1	110	7.8	42-163	20	12/17/2008 1534
1,2-Dichloroethane	50	58		1	116	7.7	70-130	20	12/17/2008 1534
1,1-Dichloroethane	50	55		1	110	8.7	70-130	20	12/17/2008 1534
cis-1,2-Dichloroethene	50	53		1	106	7.3	70-130	20	12/17/2008 1534
1,1-Dichloroethene	50	56		1	111	5.5	70-130	20	12/17/2008 1534
trans-1,2-Dichloroethene	50	55		1	110	7.6	70-130	20	12/17/2008 1534
Isobutyl alcohol	500	460		1	93	3.0	70-130	20	12/17/2008 1534
Tetrachloroethene	50	57		1	113	4.2	70-130	20	12/17/2008 1534
Toluene	50	56		1	111	5.3	70-130	20	12/17/2008 1534
1,1,1-Trichloroethane	50	60		1	120	8.7	70-130	20	12/17/2008 1534
Trichloroethene	50	58		1	115	5.8	70-130	20	12/17/2008 1534
Trichlorofluoromethane	50	64		1	129	7.3	60-140	20	12/17/2008 1534
Vinyl chloride	50	58		1	116	6.9	60-140	20	12/17/2008 1534
Xylenes (total)	100	110		1	109	3.8	70-130	20	12/17/2008 1534

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-147
1,2-Dichloroethane-d4		112	52-138
Toluene-d8		104	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - MB

Sample ID: JQ91996-001
Batch: 91996
Analytical Method: RSK - 175

Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Ethane	ND		1	10	ug/L	12/18/2008 2125
Ethene	ND		1	10	ug/L	12/18/2008 2125
Methane	ND		1	10	ug/L	12/18/2008 2125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - LCS

Sample ID: JQ91996-002
Batch: 91996
Analytical Method: RSK - 175

Matrix: Aqueous

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Methane	17	18		1	108	70-130	12/18/2008 2023

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - LCSD

Sample ID: JQ91996-003
Batch: 91996
Analytical Method: RSK - 175

Matrix: Aqueous

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Methane	17	19		1	113	4.0	70-130	40	12/18/2008 2036

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - MB

Sample ID: JQ91462-001
Batch: 91462
Analytical Method: 6010B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/11/2008 1200

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Iron	ND		1	0.10	mg/L	12/11/2008 2047

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - LCS

Sample ID: JQ91462-002
Batch: 91462
Analytical Method: 6010B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/11/2008 1200

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Iron	20	20		1	103	80-120	12/11/2008 2053

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - LCSD

Sample ID: JQ91462-003
Batch: 91462
Analytical Method: 6010B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/11/2008 1200

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Iron	20	20		1	102	0.72	80-120	20	12/11/2008 2059

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - MS

Sample ID: JL11002-003MS
Batch: 91462
Analytical Method: 6010B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/11/2008 1200

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Iron	25	20	46		1	105	75-125	12/11/2008 2205

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - MSD

Sample ID: JL11002-003MD
Batch: 91462
Analytical Method: 6010B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/11/2008 1200

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Iron	25	20	45		1	101	2.0	75-125	20	12/11/2008 2210

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY **Chain of Custody Record**

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111

Number 96813

Client: O'Brien + Gere
Address: 2610 Wycliff Rd, Suite 104
City: Raleigh State: NC Zip Code: 27607
Project Name: Miller Moultrie
Project No.: 43718
P.O. No.:

Report to Contact: Sarah Slagle-Garrett
Sampler's Signature: x Sarah Slagle-Garrett
Printed Name: SARAH SLAGLE-GARRETT

Telephone No. / Fax No. / E-mail: (919) 783-7777
Quote No.: 11910
Waybill No.: 8659 6382 3917
Page 1 of 1

Analysis (Attach list if more space is needed.)

Lot No.: JL11002

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	3035 Kit	NaOH/ZnAcc	VOCs + See Attached table	Grases	TOC	Alk, Cl, NO3, SO4	IRON	Sulfide	DOC				Remarks / Cooler I.D.
ETCMW-115	12/10/08	1400	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
ETCMW-114	12/10/08	1425	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
ETMW-116	12/10/08	1130	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
CH2MW-4D	12/10/08	1055	G	X						3				3										
CH2PP-1	12/10/08	1520	G	X						3				3										
Trip Blank	12/1/08	1230		X						1														2 bottles

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison [ ] Unknown

Sample Disposal: [ ] Return to Client [X] Disposal by Lab

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

Turn Around Time Required (Prior lab approval required for expedited TAT.): [X] Standard [ ] Rush (Specify)

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: FEDEX	12/2/08	1532	1. Received by: Sarah Slagle-Garrett	12/2/08	1540
2. Relinquished by: Sarah Slagle-Garrett	12/10/08	1730	2. Received by: FEDEX	12/10/08	1735
3. Relinquished by: FEDEX	12-11-08	1000	3. Laboratory received by: [signature]	12-11-08	1000

Comments:

LAB USE ONLY
Received on Ice (Circle) Yes No Ice Pack
Receipt Temp. 3-9 °C

DISTRIBUTION: WHITE & YELLOW Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-012 Effective Date: 08-04-02

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 6

Replaces Date: 09/22/06
Effective Date: 05/29/07

Sample Receipt Checklist (SRC)

Client: O'Brien & Gere Cooler Inspected by/date: GC 12/11/08 Lot #: JL11002

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Airborne Exp ☐ Other

☑ Yes	☐ No	☐ NA	1. Were custody seals present on the cooler?
☑ Yes	☐ No	☐ NA	2. If custody seals were present, were they intact and unbroken?

Cooler ID/temperature upon receipt 3-9 °C / °C / °C / °C
/ °C / °C / °C / °C

Method: ☐ Temperature Blank ☑ Against Bottles
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other:_____. (For coolers received via commercial courier, PMs are to be notified immediately.
☑ Yes	☐ No	☐ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No	☐ NA	5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No	☐ NA	6. Were sample IDs listed?
☑ Yes	☐ No	☐ NA	7. Was collection date & time listed?
☑ Yes	☐ No	☐ NA	8. Were tests to be performed listed on the COC or was quote # provided?
☑ Yes	☐ No	☐ NA	9. Did all samples arrive in the proper containers for each test?
☑ Yes	☐ No	☐ NA	10. Did all container label information (ID, date, time) agree with COC?
☑ Yes	☐ No	☐ NA	11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No	☐ NA	12. Was adequate sample volume available?
☑ Yes	☐ No	☐ NA	13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No	☐ NA	14. Were any samples containers missing?
☐ Yes	☑ No	☐ NA	15. Were there any excess samples not listed on COC?
☐ Yes	☑ No	☐ NA	16. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
☑ Yes	☐ No	☐ NA	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
☑ Yes	☐ No	☐ NA	18. Were all cyanide and/or sulfide samples received at a pH >12?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) and toxicity (<0.1mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were collection temperatures documented on the COC for NC samples?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s)_____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number)

Sample(s)_____ were received with bubbles >6 mm in diameter.

Sample(s)_____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb.

Toxicity sample(s)_____ [illegible] TRC >0.1 mg/L and were analyzed by method 330.5.

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐

SESI employee:_____

Comments:_____

ate 12-10-08 FedEx Tracking mber 869963823906

ender's ame ANITA TRECARTIN Phone 919 793-7777

Company O'BRIEN & GERE ENGINEERS INC

ddress 2610 WYCLIFF RD STE 104

ty RALEIGH State NC ZIP 27607-3073

our Internal Billing Reference

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

O'Brien and Gere
2610 Wycliff Road
Suite 104
Raleigh, NC 27607
Attention: Michael Hall

Project Name: Miller Moultrie

Project Number: 43718

Lot Number: JL12011

Date Completed: 12/26/2008

Michael Casalena
Project Manager

This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* J L 1 2 0 1 1 *

Case Narrative
O'Brien and Gere
Lot Number: JL12011

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
O'Brien and Gere
Lot Number: JL12011

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	ETCMW-113	Aqueous	12/11/2008 0920	12/12/2008
002	CH2MW-3	Aqueous	12/11/2008 1330	12/12/2008
003	ETMW-121	Aqueous	12/11/2008 1130	12/12/2008
004	CH2MW-114D	Aqueous	12/11/2008 1050	12/12/2008
005	ETMW-120	Aqueous	12/11/2008 1120	12/12/2008
006	Trip Blank	Aqueous	12/12/2008 0940	12/12/2008

(6 samples)

Executive Summary

O'Brien and Gere

Lot Number: JL12011

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	ETCMW-113	Aqueous	Alkalinity	SM 2320B	100		mg/L	5
001	ETCMW-113	Aqueous	Chloride	300.0	10		mg/L	5
001	ETCMW-113	Aqueous	DOC	SM 5310D	5.0		mg/L	5
001	ETCMW-113	Aqueous	Nitrate - N	353.2	0.021		mg/L	5
001	ETCMW-113	Aqueous	Sulfate	300.0	12		mg/L	5
001	ETCMW-113	Aqueous	TOC	SM 5310D	5.2		mg/L	5
001	ETCMW-113	Aqueous	Acetone	8260B	38		ug/L	6
001	ETCMW-113	Aqueous	Benzene	8260B	1.6		ug/L	6
001	ETCMW-113	Aqueous	2-Butanone (MEK)	8260B	14		ug/L	6
001	ETCMW-113	Aqueous	Carbon disulfide	8260B	0.72		ug/L	6
001	ETCMW-113	Aqueous	Chloroethane	8260B	5.7		ug/L	6
001	ETCMW-113	Aqueous	1,1-Dichloroethane	8260B	8.9		ug/L	6
001	ETCMW-113	Aqueous	1,1-Dichloroethene	8260B	5.5		ug/L	6
001	ETCMW-113	Aqueous	cis-1,2-Dichloroethene	8260B	200		ug/L	6
001	ETCMW-113	Aqueous	Trichloroethene	8260B	2.5		ug/L	6
001	ETCMW-113	Aqueous	Vinyl chloride	8260B	9.2		ug/L	6
001	ETCMW-113	Aqueous	Methane	RSK - 175	4100		ug/L	7
001	ETCMW-113	Aqueous	Iron	6010B	7.9		mg/L	8
002	CH2MW-3	Aqueous	Alkalinity	SM 2320B	58		mg/L	9
002	CH2MW-3	Aqueous	Chloride	300.0	3.1		mg/L	9
002	CH2MW-3	Aqueous	DOC	SM 5310D	4.2		mg/L	9
002	CH2MW-3	Aqueous	Nitrate - N	353.2	0.25		mg/L	9
002	CH2MW-3	Aqueous	Sulfate	300.0	34		mg/L	9
002	CH2MW-3	Aqueous	TOC	SM 5310D	4.1		mg/L	9
004	CH2MW-114D	Aqueous	2-Butanone (MEK)	8260B	63		ug/L	14
004	CH2MW-114D	Aqueous	Carbon disulfide	8260B	0.74		ug/L	14
004	CH2MW-114D	Aqueous	1,1-Dichloroethane	8260B	0.70		ug/L	14
004	CH2MW-114D	Aqueous	1,1-Dichloroethene	8260B	5.1		ug/L	14
004	CH2MW-114D	Aqueous	cis-1,2-Dichloroethene	8260B	120		ug/L	14
004	CH2MW-114D	Aqueous	Isobutyl alcohol	8260B	1300		ug/L	14
004	CH2MW-114D	Aqueous	Tetrachloroethene	8260B	4.2		ug/L	14
004	CH2MW-114D	Aqueous	Trichloroethene	8260B	140		ug/L	14
005	ETMW-120	Aqueous	cis-1,2-Dichloroethene	8260B	0.56		ug/L	15

(33 detections)

Inorganic non-metals

Client: O'Brien and Gere
Description: ETCMW-113
Date Sampled: 12/11/2008 0920
Date Received: 12/12/2008

Laboratory ID: JL12011-001
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/24/2008 1639	SLH		92374
1		(Chloride) 300.0	1	12/26/2008 1113	DAS		92415
1		(DOC) SM 5310D	1	12/16/2008 0225	PMM		91787
1		(Nitrate - N) 353.2	1	12/12/2008 1546	MML		91583
1		(Sulfate) 300.0	1	12/26/2008 1113	DAS		92417
1		(Sulfide) SM 4500-S2 F	1	12/15/2008 1040	BM		91751
1		(TOC) SM 5310D	1	12/19/2008 2240	PMM		92094

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		SM 2320B	100		10	mg/L	1
Chloride		300.0	10		1.0	mg/L	1
DOC		SM 5310D	5.0		1.0	mg/L	1
Nitrate - N		353.2	0.021		0.020	mg/L	1
Sulfate		300.0	12		1.0	mg/L	1
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		SM 5310D	5.2		1.0	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Laboratory ID: JL12011-001
Description: ETCMW-113
Matrix: Aqueous
Date Sampled: 12/11/2008 0920
Date Received: 12/12/2008

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/17/2008 2146	DLB		91894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	38		10	ug/L	1
Benzene	71-43-2	8260B	1.6		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	14		10	ug/L	1
Carbon disulfide	75-15-0	8260B	0.72		0.50	ug/L	1
Chloroethane	75-00-3	8260B	5.7		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	8.9		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	5.5		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	200		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	2.5		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	9.2		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	52-138
Bromofluorobenzene		102	70-147
Toluene-d8		101	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Dissolved Gases

Client: O'Brien and Gere
Laboratory ID: JL12011-001
Description: ETCMW-113
Matrix: Aqueous
Date Sampled: 12/11/2008 0920
Date Received: 12/12/2008

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/18/2008 2307	LBS		91996

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	74-82-8	RSK - 175	4100		10	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

ICP-AES

Client: O'Brien and Gere
Description: ETCMW-113
Date Sampled: 12/11/2008 0920
Date Received: 12/12/2008

Laboratory ID: JL12011-001
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010B	1	12/15/2008 2223	KJC	12/15/2008 1030	91648

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	7439-89-6	6010B	7.9		0.10	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Inorganic non-metals

Client: O'Brien and Gere
Description: CH2MW-3
Date Sampled: 12/11/2008 1330
Date Received: 12/12/2008

Laboratory ID: JL12011-002
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/24/2008 1651	SLH		92374
1		(Chloride) 300.0	1	12/26/2008 1220	DAS		92415
1		(DOC) SM 5310D	1	12/16/2008 0245	PMM		91787
1		(Nitrate - N) 353.2	1	12/12/2008 1547	MML		91583
1		(Sulfate) 300.0	1	12/26/2008 1220	DAS		92417
1		(Sulfide) SM 4500-S2 F	1	12/15/2008 1040	BM		91751
1		(TOC) SM 5310D	1	12/19/2008 2300	PMM		92094

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		SM 2320B	58		10	mg/L	1
Chloride		300.0	3.1		1.0	mg/L	1
DOC		SM 5310D	4.2		1.0	mg/L	1
Nitrate - N		353.2	0.25		0.020	mg/L	1
Sulfate		300.0	34		1.0	mg/L	1
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		SM 5310D	4.1		1.0	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: CH2MW-3
Date Sampled: 12/11/2008 1330
Date Received: 12/12/2008

Laboratory ID: JL12011-002
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/17/2008 2208	DLB		91894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		115	52-138
Bromofluorobenzene		104	70-147
Toluene-d8		102	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Dissolved Gases

Client: O'Brien and Gere
Description: CH2MW-3
Date Sampled: 12/11/2008 1330
Date Received: 12/12/2008

Laboratory ID: JL12011-002
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/18/2008 2322	LBS		91996

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	74-82-8	RSK - 175	ND		10	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

ICP-AES

Client: O'Brien and Gere
Description: CH2MW-3
Date Sampled: 12/11/2008 1330
Date Received: 12/12/2008

Laboratory ID: JL12011-002
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010B	1	12/15/2008 2259	KJC	12/15/2008 1030	91648

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	7439-89-6	6010B	ND		0.10	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

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106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: ETMW-121
Date Sampled: 12/11/2008 1130
Date Received: 12/12/2008

Laboratory ID: JL12011-003
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/17/2008 2229	DLB		91894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	52-138
Bromofluorobenzene		104	70-147
Toluene-d8		102	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: CH2MW-114D
Date Sampled: 12/11/2008 1050
Date Received: 12/12/2008

Laboratory ID: JL12011-004
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/17/2008 2334	DLB		91894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	63		10	ug/L	1
Carbon disulfide	75-15-0	8260B	0.74		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	0.70		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	5.1		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	120		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	1300		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	4.2		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	140		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		115	52-138
Bromofluorobenzene		105	70-147
Toluene-d8		104	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: ETMW-120
Date Sampled: 12/11/2008 1120
Date Received: 12/12/2008

Laboratory ID: JL12011-005
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/17/2008 2251	DLB		91894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.56		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		115	52-138
Bromofluorobenzene		105	70-147
Toluene-d8		102	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Laboratory ID: JL12011-006
Description: Trip Blank
Matrix: Aqueous
Date Sampled: 12/12/2008 0940
Date Received: 12/12/2008

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/17/2008 2313	DLB		91894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		116	52-138
Bromofluorobenzene		105	70-147
Toluene-d8		102	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria

QC Summary

Inorganic non-metals - MB

Sample ID: JQ91583-001
Batch: 91583
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	12/12/2008 1511

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ91583-002
Batch: 91583
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.76		1	95	90-110	12/12/2008 1512

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ91583-003
Batch: 91583
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.80	0.77		1	96	1.7	90-110	20	12/12/2008 1513

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ91751-001
Batch: 91751
Analytical Method: SM 4500-S2 F

Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Sulfide	ND		1	1.0	mg/L	12/15/2008 1040

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ91751-002
Batch: 91751
Analytical Method: SM 4500-S2 F

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfide	10	9.3		1	93	80-120	12/15/2008 1040

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ91751-003
Batch: 91751
Analytical Method: SM 4500-S2 F

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfide	10	9.6		1	96	3.7	80-120	20	12/15/2008 1040

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ91787-001
Batch: 91787
Analytical Method: SM 5310D

Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
DOC	ND		1	1.0	mg/L	12/15/2008 1955

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ91787-002
Batch: 91787
Analytical Method: SM 5310D

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
DOC	20	20		1	102	90-110	12/15/2008 2015

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ91787-003
Batch: 91787
Analytical Method: SM 5310D

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
DOC	20	20		1	103	0.97	90-110	20	12/15/2008 2036

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ92094-001
Batch: 92094
Analytical Method: SM 5310D

Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
TOC	ND		1	1.0	mg/L	12/19/2008 1956

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ92094-002
Batch: 92094
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
TOC	20	20		1	100	90-110	12/19/2008 2016

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ92094-003
Batch: 92094
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
TOC	20	20		1	101	0.90	90-110	20	12/19/2008 2037

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ92374-001
Batch: 92374
Analytical Method: SM 2320B

Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Alkalinity	ND		1	10	mg/L	12/24/2008 1555

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ92374-002
Batch: 92374
Analytical Method: SM 2320B
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Alkalinity	100	100		1	106	90-110	12/24/2008 1610

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ92374-003
Batch: 92374
Analytical Method: SM 2320B

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Alkalinity	100	100		1	106	0.072	90-110	20	12/24/2008 1626

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ92415-001
Batch: 92415
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Chloride	ND		1	1.0	mg/L	12/26/2008 1006

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ92415-002
Batch: 92415
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	102	90-110	12/26/2008 1028

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ92415-003
Batch: 92415
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	20	20		1	102	0.30	90-110	20	12/26/2008 1051

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: JL12011-001MS
Batch: 92415
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	10	20	29		1	95	90-110	12/26/2008 1136

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: JL12011-001MD
Batch: 92415
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	10	20	29		1	95	0.0075	90-110	20	12/26/2008 1158

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: JQ92417-001
Batch: 92417
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Sulfate	ND		1	1.0	mg/L	12/26/2008 1006

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: JQ92417-002
Batch: 92417
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	101	90-110	12/26/2008 1028

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: JQ92417-003
Batch: 92417
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	20	20		1	101	0.11	90-110	20	12/26/2008 1051

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: JL12011-001MS
Batch: 92417
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	12	20	29	N	1	86	90-110	12/26/2008 1136

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: JL12011-001MD
Batch: 92417
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	12	20	29	N	1	85	0.12	90-110	20	12/26/2008 1158

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: JQ91894-001
Batch: 91894
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/17/2008 1639
Benzene	ND		1	0.50	ug/L	12/17/2008 1639
2-Butanone (MEK)	ND		1	10	ug/L	12/17/2008 1639
Carbon disulfide	ND		1	0.50	ug/L	12/17/2008 1639
Chloroethane	ND		1	0.50	ug/L	12/17/2008 1639
1,2-Dichloroethane	ND		1	0.50	ug/L	12/17/2008 1639
1,1-Dichloroethane	ND		1	0.50	ug/L	12/17/2008 1639
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/17/2008 1639
1,1-Dichloroethene	ND		1	0.50	ug/L	12/17/2008 1639
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/17/2008 1639
Isobutyl alcohol	ND		1	50	ug/L	12/17/2008 1639
Tetrachloroethene	ND		1	0.50	ug/L	12/17/2008 1639
Toluene	ND		1	0.50	ug/L	12/17/2008 1639
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/17/2008 1639
Trichloroethene	ND		1	0.50	ug/L	12/17/2008 1639
Trichlorofluoromethane	ND		1	0.50	ug/L	12/17/2008 1639
Vinyl chloride	ND		1	0.50	ug/L	12/17/2008 1639
Xylenes (total)	ND		1	0.50	ug/L	12/17/2008 1639

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-147
1,2-Dichloroethane-d4		107	52-138
Toluene-d8		100	76-125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: JQ91894-002
Batch: 91894
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	103	46-153	12/17/2008 1513
Benzene	50	50		1	101	70-130	12/17/2008 1513
2-Butanone (MEK)	100	95		1	95	60-140	12/17/2008 1513
Carbon disulfide	50	46		1	92	60-140	12/17/2008 1513
Chloroethane	50	51		1	102	42-163	12/17/2008 1513
1,2-Dichloroethane	50	54		1	107	70-130	12/17/2008 1513
1,1-Dichloroethane	50	51		1	101	70-130	12/17/2008 1513
cis-1,2-Dichloroethene	50	49		1	99	70-130	12/17/2008 1513
1,1-Dichloroethene	50	53		1	105	70-130	12/17/2008 1513
trans-1,2-Dichloroethene	50	51		1	102	70-130	12/17/2008 1513
Isobutyl alcohol	500	450		1	90	70-130	12/17/2008 1513
Tetrachloroethene	50	54		1	109	70-130	12/17/2008 1513
Toluene	50	53		1	105	70-130	12/17/2008 1513
1,1,1-Trichloroethane	50	55		1	110	70-130	12/17/2008 1513
Trichloroethene	50	54		1	108	70-130	12/17/2008 1513
Trichlorofluoromethane	50	60		1	120	60-140	12/17/2008 1513
Vinyl chloride	50	54		1	108	60-140	12/17/2008 1513
Xylenes (total)	100	100		1	105	70-130	12/17/2008 1513

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-147
1,2-Dichloroethane-d4		112	52-138
Toluene-d8		105	76-125

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

P = The RPD between two GC columns exceeds 40%

J = Estimated result < PQL and ≥ MDL

N - Recovery is out of criteria

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: JQ91894-003
Batch: 91894
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	100		1	105	2.2	46-153	20	12/17/2008 1534
Benzene	50	53		1	107	5.7	70-130	20	12/17/2008 1534
2-Butanone (MEK)	100	94		1	94	2.0	60-140	20	12/17/2008 1534
Carbon disulfide	50	50		1	101	8.8	60-140	20	12/17/2008 1534
Chloroethane	50	55		1	110	7.8	42-163	20	12/17/2008 1534
1,2-Dichloroethane	50	58		1	116	7.7	70-130	20	12/17/2008 1534
1,1-Dichloroethane	50	55		1	110	8.7	70-130	20	12/17/2008 1534
cis-1,2-Dichloroethene	50	53		1	106	7.3	70-130	20	12/17/2008 1534
1,1-Dichloroethene	50	56		1	111	5.5	70-130	20	12/17/2008 1534
trans-1,2-Dichloroethene	50	55		1	110	7.6	70-130	20	12/17/2008 1534
Isobutyl alcohol	500	460		1	93	3.0	70-130	20	12/17/2008 1534
Tetrachloroethene	50	57		1	113	4.2	70-130	20	12/17/2008 1534
Toluene	50	56		1	111	5.3	70-130	20	12/17/2008 1534
1,1,1-Trichloroethane	50	60		1	120	8.7	70-130	20	12/17/2008 1534
Trichloroethene	50	58		1	115	5.8	70-130	20	12/17/2008 1534
Trichlorofluoromethane	50	64		1	129	7.3	60-140	20	12/17/2008 1534
Vinyl chloride	50	58		1	116	6.9	60-140	20	12/17/2008 1534
Xylenes (total)	100	110		1	109	3.8	70-130	20	12/17/2008 1534

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-147
1,2-Dichloroethane-d4		112	52-138
Toluene-d8		104	76-125

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

P = The RPD between two GC columns exceeds 40%

J = Estimated result < PQL and ≥ MDL

N - Recovery is out of criteria

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - MB

Sample ID: JQ91996-001
Batch: 91996
Analytical Method: RSK - 175
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Ethane	ND		1	10	ug/L	12/18/2008 2125
Ethene	ND		1	10	ug/L	12/18/2008 2125
Methane	ND		1	10	ug/L	12/18/2008 2125

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - LCS

Sample ID: JQ91996-002
Batch: 91996
Analytical Method: RSK - 175

Matrix: Aqueous

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Methane	17	18		1	108	70-130	12/18/2008 2023

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - LCSD

Sample ID: JQ91996-003
Batch: 91996
Analytical Method: RSK - 175
Matrix: Aqueous

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Methane	17	19		1	113	4.0	70-130	40	12/18/2008 2036

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - MB

Sample ID: JQ91648-001
Batch: 91648
Analytical Method: 6010B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/15/2008 1030

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Iron	ND		1	0.10	mg/L	12/15/2008 2037

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - LCS

Sample ID: JQ91648-002
Batch: 91648
Analytical Method: 6010B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/15/2008 1030

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Iron	20	20		1	103	80-120	12/15/2008 2043

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - LCSD

Sample ID: JQ91648-003
Batch: 91648
Analytical Method: 6010B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/15/2008 1030

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Iron	20	20		1	103	0.083	80-120	20	12/15/2008 2049

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - MS

Sample ID: JL12011-001MS
Batch: 91648
Analytical Method: 6010B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/15/2008 1030

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Iron	7.9	20	29		1	104	75-125	12/15/2008 2229

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - MSD

Sample ID: JL12011-001MD
Batch: 91648
Analytical Method: 6010B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/15/2008 1030

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Iron	7.9	20	28		1	103	0.32	75-125	20	12/15/2008 2235

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY **Chain of Custody Record**

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111

Number 96814

Client: O'BRIEN + GERE	Report to Contact: SARAH SLAGLE-GARRETT	Telephone No. / Fax No. / E-mail: 919-783-7777	Quote No.: 11910
Address: 2610 WYLLIFF RD SUITE 104	Sampler's Signature: X Sarah Slagle-Garrett	Waybill No.: 8659 6382 3917	Page 1 of 1
City: RALEIGH State: NC Zip Code: 27607	Printed Name: SARAH SLAGLE-GARRETT	Analysis (Attach list if more space is needed.)	
Project Name: MILLER MOULTRIE			
Project No.: 43718 P.O. No.:			Lot No.: JL12011

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 KI	ZnAc/NaOH	VOCs # see attached table	GASES	TOC	Alk, Cl, NO3, SO4	IRON	Sulfide	OOC				Remarks / Cooler I.D.
ETCMW-113	12/11/08	0920	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
CH2MW-3	12/11/08	1330	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
ETMW-121	12/11/08	1130	G	X						3				3										
CH2MW-114D	12/11/08	1050	G	X						3				3										
ETMW-120	12/11/08	1120	G	X						3				3										
TRIP BLANK	12/11/08	1230		X																				

Possible Hazard Identification: X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

Sample Disposal: ☐ Return to Client X Disposal by Lab

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

Turn Around Time Required (Prior lab approval required for expedited TAT.): X Standard ☐ Rush (Specify)

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: FEDEX	12/2/08	1532	1. Received by: Sarah Slagle-Garrett	12/2/08	1540
2. Relinquished by: Sarah Slagle-Garrett	12/11/08	1600	2. Received by: FEDEX	12/11/08	1602
3. Relinquished by: FEDEX	12/12/08	0940	3. Laboratory received by: [signature]	12/12/08	0940

Comments:

LAB USE ONLY: Received on ice (Circle) Yes No Ice Pack TB

Receipt Temp. 5.5 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-012 Effective Date: 08-04-02

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 6

Replaces Date: 09/22/06
Effective Date: 05/29/07

Sample Receipt Checklist (SRC)

Client: O'Brien & Gere Cooler Inspected by/date: EA / 12/12/08 Lot #: SL12011

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Airborne Exp ☐ Other			
Yes ☑	No ☐	NA ☐	1. Were custody seals present on the cooler?
Yes ☐	No ☐	NA ☐	2. If custody seals were present, were they intact and unbroken?
Cooler ID/temperature upon receipt 5 / X °C / °C / °C / °C / °C / °C / °C / °C Method: ☑ Temperature Blank ☐ Against Bottles Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None			
If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.			
Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other:_____. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☑	No ☐	NA ☐	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐	NA ☐	5. Were proper custody procedures (relinquished/received) followed?
Yes ☑	No ☐	NA ☐	6. Were sample IDs listed?
Yes ☑	No ☐	NA ☐	7. Was collection date & time listed?
Yes ☑	No ☐	NA ☐	8. Were tests to be performed listed on the COC or was quote # provided?
Yes ☑	No ☐	NA ☐	9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐	NA ☐	10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐	NA ☐	11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐	NA ☐	12. Was adequate sample volume available?
Yes ☑	No ☐	NA ☐	13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑	NA ☐	14. Were any samples containers missing?
Yes ☐	No ☑	NA ☐	15. Were there any excess samples not listed on COC?
Yes ☐	No ☑	NA ☐	16. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes ☑	No ☐	NA ☐	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☑	No ☐	NA ☐	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) and toxicity (<0.1mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s)_____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number)_____.

Sample(s)_____ were received with bubbles >6 mm in diameter.

Sample(s)_____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb.

Toxicity sample(s)_____ were received with TRC >0.1 mg/L and were analyzed by method 330.5.

Corrective Action taken, if necessary:
Was client notified: Yes ☐ No ☐
SESI employee:_____
Comments:_____

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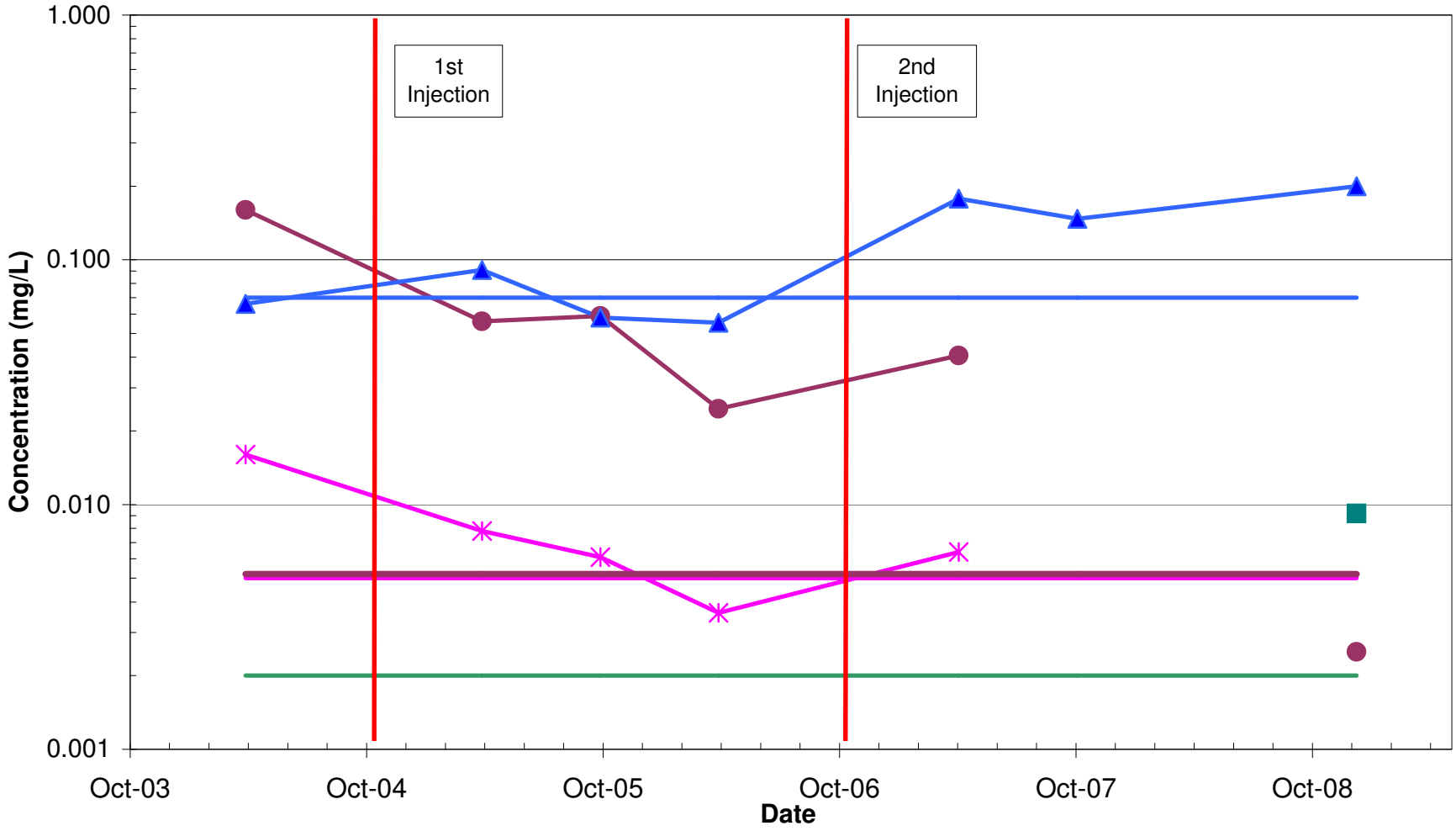
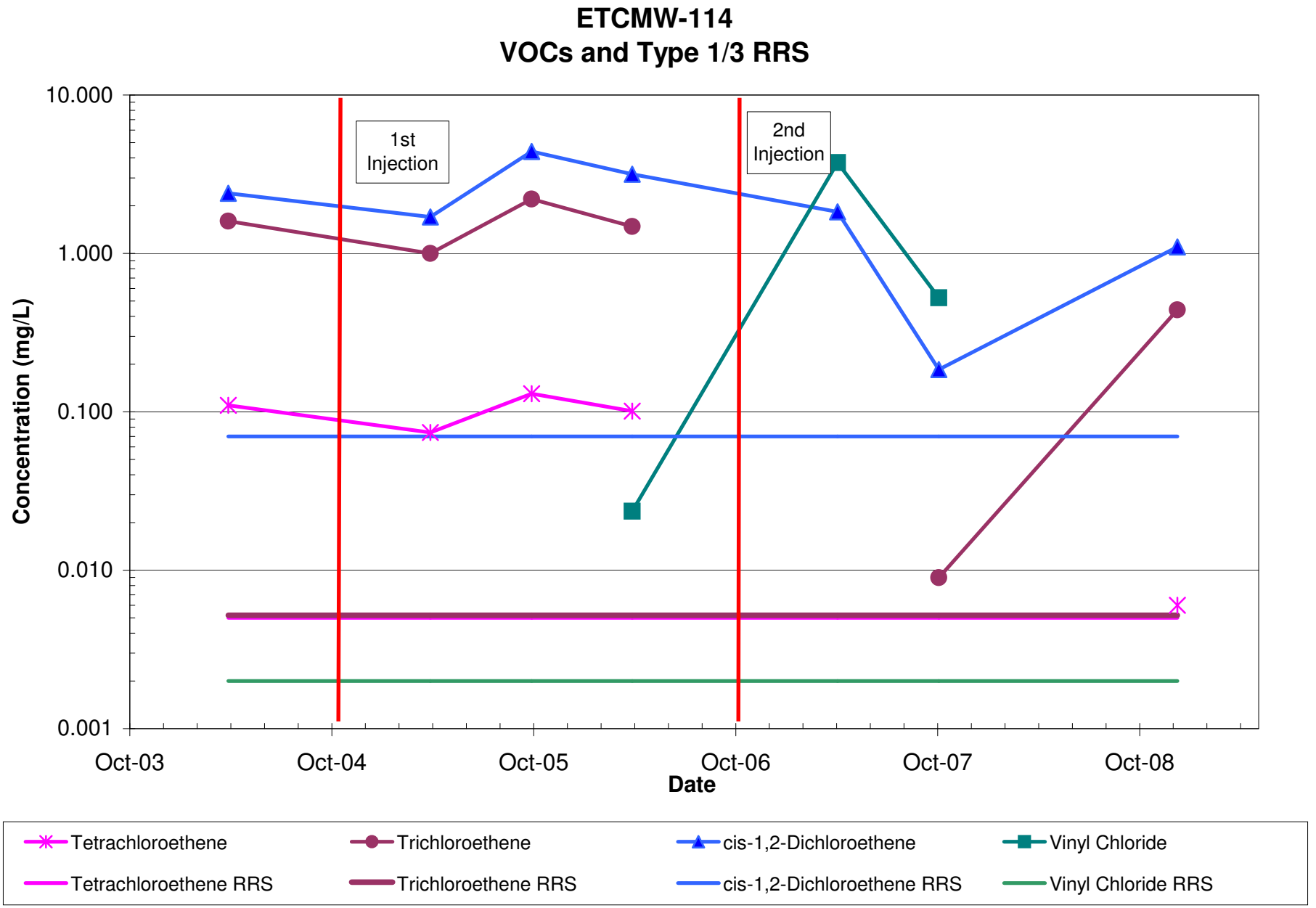
Appendix F

Trend Graphs for Volatile Organic Constituents

ETCMW-113
VOCs and Type 1/3 RRS

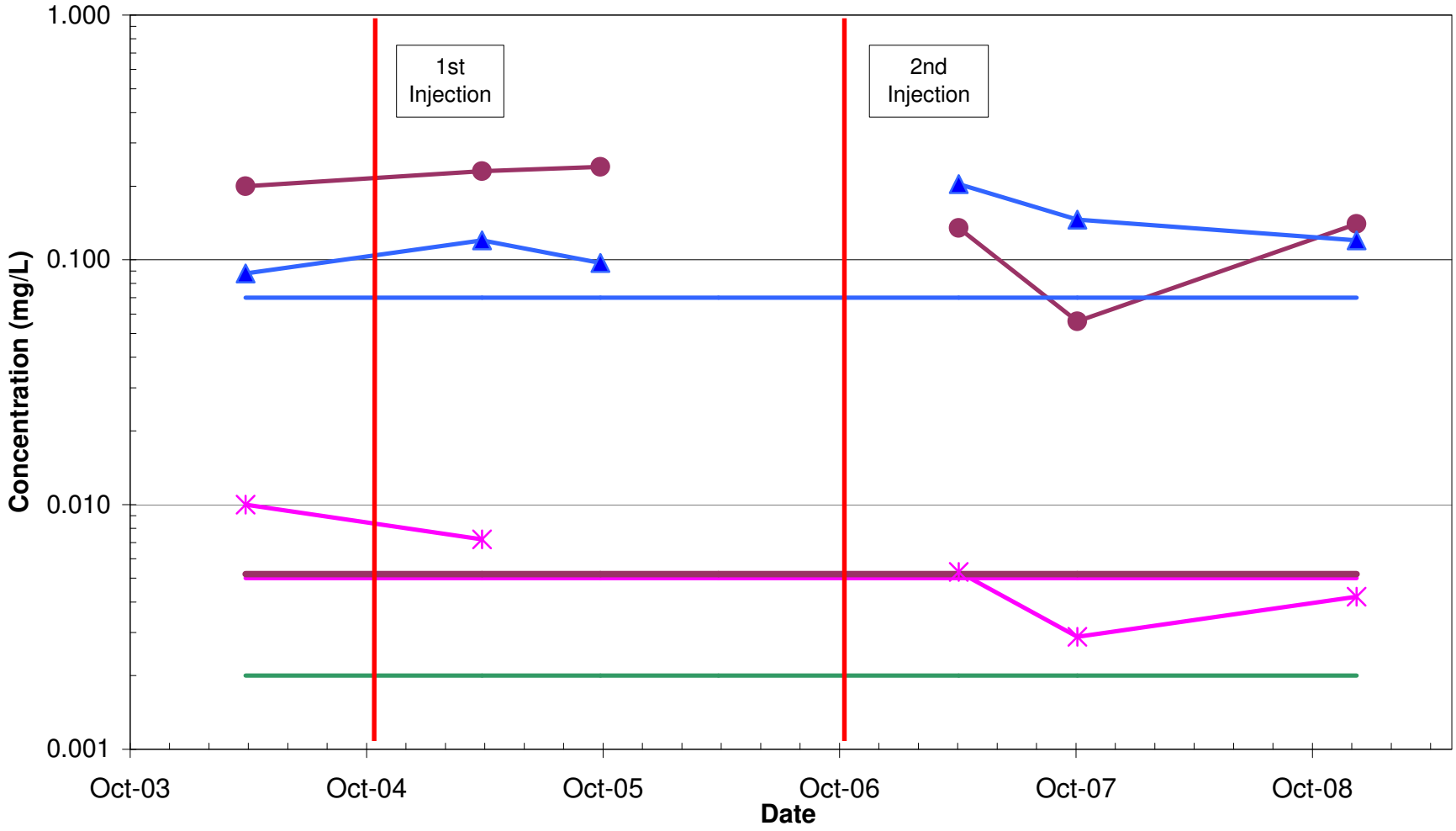


Note: Gaps in data indicate constituent was below detectable limits

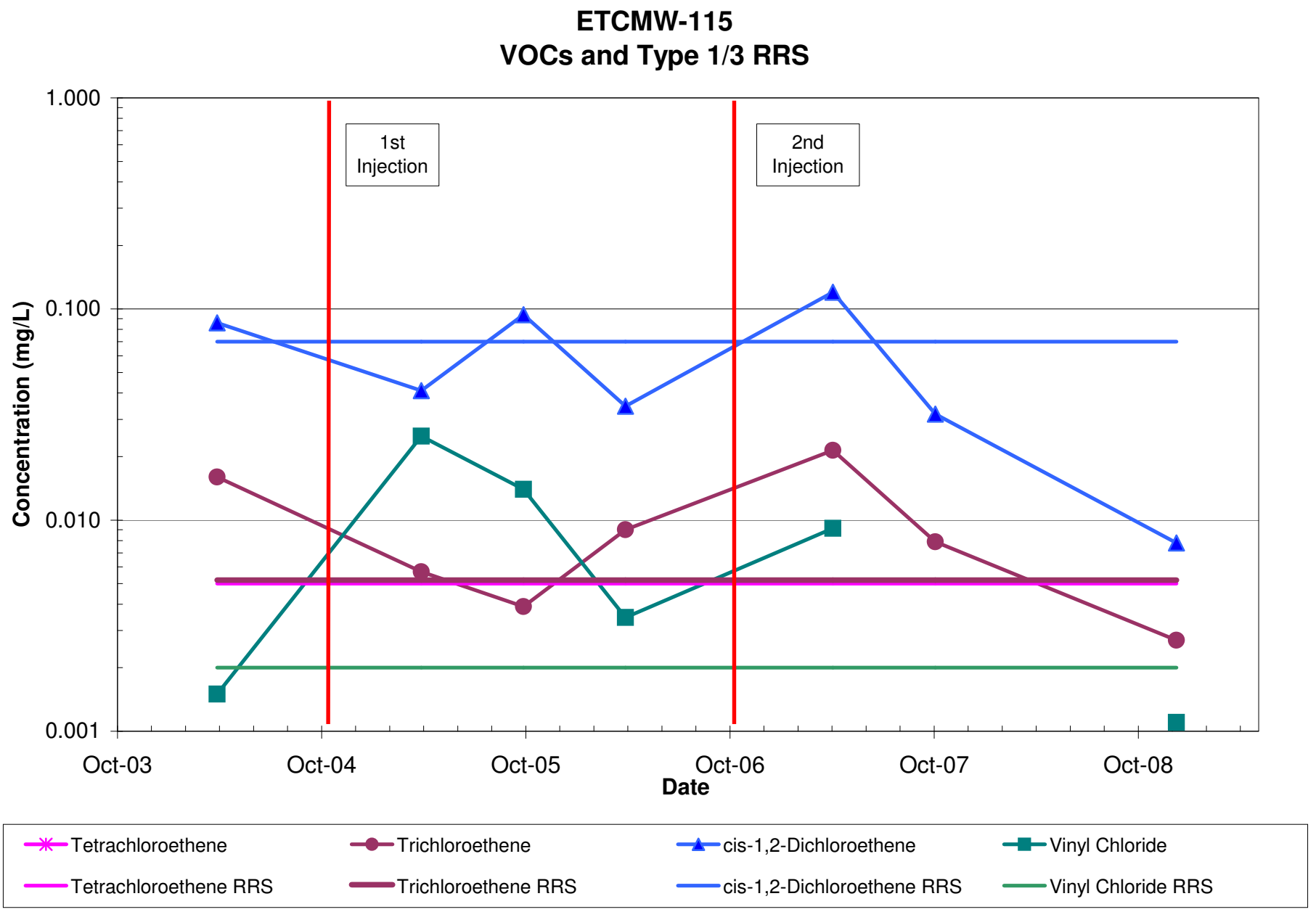


Note: Gaps in data indicate constituent was below detectable limits

CH2MW-114D
VOCs and Type 1/3 RRS

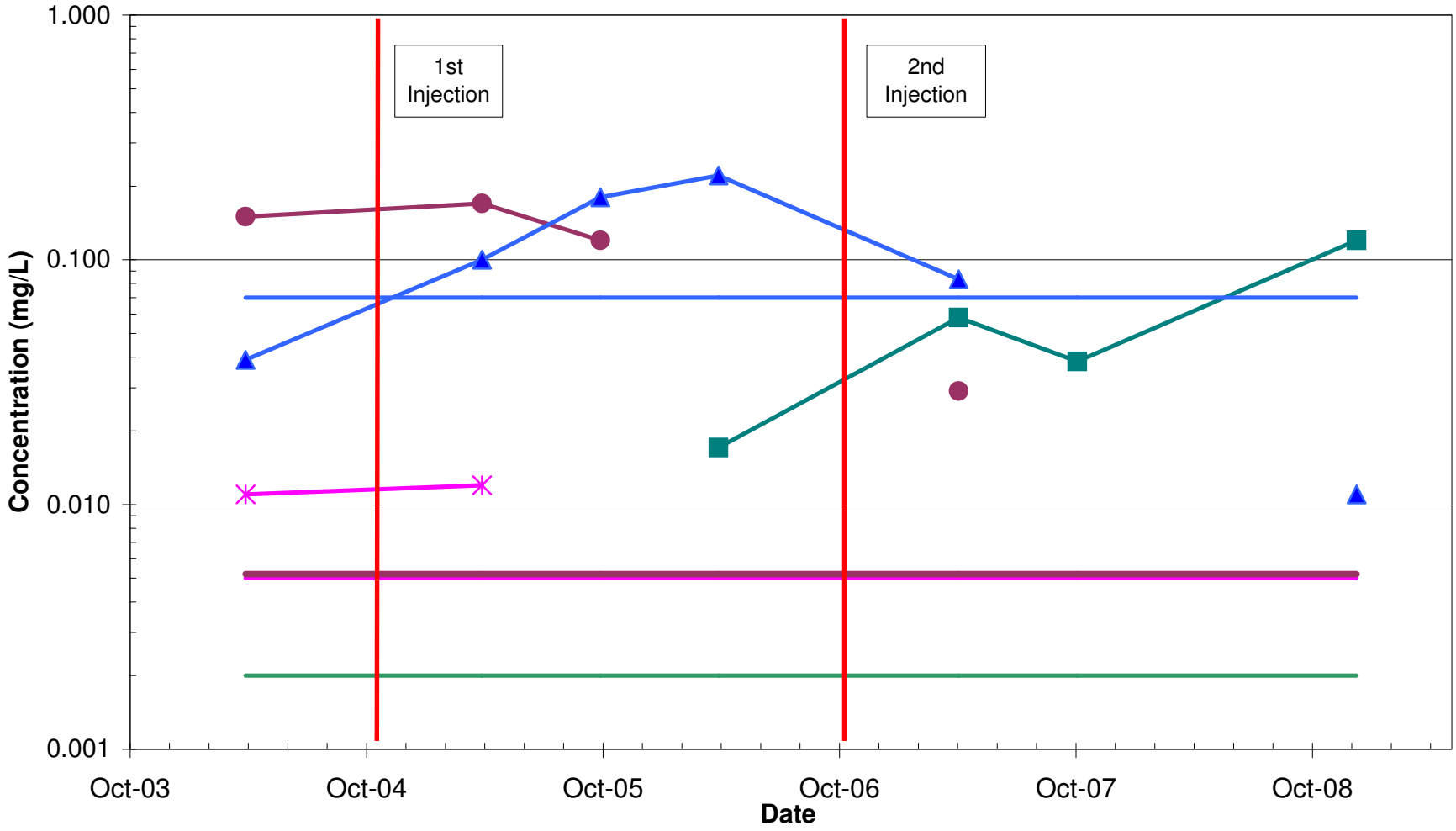


Note: Gaps in data indicate constituent was below detectable limits



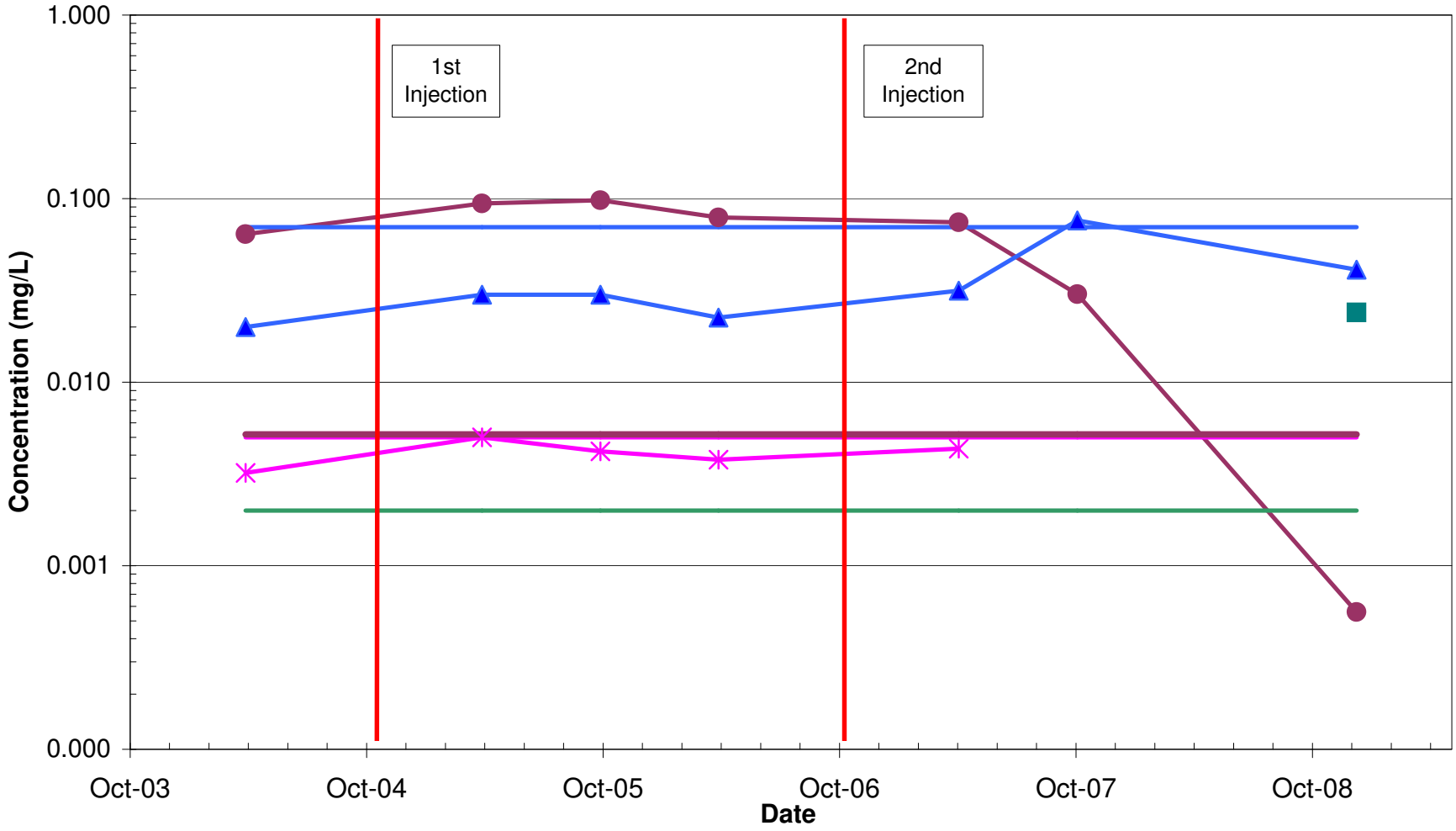
Note: Gaps in data indicate constituent was below detectable limits

ETMW-116
VOCs and Type 1/3 RRS



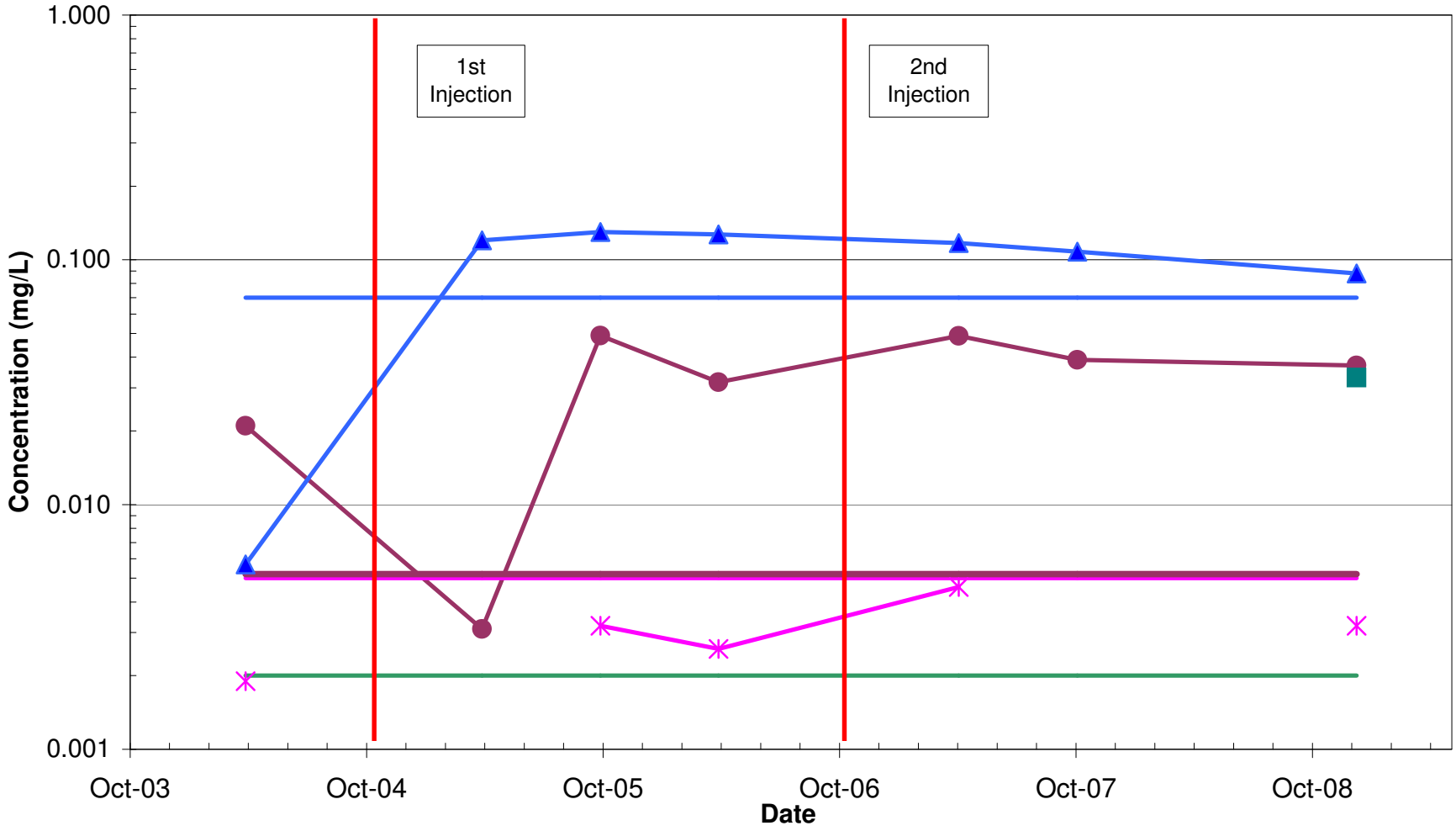
Note: Gaps in data indicate constituent was below detectable limits

ETMW-117
VOCs and Type 1/3 RRS



Note: Gaps in data indicate constituent was below detectable limits

ETMW-118
VOCs and Type 1/3 RRS



Note: Gaps in data indicate constituent was below detectable limits

Appendix K

2009 Annual Monitoring Report (O'Brien & Gere, February 2010)

REPORT

2009 Annual Monitoring Report
Miller Brewing Company Can Plant
Moultrie, Georgia

Miller Brewing Company
Moultrie, Georgia

February 2010



TABLE OF CONTENTS

1. Introduction 1
1.1 Background 1
1.2 Corrective Action Objectives 2
2. Scope and Methodology 3
3. Ground Water Monitoring Results 5
3.1 Hydrogeologic Conditions 5
3.2 Ground Water Analytical Results 5
3.2.1 Ground Water VOC Results 5
3.2.2 Quality Assurance Results 6
3.2.3 Ground Water Geochemical Results 6
3.2.4 Treatment Area Well Summary 8
4. Conclusions 12
5. Recommendations 14
References 15

Tables

1. Summary of Monitoring Parameters
2. Monitoring Wells Sampled
3. Summary of Well Construction Details and Ground Water Elevations
4. Summary of Volatile Organic Constituents in Ground Water
5. Summary of Ground Water Geochemical Parameters
6. Proposed Ground Water Sampling Schedule

Figures

1. Site Location
2. Site Plan I
3. Ground Water Monitoring Network
4. Ground Water Potentiometric Surface, December 2009
5. PCE Concentration above RRS
6. TCE Concentration above RRS
7. Cis-1,2-DCE Concentration above RRS
8. Vinyl Chloride Concentration above RRS

Appendices

A. Historical Ground Water Results Summary
A.1. Historical Summary of Volatile Organic Constituents in Ground Water
A.2. Historical Summary of Ground Water Geochemical Parameters
B. Ground Water Sampling Log Forms
C. Laboratory Certification
D. Laboratory Analytical Results
E. Trend Graphs for Volatile Organic Constituents

1. Introduction

This report presents the progress of corrective measures performed on the surficial ground water zone at the former Miller Brewing Company Facility (site) in Moultrie, Georgia (Figure 1). Corrective action at the site is being conducted under the Georgia Hazardous Site Response Act (HSRA). The Corrective Action Plan (CAP) was submitted to the Georgia Department of Natural Resources, Environmental Protection Division (GAEPD) in January 2004 (O'Brien & Gere, January 2004) and with minor amendments, approved by GAEPD in March 2004. The corrective measure approved by GAEPD was enhanced bioremediation by underground injection of a lactate formula followed by monitored natural attenuation (MNA).

The first lactate injection occurred in October 2004. This was followed by semiannual ground water monitoring in April 2005, October 2005, and April 2006. A second lactate injection occurred in October 2006 followed by ground water monitoring in April and October 2007. Following the October 2007 event, natural attenuation screening was performed following the Office of Solid Waste and Emergency Response (OSWER) directive on MNA (9200.4-17). The MNA evaluation also included Biochlor® modeling to predict future migration and attenuation of the chlorinated ethene plume. The results of these analyses are presented in the *Corrective Action Monitoring and Evaluation Report* (O'Brien & Gere, April 2008). This report proposed that the site proceed with MNA as the primary remedy. The GAEPD agreed to evaluate this remedy for a five year period during an October 28, 2008 conference call. At the end of the five year period, MNA screening and Biochlor® modeling will again be performed and the continued efficacy of MNA will be evaluated.

The purpose of this report is to document the results of the December 2009 natural attenuation ground water monitoring, and to gauge the progress of this corrective measure.

1.1 Background

In September 1988, four underground storage tanks (USTs) were removed from the site. These consisted of two No. 2 fuel oil USTs, a waste oil UST, and a waste solvent UST. During the removal, a release was discovered from a portion of the piping that was connected to the waste solvent UST. In response to this release, the following activities and investigations were performed:

- Closure of four USTs in September 1988
- Removal of piping associated with the former waste solvent tank, and excavation and disposal of soils contaminated with chlorinated solvents in 1988
- Phase II Site Assessment performed in 1993
- Site Investigation performed in 1994
- Supplemental Site Investigation performed in 1995
- Phase II Subsurface Investigation performed in 1998
- Compliance status investigation performed in 1998
- Supplemental compliance status investigations performed in 2000, 2001, and 2004
- Ground water monitoring in 2002.

The final Compliance Status Report (CSR) (O'Brien & Gere, June 2004) was submitted to GAEPD in June 2004. Analytical data provided in the CSR delineated the nature and extent of chlorinated

ethenes in soil and ground water and defined the area of ground water affected by the concentrations of chlorinated aliphatic hydrocarbons (CAHs) above the risk reduction standards (RRS). Site soil meets the Type 4 site-specific, non-residential property RRS and has been certified as doing so in the CSR. No further action is required with respect to site soil.

CAHs, and in particular, chlorinated ethenes have been detected in ground water at concentrations above the RRS in a number of wells surrounding the former waste solvent tank piping (Figure 2). The migration of these constituents has been limited because of the extremely low hydraulic conductivity of the soil. It is likely that these constituents are derived from a historic release from the waste solvent tank piping.

The conservative risk evaluation performed for the site ground water constituents indicates that site ground water meets neither non-residential nor residential RRS. The area of ground water constituents that exceed non-residential RRS is well contained, and extends approximately 100 ft downgradient of the suspected source area (Figure 3). Further details of the site background are presented in the approved CSR. A summary of historical ground water analytical results is provided in Appendix A.

Corrective Action at the Moultrie Facility was prompted by the determination that site ground water does not meet Georgia RRS. The approved Corrective Action Program details the selected remedial measures and provides the basis for corrective action at the site. As described in the CAP, the first component of corrective action on site ground water was enhanced bioremediation consisting of injection of a lactate formulation, *ABC©*, into the ground water with concentrations of chlorinated ethenes above RRS. The lactate formulation accelerates microbial activity, which, in turn facilitates reductive dechlorination of the chlorinated ethenes. Injection was performed with a Geoprobe® at injection nodes laid out on a grid pattern. The injection events occurred two years apart in October 2004 and October 2006. During the second injection event, in October 2006, zero valent iron was added to the lactate solution in order to improve its efficacy by creating reducing conditions. These injection events were followed by semiannual monitoring which took place in April 2005, October 2005, April 2006, April 2007, and October 2007. The second component of the approved corrective action is MNA. The *Corrective Action Monitoring and Evaluation Report* (O'Brien & Gere, April 2008) recommended the implementation of MNA at the site. This recommendation was accepted by GAEPD for a five year evaluation period. This report represents the results from the second year of this period. After five years of monitoring at the site, the cumulative data will be reviewed and analyzed, Biochlor© modeling will be performed, and the ongoing efficacy of the MNA corrective action will be evaluated.

1.2 Corrective Action Objectives

The goal of the lactate injection was to bring site ground water into compliance with non-residential (Type 4) RRS. These were calculated for the CSR following the requirements as set forth in Chapter 391-3-19 of the HSRA. The RRS values represent an acceptable level of theoretical human health risk associated with analytes found in soil and ground water at the site. The lactate injection at the site has reduced most VOCs to levels below the Type 4 RRS where possible. Following the October 2007 ground water monitoring event, two constituents (trichloroethene and vinyl chloride) remained above the Type 4 RRS; however, these are the same as the Type 1/3 RRS for these constituents. To the extent possible, therefore, the corrective action has met the requirements of the CAP for implementation of MNA.

2. Scope and Methodology

Ground water monitoring activities took place the week of December 14, 2009. Except where noted, field activities were performed following procedures described in the *Corrective Action Investigation Work Plan* (O'Brien & Gere, February 2004). The paragraphs that follow provide an overview of field activities.

Upon arrival at the site, monitoring wells were opened and allowed to equilibrate to atmospheric pressure for a minimum of two hours prior to measuring water levels. Water levels were measured with a decontaminated electronic water level meter to the nearest 0.01-ft relative to the top of the well casing.

After completion of the water level survey, each monitoring well was purged following low-flow purging protocols. Each well was purged at the lowest feasible rate, with the majority of wells purged at 100 mL/min or less. Due to the depth of the well, and the time required to purge one well volume, one well, CH2MW-4D, was purged at 125 mL/min (Appendix B). During purging, water quality parameters--temperature, pH, conductivity, dissolved oxygen, and oxidation reduction potential (ORP) – as listed on Table 1, were measured continuously with either a Horiba U-22® or Hydrolab Quanta® water quality meter equipped with a flow-through cell. Purging continued until at least one well volume of water was removed from the well, and until water quality parameters had stabilized. Following purging, samples were collected. At seven wells (CH2MW-3, ETCMW-113, ETCMW-114, ETCMW-115, ETMW-116, ETMW-117, and ETMW-118) samples for geochemical analysis were collected directly from the peristaltic pump discharge (Table 2, Figure 3). Samples for VOC analysis were collected at all fourteen wells using the "straw method". Under this method, the peristaltic pump was turned off and the end of the tubing was sealed, trapping the water in the tubing. The tubing was removed from the well and the seal was released, emptying the sample into 40-mL sample vials preserved with hydrochloric acid. Following the collection of ground water samples for laboratory analyses, ground water samples were collected for field measurement of iron, carbon dioxide and dissolved oxygen levels using titration kits.

During the 2009 sampling event, the carbon dioxide titration kit broke during field activities and as a result, carbon dioxide readings were not be collected from six wells (CH2MW-1, CH2MW-3, ETCMW-113, ETCMW-114, ETMW-115, and CH2MW-114D)

Hydraulic conductivity at the site is extremely low, and in general, monitoring wells had the tendency to run dry during purging. Wells CH2MW-1 and CH2MW-114D went dry during the December 2009 ground water monitoring event. In cases where the well ran dry prior to stabilization, no additional purging was considered necessary. The wells were allowed to recover (for at least 24 hours) until a sufficient quantity of water was present in the well to collect the ground water sample.

One field duplicate was collected for every ten field samples for VOCs and geochemical analyses. A matrix spike/matrix spike duplicate sample was collected for every twenty field samples.

Once sample containers were properly labeled and filled, they were wrapped, sealed, and placed immediately in a cooler with ice. A chain of custody form listing each sample and the analyses requested was also included with each cooler. At the conclusion of each day, additional ice was provided in the cooler, prior to shipping the samples to the lab via overnight delivery. Samples were delivered to Shealy Laboratories of Columbia, South Carolina, which holds an accreditation from the

state of Florida, a NELAP (National Environmental Laboratory Accreditation Program) accreditation authority (Appendix C).

Ground water samples were analyzed for VOCs, following SW 846 Method 8260 for the target list parameters identified on Table 1. In addition, ground water samples from seven monitoring wells, as identified on Table 2, were analyzed for the geochemical parameters listed on Table 1.

3. Ground Water Monitoring Results

This section presents the results of the December 2009 monitoring event. Ground water purging and sampling logs, which include field data obtained, are provided as Appendix B. The analytical data reports, provided by the laboratory are included as Appendix D.

3.1 Hydrogeologic Conditions

The following provides a summary of current hydrogeologic conditions. For a more detailed description of hydrogeologic conditions, please refer to the *Compliance Status Report* (O'Brien & Gere, June 2004). Ground water at the site is unconfined and encountered at depths ranging from less than 1 foot to greater than 13 feet below surface (fbs) (Table 3). Shallow monitoring wells in the surficial ground water zone range in depth from 10 to 15 fbs and have either 5 or 10 ft screen lengths. Water levels obtained in December 2009 were similar to previous monitoring events (Figure 4).

Hydraulic conductivity at the site is extremely low (1.4×10^{-7} cm/sec to 7.5×10^{-6} cm/sec), and ground water flow is minimal (0.053 ft/yr to 0.53 ft/yr). Because of the low hydraulic conductivity and varied recharge rates resulting from the impermeable cover provided by the building and paved areas, ground water flow at this site is highly irregular. In general, ground water on the western edge of the facility flows to the east (Figure 4). Flow direction and gradient in December 2009 were similar to previous monitoring events; however given that three wells in the northern and eastern portion of the site were abandoned in 2008, the potentiometric surface in this area of the site could not be evaluated.

The primary potential ground water receptors at the site are two small ponds that are located to the southwest and southeast of the Moultrie facility (Figure 1). The damming of an ephemeral creek that originates near the Moultrie facility formed the pond to the southeast. Given the northward flow direction, and low hydraulic conductivity, ground water originating at the site is not expected to be a contributing source to these ponds; it is likely that precipitation is the predominant source of water in the creek and pond.

3.2 Ground Water Analytical Results

3.2.1 Ground Water VOC Results

During the December 2009 sampling event, samples from six of the fourteen wells sampled had no VOCs detected. These wells include CH2MW-1, CH2MW-3, CH2MW-4D, ETMW-119, ETMW-121 and CH2PP-1 (Table 4). Samples collected from the remaining eight wells contained VOCs, with six wells (ETCMW-113, ETCMW-114, CH2MW-114D, ETMW-116, ETMW-117, and ETMW-118) with concentrations above the Type 1/3 RRS.

Seven constituents – benzene, chloroethane, cis-1,2-dichloroethene (cis-1,2-DCE), 1-1-dichloroethene, tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride were detected at concentrations above the Type 1/3 RRS. Discussion of VOC trends in individual wells within the treatment zone is included in section 3.2.4.

3.2.2 Quality Assurance Results

Following receipt of the analytical data, an evaluation of the duplicate results indicated inconsistencies between the VOC results from samples ETMW-117 and DUP-2, which was collected at ETMW-117. After notification of this discrepancy, Shealy Laboratory performed an evaluation of the laboratory results and attributed it to a laboratory batching error. The results for ETMW-117 were subsequently revised by the laboratory. The VOC concentrations included in this report reflect the revised data.

3.2.3 Ground Water Geochemical Results

The ground water sampling event at the site has included laboratory analyses of the following geochemical parameters: alkalinity, chloride, nitrate, sulfate, sulfide, methane, ethane, ethene, soluble organic carbon (dissolved), total organic carbon, manganese and total iron to provide data necessary to further evaluate potential biologically mediated attenuative processes. These data are summarized along with geochemical parameters measured in the field (pH, temperature, specific conductance, ORP, turbidity, dissolved oxygen and ferrous iron) on Table 5. The geochemical data were collected to assess the effectiveness of treatment, and to provide indirect evidence of natural attenuation via biodegradation. General site geochemistry trends are discussed below. Geochemical trends in individual wells within the treatment area are included in section 3.2.4.

Although some of the geochemical data suggest that conditions within the plume are favorable for biodegradation, other parameters are inconclusive. These contradictions in the data may be due to several factors which include the sampling method, and the extremely low hydraulic conductivity of the area which has created variations within the plume following the injection treatment.

Dissolved Oxygen

To support microorganisms capable of dechlorinating the constituents present within the aquifer, anaerobic conditions and a reducing environment must be present. To assess these conditions, DO was analyzed in the field. Anaerobic bacteria cannot function at DO levels above 0.5 mg/L and therefore, reductive dechlorination cannot occur. Within the treatment area, DO readings were below 0.5 mg/L in two wells (ETMW-116 and ETMW-118), suggesting that conditions in the ground water surrounding these wells are favorable for biodegradation; however, higher levels of DO were measured in the remaining five wells (ETCMW-113, ETCMW-114, CH2MW-114D, ETCMW-115 and ETCMW-117), with DO readings in ETMW-117 slightly above 0.5 mg/L.

The higher than expected levels of DO observed in the wells at the site may be the result of the very low hydraulic conductivity at the site. Despite purging the wells at the lowest feasible rate, water levels consistently drop below the top of the well screen during purging. This drop in water levels can result in the agitation of the ground water by the cascading of water down the well screen as the water levels within the well drop during purging. Agitation during purging can result in aeration of the ground water. Because of this potential for aeration within the wells, the DO readings recorded during purging activities may not be representative of conditions within the well.

Nitrate

Subsequent to depletion of dissolved oxygen, nitrate may be used as an electron acceptor for anaerobic degradation of organic carbon via a metabolic process known as denitrification. In order for reductive dechlorination to occur, nitrate concentrations in the contaminated portion of the aquifer must be less than 1.0 mg/L (USEPA 1998). During the 2009 sampling event, nitrate was not detected in samples from four wells (ETCMW-113, ETMW-115, ETMW-116 and ETMW-118) which had detections of nitrate in 2008, suggesting that denitrification has started to take place within the plume.

The only detection of nitrate above 1.0 mg/L was in the sample from CH2MW-114D, within the source area of the plume.

Ferrous Iron

Ferric iron, Fe (III), may be used as an electron acceptor during anaerobic biodegradation of organic carbon via a metabolic process known as iron reduction. During iron reduction, Fe (III) is reduced to ferrous iron, Fe (II). Biodegradation within a contaminated plume via Fe (III) reduction is evidenced by increasing concentrations of Fe (II) in the plume compared to background concentrations.

Ferrous iron data for the site shows sporadic detections of ferrous iron, primarily within the plume, although a consistent trend of ferrous iron concentrations could not be established.

Sulfate

Subsequent to depletion of dissolved oxygen and nitrate, sulfate may be used as an electron acceptor for anaerobic biodegradation via a metabolic process known as sulfate reduction, where sulfate is reduced to sulfide. Decreasing sulfate concentrations and increasing sulfide concentrations within a contaminant plume indicates sulfate reduction. No clear trend of decreasing sulfate and increasing sulfide concentrations could be observed, although only limited analyses for these constituents have been performed in the past. These data will continue to be evaluated as more data are made available to identify trends going forward.

Methane

Methane is a by-product of biodegradation of organic carbon. This process typically takes place once oxygen, nitrate, and sulfate have been depleted in the treatment zone. The presence of methane in ground water is generally indicative of strongly reducing conditions (USEPA 1998). High levels of methane (>2500 µg/L) were observed in samples from wells ETCMW-113, ETMW-116, ETMW-117 and ETMW-118. Although these high levels of methane contradict the dissolved oxygen and oxidation reduction potential data, they indicate strongly reducing conditions in the area and suggest that the ground water chemistry is favorable for reductive dechlorination.

Alkalinity

An increase in alkalinity levels over background concentrations can serve as an indication of reductive dechlorination. During biodegradation, carbon dioxide is produced. If the aquifer matrix consists of carbonate materials, the carbon dioxide will form carbonic acid and dissolve these materials. This dissolution increases the alkalinity of the ground water. Therefore, alkalinity levels above background levels can indicate biodegradation. Samples analyzed from five wells in the treatment area (ETCMW-113, ETCMW-114, ETCMW-115, ETMW-116, and ETMW-117) indicated alkalinity levels from 150 mg/L to 330 mg/L. These levels indicate an increase over background level of alkalinity (45 mg/L) and suggest dechlorination is taking place in these wells.

Oxidation Reduction Potential

The ORP of ground water is a measure of electron activity and is an indicator of the relative tendency of a solution to accept or transfer electrons. Redox reactions in ground water containing organic compounds are usually biologically mediated, and therefore the ORP of a ground water system depends upon and influences rates of biodegradation. In order to indicate a reducing environment within the aquifer, ORP values must be strongly negative. ORP measurements from the treatment area indicate one well with negative ORP readings (ETMW-118) suggesting conditions favorable to biodegradation. The remaining ORP measurements in the treatment area are positive, and appear to coincide with the higher oxygen concentrations measured in these wells; however, these higher levels

may be due to aeration of the samples as discussed above and may not be representative of ground water conditions.

Chloride

During anaerobic biodegradation of chlorinated ethenes, chloride is released into the ground water in stoichiometric amounts equivalent to the amount of chlorinated solvent degraded. This results in elevated chloride concentrations in a contaminant plume compound compared to background concentrations. Because of the neutral behavior of chloride, it can be used as a conservative estimate of biodegradation rates. Concentrations of chloride elevated above background levels (based on samples from monitoring well CH2MW-3) were observed in the treatment area in samples from wells ETCMW-113, ETCMW-114, ETMW-116, ETMW-117, and ETMW-118. These wells represent the areas in which constituents remain above the Type 1/3 RRS. The elevated chloride concentrations suggest biodegradation is occurring in these wells.

pH

Optimal pH conditions for microbes capable of degrading CAH's are between 6 and 8 (USEPA 1998). The wells at the site typically have had pH measurements at the low end of this range. Four of the wells in the treatment area (ETCMW-113, ETCMW-114, ETCMW-115, and ETMW-116) all have pH levels between 6 and 7, within the acceptable range for degradation. Three wells within the treatment area (CH2MW-114D, ETMW-117, and ETMW-118) have pH levels that remain below 6 and therefore do not support microbes capable of degrading CAHs.

The low pH levels across the treatment area are most likely due to the injection treatments. Although the lactate solution accelerates microbial growth, which in turn facilitates reductive dechlorination of the chlorinated ethenes, it has also reduced the pH of the groundwater below the optimal range for biodegradation. The most recent injection event occurred in October 2006 and since that time, pH levels within the treatment area have been gradually increasing.

3.2.4 Treatment Area Well Summary

Within the treatment area, an idealized distribution of chlorinated ethenes undergoing biodegradation via reductive dechlorination would consist of concentrations of PCE or TCE highest in the source area with elevated cis-1,2-DCE and vinyl chloride concentrations in the source area and extending downgradient, and ethenes present in the source area with increasing concentrations near the downgradient extent of the plume. The distribution of PCE, TCE, cis-1,2-DCE and vinyl chloride in samples from the site largely matches this distribution, as represented in Figures 5-8. These figures represent the concentration of each of the key constituents in excess of the Type 1/3 RRS. For example, vinyl chloride was detected in the sample from ETCMW-114 at 0.0052 mg/L. Because the Type 1/3 RRS for vinyl chloride is 0.002 mg/L, a value of 0.0032 mg/L is represented on the map as the concentration of vinyl chloride in excess of the Type 1/3 RRS (0.0052 mg/L – 0.002 mg/L = 0.0032 mg/L). The contour maps indicate that PCE is present in excess of the Type 1/3 RRS only in samples from the source area around ETCMW-114 (Figure 5). TCE concentrations in excess of the Type 1/3 RRS are also detected in the source area in samples from ETCMW-114 and CH2MW-114D, and also extend slightly further downgradient than PCE (Figure 6). The highest concentration of cis-1,2-DCE in excess of the Type 1/3 RRS remains centered around ETCMW-114 and CH2MW-114D (Figure 7). The constituent cis-1,2-DCE, which is a daughter product of the biodegradation of both PCE and TCE, extends further downgradient of the source area. Vinyl chloride concentrations in excess of the Type 1/3 RRS are present further downgradient of the source area and across a wider area of the treatment zone, primarily in samples from wells ETMW-116, ETMW-117 and ETMW-118 (Figure 8). Exceptions to the near idealized distribution of chlorinated ethenes include the

detection of TCE and cis-1,2-DCE, at concentrations in excess of the Type 1/3 RRS, from monitoring well ETMW-118 and the absence of ethane detections within the treatment area.

Overall, VOC concentrations in groundwater samples decreased from December 2008 to December 2009, which, together with the distribution of the various constituents, suggests degradation is occurring. The sections that follow provide an overview of the results from each of the affected wells in the treatment area. The treatment area consists of the area where lactate injection was performed and includes wells ETCMW-113, ETCMW-114, CH2MW-114D, ETCMW-115, ETMW-116, ETMW-117 and ETMW-118. Graphs of the concentrations of chlorinated ethenes for samples from each of these wells are included in Appendix E.

ETCMW-113

The constituent PCE continues to be undetected in samples from this well and TCE remains at levels below the Type 1/3 RRS. The constituents cis-1,2-DCE and vinyl chloride continue to be detected at concentrations in excess of their respective Type 1/3 RRS; however, concentrations of both constituents have decreased since the December 2008 sampling event. The constituent cis-1,2-DCE is produced by the degradation of PCE and TCE, and its presence, along with the absence of detections of PCE and TCE, suggests active degradation of these constituents. Vinyl chloride, which was detected for the first time in 2008, continues to be detected above the Type 1/3 RRS, but has decrease from 2008 to 2009. Vinyl chloride is produced by the degradation cis-1,2-DCE and its presence is likely derived from the degradation of this constituent.

The presence of vinyl chloride in 2008 and the decrease observed in DCE correlates with an increase in pH levels in the well, from less than 5 (standard units) in 2007, to greater than 6 (standard units) in 2008. This increase suggests that as pH has increased into the optimal range for biodegradation, increased biodegradation has begun to take place in the well. In addition to the increase in pH, the high levels of methane in this well and increased levels of alkalinity over background levels also suggest conditions are favorable for biodegradation.

ETCMW-114

Samples from this well, which is located in the source area, have consistently had the highest concentration of chlorinated ethenes. There has been a slight increase in the concentration of PCE as compared to the concentration detected in December 2008, and while the concentration is above the Type 1/3 RRS, it remains at 0.0092 mg/L, which is well below the concentration of PCE detected in this well prior to injection (0.13 mg/L). TCE and cis-1,2-DCE continue to be at concentrations above the Type 1/3 RRS, although these concentrations have decreased since December 2008. Vinyl chloride, which had previously been detected in this well in October 2007 (0.547 mg/L) was not detected in December 2008; however, it was detected again in 2008 at 0.0052 mg/L).Because vinyl chloride is produced by the degradation of cis-1,2-DCE, its presence is most likely due to the decreased cis-1,2-DCE concentrations observed.

This well has not shown a clear trend among the geochemical parameters. These parameters will continue to be evaluated in future monitoring reports.

CH2MW-114D

Samples from this well, located in the source area, indicate PCE continues to remain below the Type 1/3 RRS. Relative to December 2008, TCE was detected at a slightly decreased concentration and continues to be detected at a concentration above the Type 1/3 RRS. The constituent cis-1,2-DCE continues to be detected above the Type 1/3 RRS and increased in concentration; however, this

increase is most likely due to the decrease observed in TCE. There continues to be no detections of vinyl chloride in this well.

Because of the limited well volume, laboratory analyzed geochemical parameters have not been collected at this well since October 2007 and current geochemical trends cannot be established.

ETMW-115

This well is located on the downgradient edge of the plume, and all of the constituents detected in the samples from this well continue to be below the Type 1/3 RRS and the Type 4 RRS. The constituent PCE has not been detected in this well. Both TCE and cis-1,2-DCE showed slight increases in concentration from December 2008; however, both constituents have shown a significant decrease in concentration following the second injection event in October 2006. Vinyl chloride was not detected in this well in 2009.

ETMW-116

This well is located in the middle of the plume. PCE has not been detected in this well since April 2005 and TCE has not been detected since April 2007. The concentration of cis-1,2-DCE detected has steadily decreased following the second injection event and continues to remain below the Type 1/3 RRS. Although vinyl chloride concentrations have increased following the second injection event in October 2006, and remain in excess of the Type 1/3 RRS, the increase is most likely due to the degradation of cis-1,2-DCE. Vinyl chloride is currently the only constituent in excess of the Type 1/3 RRS.

Geochemical parameters measured in this well indicate conditions are favorable for biodegradation. DO remains at levels below 0.5 mg/L and nitrate has been depleted. Additionally, methane levels are increasing and the elevated levels of alkalinity and chloride above background concentrations suggest conditions are favorable to continue degradation of the chlorinated solvents in this well.

ETMW-117

This well is located on the downgradient edge of the plume. The constituent PCE has not been detected in this well since April 2007. Both TCE and cis-1,2-DCE have decreased in concentration since October 2007. TCE is currently not detected in this well and the constituent cis-1,2-DCE is presently at concentrations below the Type 1/3 RRS. Vinyl chloride is currently the only constituent in excess of the Type 1/3 RRS. It was detected for the first time in 2008 and has shown an increase in concentration. This increase in vinyl chloride concentration is most likely produced by the degradation of cis-1,2-DCE.

Nitrate has not been detected since 2008. The absence of nitrate, along with high levels of methane and increased alkalinity over background levels suggest conditions are favorable to continue degradation of the chlorinated solvents in this well.

ETMW-118

This well is located on the downgradient edge of the plume. The constituent PCE was detected in samples from this well, but remains below the Type 1/3 RRS. TCE remains in excess of the Type 1/3 RRS, but has decreased steadily since April 2007. The constituent cis-1,2-DCE, which is produced from the degradation of PCE and TCE increased slightly in 2009 and continues to be above the Type 1/3 RRS. Vinyl chloride, which was detected for the first time in 2008, remains above the Type 1/3 RRS, but decreased from 2008 to 2009.

Both DO and nitrate have been depleted from this well. The anaerobic conditions within this well, along with chloride concentrations above background levels and high levels of methane suggest conditions are favorable to continue degradation of the chlorinated solvents in this well.

4. Conclusions

The analytical data for the December 2009 ground water monitoring event indicate that active biodegradation of chlorinated ethenes is taking place across the treatment area. In samples from one well on the edge of the treatment zone, ETCMW-115, all VOCs were at concentrations below the Type 1/3 RRS, and have been since 2008. Analyses of ground water samples from other wells in the treatment area also indicate a general decrease in the concentration of chlorinated ethenes. PCE continues to be at levels below the Type 1/3 RRS in samples from all wells within the treatment zone, with the exception of ETCMW-114, located in the source area. The constituents TCE and cis-1,2-DCE continue to be detected at concentrations above the Type 1/3 RRS in samples from the source area from wells ETCMW-114 and CH2MW-114D and downgradient from ETMW-118. Although TCE and cis-1,2-DCE were detected above the Type 1/3 RRS in samples from these wells during the 2009 sampling event, the concentrations have decreased since the 2008 sampling event. Vinyl chloride is at concentrations in excess of the Type 1/3 RRS downgradient of the source area, in samples from wells ETCMW-113, ETCMW-114, ETMW-116, ETMW-117 and ETMW-118. With a few exceptions, this distribution of constituents continues to suggest a distribution which indicates that biodegradation of chlorinated ethenes is taking place. Elevated concentrations (above the Type 1/3 RRS) of PCE and TCE in the source area (in samples from monitoring well ETCMW-114), grading to elevated concentrations of cis-1,2-DCE in the area downgradient of the source area and elevated concentrations of vinyl chloride throughout, and extending further downgradient of the source (Figures 5-8).

The exceptions to the distribution described include the concentrations of CAHs observed in monitoring well ETMW-118 and the absence of ethane across the treatment area.. The chlorinated ethenes in the samples from ETMW-118well seem to be degrading at a slower rate than in other wells in the treatment area. While both TCE and cis-1,2-DCE have shown only small decreases in concentration following the injection treatment, the continued presence of vinyl chloride suggests that some degradation is taking place. Unlike other wells in the treatment area ETMW-118 continues to exhibit a pH below the optimal range for biodegradation. While degradation at this well appears to be occurring more slowly, the well has exhibited other positive signs for degradation, including the continued detection of daughter products (cis-1,2-DCE and vinyl chloride).and the depletion of oxygen and nitrate along with increased levels of methane detected above background concentrations. The absence of ethane detections in the treatment area indicates that although cis-1,2-DCE is converting to vinyl chloride, the degradation of vinyl chloride is not occurring, or is occurring at a very low rate.

Additional analyses of the geochemical parameters at the site indicate that conditions favorable for degradation exist across the treatment area. In particular, elevated concentrations above background levels of chloride and methane were detected in the treatment area, suggesting that the degradation of chlorinated solvents is taking place. Although there is evidence of degradation this conflicts somewhat with the ORP and dissolved oxygen measurements in the plume. These measurements may have been affected by oxygenation during purging of the monitoring wells during sampling, and may not be reflective of actual conditions within the groundwater.

At this point, MNA continues to be the most practicable option at the site. The low hydraulic conductivity at the site continues to limit the migration of the contaminant plume. As with previous monitoring events, no constituents were detected above the RRS outside of the treatment area, and

there is no indication that the contaminant plume is migrating downgradient and it appears that biodegradation continues to be taking place within the treatment area..

5. Recommendations

Miller recommends that MNA ground water monitoring continue at the site on an annual basis with the next ground water monitoring event in December 2010. Given the extremely low hydraulic conductivity at the site, annual sampling is appropriate. Over fourteen years of sampling at the site have shown no migration of the plume, even prior to corrective action. The low potential for migration of constituents is further supported by the Biochlor® modeling that was performed and included in the *Corrective Action Monitoring and Evaluation Report* (O'Brien & Gere, April 2008). Furthermore, analysis of the analytical data at the site indicates active biodegradation is occurring within the treatment zone and that this has reduced the concentration of constituents within the affected area. The chlorinated ethenes are showing a generally decreasing concentration trend overall, with increasing concentrations observed only for degradation by-products.

Because the dissolved oxygen and ORP readings at the site do not appear to be consistent with the other geochemical data collected, it is recommended that during the 2010 monitoring event, a downhole probe is used to measure DO and ORP in each well prior to purging. Because of the low hydraulic conductivity at the site, all of the wells within the treatment area experienced drawdown during purging that resulted in water levels below the top of the well screen. It is believed that this process aerated the water within the well and resulted in dissolved oxygen readings that were not representative of the ground water at the site. Through the use of a downhole probe, it may be possible to create less aeration of the water and therefore obtain a DO reading that is more representative of the conditions within the well. Because of the relation between DO and ORP, it is expected that ORP measurements would be similarly affected.

Along with annual ground water sampling, an MNA summary report will be provided to GAEPD each year providing the results of the sampling for that year (Table 6). At the end of the five year evaluation period, an extended MNA report will include screening and Biochlor® modeling to assess the efficacy of this corrective action.

References

O'Brien & Gere, *Corrective Action Investigation Work Plan, Miller Brewing Company Can Plant, Moultrie, Georgia*, February 2004.

O'Brien & Gere, *Corrective Action Monitoring and Evaluation Report, Miller Brewing Company Can Plant, Moultrie, Georgia*, April 2008.

O'Brien & Gere, *Corrective Action Plan, Former Miller Brewing Company Can Plant, Moultrie, Georgia*, January 2004.

O'Brien & Gere, *Revised Compliance Status Report, Miller Brewing Company, Moultrie, Georgia*, June 2004.

USEPA, 1998, Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water; Office of Research and Development, EPA/600/R-98/128.

TABLES

Table 1
Summary of Monitoring Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Target Analytes	Laboratory Geochemical Parameters	Field Geochemical Parameters
Acetone	Alkalinity	Temperature
2-Butanone (MEK)	Chloride	Conductivity
Benzene	Nitrate	Dissolved Oxygen
Carbon Disulfide	Sulfate	pH
Chloroethane	Sulfide	Oxidation/Reduction Potential (ORP)
1,1-Dichloroethane (1,1-DCA)	Methane	Carbon Dioxide
1,2-Dichloroethane (1-,2-DCA)	Ethane	Ferrous Iron
1,1-Dichloroethene (1,1-DCE)	Ethene	
cis-1,2-dichloroethene (cis-1,2-DCE)	Soluble Organic Carbon (Dissolved)	
trans-1,2-dichloroethene (trans-1,2-DCE)	Total Organic Carbon	
Isobutyl Alcohol	Manganese	
Tetrachloroethene (PCE)	Total Iron	
Toluene		
1,1,1-Trichloroethane (TCA)		
Trichloroethene (TCE)		
Trichlorofluoromethane		
Vinyl Chloride		
Xylenes (total)		

Table 2
Monitoring Wells Sampled
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Monitoring Well	December 2009			
	Water Level	VOC Analysis	Geochemical Field Parameters	Geochemical Lab Analysis
CH2MW-1	X	X	X	
CH2MW-3	X	X	X	X
CH2MW-4D	X	X	X	
ETCMW-113	X	X	X	X
ETCMW-114	X	X	X	X
CH2MW-114D	X	X	X	
ETCMW-115	X	X	X	X
ETMW-116	X	X	X	X
ETMW-117	X	X	X	X
ETMW-118	X	X	X	X
ETMW-119	X	X	X	
ETMW-120	X	X	X	
ETMW-121	X	X	X	
CH2PP-1	X	X	X	

Table 3
Summary of Well Construction Details and Ground Water Elevations
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Well	Ground Surface Elevation (ft msl)	TOC Elevation (ft msl)	Total Well Depth from Ground Surface (ft)	Screened Interval (ft bgs)	Well Diameter (in)	Depth to Water Below Top of Casing (ft)								Water Level Elevation (ft msl)							
						4/6/2004	4/25/2005	10/24/2005	4/17/2006	4/16/2007	10/22/2007	12/8/2008	12/14/2009	4/6/2004	4/25/2005	10/24/2005	4/17/2006	4/16/2007	10/22/2007	12/8/2008	12/14/2009
CH2MW-1	293.62	293.84	10	5 - 10	1	6.45	4.55	8.13	5.43	7.33	3.18	2.62	1.22	287.39	289.29	285.71	288.41	286.51	290.66	291.22	292.62
CH2MW-3	295.45	295.53	13	3 -13	2	4.92	3.55	8.10	4.72	5.85	0.97	3.69	2.08	290.61	291.98	287.43	290.81	289.68	294.56	291.84	293.45
CH2MW-4D	293.65	293.54	45.93	36 - 46	2	16.05	16.10	19.44	15.62	16.71	18.88	13.79	13.88	277.49	277.44	274.10	277.92	276.83	274.66	279.75	279.66
ETCMW-113	296.32	296.32	12	2 - 12	2	6.25	4.40	7.07	5.58	5.75	5.94	5.12	4.93	290.07	291.92	289.25	290.74	290.57	290.38	291.20	291.39
ETCMW-114	294.02	297.66	11.7	1.7 - 11.7	4	7.78	6.60	8.15	7.36	7.94	6.52	6.67	5.89	289.88	291.06	289.51	290.30	289.72	291.14	290.99	291.77
CH2MW-114D	294.16	297.45	22.5	17.5 - 22.5	1	8.54	7.00	9.88	8.40	9.32	9.99	8.64	8.55	288.91	290.45	287.57	289.05	288.13	287.46	288.81	288.90
ETCMW-115	293.22	296.10	11.5	1.5 - 11.5	2	6.19	5.14	6.96	5.39	6.49	4.79	4.72	3.76	289.91	290.96	289.14	290.71	289.61	291.31	291.38	292.34
ETMW-116	292.29	292.29	11	1 - 11	4	1.98	0.70	1.81	1.16	1.46	0.89	0.70	0.52	290.31	291.59	290.48	291.13	290.83	291.40	291.59	291.77
ETMW-117	292.3	292.30	11	1 - 11	2	2.40	0.89	2.71	1.29	2.42	0.71	1.30	0.24	289.90	291.41	289.59	291.01	289.88	291.59	291.00	292.06
ETMW-118	292.34	292.34	11	1 - 11	2	2.90	0.40	3.42	2.15	1.61	1.73	2.20	1.54	289.44	291.94	288.92	290.19	290.73	290.61	290.14	290.80
ETMW-119	294.26	297.05	11	1 - 11	2	6.86	5.70	8.02	6.31	6.65	5.66	5.32	4.14	290.19	291.35	289.03	290.74	290.40	291.39	291.73	292.91
ETMW-120	293.76	296.84	11	1 - 11	2	6.69	4.50	9.42	5.46	7.18	4.77	4.56	3.69	290.15	292.34	287.42	291.38	289.66	292.07	292.28	293.15
ETMW-121	294.84	298.02	11	1 - 11	2	7.70	5.78	11.72	6.43	8.72	6.75	4.53	2.91	290.32	292.24	286.30	291.59	289.30	291.27	293.49	295.11
CH2PP-1	293.56	293.72	12	7 - 12	1	7.67	5.55	9.45	7.63	8.81	6.00	3.56	2.87	286.05	288.17	284.27	286.09	284.91	287.72	290.16	290.85

Notes
Elevations based on a survey performed by H.J. Griffen and Associates in June 1998. Elevations reference a DOT benchmark.
Wells CH2MW-1A, CH2MW-2, CH2MW-5, OBGMW-122, OBGMW-123 and OBGMW-124 were abandoned on 12/8/2008

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume ETCMW-113							In Plume ETCMW-114							
					4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	4/28/2005	10/27/2005	4/20/2006	4/17/2007	DUP-01 (4/17/2007)	10/24/2007	10/24/2007 (DUP-02)	12/10/2008	12/16/2009
Acetone	67-64-1	mg/L	4		< 0.04	< 0.01	< 0.01	**0.235 D**	**0.448 D**	**0.038**	<0.01	< 0.1	< 0.5	<0.100	<0.50	<2	<0.01	<0.01	< 0.1	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.04	< 0.01	< 0.01	**0.191 D**	**0.380 D**	**0.014**	<0.01	< 0.1	< 0.5	<0.100	<0.50	<2	<0.01	<0.01	< 0.1	<0.01
Benzene	71-43-2	mg/L	0.005		< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	**0.0016**	**0.00052**	< 0.005	< 0.005	<0.005	<0.025	<0.10	**0.00170**	**0.00165**	< 0.005	**0.0029**
Carbon Disulfide	75-15-0	mg/L	4		**0.0056 D**	< 0.001	< 0.0005	**0.00810 D**	<0.005	**0.00072**	<0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	< 0.005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	**0.0057**	<0.0005	< 0.010	< 0.001	<0.010	<0.05	<0.20	**0.0149**	**0.0143**	< 0.005	<0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-	-	< 0.010	< 0.001	<0.010	<0.05	<0.20	<0.001	<0.001	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-	-	< 0.01	< 0.05	<0.010	<0.050	<0.20	<0.001	<0.001	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	-	-	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.018 D**	**0.011**	**0.00884**	**0.0173 D**	**0.0117 D**	**0.0089**	**0.0069**	**0.062 D**	**0.13**	**0.0839 D**	**0.102 D**	<0.10	**0.0520 E**	**0.0505 E**	**0.045**	**0.033**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	<0.0005	<0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	**0.00082**	**0.00080**	< 0.005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0051 D**	**0.003**	**0.00274**	**0.0083 D**	<0.005	**0.0055**	**0.0032**	**0.100 D**	**0.24**	**0.138 D**	<0.025	<0.10	**0.00691**	**0.00642**	**0.066**	**0.053**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.091 D**	**0.058**	**0.0554 D**	**0.178 D**	**0.147 D**	**0.200**	**0.120**	**1.7 D**	**4.4**	**3.160 D**	**1.830 D**	**1.760 D**	**0.185 E**	**0.179 E**	**1.1**	**0.820**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	<0.0005	<0.0005	< 0.005	< 0.05	**0.0314 D**	<0.025	<0.10	**0.00331**	**0.00313**	< 0.005	**0.0014**
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	-	-	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.200	< 0.1	< 0.050	**1.45 D**	<0.5	<0.050	<0.050	< 0.500	< 5	<0.5	<2.5	<10	<0.05	<0.05	<0.5	<0.05
Methylene Chloride	75-09-2	mg/L	0.005		< 0.0008	< 0.002	< 0.002	<0.02	<0.02	-	-	< 0.020	< 0.1	<0.020	<0.10	<0.40	<0.002	<0.002	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.02	< 0.01	< 0.005	<0.050	<0.05	-	-	< 0.05	< 0.5	<0.050	<0.25	<1.0	<0.005	<0.005	-	-
Naphthalene	91-20-3	mg/L	0.02		< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-	-	< 0.01	< 0.05	<0.010	<0.05	<0.2	<0.001	<0.001	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0002	< 0.001	< 0.0005	<0.05	<0.005	-	-	< 0.005	< 0.05	<0.005	<0.025	<0.1	<0.0005	<0.0005	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.0078 D**	**0.0061**	**0.00361**	**0.00640 D**	<0.005	<0.0005	**0.00053**	**0.074 D**	**0.13**	**0.101 D**	<0.025	<0.10	<0.0005	<0.0005	**0.006**	**0.0092**
Toluene	108-88-3	mg/L	1		< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	<0.0005	<0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	**0.00222**	**0.00202**	< 0.005	**0.00099**
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-	-	< 0.01	< 0.05	<0.010	<0.025	<0.10	<0.001	<0.001	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-	-	< 0.01	< 0.05	<0.010	<0.050	<0.20	<0.001	<0.001	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	<0.0005	<0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	< 0.005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005[7]	**0.056 D**	**0.059**	**0.0246**	**0.0406 D**	<0.0005	**0.0025**	**0.0028**	**1.0 D**	**2.2**	**1.480 D**	<0.025	<0.10	**0.00897**	**0.00823**	**0.44**	**0.34**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.0004	< 0.001	< 0.001	<0.010	<0.01	<0.0005	<0.0005	< 0.010	< 0.05	<0.010	<0.05	<0.001	<0.001	<0.001	< 0.005	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	-	-	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.0008	< 0.005	< 0.002	<0.020	<0.02	-	-	< 0.020	< 0.1	<0.020	<0.10	<0.40	<0.002	<0.002	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.0004	< 0.001	< 0.001	<0.010	<0.01	**0.0092**	**0.006**	< 0.010	**0.026**	**0.0236 D**	**3.740 D**	**3.550 D**	**.524 E**	**0.547 E**	< 0.005	**0.0052**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0002	< 0.001	< 0.0005	<0.010	<0.01	<0.0005	<0.0005	< 0.005	< 0.05	<0.010	<0.05	<0.20	**0.00169**	**0.00165**	< 0.005	**0.00057**

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)
Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)
May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)
August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)
April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume CH2MW-114D							In Plume ETCMW-115						
					4/28/2005	10/26/2005	4/20/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008	12/16/2009
Acetone	67-64-1	mg/L	4		**0.190 D**	**0.52**	< 0.01	<0.1	**.123 E**	<0.010	**0.53**	< 0.010	< 0.01	< 0.010	<0.025	<0.025	< 0.010	<0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	**0.430 D**	<0.1	< 0.01	<0.1	**0.0442**	**0.063**	<0.01	< 0.010	< 0.01	< 0.010	<0.025	<0.025	< 0.010	<0.010
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	<0.0005	<0.0005	**0.00062**	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	**0.00074**	**0.00076**	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.01	< 0.001	<0.010	<0.001	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	< 0.0005	<0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-	-	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.00830 D**	< 0.01	< 0.001	<0.005	**0.00249**	**0.0007**	**0.00098**	**0.0063**	**0.0076**	**0.00367**	**0.00848 D**	**0.00308 D**	**0.00087**	**0.0011**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.005 J	< 0.001	<0.005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0060 D**	< 0.01	< 0.001	**0.00580 D**	**0.00395**	**0.0051**	**0.0081**	< 0.0025	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.120 D**	**0.097**	< 0.001	**0.204 D**	**0.146 E**	**0.120**	**0.280**	**0.041 D**	**0.094**	**0.0346**	**0.120 D**	**0.0318 D**	**0.0078**	**0.011**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	<0.0005	<0.0005	**0.00067**	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-	-	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.500	< 1	< 0.1	<0.005	**.622 E**	**1.300**	<0.05	< 0.250	< 0.1	< 0.050	<0.125	<0.125	< 0.050	<0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.02	< 0.002	<0.020	<0.002	-	-	< 0.002	< 0.002	< 0.002	<0.005	<0.005	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.1	< 0.01	<0.050	<0.005	-	-	< 0.005	< 0.01	< 0.005	<0.0125	<0.0125	-	-
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-	-	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.0072 D**	< 0.01	< 0.001	**0.00530 D**	**0.00288**	**0.0042**	**0.0038**	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	<0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.0025	<0.00125	< 0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.230 D**	**0.240**	< 0.001	**0.135 D**	**0.056 E**	**0.140**	**0.087**	**0.0057**	**0.0039**	**0.00901**	**0.0214 D**	**0.0079 D**	**0.0027**	**0.0032**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.01	< 0.001	<0.010	<0.001	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	< 0.0005	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-	-	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.05	< 0.005	<0.020	<0.002	-	-	< 0.002	< 0.005	< 0.002	<0.005	<0.005	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.005 J	< 0.001	<0.010	<0.001	<0.0005	<0.0005	**0.025**	**0.014**	**0.00346**	**0.00915 D**	<0.0025	**0.0011**	<0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.01	< 0.001	<0.010	<0.001	<0.0005	<0.0005	**0.00061**	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	<0.0005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)
Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)
May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)
August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)
April and October 2005, April 2006 corrective action monitoring
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Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed
Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume ETMW-116							In Plume ETMW-117								
					4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/16/2009	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/2008 DUP-2	12/15/2009	12/15/09 DUP-2
Acetone	67-64-1	mg/L	4		**0.360 D**	**1.6**	**0.968 D**	**0.398 D**	<0.05	**0.29**	<0.01	< 0.04	< 0.01	< 0.01	**2.090 D**	**.513 ED**	**0.016**	**0.012**	<0.01	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	**0.053 D**	**0.38**	**0.163 D**	<0.1	<0.05	<0.01	<0.01	< 0.04	< 0.01	< 0.01	**0.213 D**	**0.0785 D**	<0.01	<.01	<0.0005	<0.01
Benzene	71-43-2	mg/L	0.005		< 0.0025	< 0.01	<0.005	<0.005	<0.0025	<0.0005	<0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	**0.0015**	**0.0017**	**0.0014**	**0.0013**
Carbon Disulfide	75-15-0	mg/L	4		**0.0037 D**	< 0.01	<0.005	<0.005	<0.0025	<0.0005	<0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	**0.00054**	**0.0007**	<0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.01	<0.01	<0.010	<0.005	**0.007**	**0.0088**	< 0.004	< 0.001	< 0.001	<0.005	<0.005	**0.0027**	**0.0029**	<0.0005	**0.003**
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.005	< 0.01	<0.01	<0.010	<0.005	-	-	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	-	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0025	< 0.01	<0.005	<0.005	<0.0025	-	-	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.023 D**	< 0.01	**0.00870 D**	**0.00910 D**	**0.00660 D**	**0.0065**	**0.0084**	**0.014 D**	**0.013**	**0.0105**	**0.00935 D**	**0.00825 D**	**0.0048**	**0.0056**	**0.0043**	**0.004**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0025	< 0.005 J	<0.005	<0.005	<0.0025	<0.0005	<0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0090 D**	< 0.007 J	**0.00540 D**	<0.005	<0.0025	<0.0005	<0.0005	**0.0038 D**	**0.0026**	**0.00075**	**0.00305 D**	<0.0025	< 0.0005	**0.0010**	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.100 D**	**0.18**	**0.221 D**	**0.0831 D**	<0.0025	**0.011**	**0.0043**	**0.030 D**	**0.03**	**0.0225**	**0.0315 D**	**0.0762 D**	**0.041**	**0.050**	**0.021**	**0.018**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0025	< 0.01	<0.005	<0.005	<0.0025	<0.0005	<0.0005	< 0.002	< 0.001	**0.00213**	<0.0025	<0.0025	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0025	< 0.01	<0.005	<0.005	<0.0025	-	-	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		**1.8**	**1.5**	<0.5	<0.005	<0.25	<.05	<0.050	< 0.2	< 0.1	< 0.050	**2.930 D**	<0.25	< 0.0005	< 0.0005	<0.05	<0.05
Methylene Chloride	75-09-2	mg/L	0.005		< 0.001	< 0.002	<0.005	<0.020	<0.01	-	-	< 0.008	< 0.002	< 0.002	<0.010	<0.010	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.025	< 0.1	<0.05	<0.050	<0.025	-	-	< 0.02	< 0.01	< 0.005	<0.025	<0.025	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		< 0.005	< 0.01	<0.01	<0.010	<0.005	-	-	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	-	-	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.012 D**	**0.0062 J**	<0.005	<0.005	<0.0025	<0.0005	<0.0005	**0.0050 D**	**0.0042**	**0.00378**	**0.00435 D**	<0.0025	< 0.0005	< 0.0005	<0.0005	<0.0005
Toluene	108-88-3	mg/L	1		< 0.0025	< 0.01	<0.005	<0.005	<0.0025	**0.0025**	<0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	-	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.005	< 0.01	<0.01	<0.010	<0.005	-	-	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0025	< 0.01	<0.005	<0.005	<0.0025	<0.0005	<0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005[7]	**0.170 D**	**0.12**	<0.005	**0.0291 D**	<0.0025	<0.0005	<0.0005	**0.094 D**	**0.098**	**0.079 D**	**0.0744 D**	**0.0302 D**	**0.00056**	**0.00066**	<0.0005	<0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.005	< 0.01	<0.01	<0.010	<0.005	<0.0005	<0.0005	< 0.004	< 0.001	< 0.001	<0.005	<0.005	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0025	< 0.01	<0.005	<0.005	<0.0025	-	-	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.01	< 0.05	<0.02	<0.020	<0.01	-	-	< 0.008	< 0.005	< 0.002	<0.010	<0.010	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.005	< 0.005 J	**0.0171 D**	**0.0581 D**	**0.0384 D**	**0.120**	**0.170**	< 0.004	< 0.001	< 0.001	<0.005	<0.005	**0.024**	**0.025**	**0.044**	**0.050**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0025	< 0.01	<0.01	<0.010	<0.005	<0.0005	<0.0005	< 0.002	< 0.001	< 0.0005	<0.005	<0.005	< 0.0005	< 0.0005	<0.0005	<0.0005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume								Upgradient							
					ETMW-118								CH2MW-3							
					4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	10/24/2007 (DUP-01)	12/9/2008	12/15/2009	4/27/2005	4/27/2005 (DUP2)	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008	12/16/2009
Acetone	67-64-1	mg/L	4		**0.021**	< 0.02	< 0.01	**0.192 D**	<0.5	<0.5	**0.37**	<0.02	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.02	< 0.01	<0.050	<0.5	<0.5	**0.26**	**0.49**	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	<0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		**0.00079**	< 0.002	< 0.0005	**0.00370 D**	<0.025	<0.025	**0.0028**	**0.0012**	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	**0.0038**	**0.00437**	<0.005	<0.05	<0.05	**0.0032**	**0.0019**	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.014**	**0.011**	**0.00961**	**0.0139 D**	<0.025	<0.025	**0.014**	**0.012**	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0037**	**0.0054**	**0.00489**	**0.00575 D**	<0.025	<0.025	**0.003**	**0.0024**	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.120 D**	**0.13**	**0.127 D**	**0.117 D**	**0.108 D**	**0.111 D**	**0.088**	**0.096**	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.2	< 0.050	**25.6 DH**	**13.0 D**	**13.2 D**	**0.069**	<0.05	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	<0.05	<0.050	<0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.004	< 0.002	<0.010	<0.100	<0.100	-	-	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.02	< 0.005	<0.025	<0.25	<0.25	-	-	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	<0.005	-	-
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	**0.0032**	**0.00257**	**0.00460 D**	<0.025	<0.025	**0.0032**	**0.0015**	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.005	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005[7]	**0.0031**	**0.049**	**0.0316**	**0.0489 D**	**0.0390 D**	**0.0400 D**	**0.037**	**0.018**	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.01	< 0.002	<0.010	<0.100	<0.100	-	-	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	<0.002	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	**< 0.001**	< 0.002	< 0.001	<0.005	<0.05	<0.05	**0.033**	**0.031**	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.002	< 0.0005	<0.005	<0.05	<0.05	<0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	<0.0005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)
Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)
May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)
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- EPA Method 8260 (VOCs)
April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient ETMW-119										Cross Gradient ETMW-120						
					4/28/2005	10/25/2005	10/25/2005 (DUP 1)	4/18/2006	4/17/2007	10/25/2007	12/9/2008	12/9/2008 DUP-1	12/14/2009	12/14/2009 DUP 1	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/23/2007	12/11/2008	12/14/2009
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	**0.0212**	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	**0.0998 DH**	<0.01	<0.01	<0.01	<0.05	<0.05	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0012**	**0.0052**	< 0.0005	**0.00135**	**0.00094**	**0.00056**	**0.00073**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.1	< 0.1	< 0.050	< 0.050	<0.050	<0.050	<0.050	<0.050	<0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.05	<0.05	<0.05
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	<0.005	-	-	-	-	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	-	-
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.00061**	< 0.001	< 0.001	**0.00053**	**0.00074**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.005	< 0.005	< 0.002	< 0.002	<0.002	-	-	-	-	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.001	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	<0.0005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)
Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)
May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)
August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)
April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed
Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 4
Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient ETMW-121							Cross Gradient CH2PP-1						
					4/28/2005	10/26/2005	4/19/2006	4/18/2007	10/23/2007	12/11/2008	12/14/2009	4/26/2005	10/25/2005	4/19/2006	4/17/2007	10/24/2007	12/10/2008	12/15/2009
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.010	<0.010	< 0.01	**0.021**	< 0.01	< 0.01	<0.01	<0.01	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.010	<0.010	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	**0.00055**	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.1	< 0.050	< 0.050	<0.05	<0.050	<0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.050	<0.050	<0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	-	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.01	< 0.005	< 0.005	<0.005	-	-	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	-	-
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.005	< 0.002	< 0.002	<0.002	-	-	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	<0.0005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)
Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)
May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)
August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
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April and October 2005, April 2006 corrective action monitoring
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Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed
Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient CH2MW-4D 4/26/2005	4/26/2005 (DUP1)	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009	Downgradient CH2MW-1 4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/24/2007	12/8/2008	12/16/2009
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	<0.05
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	<0.05
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0025
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0025
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.001	<0.0025
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0013**	< 0.001	**0.00059**	<0.0005	<0.0005	<0.0005	<0.0025
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0025
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0025
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0011**	**0.0011**	**0.00052**	<0.0005	<0.0005	<0.0005	<0.0025
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0025
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.050	< 0.1	< 0.050	<0.05	<0.05	<0.05	<0.05	< 0.050	< 0.1	< 0.050	<0.05	<0.05	<0.05	<0.25
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	-	-	< 0.002	< 0.002	< 0.002	<0.002	<0.002	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.005	< 0.01	< 0.005	<0.005	<0.005	-	-	< 0.005	< 0.01	< 0.005	<0.005	<0.005	-	-
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0025
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	**0.00071**	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0025
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0025
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.0041**	**0.0044**	**0.00202**	**0.00176**	**0.00082**	**0.0012**	<0.0025
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.0025
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.002	< 0.005	< 0.002	<0.002	<0.002	-	-	< 0.002	< 0.005	< 0.002	<0.002	<0.002	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.0025
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	<0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	<0.0025

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January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

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Notes:
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B - Compound Detected in Method Blank or Trip Blank
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E - Concentration exceeds upper level of the instrument calibration range for the analysis
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< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
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Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 5
Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume							In Plume								In Plume						
		ETCMW-113							ETCMW-114								CH2MW-114D						
		4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	4/29/2005	10/27/2005	4/20/2006	4/17/2007	DUP-01 (4/17/2007)	10/23/2007	12/10/2008	12/16/2009	4/29/2005	10/26/2005	4/20/2006	4/19/2007	10/24/2007	12/8/2008	12/14/2009
Lab Parameters																							
Alkalinity	mg/L	-	-	-	-	-	**100**	**170**	**120**	**120**	**140**	**470**	**500**	**350**	**220**	**230**	**3000**	**2200**	**830**	-	-	-	-
Chloride	mg/L	**-**	-	-	-	-	**10**	**11**	**26**	**32**	**29**	**110**	**110**	**73 D**	**26**	**18**	**89**	**190**	**200**	-	-	-	-
Iron	mg/L	-	-	-	-	-	**7.9**	**5.5**	**0.22**	**0.88**	**1.0**	**11**	**11**	**0.85**	**0.96**	**0.16**	**55**	**79**	**160**	-	**150**	-	**-**
Manganese	mg/L	-	-	-	-	-	-	**0.016**	<0.05	< 0.050	< 0.050	**0.54**	**0.55**	**0.080**	**-**	**0.023**	**0.64**	**0.53**	**0.26**	-	**0.22**	-	-
Nitrate (as N)	mg/L	**-**	-	-	-	-	**0.021**	<0.020	**8.2 H**	**1.4**	**-**	<0.02	<0.02	**1.9 D**	**3.4**	**4.7**	<0.5 H	**1.2**	< 0.50	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	< 0.050	-	-	**-**	**-**	**-**	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	**12**	**14**	**39**	**31**	**51 D**	<1.0	<1.0	**35 D**	**22**	**29**	**47**	**100**	**150**	-	-	-	**-**
Sulfide	mg/L	-	-	-	-	-	<1.0	<1.0	< 0.8	< 0.8	< 0.80	<1.0	**1.8**	<1.0	<1.0	<1.0	<0.8	< 0.8	**1.4**	-	-	-	-
Methane	ug/L	**-**	-	-	-	-	**4100**	**2800**	< 5.0	**14**	**14**	**0.14**	**0.14**	**54**	<10	**27**	< 5.0	< 2.0	-	**2.8**	**-**	-	-
Ethane	ug/L	**-**	-	-	-	-	<10	<10	< 5.0	< 4.0	< 4.5	<44	<44	<4.2	<10	<10	< 5.0	< 4.0	-	<0.21	-	-	**-**
Ethene	ug/L	**-**	-	-	-	-	<10	<10	< 5.0	< 4.0	< 4.5	**7.0**	**7.6**	**38**	<10	<10	< 5.0	< 4.0	-	<0.21	-	-	**-**
Soluble Organic Carbon (DOC) - Lab Filtered	mg/L	**-**	-	-	-	-	**5**	**1.5**	**2.9**	**12**	**17**	**41**	**42**	**3.4**	**3.8**	**3.3**	**8,900**	**4800**	-	**2**	**1600 D**	-	**-**
Total Organic Carbon	mg/L	**-**	-	-	-	-	**5.2**	**2.7**	**2.2**	**3.2**	**14.0**	**51.0**	**47.0**	**4.4**	**2.8**	**3.5**	**9,800**	**3500**	**3800**	-	**1700 D**	-	-
Field Parameters:																							
Ferrous Iron	mg/L	**1**	-	-	**4.2**	**6.6**	**6.8**	**1.6**	ND	**0.19**	ND	**4.2**	**-**	**1.2**	ND	ND	**5.0**	**2.0**	-	**4.2**	**-**	**5.2**	**>10**
Carbon Dioxide	mg/L	**14**	-	-	**>100**	**>100**	**>100**	-	**14**	**30**	**14**	**>100**	-	**90**	**80**	-	**50**	**350 D**	-	**>100**	**-**	**>100**	-
pH	S.U.	**6.53**	**6.21**	**5.71**	**4.67**	**4.64**	**6.38**	**6.78**	**6.61**	**6.46**	**6.16**	**6.73**	**-**	**6.20**	**6.67**	**6.80**	**5.95**	**6.08**	**5.58**	**5.55**	**4.88**	**5.12**	**5.50**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**4.72**	**-**	-	**-**	**-**	**-**	**-**	**-**	**6.34**	**6.76**	-	**-**	**-**	**-**	**-**	**-**	**-**	-
Conductivity	mS/cm	**0.342**	**0.352**	**0.298**	**0.668**	**0.320**	**0.263**	**0.550**	**0.485**	**0.342**	**0.437**	**1.295**	**-**	**0.958**	**0.566**	**0.611**	**3.62**	**4.65**	**2.05**	**2.78**	**2.02**	**2.56**	**2.49**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**0.097**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.210**	**0.496**	-	**-**	**-**	**-**	**-**	**-**	**-**	-
Dissolved Oxygen	mg/L	**2.47**	**1.27**	**6.39**	**0.62**	**2.93**	**0.0**	**1.07**	**3.02**	**1.31**	**0.70**	**0.68**	**-**	**0.96**	**-**	**1.78**	**0.97**	**0.51**	**3.00**	**0.90**	**0.54**	**0**	**0.90**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**7.85**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.67**	**1.01**	-	**-**	**-**	**-**	**-**	**-**	**-**	-
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**1.0**	**3**	**3**	**-**	**-**	**-**	**-**	**-**	**1.5**	**3**	**3**	**-**	**-**	**-**	**-**	**-**	**1.5**	**1.5**
Oxidation/Reduction Potential (ORP)	mV	**217**	**192**	**348**	**259**	**67**	**-8**	**158**	**66**	**160**	**356**	**255**	**-**	**150**	**356**	**151**	**-8**	**-76**	**289**	**309**	**97**	**22**	**124**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**89**	**-**	-	**-**	**-**	**-**	**-**	**-**	**97.2**	**115**	-	**-**	**-**	**-**	**-**	**-**	**-**	-
Temperature	℃	**18.02**	**23.34**	**20.43**	**18.75**	**23.53**	**19.86**	**16.99**	**17.98**	**22.88**	**18.56**	**18.14**	**-**	**24.36**	**18.10**	**17.50**	**20.43**	**21.06**	**21.65**	**20.59**	**22.89**	**18.88**	**22.29**
Temperature (Downhole Probe)	℃	-	-	-	-	**24.64**	**-**	-	-	-	-	-	-	**23.91**	**18.27**	-	-	-	-	-	-	-	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)

Table 5
Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume							In Plume							In Plume								
		ETCMW-115							ETMW-116							ETMW-117								
		4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008	12/16/2009	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/08 DUP-2	12/15/2009	12/15/2009 DUP - 2
Lab Parameters																								
Alkalinity	mg/L	-	-	-	-	**230**	**260**	**250**	**-**	-	-	-	**670**	**370**	**330**	**-**	-	-	-	**86**	**180**	**200**	**170**	**150**
Chloride	mg/L	-	-	-	-	**6.4 D**	**4.4**	**2.3**	**-**	-	-	-	**16**	**19**	**29**	**-**	-	-	-	**8.8 D**	**21**	**20**	**23**	**23**
Iron	mg/L	-	-	-	-	**1.9**	**2.9**	**12**	-	-	-	-	**48**	**25**	**27**	-	-	-	-	**50**	**36**	**36**	**39**	**35**
Manganese	mg/L	-	-	-	-	**0.074**	**-**	**0.087**	**-**	-	-	-	**0.58**	**-**	**0.20**	-	-	-	-	**0.76**	**-**	**-**	**0.29**	**0.25**
Nitrate (as N)	mg/L	-	-	-	-	**2.5 D**	**0.24**	<0.020	**-**	-	-	-	<0.10	**0.065**	<0.020	**-**	-	-	-	<0.10	**0.051**	<.020	<0.020	<0.020
Nitrite	mg/L	-	-	-	-	-	**-**	-	**-**	-	-	-	-	**-**	-	-	-	-	-	-	**-**	**-**	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	**-**	**-**	-	**-**	-	-	-	-	**-**	'-	-	-	-	-	-	**-**	**-**	-	-
Sulfate	mg/L	-	-	-	-	**10 D**	**28**	**7.4**	**-**	-	-	-	<5.0	**9.8**	<1.0	**-**	-	-	-	<5.0	<1.0	<1.0	<1.0	<1.0
Sulfide	mg/L	-	-	-	-	<1.0	<1.0	<1.0	-	-	-	-	<1.0	**2.8**	<1.0	-	-	-	-	<1.0	**1.3**	**1.2**	<1.0	<1.0
Methane	ug/L	-	-	-	-	**0.019**	**41**	**160**	-	-	-	-	**3500 D**	**5800**	**5800**	-	-	-	-	**3600 D**	**5900**	**5100**	**6300**	**5600**
Ethane	ug/L	-	-	-	-	<0.42	<10	<10	**-**	-	-	-	<210	<10	<10	**-**	-	-	-	<210	<10	<10	<10	<10
Ethene	ug/L	-	-	-	-	<0.42	<10	<10	**-**	-	-	-	<210	<10	<10	**-**	-	-	-	<210	<10	<10	<10	<10
Soluble Organic Carbon (DOC) - Lab Filtered	mg/L	-	-	-	-	**3.5**	**4.4**	**2.3**	**-**	-	-	-	**9.6**	**19**	**9.4**	**-**	-	-	-	**910 D**	**51**	**33**	**4.1**	**4.8**
Total Organic Carbon	mg/L	-	-	-	-	**4.1**	**3.6**	**3.0**	**-**	-	-	-	**16**	**17**	**12**	**-**	-	-	-	**930 D**	**55**	**38**	**7.6**	**10**
Field Parameters:																								
Ferrous Iron	mg/L	**4.3**	-	-	**4.8**	**2.8**	**0.6**	**0.6**	**5.0**	-	-	**6.0**	**6.2**	**6.4**	**6.6**	**2.2**	-	-	**5.8**	**7.4**	**6**	**-**	**6.6**	**-**
Carbon Dioxide	mg/L	**19**	-	-	**>100**	**60**	**10**	-	**15**	-	-	**>100**	**>100**	**>100**	**>100**	**10**	-	-	**>100**	**>100**	**>100**	**-**	**>100**	**-**
pH	S.U.	**6.37**	**5.82**	**5.70**	**5.70**	**6.01**	**6.76**	**6.70**	**5.03**	**4.99**	**5.56**	**4.89**	**6.17**	**6.38**	**6.17**	**6.03**	**5.60**	**5.23**	**4.40**	**4.04**	**5.9**	**-**	**5.85**	**-**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**6.01**	**-**	-	**-**	**-**	**-**	**-**	**6.29**	**-**	-	**-**	**-**	**-**	**-**	**4.82**	**-**	**-**	-	-
Conductivity	mS/cm	**0.366**	**0.174**	**0.205**	**0.184**	**0.456**	**0.462**	**0.469**	**2.370**	**1.540**	**0.983**	**1.456**	**0.988**	**0.710**	**0.782**	**0.303**	**0.163**	**0.188**	**1.450**	**0.696**	**0.9**	**-**	**0.588**	**-**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**0.063**	**-**	**-**	**-**	**-**	**-**	**-**	**0.301**	**-**	-	**-**	**-**	**-**	**-**	**0.207**	**-**	**-**	-	-
Dissolved Oxygen	mg/L	**0.23**	**0.54**	**2.09**	**0.49**	**2.65**	**0.62**	**0.97**	**0.15**	**0.45**	**0.35**	**0.42**	**0.24**	**0**	**0.37**	**0.49**	**1.05**	**1.86**	**0.42**	**0.38**	**0**	**-**	**0.55**	**-**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**4.87**	**-**	-	**-**	**-**	**-**	**-**	**13.32**	**-**	-	**-**	**-**	**-**	**-**	**12.96**	**-**	**-**	**-**	**-**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**2**	**1.0**	**2**	**-**	**-**	**-**	**-**	**2.0**	**1.5**	**2**	**-**	**-**	**-**	**-**	**1.0**	**3.0**	**-**	**1**	**-**
Oxidation/Reduction Potential (ORP)	mV	**131**	**84**	**377**	**312**	**162**	**68**	**174**	**141**	**108**	**281**	**309**	**-34**	**-79**	**106**	**278**	**144**	**363**	**335**	**127**	**-13**	**-**	**132**	**-**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**133.3**	**-**	-	**-**	**-**	**-**	**-**	**-92.5**	**-**	-	**-**	**-**	**-**	**-**	**90.7**	**-**	**-**	-	-
Temperature	℃	**20.32**	**22.58**	**22.36**	**21.45**	**27.50**	**18.61**	**17.56**	**18.23**	**23.81**	**19.10**	**18.82**	**24.43**	**19.13**	**19.60**	**21.41**	**26.20**	**22.82**	**22.27**	**25.48**	**19.9**	**-**	**18.93**	**-**
Temperature (Downhole Probe)	℃	-	-	-	-	**27.02**	**-**	-	-	-	-	-	**24.55**	**-**	-	-	-	-	-	**27.39**	**-**	**-**	-	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)

Table 5
Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume							Upgradient								Cross Gradient						
		ETMW-118							CH2MW-3								ETMW-119						
		4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/24/2007	12/9/2008	12/15/2009	4/27/2005	4/27/2005 (DUP2)	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008	12/16/2009	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/25/2007	12/9/2008	12/14/2009
Lab Parameters																							
Alkalinity	mg/L	-	-	-	-	-	**180**	<10	**18**	**18**	< 10	**12**	<10	<10	**58**	**45**	-	-	-	-	-	-	-
Chloride	mg/L	**-**	-	-	-	-	**18**	**18**	**9.9**	**13**	**18**	**9.3**	**6.7**	**12**	**3.1**	**5.2**	**-**	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	**96**	**64**	0.11	<0.05	< 0.050	**0.094**	**0.072**	**0.16**	<0.10	<0.10	**-**	-	-	-	-	-	**-**
Manganese	mg/L	-	-	-	-	-	-	**0.39**	<0.05	<0.05	< 0.050	< 0.050	<0.050	<0.050	-	<0.015	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	**-**	-	-	-	-	**0.062**	<0.020	**0.55**	**0.79**	**1.6**	**0.61**	**0.51**	**1.1**	**0.25**	**0.27**	**-**	-	-	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**	-	**-**	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**	-	**-**	-	-	-	-	-	-
Sulfate	mg/L	**-**	-	-	-	-	**2.3**	**2.0**	**39**	**32**	**16**	**38**	**44**	**19**	**34**	**41**	**-**	-	-	-	-	-	**-**
Sulfide	mg/L	-	-	-	-	-	**3.1**	**2.9**	< 0.8	< 0.8	< 0.8	< 0.80	<1.0	<1.0	<1.0	<1.0	-	-	-	-	-	-	-
Methane	ug/L	**-**	-	-	-	-	**4900**	**4200**	< 5.0	< 5.0	< 2.0	< 2.1	<2.3	<2.1	<10	**24**	**-**	-	-	-	-	-	-
Ethane	ug/L	**-**	-	-	-	-	<10	<10	< 5.0	< 5.0	< 4.0	< 4.2	<4.5	<4.1	<10	<10	**-**	-	-	-	-	-	**-**
Ethene	ug/L	**-**	-	-	-	-	<10	<10	< 5.0	< 5.0	< 4.0	< 4.2	<4.5	<4.1	<10	<10	**-**	-	-	-	-	-	**-**
Soluble Organic Carbon (DOC) - Lab Filtered	mg/L	-	-	-	-	-	**2300**	**1100**	**3.8**	**3.9**	**6.8**	**16**	**1.7**	**2.1**	**4.2**	**1.5**	-	-	-	-	-	-	**-**
Total Organic Carbon	mg/L	-	-	-	-	-	**2400**	**1100**	**2.6**	**3.0**	**2.4**	**3.1**	**3.6**	**2.1**	**4.1**	**2.3**	-	-	-	-	-	-	**-**
Field Parameters:																							
Ferrous Iron	mg/L	**4.4**	-	-	**5.0**	**6.4**	**5.2**	**7.0**	ND	-	**0.31**	ND	**0.5**	ND	ND	ND	**1.0**	-	-	**4.2**	**4.8**	**1.2**	**0.9**
Carbon Dioxide	mg/L	**15**	-	-	**>100**	**>100**	**>100**	**>100**	**14**	-	**50**	**14**	**75**	**30**	**50**	-	**18**	-	-	**>100**	**70**	**95**	**75**
pH	S.U.	**5.86**	**5.10**	**5.35**	**4.38**	**4.60**	**4.70**	**4.72**	**5.12**	-	**4.57**	**4.91**	**5.10**	**4.56**	**6.45**	**6.53**	**6.25**	**5.64**	**5.82**	**6.20**	**5.78**	**6.87**	**6.83**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**4.58**	**-**	-	**-**	-	**-**	**-**	**-**	**4.49**		-	**-**	**-**	**-**	**-**	**6.22**	**-**	-
Conductivity	mS/cm	**0.307**	**0.089**	**0.152**	**0.909**	**2.20**	**1.54**	**0.90**	**0.186**	-	**0.106**	**0.170**	**0.152**	**0.095**	**0.178**	**0.203**	**0.449**	**0.203**	**0.281**	**0.554**	**0.342**	**0.512**	**0.612**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**0.56**	**-**	-	**-**	-	**-**	**-**	**-**	**0.032**		-	**-**	**-**	**-**	**-**	**0.13**	**-**	-
Dissolved Oxygen	mg/L	**0.34**	**0.46**	**0.59**	**0.50**	**0.40**	**0.00**	**0.0**	**2.36**	-	**1.83**	**6.66**	**6.90**	**3.85**	**5.7**	**4.95**	**0.33**	**1.34**	**1.31**	**2.78**	**0.57**	**0**	**0.40**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**12.49**	**-**	-	**-**	-	**-**	**-**	**-**	**5.20**	**-**	-	**-**	**-**	**-**	**-**	**6.55**	**-**	-
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**1.5**	**1.5**	**1**	**-**	-	**-**	**-**	**-**	**-**	**5**	**6**	**-**	**-**	**-**	**-**	**2.0**	**2.0**	**3.0**
Oxidation/Reduction Potential (ORP)	mV	**125**	**155**	**346**	**327**	**141**	**133**	**-2**	**446**	-	**187**	**370**	**339**	**206**	**190**	**175**	**138**	**115**	**370**	**251**	**128**	**157**	**108**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**		**134.3**	**-**	-	**-**	-	**-**	**-**	**-**	**354.1**		-	**-**	**-**	**-**	**-**	**57.5**	**-**	-
Temperature	℃	**20.50**	**24.86**	**22.71**	**21.01**	**25.30**	**18.08**	**19.6**	**20.78**	-	**23.80**	**21.91**	**22.91**	**23.95**	**20.45**	**21.33**	**19.97**	**20.86**	**20.73**	**19.18**	**23.71**	**16.63**	**18.64**
Temperature (Downhole Probe)	℃					**25.81**	**-**	-	-	-	-	-	-	**25.60**		-	-	-	-	-	**24.98**	**-**	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)

Table 5
Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient ETMW-120							Cross Gradient ETMW-121							Cross Gradient CH2PP-1						
		4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/23/2007	12/9/2008	12/14/2009	4/28/2005	10/26/2005	4/19/2006	4/19/2007	10/23/2007	12/11/2008	12/14/2009	4/26/2005	10/25/2005	4/18/2006	4/16/2007	10/24/2007	12/8/2008	12/15/2009
Lab Parameters																						
Alkalinity	mg/L	-	-	-	-	-	-	-	**5.8**	**26**	**28**	**38**	**82**	**-**	-	-	-	-	-	-	-	-
Chloride	mg/L	**-**	-	-	-	-	-	-	**5.2**	**11**	**6**	-	**1.9**	**-**	-	-	-	-	-	-	-	-
Iron	mg/L	**-**	-	-	-	-	-	**-**	**0.84**	**16**	**0.52**	**0.89**	**0.87**	**-**	**-**	**-**	-	-	-	-	-	**-**
Manganese	mg/L	-	-	-	-	-	-	-	< 0.05	**0.15**	< 0.050	<0.050	<0.050	**-**	-	**-**	-	-	-	**-**	-	-
Nitrate (as N)	mg/L	**-**	-	-	-	-	-	-	**0.59**	**1.2**	**0.35**	-	**0.20**	**-**	-	-	-	-	-	-	-	-
Nitrite	mg/L	**-**	-	-	-	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	**-**	-	-	-	-	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-	-
Sulfate	mg/L	**-**	-	-	-	-	-	**-**	**9.9**	**4.6**	**13**	-	**5.4**	**-**	**-**	-	-	-	-	-	-	**-**
Sulfide	mg/L	**-**	-	-	-	-	-	-	< 0.8	< 0.8	< 0.8	**1.8**	<1.0	**-**	-	-	-	-	-	**-**	-	-
Methane	ug/L	**-**	-	-	-	-	-	-	< 5.0	< 2.0	< 2.1	<2.1	<2.1	**-**	-	-	-	-	-	-	-	-
Ethane	ug/L	**-**	-	-	-	-	-	**-**	< 5.0	< 4.0	< 4.2	<4.2	<4.1	**-**	**-**	-	-	-	-	-	-	**-**
Ethene	ug/L	**-**	-	-	-	-	-	**-**	< 5.0	< 4.0	< 4.2	<4.2	<4.1	**-**	**-**	-	-	-	-	**-**	-	**-**
Soluble Organic Carbon (DOC) - Lab Filtered	mg/L	**-**	-	-	-	-	-	**-**	**7.9**	**12**	**9.7**	**1.6**	**3.0**	**-**	**-**	**-**	-	-	-	**-**	-	**-**
Total Organic Carbon	mg/L	-	-	-	-	-	-	-	**4.9**	**3.3**	**4.5**	**2.1**	**3.9**	**-**	**-**	**-**	-	-	-	**-**	-	-
Field Parameters:																						
Ferrous Iron	mg/L	**3.5**	-	-	**6.0**	**0.6**	ND	**0.5**	ND	**0.39**	ND	**2.4**	**0.4**	ND	ND	ND	-	-	-	ND	ND	**0.5**
Carbon Dioxide	mg/L	**15**	-	-	**65**	**40**	**50**	**45**	**15**	**35**	**25**	**40**	**18**	**30**	**25**	**12**	-	-	-	**20**	**45**	**32**
pH	S.U.	**6.19**	**5.36**	**5.64**	**5.5 D**	**5.87**	**6.50**	**6.48**	**6.25**	**5.94**	**5.83**	**6.00**	**6.23**	**6.78**	**7.02**	**5.93**	**5.01**	**4.56**	**5.53**	**5.28**	**6.14**	**6.21**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**5.97**	**-**	-	**-**	**-**	**-**	**-**	**6.45**	**8.05**	-	**-**	**-**	**-**	**-**	**-**	**-**	-
Conductivity	mS/cm	**0.218**	**0.097**	**0.144**	**0.161**	**0.216**	**0.237**	**0.326**	**0.142**	**0.116**	**0.192**	**0.107**	**0.167**	**0.199**	**0.210**	**0.141**	**0.108**	**0.120**	**0.146**	**0.107**	**0.222**	**0.226**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**0.048**	**-**	-	**-**	**-**	**-**	**-**	**0.038**	**0.195**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Dissolved Oxygen	mg/L	**0.69**	**0.67**	**2.19**	**5.00**	**3.05**	**1.94**	**4.34**	**3.34**	**1.00**	**3.27**	**6.74**	**7.00**	**-**	**6.58**	**4.75**	**3.19**	**7.51**	**6.98**	**3.95**	**3.8**	**2.34**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**3.64**	**-**	-	**-**	**-**	**-**	**-**	**6.39**	**8.26**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**3.5**	**5**	**4**	**-**	**-**	**-**	**-**	**-**	**4**	**5**	**-**	**-**	**-**	**-**	**3.0**	**3.0**	**4.0**
Oxidation/Reduction Potential (ORP)	mV	**169**	**92**	**379**	**327**	**175**	**361**	**153**	**197**	**176**	**347**	**332**	**166**	**367**	**136**	**325**	**207**	**439**	**330**	**122**	**119**	**128**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**286.8**	**-**	-	**-**	**-**	**-**	**-**	**232.5**	**282**	-	**-**	**-**	**-**	**-**	**-**	**-**	-
Temperature	℃	**20.43**	**20.88**	**21.94**	**21.74**	**25.67**	**16.88**	**19.7**	**19.22**	**23.60**	**19.36**	**19.56**	**26.03**	**18.72**	**20.39**	**20.72**	**25.77**	**21.84**	**21.57**	**25.27**	**19.81**	**20.4**
Temperature (Downhole Probe)	℃	-	-	-	-	**25.33**	**-**	-	-	-	-	-	**25.02**	**16.39**	-	-	-	-	-	-	-	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)

Table 5
Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient							Down Gradient						
		CH2MW-4D							CH2MW-1						
		4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/24/2007	12/8/2008	12/14/2009
Lab Parameters															
Alkalinity	mg/L	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	**-**	-	-	-	-	-	-	**-**
Manganese	mg/L	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	**-**	-	-	-	-	-	-	**-**
Sulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	**-**	-	-	-	-	-	**-**	-	-	-	-	-	-	**-**
Ethene	ug/L	**-**	-	-	-	-	-	**-**	-	-	-	-	-	-	**-**
Soluble Organic Carbon (DOC) - Lab Filtered	mg/L	**-**	-	-	-	-	-	**-**	-	-	-	-	-	-	**-**
Total Organic Carbon	mg/L	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Parameters:															
Ferrous Iron	mg/L	ND	-	-	ND	**0.2**	ND	ND	ND	**-**	**-**	ND	ND	ND	ND
Carbon Dioxide	mg/L	**14**	-	-	**30**	**14**	**15**	**20**	**20**	**-**	**-**	**>100**	**80**	**75**	-
pH	S.U.	**8.67**	**7.66**	**7.86**	**6.66**	**6.56**	**7.30**	**6.71**	**5.51**	**4.52**	**5.11**	**5.05**	**5.33**	**5.16**	**4.71**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**7.01**	**7.54**	-	**-**	**-**	**-**	**-**	**-**	**-**	-
Conductivity	mS/cm	**0.081**	**0.067**	**0.069**	**0.066**	**0.059**	**0.078**	**0.077**	**0.183**	**0.128**	**0.137**	**0.115**	**0.134**	**0.218**	**0.169**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**0.016**	**0.061**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Dissolved Oxygen	mg/L	**4.11**	**5.16**	**7.05**	**7.10**	**4.76**	**-**	**6.03**	**3.93**	**3.44**	**5.93**	**4.96**	**3.53**	**0.01**	**3.15**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**5.35**	**7.06**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**5**	**6**	**-**	**-**	**-**	**-**	**4.0**	**2.5**	**2.5**
Oxidation/Reduction Potential (ORP)	mV	**282**	**172**	**411**	**360**	**188**	**380**	**158**	**222**	**179**	**414**	**340**	**124**	**403**	**348**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**158**	**79**	-	**-**	**-**	**-**	**-**	**-**	**-**	-
Temperature	℃	**21.87**	**23.39**	**23.13**	**23.19**	**23.03**	**22.77**	**22.7**	**20.57**	**20.35**	**23.07**	**21.62**	**25.71**	**20.84**	**23.1**
Temperature (Downhole Probe)	℃	-	-	-	-	**24.99**	**23.94**	-	-	-	-	-	-	**-**	**-**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)

Table 6
Proposed Ground Water Sampling Schedule
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Event	Date
2010 Ground Water Sampling	December 2010
2010 Ground Water Report Submittal	February 2011
2011 Ground Water Sampling	December 2011
2011 Ground Water Report Submittal	February 2012
2012 Ground Water Sampling	December 2012
5-year MNA Evaluation Report	March 2013

FIGURES

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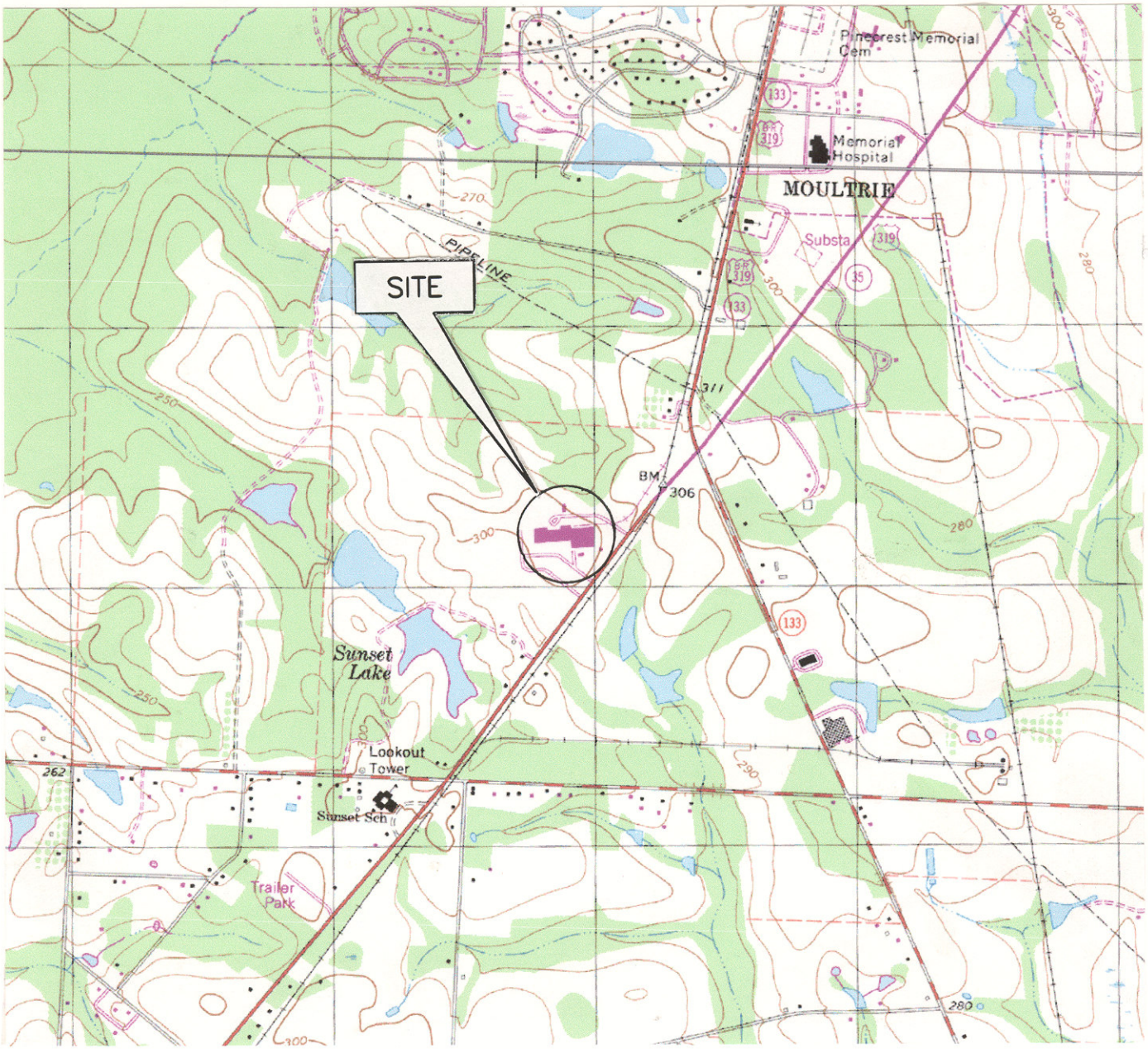
FIGURE 1



SITE LOCATION MAP

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GA.

MAP SOURCE: USGS 7.5-MIN. SERIES TOPOGRAPHIC QUADRANGLE "COOLIDGE, GA" AND "MOULTRIE, GA".

1 0 1/2 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 0 5 1 KILOMETER

SCALE: 1:24000

O'BRIEN & GERE ENGINEERS, INC.

FILE NO. 26765

PATH: I:\Millercoors.1669\45487.2009-Mna-Sampli\Docs\Reports\Figures

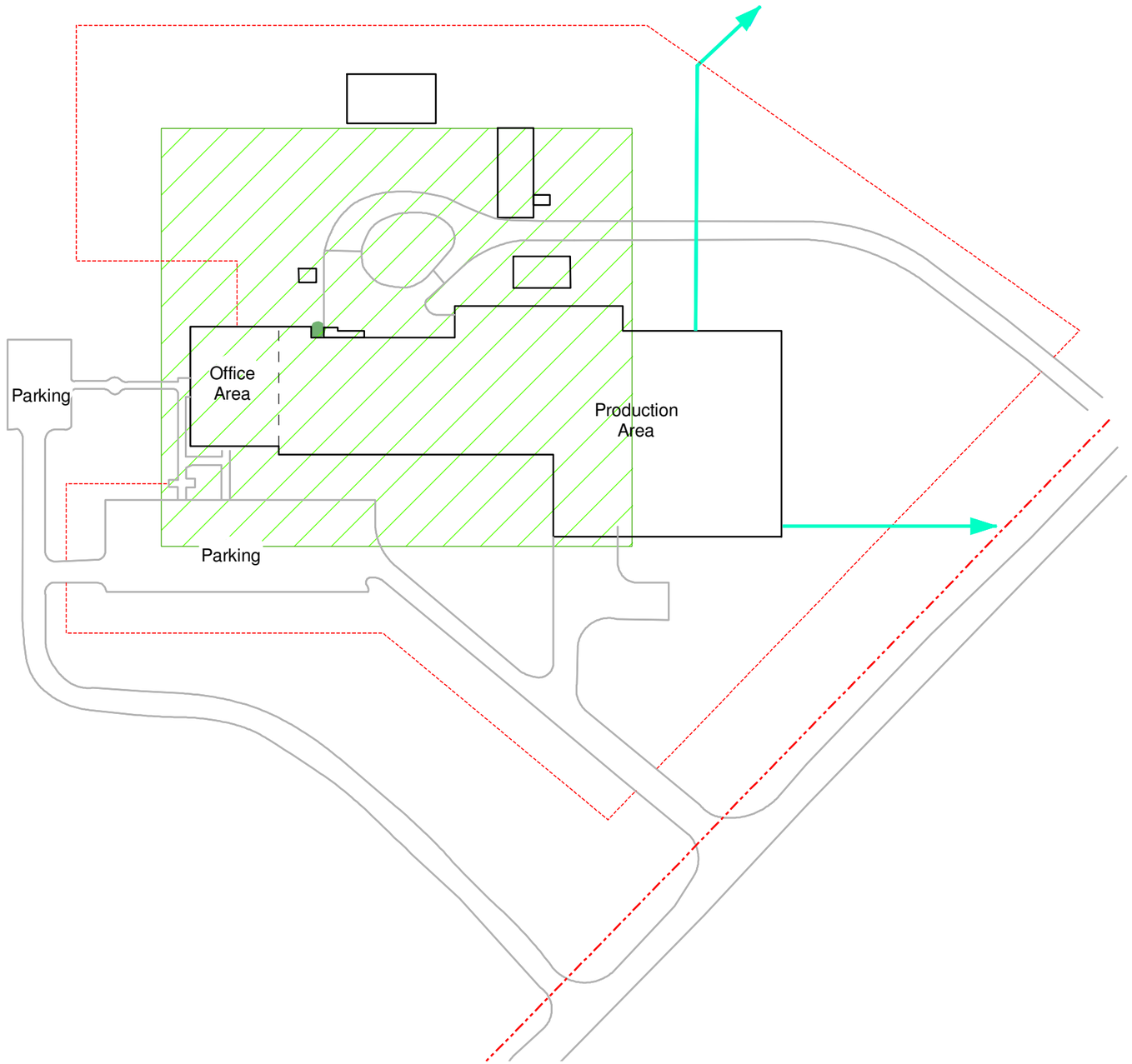


FIGURE 2

Chain Link Fence

Property Boundary

Road

Storm Water Drainage

Area shown on Figure 3

Former Waste Solvent Tank Piping Release

N

0 150 300

Feet

SITE PLAN

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2009

O'BRIEN & GERE

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NAME: Site Plan I

DATE: 1/14/10

PATH: I:\Millercoors.1669945487.2009-Mna-Sampli\Docs\Reports\Figures

NAME: Ground Water Monitoring Network

DATE: 1/14/10

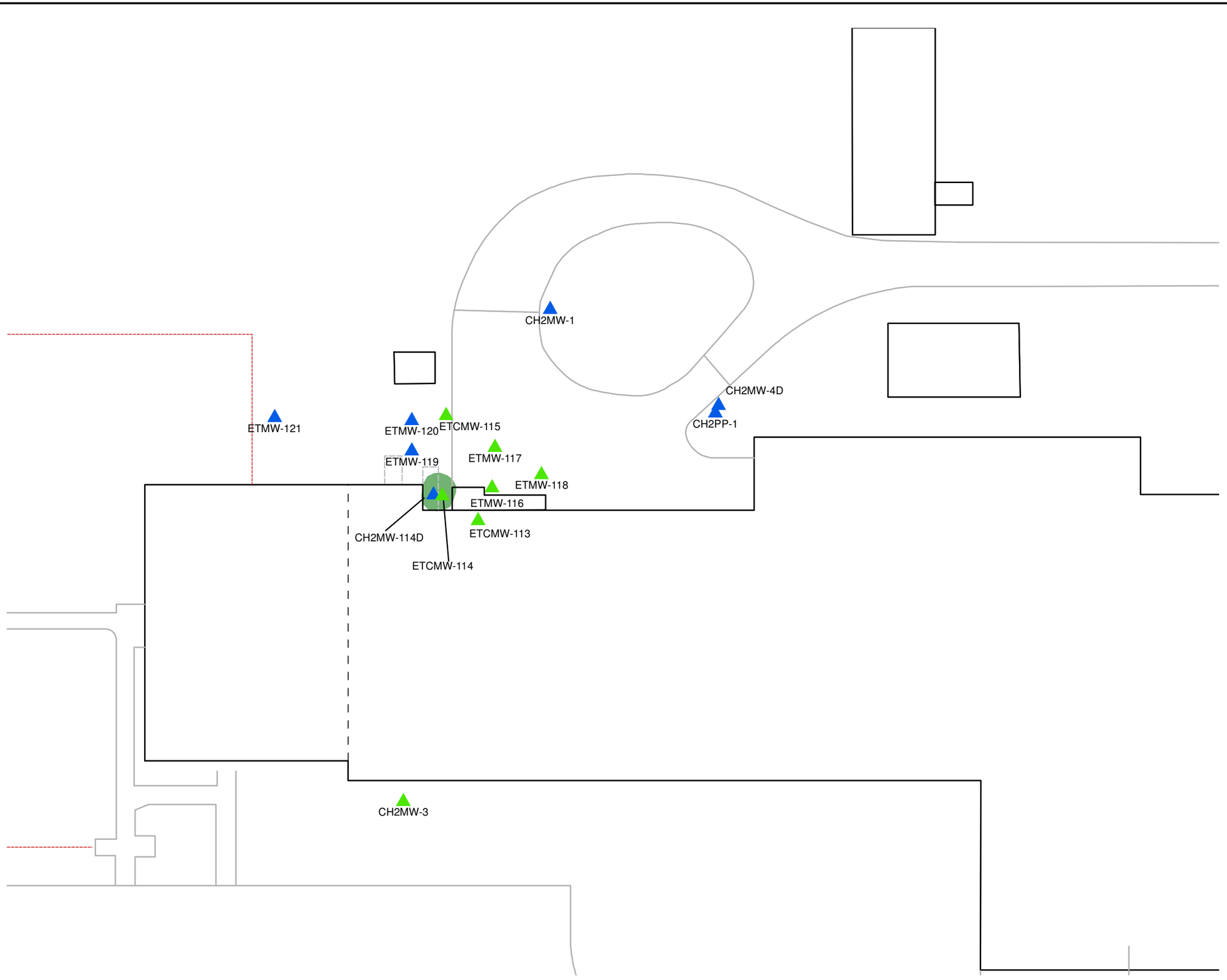

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FIGURE 3

Monitoring Well

Sample Analysis

- VOCs
- VOCs & Geochemical Parameters
- Former Waste Solvent Tank Piping Release
- Chain Linked Fence
- Road

N

0 25 50 100

Feet

GROUND WATER MONITORING NETWORK

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2009

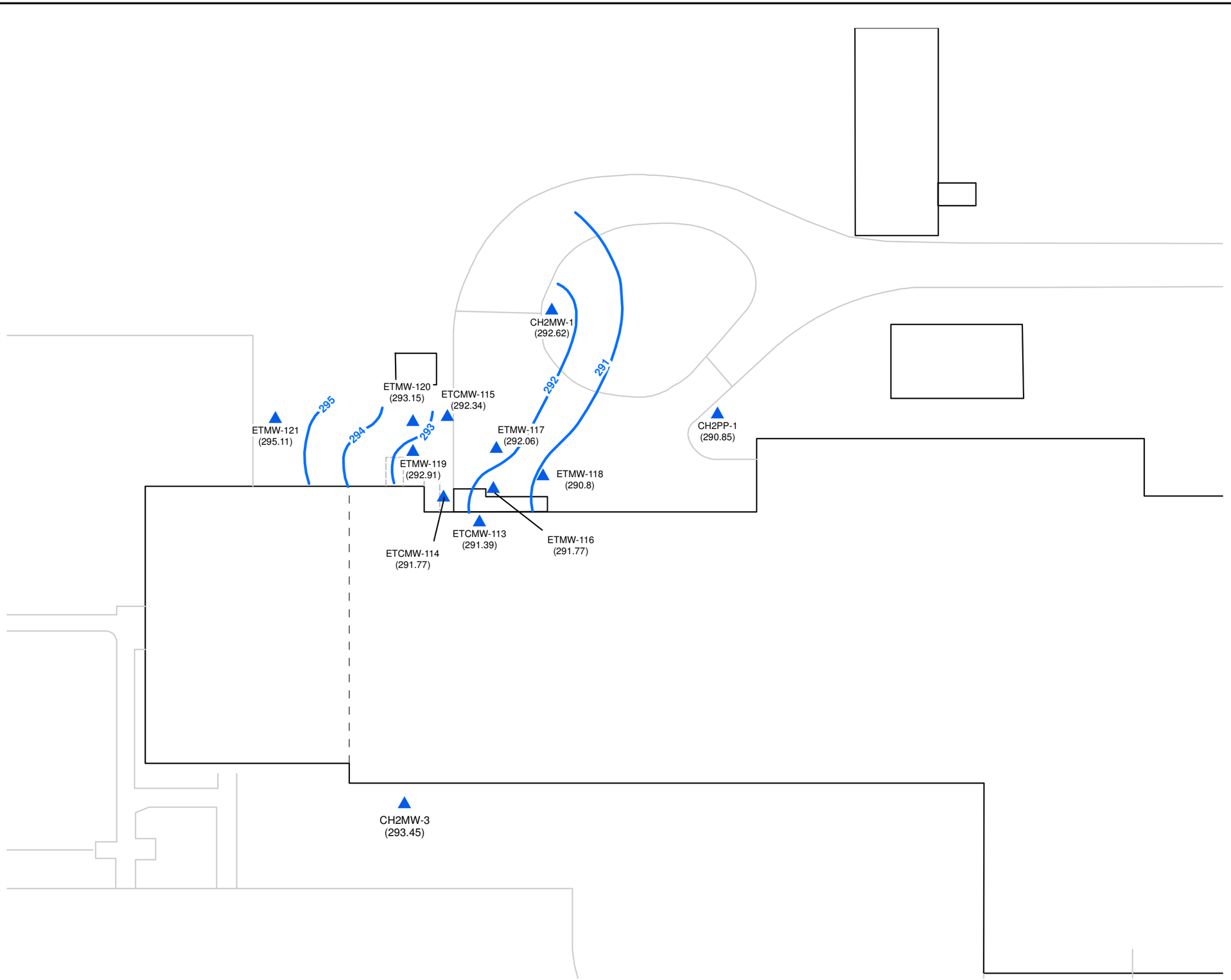
O'BRIEN & GERE

PATH: I:\Millercoors.1669945487.2009-Mna-Sampli\Docs\Reports\Figures

NAME: Potentiometric Surface, December 2009

DATE: 1/14/10

FIGURE 4



Monitoring Well

Ground Water Elevation (ft msl)

N

0 25 50 100

Feet

GROUND WATER POTENTIOMETRIC SURFACE

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2009

O'BRIEN & GERE

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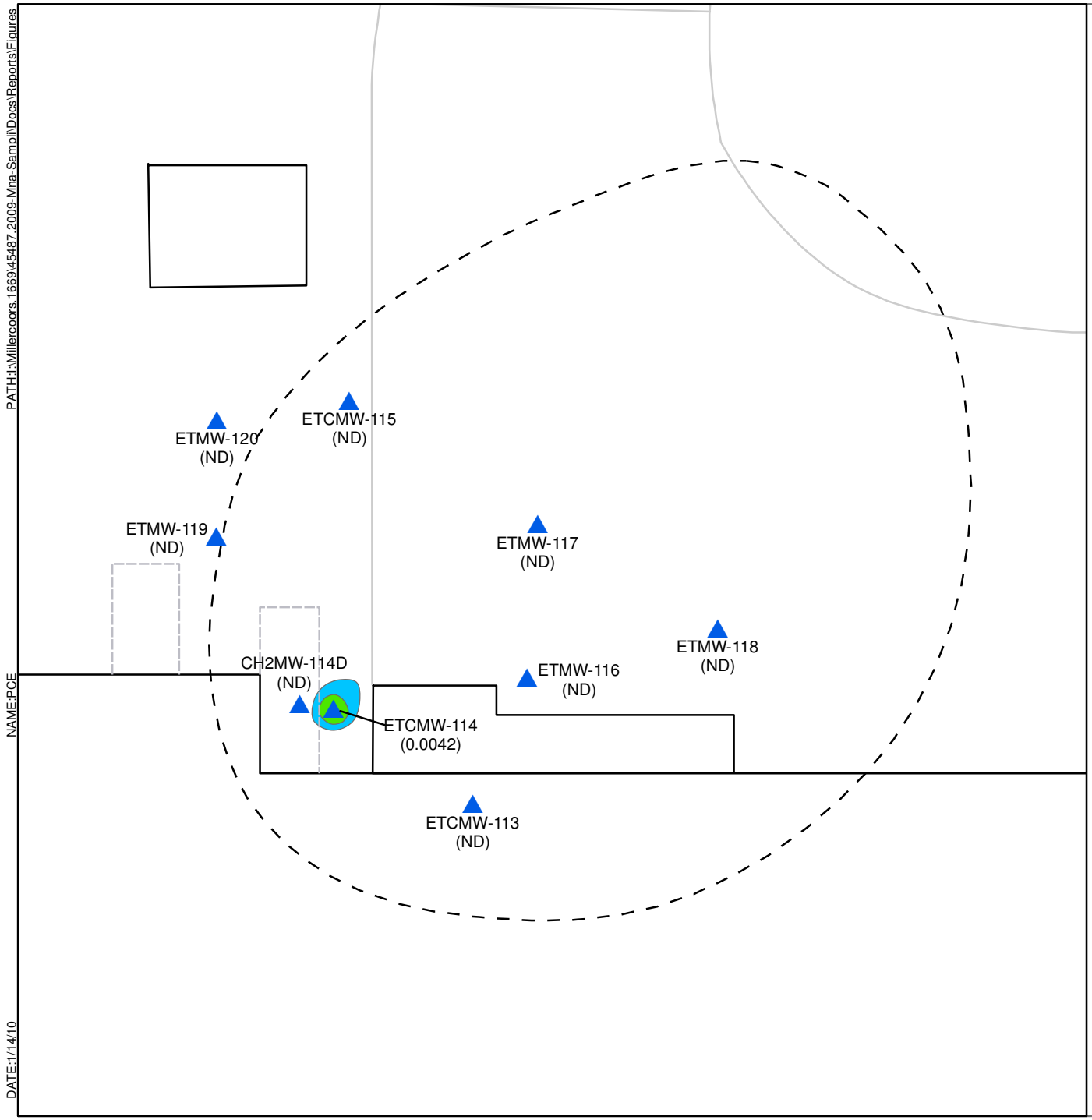

FIGURE 5

Monitoring Well

Treatment Area

Tetrachloroethene (PCE) concentration above RRS (mg/L)

- >1.0000
- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

ND indicates that PCE was not detected at concentrations above the Type 1/3 RRS

PCE Type 1/3 RRS = 0.005

N

0 10 20

Feet

PCE CONCENTRATION ABOVE RRS

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2009

O'BRIEN & GERE

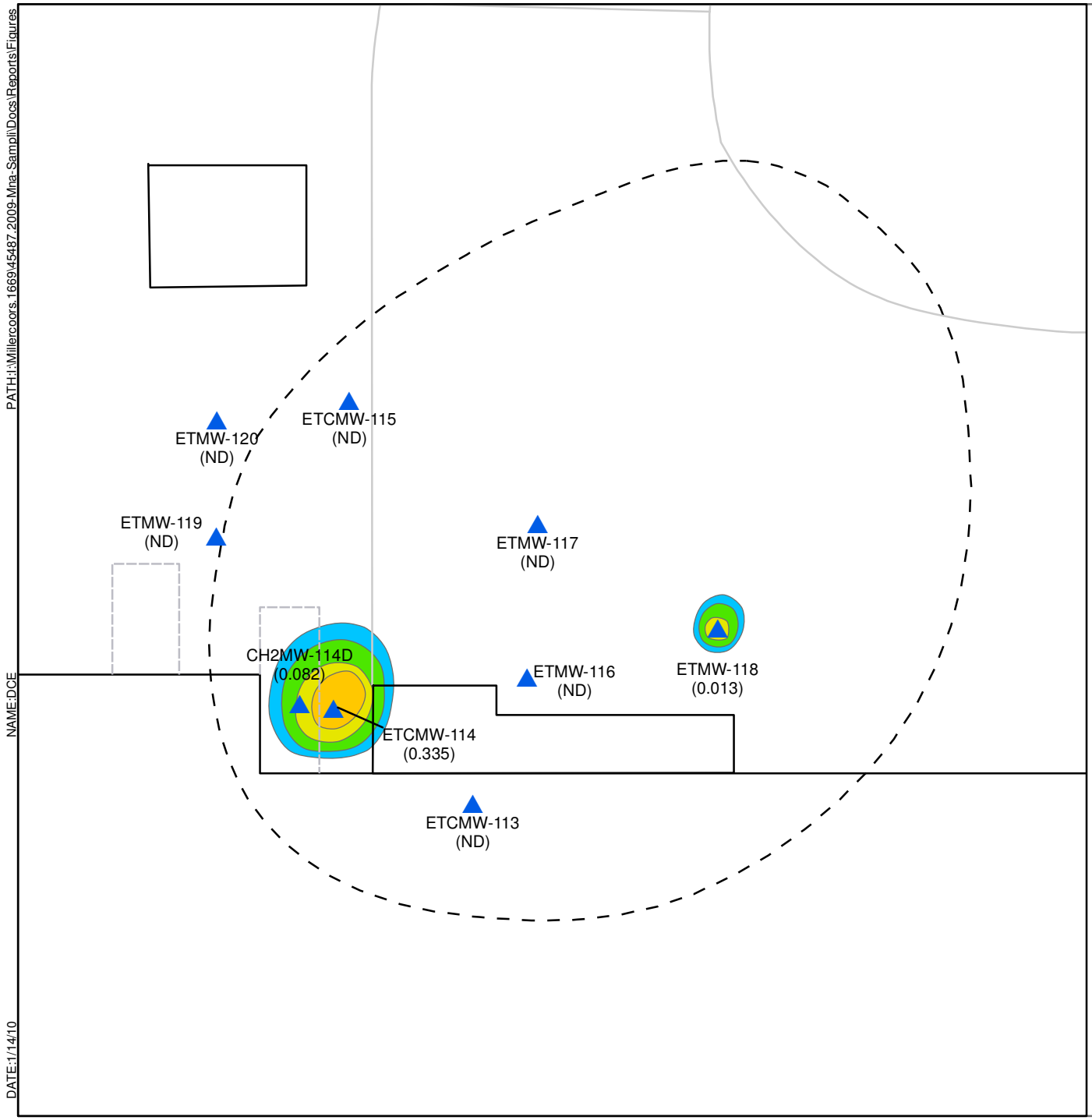

FIGURE 6

Monitoring Well

Treatment Area

Trichloroethene concentration above RRS (mg/L)

- >1.0000
- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

ND indicates that TCE was not detected at concentrations above the Type 1/3 RRS

TCE Type 1/3 RRS = 0.005

N

0 10 20

Feet

TCE CONCENTRATION ABOVE RRS

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2009

O'BRIEN & GERE

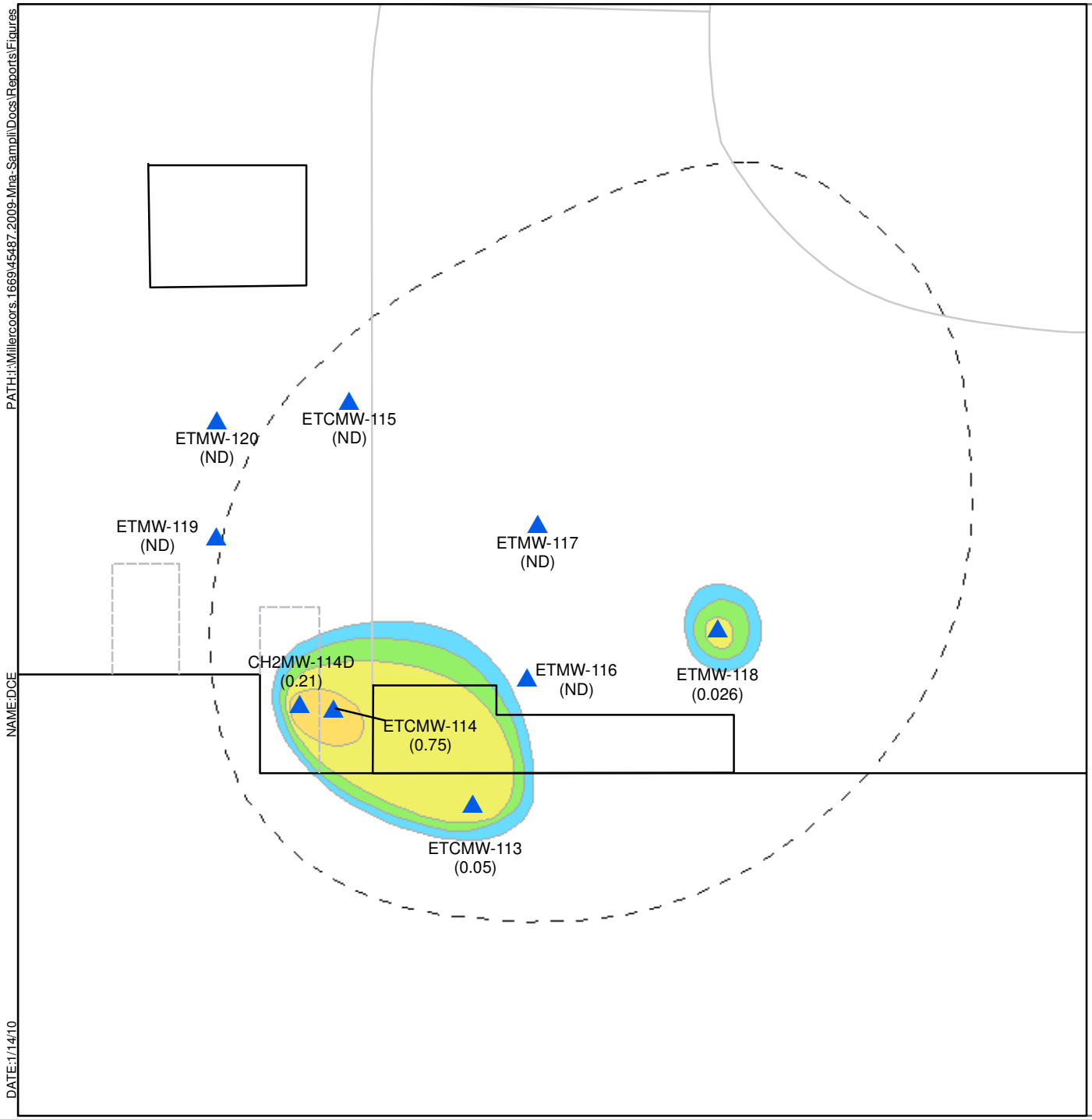

FIGURE 7

Monitoring Well

Treatment Area

cis-1,2-dichloroethene concentration above RRS (mg/L)

- >1.0000
- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

ND indicates that cis-1,2-DCE was not detected at concentrations above the Type 1/3 RRS

cis-1,2-DCE Type 1/3 RRS = 0.07

N

0 10 20

Feet

cis-1,2 DCE CONCENTRATION ABOVE RRS

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2009

O'BRIEN & GERE

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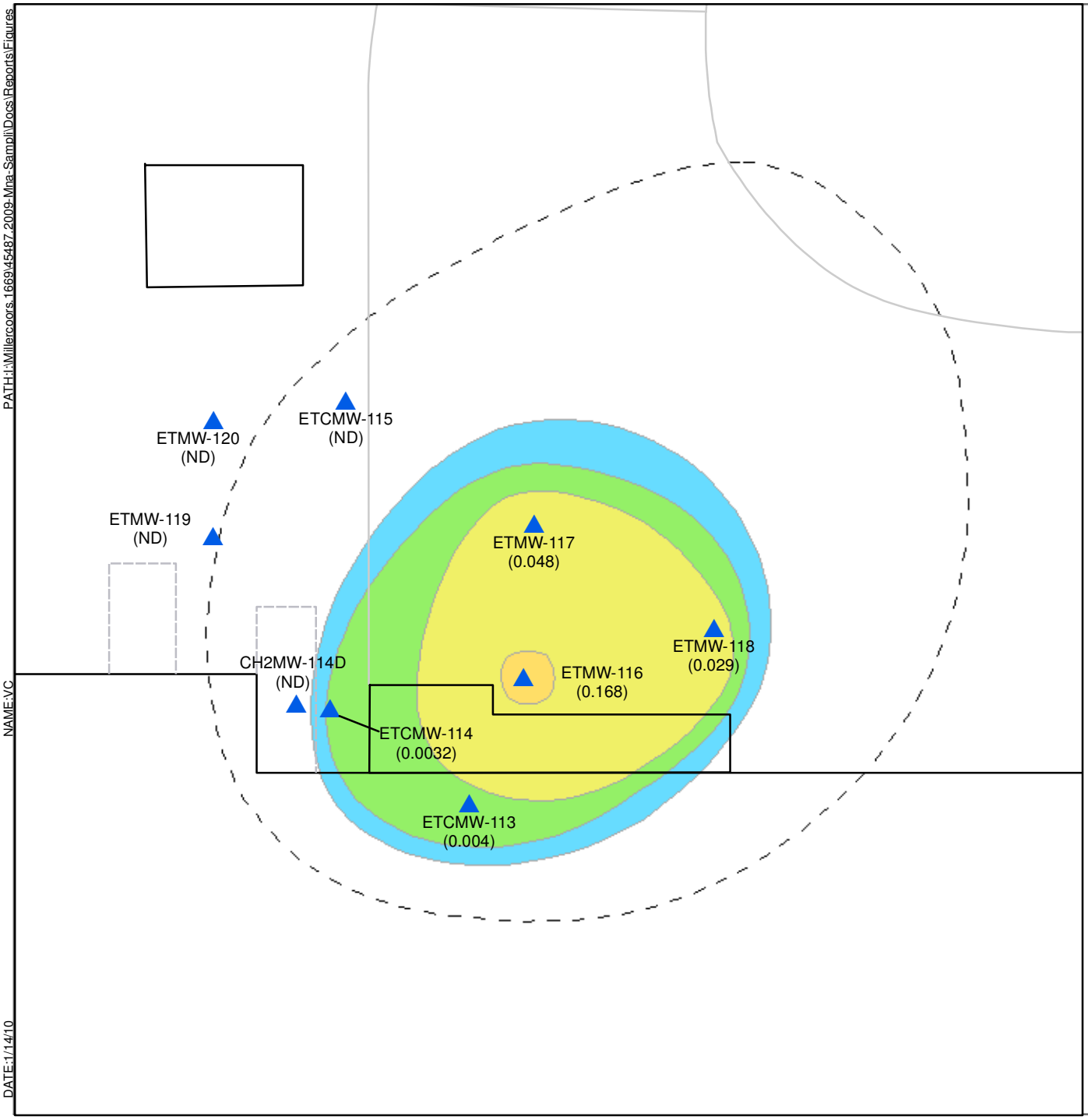

FIGURE 8

Monitoring Well

Treatment Area

Vinyl chloride concentration above RRS (mg/L)

- >1.0000
- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

ND indicates that vinyl chloride was not detected at concentrations above the Type 1/3 RRS

vinyl chloride Type 1/3 RRS = 0.002

N

0 10 20

Feet

VINYL CHLORIDE CONCENTRATION ABOVE RRS

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2009

O'BRIEN & GERE

APPENDICES

Appendix A

Historical Ground Water Results Summary

Historical Summary of Volatile Organic Constituents in Ground Water

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Downgradient										Downgradient							Upgradient										
					CH2MW-1										CH2MW-1A							CH2MW-2										
					5/29/1998	4/29/2002	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/24/2007	12/8/2008	12/16/2009	6/4/1998	4/29/2002	4/7/2004	4/28/2005	10/26/2005	4/18/2006	4/18/2007	5/29/1998	6/4/1998	8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	DUP1-041806	4/18/2007	DUP-02 (4/18/2007)
Acetone	67-64-1	mg/L	4		-		< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	<0.05	-		< 0.01	< 0.01	**0.031**	< 0.01	<0.01	-	-	**0.003**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	<0.01	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	<0.05	-	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	-	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	<0.01	<0.01
Benzene	71-43-2	mg/L	0.005		-		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0025	-		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0025	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.001	<0.0025	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
Chloromethane	74-87-3	mg/L	0.001 [2]		-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	<0.0005	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0001	< 0.001	< 0.0001	< 0.0001	<0.001	<0.001
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.001	-	**0.0015**	**0.0013**	< 0.001	**0.00059**	<0.0005	<0.0005	<0.0005	<0.0025	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0025	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.00284**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0025	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.00107**	**0.003**	**0.0013**	**0.0011**	**0.0011**	**0.00052**	<0.0005	<0.0005	<0.0005	<0.0025	< 0.001	< 0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	<0.0005	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0025	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	**0.003**	-	-	-	-	-	-	-	-	-	< 0.0005	-	-	-	-	-	-	-	<0.0005	<0.0005	<0.0005	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	<0.05	<0.05	<0.25	-	-	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	-	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.05	<0.05
Methylene Chloride	75-09-2	mg/L	0.005		-	-	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	-	**0.0007**	**0.0006**	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	-	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	<0.005	-	-	-	-	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	-	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	<0.005
Naphthalene	91-20-3	mg/L	0.02		-	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	-	< 0.0005	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0025	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Toluene	108-88-3	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0025	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0025	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.001	**0.0012**	**0.0039**	**0.0041**	**0.0044**	**0.00202**	**0.00176**	**0.00082**	**0.0012**	<0.0025	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.0025	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	<0.002	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	-	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	<0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.0025	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
Xylenes (total)	1330-20-7	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	<0.0025	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.001	<0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Upgradient													Cross Gradient												
					CH2MW-3													CH2MW-4D												
					5/29/1998	6/4/1998	8/23/2000	11/9/2000	11/9/2000 DUP	1/24/2001	4/6/2004	4/27/2005	4/27/2005 (DUP2)	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008	12/16/2009	8/6/1998	8/23/2000	11/9/2000	1/25/2001	4/8/2004	4/26/2005	4/26/2005 (DUP1)	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009
Acetone	67-64-1	mg/L	4		-	-	< 0.003	< 0.003	**0.003**	**0.003**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	<0.01	-	**0.007**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	<0.01	< 0.010	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	<0.01
Benzene	71-43-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	-	**0.0007**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		-	-	<0.0005	<0.0005	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	-	<0.0005	<0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.0005	**0.0006**	**0.0005**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.001	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	<0.0005	<0.0005	< 0.0005	<0.0005	-	-	-	-	-	-	-	-	-	-	<0.0005	<0.0005	<0.0005	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	<0.05	<0.050	<0.050	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	<0.05	<0.05	<0.05	<0.05
Methylene Chloride	75-09-2	mg/L	0.005		-	-	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	-	-	-	**0.0008**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	<0.005	-	-	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	<0.005	<0.005	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.0005	**0.002**	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Toluene	108-88-3	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	**0.00071**	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.0005	**0.001**	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.0005	**0.0007**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.0005	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	<0.002	-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	<0.002	<0.002	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.0005	<0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001	<0.0005	<0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	<0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0005	<0.001	<0.0005	<0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient								In Plume												
					CH2MW-5								ETCMW-113												
					8/5/1998	4/7/2004	4/27/2005	10/26/2005	10/26/2005 (DUP 2)	4/20/2006	DUP2 042006	4/17/2007	1/21/1994	11/3/1994	3/31/1995	5/27/1998	9/7/2000	11/9/2000	1/25/2001	4/6/2004	4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009
Acetone	67-64-1	mg/L	4		-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.100	< 0.001	< 0.050	-	**0.007**	**0.026**	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.235 D**	**0.448 D**	**0.038**	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	< 0.100	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.191 D**	**0.380 D**	**0.014**	<0.01
Benzene	71-43-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	**0.0006**	< 0.005	**0.002**	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	**0.0016**	**0.00052**
Carbon Disulfide	75-15-0	mg/L	4		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.100	< 0.005	< 0.005	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0056 D**	< 0.001	< 0.0005	**0.00810 D**	<0.005	**0.00072**	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.010	< 0.001	< 0.001	-	**0.001**	< 0.005	**0.002**	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	**0.0057**	<0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.005	< 0.010	< 0.001	-	<0.0005	<0.005	<0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.010	-	-	-	<0.0005	< 0.005	<.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.063**	**0.035**	**0.026**	**0.01006**	**0.056 D**	**0.024**	**0.036 D**	**0.022**	**0.018 D**	**0.011**	**0.00884**	**0.0173 D**	**0.0117 D**	**0.0089**	**0.0069**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	**0.0008**	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.017**	< 0.005	**0.003**	**0.00244**	**0.027 E**	< 0.005	**0.020 D**	**0.007**	**0.0051 D**	**0.003**	**0.00274**	**0.0083 D**	<0.005	**0.0055**	**0.0032**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	-	**0.017**	**0.022**	**0.02213**	-	-	**0.100 D**	**0.066 D**	**0.091 D**	**0.058**	**0.0554 D**	**0.178 D**	**0.147 D**	**0.200**	**0.120**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	-	-	0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	<0.0005	<0.005	**0.110 D**	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.1	< 0.1	<0.05	< 0.100	-	-	-	-	-	-	< 0.050	< 0.200	< 0.1	< 0.050	**1.45 D**	<0.5	<0.050	<0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	< 0.005	< 0.005	< 0.001	-	**0.002**	< 0.005	**0.0006**	< 0.002	< 0.0008	< 0.002	< 0.002	<0.02	<0.02	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	<0.005	< 0.050	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.005	< 0.02	< 0.01	< 0.005	<0.050	<0.05	-	-
Naphthalene	91-20-3	mg/L	0.02		-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	< 0.0005	< 0.005	<.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.05	<0.005	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.028**	**0.014**	**0.0084**	**0.00649**	**0.044 D**	**0.013**	**0.035 E**	**0.016**	**0.0078 D**	**0.0061**	**0.00361**	**0.00640 D**	<0.005	<0.0005	**0.00053**
Toluene	108-88-3	mg/L	1		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.002	-	< 0.0005	< 0.005	<.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.003	-	< 0.0005	< 0.005	<.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	<0.01	<0.01	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	< 0.005	< 0.005	< 0.004	< 0.001	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	**0.290**	**0.062**	< 0.005	**0.06938**	**0.530 D**	**0.150**	**0.240 D**	**0.16 D**	**0.056 D**	**0.059**	**0.0246**	**0.0406 D**	<0.0005	**0.0025**	**0.0028**
Trichlorofluoromethane	75-69-4	mg/L	2		-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.006	-	**0.0009**	< 0.005	**0.001**	< 0.001	< 0.0004	< 0.001	< 0.001	<0.010	<0.01	<0.0005	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	<0.005	-	< 0.007	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.005	<0.005	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	< 0.002	< 0.002	< 0.005	< 0.005	< 0.005	< 0.005	<0.002	< 0.100	< 0.005	< 0.008	-	-	-	-	< 0.002	< 0.0008	< 0.005	< 0.002	<0.020	<0.02	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.009	**0.00137**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	<0.010	<0.01	**0.0092**	**0.006**
Xylenes (total)	1330-20-7	mg/L	0.01		-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.005	< 0.005	< 0.010	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	<0.010	<0.01	<0.0005	<0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume																				
					ETCMW-114																				
					1/21/1994	1/21/94 DUP	11/3/1994	11/3/94 DUP	3/31/1995	3/31/95 DUP	5/27/1998	8/23/2000	11/10/2000	1/24/2001	1/24/01 DUP	4/29/2002	4/29/02 DUP	4/7/2004	4/7/2004 DUP	4/28/2005	10/27/2005	4/20/2006	4/17/2007	DUP-01 (4/17/2007)	10/24/2007	10/24/2007 (DUP-02)	12/10/2008	12/16/2009
Acetone	67-64-1	mg/L	4		**3.300**	**2.300**	**0.060**	< 0.010	< 5	< 5	-	**1.8**	< 0.089	< 0.003	< 0.003	-	-	< 0.001	< 0.01	< 0.1	< 0.5	<0.100	<0.50	<2	<0.01	<0.01	< 0.1	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	**2.600**	**1.500**	**0.030**	**0.020**	< 5	< 5	-	**3.9**	< 0.089	< 0.003	< 0.003	< 0.003	< 0.003	< 0.001	< 0.01	< 0.1	< 0.5	<0.100	<0.50	<2	<0.01	<0.01	< 0.1	<0.01
Benzene	71-43-2	mg/L	0.005		**0.0075**	**0.018**	**0.011**	**0.008**	< 0.10	< 0.10	-	< 0.042	< 0.018	**0.003**	**0.003**	-	-	**0.0016**	**0.0017**	< 0.005	< 0.005	<0.005	<0.025	<0.10	**0.00170**	**0.00165**	< 0.005	**0.0029**
Carbon Disulfide	75-15-0	mg/L	4		< 0.100	< 0.100	< 0.005	< 0.005	< 0.5	< 0.5	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	< 0.005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	**0.410**	**1.300**	**1.2**	< 0.010	**0.930**	**1.200**	-	< 0.042	**0.120**	**0.061 E**	**0.062 E**	-	-	**0.0053**	**0.0053**	< 0.010	< 0.001	<0.010	<0.05	<0.20	**0.0149**	**0.0143**	< 0.005	<0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.005	< 0.005	< 0.010	**1.100**	< 0.100	< 0.100	-	<0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.010	< 0.001	<0.010	<0.05	<0.20	<0.001	<0.001	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.010	< 0.010	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	<0.010	<0.050	<0.20	<0.001	<0.001	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.690**	**1.200**	**0.710**	**0.580**	**0.400**	**0.450**	**0.09321**	**0.230**	**0.200**	**0.12 D**	**0.12 D**	-	-	**0.11 D**	**0.11 D**	**0.062 D**	**0.13**	**0.0839 D**	**0.102 D**	<0.10	**0.0520 E**	**0.0505 E**	**0.045**	**0.033**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		**0.011**	**0.015**	< 0.005	<0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	**0.004**	**0.004**	-	-	**0.0029**	**0.0029**	< 0.005	< 0.05	<0.005	<0.025	<0.10	**0.00082**	**0.00080**	< 0.005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.019**	**0.110**	**0.570**	**0.260**	**0.310**	**0.330**	**0.20412**	**0.260**	**0.120**	**0.12 D**	**0.11 D**	**0.39 D**	**0.33 D**	**0.13 D**	**0.13 D**	**0.100 D**	**0.24**	**0.138 D**	<0.025	<0.10	**0.00691**	**0.00642**	**0.066**	**0.053**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	-	-	**15**	**12**	**11**	**12**	**4.841**	-	-	**3.4 D**	**3.3 D**	**3.8 D**	**3.7 D**	**2.4 D**	**2.4 D**	**1.7 D**	**4.4**	**3.160 D**	**1.830 D**	**1.760 D**	**0.185 E**	**0.179 E**	**1.1**	**0.820**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	< 0.005	< 0.005	< 0.1	< 0.1	-	-	-	**0.004**	**0.003**	**0.009**	**0.007**	**0.0025**	**0.0025**	< 0.005	< 0.05	**0.0314 D**	<0.025	<0.10	**0.00331**	**0.00313**	< 0.005	**0.0014**
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	< 0.042	< 0.018	**3.1 D**	**3.1 D**	**3.9 D**	**3.8 D**	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		**0.0085**	**0.020**	**0.007**	**0.005**	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		**0.310**	**0.330**	-	-	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050	< 0.500	< 5	<0.5	<2.5	<10	<0.05	<0.05	<0.5	<0.05
Methylene Chloride	75-09-2	mg/L	0.005		**0.0088**	**0.0052**	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	**0.001**	**0.003**	-	-	< 0.002	< 0.002	< 0.020	< 0.1	<0.020	<0.10	<0.40	<0.002	<0.002	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		**0.077**	**0.080**	**0.018**	**0.015**	< 5	< 5	-	< 0.210	< 0.089	< 0.003	< 0.003	-	-	< 0.005	< 0.005	< 0.05	< 0.5	<0.050	<0.25	<1.0	<0.005	<0.005	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	<0.0005	<0.0005	< 0.001	< 0.001	< 0.01	< 0.05	<0.010	<0.05	<0.2	<0.001	<0.001	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	<0.001	<0.001	<0.005	< 0.005	<0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.1	<0.0005	<0.0005	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.039**	**0.120**	**0.013**	**0.012**	< 0.100	< 0.100	**0.03293**	**0.140**	**0.036**	**0.039 E**	**0.039 E**	-	-	**0.11 D**	**0.12 D**	**0.074 D**	**0.13**	**0.101 D**	<0.025	<0.10	<0.0005	<0.0005	**0.006**	**0.0092**
Toluene	108-88-3	mg/L	1		**0.072**	**0.150**	**0.057**	**0.049**	< 0.100	< 0.1 00	-	< 0.042	< 0.018	**0.008**	**0.008**	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	**0.00222**	**0.00202**	< 0.005	**0.00099**
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	<0.010	<0.025	<0.10	<0.001	<0.001	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	<0.010	<0.050	<0.20	<0.001	<0.001	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		**0.041**	**0.170**	< 0.005	< 0.005	< 0.100	< 0.100	< 0.001	< 0.042	< 0.018	**0.002**	**0.002**	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	< 0.005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005[7]	**0.420**	**0.670**	**0.14**	**0.120**	**0.400**	**0.440**	**0.662**	**3.100 D**	**0.740**	**0.82 D**	**0.79 D**	**4.5 D**	**4.0 D**	**1.6 D**	**1.7 D**	**1.0 D**	**2.2**	**1.480 D**	<0.025	<0.10	**0.00897**	**0.00823**	**0.44**	**0.34**
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.010	< 0.05	<0.010	<0.05	<0.001	<0.001	<0.001	< 0.005	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		<0.0057	< 0.0058	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.005	<0.025	<0.10	<0.0005	<0.0005	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		**3.800**	**3.600**	< 0.005	< 0.010	< 1.000	< 1.0	-	-	-	-	-	-	-	< 0.002	< 0.002	< 0.020	< 0.1	<0.020	<0.10	<0.40	<0.002	<0.002	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.01	< 0.01	< 0.100	< 0.100	**0.01956**	< 0.042	< 0.018	**0.001**	**0.001**	-	-	< 0.001	< 0.001	< 0.010	**0.026**	**0.0236 D**	**3.740 D**	**3.550 D**	**.524 E**	**0.547 E**	< 0.005	**0.0052**
Xylenes (total)	1330-20-7	mg/L	0.01		**0.045**	**0.095**	**0.024**	**0.020**	< 0.300	< 0.300	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	<0.010	<0.05	<0.20	**0.00169**	**0.00165**	< 0.005	**0.00057**

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS (1)	Type 4 RRS (5)	In Plume CH2MW-114D									In Plume ETCMW-115								
					6/4/1998	4/7/2004	4/28/2005	10/26/2005	4/20/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	11/3/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008	12/16/2009
Acetone	67-64-1	mg/L	4		-	< 0.01	**0.190 D**	**0.52**	< 0.01	<0.1	**.123 E**	<0.010	**0.53**	< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	<0.025	<0.025	< 0.010	<0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	< 0.01	**0.430 D**	<0.1	< 0.01	<0.1	**0.0442**	**0.063**	<0.01	< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	<0.025	<0.025	< 0.010	<0.010
Benzene	71-43-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.0005	**0.00062**	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	**0.00074**	**0.00076**	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 (2)	1.23	-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	<0.0005	<0.0005	< 0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	< 0.0005	<0.0005
Chloromethane	74-87-3	mg/L	0.001 (2)		-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	-
Dibromomethane	74-95-3	mg/L	0.0005 (2)		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.0018**	**0.0077**	**0.00830 D**	< 0.01	< 0.001	<0.005	**0.00249**	**0.0007**	**0.00098**	**0.042**	**0.025**	**0.0064**	**0.0063**	**0.0076**	**0.00367**	**0.00848 D**	**0.00308 D**	**0.00087**	**0.0011**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.005 J	< 0.001	<0.005	<0.0005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0046**	**0.0053**	**0.0060 D**	< 0.01	< 0.001	**0.00580 D**	**0.00395**	**0.0051**	**0.0081**	< 0.005	< 0.001	< 0.0005	< 0.0025	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 (3)	1.02	**0.0161**	**0.088 D**	**0.120 D**	**0.097**	< 0.001	**0.204 D**	**0.146 E**	**0.120**	**0.280**	**0.210**	**0.120**	**0.086 D**	**0.041 D**	**0.094**	**0.0346**	**0.120 D**	**0.0318 D**	**0.0078**	**0.011**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.0005	**0.00067**	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 (4)	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	< 0.050	< 0.500	< 1	< 0.1	<0.005	**.622 E**	**1.300**	<0.05	-	-	< 0.050	< 0.250	< 0.1	< 0.050	<0.125	<0.125	< 0.050	<0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	< 0.002	< 0.002	< 0.02	< 0.002	<0.020	<0.002	-	-	< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	<0.005	<0.005	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 (2)		-	< 0.005	< 0.005	< 0.1	< 0.01	<0.050	<0.005	-	-	< 0.01	< 0.50	< 0.005	< 0.005	< 0.01	< 0.005	<0.0125	<0.0125	-	-
Naphthalene	91-20-3	mg/L	0.02		-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 (9)	**0.011**	**0.010**	**0.0072 D**	< 0.01	< 0.001	**0.00530 D**	**0.00288**	**0.0042**	**0.0038**	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	<0.0005
Toluene	108-88-3	mg/L	1		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	< 0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 (2)	0.01	-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.0025	<0.00125	< 0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 (7)	**0.105**	**0.200 D**	**0.230 D**	**0.240**	< 0.001	**0.135 D**	**0.056 E**	**0.140**	**0.087**	**0.170**	**0.120**	**0.016**	**0.0057**	**0.0039**	**0.00901**	**0.0214 D**	**0.0079 D**	**0.0027**	**0.0032**
Trichlorofluoromethane	75-69-4	mg/L	2		-	< 0.001	< 0.001	< 0.01	< 0.001	<0.010	<0.001	<0.0005	<0.0005	-	-	< 0.001	< 0.001	< 0.001	< 0.001	<0.0025	<0.0025	< 0.0005	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.005	<0.0005	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.00125	<0.00125	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 (2)		-	< 0.002	< 0.002	< 0.05	< 0.005	<0.020	<0.002	-	-	< 0.005	< 0.010	< 0.002	< 0.002	< 0.005	< 0.002	<0.005	<0.005	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 (7)	< 0.001	< 0.001	< 0.001	< 0.005 J	< 0.001	<0.010	<0.001	<0.0005	<0.0005	< 0.001	< 0.001	**0.0015**	**0.025**	**0.014**	**0.00346**	**0.00915 D**	<0.0025	**0.0011**	<0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		-	< 0.0005	< 0.0005	< 0.01	< 0.001	<0.010	<0.001	<0.0005	<0.0005	< 0.005	<0.003	< 0.0005	**0.00061**	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	<0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume													In Plume													
					ETMW-116													ETMW-117													
					12/20/1994	3/31/1995	5/26/1998	8/23/2000	8/23/2000 DUP	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/16/2009	12/21/1994	3/31/1995	8/23/2000	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/2008 DUP-2	12/15/2009	12/15/09 DUP-2
Acetone	67-64-1	mg/L	4		< 0.010	< 0.25	-	**0.010**	**0.011**	**0.036 B**	< 0.003	< 0.01	**0.360 D**	**1.6**	**0.968 D**	**0.398 D**	<0.05	**0.29**	<0.01	< 0.010	< 0.1	< 0.018	< 0.003	**0.003**	< 0.01	< 0.04	< 0.01	< 0.01	**2.090 D**	**.513 ED**	**0.016**	**0.012**	<0.01	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.25	-	< 0.003	< 0.003	< 0.025	< 0.003	< 0.01	**0.053 D**	**0.38**	**0.163 D**	<0.1	<0.05	<0.01	<0.01	< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.213 D**	**0.0785 D**	<0.01	<.01	<0.0005	<0.01
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	<0.0005	<0.0005	< 0.005	< 0.002	< 0.004	**0.0008**	**0.002**	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	**0.0015**	**0.0017**	**0.0014**	**0.0013**
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.025	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0037 D**	< 0.01	<0.005	<0.005	<0.0025	<0.0005	<0.0005	< 0.005	< 0.010	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	**0.00054**	**0.0007**	<0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.010	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	**0.007**	**0.0088**	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	**0.0027**	**0.0029**	<0.0005	**0.003**
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.005	-	<0.0005	< 0.0005	<0.005	<0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	-	< 0.010	< 0.002	<0.004	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	**0.0007**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	-	-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	-	-	-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.062**	**0.045**	**0.03585**	**0.045 D**	**0.039 D**	**0.012**	**0.012**	**0.018**	**0.023 D**	< 0.01	**0.00870 D**	**0.00910 D**	**0.00660 D**	**0.0065**	**0.0084**	**0.012**	**0.025**	**0.017**	**0.017**	**0.008**	**0.0098**	**0.014 D**	**0.013**	**0.0105**	**0.00935 D**	**0.00825 D**	**0.0048**	**0.0056**	**0.0043**	**0.004**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.005	-	**0.0007**	**0.0007**	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.005 J	<0.005	<0.005	<0.0025	<0.0005	<0.0005	< 0.005	< 0.0005	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.008**	**0.012**	**0.01349**	**0.016**	**0.018**	< 0.005	**0.004**	**0.0055**	**0.0090 D**	< 0.007 J	**0.00540 D**	<0.005	<0.0025	<0.0005	<0.0005	< 0.005	**0.005**	< 0.004	**0.003**	**0.002**	**0.0022**	**0.0038 D**	**0.0026**	**0.00075**	**0.00305 D**	<0.0025	< 0.0005	**0.0010**	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.085**	**0.074**	**0.05735**	-	-	-	**0.026 D**	**0.039**	**0.100 D**	**0.18**	**0.221 D**	**0.0831 D**	<0.0025	**0.011**	**0.0043**	**0.014**	`	-	-	**0.016**	**0.02**	**0.030 D**	**0.03**	**0.0225**	**0.0315 D**	**0.0762 D**	**0.041**	**0.050**	**0.021**	**0.018**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	-	-	-	-	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	<0.0005	<0.0005	< 0.005	< 0.002	-	-	< 0.0005	< 0.0005	< 0.002	< 0.001	**0.00213**	<0.0025	<0.0025	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	<0.0005	< 0.0005	< 0.005	**0.024**	-	-	-	-	-	-	-	-	-	-	<0.004	< 0.0005	**0.015**	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	-	-	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	-	-	< 0.050	**1.8**	**1.5**	<0.5	<0.005	<0.25	<.05	<0.050	-	-	-	-	-	< 0.050	< 0.2	< 0.1	< 0.050	**2.930 D**	<0.25	< 0.0005	< 0.0005	<0.05	<0.05
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.005	-	**0.001**	**0.0009**	< 0.005	< 0.0005	< 0.002	< 0.001	< 0.002	<0.005	<0.020	<0.01	-	-	< 0.005	< 0.002	< 0.004	**0.0006**	**0.002**	< 0.002	< 0.008	< 0.002	< 0.002	<0.010	<0.010	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.25	-	< 0.003	<0.003	<0.025	< 0.003	< 0.005	< 0.025	< 0.1	<0.05	<0.050	<0.025	-	-	< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.005	< 0.02	< 0.01	< 0.005	<0.025	<0.025	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	-	-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	-	-	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.034**	**0.022**	**0.018**	**0.024**	**0.022 D**	**0.007**	**0.005**	**0.011**	**0.012 D**	**0.0062 J**	<0.005	<0.005	<0.0025	<0.0005	<0.0005	< 0.005	**0.008**	**0.005**	**0.005**	**0.002**	**0.0032**	**0.0050 D**	**0.0042**	**0.00378**	**0.00435 D**	<0.0025	< 0.0005	< 0.0005	<0.0005	<0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	**0.0025**	<0.0005	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	-	-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	-	-	-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	<0.0005	<0.0005	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	< 0.0005	< 0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.560**	**0.420**	**0.26512**	**0.420 D**	**0.350 D**	**0.130**	**0.100 D**	**0.15 D**	**0.170 D**	**0.12**	<0.005	**0.0291 D**	<0.0025	<0.0005	<0.0005	**0.130**	**0.210**	**0.120**	**0.070**	**0.050 D**	**0.064 D**	**0.094 D**	**0.098**	**0.079 D**	**0.0744 D**	**0.0302 D**	**0.00056**	**0.00066**	<0.0005	<0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	**0.001**	**0.001**	<0.0005	< 0.0005	< 0.001	< 0.005	< 0.01	<0.01	<0.010	<0.005	<0.0005	<0.0005	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	< 0.0005	< 0.0005	<0.0005	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.005	<0.005	<0.0025	-	-	-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.0025	<0.0025	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.050	-	-	-	-	-	< 0.002	< 0.01	< 0.05	<0.02	<0.020	<0.01	-	-	< 0.010	< 0.020	-	-	-	< 0.002	< 0.008	< 0.005	< 0.002	<0.010	<0.010	-		-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.005 J	**0.0171 D**	**0.0581 D**	**0.0384 D**	**0.120**	**0.170**	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	<0.005	<0.005	**0.024**	**0.025**	**0.044**	**0.050**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.015	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	<0.01	<0.010	<0.005	<0.0005	<0.0005	< 0.005	< 0.006	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	<0.005	<0.005	< 0.0005	< 0.0005	<0.0005	<0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume											Cross Gradient											
					ETMW-118											ETMW-119											
					12/20/1994	3/31/1995	5/26/1998	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	10/24/2007 (DUP-01)	12/9/2008	12/15/2009	12/20/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	10/25/2005 (DUP 1)	4/18/2006	4/17/2007	10/25/2007	12/9/2008	12/9/2008 DUP-1	12/14/2009	12/14/2009 DUP-1
Acetone	67-64-1	mg/L	4		< 0.005	< 0.05	-	< 0.01	**0.021**	< 0.02	< 0.01	**0.192 D**	<0.5	<0.5	**0.37**	**0.56**	< 0.005	< 0.050	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0212**	<0.01	<0.01	<0.01	<0.01	<0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.05	-	< 0.01	< 0.01	< 0.02	< 0.01	<0.050	<0.5	<0.5	**0.26**	**0.49**	< 0.01	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0998 DH**	<0.01	<0.01	<0.01	<0.05	<0.05
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	-	< 0.0005	**0.00079**	< 0.002	< 0.0005	**0.00370 D**	<0.025	<0.025	**0.0028**	**0.0012**	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.001	-	< 0.001	< 0.001	**0.0038**	**0.00437**	<0.005	<0.05	<0.05	**0.0032**	**0.0019**	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.001	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	-	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.014**	**0.021**	**0.01884**	**0.0033**	**0.014**	**0.011**	**0.00961**	**0.0139 D**	<0.025	<0.025	**0.014**	**0.012**	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	**0.0046**	**0.00292**	**0.00061**	**0.0037**	**0.0054**	**0.00489**	**0.00575 D**	<0.025	<0.025	**0.003**	**0.0024**	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.012**	**0.023**	**0.01722**	**0.0057**	**0.120 D**	**0.13**	**0.127 D**	**0.117 D**	**0.108 D**	**0.111 D**	**0.088**	**0.096**	< 0.05	**0.0016**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	-	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	< 0.050	< 0.050	< 0.2	< 0.050	**25.6 DH**	**13.0 D**	**13.2 D**	**0.069**	<0.05	-	-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.050	< 0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.002	< 0.002	< 0.004	< 0.002	<0.010	<0.100	<0.100	-	-	< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.05	-	< 0.005	< 0.005	< 0.02	< 0.005	<0.025	<0.25	<0.25	-	-	< 0.010	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	<0.005	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	-	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.010	**0.009**	**0.008**	**0.0019**	< 0.0005	**0.0032**	**0.00257**	**0.00460 D**	<0.025	<0.025	**0.0032**	**0.0015**	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	<0.0025	<0.025	<0.025	<0.0005	<0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.069**	**0.110**	**0.08682**	**0.021**	**0.0031**	**0.049**	**0.0316**	**0.0489 D**	**0.0390 D**	**0.0400 D**	**0.037**	**0.018**	<0.005	**0.0034**	< 0.0005	**0.00061**	< 0.001	< 0.001	**0.00053**	**0.00074**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	<0.005	<0.05	<0.05	<0.0005	<0.0005	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.0025	<0.025	<0.025	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.010	-	< 0.002	< 0.002	< 0.01	< 0.002	<0.010	<0.100	<0.100	-	-	< 0.010	< 0.010	< 0.002	< 0.002	< 0.005	< 0.005	< 0.002	< 0.002	<0.002	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.001	< 0.001	< 0.001	**< 0.001**	< 0.002	< 0.001	<0.005	<0.05	<0.05	**0.033**	**0.031**	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	<0.005	<0.05	<0.05	<0.0005	<0.0005	< 0.005	< 0.003	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
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May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
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April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient											Upgradient											
					ETMW-120											ETMW-121											
					12/20/1994	3/31/1995	5/26/1998	5/26/98 DUP	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/23/2007	12/11/2008	12/14/2009	12/20/1994	3/31/1995	5/27/1998	8/23/2000	11/10/2000	1/24/2001	4/7/2004	4/28/2005	10/26/2005	4/19/2006	4/18/2007	10/23/2007	12/11/2008	12/14/2009
Acetone	67-64-1	mg/L	4		< 0.005	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	< 0.005	< 0.05	-	**0.009**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.010	<0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.010	<0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	< 0.010	< 0.001	-	<0.0005	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.001	**0.00184**	**0.00166**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.05	**0.0048**	**0.00543**	**0.00525**	**0.0011**	**0.0012**	**0.0052**	< 0.0005	**0.00135**	**0.00094**	**0.00056**	**0.00073**	< 0.05	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0005	<0.0005	<0.0005	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.05	<0.05	<0.05	-	-	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.05	<0.050	<0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	-	< 0.005	< 0.001	-	**0.0009**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.05	-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	-	-	< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.010	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.010	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	**0.0018**	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	<0.005	**0.0017**	**0.00138**	**0.00128**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.005	< 0.001	< 0.001	**0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.010	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	-	-	< 0.010	< 0.010	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005	< 0.010	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	<0.0005	< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	<0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient								Cross Gradient									
					OBGMW-122								OBGMW-123									
					8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	9/8/2000	11/9/2000	1/24/2001	4/29/2002	4/6/2004	4/6/2004 DUP	4/27/2005	10/25/2005	4/20/2006	4/18/2007
Acetone	67-64-1	mg/L	4		**0.016**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.003	< 0.003	< 0.003	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	**0.003**	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0.001 [2]		<0.0005	< 0.0005	<0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	<0.0005	<0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.0005	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.0005	<0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	<0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	< 0.0005	< 0.0005	<0.0005	-	-	-	-	-	<0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	< 0.050	< 0.050	<0.050	< 0.050	< 0.050	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		**0.001**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	**0.001**	< 0.0005	< 0.0005	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	<0.005	< 0.005	< 0.005	< 0.003	< 0.003	< 0.003	-	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005
Naphthalene	91-20-3	mg/L	0.02		< 0.0005	**0.001**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.0005	**0.002**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.0005	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Down Gradient					Cross Gradient									Upgradient		In Plume	
					OBGMW-124					CH2PP-1									CH2PP-2	CH2PP-3[8]	Sump 1	Sump 2
					4/21/2004	4/27/2005	10/26/2005	4/20/2006	4/18/2007	6/30/1998	4/7/2004	4/26/2005	10/25/2005	4/19/2006	4/17/2007	10/24/2007	12/10/2008	12/15/2009	5/29/1998	(not sampled)	11/3/1994	11/3/1994
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	**0.021**	< 0.01	< 0.01	<0.01	<0.01	<0.01	-	-	**0.790**	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01	-	-	**0.420**	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	-	-	< 0.005	< 0.005
Carbon Disulfide	75-15-0	mg/L	4		**0.00063**	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	-	-	< 0.005	< 0.005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005	-	-	< 0.010	< 0.010
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	**1.3**	< 0.010
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	**0.00057**	**0.00055**	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.001	-	**0.240**	< 0.005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	-	-	< 0.005	< 0.005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.001	-	**0.046**	< 0.005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	**0.013**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.001	-	**1.5**	< 0.005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	-	-	< 0.005	< 0.005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-	< 0.005	< 0.005
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	<0.050	<0.050	<0.050	-	-	-	-
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	-	-	-	-	< 0.005	< 0.005
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	<0.005	-	-	-	-	< 0.010	< 0.010
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-	< 0.005	< 0.005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.001	-	**0.077**	< 0.005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	-	-	**0.018**	< 0.005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.001	-	**0.140**	< 0.005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.001	-	**0.250**	**0.016**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005	-	-	-	-
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	<0.0005	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	<0.002	-	-	-	-	< 0.010	< 0.010
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.0005	<0.0005	< 0.001	-	< 0.010	< 0.010
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	<0.001	<0.001	<0.0005	<0.0005	-	-	< 0.005	< 0.005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)

- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)

- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)

- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation

- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring

- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

Historical Summary of Ground Water Geochemical Parameters

APPENDIX A.2.
Historical Summary of Ground Water Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Downgradient CH2MW-1									Downgradient CH2MW-1A							Upgradient CH2MW-2									
		4/29/2002	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/24/2007	12/8/2008	12/14/2009	4/29/2002	4/7/2004	4/28/2005	10/26/2005	4/20/2006	4/19/2007	10/22/2007	5/29/1998	8/23/2000	11/21/2000	1/24/2001	4/6/2004	4/27/2005	10/25/2005	4/18/2006	4/18/2007	10/22/2007
Laboratory Parameters																										
Alkalinity	mg/L	-	-	-	-	-	-	-	-	-	-	**22**	**2.6**	NA	**24**	NA	-	**2.0**	< 10	< 10	< 10	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-	-	-	**15**	**8.8**	**11**	**9.4**	**7.8**	**-**	**38.5**	**37.6**	**33.7**	**39.3**	**-**	**-**	-	-	-	-
Iron	mg/L		-	-	-	-	-	-	-	**-**	-	**0.63**	**1.2**	NA	**1.8**	**2.1**	**-**	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	-	-	< 0.05	< 0.05	NA	< 0.050	<0.050	-	-	**15.1**	**0.3**	**0.2**	**-**	**-**	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	**1.6**	**0.27**	**0.64**	**0.71**	**1.2**	**-**	**5.6**	**6.12**	**6.2**	**6.95**	**-**	**-**	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.07	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-	**-**	-	**1.3**	**2.7**	< 2.0	**1.6**	**7.7**	**-**	**14**	**19.7**	**27**	**20.2**	**-**	**-**	-	-	-	-
Sulfide	mg/L	-	-	-	-	-	-	-	-	-	-	< 0.8	< 0.9	NA	< 0.80	NA	-	< 1.0	< 0.2	< 0.5	< 0.5	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-	-	-	-	-	< 2.0	< 5.0	< 2.0	< 2.1	<0.0021	-	**0.747**	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-
Ethane	ug/L	-	-	-	-	-	-	-	-	**-**	-	< 4.0	< 5.0	< 4.0	< 4.2	<0.0042	-	**0.039**	< 0.01	< 0.01	< 0.01	-	-	-	-	-	-
Ethene	ug/L	-	-	-	-	-	-	-	-	**-**	-	< 4.0	< 5.0	< 4.0	< 4.2	<0.0042	-	**0.055**	**0.02**	< 0.01	< 0.01	-	-	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	-	-	-	**-**	-	**1.3**	**11**	NA	-	**2.7**	**-**	**2.7**	**18.4**	**23.1**	**37**	**-**	**-**	-	-	-	-
Total Organic Carbon	mg/L	-	-	-	-	-	-	-	-	-	-	**1.3**	**9.6**	**3.5**	**6.3**	**3.9**	**-**	-	**37.4**	**29.1**	**47.4**	**-**	**-**	-	-	-	-
Field Parameters																										
Ferrous Iron	mg/L	-	-	ND	**-**	**-**	ND	ND	ND	ND	-	**0.3**	ND	**2.87**	**-**	**0.6**	**-**	< 0.20	**0.7**	**0.4**	**0.01**	**-**	ND	-	-	ND	-
Carbon Dioxide	mg/L	**-**	**-**	**20**	**-**	**-**	**>100**	**80**	**75**	-	**-**	**14**	**13**	**70**	**-**	**>100**	**-**	**-**	**-**	**-**	**-**	**-**	**13**	-	-	**95**	**-**
pH	S.U.	**4.60**	**4.54**	**5.51**	**4.52**	**5.11**	**5.05**	**5.33**	**5.16**	**4.71**	**5.50**	**5.47**	**5.90**	**5.33**	**5.13**	**5.36**	**-**	**4.36**	**4.50**	**4.40**	**3.78**	**4.11**	**3.71**	**4.41**	**5.03**	**5.47**	**-**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**4.9**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.29**
Conductivity	mS/cm	**0.090**	**0.139**	**0.183**	**0.128**	**0.137**	**0.115**	**0.134**	**0.218**	**0.169**	**0.080**	**0.102**	**0.137**	**0.088**	**0.098**	**0.092**	**-**	**0.220**	**0.270**	**0.317**	**0.215**	**0.232**	**0.284**	**0.206**	**0.217**	**0.207**	**-**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.019**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.039**
Dissolved Oxygen	mg/L	**5.50**	**4.53**	**3.93**	**3.44**	**5.93**	**4.96**	**3.53**	**0.01**	**3.15**	**5.30**	**4.07**	**2.52**	**1.12**	**4.78**	**0.79**	**-**	**4.39**	**8.70**	**9.60**	**4.70**	**2.20**	**1.45**	**1.86**	**4.12**	**4.86**	**-**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.74**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.52**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**4.0**	**2.5**	**2.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Oxidation/Reduction Potential (ORP)	mV	**293**	**527**	**222**	**179**	**414**	**340**	**124**	**403**	**348**	**231**	**499**	**181**	**186**	**357**	**353**	**-**	**252.9**	**32.5**	**404**	**248**	**553**	**387**	**234**	**448**	**399**	**-**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**262.4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**251**
Temperature	°C	-	**21.30**	**20.57**	**20.35**	**23.07**	**21.62**	**25.71**	**20.84**	**23.1**	-	**19.75**	**19.46**	**23.99**	**19.97**	**19.57**	**-**	-	**27.88**	-	**14.60**	**20.64**	**19.51**	**24.79**	**20.24**	**19.66**	**-**
Temperature (Downhole Probe)	°C	-	-	-	-	-	-	-	**-**	**-**	-	-	-	-	-	**-**	**25.96**	-	-	-	-	-	-	-	-	-	**25.84**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Upgradient														Cross Gradient										
		CH2MW-3														CH2MW-4D										
		5/29/1998	8/23/2000	11/21/2000	11/21/00 DUP	1/24/2001	4/6/2004	4/27/2005	4/27/2005 (DUP2)	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008	12/16/2009	8/23/2000	11/21/2000	1/25/2001	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009
Laboratory Parameters																										
Alkalinity	mg/L	**4.0**	< 10	< 10	< 10	< 10	< 10	**18**	**18**	< 10	**12**	<10	<10	**58**	**45**	**39.5**	**62**	**32**	**-**	**-**	-	-	-	-	-	-
Chloride	mg/L	**14**	**18.6**	**19**	**18.8**	**13.2**	**14**	**9.9**	**13**	**18**	**9.3**	**6.7**	**12**	**3.1**	**5.2**	< 3.0	< 3.0	< 3.0	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	<0.05	0.11	<0.05	< 0.050	**0.094**	**0.072**	**0.16**	<0.10	<0.10	-	-	-	-	-	-	-	-	-	-	**-**
Manganese	mg/L	**-**	**1.8**	**0.6**	**-**	**0.3**	<0.05	<0.05	<0.05	< 0.050	< 0.050	<0.050	<0.050	-	<0.015	<0.05	**1.5**	**0.2**	**-**	**-**	-	-	-	-	-	-
Nitrate (as N)	mg/L	**0.8**	**2.26**	**2.38**	**2.36**	**0.906**	**0.65**	**0.55**	**0.79**	**1.6**	**0.61**	**0.51**	**1.1**	**0.25**	**0.27**	**0.87**	**-**	**0.896**	**-**	**-**	-	-	-	-	-	-
Nitrite	mg/L	< 0.07	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	**-**	**-**	-	< 0.05	-	< 0.05	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**	-	-	**0.89**	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**5.8**	**6.71**	**5.4**	**6.0**	**49.8**	**41**	**39**	**32**	**16**	**38**	**44**	**19**	**34**	**41**	< 5.0	< 5.0	< 5.0	-	-	-	-	-	-	-	**-**
Sulfide	mg/L	< 1.0	< 0.2	**0.6**	**0.6**	< 0.5	< 1.6	< 0.8	< 0.8	< 0.8	< 0.80	<1.0	<1.0	<1.0	<1.0	< 0.2	< 0.5	< 0.5	-	-	-	-	-	-	-	-
Methane	ug/L	**0.559**	<0.2	< 0.2	< 0.2	< 0.2	< 2.0	< 5.0	< 5.0	< 2.0	< 2.1	<2.3	<2.1	<10	**24**	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-	-	-
Ethane	ug/L	**0.016**	< 0.01	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0	< 5.0	< 4.0	< 4.2	<4.5	<4.1	<10	<10	**0.01**	< 0.01	**0.02**	**-**	**-**	-	-	-	-	-	**-**
Ethene	ug/L	**0.017**	< 0.01	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0	< 5.0	< 4.0	< 4.2	<4.5	<4.1	<10	<10	**0.08**	**0.01**	**0.01**	**-**	**-**	-	-	-	-	-	**-**
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	< 2.00	**9.98**	**8.75**	**19.1**	**19.4**	**1.8**	**3.8**	**3.9**	**6.8**	**16**	**1.7**	**2.1**	**4.2**	**1.5**	**5.95**	**3.91**	**4.44**	**-**	**-**	-	-	-	-	-	**-**
Total Organic Carbon	mg/L	-	**22.9**	**26.1**	**20.7**	**22.3**	**2.1**	**2.6**	**3.0**	**2.4**	**3.1**	**3.6**	**2.1**	**4.1**	**2.3**	**5.71**	**7.8**	**6.78**	**-**	**-**	-	-	-	-	-	-
Field Parameters																										
Ferrous Iron	mg/L	< 0.20	**0.23**	**0.02**	**-**	**0.02**	**0.1**	ND	-	**0.31**	ND	**0.5**	ND	ND	ND	**0.4**	**0.38**	**0.01**	**-**	ND	-	-	ND	**0.2**	ND	ND
Carbon Dioxide	mg/L	**-**	**-**	**-**	**-**	**-**	**14**	**14**	-	**50**	**14**	**75**	**30**	**50**	-	**-**	**-**	**-**	**-**	**14**	-	-	**30**	**14**	**15**	**20**
pH	S.U.	**4.56**	**4.35**	**4.61**	**-**	**4.35**	**5.06**	**5.12**	-	**4.57**	**4.91**	**5.10**	**4.56**	**6.45**	**6.53**	**6.50**	**4.87**	**6.01**	**8.59**	**8.67**	**7.66**	**7.86**	**6.66**	**6.56**	**7.30**	**6.71**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**4.49**		-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**7.01**	**7.54**	-
Conductivity	mS/cm	**0.086**	**0.130**	**0.146**	**-**	**0.167**	**0.150**	**0.186**	-	**0.106**	**0.170**	**0.152**	**0.095**	**0.178**	**0.203**	**0.100**	**0.122**	**0.09**	**0.071**	**0.081**	**0.067**	**0.069**	**0.066**	**0.059**	**0.078**	**0.077**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**0.032**		-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.016**	**0.061**	-
Dissolved Oxygen	mg/L	**4.23**	**4.80**	**6.85**	**-**	**6.01**	**5.50**	**2.36**	-	**1.83**	**6.66**	**6.90**	**3.85**	**5.7**	**4.95**	**9.50**	**9.18**	**5.14**	**4.70**	**4.11**	**5.16**	**7.05**	**7.10**	**4.76**	**-**	**6.03**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**5.20**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.35**	**7.06**	-
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	**5**	**6**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5**	**6**
Oxidation/Reduction Potential (ORP)	mV	**271.6**	**353**	**363**	**-**	**209**	**644**	**446**	-	**187**	**370**	**339**	**206**	**190**	**175**	**193**	**60**	**59**	**436**	**282**	**172**	**411**	**360**	**188**	**380**	**158**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**354.1**		-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**158**	**79**	-
Temperature	°C	-	**27.97**	-	-	**20.72**	**20.31**	**20.78**	-	**23.80**	**21.91**	**22.91**	**23.95**	**20.45**	**21.33**	**27.90**	-	**22.77**	**22.85**	**21.87**	**23.39**	**23.13**	**23.19**	**23.03**	**22.77**	**22.7**
Temperature (Downhole Probe)	°C	-	-	-	-	-	-	-	-	-	-	-	**25.60**		-	-	-	-	-	-	-	-	-	**24.99**	**23.94**	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was r
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2(
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient								In Plume											
		CH2MW-5								ETCMW-113											
		4/7/2004	4/27/2005	10/26/2005	10/26/2005 (DUP02)	4/20/2006	DUP2-042006	4/17/2007	10/22/2007	5/27/1998	9/7/2000	11/21/2000	1/25/2001	4/6/2004	4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009
Laboratory Parameters																					
Alkalinity	mg/L	**60**	**98**	**36**	**34**	**110**	**120**	**42**	**-**	**8**	< 10	< 10	< 10	-	-	-	-	-	-	**100**	**170**
Chloride	mg/L	**5.6**	**2.8**	**6.6**	**7.2**	**8.3**	**8.2**	**5.1**	**-**	**13.5**	**12.9**	**11.7**	**13.4**	**-**	**-**	-	-	-	-	**10**	**11**
Iron	mg/L	**4.2**	**1.3**	**2.7**	**3.5**	**0.077**	< 0.050	**0.81**	**-**	-	-	-	-	-	-	-	-	-	-	**7.9**	**5.5**
Manganese	mg/L	< 0.05	< 0.05	< 0.050	< 0.050	< 0.050	< 0.050	<0.050	-	**-**	**5.6**	**0.3**	**0.2**	<0.05	<0.05	-	-	-	-	-	**0.016**
Nitrate (as N)	mg/L	**1**	**0.57**	**1.6**	**1.7**	**1.6**	**1.6**	**0.96**	**-**	**10.2**	**7.05**	**10.7**	**11.8**	**-**	**-**	-	-	-	-	**0.021**	<0.020
Nitrite	mg/L	-	-	-	-	-	-	-	-	< 0.07	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**4.5**	**2.2**	**2.5**	**2.5**	**1.4**	**1.4**	**2.8**	**-**	**10.1**	< 5	**5.8**	< 5	-	-	-	-	-	-	**12**	**14**
Sulfide	mg/L	< 0.8	< 0.8	< 0.8	< 0.8	< 0.80	< 0.80	**1.7**	**-**	< 1.0	< 0.2	**0.8**	< 0.5	-	-	-	-	-	-	**<1.0**	<1.0
Methane	ug/L	< 0.002	< 5.0	< 2.0	< 2.0	**7.30**	**2000**	<0.0021	-	**0.149**	< 0.2	< 0.2	**0.3**	**-**	**-**	-	-	-	-	**4100**	**2800**
Ethane	ug/L	< 0.004	< 5.0	< 4.0	< 4.0	< 4.9	< 49	<0.0042	-	**0.029**	**0.09**	< 0.01	**0.13**	**-**	**-**	-	-	-	-	<10	<10
Ethene	ug/L	< 0.004	< 5.0	< 4.0	< 4.0	< 4.9	< 49	<0.0042	-	< 0.005	**0.02**	< 0.01	**0.03**	**-**	**-**	-	-	-	-	<10	<10
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	**1.8**	**11**	**2.9**	**11**	**2.5**	**16**	**2.1**	**-**	-	**4.42**	**6.65**	**8.51**	**-**	**-**	-	-	-	-	**5**	**1.5**
Total Organic Carbon	mg/L	**1.7**	**9.6**	**2.2**	**2.4**	**2.8**	**2.8**	**2.8**	**-**	-	**7.94**	**5.6**	**11.7**	**-**	**-**	-	-	-	-	**5.2**	**2.7**
Field Parameters																					
Ferrous Iron	mg/L	**0.2**	**0.5**	**2.2**	-	ND	-	**1.0**	**-**	< 0.20	**11**	**0.03**	**0.05**	**-**	**1**	-	-	**4.2**	**6.6**	**6.8**	**1.6**
Carbon Dioxide	mg/L	**18**	**15**	**40**	-	**14**	-	**55**	**-**	**-**	**-**	**-**	**-**	**-**	**14**	-	-	**>100**	**>100**	**>100**	-
pH	S.U.	**6.10**	**6.40**	**5.51**	-	**5.79**	-	**6.22**	**-**	**5.83**	**4.94**	**4.70**	**4.09**	**6.12**	**6.53**	**6.21**	**5.71**	**4.67**	**4.64**	**6.38**	**6.78**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	-	**-**	-	**-**	**6.20**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.72**	**-**	-
Conductivity	mS/cm	**0.126**	**0.196**	**0.100**	-	**0.263**	-	**0.122**	**-**	**0.169**	**0.190**	**0.220**	**0.293**	**0.197**	**0.342**	**0.352**	**0.298**	**0.668**	**0.320**	**0.263**	**0.550**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	-	**-**	-	**-**	**0.038**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.097**	**-**	**-**
Dissolved Oxygen	mg/L	**5.10**	**2.85**	**1.77**	-	**4.00**	-	**2.45**	**-**	**6.79**	**6.30**	**8.89**	**6.71**	**6.12**	**2.47**	**1.27**	**6.39**	**0.62**	**2.93**	**0.0**	**1.07**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	-	**-**	-	**-**	**2.15**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**7.85**	**-**	**-**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	-	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.0**	**3**	**3**
Oxidation/Reduction Potential (ORP)	mV	**457**	**156**	**184**	-	**395**	-	**320**	**-**	**192.2**	**261**	**196**	**217**	**446**	**217**	**192**	**348**	**259**	**67**	**-8**	**158**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	-	**-**	-	**-**	**249.2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**89**	**-**	-
Temperature	°C	**17.99**	**19.79**	**22.40**	-	**19.42**	-	**20.50**	**-**	-	**24.10**	-	**19.28**	**18.06**	**18.02**	**23.34**	**20.43**	**18.75**	**23.53**	**19.86**	**16.99**
Temperature (Downhole Probe)	°C	-	-	-	-	-	-	-	**25.15**	-	-	-	-	-	-	-	-	-	**24.64**	**-**	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was r
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2(
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume ETCMW-114																In Plume CH2MW-114D							
		5/27/1998	8/23/2000	9/7/2000	11/21/2000	1/24/2001	1/24/2001 DUP	4/29/2002	4/7/2004	4/7/2004 (DUP-2)	4/29/2005	10/27/2005	4/20/2006	4/17/2007	DUP-01 (4/17/2007)	10/23/2007	12/10/2008	12/16/2009	4/7/2004	4/29/2005	10/26/2005	4/20/2006	4/19/2007	10/24/2007	12/8/2008	12/14/2009
Laboratory Parameters																										
Alkalinity	mg/L	112	82.2	-	128	134	135	-	94	96	120	120	140	470	500	350	220	230	< 10	3000	2200	830	-	-	-	-
Chloride	mg/L	32.5	90.1	-	108	82.8	82.1	-	37	37	26	32	29	110	110	73 D	26	18	2.1	89	190	200	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	2	1.8	0.22	0.88	1.0	11	11	0.85	0.96	0.16	17	55	79	160	-	150	-	-
Manganese	mg/L	-	0.5	-	0.3	0.3	-	-	< 0.05	< 0.05	<0.05	< 0.050	< 0.050	0.54	0.55	0.080	-	0.023	< 0.05	0.64	0.53	0.26	-	0.22	-	-
Nitrate (as N)	mg/L	7.6	18.15	-	-	44.8	45.8	-	1.2	1.1	8.2 H	1.4	-	<0.02	<0.02	1.9 D	3.4	4.7	0.46	<0.5 H	1.2	< 0.50	-	-	-	-
Nitrite	mg/L	< 0.07	0.053	-	-	< 0.05	< 0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	58	-	-	-	-	-	-	-	< 0.050	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	12.8	54.1	-	110	75.6	75.6	-	33	33	39	31	51 D	<1.0	<1.0	35 D	22	29	3.6	47	100	150	-	-	-	-
Sulfide	mg/L	< 1.0	-	< 0.2	0.5	< 0.5	< 0.5	-	< 0.8	< 0.8	< 0.8	< 0.8	< 0.80	<1.0	1.8	<1.0	<1.0	<1.0	< 0.8	<0.8	< 0.8	1.4	-	-	-	-
Methane	ug/L	129.2	43.9	-	0.5	< 0.2	< 0.2	-	< 2.0	< 2.0	< 5.0	14	14	0.14	0.14	54	<10	27	< 2.0	< 5.0	< 2.0	-	2.8	-	-	-
Ethane	ug/L	0.249	0.16	-	0.03	0.03	0.02	-	< 4.0	< 4.0	< 5.0	< 4.0	< 4.5	<44	<44	<4.2	<10	<10	< 4.0	< 5.0	< 4.0	-	<0.21	-	-	-
Ethene	ug/L	0.205	0.51	-	0.03	0.01	0.01	-	< 4.0	< 4.0	< 5.0	< 4.0	< 4.5	7.0	7.6	38	<10	<10	< 4.0	< 5.0	< 4.0	-	<0.21	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	32.9	40.6	27.3	-	2.3	2.2	2.9	12	17	41	42	3.4	3.8	3.3	1.1	8,900	4800	-	2	1600 D	-	-
Total Organic Carbon	mg/L	-	21.6	-	40.5	51.2	52.2	-	2.6	2.6	2.2	3.2	14.0	51.0	47.0	4.4	2.8	3.5	2.3	9,800	3500	3800	-	1700 D	-	-
Field Parameters																										
Ferrous Iron	mg/L	< 0.20	0.2	-	0.05	0.03	-	-	0.8	0.8	ND	0.19	ND	4.2	-	1.2	ND	ND	0.2	5.0	2.0	-	4.2	-	5.2	>10
Carbon Dioxide	mg/L	-	-	-	-	-	-	-	20	22	14	30	14	>100	-	90	80	-	> 100	50	350 D	-	>100	-	>100	-
pH	S.U.	6.36	-	6.60	4.70	4.80	-	6.10	6.38	-	6.61	6.46	6.16	6.73	-	6.20	6.67	6.80	5.60	5.95	6.08	5.58	5.55	4.88	5.12	5.50
pH (Downhole Probe)	S.U.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.34	6.76	-	-	-	-	-	-	-	-	-
Conductivity	mS/cm	0.375	-	0.0012	1.26	0.7350	-	0.330	0.333	-	0.485	0.342	0.437	1.295	-	0.958	0.566	0.611	0.030	3.620	4.650	2.050	2.780	2.020	2.560	2.49
Conductivity (Downhole Probe)	mS/cm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.210	0.496	-	-	-	-	-	-	-	-	-
Dissolved Oxygen	mg/L	0.19	-	3.10	10.55	6.40	-	0.0	2.76	-	3.02	1.31	0.70	0.68	-	0.96	-	1.78	3.30	0.97	0.51	3.00	0.90	0.54	0	0.90
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.67	1.01	-	-	-	-	-	-	-	-	-
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	3	3	-	-	-	-	-	-	1.5	1.5
Oxidation/Reduction Potential (ORP)	mV	167.5	-	98	134	127	-	171	471	-	66	160	356	255	-	150	356	151	463	-8	-76	289	309	97	22	124
Oxidation/Reduction Potential (Downhole Probe)	mV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	97.2	115	-	-	-	-	-	-	-	-	-
Temperature	°C	-	26.55	-	-	16.40	-	-	17.26	-	17.98	22.88	18.56	18.14	-	24.36	18.10	17.50	19.36	20.43	21.06	21.65	20.59	22.89	18.88	22.29
Temperature (Downhole Probe)	°C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.91	18.27	-	-	-	-	-	-	-	-	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was r
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2(
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume								In Plume											
		ETCMW-115								ETMW-116											
		4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008	12/16/2009	5/26/1998	8/23/2000	11/21/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009
Laboratory Parameters																					
Alkalinity	mg/L	-	-	-	-	-	**230**	**260**	**250**	**38**	**12.5**	< 10	**62**	**-**	**-**	-	-	-	**670**	**370**	**330**
Chloride	mg/L	-	-	-	-	-	**6.4 D**	**4.4**	**2.3**	**12**	**11.7**	**8.77**	**11.6**	**-**	**-**	-	-	-	**16**	**19**	**29**
Iron	mg/L	-	-	-	-	-	**1.9**	**2.9**	**12**	-	-	-	-	-	-	-	-	-	**48**	**25**	**27**
Manganese	mg/L	-	-	-	-	-	**0.074**	**-**	**0.087**	-	**0.2**	**0.3**	**0.1**	**-**	**-**	-	-	-	**0.58**	**-**	**0.20**
Nitrate (as N)	mg/L	-	-	-	-	-	**2.5 D**	**0.24**	<0.020	**6.2**	**8.25**	**-**	**7.7**	**-**	**-**	-	-	-	<0.10	**0.065**	<0.020
Nitrite	mg/L	-	-	-	-	-	-	**-**	-	< 0.07	< 0.05	-	**0.405**	**-**	**-**	-	-	-	-	**-**	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	**-**	**-**	-	-	-	**7.72**	**-**	**-**	**-**	-	-	-	-	**-**	'-
Sulfate	mg/L	-	-	-	-	-	**10 D**	**28**	**7.4**	**14.8**	**5.12**	**5.2**	**42.8**	**-**	**-**	-	-	-	<5.0	**9.8**	<1.0
Sulfide	mg/L	-	-	-	-	-	<1.0	<1.0	<1.0	< 1.0	< 0.2	-	< 0.5	-	-	-	-	-	<1.0	**2.8**	<1.0
Methane	ug/L	-	-	-	-	-	**0.019**	**41**	**160**	**0.247**	< 0.2	< 0.2	< 0.2	-	-	-	-	-	**3500 D**	**5800**	**5800**
Ethane	ug/L	-	-	-	-	-	<0.42	<10	<10	**0.093**	**0.07**	**0.01**	**0.01**	**-**	**-**	-	-	-	<210	<10	<10
Ethene	ug/L	-	-	-	-	-	<0.42	<10	<10	**0.023**	**0.04**	**0.03**	**0.02**	**-**	**-**	-	-	-	<210	<10	<10
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	**3.5**	**4.4**	**2.3**	-	**9.14**	**7.7**	**25.4**	**-**	**-**	-	-	-	**9.6**	**19**	**9.4**
Total Organic Carbon	mg/L	-	-	-	-	-	**4.1**	**3.6**	**3.0**	-	**15.1**	**9.1**	**32**	**-**	**-**	-	-	-	**16**	**17**	**12**
Field Parameters																					
Ferrous Iron	mg/L	**-**	**4.3**	-	-	**4.8**	**2.8**	**0.6**	**0.6**	< 0.20	ND	**0.02**	ND	-	**5.0**	-	-	**6.0**	**6.2**	**6.4**	**6.6**
Carbon Dioxide	mg/L	**276**	**19**	-	-	**>100**	**60**	**10**	-	**-**	**-**	**-**	**-**	**-**	**15**	-	-	**>100**	**>100**	**>100**	**>100**
pH	S.U.	**5.87**	**6.37**	**5.82**	**5.70**	**5.70**	**6.01**	**6.76**	**6.70**	**6.18**	**5.50**	**4.35**	**4.76**	**5.88**	**5.03**	**4.99**	**5.56**	**4.89**	**6.17**	**6.38**	**6.17**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**6.01**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.29**	**-**	-
Conductivity	mS/cm	**0.166**	**0.366**	**0.174**	**0.205**	**0.184**	**0.456**	**0.462**	**0.469**	**0.181**	**0.180**	**0.186**	**0.220**	**0.141**	**2.370**	**1.540**	**0.983**	**1.456**	**0.988**	**0.710**	**0.782**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**0.063**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.301**	**-**	-
Dissolved Oxygen	mg/L	**0.38**	**0.23**	**0.54**	**2.09**	**0.49**	**2.65**	**0.62**	**0.97**	**1.51**	**3.90**	**9.93**	**7.59**	**3.63**	**0.15**	**0.45**	**0.35**	**0.42**	**0.24**	**0**	**0.37**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**4.87**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**13.32**	**-**	-
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**2**	**1.0**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2.0**	**1.5**	**2**
Oxidation/Reduction Potential (ORP)	mV	**276**	**131**	**84**	**377**	**312**	**162**	**68**	**174**	**190.5**	**199**	**157**	**119**	**560**	**141**	**108**	**281**	**309**	**-34**	**-79**	**106**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**133.3**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-92.5**	**-**	-
Temperature	°C	**20.07**	**20.32**	**22.58**	**22.36**	**21.45**	**27.50**	**18.61**	**17.56**	-	-	**17.55**	-	**17.42**	**18.23**	**23.81**	**19.10**	**18.82**	**24.43**	**19.13**	**19.60**
Temperature (Downhole Probe)	°C	-	-	-	-	-	**27.02**	**-**	-	-	-	-	-	-	-	-	-	-	**24.55**	**-**	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was r
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2(
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume ETMW-117													In Plume ETMW-118								
		8/23/2000	11/21/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/08 DUP-2	12/15/2009	12/15/2009 DUP - 2	5/26/1998	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/24/2007	12/9/2008	12/15/2009
Laboratory Parameters																							
Alkalinity	mg/L	**13.9**	< 10	**58**	**-**	**-**	-	-	-	**86**	**180**	**200**	**170**	**150**	< 2.0	-	-	-	-	-	-	**180**	<10
Chloride	mg/L	**10.7**	**12**	**6.73**	**-**	**-**	-	-	-	**8.8 D**	**21**	**20**	**23**	**23**	**11.5**	**-**	**-**	-	-	-	-	**18**	**18**
Iron	mg/L	-	-	-	-	-	-	-	-	**50**	**36**	**36**	**39**	**35**	-	-	-	-	-	-	-	**96**	**64**
Manganese	mg/L	**6.3**	**0.2**	<0.05	-	-	-	-	-	**0.76**	**-**	**-**	**0.29**	**0.25**	-	-	-	-	-	-	-	-	**0.39**
Nitrate (as N)	mg/L	**6.72**	-	**4.47**	**-**	**-**	-	-	-	<0.10	**0.051**	<.020	<0.020	<0.020	**9.4**	**-**	**-**	-	-	-	-	**0.062**	<0.020
Nitrite	mg/L	< 0.05	-	< 0.05	-	-	-	-	-	-	**-**	**-**	-	-	< 0.07	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	**6.72**	**7.64**	-	-	-	-	-	-	-	**-**	**-**	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**7.62**	**5.2**	**19.7**	**-**	**-**	-	-	-	<5.0	<1.0	<1.0	<1.0	<1.0	**8.1**	**-**	**-**	-	-	-	-	**2.3**	**2.0**
Sulfide	mg/L	-	**0.6**	< 0.5	-	-	-	-	-	<1.0	**1.3**	**1.2**	<1.0	<1.0	< 1.0	-	-	-	-	-	-	**3.1**	**2.9**
Methane	ug/L	< 0.2	< 0.2	< 0.2	-	-	-	-	-	**3600 D**	**5900**	**5100**	**6300**	**5600**	**0.508**	**-**	**-**	-	-	-	-	**4900**	**4200**
Ethane	ug/L	**0.02**	**0.02**	**0.01**	**-**	**-**	-	-	-	<210	<10	<10	<10	<10	**0.044**	**-**	**-**	-	-	-	-	<10	<10
Ethene	ug/L	**0.03**	**0.02**	**0.03**	**-**	**-**	-	-	-	<210	<10	<10	<10	<10	**0.036**	**-**	**-**	-	-	-	-	<10	<10
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	**8.44**	**28.3**	**-**	**-**	-	-	-	**910 D**	**51**	**33**	**4.1**	**4.8**	-	-	-	-	-	-	-	**2300**	**1100**
Total Organic Carbon	mg/L	**7.9**	**17.3**	**38.7**	**-**	**-**	-	-	-	**930 D**	**55**	**38**	**7.6**	**10**	-	-	-	-	-	-	-	**2400**	**1100**
Field Parameters																							
Ferrous Iron	mg/L	ND	**0.03**	**0.01**	**-**	**2.2**	-	-	**5.8**	**7.4**	**6**	**-**	**6.6**	**-**	< 0.20	-	**4.4**	-	-	**5.0**	**6.4**	**5.2**	**7.0**
Carbon Dioxide	mg/L	**-**	**-**	**-**	**-**	**10**	-	-	**>100**	**>100**	**>100**	**-**	**>100**	**-**	**-**	**-**	**15**	-	-	**>100**	**>100**	**>100**	**>100**
pH	S.U.	**5.74**	**3.46**	**4.68**	**5.57**	**6.03**	**5.60**	**5.23**	**4.40**	**4.04**	**5.9**	**-**	**5.85**	**-**	**4.30**	**5.91**	**5.86**	**5.10**	**5.35**	**4.38**	**4.60**	**4.70**	**4.72**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.82**	**-**	**-**	-	-	**-**	**-**	**-**	**-**	**-**	**-**	**4.58**	**-**	-
Conductivity	mS/cm	**0.170**	**0.189**	**0.181**	**0.152**	**0.303**	**0.163**	**0.188**	**1.450**	**0.696**	**0.9**	**-**	**0.588**	**-**	**0.150**	**0.067**	**0.307**	**0.089**	**0.152**	**0.909**	**2.20**	**1.54**	**0.90**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.207**	**-**	**-**	-	-	**-**	**-**	**-**	**-**	**-**	**-**	**0.56**	**-**	-
Dissolved Oxygen	mg/L	**7.40**	**10.58**	**7.52**	**2.38**	**0.49**	**1.05**	**1.86**	**0.42**	**0.38**	**0**	**-**	**0.55**	**-**	**0.07**	**4.23**	**0.34**	**0.46**	**0.59**	**0.50**	**0.40**	**0.00**	**0.0**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**12.96**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**12.49**	**-**	-
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.0**	**3.0**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.5**	**1.5**	**1**
Oxidation/Reduction Potential (ORP)	mV	**212**	**157**	**108**	**555**	**278**	**144**	**363**	**335**	**127**	**-13**	**-**	**132**	**-**	**218**	**519**	**125**	**155**	**346**	**327**	**141**	**133**	**-2**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**90.7**	**-**	**-**	-	-	**-**	**-**	**-**	**-**	**-**		**134.3**	**-**	-
Temperature	°C	**27.14**	-	**18.20**	**20.91**	**21.41**	**26.20**	**22.82**	**22.27**	**25.48**	**19.9**	**-**	**18.93**	**-**	-	**19.68**	**20.50**	**24.86**	**22.71**	**21.01**	**25.30**	**18.08**	**19.6**
Temperature (Downhole Probe)	°C	-	-	-	-	-	-	-	-	**27.39**	**-**	**-**	-	-							**25.81**	**-**	-

Notes:
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NA - Adequate sample volume to perform all analyses was r
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G
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Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient ETMW-119								Cross Gradient ETMW-120							
		4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/25/2007	12/9/2008	12/14/2009	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/23/2007	12/9/2008	12/14/2009
Laboratory Parameters																	
Alkalinity	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Sulfide	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Ethane	ug/L	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Ethene	ug/L	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/L	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Field Parameters																	
Ferrous Iron	mg/L	-	1.0	-	-	4.2	4.8	1.2	0.9	-	3.5	-	-	6.0	0.6	ND	0.5
Carbon Dioxide	mg/L	-	18	-	-	>100	70	95	75	-	15	-	-	65	40	50	45
pH	S.U.	6.21	6.25	5.64	5.82	6.20	5.78	6.87	6.83	5.93	6.19	5.36	5.64	5.5 D	5.87	6.50	6.48
pH (Downhole Probe)	S.U.	-	-	-	-	-	6.22	-	-	-	-	-	-	-	5.97	-	-
Conductivity	mS/cm	0.295	0.449	0.203	0.281	0.554	0.342	0.512	0.612	0.136	0.218	0.097	0.144	0.161	0.216	0.237	0.326
Conductivity (Downhole Probe)	mS/cm	-	-	-	-	-	0.13	-	-	-	-	-	-	-	0.048	-	-
Dissolved Oxygen	mg/L	3.47	0.33	1.34	1.31	2.78	0.57	0	0.40	2.66	0.69	0.67	2.19	5.00	3.05	1.94	4.34
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	6.55	-	-	-	-	-	-	-	3.64	-	-
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	-	2.0	2.0	3.0	-	-	-	-	-	3.5	5	4
Oxidation/Reduction Potential (ORP)	mV	486	138	115	370	251	128	157	108	485	169	92	379	327	175	361	153
Oxidation/Reduction Potential (Downhole Probe)	mV	-	-	-	-	-	57.5	-	-	-	-	-	-	-	286.8	-	-
Temperature	°C	19.07	19.97	20.86	20.73	19.18	23.71	16.63	18.64	19.41	20.43	20.88	21.94	21.74	25.67	16.88	19.7
Temperature (Downhole Probe)	°C	-	-	-	-	-	24.98	-	-	-	-	-	-	-	25.33	-	-

Notes:
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- Not Analyzed
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Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2(
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Upgradient												Cross Gradient								
		ETMW-121												OBGMW-122								
		5/27/1998	8/24/2000	11/21/2000	1/24/2001	4/7/2004	4/28/2005	10/26/2005	4/19/2006	4/19/2007	10/23/2007	12/11/2008	12/14/2009	8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/22/2007
Laboratory Parameters																						
Alkalinity	mg/L	**28**	**30.7**	**32**	**57**	**38**	**5.8**	**26**	**28**	**38**	**82**	**-**	-	-	**-**	-	-	-	-	-	-	-
Chloride	mg/L	**15.5**	**10.5**	**10.8**	**3.34**	**7.8**	**5.2**	**11**	**6**	-	**1.9**	**-**	-	-	**-**	**-**	**-**	**-**	-	-	-	-
Iron	mg/L	-	-	-	-	**1.1**	**0.84**	**16**	**0.52**	**0.89**	**0.87**	**-**	**-**	-			**-**	**-**	-	-	-	-
Manganese	mg/L	-	-	**0.1**	<0.05	< 0.05	< 0.05	**0.15**	< 0.050	<0.050	<0.050	**-**	-	-	-	**-**	**-**	**-**	-	-	-	-
Nitrate (as N)	mg/L	**1.8**	**1.94**	**-**	**1.19**	**0.65**	**0.59**	**1.2**	**0.35**	-	**0.20**	**-**	-	-	**-**	**-**	**-**	**-**	-	-	-	-
Nitrite	mg/L	< 0.07	< 0.05	-	< 0.05	-	-	-	-	-	-	**-**	-	-	**-**	**-**	**-**	**-**	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	**1.86**	-	-	-	-	-	-	-	**-**	-	-	**-**	**-**	**-**	**-**	-	-	-	-
Sulfate	mg/L	**10.1**	**10.3**	**12.6**	**8.93**	**8.5**	**9.9**	**4.6**	**13**	-	**5.4**	**-**	**-**	-	**-**	**-**	**-**	**-**	-	-	-	-
Sulfide	mg/L	< 1.0	-	< 0.5	< 0.5	< 0.8	< 0.8	< 0.8	< 0.8	**1.8**	<1.0	**-**	-	-	**-**	**-**	**-**	**-**	-	-	-	-
Methane	ug/L	**0.195**	< 0.2	< 0.2	< 0.2	< 2.0	< 5.0	< 2.0	< 2.1	<2.1	<2.1	**-**	-	-	**-**	**-**	**-**	**-**	-	-	-	-
Ethane	ug/L	< 0.005	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0	< 4.0	< 4.2	<4.2	<4.1	**-**	**-**	-	**-**	**-**	**-**	**-**	-	-	-	-
Ethene	ug/L	**0.005**	**0.02**	**0.01**	**0.02**	< 4.0	< 5.0	< 4.0	< 4.2	<4.2	<4.1	**-**	**-**	-	**-**	**-**	**-**	**-**	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	**12.9**	**7.74**	**21.1**	**1.9**	**7.9**	**12**	**9.7**	**1.6**	**3.0**	**-**	**-**	-	**-**	**-**	**-**	**-**	-	-	-	-
Total Organic Carbon	mg/L	-	-	**15.6**	**25.7**	**1.9**	**4.9**	**3.3**	**4.5**	**2.1**	**3.9**	**-**	**-**	-	**-**	**-**	**-**	**-**	-	-	-	-
Field Parameters																						
Ferrous Iron	mg/L	< 0.20	**0.25**	**0.05**	**0.03**	**0.1**	ND	**0.39**	ND	**2.4**	**0.4**	ND	ND	-	-	**-**	**-**	ND	-	-	ND	-
Carbon Dioxide	mg/L	**-**	-	**-**	**-**	**26**	**15**	**35**	**25**	**40**	**18**	**30**	**25**	**-**	**-**	**-**	**-**	**5**	-	-	**70**	**-**
pH	S.U.	**5.32**	-	**4.50**	**5.11**	**6.20**	**6.25**	**5.94**	**5.83**	**6.00**	**6.23**	**6.78**	**7.02**	**6.31**	**4.80**	**4.65**	**6.27**	**6.08**	**6.38**	**6.18**	**6.31**	**-**
pH (Downhole Probe)	S.U.	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.45**	**8.05**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.70**
Conductivity	mS/cm	**0.112**	-	**0.214**	**0.134**	**0.134**	**0.142**	**0.116**	**0.192**	**0.107**	**0.167**	**0.199**	**0.210**	**0.640**	**0.810**	**0.393**	**0.272**	**0.076**	**0.183**	**0.226**	**0.233**	**-**
Conductivity (Downhole Probe)	mS/cm	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.038**	**0.195**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.03**
Dissolved Oxygen	mg/L	**5.12**	-	**10.86**	**8.07**	**4.88**	**3.34**	**1.00**	**3.27**	**6.74**	**7.00**	**-**	**6.58**	**6.40**	**7.81**	**6.20**	**0.98**	**3.25**	**0.77**	**3.58**	**4.08**	**-**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.39**	**8.26**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.99**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4**	**5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Oxidation/Reduction Potential (ORP)	mV	**146.4**	-	**134**	**123**	**482**	**197**	**176**	**347**	**332**	**166**	**367**	**136**	**109**	**1.0**	**164**	**392**	**17.6**	**106**	**395**	**370**	**-**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**232.5**	**282**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**219.4**
Temperature	°C	-	**25.91**	-	**17.40**	**19.17**	**19.22**	**23.60**	**19.36**	**19.56**	**26.03**	**18.72**	**20.39**	**25.53**	-	**20.00**	**20.16**	**18.40**	**22.45**	**19.79**	**19.27**	**-**
Temperature (Downhole Probe)	°C	-	-	-	-	-	-	-	-	-	**25.02**	**16.39**	-	-	-	-	-	-	-	-	-	**24.82**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was r
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2(
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient								Down Gradient						Down Gradient							
		OBGMW-123								OBGMW-124						CH2PP-1							
		9/8/2000	1/24/2001	4/6/2004	4/27/2005	10/25/2005	4/20/2006	4/18/2007	10/22/2007	4/20/2004	4/27/2005	10/26/2005	4/19/2006	4/19/2007	10/22/2007	4/7/2004	4/26/2005	10/25/2005	4/18/2006	4/16/2007	10/24/2007	12/8/2008	12/15/2009
Laboratory Parameters																							
Alkalinity	mg/L	-	-	-	-	-	-	-	-	**300**	**430**	**410**	**390**	**350**	-	-	-	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-	**410 D**	**180**	**210**	**44**	**200**	-	-	-	-	-	-	-	-	-
Iron	mg/L			-	-	-	-	-	-	**0.41**	**1.3**	**2.0**	**0.076**	**0.1**	-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	**0.09**	**0.15**	**0.20**	< 0.050	<0.050	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	**0.14**	<0.050	**0.10**	-	**6.7**	-	-	-	-	-	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	**0.21**	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-	**310 D**	**170**	**190**	**60**	**150**	-	-	-	-	-	-	-	-	-
Sulfide	mg/L	-	-	-	-	-	-	-	-	< 0.80	< 0.80	< 0.8	< 0.80	**1.6**	-	-	-	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-	-	-	< 2.0	**38 H**	< 2.0	**2.1**	<0.0021	-	-	-	-	-	-	-	-	-
Ethane	ug/L	-	-	-	-	-	-	-	-	< 4.0	< 0.5	< 4.0	< 4.2	<0.0042	-	-	-	-	-	-	-	-	-
Ethene	ug/L	-	-	-	-	-	-	-	-	< 4.0	< 0.5	< 4.0	< 4.2	<0.0042	-	-	-	-	-	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	-	-	-	**5.1**	**6.3**	**17**	**5.8**	**3.4**	-	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/L	-	-	-	-	-	-	-	-	**4.9**	**5.2**	**4.9**	**5.1**	**3.5**	-	-	-	-	-	-	-	-	-
Field Parameters																							
Ferrous Iron	mg/L	-	-	-	**4.7**	-	-	**1.5**	-	ND	**1.8**	**1.72**	ND	ND	-	-	ND	-	-	-	ND	ND	**0.5**
Carbon Dioxide	mg/L	-	-	-	**18**	-	-	**50**	-	-	**50**	**70**	**15**	**75**	-	-	**12**	-	-	-	**20**	**45**	**32**
pH	S.U.	**4.60**	**6.06**	**5.94**	**6.27**	**5.25**	**5.29**	**4.75**	-	**6.82**	**6.40**	**6.82**	**6.55**	**7.25**	-	**5.22**	**5.93**	**5.01**	**4.56**	**5.53**	**5.28**	**6.14**	**6.21**
pH (Downhole Probe)	S.U.	-	-	-	-	-	-	-	**5.18**	-	-	-	-	-	**6.67**	-	-	-	-	-	-	-	-
Conductivity	mS/cm	**0.160**	**0.117**	**0.122**	**0.162**	**0.092**	**0.091**	**0.083**	-	**2.130**	**1.061**	**1.314**	**0.875**	**1.019**	-	**0.117**	**0.141**	**0.108**	**0.120**	**0.146**	**0.107**	**0.222**	**0.226**
Conductivity (Downhole Probe)	mS/cm	-	-	-	-	-	-	-	**0.020**	-	-	-	-	-	**0.344**	-	-	-	-	-	-	-	-
Dissolved Oxygen	mg/L	**7.00**	**7.73**	**0.51**	**0.41**	**0.52**	**7.22**	**0.66**	-	**1.34**	**1.11**	**0.63**	**1.85**	**5.83**	-	**4.11**	**4.75**	**3.19**	**7.51**	**6.98**	**3.95**	**3.8**	**2.34**
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	-	-	**2.14**	-	-	-	-	-	**3.46**	-	-	-	-	-	-	-	-
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**3.0**	**3.0**	**4.0**
Oxidation/Reduction Potential (ORP)	mV	**231**	**201**	**280**	**76**	**115**	**480**	**429**	-	**125**	**140**	**98**	**326**	**318**	**171.2**	**466**	**325**	**207**	**439**	**330**	**122**	**119**	**128**
Oxidation/Reduction Potential (Downhole Probe)	mV	-	-	-	-	-	-	-	**185.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Temperature	°C	**19.10**	-	**20.18**	**20.10**	**24.64**	**19.99**	**19.76**	-	**19.80**	**20.30**	**21.83**	**21.65**	**20.96**	-	**20.05**	**20.72**	**25.77**	**21.84**	**21.57**	**25.27**	**19.81**	**20.4**
Temperature (Downhole Probe)	°C	-	-	-	-	-	-	-	**25.50**	-	-	-	-	-	**25.30**	-	-	-	-	-	-	-	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was r
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2(
Soluble Organic Carbon - EPA 415.1

Appendix B

Ground Water Sampling Log Forms

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-1
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	45487

PURGE START DATE/TIME:	12/14/09 1400		PURGE END DATE/TIME:	12/14/09 1449	
WEATHER CONDITIONS:	MOSTLY CLOUDY		WELL CONDITION:	GOOD	
WELL DEPTH:	10 ft	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	2.45 L gal.	
SWL:	1.24'	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	5 ft.	
WELL DIAMETER:	1"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8 ft.	
WELL VOLUME:	1.60 L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1400	5.39 / 50	—	22.1	0.187	5.35	5.17	237	1.3
1405	5.45 / 50	250	22.4	0.195	2.44	5.25	239	2.5
1410	5.63 / 50	500	22.3	0.200	2.58	5.26	240	1.1
1413	5.76 / 50	650	22.4	0.201	2.53	5.27	243	1.1
1416	5.93 / 50	800	22.6	0.198	2.58	5.28	248	1.0
1419	6.04 / 50	950	22.5	0.196	2.69	5.27	253	1.0
1422	6.15 / 50	1100	22.4	0.188	2.58	5.17	262	1.1
1425	6.28 / 50	1250	22.3	0.181	3.03	5.04	270	1.2
1428	6.45 / 50	1400	22.3	0.178	3.99	5.01	277	1.0
1431	6.61 / 50	1550	22.3	0.174	4.83	5.00	283	1.7
1434	7.01 / 50	1700	22.5	0.173	5.28	5.00	288	1.5
1437	7.30 / 50	1850	22.7	0.170	3.00	4.88	323	7.5
1440	7.36 / 50	2000	22.7	0.166	2.72	4.82	339	6.5
1443	7.55 / 50	2150	22.7	0.166	2.61	4.79	343	6.7
1446	7.64 / 50	2300	22.8	0.167	3.12	4.79	345	5.3
1449	7.71 / 50	2450	23.1	0.169	3.15	4.71	348	5.7
		DRY AT 1451						

SAMPLING DATA

SAMPLE DATE/TIME:	12/16/09 1135
DEPTH TO WATER AFTER PURGING:	DRY AT 1451 ft
APPEARANCE:	CLEAR NO ODOR
SAMPLING DEVICE:	STRAW METHOD

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

12/16/09 1130 DTW = 5.50 ft

Fe = 0 mg/L DO = 2.5 mg/L

CO_2 KIT NOT FUNCTIONING PROPERLY

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-40
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	45487

PURGE START DATE/TIME:	1231 12/19/09		PURGE END DATE/TIME:	1511 12/19/09	
WEATHER CONDITIONS:	MOSTLY CLOUDY ~60°F		WELL CONDITION:	GOOD	
WELL DEPTH:	45.93	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	20.0 L gal	
SWL:	13.54	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	36 ft.	
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	40 ft.	
WELL VOLUME:	19.98 L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1231	15.14 125	—	22.9	0.061	6.84	6.32	130	3.3
1236	16.12 125	625	23.0	0.060	6.63	6.26	137	7.5
1241	16.72 125	1250	22.9	0.061	6.42	6.25	142	11.8
1251	18.01 125	2500	23.0	0.061	6.37	6.21	150	21.1
1301	19.01 125	3750	23.3	0.061	6.33	6.21	153	42.0
1321	20.42 125	6250	22.9	0.065	6.36	6.29	156	71.2
1341	21.42 125	8750	22.7	0.071	6.25	6.46	156	89.7
1401	22.01 125	11250	22.6	0.071	6.21	6.55	156	68.3
1421	22.42 125	13750	22.6	0.075	6.16	6.62	157	70.5
1441	22.70 125	16250	22.6	0.076	6.08	6.68	156	66.9
1451	22.90 125	17500	22.5	0.077	6.14	6.69	157	88.7
1501	22.90 125	18750	22.6	0.077	6.07	6.71	158	88.1
1506	22.90 125	19,375	22.6	0.077	6.06	6.71	158	90.1
1511	22.95 125	20,000	22.7	0.077	6.03	6.71	158	88.9

SAMPLING DATA

SAMPLE DATE/TIME:	12/19/09 1515
DEPTH TO WATER AFTER PURGING:	22.95 ft.
APPEARANCE:	CLEAR, NO ODOR
SAMPLING DEVICE:	STRAW METHOD

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: $Fe = 0$ mg/L $CO_2 = 20$ mg/L DO = 6.0 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-3
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	45487

PURGE START DATE/TIME: 12/16/09 1228			PURGE END DATE/TIME: 12/16/09 1348		
WEATHER CONDITIONS: CLOUDY ~60° F			WELL CONDITION: GOOD		
WELL DEPTH:	13'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	6.40 L gal.	
SWL:	2.81	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	3	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8	ft.
WELL VOLUME:	6.29 L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (~~gal~~) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1228	3.15 / 80	--	20.26	0.224	7.11	7.82	147	37.9
1232	3.22 / 80	320	20.17	0.217	5.61	7.05	155	14.7
1236	3.28 / 80	640	20.36	0.216	5.43	6.80	160	0.0
1240	3.34 / 80	960	20.17	0.216	5.22	6.76	161	0.0
1244	3.36 / 80	1280	20.23	0.215	5.31	6.70	163	0.0
1248	3.39 / 80	1600	20.50	0.215	5.28	6.68	165	0.0
1252	3.40 / 80	1920	20.73	0.214	5.23	6.66	166	0.0
1256	3.43 / 80	2240	20.90	0.214	5.10	6.66	167	0.0
1300	3.43 / 80	2560	21.01	0.213	5.06	6.65	168	0.0
1304	3.44 / 80	2880	20.67	0.212	5.10	6.66	168	0.0
1308	3.45 / 80	3200	20.65	0.211	5.14	6.65	169	0.0
1312	3.46 / 80	3520	20.52	0.210	5.09	6.64	170	0.0
1316	3.46 / 80	3840	20.75	0.208	4.93	6.60	171	0.0
1320	3.46 / 80	4160	20.82	0.208	4.88	6.58	171	0.0
1324	3.46 / 80	4480	20.76	0.207	4.83	6.57	172	0.0
1328	3.46 / 80	4800	20.73	0.206	4.88	6.56	172	0.0
1332	3.46 / 80	5120	20.73	0.206	5.12	6.52	173	0.0
1336	3.47 / 80	5440	20.96	0.205	5.24	6.50	174	0.0
1340	3.47 / 80	5760	21.22	0.204	5.04	6.52	174	0.0
1344	3.48 / 80	6080	21.26	0.204	5.08	6.53	174	0.0
1348	3.48 / 80	6400	21.33	0.203	4.95	6.53	175	0.0

SAMPLING DATA

SAMPLE DATE/TIME: 12/16/09 1400	
DEPTH TO WATER AFTER PURGING: 3.48 ft.	
APPEARANCE: CLEAR, NO ODOR	
SAMPLING DEVICE: PERISTALTIC, STRAW METHOD	

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES:

Fe: 0 mg/L DO: 6.0 mg/L CO_2 KIT NOT FUNCTIONING

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2PP-1
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	45487

PURGE START DATE/TIME:	12/15/09 1112			PURGE END DATE/TIME:	12/15/09 1145
WEATHER CONDITIONS:	CLOUDY ~60°F			WELL CONDITION:	GOOD
WELL DEPTH:	12 ft	1 in. Dia.	0.041 gal./ft.	TOTAL PURGE VOLUME:	1.65 L gal.
SWL:	3.09	2 in. Dia.	0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	7 ft.
WELL DIAMETER:	1"	4 in. Dia.	0.653 gal./ft.	PUMP SETTING:	9.5 ft.
WELL VOLUME:	1.38L	1 gallon = 3785 mL		PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1112	5.02 / 50	—	19.8	0.177	4.39	5.80	140	8.2
1115	5.29 / 50	150	19.8	0.176	4.20	5.80	145	6.2
1118	5.60 / 50	300	20.0	0.180	3.94	5.86	146	5.2
1121	5.81 / 50	450	20.0	0.186	3.78	5.89	145	4.6
1124	5.94 / 50	600	20.1	0.194	3.31	5.98	141	4.7
1127	6.05 / 50	750	20.2	0.199	3.02	6.00	138	5.5
1130	6.24 / 50	900	20.2	0.209	2.70	6.08	136	4.7
1133	6.47 / 50	1050	20.2	0.221	2.67	6.15	132	4.2
1136	6.77 / 50	1200	20.3	0.227	2.51	6.17	130	5.0
1139	6.95 / 50	1350	20.3	0.225	2.37	6.20	128	4.8
1142	7.13 / 50	1500	20.3	0.225	2.28	6.21	127	5.0
1145	7.57 / 50	1650	20.4	0.226	2.34	6.21	128	5.1

SAMPLING DATA

SAMPLE DATE/TIME:	12/15/09 1150
DEPTH TO WATER AFTER PURGING:	8.55 ft.
APPEARANCE:	CLOUDY, NO ODOR
SAMPLING DEVICE:	STRAW METHOD

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Fe = 0.5 mg/L CO_2 = 32 mg/L DO = 4.0 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-113
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	45487

PURGE START DATE/TIME: 12/16/09 0906			PURGE END DATE/TIME: 12/16/09 1038		
WEATHER CONDITIONS: SUNNY ~50°F			WELL CONDITION: GOOD		
WELL DEPTH:	12 ft	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:		gal.
SWL:	5.09	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	2	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	9	ft.
WELL VOLUME:	4.26 L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0906	5.49 / 50	-	17.08	0.614	3.19	7.28	176	30.7
0910	5.61 / 50	200	17.50	0.624	2.20	7.18	173	18.5
0914	5.74 / 50	400	17.59	0.625	1.92	7.13	173	14.3
0918	5.91 / 50	600	17.66	0.634	1.70	7.10	173	8.0
0922	6.02 / 50	800	17.71	0.636	1.54	7.09	172	3.0
0926	6.11 / 50	1000	17.60	0.638	1.36	7.09	172	1.3
0930	6.23 / 50	1200	17.47	0.637	1.24	7.08	172	0.0
0934	6.43 / 50	1400	17.50	0.631	1.22	7.05	172	0.0
0938	6.52 / 50	1600	17.26	0.626	1.15	7.04	171	0.0
0942	6.65 / 50	1800	17.11	0.617	1.21	7.03	171	0.0
0946	6.69 / 50	2000	16.56	0.621	1.38	7.02	170	0.0
0950	6.73 / 50	2200	16.08	0.614	1.41	7.01	170	0.0
0954	6.83 / 50	2400	15.90	0.599	1.32	7.00	170	0.0
0958	6.91 / 50	2600	15.86	0.598	1.30	7.00	169	0.0
1002	7.00 / 50	2800	15.83	0.592	1.31	6.96	169	0.0
1006	7.11 / 50	3000	15.65	0.573	1.30	6.94	168	0.0
1010	7.19 / 50	3200	15.69	0.573	1.29	6.90	166	0.0
1014	7.26 / 50	3400	15.67	0.582	1.24	6.90	166	0.0
1018	7.39 / 50	3600	16.18	0.585	1.25	6.89	165	0.0
1022	7.44 / 50	3800	16.85	0.548	1.24	6.87	163	0.0
1026	7.59 / 50	4000	16.91	0.559	1.29	6.82	162	0.0
1030	7.67 / 50	4200	16.98	0.558	1.09	6.82	161	0.0
1034	7.85 / 50	4400	16.97	0.551	1.06	6.80	160	0.0
1038	7.89 / 50	4600	16.99	0.550	1.07	6.78	158	0.0

SAMPLING DATA

SAMPLE DATE/TIME: 12/16/09 1045	
DEPTH TO WATER AFTER PURGING: 7.89 ft.	
APPEARANCE: CLEAR, SLIGHT ODOR	
SAMPLING DEVICE: PERISTALTIC, STRAW METHOD	

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES:

Fe = 1.6 mg/L DO = 3 mg/L CO_2 KIT NOT FUNCTIONING PROPERLY

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-114
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	45487

PURGE START DATE/TIME:	12/14/09 0738		PURGE END DATE/TIME:	12/14/09 0958	
WEATHER CONDITIONS:	SUNNY ~50°F		WELL CONDITION:	GOOD	
WELL DEPTH:	11.7	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	14.00 L ~~gal.~~	
SWL:	6.25	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1.7	ft.
WELL DIAMETER:	4"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	9	ft.
WELL VOLUME:	13.47 L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0738	6.40 / 100	–	17.1	0.619	1.45	6.60	133	2.8
0748	6.40 / 100	1000	16.9	0.611	1.48	6.67	139	3.2
0758	6.40 / 100	2000	16.9	0.611	1.67	6.70	141	3.3
0808	6.72 / 100	3000	16.8	0.611	1.77	6.73	143	3.6
0818	6.81 / 100	4000	16.8	0.610	1.81	6.72	146	3.8
0828	6.93 / 100	5000	16.9	0.611	1.76	6.75	146	3.9
0838	6.98 / 100	6000	17.0	0.609	1.80	6.76	147	3.9
0848	7.06 / 100	7000	17.0	0.610	1.81	6.77	147	4.0
0858	7.13 / 100	8006	17.0	0.612	1.82	6.78	148	4.0
0908	7.22 / 100	9000	17.1	0.612	1.76	6.78	149	4.0
0918	7.27 / 100	10,000	17.1	0.612	1.80	6.79	149	4.0
0928	7.33 / 100	11,000	17.3	0.609	1.83	6.79	150	4.2
0938	7.40 / 100	12,000	17.3	0.609	1.82	6.79	151	4.0
0948	7.46 / 100	13,000	17.4	0.610	1.78	6.80	151	4.2
0953	7.52 / 100	13,500	17.5	0.611	1.78	6.80	151	4.1
0958	7.57 / 100	14,000	17.5	0.611	1.78	6.80	151	4.0

SAMPLING DATA

SAMPLE DATE/TIME:	12/14/09 1000
DEPTH TO WATER AFTER PURGING:	7.57 ft.
APPEARANCE:	CLEAR, NO ODOR
SAMPLING DEVICE:	STRAW METHOD

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Fe = 0 mg/L DO = 3 mg/L CO KIT NOT FUNCTIONING

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-1140
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	45487

PURGE START DATE/TIME:	12/14/09 1342		PURGE END DATE/TIME:	DRY ON 12/14/09 @ 1418	
WEATHER CONDITIONS:	SUNNY ~70°F		WELL CONDITION:		
WELL DEPTH:	22.5	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	170 L ~~gal~~	
SWL:	8.21	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	17.5	ft.
WELL DIAMETER:	1"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	21	ft.
WELL VOLUME:	2.22L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1342	10.13 / 50	—	22.10	2.50	2.38	6.16	147	87.5
1344	10.74 / 50	100	21.59	2.49	2.15	5.93	146	86.2
1346	11.35 / 50	206	21.47	2.49	1.98	5.79	144	85.8
1348	12.05 / 50	300	21.49	2.50	1.79	5.67	142	88.1
1350	12.58 / 50	400	21.44	2.49	1.73	5.62	140	96.5
1352	13.22 / 50	500	21.43	2.49	1.54	5.57	139	99.6
1354	13.87 / 50	600	21.48	2.50	1.41	5.54	137	103
1356	14.36 / 50	700	21.50	2.49	1.30	5.53	136	104
1358	15.00 / 50	800	21.55	2.49	1.20	5.51	135	104
1400	15.64 / 50	900	21.67	2.49	1.27	5.51	134	104
1402	16.31 / 50	1000	21.78	2.49	1.13	5.50	133	103
1404	17.13 / 50	1100	21.93	2.49	1.05	5.50	131	103
1406	17.42 / 50	1200	21.95	2.49	1.07	5.50	130	102
1408	18.02 / 50	1300	22.25	2.49	0.92	5.50	129	105
1410	18.59 / 50	1400	22.29	2.49	0.87	5.50	128	105
1412	19.13 / 50	1500	22.28	2.49	0.90	5.51	127	107
1414	19.67 / 50	1600	22.29	2.49	0.91	5.50	125	106
1416	20.28 / 50	1700	22.29	2.49	0.90	5.50	124	106
		DRY AT 1418						

SAMPLING DATA

SAMPLE DATE/TIME:	12/16/09 1040		PARAMETERS		
DEPTH TO WATER AFTER PURGING:	DRY ft	☒	VOCs	☐	Metals (U)
APPEARANCE:	YELLOWISH, CLOUDY, SLIGHT ODOR	☐	SVOCs	☐	Metals (F)
SAMPLING DEVICE:	STRAW METHOD	☐	OTHER	☐	PCBs

NOTES:

12/16/09 1030 DTW 13.90 ft

DO = 1.5 mg/L

Fe = > 10 mg/L

CO_2 KIT NOT FUNCTIONING

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-115
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	45487

PURGE START DATE/TIME: 12/16/09 0722			PURGE END DATE/TIME: 12/16/09 0813		
WEATHER CONDITIONS: SUNNY ~50°F			WELL CONDITION: GOOD		
WELL DEPTH:	11.5	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	5.10	gal.
SWL:	4.12	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1.5	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8	ft.
WELL VOLUME:	4.55	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0722	4.30 / 100	—	18.36	0.416	2.20	6.61	164	45.7
0725	4.42 / 100	300	18.60	0.418	1.11	6.52	170	36.3
0728	4.50 / 100	600	18.22	0.419	0.95	6.50	173	19.8
0731	4.56 / 100	900	18.19	0.421	0.87	6.50	173	19.6
0734	4.59 / 100	1200	18.11	0.423	0.96	6.52	173	14.3
0737	4.64 / 100	1500	18.15	0.424	0.98	6.53	174	13.1
0740	4.66 / 100	1800	17.95	0.427	1.02	6.54	174	9.0
0743	4.72 / 100	2100	17.91	0.432	1.12	6.56	174	6.2
0746	4.74 / 100	2400	17.89	0.432	1.12	6.57	174	2.7
0749	4.80 / 100	2700	17.78	0.435	1.14	6.60	174	1.3
0752	4.82 / 100	3000	17.74	0.439	1.13	6.61	175	0.0
0755	4.86 / 100	3300	17.69	0.447	1.15	6.63	175	0.0
0758	4.87 / 100	3600	17.63	0.451	1.14	6.65	175	0.0
0801	4.90 / 100	3900	17.61	0.457	1.11	6.65	175	0.0
0804	4.92 / 100	4200	17.51	0.458	1.10	6.66	175	0.0
0807	4.94 / 100	4500	17.60	0.459	1.03	6.66	175	0.0
0810	4.97 / 100	4800	17.53	0.465	1.01	6.67	174	0.0
0813	5.02 / 100	5100	17.56	0.469	0.97	6.70	174	0.0

SAMPLING DATA

SAMPLE DATE/TIME:	0820 12/16/09
DEPTH TO WATER AFTER PURGING:	5.02 ft.
APPEARANCE:	CLEAR, SLIGHT ODOR
SAMPLING DEVICE:	PERISTALTIC, STRAW METHOD

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES:

Fe = 0.6 mg/L DO = 2 mg/L CO_2 KIT NOT FUNCTIONING PROPERLY

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-116
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	45487

PURGE START DATE/TIME: 12/15/09 1115			PURGE END DATE/TIME: 12/15/09 1410		
WEATHER CONDITIONS: SUNNY ~70° F			WELL CONDITION: GOOD		
WELL DEPTH:	11'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:		gal.
SWL:	0.44	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	4"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	9	ft.
WELL VOLUME:	26.10	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1115	0.56 150	-	20.42	0.812	3.27	6.47	146	28.5
1120	0.72 150	750	19.32	0.816	0.96	6.27	142	7.5
1125	1.03 150	1500	19.29	0.816	0.70	6.21	138	5.3
1135	1.39 150	3000	19.21	0.818	0.44	6.18	134	4.8
1145	1.86 150	4500	19.21	0.817	0.35	6.17	129	4.8
1155	2.06 150	6000	19.26	0.818	0.34	6.17	127	4.8
1205	2.37 150	7500	19.26	0.820	0.33	6.19	125	5.0
1215	2.70 150	9000	19.30	0.828	0.31	6.20	123	5.2
1235	3.44 150	12000	19.28	0.832	0.32	6.20	119	4.9
1255	4.18 150	15000	19.37	0.836	0.32	6.21	116	5.1
1315	4.89 150	18000	19.45	0.832	0.34	6.20	113	5.5
1325	5.26 150	19500	19.47	0.822	0.34	6.19	111	5.5
1335	5.71 150	21000	19.42	0.798	0.35	6.18	110	5.7
1345	6.07 150	22500	19.49	0.792	0.38	6.17	109	6.2
1355	6.54 150	24000	19.57	0.790	0.36	6.17	108	6.6
1405	6.81 150	25500	19.59	0.786	0.37	6.18	106	6.5
1410	6.92 150	26250	19.60	0.782	0.37	6.17	106	6.6

SAMPLING DATA

SAMPLE DATE/TIME: 1420 12/15/09			PARAMETERS		
DEPTH TO WATER AFTER PURGING: 6.92	ft.	☒	VOCs	☐	Metals (U)
APPEARANCE: CLEAR SLIGHT ODOR		☐	SVOCs	☐	Metals (F)
SAMPLING DEVICE: PERISTALTIC, ~~BOOM~~ STRAW METHOD		☒	OTHER	☐	PCBs

NOTES:

DO = 2 mg/L CO_2 > 100 mg/L Fe = 6.6 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-117
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	45487

PURGE START DATE/TIME:	12/15/09 0805		PURGE END DATE/TIME:	12/15/09 0925	
WEATHER CONDITIONS:	CLOUDY ~65°F		WELL CONDITION:	Good	
WELL DEPTH:	11 Ft	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:		gal.
SWL:	0.24	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	7.5	ft.
WELL VOLUME:	6.64	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0805	0.54 100	—	18.90	0.549	3.39	6.12	156	3.94
0808	0.77 100	300	18.67	0.540	1.39	5.85	161	20.5
0811	0.99 100	600	18.61	0.540	1.10	5.81	163	20.9
0814	1.23 100	900	18.56	0.540	0.89	5.80	163	20.9
0817	1.49 100	1200	18.52	0.541	0.94	5.81	163	20.7
0820	1.60 100	1500	18.49	0.543	0.90	5.81	163	20.9
0823	1.80 100	1800	18.43	0.548	0.88	5.82	161	20.1
0826	2.07 100	2100	18.45	0.544	0.79	5.87	159	20.0
0829	2.11 100	2400	18.46	0.557	0.72	5.84	158	19.7
0832	2.24 100	2700	18.44	0.565	0.64	5.85	156	18.8
0835	2.38 100	3000	18.46	0.568	0.61	5.85	155	17.7
0838	2.56 100	3300	18.45	0.580	0.59	5.87	153	17.7
0841	2.67 100	3600	18.48	0.586	0.57	5.88	151	16.8
0844	2.83 100	3900	18.53	0.594	0.56	5.89	150	16.6
0847	3.07 100	4200	18.61	0.607	0.56	5.89	146	15.7
0850	3.13 100	4500	18.65	0.607	0.56	5.89	146	15.5
0853	3.32 100	4800	18.65	0.609	0.54	5.89	144	16.2
0856	3.49 100	5100	18.68	0.610	0.56	5.89	142	16.0
0859	3.54 100	5400	18.79	0.603	0.58	5.88	139	16.1
0902	3.79 100	5700	18.80	0.601	0.52	5.88	139	16.1
0905	3.84 100	6000	18.81	0.600	0.59	5.88	137	16.3
0908	3.91 100	6300	18.90	0.593	0.57	5.86	136	16.1
0911	4.27 100	6600	18.91	0.589	0.55	5.86	134	16.2
0914	4.42 100	6900	18.93	0.588	0.55	5.85	132	16.6

SAMPLING DATA

SAMPLE DATE/TIME:	12/15/09 0925
DEPTH TO WATER AFTER PURGING:	4.42 ft.
APPEARANCE:	SLIGHT ODOR
SAMPLING DEVICE:	PERISTALTIC, STRAW METHOD

PARAMETERS			
☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES:

Fe = 6.6 mg/L DO = 1 mg/L CO_2 > 100 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-118
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	45487

PURGE START DATE/TIME:	12/15/09 0821		PURGE END DATE/TIME:	12/15/09	0936
WEATHER CONDITIONS:	MOSTLY CLOUDY		WELL CONDITION:	GOOD	
WELL DEPTH:	11	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	7.50 L	~~gal~~
SWL:	0.65	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	7.5	ft.
WELL VOLUME:	6.39 L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0821	1.95 / 100	-	19.1	0.93	3.64	4.83	37	0.0
0826	2.30 / 100	500	18.9	0.92	3.66	4.82	31	0.0
0831	2.61 / 100	1000	18.7	0.93	3.53	4.85	25	11.9
0836	2.97 / 100	1500	18.7	0.94	3.67	4.88	19	8.5
0841	3.41 / 100	2000	18.7	0.95	4.27	4.90	13	10.0
0846	3.61 / 100	2500	18.7	0.96	3.66	4.92	9	9.5
0851	4.05 / 100	3000	18.7	0.98	2.49	4.94	1	10.0
0856	4.33 / 100	3500	18.8	0.99	1.79	4.95	-3	7.4
0901	4.71 / 100	4000	18.9	0.99	0.49	4.95	-8	7.2
0906	5.01 / 100	4500	18.9	0.97	0.22	4.94	-9	6.9
0911	5.43 / 100	5000	19.0	0.95	0.11	4.91	-8	6.6
0916	5.81 / 100	5500	19.1	0.93	0.04	4.88	-7	6.7
0921	6.13 / 100	6000	19.3	0.90	0.0	4.84	-5	6.9
0926	6.51 / 100	6500	19.4	0.96	0.0	4.80	-3	7.7
0931	6.82 / 100	7000	19.5	0.90	0.0	4.78	-2	8.9
0936	7.21 / 100	7500	19.6	0.90	0.0	4.72	-2	9.1

SAMPLING DATA

SAMPLE DATE/TIME:	12/15/09 0940
DEPTH TO WATER AFTER PURGING:	7.21 ft.
APPEARANCE:	CLEAR SLIGHT ODOR
SAMPLING DEVICE:	PERISTALTIC, STRAW METHOD

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES: CO_2 > 100 mg/L Fe = 7.0 mg/L DO = 1 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	Emw-119
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	45487

PURGE START DATE/TIME: 12/14/09 1452			PURGE END DATE/TIME: 12/14/09 1556		
WEATHER CONDITIONS: SUNNY ~70°			WELL CONDITION: GOOD		
WELL DEPTH:	11 ft	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	4800 mL ~~4K~~	
SWL:	4.32	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8.5	ft.
WELL VOLUME:	4.12 L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1452	4.41 / 75	–	21.46	0.708	2.80	6.35	116	83.3
1456	4.48 / 75	300	19.49	0.620	0.84	6.53	108	52.0
1500	4.48 / 75	600	19.34	0.619	0.70	6.59	106	44.0
1504	4.50 / 75	900	19.20	0.619	0.46	6.65	105	37.1
1508	4.53 / 75	1200	19.16	0.618	0.39	6.67	104	32.1
1512	4.54 / 75	1500	19.02	0.617	0.37	6.70	104	30.3
1516	4.61 / 75	1800	19.00	0.617	0.34	6.72	104	28.6
1520	4.62 / 75	2100	19.02	0.615	0.33	6.73	104	31.0
1524	4.62 / 75	2400	18.87	0.614	0.33	6.74	105	32.7
1528	4.63 / 75	2700	18.73	0.614	0.32	6.76	105	32.2
1532	4.64 / 75	3000	18.71	0.613	0.34	6.78	106	30.6
1536	4.65 / 75	3300	18.75	0.612	0.40	6.83	106	59.0
1540	4.67 / 75	3600	18.58	0.613	0.37	6.80	107	43.8
1544	4.67 / 75	3900	18.51	0.612	0.36	6.79	107	40.2
1548	4.68 / 75	4200	18.53	0.612	0.38	6.81	108	36.7
1552	4.71 / 75	4500	18.61	0.613	0.39	6.81	108	36.1
1556	4.71 / 75	4800	18.64	0.612	0.40	6.83	108	35.2

SAMPLING DATA

SAMPLE DATE/TIME:	12/14/09 1600
DEPTH TO WATER AFTER PURGING:	4.71 ft.
APPEARANCE:	CLEAR, NO ODOR
SAMPLING DEVICE:	STRAW METHOD

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

DO = 3.0 mg/L Fe = 0.9 mg/L CO_2 = 75 mg/L

COLLECTED DUP-1, MS + MSD

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-120
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	45487

PURGE START DATE/TIME:	12/14/09 1112		PURGE END DATE/TIME:	12/14/09 1215	
WEATHER CONDITIONS:	CLOUDY WARM ~60°F		WELL CONDITION:	GOOD	
WELL DEPTH:	11'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	4.73 L ~~gal~~	
SWL:	3.69	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8.5	ft.
WELL VOLUME:	4.51 L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1112	4.10 / 75	–	19.5	0.272	4.29	6.07	163	0.1
1115	4.21 / 75	225	19.5	0.272	4.25	6.07	165	0.7
1118	4.25 / 75	450	19.4	0.274	3.89	6.10	166	0.4
1121	4.30 / 75	675	19.4	0.274	3.90	6.13	166	0.3
1124	4.34 / 75	900	19.4	0.273	3.77	6.18	163	0.6
1127	4.38 / 75	1125	19.5	0.274	3.69	6.21	158	0.0
1130	4.44 / 75	1350	19.5	0.277	3.69	6.24	155	0.2
1133	4.49 / 75	1575	19.6	0.279	3.89	6.26	156	0.0
1136	4.54 / 75	1800	19.6	0.282	4.00	6.29	156	0.1
1139	4.56 / 75	2025	19.8	0.285	3.97	6.30	155	0.0
1142	4.57 / 75	2250	20.0	0.287	3.26	6.32	154	0.0
1145	4.62 / 75	2475	20.0	0.290	3.39	6.34	152	0.0
1148	4.70 / 75	2700	19.9	0.300	3.64	6.36	151	0.0
1151	4.79 / 75	2925	19.7	0.308	4.26	6.39	150	0.0
1154	4.85 / 75	3150	19.7	0.313	4.40	6.40	150	0.0
1157	5.10 / 75	3375	19.7	0.315	4.42	6.42	150	0.0
1200	5.13 / 75	3600	19.7	0.319	4.41	6.43	150	0.0
1203	5.21 / 75	3825	19.7	0.323	4.35	6.44	151	0.0
1206	5.32 / 75	4050	19.6	0.324	4.34	6.45	153	0.0
1209	5.42 / 75	4275	19.6	0.324	4.35	6.45	154	0.0
1212	5.55 / 75	4500	19.6	0.325	4.34	6.46	154	0.0
1215	5.62 / 75	4725	19.7	0.326	4.34	6.48	153	0.0

SAMPLING DATA

SAMPLE DATE/TIME:	1220 12/14/09
DEPTH TO WATER AFTER PURGING:	5.62 ft.
APPEARANCE:	CLEAR
SAMPLING DEVICE:	STRAW METHOD

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Fe = 0.5 mg/L CO_2 = 45 mg/L DO = 4 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-121
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	45487

PURGE START DATE/TIME: 12/14/09 1112			PURGE END DATE/TIME: 12/14/09 1224		
WEATHER CONDITIONS: CLOUDY ~60°F			WELL CONDITION: GOOD		
WELL DEPTH:	11 ft	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:		gal.
SWL:	2.91	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8	ft.
WELL VOLUME:	4.99L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1112	3.36 75	—	22.40	0.207	6.38	7.20	132	30.3
1116	3.44 75	300	20.28	0.199	7.12	7.21	133	19.1
1120	3.59 75	600	19.88	0.196	7.22	7.21	131	15.3
1124	3.91 75	900	19.82	0.195	6.80	7.15	130	12.4
1128	4.09 75	1200	19.84	0.195	6.69	7.09	131	11.8
1132	4.31 75	1500	19.86	0.196	6.77	7.07	131	11.7
1136	4.42 75	1800	19.89	0.196	6.74	7.03	131	11.6
1140	4.59 75	2100	20.09	0.196	6.60	7.02	132	11.6
1144	4.74 75	2400	20.12	0.196	6.57	7.02	132	11.7
1148	4.96 75	2700	20.21	0.196	6.62	7.00	132	12.2
1152	5.14 75	3000	20.18	0.197	6.59	7.00	133	11.8
1156	5.24 75	3300	20.01	0.197	6.38	6.99	134	11.3
1200	5.39 75	3600	19.79	0.199	6.59	6.98	134	10.1
1204	5.53 75	3900	19.78	0.201	6.54	6.97	135	10.2
1208	5.66 75	4200	20.01	0.203	6.61	6.98	135	10.4
1212	5.79 75	4500	20.39	0.205	6.68	7.00	135	10.4
1216	5.96 75	4800	20.42	0.207	6.58	7.02	135	10.9
1220	6.18 75	5100	20.40	0.209	6.59	7.01	136	10.2
1224	6.32 75	5400	20.39	0.210	6.58	7.02	136	10.0

SAMPLING DATA

SAMPLE DATE/TIME: 12/14/09 1230	
DEPTH TO WATER AFTER PURGING: 6.32 ft.	
APPEARANCE: CLEAR, NO ODOR	
SAMPLING DEVICE: STRAW METHOD	

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

Fe = 0 mg/L DO = 5 mg/L CO_2 = 25 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Caroline Negron

Appendix C

Laboratory Certification

Laboratory Stipulation

LABORATORY	Shealy Environmental Services, Inc.
ACCREDITOR:	State of Florida, Department of Health, Bureau of Laboratories (NELAP Accrediting Authority)
ACCREDITATION ID:	E87653
SCOPE:	Non-potable water
EFFECTIVE:	July 1, 2009
EXPIRES:	June 30, 2010

Appendix D

Laboratory Analytical Results

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

O'Brien and Gere
2610 Wycliff Road
Suite 104
Raleigh, NC 27607
Attention: Michael Hall

Project Name: **Miller Moultrie**

Lot Number: **KL16036**
Date Completed: **12/31/2009**
Date Revised: **01/30/2010**

Nisreen Saikaly
Project Manager

This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* K L 1 6 0 3 6 *

Case Narrative
O'Brien and Gere
Lot Number: KL16036

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Volatile Organic Compounds

The LCS recovery for Isobutyl alcohol was outside method control limits in batch 24328. The LCSD results were within limits. Therefore the associated sample results were reported and no corrective action was required.

The LCSD recovery for Isobutyl alcohol was outside method control limits in batch 24457. The LCS results were within limits. Therefore the associated sample results were reported and no corrective action was required.

Nitrate

The MS/MSD recoveries were outside acceptance criteria. All other QA/QC criteria for the batch were within acceptance criteria and method control limits. The MS/MSD recovery results are attributed to matrix interference. The associated sample results were reported and no corrective action was required.

This report was revised on 02/05/10 to update the acetone value for sample -009 from ND to 561.

Sample Summary
O'Brien and Gere
Lot Number: KL16036

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	ETMW-120	Aqueous	12/14/2009 1220	12/16/2009
002	ETMW-121	Aqueous	12/14/2009 1230	12/16/2009
003	ETMW-119	Aqueous	12/14/2009 1600	12/16/2009
004	DUP-1	Aqueous	12/14/2009	12/16/2009
005	CH2PP-1	Aqueous	12/15/2009 1150	12/16/2009
006	Trip Blank	Aqueous	12/15/2009	12/16/2009
007	CH2MW-4D	Aqueous	12/15/2009	12/16/2009
008	ETMW-117	Aqueous	12/15/2009 0925	12/16/2009
009	ETMW-118	Aqueous	12/15/2009 0940	12/16/2009
010	DUP-2	Aqueous	12/15/2009	12/16/2009
011	ETMW-116	Aqueous	12/15/2009 1420	12/16/2009

(11 samples)

Executive Summary
O'Brien and Gere
Lot Number: KL16036

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	ETMW-120	Aqueous	cis-1,2-Dichloroethene	8260B	0.73		ug/L	6
008	ETMW-117	Aqueous	Alkalinity	SM 2320B	170		mg/L	13
008	ETMW-117	Aqueous	Chloride	300.0	23		mg/L	13
008	ETMW-117	Aqueous	DOC	SM 5310D	4.1		mg/L	13
008	ETMW-117	Aqueous	TOC	SM 5310D	7.6		mg/L	13
008	ETMW-117	Aqueous	Benzene	8260B	1.4		ug/L	14
008	ETMW-117	Aqueous	1,1-Dichloroethane	8260B	4.3		ug/L	14
008	ETMW-117	Aqueous	cis-1,2-Dichloroethene	8260B	21		ug/L	14
008	ETMW-117	Aqueous	Vinyl chloride	8260B	44		ug/L	14
008	ETMW-117	Aqueous	Methane	RSK - 175	6300		ug/L	15
008	ETMW-117	Aqueous	Iron	6010C	39		mg/L	16
008	ETMW-117	Aqueous	Manganese	6010C	0.29		mg/L	16
009	ETMW-118	Aqueous	Chloride	300.0	18		mg/L	17
009	ETMW-118	Aqueous	DOC	SM 5310D	1100		mg/L	17
009	ETMW-118	Aqueous	Sulfate	300.0	2.0		mg/L	17
009	ETMW-118	Aqueous	Sulfide	SM 4500-S2 F	2.9		mg/L	17
009	ETMW-118	Aqueous	TOC	SM 5310D	1100		mg/L	17
009	ETMW-118	Aqueous	Acetone	8260B	560		ug/L	18
009	ETMW-118	Aqueous	2-Butanone (MEK)	8260B	490		ug/L	18
009	ETMW-118	Aqueous	Carbon disulfide	8260B	1.2		ug/L	18
009	ETMW-118	Aqueous	Chloroethane	8260B	1.9		ug/L	18
009	ETMW-118	Aqueous	1,1-Dichloroethane	8260B	12		ug/L	18
009	ETMW-118	Aqueous	1,1-Dichloroethene	8260B	2.4		ug/L	18
009	ETMW-118	Aqueous	cis-1,2-Dichloroethene	8260B	96		ug/L	18
009	ETMW-118	Aqueous	Tetrachloroethene	8260B	1.5		ug/L	18
009	ETMW-118	Aqueous	Trichloroethene	8260B	18		ug/L	18
009	ETMW-118	Aqueous	Vinyl chloride	8260B	31		ug/L	18
009	ETMW-118	Aqueous	Methane	RSK - 175	4200		ug/L	19
009	ETMW-118	Aqueous	Iron	6010C	64		mg/L	20
009	ETMW-118	Aqueous	Manganese	6010C	0.39		mg/L	20
010	DUP-2	Aqueous	Alkalinity	SM 2320B	150		mg/L	21
010	DUP-2	Aqueous	Chloride	300.0	23		mg/L	21
010	DUP-2	Aqueous	DOC	SM 5310D	4.8		mg/L	21
010	DUP-2	Aqueous	TOC	SM 5310D	10		mg/L	21
010	DUP-2	Aqueous	Benzene	8260B	1.3		ug/L	22
010	DUP-2	Aqueous	Chloroethane	8260B	3.0		ug/L	22
010	DUP-2	Aqueous	1,1-Dichloroethane	8260B	4.0		ug/L	22
010	DUP-2	Aqueous	cis-1,2-Dichloroethene	8260B	18		ug/L	22
010	DUP-2	Aqueous	Vinyl chloride	8260B	50		ug/L	22
010	DUP-2	Aqueous	Methane	RSK - 175	5600		ug/L	23
010	DUP-2	Aqueous	Iron	6010C	35		mg/L	24
010	DUP-2	Aqueous	Manganese	6010C	0.25		mg/L	24
011	ETMW-116	Aqueous	Alkalinity	SM 2320B	330		mg/L	25
011	ETMW-116	Aqueous	Chloride	300.0	29		mg/L	25
011	ETMW-116	Aqueous	DOC	SM 5310D	9.4		mg/L	25

Executive Summary (Continued)

Lot Number: KL16036

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
011	ETMW-116	Aqueous	TOC	SM 5310D	12		mg/L	25
011	ETMW-116	Aqueous	Chloroethane	8260B	8.8		ug/L	26
011	ETMW-116	Aqueous	1,1-Dichloroethane	8260B	8.4		ug/L	26
011	ETMW-116	Aqueous	cis-1,2-Dichloroethene	8260B	4.3		ug/L	26
011	ETMW-116	Aqueous	Vinyl chloride	8260B	170		ug/L	26
011	ETMW-116	Aqueous	Methane	RSK - 175	5800		ug/L	27
011	ETMW-116	Aqueous	Iron	6010C	27		mg/L	28
011	ETMW-116	Aqueous	Manganese	6010C	0.20		mg/L	28

(53 detections)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **KL16036-001**

Description: **ETMW-120** Matrix: **Aqueous**

Date Sampled: **12/14/2009 1220**

Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/24/2009 1441	MZ		24328

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**0.73**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		115	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		110	70-130

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-002**
Description: **ETMW-121**
Matrix: **Aqueous**
Date Sampled: **12/14/2009 1230**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/24/2009 1503	MZ		24328

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		119	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		109	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-003**
Description: **ETMW-119**
Matrix: **Aqueous**
Date Sampled: **12/14/2009 1600**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/24/2009 1525	MZ		24328

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		114	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-004**
Description: **DUP-1**
Matrix: **Aqueous**
Date Sampled: **12/14/2009**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/24/2009 1547	MZ		24328

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		111	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-005**
Description: **CH2PP-1**
Matrix: **Aqueous**
Date Sampled: **12/15/2009 1150**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/29/2009 0449	RRH		24457

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Description: **Trip Blank**
Date Sampled: **12/15/2009**
Date Received: **12/16/2009**
Laboratory ID: **KL16036-006**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/29/2009 0510	RRH		24457

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-007**
Description: **CH2MW-4D**
Matrix: **Aqueous**
Date Sampled: **12/15/2009**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/29/2009 0532	RRH		24457

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Inorganic non-metals

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-008**
Description: **ETMW-117**
Matrix: **Aqueous**
Date Sampled: **12/15/2009 0925**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/21/2009 1818	DAS		24083
1		(Chloride) 300.0	1	12/18/2009 2005	DAS		24007
1		(DOC) SM 5310D	1	12/23/2009 2049	PMM		24204
1		(Nitrate - N) 353.2	1	12/16/2009 1714	MML		23770
1		(Sulfate) 300.0	1	12/18/2009 2005	DAS		24010
1		(Sulfide) SM 4500-S2 F	1	12/18/2009 1020	BM		23932
1		(TOC) SM 5310D	1	12/22/2009 1016	PMM		24054

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		**SM 2320B**	**170**		**10**	**mg/L**	**1**
Chloride		**300.0**	**23**		**1.0**	**mg/L**	**1**
DOC		**SM 5310D**	**4.1**		**1.0**	**mg/L**	**1**
Nitrate - N		353.2	ND		0.020	mg/L	1
Sulfate		300.0	ND		1.0	mg/L	1
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		**SM 5310D**	**7.6**		**1.0**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **KL16036-008**

Description: **ETMW-117** Matrix: **Aqueous**

Date Sampled: **12/15/2009 0925**

Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/29/2009 0554	RRH		25414

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	**71-43-2**	**8260B**	**1.4**		**0.50**	**ug/L**	**1**
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	**75-34-3**	**8260B**	**4.3**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**21**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**44**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Dissolved Gases

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-008**
Description: **ETMW-117**
Matrix: **Aqueous**
Date Sampled: **12/15/2009 0925**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/29/2009 1832	LBS		24427

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	**74-82-8**	**RSK - 175**	**6300**		**10**	**ug/L**	**1**

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

ICP-AES

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-008**
Description: **ETMW-117**
Matrix: **Aqueous**
Date Sampled: **12/15/2009 0925**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	12/19/2009 0013	KJC	12/17/2009 1500	23742

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	**7439-89-6**	**6010C**	**39**		**0.10**	**mg/L**	**1**
Manganese	**7439-96-5**	**6010C**	**0.29**		**0.015**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Inorganic non-metals

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-009**
Description: **ETMW-118**
Matrix: **Aqueous**
Date Sampled: **12/15/2009 0940**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/21/2009 1826	DAS		24083
1		(Chloride) 300.0	1	12/18/2009 2028	DAS		24007
1		(DOC) SM 5310D	50	12/24/2009 1039	PMM		24204
1		(Nitrate - N) 353.2	1	12/16/2009 1715	MML		23770
1		(Sulfate) 300.0	1	12/18/2009 2028	DAS		24010
1		(Sulfide) SM 4500-S2 F	1	12/18/2009 1020	BM		23932
1		(TOC) SM 5310D	50	12/22/2009 1754	PMM		24054

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		SM 2320B	ND		10	mg/L	1
Chloride		**300.0**	**18**		**1.0**	**mg/L**	**1**
DOC		**SM 5310D**	**1100**		**50**	**mg/L**	**1**
Nitrate - N		353.2	ND		0.020	mg/L	1
Sulfate		**300.0**	**2.0**		**1.0**	**mg/L**	**1**
Sulfide	**18496-25-8**	**SM 4500-S2 F**	**2.9**		**1.0**	**mg/L**	**1**
TOC		**SM 5310D**	**1100**		**50**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **KL16036-009**

Description: **ETMW-118** Matrix: **Aqueous**

Date Sampled: **12/15/2009 0940**

Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/24/2009 1609	MZ		24328
2	5030B	8260B	2	12/29/2009 0849	RRH		24457

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	**67-64-1**	**8260B**	**560**		**20**	**ug/L**	**2**
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	**78-93-3**	**8260B**	**490**		**10**	**ug/L**	**1**
Carbon disulfide	**75-15-0**	**8260B**	**1.2**		**0.50**	**ug/L**	**1**
Chloroethane	**75-00-3**	**8260B**	**1.9**		**0.50**	**ug/L**	**1**
1,1-Dichloroethane	**75-34-3**	**8260B**	**12**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	**75-35-4**	**8260B**	**2.4**		**0.50**	**ug/L**	**1**
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**96**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**1.5**		**0.50**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**18**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**31**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		113	70-130		98	70-130
Bromofluorobenzene		106	70-130		94	70-130
Toluene-d8		110	70-130		100	70-130

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Dissolved Gases

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-009**
Description: **ETMW-118**
Matrix: **Aqueous**
Date Sampled: **12/15/2009 0940**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/29/2009 1842	LBS		24427

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	**74-82-8**	**RSK - 175**	**4200**		**10**	**ug/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

ICP-AES

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-009**
Description: **ETMW-118**
Matrix: **Aqueous**
Date Sampled: **12/15/2009 0940**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	12/19/2009 0019	KJC	12/17/2009 1500	23742

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	**7439-89-6**	**6010C**	**64**		**0.10**	**mg/L**	**1**
Manganese	**7439-96-5**	**6010C**	**0.39**		**0.015**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Inorganic non-metals

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-010**
Description: **DUP-2**
Matrix: **Aqueous**
Date Sampled: **12/15/2009**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/21/2009 1839	DAS		24083
1		(Chloride) 300.0	1	12/18/2009 2050	DAS		24007
1		(DOC) SM 5310D	1	12/24/2009 1059	PMM		24204
1		(Nitrate - N) 353.2	1	12/16/2009 1716	MML		23770
1		(Sulfate) 300.0	1	12/18/2009 2050	DAS		24010
1		(Sulfide) SM 4500-S2 F	1	12/18/2009 1020	BM		23932
1		(TOC) SM 5310D	1	12/22/2009 1814	PMM		24054

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		**SM 2320B**	**150**		**10**	**mg/L**	**1**
Chloride		**300.0**	**23**		**1.0**	**mg/L**	**1**
DOC		**SM 5310D**	**4.8**		**1.0**	**mg/L**	**1**
Nitrate - N		353.2	ND		0.020	mg/L	1
Sulfate		300.0	ND		1.0	mg/L	1
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		**SM 5310D**	**10**		**1.0**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **KL16036-010**

Description: **DUP-2** Matrix: **Aqueous**

Date Sampled: **12/15/2009**

Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/24/2009 1631	MZ		24328

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	**71-43-2**	**8260B**	**1.3**		**0.50**	**ug/L**	**1**
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	**75-00-3**	**8260B**	**3.0**		**0.50**	**ug/L**	**1**
1,1-Dichloroethane	**75-34-3**	**8260B**	**4.0**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**18**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**50**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		112	70-130

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Dissolved Gases

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-010**
Description: **DUP-2**
Matrix: **Aqueous**
Date Sampled: **12/15/2009**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/29/2009 0150	LBS		24414

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	**74-82-8**	**RSK - 175**	**5600**		**10**	**ug/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

ICP-AES

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-010**
Description: **DUP-2**
Matrix: **Aqueous**
Date Sampled: **12/15/2009**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	12/19/2009 0025	KJC	12/17/2009 1500	23742

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	**7439-89-6**	**6010C**	**35**		**0.10**	**mg/L**	**1**
Manganese	**7439-96-5**	**6010C**	**0.25**		**0.015**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Inorganic non-metals

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-011**
Description: **ETMW-116**
Matrix: **Aqueous**
Date Sampled: **12/15/2009 1420**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/21/2009 1853	DAS		24083
1		(Chloride) 300.0	1	12/18/2009 2113	DAS		24007
1		(DOC) SM 5310D	1	12/23/2009 2212	PMM		24204
1		(Nitrate - N) 353.2	1	12/16/2009 1714	MML		23770
1		(Sulfate) 300.0	1	12/18/2009 2113	DAS		24010
1		(Sulfide) SM 4500-S2 F	1	12/18/2009 1020	BM		23933
1		(TOC) SM 5310D	1	12/22/2009 1139	PMM		24054

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		**SM 2320B**	**330**		**10**	**mg/L**	**1**
Chloride		**300.0**	**29**		**1.0**	**mg/L**	**1**
DOC		**SM 5310D**	**9.4**		**1.0**	**mg/L**	**1**
Nitrate - N		353.2	ND		0.020	mg/L	1
Sulfate		300.0	ND		1.0	mg/L	1
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		**SM 5310D**	**12**		**1.0**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **KL16036-011**

Description: **ETMW-116** Matrix: **Aqueous**

Date Sampled: **12/15/2009 1420**

Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/24/2009 1652	MZ		24328

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	**75-00-3**	**8260B**	**8.8**		**0.50**	**ug/L**	**1**
1,1-Dichloroethane	**75-34-3**	**8260B**	**8.4**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**4.3**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**170**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		112	70-130

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Dissolved Gases

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-011**
Description: **ETMW-116**
Matrix: **Aqueous**
Date Sampled: **12/15/2009 1420**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/29/2009 0204	LBS		24414

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	**74-82-8**	**RSK - 175**	**5800**		**10**	**ug/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

ICP-AES

Client: **O'Brien and Gere**
Laboratory ID: **KL16036-011**
Description: **ETMW-116**
Matrix: **Aqueous**
Date Sampled: **12/15/2009 1420**
Date Received: **12/16/2009**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	12/19/2009 0031	KJC	12/17/2009 1500	23742

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	**7439-89-6**	**6010C**	**27**		**0.10**	**mg/L**	**1**
Manganese	**7439-96-5**	**6010C**	**0.20**		**0.015**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

QC Summary

Inorganic non-metals - MB

Sample ID: KQ23770-001
Batch: 23770
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	12/16/2009 1707

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ23770-002
Batch: 23770
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.80		1	100	90-110	12/16/2009 1709

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ23770-003 **Matrix:** Aqueous
Batch: 23770
Analytical Method: 353.2

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.80	0.80		1	100	0.38	90-110	20	12/16/2009 1710

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: KL16036-009MS
Batch: 23770
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	ND	0.80	ND	N	1	0.00	90-110	12/16/2009 1724

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: KL16036-009MD
Batch: 23770
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	ND	0.80	ND	N	1	0.00	0.00	90-110	20	12/16/2009 1726

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: KQ23932-001
Batch: 23932
Analytical Method: SM 4500-S2 F
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Sulfide	ND		1	1.0	mg/L	12/17/2009 1530

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ23932-002
Batch: 23932
Analytical Method: SM 4500-S2 F
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfide	10	9.4		1	94	80-120	12/17/2009 1530

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ23932-003 **Matrix:** Aqueous
Batch: 23932
Analytical Method: SM 4500-S2 F

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfide	10	9.3		1	93	1.9	80-120	20	12/17/2009 1530

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N - Recovery is out of criteria
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: KQ23933-001
Batch: 23933
Analytical Method: SM 4500-S2 F
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Sulfide	ND		1	1.0	mg/L	12/17/2009 1530

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ23933-002
Batch: 23933
Analytical Method: SM 4500-S2 F

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfide	10	9.4		1	94	80-120	12/17/2009 1530

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ23933-003 **Matrix:** Aqueous
Batch: 23933
Analytical Method: SM 4500-S2 F

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfide	10	9.3		1	93	1.9	80-120	20	12/17/2009 1530

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N - Recovery is out of criteria
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: KQ24007-001
Batch: 24007
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Chloride	ND		1	1.0	mg/L	12/18/2009 1345

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ24007-002
Batch: 24007
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	21		1	106	90-110	12/18/2009 1407

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ24007-003 **Matrix:** Aqueous
Batch: 24007
Analytical Method: 300.0

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	20	21		1	106	0.36	90-110	20	12/18/2009 1429

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - Duplicate

Sample ID: KL16036-011DU
Batch: 24007
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Result (mg/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Chloride	29	29		1	0.010	10	12/18/2009 2135

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: KQ24010-001
Batch: 24010
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Sulfate	ND		1	1.0	mg/L	12/18/2009 1345

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ24010-002
Batch: 24010
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	21		1	103	90-110	12/18/2009 1407

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ24010-003 **Matrix:** Aqueous
Batch: 24010
Analytical Method: 300.0

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	20	21		1	105	1.9	90-110	20	12/18/2009 1429

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - Duplicate

Sample ID: KL16036-011DU
Batch: 24010
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Result (mg/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Sulfate	ND	ND		1	0.00	10	12/18/2009 2135

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: KQ24054-001
Batch: 24054
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
TOC	ND		1	1.0	mg/L	12/22/2009 0833

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ24054-002
Batch: 24054
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
TOC	20	20		1	101	90-110	12/22/2009 0853

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ24054-003 **Matrix:** Aqueous
Batch: 24054
Analytical Method: SM 5310D

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
TOC	20	20		1	101	0.22	90-110	20	12/22/2009 0914

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: KQ24083-001
Batch: 24083
Analytical Method: SM 2320B
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Alkalinity	ND		1	10	mg/L	12/21/2009 1429

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ24083-002
Batch: 24083
Analytical Method: SM 2320B
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Alkalinity	100	110		1	107	90-110	12/21/2009 1444

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ24083-003 **Matrix:** Aqueous
Batch: 24083
Analytical Method: SM 2320B

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Alkalinity	100	110		1	106	0.075	90-110	20	12/21/2009 1500

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: KQ24204-001
Batch: 24204
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
DOC	ND		1	1.0	mg/L	12/23/2009 1947

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ24204-002
Batch: 24204
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
DOC	20	20		1	100	90-110	12/23/2009 2008

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ24204-003 **Matrix:** Aqueous
Batch: 24204
Analytical Method: SM 5310D

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
DOC	20	20		1	102	1.1	90-110	20	12/23/2009 2028

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N - Recovery is out of criteria
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: KQ24328-001
Batch: 24328
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/24/2009 1419
Benzene	ND		1	0.50	ug/L	12/24/2009 1419
2-Butanone (MEK)	ND		1	10	ug/L	12/24/2009 1419
Carbon disulfide	ND		1	0.50	ug/L	12/24/2009 1419
Chloroethane	ND		1	0.50	ug/L	12/24/2009 1419
1,2-Dichloroethane	ND		1	0.50	ug/L	12/24/2009 1419
1,1-Dichloroethane	ND		1	0.50	ug/L	12/24/2009 1419
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/24/2009 1419
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/24/2009 1419
1,1-Dichloroethene	ND		1	0.50	ug/L	12/24/2009 1419
Isobutyl alcohol	ND		1	50	ug/L	12/24/2009 1419
Tetrachloroethene	ND		1	0.50	ug/L	12/24/2009 1419
Toluene	ND		1	0.50	ug/L	12/24/2009 1419
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/24/2009 1419
Trichloroethene	ND		1	0.50	ug/L	12/24/2009 1419
Trichlorofluoromethane	ND		1	0.50	ug/L	12/24/2009 1419
Vinyl chloride	ND		1	0.50	ug/L	12/24/2009 1419
Xylenes (total)	ND		1	0.50	ug/L	12/24/2009 1419

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		115	70-130
Toluene-d8		110	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: KQ24328-002
Batch: 24328
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	150		1	151	46-153	12/24/2009 1252
Benzene	50	54		1	109	70-130	12/24/2009 1252
2-Butanone (MEK)	100	130		1	125	60-140	12/24/2009 1252
Carbon disulfide	50	63		1	125	60-140	12/24/2009 1252
Chloroethane	50	76		1	152	42-163	12/24/2009 1252
1,2-Dichloroethane	50	53		1	107	70-130	12/24/2009 1252
1,1-Dichloroethane	50	55		1	110	70-130	12/24/2009 1252
trans-1,2-Dichloroethene	50	58		1	117	70-130	12/24/2009 1252
cis-1,2-Dichloroethene	50	55		1	110	70-130	12/24/2009 1252
1,1-Dichloroethene	50	59		1	118	70-130	12/24/2009 1252
Isobutyl alcohol	500	830	N	1	167	70-130	12/24/2009 1252
Tetrachloroethene	50	57		1	114	70-130	12/24/2009 1252
Toluene	50	55		1	110	70-130	12/24/2009 1252
1,1,1-Trichloroethane	50	57		1	115	70-130	12/24/2009 1252
Trichloroethene	50	57		1	113	70-130	12/24/2009 1252
Trichlorofluoromethane	50	65		1	131	60-140	12/24/2009 1252
Vinyl chloride	50	70		1	140	60-140	12/24/2009 1252
Xylenes (total)	100	110		1	114	70-130	12/24/2009 1252

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		114	70-130
Toluene-d8		112	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: KQ24328-003
Batch: 24328
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	110	+	1	115	28	46-153	20	12/24/2009 1314
Benzene	50	53		1	106	2.7	70-130	20	12/24/2009 1314
2-Butanone (MEK)	100	110		1	110	14	60-140	20	12/24/2009 1314
Carbon disulfide	50	60		1	119	5.2	60-140	20	12/24/2009 1314
Chloroethane	50	74		1	148	2.9	42-163	20	12/24/2009 1314
1,2-Dichloroethane	50	53		1	106	1.1	70-130	20	12/24/2009 1314
1,1-Dichloroethane	50	53		1	106	3.6	70-130	20	12/24/2009 1314
trans-1,2-Dichloroethene	50	55		1	110	5.7	70-130	20	12/24/2009 1314
cis-1,2-Dichloroethene	50	53		1	106	3.9	70-130	20	12/24/2009 1314
1,1-Dichloroethene	50	56		1	113	4.3	70-130	20	12/24/2009 1314
Isobutyl alcohol	500	530	+	1	107	44	70-130	20	12/24/2009 1314
Tetrachloroethene	50	56		1	111	2.6	70-130	20	12/24/2009 1314
Toluene	50	55		1	111	1.1	70-130	20	12/24/2009 1314
1,1,1-Trichloroethane	50	55		1	111	3.7	70-130	20	12/24/2009 1314
Trichloroethene	50	55		1	110	2.5	70-130	20	12/24/2009 1314
Trichlorofluoromethane	50	62		1	124	5.3	60-140	20	12/24/2009 1314
Vinyl chloride	50	67		1	134	4.3	60-140	20	12/24/2009 1314
Xylenes (total)	100	110		1	110	2.8	70-130	20	12/24/2009 1314

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		112	70-130
Toluene-d8		116	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: KQ24457-001
Batch: 24457
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/29/2009 0236
Benzene	ND		1	0.50	ug/L	12/29/2009 0236
2-Butanone (MEK)	ND		1	10	ug/L	12/29/2009 0236
Carbon disulfide	ND		1	0.50	ug/L	12/29/2009 0236
Chloroethane	ND		1	0.50	ug/L	12/29/2009 0236
1,2-Dichloroethane	ND		1	0.50	ug/L	12/29/2009 0236
1,1-Dichloroethane	ND		1	0.50	ug/L	12/29/2009 0236
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/29/2009 0236
1,1-Dichloroethene	ND		1	0.50	ug/L	12/29/2009 0236
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/29/2009 0236
Isobutyl alcohol	ND		1	50	ug/L	12/29/2009 0236
Tetrachloroethene	ND		1	0.50	ug/L	12/29/2009 0236
Toluene	ND		1	0.50	ug/L	12/29/2009 0236
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/29/2009 0236
Trichloroethene	ND		1	0.50	ug/L	12/29/2009 0236
Trichlorofluoromethane	ND		1	0.50	ug/L	12/29/2009 0236
Vinyl chloride	ND		1	0.50	ug/L	12/29/2009 0236
Xylenes (total)	ND		1	0.50	ug/L	12/29/2009 0236

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: KQ24457-002
Batch: 24457
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	104	46-153	12/29/2009 0023
Benzene	50	51		1	102	70-130	12/29/2009 0023
2-Butanone (MEK)	100	110		1	105	60-140	12/29/2009 0023
Carbon disulfide	50	60		1	119	60-140	12/29/2009 0023
Chloroethane	50	54		1	108	42-163	12/29/2009 0023
1,2-Dichloroethane	50	51		1	101	70-130	12/29/2009 0023
1,1-Dichloroethane	50	50		1	101	70-130	12/29/2009 0023
cis-1,2-Dichloroethene	50	52		1	104	70-130	12/29/2009 0023
1,1-Dichloroethene	50	52		1	104	70-130	12/29/2009 0023
trans-1,2-Dichloroethene	50	52		1	104	70-130	12/29/2009 0023
Isobutyl alcohol	500	530		1	107	70-130	12/29/2009 0023
Tetrachloroethene	50	54		1	107	70-130	12/29/2009 0023
Toluene	50	54		1	108	70-130	12/29/2009 0023
1,1,1-Trichloroethane	50	54		1	108	70-130	12/29/2009 0023
Trichloroethene	50	53		1	106	70-130	12/29/2009 0023
Trichlorofluoromethane	50	55		1	110	60-140	12/29/2009 0023
Vinyl chloride	50	53		1	106	60-140	12/29/2009 0023
Xylenes (total)	100	110		1	115	70-130	12/29/2009 0023

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: KQ24457-003
Batch: 24457
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	78	+	1	78	28	46-153	20	12/29/2009 0045
Benzene	50	49		1	99	2.8	70-130	20	12/29/2009 0045
2-Butanone (MEK)	100	100		1	101	3.8	60-140	20	12/29/2009 0045
Carbon disulfide	50	56		1	111	6.9	60-140	20	12/29/2009 0045
Chloroethane	50	51		1	102	6.1	42-163	20	12/29/2009 0045
1,2-Dichloroethane	50	48		1	96	5.2	70-130	20	12/29/2009 0045
1,1-Dichloroethane	50	48		1	95	5.8	70-130	20	12/29/2009 0045
cis-1,2-Dichloroethene	50	48		1	96	7.3	70-130	20	12/29/2009 0045
1,1-Dichloroethene	50	48		1	96	7.4	70-130	20	12/29/2009 0045
trans-1,2-Dichloroethene	50	49		1	99	4.6	70-130	20	12/29/2009 0045
Isobutyl alcohol	500	430		1	87	20	70-130	20	12/29/2009 0045
Tetrachloroethene	50	53		1	106	0.60	70-130	20	12/29/2009 0045
Toluene	50	55		1	110	1.6	70-130	20	12/29/2009 0045
1,1,1-Trichloroethane	50	52		1	103	4.2	70-130	20	12/29/2009 0045
Trichloroethene	50	51		1	102	3.2	70-130	20	12/29/2009 0045
Trichlorofluoromethane	50	52		1	104	5.5	60-140	20	12/29/2009 0045
Vinyl chloride	50	50		1	100	6.1	60-140	20	12/29/2009 0045
Xylenes (total)	100	110		1	112	2.1	70-130	20	12/29/2009 0045

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		90	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: LQ25414-001
Batch: 25414
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/29/2009 0236
Benzene	ND		1	0.50	ug/L	12/29/2009 0236
2-Butanone (MEK)	ND		1	10	ug/L	12/29/2009 0236
Carbon disulfide	ND		1	0.50	ug/L	12/29/2009 0236
Chloroethane	ND		1	0.50	ug/L	12/29/2009 0236
1,2-Dichloroethane	ND		1	0.50	ug/L	12/29/2009 0236
1,1-Dichloroethane	ND		1	0.50	ug/L	12/29/2009 0236
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/29/2009 0236
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/29/2009 0236
1,1-Dichloroethene	ND		1	0.50	ug/L	12/29/2009 0236
Isobutyl alcohol	ND		1	50	ug/L	12/29/2009 0236
Tetrachloroethene	ND		1	0.50	ug/L	12/29/2009 0236
Toluene	ND		1	0.50	ug/L	12/29/2009 0236
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/29/2009 0236
Trichloroethene	ND		1	0.50	ug/L	12/29/2009 0236
Trichlorofluoromethane	ND		1	0.50	ug/L	12/29/2009 0236
Vinyl chloride	ND		1	0.50	ug/L	12/29/2009 0236
Xylenes (total)	ND		1	0.50	ug/L	12/29/2009 0236

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: LQ25414-002
Batch: 25414
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	104	46-153	12/29/2009 0023
Benzene	50	51		1	102	70-130	12/29/2009 0023
2-Butanone (MEK)	100	110		1	105	60-140	12/29/2009 0023
Carbon disulfide	50	60		1	119	60-140	12/29/2009 0023
Chloroethane	50	54		1	108	42-163	12/29/2009 0023
1,2-Dichloroethane	50	51		1	101	70-130	12/29/2009 0023
1,1-Dichloroethane	50	50		1	101	70-130	12/29/2009 0023
trans-1,2-Dichloroethene	50	52		1	104	70-130	12/29/2009 0023
cis-1,2-Dichloroethene	50	52		1	104	70-130	12/29/2009 0023
1,1-Dichloroethene	50	52		1	104	70-130	12/29/2009 0023
Isobutyl alcohol	500	530		1	107	70-130	12/29/2009 0023
Tetrachloroethene	50	54		1	107	70-130	12/29/2009 0023
Toluene	50	54		1	108	70-130	12/29/2009 0023
1,1,1-Trichloroethane	50	54		1	108	70-130	12/29/2009 0023
Trichloroethene	50	53		1	106	70-130	12/29/2009 0023
Trichlorofluoromethane	50	55		1	110	60-140	12/29/2009 0023
Vinyl chloride	50	53		1	106	60-140	12/29/2009 0023
Xylenes (total)	100	110		1	115	70-130	12/29/2009 0023

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: LQ25414-003
Batch: 25414
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	78	+	1	78	28	46-153	20	12/29/2009 0045
Benzene	50	49		1	99	2.8	70-130	20	12/29/2009 0045
2-Butanone (MEK)	100	100		1	101	3.8	60-140	20	12/29/2009 0045
Carbon disulfide	50	56		1	111	6.9	60-140	20	12/29/2009 0045
Chloroethane	50	51		1	102	6.1	42-163	20	12/29/2009 0045
1,2-Dichloroethane	50	48		1	96	5.2	70-130	20	12/29/2009 0045
1,1-Dichloroethane	50	48		1	95	5.8	70-130	20	12/29/2009 0045
trans-1,2-Dichloroethene	50	49		1	99	4.6	70-130	20	12/29/2009 0045
cis-1,2-Dichloroethene	50	48		1	96	7.3	70-130	20	12/29/2009 0045
1,1-Dichloroethene	50	48		1	96	7.4	70-130	20	12/29/2009 0045
Isobutyl alcohol	500	430		1	87	20	70-130	20	12/29/2009 0045
Tetrachloroethene	50	53		1	106	0.60	70-130	20	12/29/2009 0045
Toluene	50	55		1	110	1.6	70-130	20	12/29/2009 0045
1,1,1-Trichloroethane	50	52		1	103	4.2	70-130	20	12/29/2009 0045
Trichloroethene	50	51		1	102	3.2	70-130	20	12/29/2009 0045
Trichlorofluoromethane	50	52		1	104	5.5	60-140	20	12/29/2009 0045
Vinyl chloride	50	50		1	100	6.1	60-140	20	12/29/2009 0045
Xylenes (total)	100	110		1	112	2.1	70-130	20	12/29/2009 0045

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		90	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - MB

Sample ID: KQ24414-001
Batch: 24414
Analytical Method: RSK - 175
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Ethane	ND		1	10	ug/L	12/28/2009 2337
Ethene	ND		1	10	ug/L	12/28/2009 2337
Methane	ND		1	10	ug/L	12/28/2009 2337

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - LCS

Sample ID: KQ24414-002 **Matrix:** Aqueous
Batch: 24414
Analytical Method: RSK - 175

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Methane	17	18		1	106	70-130	12/28/2009 2239

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - LCSD

Sample ID: KQ24414-003 **Matrix:** Aqueous
Batch: 24414
Analytical Method: RSK - 175

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Methane	17	20		1	115	7.8	70-130	40	12/28/2009 2259

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - MB

Sample ID: KQ24427-001
Batch: 24427
Analytical Method: RSK - 175
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Ethane	ND		1	10	ug/L	12/29/2009 1737
Ethene	ND		1	10	ug/L	12/29/2009 1737
Methane	ND		1	10	ug/L	12/29/2009 1737

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - LCS

Sample ID: KQ24427-002
Batch: 24427
Analytical Method: RSK - 175
Matrix: Aqueous

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Methane	17	20		1	116	70-130	12/29/2009 1655

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - LCSD

Sample ID: KQ24427-003 **Matrix:** Aqueous
Batch: 24427
Analytical Method: RSK - 175

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Methane	17	20		1	119	2.6	70-130	40	12/29/2009 1723

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - MB

Sample ID: KQ23742-001
Batch: 23742
Analytical Method: 6010C
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/17/2009 1500

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Iron	ND		1	0.10	mg/L	12/18/2009 2145
Manganese	ND		1	0.015	mg/L	12/18/2009 2145

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - LCS

Sample ID: KQ23742-002
Batch: 23742
Analytical Method: 6010C
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/17/2009 1500

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Iron	20	20		1	100	80-120	12/18/2009 2151
Manganese	2.0	2.0		1	100	80-120	12/18/2009 2151

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - LCSD

Sample ID: KQ23742-003
Batch: 23742
Analytical Method: 6010C
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/17/2009 1500

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Iron	20	20		1	101	0.77	80-120	20	12/18/2009 2157
Manganese	2.0	2.0		1	100	0.73	80-120	20	12/18/2009 2157

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY **Chain of Custody Record**

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111

Number 101685

Client: O'BRIEN + GERE	Report to Contact: SARAH SLAGLE-GARRETT	Telephone No. / Fax No. / E-mail: (919) 414-6368	Quote No.: 11910
Address: 2610 WYCLIFF RD. SUITE 104	Sampler's Signature: X Sarah Slagle-Garrett	Waybill No.: 8697 9426 9720	Page 2 of 2
City: RALEIGH State: NC Zip Code: 27607	Printed Name: SARAH SLAGLE-GARRETT	Analysis (Attach list if more space is needed.)	
Project Name: MILLER MOULTRIE			
Project No. / P.O. No.			Lot No.: KL16034

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5000 mL	NaOH/Zn Ac	* SEE ATTACHED TABLE VOCs	DISSOLVED GASES	ANIONS	SULFIDE	DOC	TOC	METALS				Remarks / Cooler I.D.
ETMW-117	12/15/09	0925	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
ETMW-118	12/15/09	0940	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
DUP-2	12/15/09	—	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
ETMW-116	12/15/09	1420	G	X			2	1	1	5			1	3	2	1	1	1	1	1				

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison [ ] Unknown

Sample Disposal: [ ] Return to Client [X] Disposal by Lab

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

Turn Around Time Required (Prior lab approval required for expedited TAT.): [X] Standard [ ] Rush (Specify)

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: FEDEX	12/10/09	1500	1. Received by: Sarah Slagle-Garrett	12/10/09	1510
2. Relinquished by: Sarah Slagle-Garrett	12/15/09	1730	2. Received by:		
3. Relinquished by: FEDEX	12/16/09	0840	3. Laboratory received by: [signature]	12/16/09	0840

Comments:

LAB USE ONLY: Received on ice (Circle) Yes No Ice Pack

Receipt Temp. 3.2 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-012 Effective Date: 08-04-02

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

O'Brien and Gere
2610 Wycliff Road
Suite 104
Raleigh, NC 27607
Attention: Michael Hall

Project Name: Miller Moultrie

Project Number: 45487

Lot Number: KL17026

Date Completed: 01/06/2010



Nisreen Saikaly
Project Manager



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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

KL17026

Case Narrative
O'Brien and Gere
Lot Number: KL17026

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Nitrate - N

The MS recovery in batch 23793 was outside acceptance criteria. All other QA/QC criteria for the batch were within acceptance criteria and method control limits. The MS recovery results are attributed to matrix interference. The associated sample results were reported and no corrective action was required.

Sample Summary
O'Brien and Gere
Lot Number: KL17026

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	ETMW-114	Aqueous	12/16/2009 1000	12/17/2009
002	CH2MW-1	Aqueous	12/16/2009 1135	12/17/2009
003	ETCMW-115	Aqueous	12/16/2009 0820	12/17/2009
004	ETCMW-113	Aqueous	12/16/2009 1045	12/17/2009
005	CH2MW-114D	Aqueous	12/16/2009 1040	12/17/2009
006	Trip Blank	Aqueous	12/16/2009	12/17/2009
007	CH2MW-3	Aqueous	12/16/2009 1400	12/17/2009

(7 samples)

Executive Summary
O'Brien and Gere
Lot Number: KL17026

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	ETMW-114	Aqueous	Alkalinity	SM 2320B	230		mg/L	6
001	ETMW-114	Aqueous	Chloride	300.0	18		mg/L	6
001	ETMW-114	Aqueous	DOC	SM 5310D	3.3		mg/L	6
001	ETMW-114	Aqueous	Nitrate - N	353.2	4.7		mg/L	6
001	ETMW-114	Aqueous	Sulfate	300.0	29		mg/L	6
001	ETMW-114	Aqueous	TOC	SM 5310D	3.5		mg/L	6
001	ETMW-114	Aqueous	Benzene	8260B	2.9		ug/L	7
001	ETMW-114	Aqueous	1,1-Dichloroethane	8260B	33		ug/L	7
001	ETMW-114	Aqueous	1,1-Dichloroethene	8260B	53		ug/L	7
001	ETMW-114	Aqueous	cis-1,2-Dichloroethene	8260B	820		ug/L	7
001	ETMW-114	Aqueous	trans-1,2-Dichloroethene	8260B	1.4		ug/L	7
001	ETMW-114	Aqueous	Tetrachloroethene	8260B	9.2		ug/L	7
001	ETMW-114	Aqueous	Toluene	8260B	0.99		ug/L	7
001	ETMW-114	Aqueous	Trichloroethene	8260B	340		ug/L	7
001	ETMW-114	Aqueous	Vinyl chloride	8260B	5.2		ug/L	7
001	ETMW-114	Aqueous	Xylenes (total)	8260B	0.57		ug/L	7
001	ETMW-114	Aqueous	Methane	RSK - 175	27		ug/L	8
001	ETMW-114	Aqueous	Iron	6010C	0.16		mg/L	9
001	ETMW-114	Aqueous	Manganese	6010C	0.023		mg/L	9
003	ETCMW-115	Aqueous	Alkalinity	SM 2320B	250		mg/L	11
003	ETCMW-115	Aqueous	Chloride	300.0	2.3		mg/L	11
003	ETCMW-115	Aqueous	DOC	SM 5310D	2.3		mg/L	11
003	ETCMW-115	Aqueous	Sulfate	300.0	7.4		mg/L	11
003	ETCMW-115	Aqueous	TOC	SM 5310D	3.0		mg/L	11
003	ETCMW-115	Aqueous	1,1-Dichloroethane	8260B	1.1		ug/L	12
003	ETCMW-115	Aqueous	cis-1,2-Dichloroethene	8260B	11		ug/L	12
003	ETCMW-115	Aqueous	Trichloroethene	8260B	3.2		ug/L	12
003	ETCMW-115	Aqueous	Methane	RSK - 175	160		ug/L	13
003	ETCMW-115	Aqueous	Iron	6010C	12		mg/L	14
003	ETCMW-115	Aqueous	Manganese	6010C	0.087		mg/L	14
004	ETCMW-113	Aqueous	Alkalinity	SM 2320B	170		mg/L	15
004	ETCMW-113	Aqueous	Chloride	300.0	11		mg/L	15
004	ETCMW-113	Aqueous	DOC	SM 5310D	1.5		mg/L	15
004	ETCMW-113	Aqueous	Sulfate	300.0	14		mg/L	15
004	ETCMW-113	Aqueous	TOC	SM 5310D	2.7		mg/L	15
004	ETCMW-113	Aqueous	Benzene	8260B	0.52		ug/L	16
004	ETCMW-113	Aqueous	1,1-Dichloroethane	8260B	6.9		ug/L	16
004	ETCMW-113	Aqueous	1,1-Dichloroethene	8260B	3.2		ug/L	16
004	ETCMW-113	Aqueous	cis-1,2-Dichloroethene	8260B	120		ug/L	16
004	ETCMW-113	Aqueous	Tetrachloroethene	8260B	0.53		ug/L	16
004	ETCMW-113	Aqueous	Trichloroethene	8260B	2.8		ug/L	16
004	ETCMW-113	Aqueous	Vinyl chloride	8260B	6.0		ug/L	16
004	ETCMW-113	Aqueous	Methane	RSK - 175	2800		ug/L	17
004	ETCMW-113	Aqueous	Iron	6010C	5.5		mg/L	18
004	ETCMW-113	Aqueous	Manganese	6010C	0.016		mg/L	18

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
005	CH2MW-114D	Aqueous	Acetone	8260B	530		ug/L	19
005	CH2MW-114D	Aqueous	Carbon disulfide	8260B	0.76		ug/L	19
005	CH2MW-114D	Aqueous	1,1-Dichloroethane	8260B	0.98		ug/L	19
005	CH2MW-114D	Aqueous	1,1-Dichloroethene	8260B	8.1		ug/L	19
005	CH2MW-114D	Aqueous	cis-1,2-Dichloroethene	8260B	280		ug/L	19
005	CH2MW-114D	Aqueous	Tetrachloroethene	8260B	3.8		ug/L	19
005	CH2MW-114D	Aqueous	Trichloroethene	8260B	87		ug/L	19
007	CH2MW-3	Aqueous	Alkalinity	SM 2320B	45		mg/L	21
007	CH2MW-3	Aqueous	Chloride	300.0	5.2		mg/L	21
007	CH2MW-3	Aqueous	DOC	SM 5310D	1.5		mg/L	21
007	CH2MW-3	Aqueous	Nitrate - N	353.2	0.27		mg/L	21
007	CH2MW-3	Aqueous	Sulfate	300.0	41		mg/L	21
007	CH2MW-3	Aqueous	TOC	SM 5310D	2.3		mg/L	21
007	CH2MW-3	Aqueous	Methane	RSK - 175	24		ug/L	23

(59 detections)

Inorganic non-metals

Client: O'Brien and Gere
Description: ETMW-114
Date Sampled: 12/16/2009 1000
Date Received: 12/17/2009

Laboratory ID: KL17026-001
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/27/2009 1241	SLH		24293
1		(Chloride) 300.0	1	12/19/2009 0119	DAS		24007
1		(DOC) SM 5310D	1	12/23/2009 2233	PMM		24204
1		(Nitrate - N) 353.2	5	12/17/2009 1355	MML		23793
1		(Sulfate) 300.0	1	12/19/2009 0119	DAS		24010
1		(Sulfide) SM 4500-S2 F	1	12/18/2009 1020	BM		23933
1		(TOC) SM 5310D	1	12/23/2009 0703	PMM		24147

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		SM 2320B	230		10	mg/L	1
Chloride		300.0	18		1.0	mg/L	1
DOC		SM 5310D	3.3		1.0	mg/L	1
Nitrate - N		353.2	4.7		0.10	mg/L	1
Sulfate		300.0	29		1.0	mg/L	1
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		SM 5310D	3.5		1.0	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Laboratory ID: KL17026-001
Description: ETMW-114
Matrix: Aqueous
Date Sampled: 12/16/2009 1000
Date Received: 12/17/2009

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/29/2009 1346	RRH		24459
2	5030B	8260B	5	12/30/2009 2240	RRH		24539

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	2.9		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	33		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	53		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	820		2.5	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	1.4		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	9.2		0.50	ug/L	1
Toluene	108-88-3	8260B	0.99		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	340		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	5.2		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	0.57		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		99	70-130		105	70-130
Bromofluorobenzene		91	70-130		97	70-130
Toluene-d8		97	70-130		101	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Dissolved Gases

Client: O'Brien and Gere
Laboratory ID: KL17026-001
Description: ETMW-114
Matrix: Aqueous
Date Sampled: 12/16/2009 1000
Date Received: 12/17/2009

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/29/2009 0214	LBS		24414

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	74-82-8	RSK - 175	27		10	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

ICP-AES

Client: O'Brien and Gere
Description: ETMW-114
Date Sampled: 12/16/2009 1000
Date Received: 12/17/2009

Laboratory ID: KL17026-001
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	12/29/2009 2338	CDF	12/22/2009 1500	24095
2	3005A	6010C	1	12/30/2009 2255	KJC	12/22/2009 1500	24095

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	7439-89-6	6010C	0.16		0.10	mg/L	2
Manganese	7439-96-5	6010C	0.023		0.015	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Laboratory ID: KL17026-002
Description: CH2MW-1
Matrix: Aqueous
Date Sampled: 12/16/2009 1135
Date Received: 12/17/2009

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	12/29/2009 1809	RRH		24459

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		50	ug/L	1
Benzene	71-43-2	8260B	ND		2.5	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		2.5	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.5	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		2.5	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		2.5	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		2.5	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		2.5	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		2.5	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		250	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		2.5	ug/L	1
Toluene	108-88-3	8260B	ND		2.5	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		2.5	ug/L	1
Trichloroethene	79-01-6	8260B	ND		2.5	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		2.5	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.5	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		2.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Inorganic non-metals

Client: O'Brien and Gere
Description: ETCMW-115
Date Sampled: 12/16/2009 0820
Date Received: 12/17/2009

Laboratory ID: KL17026-003
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/27/2009 1254	SLH		24293
1		(Chloride) 300.0	1	12/19/2009 0142	DAS		24007
1		(DOC) SM 5310D	1	12/23/2009 2335	PMM		24204
1		(Nitrate - N) 353.2	1	12/17/2009 1356	MML		23793
1		(Sulfate) 300.0	1	12/19/2009 0142	DAS		24010
1		(Sulfide) SM 4500-S2 F	1	12/18/2009 1020	BM		23933
1		(TOC) SM 5310D	1	12/23/2009 0724	PMM		24147

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		SM 2320B	250		10	mg/L	1
Chloride		300.0	2.3		1.0	mg/L	1
DOC		SM 5310D	2.3		1.0	mg/L	1
Nitrate - N		353.2	ND		0.020	mg/L	1
Sulfate		300.0	7.4		1.0	mg/L	1
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		SM 5310D	3.0		1.0	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
H = Out of holding time
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Laboratory ID: KL17026-003
Description: ETCMW-115
Matrix: Aqueous
Date Sampled: 12/16/2009 0820
Date Received: 12/17/2009

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/29/2009 1408	RRH		24459

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	1.1		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	11		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	3.2		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Dissolved Gases

Client: O'Brien and Gere
Laboratory ID: KL17026-003
Description: ETCMW-115
Matrix: Aqueous
Date Sampled: 12/16/2009 0820
Date Received: 12/17/2009

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/29/2009 0224	LBS		24414

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	74-82-8	RSK - 175	160		10	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

ICP-AES

Client: O'Brien and Gere
Description: ETCMW-115
Date Sampled: 12/16/2009 0820
Date Received: 12/17/2009

Laboratory ID: KL17026-003
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	12/29/2009 2344	CDF	12/22/2009 1500	24095
2	3005A	6010C	1	12/30/2009 2301	KJC	12/22/2009 1500	24095

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	7439-89-6	6010C	12		0.10	mg/L	2
Manganese	7439-96-5	6010C	0.087		0.015	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Inorganic non-metals

Client: O'Brien and Gere
Description: ETCMW-113
Date Sampled: 12/16/2009 1045
Date Received: 12/17/2009

Laboratory ID: KL17026-004
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/27/2009 1308	SLH		24293
1		(Chloride) 300.0	1	12/19/2009 0334	DAS		24008
1		(DOC) SM 5310D	1	12/24/2009 0037	PMM		24204
1		(Nitrate - N) 353.2	1	12/17/2009 1357	MML		23793
1		(Sulfate) 300.0	1	12/19/2009 0334	DAS		24014
1		(Sulfide) SM 4500-S2 F	1	12/18/2009 1020	BM		23933
1		(TOC) SM 5310D	1	12/23/2009 0745	PMM		24147

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		SM 2320B	170		10	mg/L	1
Chloride		300.0	11		1.0	mg/L	1
DOC		SM 5310D	1.5		1.0	mg/L	1
Nitrate - N		353.2	ND		0.020	mg/L	1
Sulfate		300.0	14		1.0	mg/L	1
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		SM 5310D	2.7		1.0	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
H = Out of holding time
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: ETCMW-113
Date Sampled: 12/16/2009 1045
Date Received: 12/17/2009

Laboratory ID: KL17026-004
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/29/2009 1430	RRH		24459

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	0.52		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	6.9		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	3.2		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	120		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	0.53		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	2.8		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	6.0		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
H = Out of holding time
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Dissolved Gases

Client: O'Brien and Gere
Laboratory ID: KL17026-004
Description: ETCMW-113
Matrix: Aqueous
Date Sampled: 12/16/2009 1045
Date Received: 12/17/2009

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/29/2009 0238	LBS		24414

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	74-82-8	RSK - 175	2800		10	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

ICP-AES

Client: O'Brien and Gere
Description: ETCMW-113
Date Sampled: 12/16/2009 1045
Date Received: 12/17/2009

Laboratory ID: KL17026-004
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	12/29/2009 2350	CDF	12/22/2009 1500	24095
2	3005A	6010C	1	12/30/2009 2307	KJC	12/22/2009 1500	24095

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	7439-89-6	6010C	5.5		0.10	mg/L	2
Manganese	7439-96-5	6010C	0.016		0.015	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
H = Out of holding time
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: CH2MW-114D
Date Sampled: 12/16/2009 1040
Date Received: 12/17/2009

Laboratory ID: KL17026-005
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/29/2009 1914	RRH		24459

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	530		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	0.76		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	0.98		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	8.1		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	280		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	3.8		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	87		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: Trip Blank
Date Sampled: 12/16/2009
Date Received: 12/17/2009

Laboratory ID: KL17026-006
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/29/2009 1451	RRH		24459

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Inorganic non-metals

Client: O'Brien and Gere
Description: CH2MW-3
Date Sampled: 12/16/2009 1400
Date Received: 12/17/2009

Laboratory ID: KL17026-007
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/27/2009 1320	SLH		24293
1		(Chloride) 300.0	1	12/19/2009 0356	DAS		24008
1		(DOC) SM 5310D	1	12/24/2009 0058	PMM		24204
1		(Nitrate - N) 353.2	1	12/17/2009 1400	MML		23793
1		(Sulfate) 300.0	1	12/19/2009 0356	DAS		24014
1		(Sulfide) SM 4500-S2 F	1	12/18/2009 1020	BM		23933
1		(TOC) SM 5310D	1	12/23/2009 0806	PMM		24147

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		SM 2320B	45		10	mg/L	1
Chloride		300.0	5.2		1.0	mg/L	1
DOC		SM 5310D	1.5		1.0	mg/L	1
Nitrate - N		353.2	0.27		0.020	mg/L	1
Sulfate		300.0	41		1.0	mg/L	1
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		SM 5310D	2.3		1.0	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
H = Out of holding time
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: CH2MW-3
Date Sampled: 12/16/2009 1400
Date Received: 12/17/2009

Laboratory ID: KL17026-007
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/29/2009 1513	RRH		24459

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time

Dissolved Gases

Client: O'Brien and Gere
Description: CH2MW-3
Date Sampled: 12/16/2009 1400
Date Received: 12/17/2009

Laboratory ID: KL17026-007
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/29/2009 0258	LBS		24414

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	74-82-8	RSK - 175	24		10	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

ICP-AES

Client: O'Brien and Gere
Description: CH2MW-3
Date Sampled: 12/16/2009 1400
Date Received: 12/17/2009

Laboratory ID: KL17026-007
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	12/29/2009 2356	CDF	12/22/2009 1500	24095
2	3005A	6010C	1	12/30/2009 2313	KJC	12/22/2009 1500	24095

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	7439-89-6	6010C	ND		0.10	mg/L	2
Manganese	7439-96-5	6010C	ND		0.015	mg/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
H = Out of holding time
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Inorganic non-metals - MB

Sample ID: KQ23793-001
Batch: 23793
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	12/17/2009 1335

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ23793-002
Batch: 23793
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.80		1	100	90-110	12/17/2009 1336

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ23793-003
Batch: 23793
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.80	0.80		1	100	0.12	90-110	20	12/17/2009 1337

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: KL17026-004MS
Batch: 23793
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	ND	0.80	0.70	N	1	88	90-110	12/17/2009 1358

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: KL17026-004MD
Batch: 23793
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	ND	0.80	0.78		1	97	10	90-110	20	12/17/2009 1359

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: KL17026-007MS
Batch: 23793
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.27	0.80	1.1		1	104	90-110	12/17/2009 1402

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: KL17026-007MD
Batch: 23793
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.27	0.80	1.1		1	104	0.00	90-110	20	12/17/2009 1403

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: KQ23933-001
Batch: 23933
Analytical Method: SM 4500-S2 F

Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Sulfide	ND		1	1.0	mg/L	12/17/2009 1530

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ23933-002
Batch: 23933
Analytical Method: SM 4500-S2 F

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfide	10	9.4		1	94	80-120	12/17/2009 1530

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ23933-003
Batch: 23933
Analytical Method: SM 4500-S2 F

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfide	10	9.3		1	93	1.9	80-120	20	12/17/2009 1530

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: KQ24007-001
Batch: 24007
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Chloride	ND		1	1.0	mg/L	12/18/2009 1345

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ24007-002
Batch: 24007
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	21		1	106	90-110	12/18/2009 1407

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ24007-003
Batch: 24007
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	20	21		1	106	0.36	90-110	20	12/18/2009 1429

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: KQ24008-001
Batch: 24008
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Chloride	ND		1	1.0	mg/L	12/19/2009 0226

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ24008-002
Batch: 24008
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	21		1	106	90-110	12/19/2009 0249

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ24008-003
Batch: 24008
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	20	21		1	107	0.53	90-110	20	12/19/2009 0311

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: KQ24010-001
Batch: 24010
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Sulfate	ND		1	1.0	mg/L	12/18/2009 1345

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ24010-002
Batch: 24010
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	21		1	103	90-110	12/18/2009 1407

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ24010-003
Batch: 24010
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	20	21		1	105	1.9	90-110	20	12/18/2009 1429

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: KQ24014-001
Batch: 24014
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Sulfate	ND		1	1.0	mg/L	12/19/2009 0226

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ24014-002
Batch: 24014
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	102	90-110	12/19/2009 0249

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ24014-003
Batch: 24014
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	20	21		1	105	3.2	90-110	20	12/19/2009 0311

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: KQ24147-001
Batch: 24147
Analytical Method: SM 5310D

Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
TOC	ND		1	1.0	mg/L	12/23/2009 0030

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ24147-002
Batch: 24147
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
TOC	20	20		1	102	90-110	12/23/2009 0051

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ24147-003
Batch: 24147
Analytical Method: SM 5310D

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
TOC	20	21		1	104	1.6	90-110	20	12/23/2009 0112

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: KQ24204-001
Batch: 24204
Analytical Method: SM 5310D

Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
DOC	ND		1	1.0	mg/L	12/23/2009 1947

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ24204-002
Batch: 24204
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
DOC	20	20		1	100	90-110	12/23/2009 2008

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ24204-003
Batch: 24204
Analytical Method: SM 5310D

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
DOC	20	20		1	102	1.1	90-110	20	12/23/2009 2028

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: KL17026-001MS
Batch: 24204
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
DOC	3.3	20	23		1	100	70-130	12/23/2009 2254

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: KL17026-001MD
Batch: 24204
Analytical Method: SM 5310D
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
DOC	3.3	20	24		1	101	0.51	70-130	20	12/23/2009 2314

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: KQ24293-001
Batch: 24293
Analytical Method: SM 2320B
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Alkalinity	ND		1	10	mg/L	12/27/2009 1108

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: KQ24293-002
Batch: 24293
Analytical Method: SM 2320B
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Alkalinity	100	99		1	99	90-110	12/27/2009 1127

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: KQ24293-003
Batch: 24293
Analytical Method: SM 2320B
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Alkalinity	100	97		1	97	1.4	90-110	20	12/27/2009 1142

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: KQ24459-001
Batch: 24459
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/29/2009 1225
Benzene	ND		1	0.50	ug/L	12/29/2009 1225
2-Butanone (MEK)	ND		1	10	ug/L	12/29/2009 1225
Carbon disulfide	ND		1	0.50	ug/L	12/29/2009 1225
Chloroethane	ND		1	0.50	ug/L	12/29/2009 1225
1,2-Dichloroethane	ND		1	0.50	ug/L	12/29/2009 1225
1,1-Dichloroethane	ND		1	0.50	ug/L	12/29/2009 1225
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/29/2009 1225
1,1-Dichloroethene	ND		1	0.50	ug/L	12/29/2009 1225
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/29/2009 1225
Isobutyl alcohol	ND		1	50	ug/L	12/29/2009 1225
Tetrachloroethene	ND		1	0.50	ug/L	12/29/2009 1225
Toluene	ND		1	0.50	ug/L	12/29/2009 1225
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/29/2009 1225
Trichloroethene	ND		1	0.50	ug/L	12/29/2009 1225
Trichlorofluoromethane	ND		1	0.50	ug/L	12/29/2009 1225
Vinyl chloride	ND		1	0.50	ug/L	12/29/2009 1225
Xylenes (total)	ND		1	0.50	ug/L	12/29/2009 1225

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: KQ24459-002
Batch: 24459
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	118	46-153	12/29/2009 1057
Benzene	50	49		1	98	70-130	12/29/2009 1057
2-Butanone (MEK)	100	110		1	112	60-140	12/29/2009 1057
Carbon disulfide	50	50		1	100	60-140	12/29/2009 1057
Chloroethane	50	52		1	103	42-163	12/29/2009 1057
1,2-Dichloroethane	50	51		1	102	70-130	12/29/2009 1057
1,1-Dichloroethane	50	48		1	96	70-130	12/29/2009 1057
cis-1,2-Dichloroethene	50	49		1	99	70-130	12/29/2009 1057
1,1-Dichloroethene	50	48		1	97	70-130	12/29/2009 1057
trans-1,2-Dichloroethene	50	49		1	99	70-130	12/29/2009 1057
Isobutyl alcohol	500	530		1	106	70-130	12/29/2009 1057
Tetrachloroethene	50	52		1	104	70-130	12/29/2009 1057
Toluene	50	53		1	106	70-130	12/29/2009 1057
1,1,1-Trichloroethane	50	51		1	102	70-130	12/29/2009 1057
Trichloroethene	50	50		1	100	70-130	12/29/2009 1057
Trichlorofluoromethane	50	46		1	92	60-140	12/29/2009 1057
Vinyl chloride	50	49		1	98	60-140	12/29/2009 1057
Xylenes (total)	100	110		1	110	70-130	12/29/2009 1057

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: KQ24459-003
Batch: 24459
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	110		1	113	4.6	46-153	20	12/29/2009 1119
Benzene	50	49		1	99	1.5	70-130	20	12/29/2009 1119
2-Butanone (MEK)	100	100		1	105	6.4	60-140	20	12/29/2009 1119
Carbon disulfide	50	49		1	99	1.0	60-140	20	12/29/2009 1119
Chloroethane	50	51		1	102	1.1	42-163	20	12/29/2009 1119
1,2-Dichloroethane	50	49		1	99	2.7	70-130	20	12/29/2009 1119
1,1-Dichloroethane	50	49		1	97	1.2	70-130	20	12/29/2009 1119
cis-1,2-Dichloroethene	50	49		1	97	1.3	70-130	20	12/29/2009 1119
1,1-Dichloroethene	50	47		1	95	2.1	70-130	20	12/29/2009 1119
trans-1,2-Dichloroethene	50	49		1	98	1.3	70-130	20	12/29/2009 1119
Isobutyl alcohol	500	470		1	95	11	70-130	20	12/29/2009 1119
Tetrachloroethene	50	54		1	107	2.6	70-130	20	12/29/2009 1119
Toluene	50	54		1	108	2.0	70-130	20	12/29/2009 1119
1,1,1-Trichloroethane	50	51		1	102	0.77	70-130	20	12/29/2009 1119
Trichloroethene	50	51		1	102	1.7	70-130	20	12/29/2009 1119
Trichlorofluoromethane	50	46		1	92	0.080	60-140	20	12/29/2009 1119
Vinyl chloride	50	48		1	97	1.7	60-140	20	12/29/2009 1119
Xylenes (total)	100	110		1	112	1.6	70-130	20	12/29/2009 1119

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: KQ24539-001
Batch: 24539
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/30/2009 2122

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: KQ24539-002
Batch: 24539
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
cis-1,2-Dichloroethene	50	48		1	96	70-130	12/30/2009 1958

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: KQ24539-003
Batch: 24539
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
cis-1,2-Dichloroethene	50	48		1	96	0.25	70-130	20	12/30/2009 2019

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - MB

Sample ID: KQ24414-001
Batch: 24414
Analytical Method: RSK - 175
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Ethane	ND		1	10	ug/L	12/28/2009 2337
Ethene	ND		1	10	ug/L	12/28/2009 2337
Methane	ND		1	10	ug/L	12/28/2009 2337

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - LCS

Sample ID: KQ24414-002
Batch: 24414
Analytical Method: RSK - 175
Matrix: Aqueous

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Methane	17	18		1	106	70-130	12/28/2009 2239

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - LCSD

Sample ID: KQ24414-003
Batch: 24414
Analytical Method: RSK - 175
Matrix: Aqueous

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Methane	17	20		1	115	7.8	70-130	40	12/28/2009 2259

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - MB

Sample ID: KQ24095-001
Batch: 24095
Analytical Method: 6010C

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/22/2009 1500

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Iron	ND		1	0.10	mg/L	12/30/2009 2114
Manganese	ND		1	0.015	mg/L	12/29/2009 2159

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - LCS

Sample ID: KQ24095-002
Batch: 24095
Analytical Method: 6010C

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/22/2009 1500

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Iron	20	23		1	114	80-120	12/30/2009 2120
Manganese	2.0	2.0		1	102	80-120	12/29/2009 2205

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - LCSD

Sample ID: KQ24095-003
Batch: 24095
Analytical Method: 6010C

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/22/2009 1500

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Iron	20	23		1	114	0.43	80-120	20	12/30/2009 2126
Manganese	2.0	2.1		1	104	1.7	80-120	20	12/29/2009 2211

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY **Chain of Custody Record**

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111

Number 101686

Client: O'Brien + Gere
Address: 2610 Wycliff Road Suite 104
City: Raleigh State: NC Zip Code: 27607
Project Name: Miller Moultrie
Project No.: 45487
P.O. No.:

Report to Contact: Sarah Slagle-Garrett
Sampler's Signature: X Sarah Slagle-Garrett
Printed Name: SARAH SLAGLE-GARRETT

Telephone No. / Fax No. / E-mail: (919) [redacted] 783-7777
Waybill No.: 8697 9426 7908
Quote No.: 11910
Page 1 of 1

Analysis (Attach list if more space is needed.)

Lot No.: KL17026

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G-Grab C-Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	NaOH/Zn Acetate	VOCs (see attached table)	Dissolved Gases	Anions	Sulfide	DOC	TOC	Metals				Remarks / Cooler I.D.
ETMW-114	12/16/09	1000	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
CH2MW-1	12/16/09	1135	G	X						3				3										
ETCMW-115	12/16/09	0820	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
ETCMW-113	12/16/09	1045	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
CH2MW-114D	12/16/09	1040	G	X						3				3										
Trip Blank	12/16/09	—		X						2				2										
CH2MW-3	12/16/09	1400	G	X			2	1	1	5			1	3	2	1	1	1	1	1				

Possible Hazard Identification: X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

Sample Disposal: ☐ Return to Client X Disposal by Lab

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

Turn Around Time Required (Prior lab approval required for expedited TAT.): X Standard ☐ Rush (Specify)

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished by: FEDEX	12/10/09	1500	1. Received by: Sarah Slagle-Garrett	12/10/09	1510
2. Relinquished by: Sarah Slagle-Garrett	12/16/09	1740	2. Received by: FEDEX		
3. Relinquished by: FEDEX	12/17/09	0850	3. Laboratory received by: [signature]	12/17/09	0850

Comments:

LAB USE ONLY
Received on ice (Circle) Yes No Ice Pack
Receipt Temp. 4.8 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-012 Effective Date: 08-04-02

Shealy Environmental Services, Inc.
Document Number: F-AD-015
Revision Number: 6

Replaces Date: 06/22/06
Effective Date: 05/29/07

Sample Receipt Checklist (SRC)

Client: O'Brien & Gere Cooler Inspected by/date: DMP 12/12/07 Lot #: KL17026

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Airborne Exp ☐ Other

Yes ☐	No ☑	NA ☐	1. Were custody seals present on the cooler?
Yes ☐	No ☐	NA ☑	2. If custody seals were present, were they intact and unbroken?

Cooler ID/temperature upon receipt 4.8 °C / °C / °C / °C / °C / °C / °C / °C / °C

Method: ☐ Temperature Blank ☑ Against Bottles
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☑	No ☐	NA ☐	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐	NA ☐	5. Were proper custody procedures (relinquished/received) followed?
Yes ☑	No ☐	NA ☐	6. Were sample IDs listed?
Yes ☑	No ☐	NA ☐	7. Was collection date & time listed?
Yes ☑	No ☐	NA ☐	8. Were tests to be performed listed on the COC or was quote # provided?
Yes ☑	No ☐	NA ☐	9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐	NA ☐	10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐	NA ☐	11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐	NA ☐	12. Was adequate sample volume available?
Yes ☑	No ☐	NA ☐	13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑	NA ☐	14. Were any samples containers missing?
Yes ☐	No ☑	NA ☐	15. Were there any excess samples not listed on COC?
Yes ☐	No ☑	NA ☐	16. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes ☑	No ☐	NA ☐	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☑	No ☐	NA ☐	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) and toxicity (<0.1mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number)

Sample(s) _____ were received with bubbles >6 mm in diameter.

Sample(s) _____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb.

Toxicity sample(s) _____ were received with TRC >0.1 mg/L and were analyzed by method 330.5.

Corrective Action taken, if necessary:

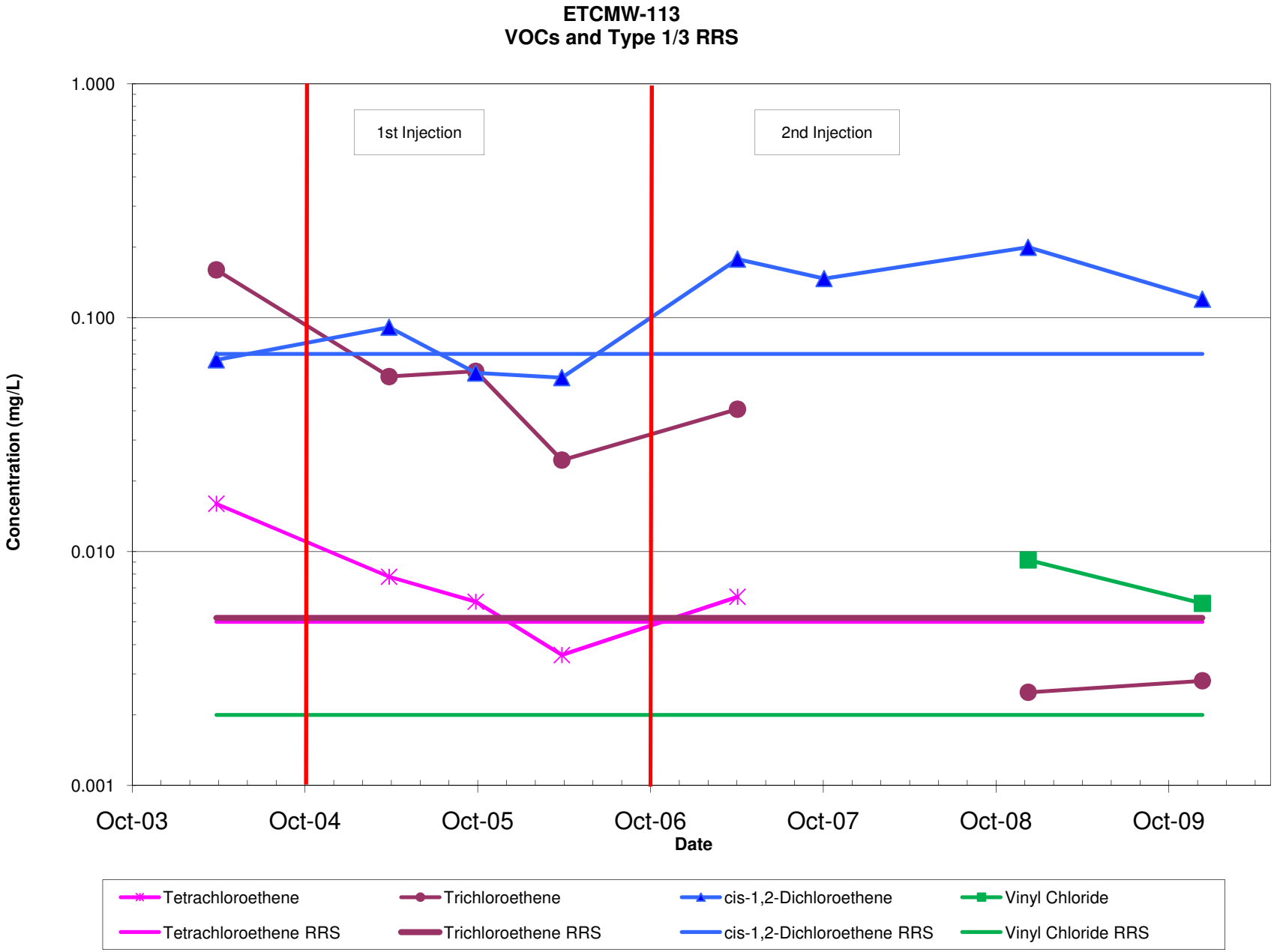
Was client notified: Yes ☐ No ☐ Did client respond: Yes ☐ No ☐

SESI employee: _____ Date of response: _____

Comments: _____

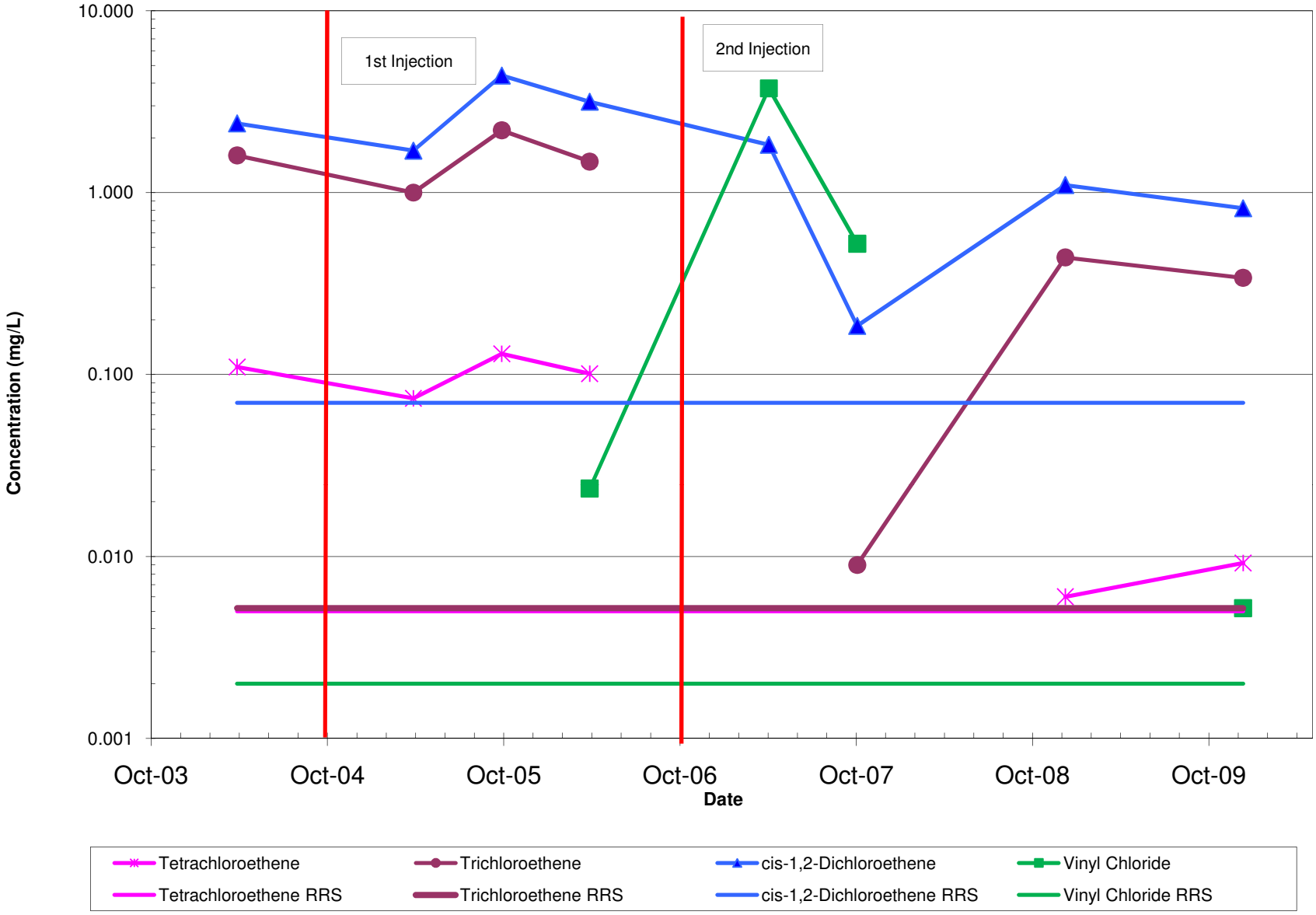
Appendix E

Trend Graphs for Volatile Organic Constituents

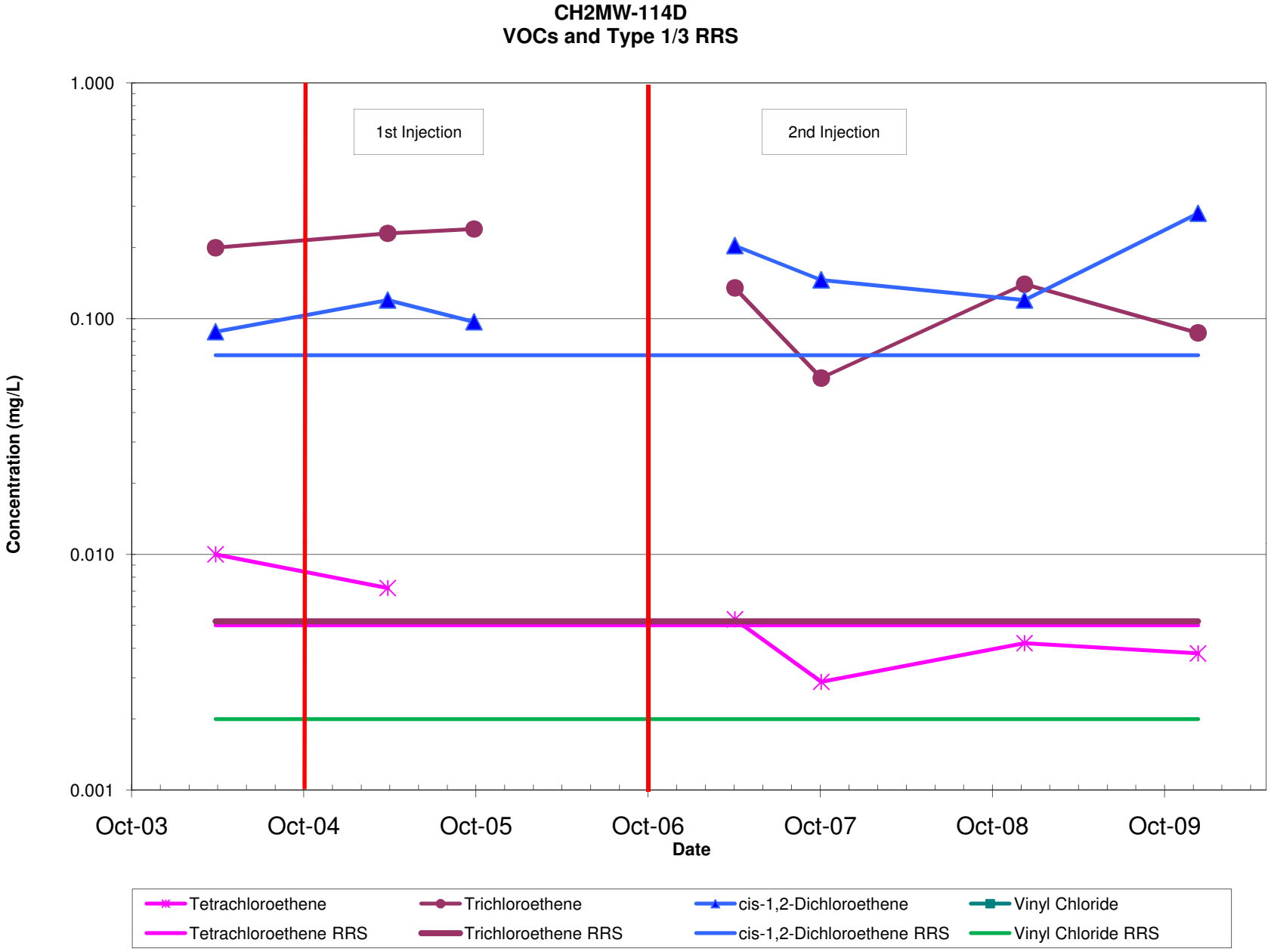


Note: Gaps in data indicate constituent was below detectable limits

ETCMW-114
VOCs and Type 1/3 RRS

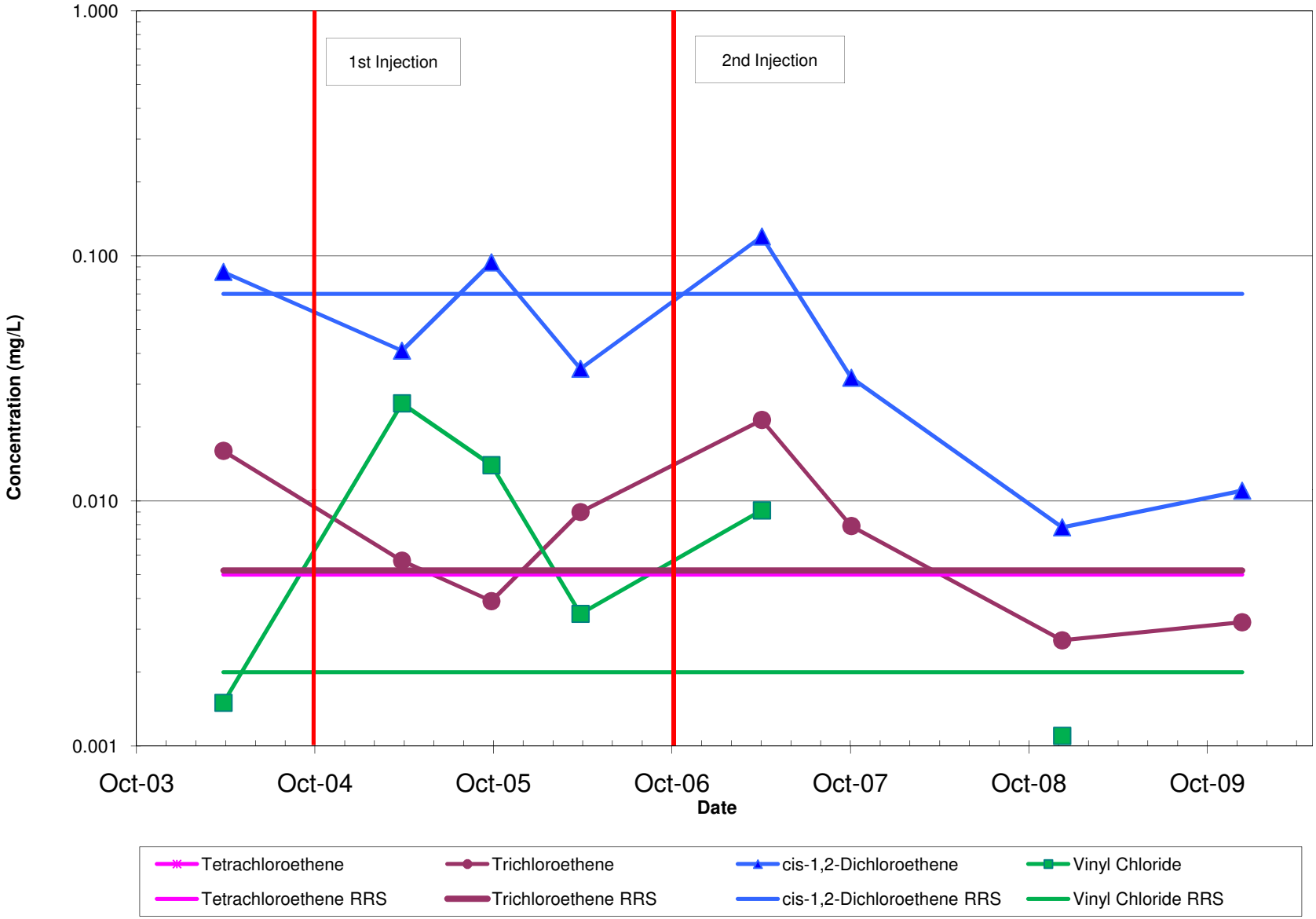


Note: Gaps in data indicate constituent was below detectable limits



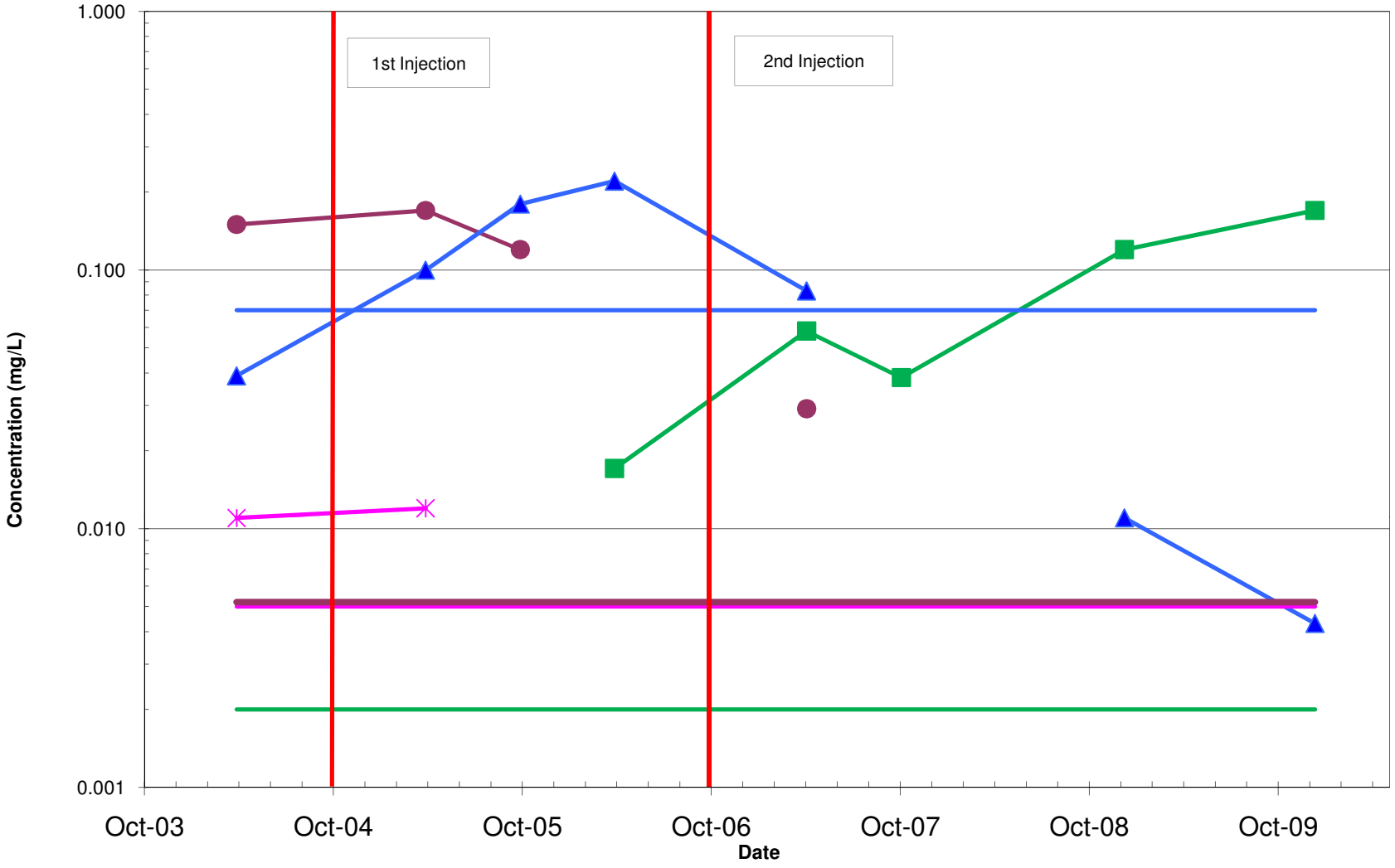
Note: Gaps in data indicate constituent was below detectable limits

ETCMW-115
VOCs and Type 1/3 RRS



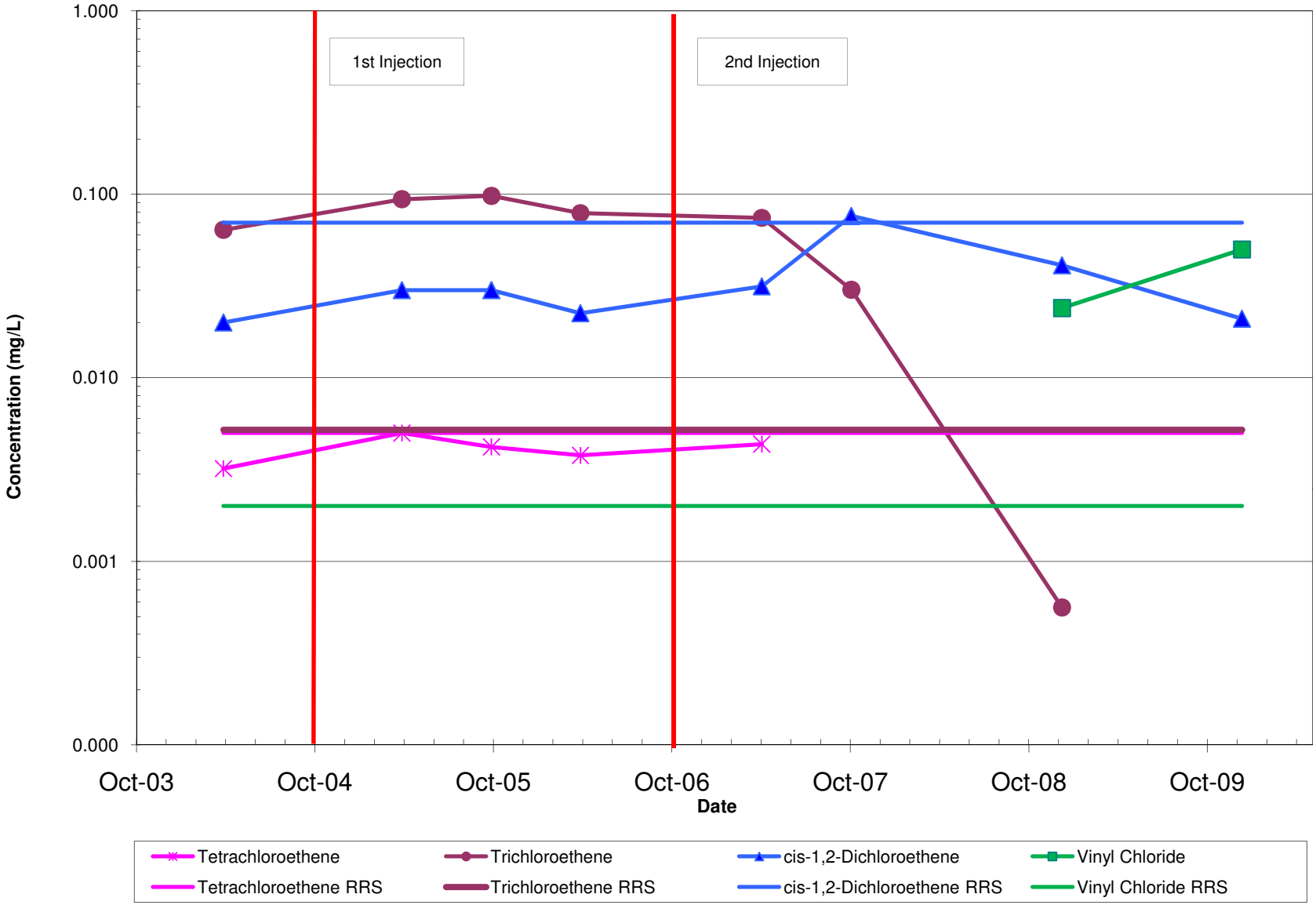
Note: Gaps in data indicate constituent was below detectable limits

ETMW-116
VOCs and Type 1/3 RRS



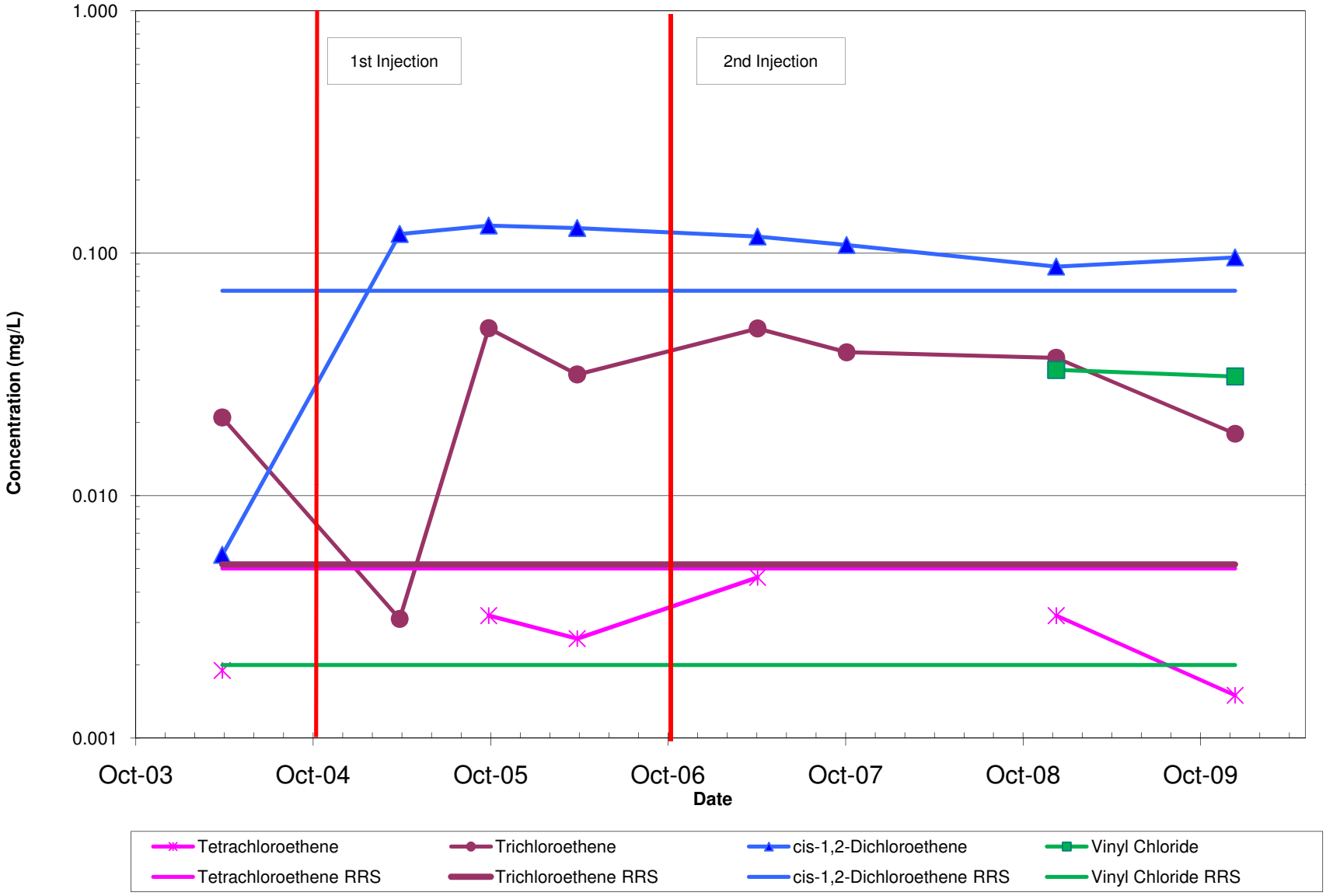
Note: Gaps in data indicate constituent was below detectable limits

ETMW-117
VOCs and Type 1/3 RRS



Note: Gaps in data indicate constituent was below detectable limits

ETMW-118
VOCs and Type 1/3 RRS



Note: Gaps in data indicate constituent was below detectable limits

Appendix L

2010 Annual Monitoring Report (O'Brien & Gere, March 2011)

REPORT

2010 Annual Monitoring Report
Miller Brewing Company Can Plant
Moultrie, Georgia

Miller Brewing Company
Moultrie, Georgia

March 23, 2011

O'BRIEN & GERE

TABLE OF CONTENTS

Table of Contents i
1. Introduction 1
1.1 Background 1
1.2 Corrective Action Objectives 2
2. Scope and Methodology 3
3. Ground Water Monitoring Results 5
3.1 Hydrogeologic Conditions 5
3.2 Ground Water Analytical Results 5
3.2.1 Ground Water VOC Results 5
3.2.2 Ground Water Geochemical Results 5
3.2.3 Treatment Area Well Summary 7
4. Conclusions 10
5. Recommendations 11
References 12

Tables

1. Summary of Monitoring Parameters
2. Monitoring Wells Sampled
3. Summary of Well Construction Details and Ground Water Elevations
4. Summary of Volatile Organic Constituents in Ground Water
5. Summary of Ground Water Geochemical Parameters
6. Proposed Ground Water Sampling Schedule

Figures

1. Site Location
2. Site Plan I
3. Ground Water Monitoring Network
4. Ground Water Potentiometric Surface, December 2010
5. PCE Concentration above RRS
6. TCE Concentration above RRS
7. Cis-1,2-DCE Concentration above RRS
8. Vinyl Chloride Concentration above RRS

Appendices

A. Historical Ground Water Results Summary
A.1. Historical Summary of Volatile Organic Constituents in Ground Water
A.2. Historical Summary of Ground Water Geochemical Parameters
B. Ground Water Sampling Log Forms
C. Laboratory Certification
D. Laboratory Analytical Results
E. Trend Graphs for Volatile Organic Constituents

1. INTRODUCTION

This report presents the progress of corrective measures performed on the surficial ground water zone at the former Miller Brewing Company Facility (site) in Moultrie, Georgia (Figure 1). Corrective action at the site is being conducted under the Georgia Hazardous Site Response Act (HSRA). The Corrective Action Plan (CAP) was submitted to the Georgia Department of Natural Resources, Environmental Protection Division (GAEPD) in January 2004 (O'Brien & Gere, January 2004) and with minor amendments, approved by GAEPD in March 2004. The corrective measure approved by GAEPD was enhanced bioremediation by underground injection of a lactate formula followed by monitored natural attenuation (MNA).

The first lactate injection occurred in October 2004. This was followed by semiannual ground water monitoring in April 2005, October 2005, and April 2006. A second lactate injection occurred in October 2006 followed by ground water monitoring in April and October 2007. Following the October 2007 event, natural attenuation screening was performed following the Office of Solid Waste and Emergency Response (OSWER) directive on MNA (9200.4-17). The MNA evaluation also included Biochlor® modeling to predict future migration and attenuation of the chlorinated ethene plume. The results of these analyses are presented in the Corrective Action Monitoring and Evaluation Report (O'Brien & Gere, April 2008). This report proposed that the site proceed with MNA as the primary remedy. The GAEPD agreed to evaluate this remedy for a five year period during an October 28, 2008 conference call. At the end of the five year period, MNA screening and Biochlor® modeling will again be performed and the continued efficacy of MNA will be evaluated.

The purpose of this report is to document the results of the December 2010 natural attenuation ground water monitoring (third year of five year period), and to gauge the progress of this corrective action.

1.1 BACKGROUND

In September 1988, four underground storage tanks (USTs) were removed from the site. These consisted of two No. 2 fuel oil USTs, a waste oil UST, and a waste solvent UST. During the removal, a release was discovered from a portion of the piping that was connected to the waste solvent UST. In response to this release, the following activities and investigations were performed:

- Closure of four USTs in September 1988
- Removal of piping associated with the former waste solvent tank, and excavation and disposal of soils contaminated with chlorinated solvents in 1988
- Phase II Site Assessment performed in 1993
- Site Investigation performed in 1994
- Supplemental Site Investigation performed in 1995
- Phase II Subsurface Investigation performed in 1998
- Compliance status investigation performed in 1998
- Supplemental compliance status investigations performed in 2000, 2001, and 2004
- Ground water monitoring in 2002.

The final Compliance Status Report (CSR) (O'Brien & Gere, June 2004) was submitted to GAEPD in June 2004. Analytical data provided in the CSR delineated the nature and extent of chlorinated ethenes in soil and ground water and defined the area of ground water affected by the concentrations of chlorinated aliphatic hydrocarbons (CAHs) above the risk reduction standards (RRS). Site soil meets the Type 4 site-specific, non-residential property RRS and has been certified as doing so in the CSR. No further action is required with respect to site soil.

CAHs, and in particular, chlorinated ethenes have been detected in ground water at concentrations above the RRS in a number of wells surrounding the former waste solvent tank piping (Figure 2). The migration of these constituents has been limited because of the extremely low hydraulic conductivity of the soil. It is likely that these constituents are derived from a historic release from the waste solvent tank piping.

The conservative risk evaluation performed for the site ground water constituents indicates that site ground water meets neither non-residential nor residential RRS. The area of ground water constituents that exceed non-residential RRS is well contained, and extends approximately 100 ft downgradient of the suspected source area (Figure 3). Further details of the site background are presented in the approved CSR. A summary of historical ground water analytical results is provided in Appendix A.

Corrective Action at the Moultrie Facility was prompted by the determination that site ground water does not meet Georgia RRS. The approved Corrective Action Program details the selected remedial measures and provides the basis for corrective action at the site. As described in the CAP, the first component of corrective action on site ground water was enhanced bioremediation consisting of injection of a lactate formulation, ABC©, into the ground water with concentrations of chlorinated ethenes above RRS. The lactate formulation accelerates microbial activity, which, in turn facilitates reductive dechlorination of the chlorinated ethenes. Injection was performed with a Geoprobe® at injection nodes laid out on a grid pattern. The injection events occurred two years apart in October 2004 and October 2006. During the second injection event, in October 2006, zero valent iron was added to the lactate solution in order to improve its efficacy by creating reducing conditions. These injection events were followed by semiannual monitoring which took place in April 2005, October 2005, April 2006, April 2007, and October 2007. The second component of the approved corrective action is MNA. The Corrective Action Monitoring and Evaluation Report (O'Brien & Gere, April 2008) recommended the implementation of MNA at the site. This recommendation was accepted by GAEPD for a five year evaluation period. This report represents the results from the third year of this period. After five years of monitoring at the site, the cumulative data will be reviewed and analyzed, Biochlor© modeling will be performed, and the ongoing efficacy of the MNA corrective action will be evaluated.

1.2 CORRECTIVE ACTION OBJECTIVES

The goal of the lactate injection was to bring site ground water into compliance with non-residential (Type 4) RRS. These were calculated for the CSR following the requirements as set forth in Chapter 391-3-19 of the HSRA. The RRS values represent an acceptable level of theoretical human health risk associated with analytes found in soil and ground water at the site. The lactate injection at the site has reduced most VOCs to levels below the Type 4 RRS where possible. Following the October 2007 ground water monitoring event, two constituents (trichloroethene and vinyl chloride) remained above the Type 4 RRS; however, these are the same as the Type 1/3 RRS for these constituents. To the extent possible, therefore, the corrective action has met the requirements of the CAP for implementation of MNA.

2. SCOPE AND METHODOLOGY

Ground water monitoring activities took place the week of December 6, 2010. Except where noted, field activities were performed following procedures described in the Corrective Action Investigation Work Plan (O'Brien & Gere, February 2004). The paragraphs that follow provide an overview of field activities.

Upon arrival at the site, monitoring wells were opened and allowed to equilibrate to atmospheric pressure for a minimum of two hours prior to measuring water levels. Water levels were measured with a decontaminated electronic water level meter to the nearest 0.01-ft relative to the top of the well casing.

After completion of the water level survey, a down-hole probe was lowered into each well to monitor geochemical parameters in each well prior to any oxygenation of the well that may result from purging activities. Down-hole measurements could not be obtained from three wells (CH2MW-1, CH2MW-114D, and CH2PP01). Each of these wells has a 1-inch well diameter and therefore the down-hole probe could not fit into these wells. Following the down-hole monitoring, each well was purged following low-flow purging protocols. Each well was purged at the lowest feasible rate, with the majority of wells purged at 100 mL/min or less. Due to the depth of the well, and the time required to purge one well volume, two wells, CH2MW-4D and ETMW-116, were purged at 125 and 150 mL/min respectively (Appendix B). During purging, water quality parameters--temperature, pH, conductivity, dissolved oxygen, and oxidation reduction potential (ORP) – as listed on Table 1, were measured continuously with either a YSI 6920 or Hydrolab Quanta® water quality meter equipped with a flow-through cell. Purging continued until at least one well volume of water was removed from the well, and until water quality parameters had stabilized.

During purging, groundwater levels in seven monitoring wells (CH2MW-1, ETCMW-113, ETCMW-114, CH2MW-114D, ETMW-118, ETMW-119, and ETMW-120) dropped below the pump setting. At these wells, the tubing was repositioned to a depth of 1 foot from the bottom of the well and purging continued until the well was dry. At three monitoring wells, (CH2MW-3, CH2PP-1, and ETMW-121) the initial water level was below the pump setting. At these wells, the tubing was repositioned to a depth of 1 foot from the bottom of the well and purging until stabilization was achieved, or until the well was purged dry. In cases where the well ran dry prior to stabilization, no additional purging was considered necessary. The wells were allowed to recovery (for at least 24 hours) until a sufficient quantity of water was present in the well to collect a ground water sample.

Following purging, samples were collected. At seven wells (CH2MW-3, ETCMW-113, ETCMW-114, ETCMW-115, ETMW-116, ETMW-117, and ETMW-118) samples for geochemical analysis were collected directly from the peristaltic pump discharge (Table 2, Figure 3). Three of these wells (CH2MW-3, ETMW-113, and ETMW-118) ran dry during purging, and it was not possible to remove an adequate sample volume for analysis of all geochemical parameters.

Samples for VOC analysis were collected at all fourteen wells using the "straw method". Under this method, the peristaltic pump was turned off and the end of the tubing was sealed, trapping the water in the tubing. The tubing was removed from the well and the seal was released, emptying the sample into 40-mL sample vials preserved with hydrochloric acid. Following the collection of ground water samples for laboratory analyses, ground water samples were collected for field measurement of iron, carbon dioxide and dissolved oxygen levels using titration kits.

Because of the lower ground water levels experienced during the 2010 sampling event, it was not possible to collect an adequate volume of ground water to measure field parameters from three wells (CH2MW-3, ETCMW-113, and ETMW-118).

One field duplicate was collected for every ten field samples for VOCs and geochemical analyses. A matrix spike/matrix spike duplicate sample was collected for every twenty field samples.

Once sample containers were properly labeled and filled, they were wrapped, sealed, and placed immediately in a cooler with ice. A chain of custody form listing each sample and the analyses requested was also included with each cooler. At the conclusion of each day, additional ice was provided in the cooler, prior to shipping the samples to the lab via overnight delivery. Samples were delivered to Shealy Laboratories of Columbia, South Carolina, which holds an accreditation from the state of Florida, a NELAP (National Environmental Laboratory Accreditation Program) accreditation authority (Appendix C).

Ground water samples were analyzed for VOCs, following SW 846 Method 8260 for the target list parameters identified on Table 1. In addition, ground water samples from seven monitoring wells, as identified on Table 2, were analyzed for the geochemical parameters listed on Table 1.

3. GROUND WATER MONITORING RESULTS

This section presents the results of the December 2010 monitoring event. Ground water purging and sampling logs, which include field data obtained, are provided as Appendix B.

The analytical data reports, provided by the laboratory are included as Appendix D.

3.1 HYDROGEOLOGIC CONDITIONS

The following provides a summary of current hydrogeologic conditions. For a more detailed description of hydrogeologic conditions, please refer to the Compliance Status Report (O'Brien & Gere, June 2004). Ground water at the site is unconfined and encountered at depths ranging from approximately 1 foot to greater than 19 feet below surface (fbs) (Table 3). Shallow monitoring wells in the surficial ground water zone range in depth from 10 to 15 fbs and have either 5 or 10 ft screen lengths. Water levels obtained in December 2010 were several feet lower than those measured during previous three monitoring events.

Hydraulic conductivity at the site is extremely low (1.4×10^{-7} cm/sec to 7.5×10^{-6} cm/sec), and ground water flow is minimal (0.053 ft/yr to 0.53 ft/yr). Because of the low hydraulic conductivity and varied recharge rates resulting from the impermeable cover provided by the building and paved areas, ground water flow at this site is highly irregular. In general, ground water on the western edge of the facility flows to the east and ground water at the western portion of the treatment area flows to the west. Flow direction and gradient in December 2010 were varied somewhat from this trend in that there appeared to be a potentiometric high in the center of the site, with flow to both the east and west (Figure 4).

The primary potential ground water receptors at the site are two small ponds that are located to the southwest and southeast of the Moultrie facility (Figure 1). The damming of an ephemeral creek that originates near the Moultrie facility formed the pond to the southeast. Given the northward component to the flow direction, and low hydraulic conductivity, ground water originating at the site is not expected to be a contributing source to these ponds; it is likely that precipitation is the predominant source of recharge for water in the creek and pond.

3.2 GROUND WATER ANALYTICAL RESULTS

Ground water analytical results from the December 2010 monitoring event are presented in the sections below.

3.2.1 Ground Water VOC Results

During the December 2010 sampling event, samples from three of the fourteen wells sampled had no VOCs detected. These wells include CH2MW-3CH2MW-4D and ETMW-121 (Table 4). Samples collected from the remaining eleven wells contained VOCs, with seven wells (ETCMW-113, ETCMW-114, CH2MW-114D, ETCMW-115, ETMW-116, ETMW-117, and ETMW-118) with concentrations above the Type 1/3 RRS.

Six constituents– chloroethane, cis-1,2-dichloroethene (cis-1,2-DCE), 1-1-dichloroethene, tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride were detected at concentrations above the Type 1/3 RRS. Discussion of VOC trends in individual wells within the treatment zone is included in section 3.2.4.

3.2.2 Ground Water Geochemical Results

The ground water sampling event at the site included laboratory analyses of the following geochemical parameters: alkalinity, chloride, nitrate, sulfate, sulfide, methane, ethane, ethene, soluble organic carbon (dissolved), total organic carbon, manganese and total iron to provide data necessary to further evaluate potential biologically mediated attenuative processes. These data are summarized along with geochemical parameters measured in the field (pH, temperature, specific conductance, ORP, turbidity, dissolved oxygen, carbon dioxide and ferrous iron) on Table 5. The geochemical data were collected to assess the effectiveness of treatment, and to provide indirect evidence of natural attenuation via biodegradation. General site geochemistry trends are discussed below. Geochemical trends in individual wells within the treatment area are included in section 3.2.4.

Although some of the geochemical data suggest that conditions within the plume are favorable for biodegradation, other parameters are inconclusive.

Dissolved Oxygen

To support microorganisms capable of dechlorinating the constituents present within the aquifer, anaerobic conditions and a reducing environment must be present. To assess these conditions, DO was analyzed in the field utilizing both a down-hole water quality monitor and a titremetric DO kit. Anaerobic bacteria cannot function at DO levels above 0.5 mg/L and therefore, reductive dechlorination cannot occur. Historically, DO readings at the site have been variable, and it is possible that oxygenation occurred during purging. To assess this potential , a down-hole oxygen probe was lowered into each well to monitor the water quality parameters prior to purging. Because of the variability observed between the down-hole measurements and the measurements obtained during purging, the lowest DO reading will be used for the purposes of this discussion.

Within the treatment area, DO readings were below 0.5 mg/L in two wells (ETCMW-113 and ETMW-117), suggesting that conditions in the ground water surrounding these wells are favorable for biodegradation; however, higher levels of DO were measured in the remaining five wells (ETCMW-114, CH2MW-114D, ETCMW-115 ETMW-116, and ETMW-118), with DO readings in ETCMW-115 and ETMW-118 slightly above 0.5 mg/L. The higher than expected levels of DO observed in the wells in the treatment area suggest that dissolved oxygen levels in this area are not favorable for biodegradation.

Oxidation Reduction Potential

The ORP of ground water is a measure of electron activity and is an indicator of the relative tendency of a solution to accept or transfer electrons. Redox reactions in ground water containing organic compounds are usually biologically mediated, and therefore the ORP of a ground water system depends upon and influences rates of biodegradation. In order to indicate a reducing environment within the aquifer, ORP values must be strongly negative. The ORP measurements in the treatment area are positive, and appear to coincide with the higher oxygen concentrations measured in the wells, suggesting conditions unfavorable to biodegradation.

Nitrate

Subsequent to depletion of dissolved oxygen, nitrate may be used as an electron acceptor for anaerobic degradation of organic carbon via a metabolic process known as denitrification. In order for reductive dechlorination to occur, nitrate concentrations in the contaminated portion of the aquifer must be less than 1.0 mg/L (USEPA 1998). During the 2010 sampling event, nitrate was not detected in samples from three wells (ETCMW-113, ETMW-116 and ETMW-117). Concentrations in these wells had detections of nitrate in 2008, but have since decreased to non detectable levels, indicating conditions that are favorable for denitrification to occur within the plume. The only detection of nitrate above 1.0 mg/L in the treatment area was in the sample from CH2MW-114D.

Ferrous Iron

Ferric iron, Fe (III), may be used as an electron acceptor during anaerobic biodegradation of organic carbon via a metabolic process known as iron reduction. During iron reduction, Fe (III) is reduced to ferrous iron, Fe (II). Biodegradation within a contaminated plume via Fe (III) reduction is evidenced by increasing concentrations of Fe (II) in the plume compared to background concentrations.

Ferrous iron data for the site shows sporadic detections of ferrous iron, primarily within the plume, although a consistent trend of ferrous iron concentrations could not be established.

Sulfate

Subsequent to depletion of dissolved oxygen and nitrate, sulfate may be used as an electron acceptor for anaerobic biodegradation via a metabolic process known as sulfate reduction, where sulfate is reduced to sulfide. Decreasing sulfate concentrations and increasing sulfide concentrations within a contaminant plume indicates sulfate reduction. No clear trend of decreasing sulfate and increasing sulfide concentrations could be observed, although only limited analyses for these constituents have been performed in the past. These data will continue to be evaluated as more data are made available to identify trends going forward.

Methane

Methane is a by-product of biodegradation of organic carbon. This process typically takes place once oxygen, nitrate, and sulfate have been depleted in the treatment zone. The presence of methane in ground water is generally indicative of strongly reducing conditions (USEPA 1998). High levels of methane (>2500 µg/L) were observed in samples from wells ETMW-116, ETMW-117 and ETMW-118. The high levels of methane contradict the dissolved oxygen and oxidation reduction potential data, and indicate strongly reducing conditions in the area and suggest that the ground water chemistry is favorable for reductive dechlorination.

Alkalinity

An increase in alkalinity levels over background concentrations can serve as an indication of reductive dechlorination. During biodegradation, carbon dioxide is produced. If the aquifer matrix consists of carbonate materials, the carbon dioxide will form carbonic acid and dissolve these materials. This dissolution increases the alkalinity of the ground water. Therefore, alkalinity levels above background levels can indicate biodegradation. Although detected in the past, alkalinity was below detectable levels in the background well (CH2MW-3) in 2010. Alkalinity was detected in all of the treatment wells at concentrations ranging from 42 mg/L to 290 mg/L, suggesting that active biodegradation is occurring.

Chloride

During anaerobic biodegradation of chlorinated ethenes, chloride is released into the ground water in stoichiometric amounts equivalent to the amount of chlorinated solvent degraded. This results in elevated chloride concentrations in a contaminant plume compound compared to background concentrations. Because of the neutral behavior of chloride, it can be used as a conservative estimate of biodegradation rates. Concentrations of chloride elevated above background levels (based on samples from monitoring well CH2MW-3) were observed in the treatment area in samples from wells ETCMW-113, ETCMW-114, ETMW-116, ETMW-117, and ETMW-118. These wells represent the areas in which constituents remain above the Type 1/3 RRS. The elevated chloride concentrations suggest biodegradation is occurring in these wells.

pH

Optimal pH conditions for microbes capable of degrading CAH's are between 6 and 8 (USEPA 1998). The wells at the site have typically had pH measurements at the low end of this range. Six of the wells in the treatment area (ETCMW-113, ETCMW-114, CH2MW-114D, ETCMW-115, ETMW-116, and ETMW-117) have pH levels between 6 and 7, within the acceptable range for degradation. Two wells within the treatment area (ETMW-117, and ETMW-118) have pH levels that remain below 6 and suggesting they would not support microbes capable of degrading CAHs.

The low pH levels across the treatment area are likely a byproduct of the injection treatments. The lactate solution accelerates microbial growth, which in turn facilitates reductive dechlorination of the chlorinated ethenes. This process produces carbon dioxide, which, in turn, reduces the pH. This reaction is typically buffered by flow through an aquifer, but because of the low permeability at the site, this buffering occurs very slowly. The most recent injection event occurred in October 2006 and since that time, pH levels within the treatment area have been gradually increasing.

3.2.3 Treatment Area Well Summary

Within the treatment area, an idealized distribution of chlorinated ethenes undergoing biodegradation via reductive dechlorination would consist of concentrations of PCE or TCE highest in the source area with elevated cis-1,2-DCE and vinyl chloride concentrations in the source area and extending downgradient, and ethenes present in the source area with increasing concentrations near the downgradient extent of the plume. The distribution of PCE, TCE, cis-1,2-DCE and vinyl chloride in samples from the site largely matches this distribution, as represented in Figures 5-8. These figures represent the concentration of each of the key constituents in excess of the Type 1/3 RRS. For example, vinyl chloride was detected in the sample from ETCMW-114 at 0.0052 mg/L. Because the Type 1/3 RRS for vinyl chloride is 0.002 mg/L, a value of 0.0032 mg/L is represented on the map as the concentration of vinyl chloride in excess of the Type 1/3 RRS (0.0052 mg/L –

0.002 mg/L = 0.0032 mg/L). The contour maps indicate that PCE is present in excess of the Type 1/3 RRS only in samples from the source area around ETCMW-114 (Figure 5).

TCE concentrations in excess of the Type 1/3 RRS are detected in the source area in samples from ETCMW-114 and CH2MW-114D, and also extend slightly further downgradient than PCE to ETCMW-115 (Figure 6). The constituent cis-1,2-DCE, which is a daughter product of the biodegradation of both PCE and TCE, extends further downgradient of the source area. The highest concentration of cis-1,2-DCE in excess of the Type 1/3 RRS remains centered around ETCMW-114 (Figure 7). Vinyl chloride, which is a daughter product of the degradation of cis-1,2-DCE is present at concentrations in excess of the Type 1/3 RRS further downgradient of the source area and across a wider area of the treatment zone, in samples from wells ETCMW-114, ETMW-116, ETMW-117 and ETMW-118 (Figure 8). No ethenes were detected within the plume. This distribution of constituents suggests that degradation is occurring through the production of vinyl chloride, but may be stalled at this stage.

The sections that follow provide an overview of the results from each of the affected wells in the treatment area. The treatment area consists of the area where lactate injection was performed and includes wells ETCMW-113, ETCMW-114, CH2MW-114D, ETCMW-115, ETMW-116, ETMW-117 and ETMW-118. Graphs of the concentrations of chlorinated ethenes for samples from each of these wells are included in Appendix E.

ETCMW-113

The constituents PCE and TCE remain at levels below the Type 1/3 RRS The constituents cis-1,2-DCE and vinyl chloride continue to be detected at concentrations in excess of their respective Type 1/3 RRS . Vinyl chloride, which was detected for the first time in 2008, continues to be detected above the Type 1/3 RRS, but has exhibited a relatively stable concentration from 2008 to 2010.

Although geochemical parameters at this well are inconsistent, the absence of nitrate, and DO levels below 0.5 mg/L suggest conditions may be favorable for biodegradation. The overall reduction in the concentration of PCE and TCE, coupled with the increase in cis-1,2-DCE and continued presence of vinyl chloride suggest that biodegradation is ongoing in the vicinity of this well.

ETCMW-114

Samples from this well, which is located in the source area, have consistently had the highest concentration of chlorinated ethenes. Following the second injection in October 2006, PCE concentrations in this well were reduced to non-detectable levels. Although PCE was detected again in 2008 above Type 1/3 RRS and has increased in concentration through 2010, the current concentration (0.021 mg/L) remains well below the concentration of PCE detected in this well prior to injection (0.13 mg/L). TCE and cis-1,2-DCE continue to be detected at concentrations above the Type 1/3 RRS, but have remained at relatively stable concentrations since 2008. Vinyl chloride, which had not been detected in this well in October 2007 or December 2008, was again detected above the Type 1/3 RRS in December 2009 and remains above the Type 1/3 RRS in 2010.

Although historically, this well has not shown a clear trend among the geochemical parameters, recent elevated levels of alkalinity and chloride above background, in addition to pH within the optimal range for degradation suggests that conditions in this well are becoming more favorable for degradation. The renewed detections of PCE and TCE suggest some level of rebound, probably as a result of dissolution from the matrix of the aquifer, but the corresponding increases in cis-1,2-DCE and vinyl chloride suggest that biodegradation is ongoing in the vicinity of this well.

CH2MW-114D

Samples from this well, located in the source area, have PCE concentrations that dropped below the Type 1/3 RRS following injection, and have remained at this level. The concentration of TCE was also reduced following injection, but has remained at a relatively stable concentration above the Type 1/3 RRS. The concentration of cis-1,2-DCE has been consistently above the Type 1/3 RRS, and has increased steadily following injection. In 2010, vinyl chloride was detected in this well for the first time but was detected below the Type 1/3 RRS.

Because of the limited well volume, laboratory analyzed geochemical parameters have not been collected at this well since October 2007 and current geochemical trends cannot be established.

The increase in the concentration of PCE and TCE in 2008 suggest some level of rebound, probably as a result of dissolution from the matrix of the aquifer, but the corresponding increase in cis-1,2-DCE and detection of vinyl chloride in 2010 suggest that biodegradation is ongoing in the vicinity of this well.

ETMW-115

This well is located on the downgradient edge of the plume, and all of the constituents detected in the samples from this well, with the exception of TCE, are below the Type 1/3 RRS. Both TCE and cis-1,2-DCE have shown a gradual increase in concentration from since 2008 Although vinyl chloride fell below detectable levels in 2009, it was detected again in 2010, but remains below the Type 1/3 RRS.

Although geochemical parameters at this well do not show a clear trend, some parameters, such as pH, have shown favorable trends over the last few years, suggesting that conditions in this well are becoming more favorable for biodegradation. The increasing concentration of TCE since 2008 suggests some level of rebound, probably as a result of dissolution from the matrix of the aquifer, but the corresponding increase in cis-1,2-DCE as well as the renewed detection of vinyl chloride suggests that biodegradation is ongoing in the vicinity of this well.

ETMW-116

This well is located in the middle of the plume. PCE has not been detected in this well since April 2005.In 2010, TCE was detected for the first time since April 2007, but remains below the Type 1/3 RRS. The concentration of cis-1,2-DCE increased compared to December 2009; however, it continues to remain below the Type 1/3 RRS and is well below the concentration detected in this well prior to injection. Vinyl chloride has remained relatively stable since 2008 and continues to be the only constituent in excess of the Type 1/3 RRS.

Geochemical parameters measured in this well indicate conditions may be favorable for biodegradation. Nitrate has been depleted, methane levels are increasing, and the elevated levels of alkalinity and chloride above background concentrations suggest conditions are favorable to continue degradation of the chlorinated solvents in this well. This is consistent with the contaminant trends, insofar as the decreasing trend in cis-1,2-DCE and corresponding increasing trend for vinyl chloride suggests biodegradation is ongoing in the vicinity of this well.

ETMW-117

This well is located on the downgradient edge of the plume. The constituent PCE has not been detected in this well since April 2007. Both TCE and cis-1,2-DCE have decreased in concentration since October 2007, and both remain below the Type 1/3 RRS. Vinyl chloride is currently the only constituent in excess of the Type 1/3 RRS. It was detected for the first time in 2008 and the concentration has remained relatively stable since December 2009.

Nitrate has not been detected since 2008. The absence of nitrate, along with high levels of methane and increased alkalinity over background levels suggest conditions are favorable to continue degradation of the chlorinated solvents in this well. This is supported by the decrease in both TCE and cis-1,2-DCE, and corresponding increase in vinyl chloride over the past several monitoring events.

ETMW-118

This well is located on the downgradient edge of the plume. The constituent PCE was not detected in samples from this well in 2010. Concentrations of TCE and cis-1,2-DCE decreased below the Type 1/3 RRS in 2010.Vinyl chloride is currently the only constituent in excess of the Type 1/3 RRS. Concentrations for all three of these constituents have steadily decreased since December 2008.

Although field parameters in 2009 indicated DO and nitrate had been depleted from this well, DO concentrations increased to 0.53 mg/L in 2010 and nitrate was detected at 0.078 mg/L. These values suggest that although anaerobic conditions have previously been observed in the well, changes in the geochemical parameters indicate that conditions may be less favorable to continued degradation. The contaminant trends, with corresponding concentrations of TCE, cis-1,2-DCE, and vinyl chloride, suggest that conditions are more favorable, and that biodegradation is ongoing in the vicinity of this well.

4. CONCLUSIONS

The historical analytical results for the site indicate that following the injection of lactate in 2004 and 2006, a reduction in contaminant concentrations was observed. In general, PCE and TCE concentrations decreased as cis-1,2-DCE and vinyl chloride (daughter products of PCE and TCE degradation) concentrations increased. This trend suggests that active biodegradation of chlorinated ethenes was taking place. At the same time, the groundwater chemistry in the treatment area began to indicate conditions that were not suitable to support microbial biodegradation. A decrease in pH to levels unsuitable for biodegradation was the most significant and enduring response, and was most likely an indirect result of the lactate injection and consequent enhanced biodegradation in the subsurface. This change in groundwater chemistry slowed the biodegradation at the same time increasing concentrations of PCE and TCE were observed. This rebound is typical of injection in-situ remediation sites, and is likely related to contaminants desorbing from the aquifer matrix into the surrounding groundwater. Over the past two years, pH levels have increased and appear to be returning gradually to levels more favorable to microbial degradation. As this trend continues, it is anticipated that biodegradation rates will increase, and the concentration of chlorinated ethenes will condition to decrease.

At this point, additional injection of lactate would not be beneficial, and is likely to produce conditions that are less favorable for biodegradation. The low hydraulic conductivity at the site continues to limit the migration of the contaminant plume. Migration of the plume has not been observed in over fourteen years of sampling and as with previous monitoring events, no constituents were detected above the RRS outside of the treatment area in 2010. The low potential for migration of constituents is also supported by the Biochlor® modeling that was performed and included in the Corrective Action Monitoring and Evaluation Report (O'Brien & Gere, April 2008). Furthermore, analysis of the analytical data at the site indicates active biodegradation is occurring within the treatment zone and that this has reduced the concentration of constituents within the affected area. The chlorinated ethenes are showing a generally decreasing concentration overall, with increasing concentrations observed only for degradation by-products. Based on this, continuation of natural attenuation monitoring is appropriate.

5. RECOMMENDATIONS

Miller recommends that natural attenuation monitoring continue at the site on an annual basis with the next ground water monitoring event in December 2011. Along with annual ground water sampling, an MNA summary report will be provided to GAEPD each year providing the results of the sampling for that year (Table 6). At the end of the five year evaluation period, an extended MNA report will include screening and Biochlor® modeling to assess the efficacy of this corrective action.

REFERENCES

O'Brien & Gere, *Corrective Action Investigation Work Plan, Miller Brewing Company Can Plant, Moultrie, Georgia,* February 2004.

O'Brien & Gere, *Corrective Action Monitoring and Evaluation Report, Miller Brewing Company Can Plant, Moultrie, Georgia*, April 2008.

O'Brien & Gere, *Corrective Action Plan, Former Miller Brewing Company Can Plant, Moultrie, Georgia*, January 2004.

O'Brien & Gere, *Revised Compliance Status Report, Miller Brewing Company, Moultrie, Georgia*, June 2004.

USEPA, 1998, Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water; Office of Research and Development, EPA/600/R-98/128.

TABLES

Table 1
Summary of Monitoring Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Target Analytes	Laboratory Geochemical Parameters	Field Geochemical Parameters
Acetone	Alkalinity	Temperature
2-Butanone (MEK)	Chloride	Conductivity
Benzene	Nitrate	Dissolved Oxygen
Carbon Disulfide	Sulfate	pH
Chloroethane	Sulfide	Oxidation/Reduction Potential (ORP)
1,1-Dichloroethane (1,1-DCA)	Methane	Carbon Dioxide
1,2-Dichloroethane (1-,2-DCA)	Ethane	Ferrous Iron
1,1-Dichloroethene (1,1-DCE)	Ethene	
cis-1,2-dichloroethene (cis-1,2-DCE)	Soluble Organic Carbon (Dissolved)	
trans-1,2-dichloroethene (trans-1,2-DCE)	Total Organic Carbon	
Isobutyl Alcohol	Manganese	
Tetrachloroethene (PCE)	Total Iron	
Toluene		
1,1,1-Trichloroethane (TCA)		
Trichloroethene (TCE)		
Trichlorofluoromethane		
Vinyl Chloride		
Xylenes (total)		

Table 2
Monitoring Wells Sampled
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Monitoring Well	December 2010			
	Water Level	VOC Analysis	Geochemical Field Parameters	Geochemical Lab Analysis
CH2MW-1	X	X	X	
CH2MW-3	X	X	X	X
CH2MW-4D	X	X	X	
ETCMW-113	X	X	X	X
ETCMW-114	X	X	X	X
CH2MW-114D	X	X	X	
ETCMW-115	X	X	X	X
ETMW-116	X	X	X	X
ETMW-117	X	X	X	X
ETMW-118	X	X	X	X
ETMW-119	X	X	X	
ETMW-120	X	X	X	
ETMW-121	X	X	X	
CH2PP-1	X	X	X	

Table 3
Summary of Well Construction Details and Ground Water Elevations
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Well	Ground Surface Elevation (ft msl)	TOC Elevation (ft msl)	Total Well Depth from Ground Surface (ft)	Screened Interval (ft bgs)	Well Diameter (in)	Depth to Water Below Top of Casing (ft)									Water Level Elevation (ft msl)								
						4/6/2004	4/25/2005	10/24/2005	4/17/2006	4/16/2007	10/22/2007	12/8/2008	12/14/2009	12/6/2010	4/6/2004	4/25/2005	10/24/2005	4/17/2006	4/16/2007	10/22/2007	12/8/2008	12/14/2009	12/6/2010
CH2MW-1	293.62	293.84	10	5 - 10	1	6.45	4.55	8.13	5.43	7.33	3.18	2.62	1.22	5.16	287.39	289.29	285.71	288.41	286.51	290.66	291.22	292.62	288.68
CH2MW-3	295.45	295.53	13	3 -13	2	4.92	3.55	8.10	4.72	5.85	0.97	3.69	2.08	9.96	290.61	291.98	287.43	290.81	289.68	294.56	291.84	293.45	285.57
CH2MW-4D	293.65	293.54	45.93	36 - 46	2	16.05	16.10	19.44	15.62	16.71	18.88	13.79	13.88	19.31	277.49	277.44	274.10	277.92	276.83	274.66	279.75	279.66	274.23
ETCMW-113	296.32	296.32	12	2 - 12	2	6.25	4.40	7.07	5.58	5.75	5.94	5.12	4.93	6.51	290.07	291.92	289.25	290.74	290.57	290.38	291.20	291.39	289.81
ETCMW-114	294.02	297.66	11.7	1.7 - 11.7	4	7.78	6.60	8.15	7.36	7.94	6.52	6.67	5.89	7.61	289.88	291.06	289.51	290.30	289.72	291.14	290.99	291.77	290.05
CH2MW-114D	294.16	297.45	22.5	17.5 - 22.5	1	8.54	7.00	9.88	8.40	9.32	9.99	8.64	8.55	11.13	288.91	290.45	287.57	289.05	288.13	287.46	288.81	288.90	286.32
ETCMW-115	293.22	296.10	11.5	1.5 - 11.5	2	6.19	5.14	6.96	5.39	6.49	4.79	4.72	3.76	5.85	289.91	290.96	289.14	290.71	289.61	291.31	291.38	292.34	290.25
ETMW-116	292.29	292.29	11	1 - 11	4	1.98	0.70	1.81	1.16	1.46	0.89	0.70	0.52	1.37	290.31	291.59	290.48	291.13	290.83	291.40	291.59	291.77	290.92
ETMW-117	292.3	292.30	11	1 - 11	2	2.40	0.89	2.71	1.29	2.42	0.71	1.30	0.24	1.90	289.90	291.41	289.59	291.01	289.88	291.59	291.00	292.06	290.40
ETMW-118	292.34	292.34	11	1 - 11	2	2.90	0.40	3.42	2.15	1.61	1.73	2.20	1.54	3.32	289.44	291.94	288.92	290.19	290.73	290.61	290.14	290.80	289.02
ETMW-119	294.26	297.05	11	1 - 11	2	6.86	5.70	8.02	6.31	6.65	5.66	5.32	4.14	6.38	290.19	291.35	289.03	290.74	290.40	291.39	291.73	292.91	290.67
ETMW-120	293.76	296.84	11	1 - 11	2	6.69	4.50	9.42	5.46	7.18	4.77	4.56	3.69	6.27	290.15	292.34	287.42	291.38	289.66	292.07	292.28	293.15	290.57
ETMW-121	294.84	298.02	11	1 - 11	2	7.70	5.78	11.72	6.43	8.72	6.75	4.53	2.91	11.48	290.32	292.24	286.30	291.59	289.30	291.27	293.49	295.11	286.54
CH2PP-1	293.56	293.72	12	7 - 12	1	7.67	5.55	9.45	7.63	8.81	6.00	3.56	2.87	9.22	286.05	288.17	284.27	286.09	284.91	287.72	290.16	290.85	284.50

Notes
Elevations based on a survey performed by H.J. Griffen and Associates in June 1998. Elevations reference a DOT benchmark.
Wells CH2MW-1A, CH2MW-2, CH2MW-5, OBGMW-122, OBGMW-123 and OBGMW-124 were abandoned on 12/8/2008

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume ETCMW-113								In Plume ETCMW-114									
					4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010	4/28/2005	10/27/2005	4/20/2006	4/17/2007	4/17/2007 DUP-01	10/24/2007	10/24/2007 DUP-02	12/10/2008	12/16/2009	12/9/2010	12/9/2010 DUP-2
Acetone	67-64-1	mg/L	4		< 0.04	< 0.01	< 0.01	**0.235 D**	**0.448 D**	**0.038**	< 0.01	< 0.01	< 0.1	< 0.5	< 0.100	< 0.50	<2	< 0.01	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.04	< 0.01	< 0.01	**0.191 D**	**0.380 D**	**0.014**	< 0.01	< 0.01	< 0.1	< 0.5	< 0.100	< 0.50	<2	< 0.01	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1
Benzene	71-43-2	mg/L	0.005		< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	**0.0016**	**0.00052**	**0.00092**	< 0.005	< 0.005	< 0.005	< 0.025	< 0.10	**0.00170**	**0.00165**	< 0.005	**0.0029**	< 0.005	< 0.005
Carbon Disulfide	75-15-0	mg/L	4		**0.0056 D**	< 0.001	< 0.0005	**0.00810 D**	< 0.005	**0.00072**	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.005	< 0.005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	**0.0057**	< 0.0005	**0.0024**	< 0.010	< 0.001	< 0.010	< 0.05	< 0.20	**0.0149**	**0.0143**	< 0.005	< 0.0005	< 0.005	< 0.005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	< 0.010	< 0.001	< 0.010	< 0.05	< 0.20	< 0.001	< 0.001	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	< 0.01	< 0.05	< 0.010	< 0.050	< 0.20	< 0.001	< 0.001	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.018 D**	**0.011**	**0.00884**	**0.0173 D**	**0.0117 D**	**0.0089**	**0.0069**	**0.019**	**0.062 D**	**0.13**	**0.0839 D**	**0.102 D**	< 0.10	**0.0520 E**	**0.0505 E**	**0.045**	**0.033**	**0.055 D**	**0.052 D**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	**0.00082**	**0.00080**	< 0.005	< 0.0005	< 0.005	< 0.005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0051 D**	**0.003**	**0.00274**	**0.0083 D**	< 0.005	**0.0055**	**0.0032**	**0.0042**	**0.100 D**	**0.24**	**0.138 D**	< 0.025	< 0.10	**0.00691**	**0.00642**	**0.066**	**0.053**	**0.085 D**	**0.081 D**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.091 D**	**0.058**	**0.0554 D**	**0.178 D**	**0.147 D**	**0.200**	**0.120**	**0.280**	**1.7 D**	**4.4**	**3.160 D**	**1.830 D**	**1.760 D**	**0.185 E**	**0.179 E**	**1.1**	**0.820**	**1.500 D**	**1.400 D**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	**0.00058**	< 0.005	< 0.05	**0.0314 D**	< 0.025	< 0.10	**0.00331**	**0.00313**	< 0.005	**0.0014**	< 0.005	< 0.005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.200	< 0.1	< 0.050	**1.45 D**	< 0.5	< 0.050	< 0.050	< 0.050	< 0.500	< 5	< 0.5	<2.5	< 10	< 0.050	< 0.050	< 0.5	< 0.050	< 0.5	< 0.5
Methylene Chloride	75-09-2	mg/L	0.005		< 0.0008	< 0.002	< 0.002	< 0.02	< 0.02	-	-	-	< 0.020	< 0.100	< 0.020	< 0.100	< 0.40	< 0.002	< 0.002	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.02	< 0.01	< 0.005	< 0.050	< 0.05	-	-	-	< 0.05	< 0.5	< 0.050	< 0.25	< 1.0	< 0.005	< 0.005	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	< 0.01	< 0.05	< 0.010	< 0.05	< 0.2	< 0.001	< 0.001	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0002	< 0.001	< 0.0005	< 0.05	< 0.005	-	-	-	< 0.005	< 0.05	< 0.005	< 0.025	< 0.1	< 0.0005	< 0.0005	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.0078 D**	**0.0061**	**0.00361**	**0.00640 D**	< 0.005	< 0.0005	**0.00053**	**0.0022**	**0.074 D**	**0.13**	**0.101 D**	< 0.025	< 0.10	< 0.0005	< 0.0005	**0.006**	**0.0092**	**0.021 D**	**0.020 D**
Toluene	108-88-3	mg/L	1		< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	**0.00222**	**0.00202**	< 0.005	**0.00099**	< 0.005	< 0.005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	< 0.01	< 0.05	< 0.010	< 0.025	< 0.10	< 0.001	< 0.001	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	< 0.01	< 0.05	< 0.010	< 0.050	< 0.20	< 0.001	< 0.001	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.005	< 0.005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.056 D**	**0.059**	**0.0246**	**0.0406 D**	< 0.0005	**0.0025**	**0.0028**	**0.0035**	**1.0 D**	**2.2**	**1.480 D**	< 0.025	< 0.10	**0.00897**	**0.00823**	**0.44**	**0.34**	**0.520 D**	**0.500 D**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.0004	< 0.001	< 0.001	< 0.010	< 0.01	< 0.0005	< 0.0005	< 0.0005	< 0.010	< 0.05	< 0.010	< 0.05	< 0.001	< 0.001	< 0.001	< 0.005	< 0.0005	< 0.005	< 0.005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.0008	< 0.005	< 0.002	< 0.020	< 0.020	-	-	-	< 0.020	< 0.100	< 0.020	< 0.100	< 0.400	< 0.002	< 0.002	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.0004	< 0.001	< 0.001	< 0.010	< 0.01	**0.0092**	**0.006**	**0.0068**	< 0.010	**0.026**	**0.0236 D**	**3.740 D**	**3.550 D**	**.524 E**	**0.547 E**	< 0.005	**0.0052**	**0.047 D**	**0.040 D**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0002	< 0.001	< 0.0005	< 0.010	< 0.01	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.010	< 0.05	< 0.20	**0.00169**	**0.00165**	< 0.005	**0.00057**	< 0.005	< 0.005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume CH2MW-114D								In Plume ETCMW-115							
					4/28/2005	10/26/2005	4/20/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/8/2010	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008	12/16/2009	12/8/2010
Acetone	67-64-1	mg/L	4		**0.190 D**	**0.52**	< 0.01	< 0.1	**0.123 E**	< 0.010	**0.53**	**0.390**	< 0.010	< 0.01	< 0.010	< 0.025	< 0.025	< 0.010	< 0.010	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	**0.430 D**	< 0.1	< 0.01	< 0.1	**0.0442**	**0.063**	< 0.01	**0.120**	< 0.010	< 0.01	< 0.010	< 0.025	< 0.025	< 0.010	< 0.010	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.00062**	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	**0.00074**	**0.00076**	**0.0015**	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.00830 D**	< 0.01	< 0.001	< 0.005	**0.00249**	**0.0007**	**0.00098**	**0.0012**	**0.0063**	**0.0076**	**0.00367**	**0.00848 D**	**0.00308 D**	**0.00087**	**0.0011**	**0.0039**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.005 J	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0060 D**	< 0.01	< 0.001	**0.00580 D**	**0.00395**	**0.0051**	**0.0081**	**0.13**	< 0.0025	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.120 D**	**0.097**	< 0.001	**0.204 D**	**0.146 E**	**0.120**	**0.280**	**0.400**	**0.041 D**	**0.094**	**0.0346**	**0.120 D**	**0.0318 D**	**0.0078**	**0.011**	**0.040**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	**0.00076**	**0.00067**	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.500	< 1	< 0.1	< 0.005	**0.622 E**	**1.300**	< 0.050	**0.079**	< 0.250	< 0.1	< 0.050	< 0.125	< 0.125	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.02	< 0.002	< 0.020	< 0.002	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.005	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.1	< 0.01	< 0.050	< 0.005	-	-	-	< 0.005	< 0.01	< 0.005	< 0.0125	< 0.0125	-	-	-
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.0072 D**	< 0.01	< 0.001	**0.00530 D**	**0.00288**	**0.0042**	**0.0038**	**0.0046**	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0025	< 0.00125	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.230 D**	**0.240**	< 0.001	**0.135 D**	**0.056 E**	**0.140**	**0.087**	**0.076**	**0.0057**	**0.0039**	**0.00901**	**0.0214 D**	**0.0079 D**	**0.0027**	**0.0032**	**0.0068**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.05	< 0.005	< 0.020	< 0.002	-	-	-	< 0.002	< 0.005	< 0.002	< 0.005	< 0.005	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.005 J	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	**0.00068**	**0.025**	**0.014**	**0.00346**	**0.00915 D**	< 0.0025	**0.0011**	< 0.0005	**0.0010**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	**0.00061**	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume ETMW-116								In Plume ETMW-117								
					4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/16/2009	12/7/2010	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/2008 DUP-2	12/15/2009	12/15/2009 DUP-2	12/8/2010
Acetone	67-64-1	mg/L	4		**0.360 D**	**1.6**	**0.968 D**	**0.398 D**	< 0.05	**0.29**	< 0.01	< 0.01	< 0.04	< 0.01	< 0.01	**2.090 D**	**0.513 ED**	**0.016**	**0.012**	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	**0.053 D**	**0.38**	**0.163 D**	< 0.1	< 0.05	< 0.01	< 0.01	< 0.01	< 0.04	< 0.01	< 0.01	**0.213 D**	**0.0785 D**	< 0.01	< 0.01	< 0.0005	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	**0.0015**	**0.0017**	**0.0014**	**0.0013**	**0.0010**
Carbon Disulfide	75-15-0	mg/L	4		**0.0037 D**	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	**0.00054**	**0.0007**	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	**0.007**	**0.0088**	**0.0079**	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	**0.0027**	**0.0029**	< 0.0005	**0.003**	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.023 D**	< 0.01	**0.00870 D**	**0.00910 D**	**0.00660 D**	**0.0065**	**0.0084**	**0.0099**	**0.014 D**	**0.013**	**0.0105**	**0.00935 D**	**0.00825 D**	**0.0048**	**0.0056**	**0.0043**	**0.004**	**0.0066**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0025	< 0.005 J	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0090 D**	< 0.007 J	**0.00540 D**	< 0.005	< 0.0025	< 0.0005	< 0.0005	**0.00082**	**0.0038 D**	**0.0026**	**0.00075**	**0.00305 D**	< 0.0025	< 0.0005	**0.0010**	< 0.0005	< 0.0005	**0.00078**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.100 D**	**0.18**	**0.221 D**	**0.0831 D**	< 0.0025	**0.011**	**0.0043**	**0.014**	**0.030 D**	**0.03**	**0.0225**	**0.0315 D**	**0.0762 D**	**0.041**	**0.050**	**0.021**	**0.018**	**0.027**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	**0.00213**	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		**1.8**	**1.5**	< 0.5	< 0.005	< 0.25	< 0.050	< 0.050	< 0.050	< 0.2	< 0.1	< 0.050	**2.930 D**	< 0.25	< 0.0005	< 0.0005	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.001	< 0.002	< 0.005	< 0.020	< 0.010	-	-	-	< 0.008	< 0.002	< 0.002	< 0.010	< 0.010	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.025	< 0.1	< 0.05	< 0.050	< 0.025	-	-	-	< 0.02	< 0.01	< 0.005	< 0.025	< 0.025	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.012 D**	**0.0062 J**	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	**0.0050 D**	**0.0042**	**0.00378**	**0.00435 D**	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	**0.0025**	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005[7]	**0.170 D**	**0.12**	< 0.005	**0.0291 D**	< 0.0025	< 0.0005	< 0.0005	**0.0017**	**0.094 D**	**0.098**	**0.079 D**	**0.0744 D**	**0.0302 D**	**0.00056**	**0.00066**	< 0.0005	< 0.0005	**0.0017**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.050	< 0.020	< 0.020	< 0.010	-	-	-	< 0.008	< 0.005	< 0.002	< 0.010	< 0.010	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.005	< 0.005 J	**0.0171 D**	**0.0581 D**	**0.0384 D**	**0.120**	**0.170**	**0.130**	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	**0.024**	**0.025**	**0.044**	**0.050**	**0.045**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0025	< 0.01	< 0.01	< 0.010	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
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May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

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April and October 2005, April 2006 corrective action monitoring
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Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume									Upgradient							
					ETMW-118									CH2MW-3							
					4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	10/24/2007 DUP-01	12/9/2008	12/15/2009	12/9/2010	4/27/2005	4/27/2005 DUP2	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010
Acetone	67-64-1	mg/L	4		**0.021**	< 0.02	< 0.01	**0.192 D**	< 0.5	< 0.5	**0.37**	**0.56**	**0.37**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.02	< 0.01	< 0.050	< 0.5	< 0.5	**0.26**	**0.49**	**0.22**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		**0.00079**	< 0.002	< 0.0005	**0.00370 D**	< 0.025	< 0.025	**0.0028**	**0.0012**	**0.0010**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	**0.0038**	**0.00437**	< 0.005	< 0.05	< 0.05	**0.0032**	**0.0019**	**0.0013**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.014**	**0.011**	**0.00961**	**0.0139 D**	< 0.025	< 0.025	**0.014**	**0.012**	**0.0064**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0037**	**0.0054**	**0.00489**	**0.00575 D**	< 0.025	< 0.025	**0.003**	**0.0024**	**0.00081**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.120 D**	**0.13**	**0.127 D**	**0.117 D**	**0.108 D**	**0.111 D**	**0.088**	**0.096**	**0.050**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.2	< 0.050	**25.6 DH**	**13.0 D**	**13.2 D**	**0.069**	< 0.050	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.004	< 0.002	< 0.010	< 0.100	< 0.100	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.02	< 0.005	< 0.025	< 0.25	< 0.25	-	-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	**0.0032**	**0.00257**	**0.00460 D**	< 0.025	< 0.025	**0.0032**	**0.0015**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.005	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.0031**	**0.049**	**0.0316**	**0.0489 D**	**0.0390 D**	**0.0400 D**	**0.037**	**0.018**	**0.002**	< 0.0005	< 0.0005	< 0.001	< 0.0005	**< 0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.010	< 0.002	< 0.010	< 0.100	< 0.100	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	**< 0.001**	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	**0.033**	**0.031**	**0.016**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.002	< 0.0005	< 0.005	< 0.05	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient ETMW-119										Cross Gradient ETMW-120							
					4/28/2005	10/25/2005	10/25/2005 DUP 1	4/18/2006	4/17/2007	10/25/2007	12/9/2008	12/9/2008 DUP-1	12/14/2009	12/14/2009 DUP-1	12/9/2010	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/23/2007	12/11/2008	12/14/2009	12/9/2010
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	**0.0212**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	**0.0998 DH**	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.00064**	**0.0012**	**0.0052**	< 0.0005	**0.00135**	**0.00094**	**0.00056**	**0.00073**	**0.0032**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.1	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.00061**	< 0.001	< 0.001	**0.00053**	**0.00074**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0021**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.005	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
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May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
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April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient ETMW-121								Cross Gradient CH2PP-1							
					4/28/2005	10/26/2005	4/19/2006	4/18/2007	10/23/2007	12/11/2008	12/14/2009	12/6/2010	4/26/2005	10/25/2005	4/19/2006	4/17/2007	10/24/2007	12/10/2008	12/15/2009	12/8/2010
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.010	< 0.01	**0.021**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.010	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.00055**	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0021**
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0017**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
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- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
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- EPA Method 8260 (VOCs)

Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 4
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient										Downgradient							
					CH2MW-4D										CH2MW-1							
					4/26/2005	4/26/2005 DUP1	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009	12/8/2010	12/8/2010 DUP-1	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/24/2007	12/8/2008	12/16/2009	12/8/2010
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0013**	< 0.001	**0.00059**	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0011**	**0.0011**	**0.00052**	< 0.0005	< 0.0005	< 0.0005	< 0.0025	**0.00059**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.25	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	**0.00071**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0041**	**0.0044**	**0.00202**	**0.00176**	**0.00082**	**0.0012**	< 0.0025	**0.0023**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005

Sampling Events and Analytical Methods:
January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
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Notes:
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:
B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 5
Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume								In Plume									
		ETCMW-113								ETCMW-114									
		4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010	4/29/2005	10/27/2005	4/20/2006	4/17/2007	4/17/2007 DUP-01	10/23/2007	12/10/2008	12/16/2009	12/9/2010	12/9/2010 DUP-2
Lab Parameters																			
Alkalinity	mg/L	-	-	-	-	-	**100**	**170**	**42**	**120**	**120**	**140**	**470**	**500**	**350**	**220**	**230**	**130**	**130**
Chloride	mg/L	-	-	-	-	-	**10**	**11**	**15**	**26**	**32**	**29**	**110**	**110**	**73 D**	**26**	**18**	**19**	**19**
Iron	mg/L	-	-	-	-	-	**7.9**	**5.5**	NA	**0.22**	**0.88**	**1.0**	**11**	**11**	**0.85**	**0.96**	**0.16**	**0.86**	**0.59**
Manganese	mg/L	-	-	-	-	-	-	**0.016**	NA	< 0.050	< 0.050	< 0.050	**0.54**	**0.55**	**0.080**	-	**0.023**	**0.035**	**0.026**
Nitrate (as N)	mg/L	-	-	-	-	-	**0.021**	< 0.020	< 0.020	**8.2 H**	**1.4**	-	< 0.020	< 0.020	**1.9 D**	**3.4**	**4.7**	**2.8 D**	**3.8 D**
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	< 0.050	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	**12**	**14**	**4.9**	**39**	**31**	**51 D**	< 1.0	< 1.0	**35 D**	**22**	**29**	**25**	**23**
Sulfide	mg/L	-	-	-	-	-	< 1.0	< 1.0	NA	< 0.8	< 0.8	< 0.8	< 1.0	**1.8**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methane	ug/L	-	-	-	-	-	**4100**	**2800**	**210**	< 5.0	**14**	**14**	**0.14**	**0.14**	**54**	< 10	**27**	**18**	**13**
Ethane	ug/L	-	-	-	-	-	< 10	< 10	< 10	< 5.0	< 4.0	< 4.5	< 44	< 44	< 4.2	< 10	< 10	< 10	< 10
Ethene	ug/L	-	-	-	-	-	< 10	< 10	< 10	< 5.0	< 4.0	< 4.5	**7.0**	**7.6**	**38**	< 10	< 10	< 10	< 10
Soluble Organic Carbon (DOC) - Lab Filtered	mg/L	-	-	-	-	-	**5**	**1.5**	NA	**2.9**	**12**	**17**	**41**	**42**	**3.4**	**3.8**	**3.3**	**1.8**	**1.7**
Total Organic Carbon	mg/L	-	-	-	-	-	**5.2**	**2.7**	NA	**2.2**	**3.2**	**14.0**	**51.0**	**47.0**	**4.4**	**2.8**	**3.5**	**2.0**	**2.1**
Field Parameters:																			
Ferrous Iron	mg/L	**1**	-	-	**4.2**	**6.6**	**6.8**	**1.6**	NA	ND	**0.19**	ND	**4.2**	-	**1.2**	ND	ND	ND	-
Carbon Dioxide	mg/L	**14**	-	-	**>100**	**>100**	**>100**	-	NA	**14**	**30**	**14**	**>100**	-	**90**	**80**	-	**30**	-
pH	S.U.	**6.53**	**6.21**	**5.71**	**4.67**	**4.64**	**6.38**	**6.78**	**6.18**	**6.61**	**6.46**	**6.16**	**6.73**	-	**6.20**	**6.67**	**6.80**	**6.47**	-
pH (Downhole Probe)	S.U.	-	-	-	-	**4.72**	-	-	**6.06**	-	-	-	-	-	**6.34**	**6.76**	-	**7.27**	-
Conductivity	mS/cm	**0.342**	**0.352**	**0.298**	**0.668**	**0.320**	**0.263**	**0.550**	**0.243**	**0.485**	**0.342**	**0.437**	**1.295**	-	**0.958**	**0.566**	**0.611**	**0.334**	-
Conductivity (Downhole Probe)	mS/cm	-	-	-	-	**0.097**	-	-	**0.202**	-	-	-	-	-	**0.210**	**0.496**	-	**0.288**	-
Dissolved Oxygen	mg/L	**2.47**	**1.27**	**6.39**	**0.62**	**2.93**	**0.0**	**1.07**	**1.42**	**3.02**	**1.31**	**0.70**	**0.68**	-	**0.96**	-	**1.78**	**3.08**	-
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	**7.85**	-	-	**0.44**	-	-	-	-	-	**6.67**	**1.01**	-	**2.48**	-
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	**1.0**	**3.0**	**3.0**	NA	-	-	-	-	-	**1.5**	**3.0**	**3.0**	**2.0**	-
Oxidation/Reduction Potential (ORP)	mV	**217**	**192**	**348**	**259**	**67**	**-8**	**158**	**41**	**66**	**160**	**356**	**255**	-	**150**	**356**	**151**	**118**	-
Oxidation/Reduction Potential (Downhole Probe)	mV	-	-	-	-	**89**	-	-	**35.2**	-	-	-	-	-	**97.2**	**115**	-	**95.5**	-
Temperature	°C	**18.02**	**23.34**	**20.43**	**18.75**	**23.53**	**19.86**	**16.99**	**16.27**	**17.98**	**22.88**	**18.56**	**18.14**	-	**24.36**	**18.10**	**17.50**	**17.52**	-
Temperature (Downhole Probe)	°C	-	-	-	-	**24.64**	-	-	**21.06**	-	-	-	-	-	**23.91**	**18.27**	-	**20.12**	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)

Table 5
Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume								In Plume								In Plume							
		CH2MW-114D								ETCMW-115								ETMW-116							
		4/29/2005	10/26/2005	4/20/2006	4/19/2007	10/24/2007	12/8/2008	12/14/2009	12/6/2010	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008	12/16/2009	12/8/2010	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009	12/7/2010
Lab Parameters																									
Alkalinity	mg/L	**3000**	**2200**	**830**	-	-	-	-	-	-	-	-	-	**230**	**260**	**250**	**110**	-	-	-	-	**670**	**370**	**330**	**290**
Chloride	mg/L	**89**	**190**	**200**	-	-	-	-	-	-	-	-	-	**6.4 D**	**4.4**	**2.3**	**6.1**	-	-	-	-	**16**	**19**	**29**	**22**
Iron	mg/L	**55**	**79**	**160**	-	**150**	-	-	-	-	-	-	-	**1.9**	**2.9**	**12**	**3.7**	-	-	-	-	**48**	**25**	**27**	**28**
Manganese	mg/L	**0.64**	**0.53**	**0.26**	-	**0.22**	-	-	-	-	-	-	-	**0.074**	-	**0.087**	**0.081**	-	-	-	-	**0.58**	-	**0.20**	**0.15**
Nitrate (as N)	mg/L	< 0.5 H	**1.2**	< 0.50	-	-	-	-	-	-	-	-	-	**2.5 D**	**0.24**	< 0.020	**0.83**	-	-	-	-	< 0.10	**0.065**	< 0.020	< 0.020
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**47**	**100**	**150**	-	-	-	-	-	-	-	-	-	**10 D**	**28**	**7.4**	**12**	-	-	-	-	< 5.0	**9.8**	< 1.0	**1.1**
Sulfide	mg/L	< 0.8	< 0.8	**1.4**	-	-	-	-	-	-	-	-	-	< 1.0	< 1.0	< 1.0	< 1.0	-	-	-	-	< 1.0	**2.8**	< 1.0	< 1.0
Methane	ug/L	< 5.0	< 2.0	-	**2.8**	-	-	-	-	-	-	-	-	**0.019**	**41**	**160**	**430**	-	-	-	-	**3500 D**	**5800**	**5800**	**5400**
Ethane	ug/L	< 5.0	< 4.0	-	< 0.21	-	-	-	-	-	-	-	-	< 0.42	< 10	< 10	< 10	-	-	-	-	< 210	< 10	< 10	< 10
Ethene	ug/L	< 5.0	< 4.0	-	< 0.21	-	-	-	-	-	-	-	-	< 0.42	< 10	< 10	< 10	-	-	-	-	< 210	< 10	< 10	< 10
Soluble Organic Carbon (DOC) - Lab Filtered	mg/L	**8900**	**4800**	-	**2**	**1600 D**	-	-	-	-	-	-	-	**3.5**	**4.4**	**2.3**	**2.3**	-	-	-	-	**9.6**	**19**	**9.4**	**4.3**
Total Organic Carbon	mg/L	**9800**	**3500**	**3800**	-	**1700 D**	-	-	-	-	-	-	-	**4.1**	**3.6**	**3.0**	**3.2 D**	-	-	-	-	**16**	**17**	**12**	**4.9**
Field Parameters:																									
Ferrous Iron	mg/L	**5.0**	**2.0**	-	**4.2**	-	**5.2**	**>10**	-	**4.3**	-	-	**4.8**	**2.8**	**0.6**	**0.6**	**3.5**	**5.0**	-	-	**6.0**	**6.2**	**6.4**	**6.6**	**6.5**
Carbon Dioxide	mg/L	**50**	**350 D**	-	**>100**	-	**>100**	-	-	**19**	-	-	**>100**	**60**	**10**	-	**7.5**	**15**	-	-	**>100**	**>100**	**>100**	**>100**	**>100**
pH	S.U.	**5.95**	**6.08**	**5.58**	**5.55**	**4.88**	**5.12**	**5.50**	**6.16**	**6.37**	**5.82**	**5.70**	**5.70**	**6.01**	**6.76**	**6.70**	**6.19**	**5.03**	**4.99**	**5.56**	**4.89**	**6.17**	**6.38**	**6.17**	**6.01**
pH (Downhole Probe)	S.U.	-	-	-	-	-	-	-	-	-	-	-	-	**6.01**	-	-	**7.04**	-	-	-	-	**6.29**	-	-	**6.59**
Conductivity	mS/cm	**3.62**	**4.65**	**2.05**	**2.78**	**2.02**	**2.56**	**2.49**	**1.898**	**0.366**	**0.174**	**0.205**	**0.184**	**0.456**	**0.462**	**0.469**	**0.213**	**2.370**	**1.540**	**0.983**	**1.456**	**0.988**	**0.710**	**0.782**	**0.606**
Conductivity (Downhole Probe)	mS/cm	-	-	-	-	-	-	-	-	-	-	-	-	**0.063**	-	-	**0.197**	-	-	-	-	**0.301**	-	-	**0.580**
Dissolved Oxygen	mg/L	**0.97**	**0.51**	**3.00**	**0.90**	**0.54**	**0.0**	**0.90**	**1.36**	**0.23**	**0.54**	**2.09**	**0.49**	**2.65**	**0.62**	**0.97**	**0.56**	**0.15**	**0.45**	**0.35**	**0.42**	**0.24**	**0.0**	**0.37**	**1.1**
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	**4.87**	-	-	**1.89**	-	-	-	-	**13.32**	-	-	**0.65**
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	-	**1.5**	**1.5**	-	-	-	-	-	**2.0**	**1.0**	**2.0**	**2.0**	-	-	-	-	**2.0**	**1.5**	**2.0**	NA
Oxidation/Reduction Potential (ORP)	mV	**-8**	**-76**	**289**	**309**	**97**	**22**	**124**	**-33.3**	**131**	**84**	**377**	**312**	**162**	**68**	**174**	**209**	**141**	**108**	**281**	**309**	**-34**	**-79**	**106**	**149**
Oxidation/Reduction Potential (Downhole Probe)	mV	-	-	-	-	-	-	-	-	-	-	-	-	**133.3**	-	-	**9.0**	-	-	-	-	**-92.5**	-	-	**79.6**
Temperature	°C	**20.43**	**21.06**	**21.65**	**20.59**	**22.89**	**18.88**	**22.29**	**16.89**	**20.32**	**22.58**	**22.36**	**21.45**	**27.50**	**18.61**	**17.56**	**16.92**	**18.23**	**23.81**	**19.10**	**18.82**	**24.43**	**19.13**	**19.60**	**17.06**
Temperature (Downhole Probe)	°C	-	-	-	-	-	-	-	-	-	-	-	-	**27.02**	-	-	**22.08**	-	-	-	-	**24.55**	-	-	**18.35**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
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O'Brien & Gere Laboratories - in-house method (2004-2006)

Table 5
Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume										In Plume							
		ETMW-117										ETMW-118							
		4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/2008 DUP-2	12/15/2009	12/15/2009 DUP - 2	12/8/2010	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/24/2007	12/9/2008	12/15/2009	12/9/2010
Lab Parameters																			
Alkalinity	mg/L	-	-	-	-	**86**	**180**	**200**	**170**	**150**	**150**	-	-	-	-	-	**180**	< 10	**110**
Chloride	mg/L	-	-	-	-	**8.8 D**	**21**	**20**	**23**	**23**	**23**	-	-	-	-	-	**18**	**18**	**23**
Iron	mg/L	-	-	-	-	**50**	**36**	**36**	**39**	**35**	**32**	-	-	-	-	-	**96**	**64**	NA
Manganese	mg/L	-	-	-	-	**0.76**	-	-	**0.29**	**0.25**	**0.16**	-	-	-	-	-	-	**0.39**	NA
Nitrate (as N)	mg/L	-	-	-	-	< 0.10	**0.051**	< 0.020	< 0.020	< 0.020	< 0.020	-	-	-	-	-	**0.062**	< 0.020	**0.078**
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-	-	-	-	-	**2.3**	**2.0**	< 1.0
Sulfide	mg/L	-	-	-	-	< 1.0	**1.3**	**1.2**	< 1.0	< 1.0	< 1.0	-	-	-	-	-	**3.1**	**2.9**	< 1.0
Methane	ug/L	-	-	-	-	**3600 D**	**5900**	**5100**	**6300**	**5600**	**5900**	-	-	-	-	-	**4900**	**4200**	**3900**
Ethane	ug/L	-	-	-	-	< 210	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	< 10	< 10	< 10
Ethene	ug/L	-	-	-	-	< 210	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	< 10	< 10	< 10
Soluble Organic Carbon (DOC) - Lab Filtered	mg/L	-	-	-	-	**910 D**	**51**	**33**	**4.1**	**4.8**	**3.8**	-	-	-	-	-	**2300**	**1100**	**330 D**
Total Organic Carbon	mg/L	-	-	-	-	**930 D**	**55**	**38**	**7.6**	**10**	**4.3**	-	-	-	-	-	**2400**	**1100**	**5.0 D**
Field Parameters:																			
Ferrous Iron	mg/L	**2.2**	-	-	**5.8**	**7.4**	**6.0**	-	**6.6**	-	**6.0**	**4.4**	-	-	**5.0**	**6.4**	**5.2**	**7.0**	NA
Carbon Dioxide	mg/L	**10**	-	-	**>100**	**>100**	**>100**	-	**>100**	-	**>100**	**15**	-	-	**>100**	**>100**	**>100**	**>100**	**NA**
pH	S.U.	**6.03**	**5.60**	**5.23**	**4.40**	**4.04**	**5.90**	-	**5.85**	-	**5.81**	**5.86**	**5.10**	**5.35**	**4.38**	**4.60**	**4.70**	**4.72**	**4.42**
pH (Downhole Probe)	S.U.	-	-	-	-	**4.82**	-	-	-	-	**6.32**	-	-	-	-	**4.58**	-	-	**5.26**
Conductivity	mS/cm	**0.303**	**0.163**	**0.188**	**1.450**	**0.696**	**0.900**	-	**0.588**	-	**0.336**	**0.307**	**0.089**	**0.152**	**0.909**	**2.20**	**1.54**	**0.90**	**0.55**
Conductivity (Downhole Probe)	mS/cm	-	-	-	-	**0.207**	-	-	-	-	**0.339**	-	-	-	-	**0.56**	-	-	**0.537**
Dissolved Oxygen	mg/L	**0.49**	**1.05**	**1.86**	**0.42**	**0.38**	**0.0**	-	**0.55**	-	**0.34**	**0.34**	**0.46**	**0.59**	**0.50**	**0.40**	**0.0**	**0.0**	**0.53**
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	**12.96**	-	-	-	-	**1.00**	-	-	-	-	**12.49**	-	-	**0.81**
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	**1.0**	**3.0**	-	**1.0**	-	**2.0**	-	-	-	-	**1.5**	**1.5**	**1.0**	NA
Oxidation/Reduction Potential (ORP)	mV	**278**	**144**	**363**	**335**	**127**	**-13**	-	**132**	-	**156**	**125**	**155**	**346**	**327**	**141**	**133**	**-2**	**166**
Oxidation/Reduction Potential (Downhole Probe)	mV	-	-	-	-	**90.7**	-	-	-	-	**-40.1**	-	-	-	-	**134.3**	-	-	**9.5**
Temperature	°C	**21.41**	**26.20**	**22.82**	**22.27**	**25.48**	**19.9**	-	**18.93**	-	**17.79**	**20.50**	**24.86**	**22.71**	**21.01**	**25.30**	**18.08**	**19.6**	**17.92**
Temperature (Downhole Probe)	°C	-	-	-	-	**27.39**	-	-	-	-	**18.37**	-	-	-	-	**25.81**	-	-	**19.75**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
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Sulfide - EPA376.1
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O'Brien & Gere Laboratories - in-house method (2004-2006)

Table 5
Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Upgradient									Cross Gradient								Cross Gradient							
		CH2MW-3									ETMW-119								ETMW-120							
		4/27/2005	4/27/2005 DUP2	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/25/2007	12/9/2008	12/14/2009	12/8/2010	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/23/2007	12/9/2008	12/14/2009	12/7/2010
Lab Parameters																										
Alkalinity	mg/L	**18**	**18**	< 10	**12**	< 10	< 10	**58**	**45**	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	**9.9**	**13**	**18**	**9.3**	**6.7**	**12**	**3.1**	**5.2**	**13**	**-**	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-
Iron	mg/L	0.11	< 0.050	< 0.050	**0.094**	**0.072**	**0.16**	< 0.10	< 0.10	NA	**-**	-	-	-	-	-	**-**	**-**	**-**	-	-	-	-	-	**-**	**-**
Manganese	mg/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.015	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	**0.55**	**0.79**	**1.6**	**0.61**	**0.51**	**1.1**	**0.25**	**0.27**	**1.5**	**-**	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	**-**	**-**	-	-	**-**	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	**-**	**-**	-	-	**-**	-	-	-	-	-	-	-	**-**	-	-	-	-	-	-	-
Sulfate	mg/L	**39**	**32**	**16**	**38**	**44**	**19**	**34**	**41**	**15**	**-**	-	-	-	-	-	**-**	**-**	**-**	-	-	-	-	-	**-**	**-**
Sulfide	mg/L	< 0.8	< 0.8	< 0.8	< 0.8	< 1.0	< 1.0	< 1.0	< 1.0	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	< 5.0	< 5.0	< 2.0	< 2.1	< 2.3	< 2.1	< 10	**24**	< 10	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	< 5.0	< 5.0	< 4.0	< 4.2	< 4.5	< 4.1	< 10	< 10	< 10	**-**	-	-	-	-	-	**-**	**-**	**-**	-	-	-	-	-	**-**	**-**
Ethene	ug/L	< 5.0	< 5.0	< 4.0	< 4.2	< 4.5	< 4.1	< 10	< 10	< 10	**-**	-	-	-	-	-	**-**	**-**	**-**	-	-	-	-	-	**-**	**-**
Soluble Organic Carbon (DOC) - Lab Filtered	mg/L	**3.8**	**3.9**	**6.8**	**16**	**1.7**	**2.1**	**4.2**	**1.5**	NA	-	-	-	-	-	-	**-**	**-**	**-**	-	-	-	-	-	**-**	**-**
Total Organic Carbon	mg/L	**2.6**	**3.0**	**2.4**	**3.1**	**3.6**	**2.1**	**4.1**	**2.3**	**1.6**	-	-	-	-	-	-	**-**	**-**	-	-	-	-	-	-	-	-
Field Parameters:																										
Ferrous Iron	mg/L	ND	-	**0.31**	ND	**0.5**	ND	ND	ND	NA	**1.0**	-	-	**4.2**	**4.8**	**1.2**	**0.9**	-	**3.5**	-	-	**6.0**	**0.6**	ND	**0.5**	-
Carbon Dioxide	mg/L	**14**	-	**50**	**14**	**75**	**30**	**50**	-	NA	**18**	-	-	**>100**	**70**	**95**	**75**	-	**15**	-	-	**65**	**40**	**50**	**45**	-
pH	S.U.	**5.12**	-	**4.57**	**4.91**	**5.10**	**4.56**	**6.45**	**6.53**	**5.04**	**6.25**	**5.64**	**5.82**	**6.20**	**5.78**	**6.87**	**6.83**	**6.16**	**6.19**	**5.36**	**5.64**	**5.50 D**	**5.87**	**6.50**	**6.48**	**6.12**
pH (Downhole Probe)	S.U.	**-**	-	**-**	**-**	**-**	**4.49**	**-**	-	**5.18**	**-**	-	-	-	**6.22**	-	-	**7.64**	**-**	-	-	-	**5.97**	-	-	**7.25**
Conductivity	mS/cm	**0.186**	-	**0.106**	**0.170**	**0.152**	**0.095**	**0.178**	**0.203**	**0.102**	**0.449**	**0.203**	**0.281**	**0.554**	**0.342**	**0.512**	**0.612**	**0.283**	**0.218**	**0.097**	**0.144**	**0.161**	**0.216**	**0.237**	**0.326**	**0.148**
Conductivity (Downhole Probe)	mS/cm	**-**	-	**-**	**-**	**-**	**0.032**	**-**	-	**0.108**	**-**	-	-	-	**0.13**	-	-	**0.291**	**-**	-	-	-	**0.048**	-	-	**0.114**
Dissolved Oxygen	mg/L	**2.36**	-	**1.83**	**6.66**	**6.90**	**3.85**	**5.70**	**4.95**	**4.15**	**0.33**	**1.34**	**1.31**	**2.78**	**0.57**	**0.0**	**0.40**	**0.64**	**0.69**	**0.67**	**2.19**	**5.00**	**3.05**	**1.94**	**4.34**	**2.29**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	-	**-**	**-**	**-**	**5.20**	**-**	-	**5.77**	**-**	-	-	-	**6.55**	-	-	**3.58**	**-**	-	-	-	**3.64**	-	-	**3.08**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	-	**-**	**-**	**-**	**-**	**5.0**	**6.0**	NA	**-**	-	-	-	**2.0**	**2.0**	**3.0**	**-**	**-**	-	-	-	**3.5**	**5.0**	**4.0**	**-**
Oxidation/Reduction Potential (ORP)	mV	**446**	-	**187**	**370**	**339**	**206**	**190**	**175**	**208**	**138**	**115**	**370**	**251**	**128**	**157**	**108**	**14.2**	**169**	**92**	**379**	**327**	**175**	**361**	**153**	**136.4**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	-	**-**	**-**	**-**	**354.1**	**-**	-	**348.0**	**-**	-	-	-	**57.5**	-	-	**16.1**	**-**	-	-	-	**286.8**	**-**	-	**251.5**
Temperature	°C	**20.78**	-	**23.80**	**21.91**	**22.91**	**23.95**	**20.45**	**21.33**	**21.87**	**19.97**	**20.86**	**20.73**	**19.18**	**23.71**	**16.63**	**18.64**	**14.54**	**20.43**	**20.88**	**21.94**	**21.74**	**25.67**	**16.88**	**19.7**	**19.85**
Temperature (Downhole Probe)	°C	-	-	-	-	-	**25.60**	**-**	-	**23.70**	-	-	-	-	**24.98**	**-**	-	**18.64**	-	-	-	-	**25.33**	**-**	-	**21.68**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)

Table 5
Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient								Cross Gradient								Cross Gradient							
		ETMW-121								CH2PP-1								CH2MW-4D							
		4/28/2005	10/26/2005	4/19/2006	4/19/2007	10/23/2007	12/11/2008	12/14/2009	12/6/2010	4/26/2005	10/25/2005	4/18/2006	4/16/2007	10/24/2007	12/8/2008	12/15/2009	12/6/2010	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009	12/8/2010
Lab Parameters																									
Alkalinity	mg/L	**5.8**	**26**	**28**	**38**	**82**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	**5.2**	**11**	**6**	-	**1.9**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	**0.84**	**16**	**0.52**	**0.89**	**0.87**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	< 0.050	**0.15**	< 0.050	< 0.050	< 0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	**0.59**	**1.2**	**0.35**	-	**0.20**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**9.9**	**4.6**	**13**	-	**5.4**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	mg/L	< 0.8	< 0.8	< 0.8	**1.8**	< 1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	< 5.0	< 2.0	< 2.1	< 2.1	< 2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	< 5.0	< 4.0	< 4.2	< 4.2	< 4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	< 5.0	< 4.0	< 4.2	< 4.2	< 4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Soluble Organic Carbon (DOC) - Lab Filtered	mg/L	**7.9**	**12**	**9.7**	**1.6**	**3.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/L	**4.9**	**3.3**	**4.5**	**2.1**	**3.9**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Parameters:																									
Ferrous Iron	mg/L	ND	**0.39**	ND	**2.4**	**0.4**	ND	ND	-	ND	-	-	-	ND	ND	**0.5**	-	ND	-	-	ND	**0.2**	ND	ND	-
Carbon Dioxide	mg/L	**15**	**35**	**25**	**40**	**18**	**30**	**25**	-	**12**	-	-	-	**20**	**45**	**32**	-	**14**	-	-	**30**	**14**	**15**	**20**	-
pH	S.U.	**6.25**	**5.94**	**5.83**	**6.00**	**6.23**	**6.78**	**7.02**	**6.31**	**5.93**	**5.01**	**4.56**	**5.53**	**5.28**	**6.14**	**6.21**	**5.78**	**8.67**	**7.66**	**7.86**	**6.66**	**6.56**	**7.30**	**6.71**	**6.67**
pH (Downhole Probe)	S.U.	-	-	-	-	**6.45**	**8.05**	-	**6.45**	-	-	-	-	-	-	-	-	-	-	-	-	**7.01**	**7.54**	-	**7.19**
Conductivity	mS/cm	**0.142**	**0.116**	**0.192**	**0.107**	**0.167**	**0.199**	**0.210**	**0.105**	**0.141**	**0.108**	**0.120**	**0.146**	**0.107**	**0.222**	**0.226**	**0.113**	**0.081**	**0.067**	**0.069**	**0.066**	**0.059**	**0.078**	**0.077**	**0.055**
Conductivity (Downhole Probe)	mS/cm	-	-	-	-	**0.038**	**0.195**	-	**0.047**	-	-	-	-	-	-	-	-	-	-	-	-	**0.016**	**0.061**	-	**0.330**
Dissolved Oxygen	mg/L	**3.34**	**1.00**	**3.27**	**6.74**	**7.00**	-	**6.58**	**6.59**	**4.75**	**3.19**	**7.51**	**6.98**	**3.95**	**3.80**	**2.34**	**4.93**	**4.11**	**5.16**	**7.05**	**7.10**	**4.76**	-	**6.03**	**6.94**
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	**6.39**	**8.26**	-	**5.34**	-	-	-	-	-	-	-	-	-	-	-	-	**5.35**	**7.06**	-	**4.82**
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	-	**4.0**	**5.0**	-	-	-	-	-	**3.0**	**3.0**	**4.0**	-	-	-	-	-	-	**5.0**	**6.0**	-
Oxidation/Reduction Potential (ORP)	mV	**197**	**176**	**347**	**332**	**166**	**367**	**136**	**252**	**325**	**207**	**439**	**330**	**122**	**119**	**128**	**285**	**282**	**172**	**411**	**360**	**188**	**380**	**158**	**136.9**
Oxidation/Reduction Potential (Downhole Probe)	mV	-	-	-	-	**232.5**	**282**	-	**128.5**	-	-	-	-	-	-	-	-	-	-	-	-	**158**	**79**	-	**2.7**
Temperature	°C	**19.22**	**23.60**	**19.36**	**19.56**	**26.03**	**18.72**	**20.39**	**19.62**	**20.72**	**25.77**	**21.84**	**21.57**	**25.27**	**19.81**	**20.4**	**19.48**	**21.87**	**23.39**	**23.13**	**23.19**	**23.03**	**22.77**	**22.7**	**19.48**
Temperature (Downhole Probe)	°C	-	-	-	-	**25.02**	**16.39**	-	**21.43**	-	-	-	-	-	-	-	-	-	-	-	-	**24.99**	**23.94**	-	**23.87**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)

Table 5
Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Down Gradient							
		CH2MW-1							
		4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/24/2007	12/8/2008	12/14/2009	12/6/2010
Lab Parameters									
Alkalinity	mg/L	-	-	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-
Sulfide	mg/L	-	-	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-	-	-
Ethane	ug/L	-	-	-	-	-	-	-	-
Ethene	ug/L	-	-	-	-	-	-	-	-
Soluble Organic Carbon (DOC) - Lab Filtered	mg/L	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/L	-	-	-	-	-	-	-	-
Field Parameters:									
Ferrous Iron	mg/L	ND	-	-	ND	ND	ND	ND	-
Carbon Dioxide	mg/L	**20**	-	-	**>100**	**80**	**75**	-	-
pH	S.U.	**5.51**	**4.52**	**5.11**	**5.05**	**5.33**	**5.16**	**4.71**	**4.94**
pH (Downhole Probe)	S.U.	-	-	-	-	-	-	-	-
Conductivity	mS/cm	**0.183**	**0.128**	**0.137**	**0.115**	**0.134**	**0.218**	**0.169**	**0.127**
Conductivity (Downhole Probe)	mS/cm	-	-	-	-	-	-	-	-
Dissolved Oxygen	mg/L	**3.93**	**3.44**	**5.93**	**4.96**	**3.53**	**0.01**	**3.15**	**2.17**
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	-	-	-
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	**4.0**	**2.5**	**2.5**	-
Oxidation/Reduction Potential (ORP)	mV	**222**	**179**	**414**	**340**	**124**	**403**	**348**	**218**
Oxidation/Reduction Potential (Downhole Probe)	mV	-	-	-	-	-	-	-	-
Temperature	°C	**20.57**	**20.35**	**23.07**	**21.62**	**25.71**	**20.84**	**23.10**	**21.94**
Temperature (Downhole Probe)	°C	-	-	-	-	-	-	-	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
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Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)

Table 6
Proposed Ground Water Sampling Schedule
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Event	Date
2011 Ground Water Sampling	December 2011
2011 Ground Water Report Submittal	February 2012
2012 Ground Water Sampling	December 2012
5-year MNA Evaluation Report	March 2013

FIGURES

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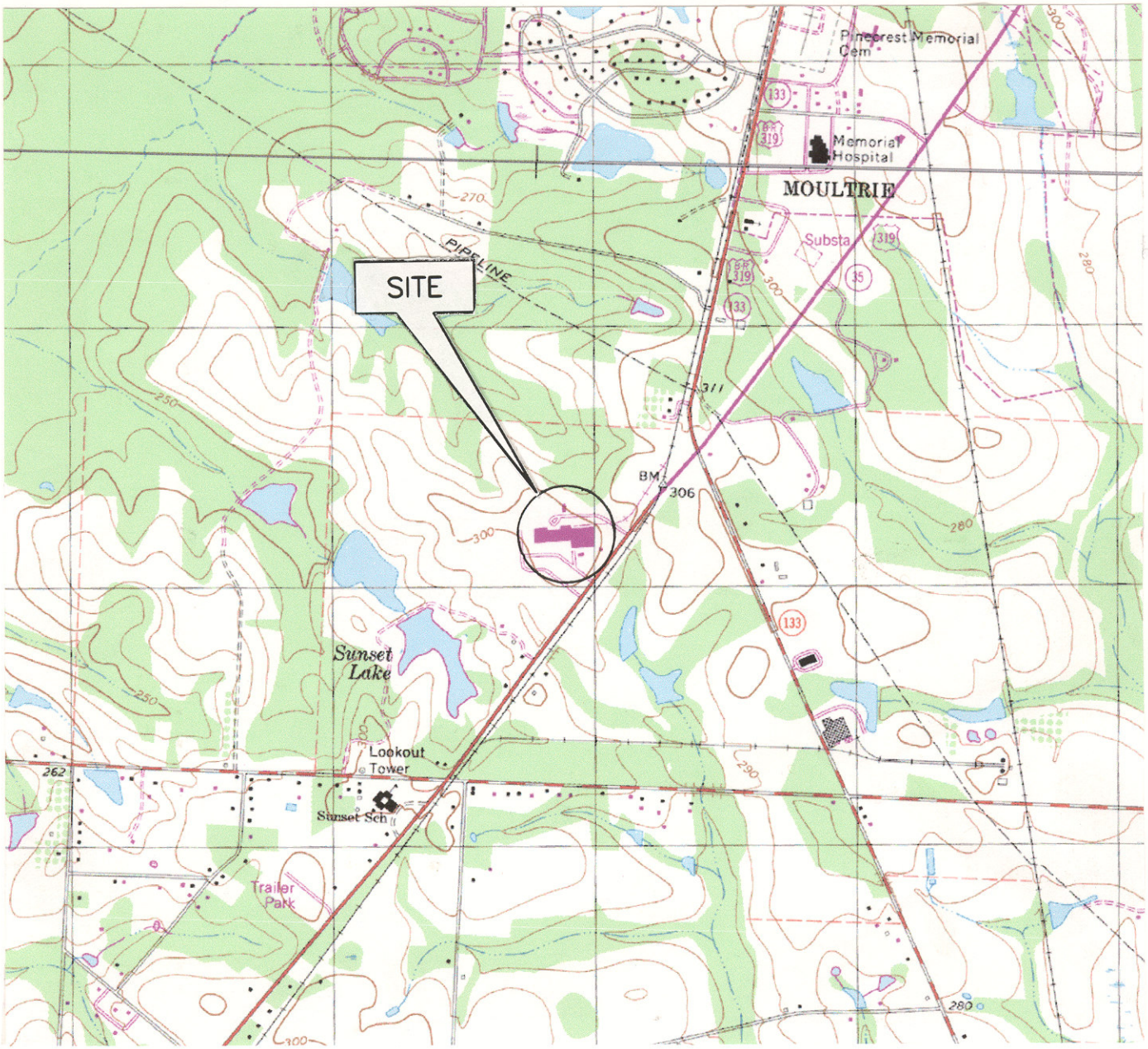
FIGURE 1



SITE LOCATION MAP

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GA.

MAP SOURCE: USGS 7.5-MIN. SERIES TOPOGRAPHIC QUADRANGLE "COOLIDGE, GA" AND "MOULTRIE, GA".

1 0 1/2 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 0 5 1 KILOMETER

SCALE: 1:24000

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FILE NO. 26765

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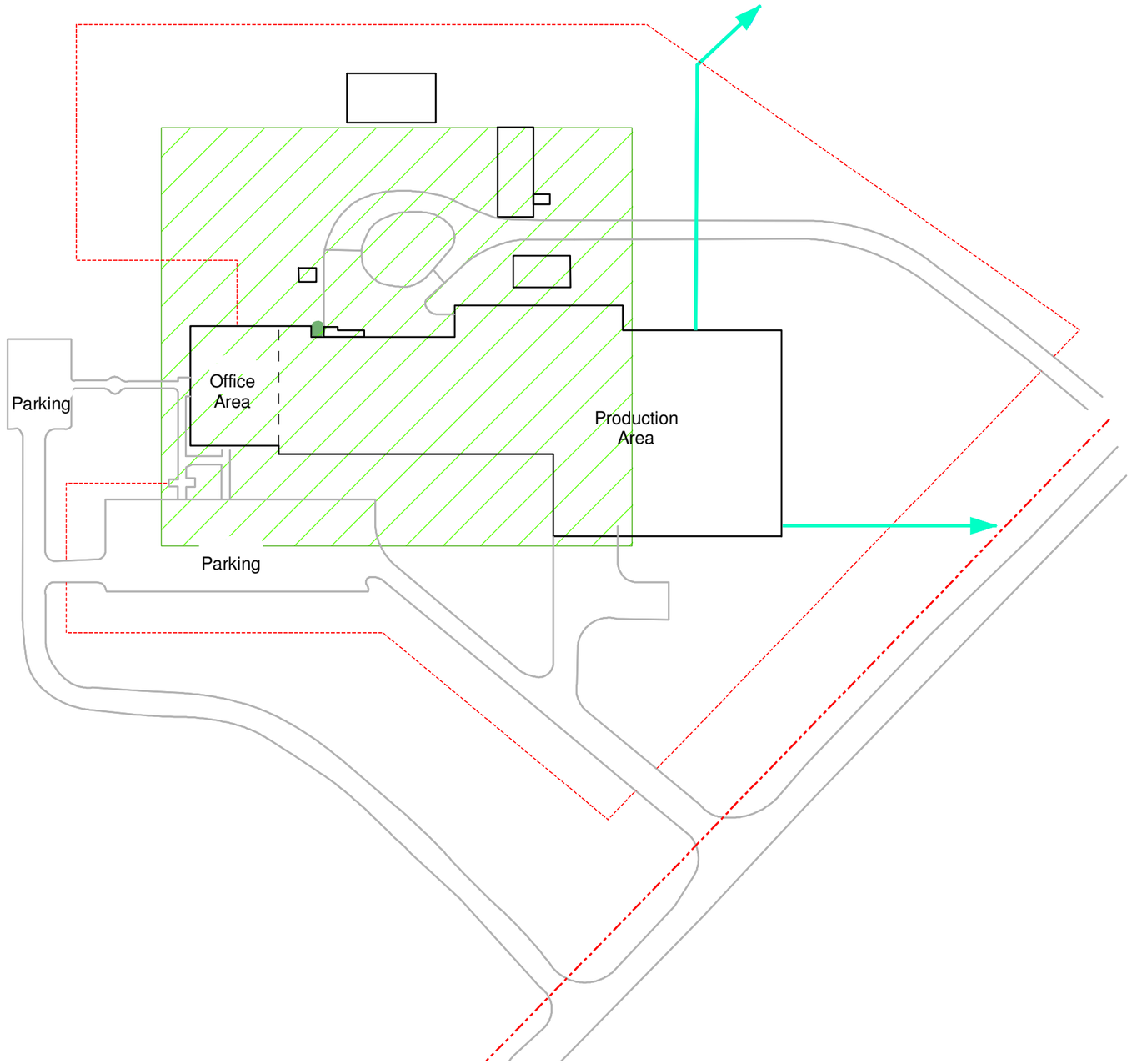

FIGURE 2

Chain Link Fence

Property Boundary

Road

Storm Water Drainage

Area shown on Figure 3

Former Waste Solvent Tank Piping Release

N

0 150 300

Feet

SITE PLAN

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2010

O'BRIEN & GERE

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NAME: Site Plan I

DATE: 1/14/10

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NAME: Ground Water Monitoring Network

DATE: 1/14/10

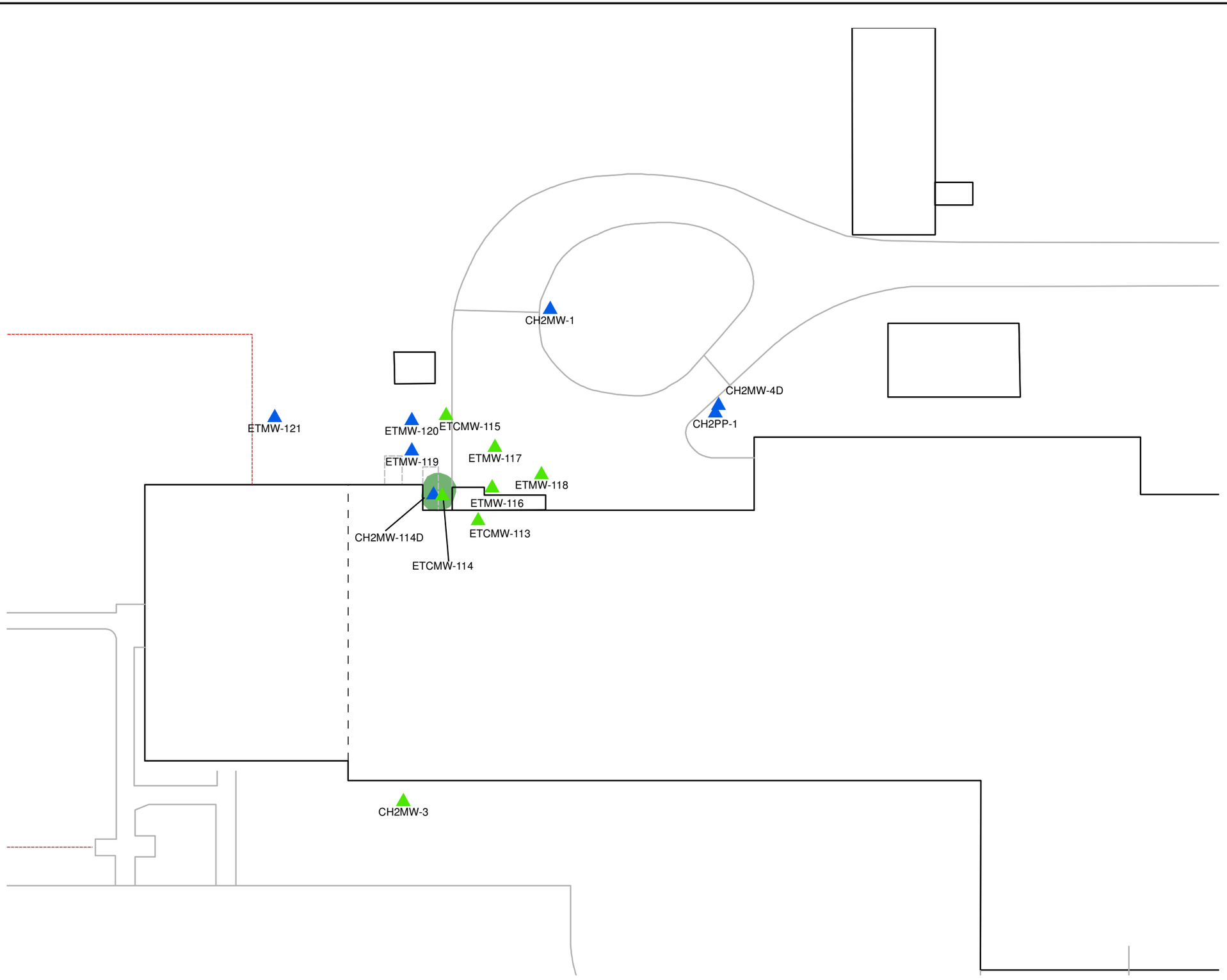

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FIGURE 3

Monitoring Well

Sample Analysis

- VOCs
- VOCs & Geochemical Parameters

Former Waste Solvent Tank Piping Release

Chain Linked Fence

Road

N

0 25 50 100

Feet

GROUND WATER MONITORING NETWORK

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2010

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NAME: Potentiometric Surface - December 2010

DATE: 2/11/11

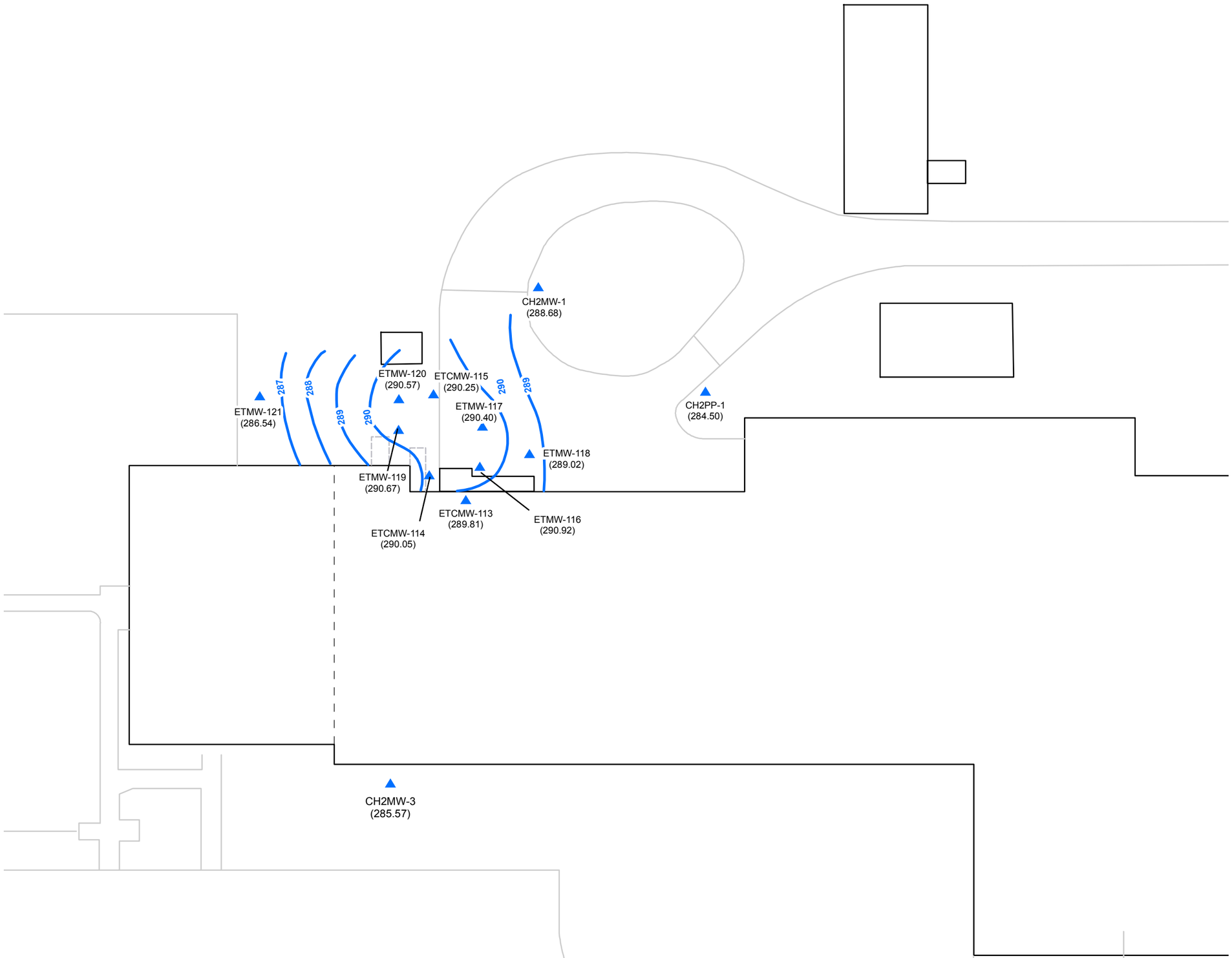

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FIGURE 4

▲ Monitoring Wells

— Ground Water Elevation (ft msl)

N

0 25 50 100

Feet

GROUND WATER POTENTIOMETRIC SURFACE

FROMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2010

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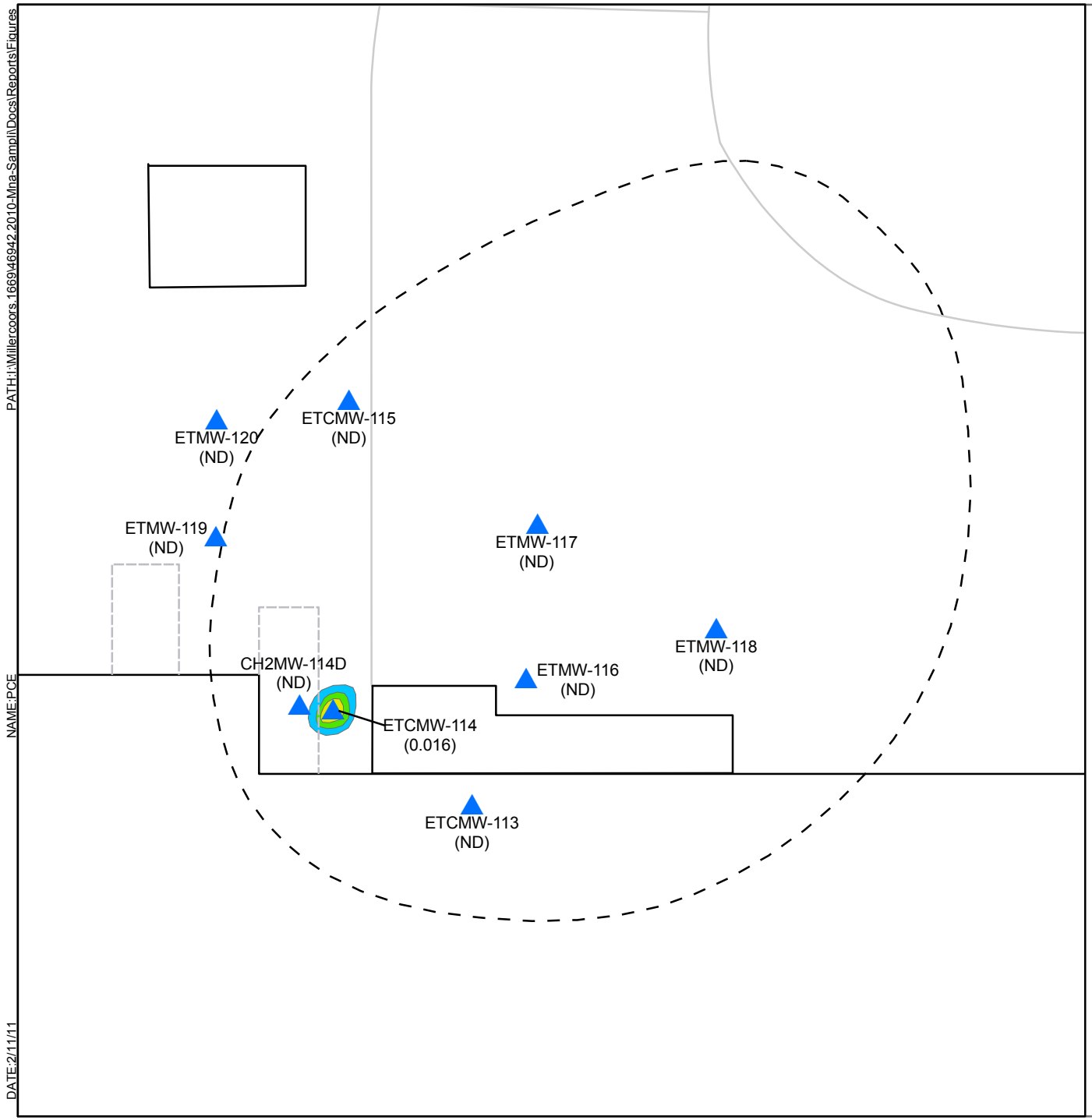

FIGURE 5

Monitoring Well

Treatment Area

Tetrachloroethene (PCE)
concentration above RRS (mg/L)

- >1.0000
- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

ND indicates that PCE was not detected at concentrations above the Type 1/3 RRS

PCE Type 1/3 RRS = 0.005

N

0 10 20

Feet

PCE CONCENTRATION ABOVE RRS

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2010

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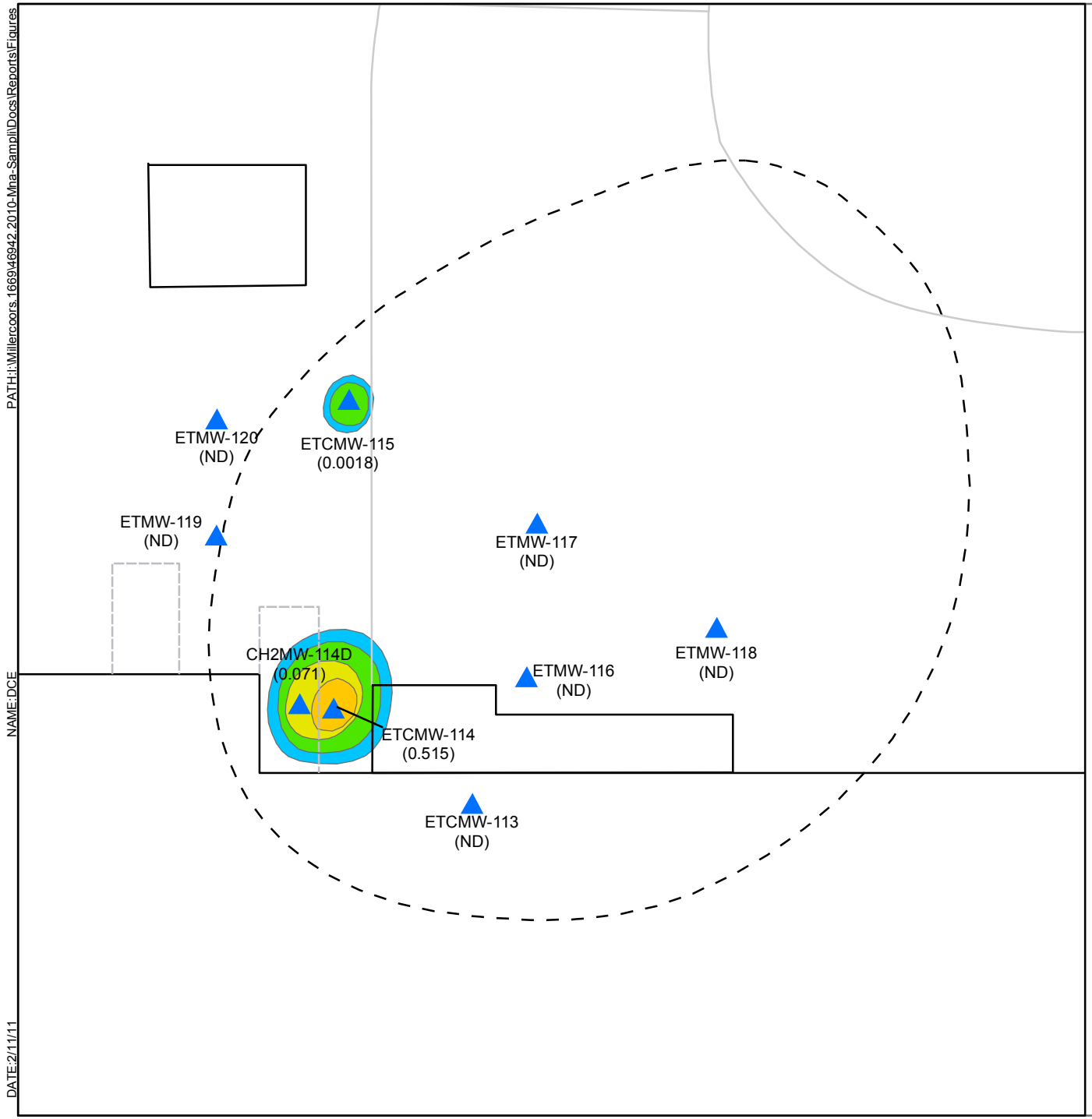

FIGURE 6

Monitoring Well

Treatment Area

Trichloroethene concentration above RRS (mg/L)

- >1.0000
- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

ND indicates that TCE was not detected at concentrations above the Type 1/3 RRS

TCE Type 1/3 RRS = 0.005

N

0 10 20

Feet

TCE CONCENTRATION ABOVE RRS

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2010

O'BRIEN & GERE
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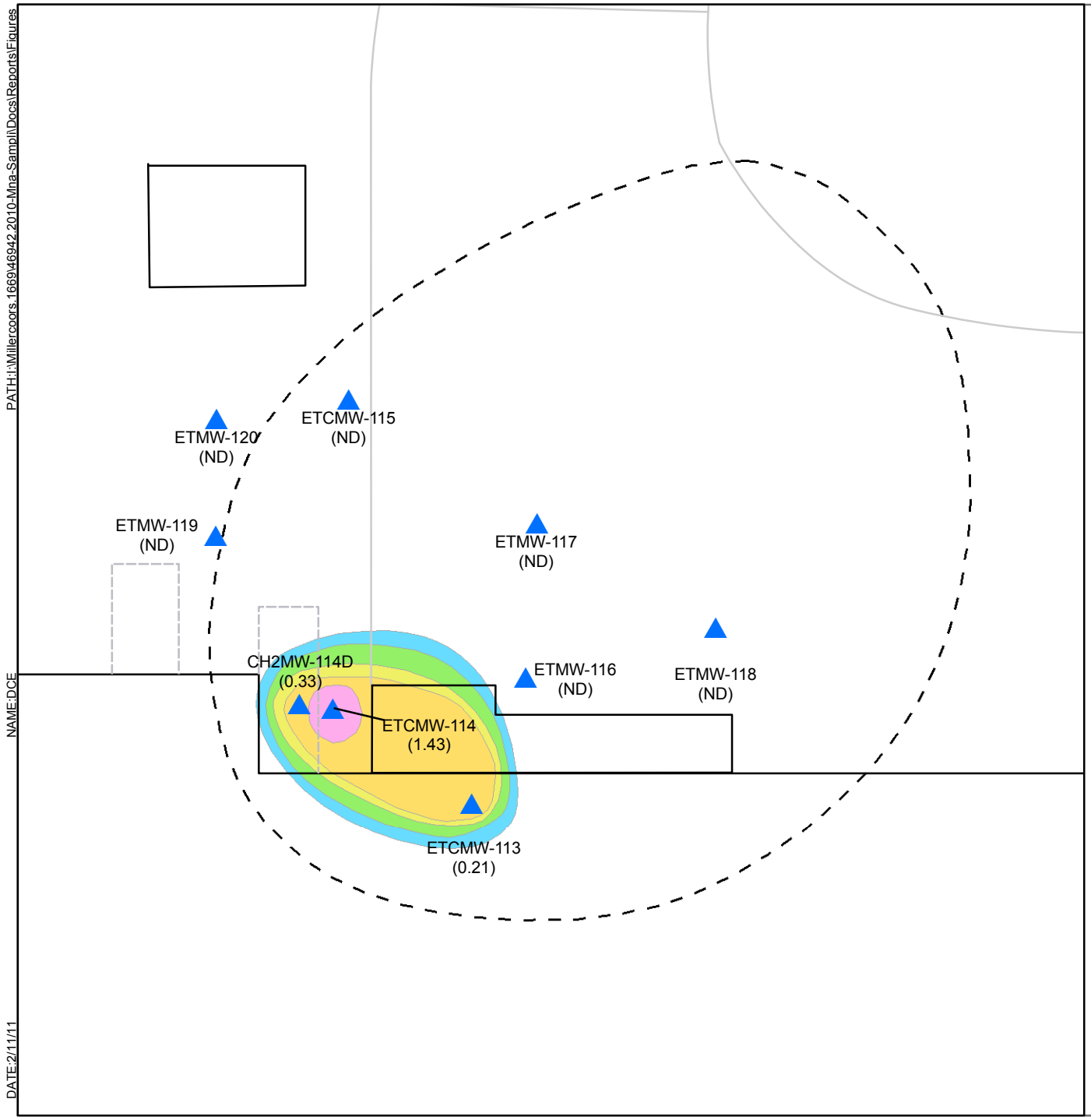

FIGURE 7

Monitoring Well

Treatment Area

cis-1,2-dichloroethene concentration above RRS (mg/L)

- >1.0000
- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

ND indicates that cis-1,2-DCE was not detected at concentrations above the Type 1/3 RRS

cis-1,2-DCE Type 1/3 RRS = 0.07

N

0 10 20

Feet

cis-1,2 DCE CONCENTRATION ABOVE RRS

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2010

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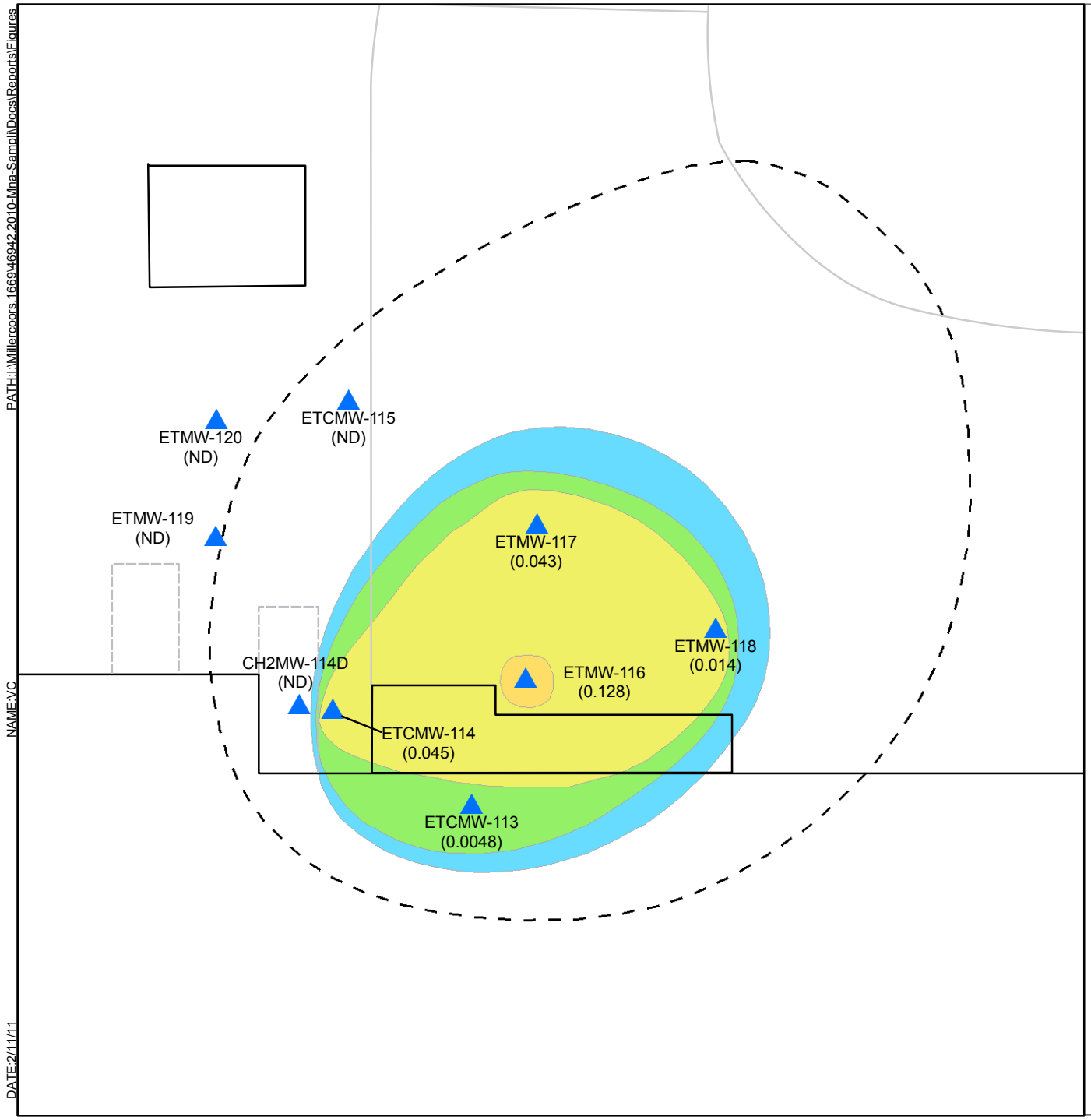

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NAME:VC

DATE:2/11/11

FIGURE 8

Monitoring Well

Treatment Area

Vinyl chloride concentration above RRS (mg/L)

- >1.0000
- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

ND indicates that vinyl chloride was not detected at concentrations above the Type 1/3 RRS

vinyl chloride Type 1/3 RRS = 0.002

N

0 10 20

Feet

VINYL CHLORIDE CONCENTRATION ABOVE RRS

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2010

O'BRIEN & GERE
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APPENDICES

Historical Ground Water Results Summary

A.1 – Historical Summary of Volatile Organic Constituents in Ground Water

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Downgradient CH2MW-1											Downgradient CH2MW-1A							
					5/29/1998	4/29/2002	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/24/2007	12/8/2008	12/16/2009	12/8/2010	6/4/1998	4/29/2002	4/7/2004	4/28/2005	10/26/2005	4/18/2006	4/18/2007
Acetone	67-64-1	mg/L	4		-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	-		< 0.01	< 0.01	**0.031**	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	-	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		-		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	-		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0005	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0.001 [2]		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.001	-	**0.0015**	**0.0013**	< 0.001	**0.00059**	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.00284**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.00107**	**0.003**	**0.0013**	**0.0011**	**0.0011**	**0.00052**	< 0.0005	< 0.0005	< 0.0005	< 0.0025	**0.00059**	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	**0.003**	-	-	-	-	-	-	-	-	-	-	< 0.0005	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.25	< 0.050	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005
Naphthalene	91-20-3	mg/L	0.02		-	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.001	**0.0012**	**0.0039**	**0.0041**	**0.0044**	**0.00202**	**0.00176**	**0.00082**	**0.0012**	< 0.0025	**0.0023**	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Upgradient											Upgradient												
					CH2MW-2											CH2MW-3												
					5/29/1998	6/4/1998	8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2006 DUP1	4/18/2007	4/18/2007 DUP-02	5/29/1998	6/4/1998	8/23/2000	11/9/2000	11/9/2000 DUP	1/24/2001	4/6/2004	4/27/2005	4/27/2005 DUP2	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010
Acetone	67-64-1	mg/L	4		-	-	**0.003**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.003	< 0.003	**0.003**	**0.003**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	**0.0007**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0001	< 0.001	< 0.0001	< 0.0001	< 0.001	< 0.001	-	-	< 0.0005	**0.0006**	**0.0005**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	-	**0.0007**	**0.0006**	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	**0.002**	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	**0.001**	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	**0.0007**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	**< 0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient CH2MW-4D													Cross Gradient CH2MW-5							
					8/6/1998	8/23/2000	11/9/2000	1/25/2001	4/8/2004	4/26/2005	4/26/2005 DUP1	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009	12/8/2010	12/8/2010 DUP-1	8/5/1998	4/7/2004	4/27/2005	10/26/2005	10/26/2005 DUP 2	4/20/2006	4/20/2006 DUP2	4/17/2007
Acetone	67-64-1	mg/L	4		-	**0.007**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0.001 [2]		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.1	< 0.1	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	**0.0008**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005
Naphthalene	91-20-3	mg/L	0.02		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Toluene	108-88-3	mg/L	1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	**0.00071**	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	**< 0.0005**
Trichlorofluoromethane	75-69-4	mg/L	2		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume ETCMW-113														
					1/21/1994	11/3/1994	3/31/1995	5/27/1998	9/7/2000	11/9/2000	1/25/2001	4/6/2004	4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010
Acetone	67-64-1	mg/L	4		< 0.100	< 0.001	< 0.050	-	**0.007**	**0.026**	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.235 D**	**0.448 D**	**0.038**	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.100	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.191 D**	**0.380 D**	**0.014**	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.005	< 0.001	-	**0.0006**	< 0.005	**0.002**	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	**0.0016**	**0.00052**	**0.00092**
Carbon Disulfide	75-15-0	mg/L	4		< 0.100	< 0.005	< 0.005	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0056 D**	< 0.001	< 0.0005	**0.00810 D**	< 0.005	**0.00072**	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.010	< 0.001	< 0.001	-	**0.001**	< 0.005	**0.002**	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	**0.0057**	< 0.0005	**0.0024**
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.005	< 0.010	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.010	-	-	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.005	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.063**	**0.035**	**0.026**	**0.01006**	**0.056 D**	**0.024**	**0.036 D**	**0.022**	**0.018 D**	**0.011**	**0.00884**	**0.0173 D**	**0.0117 D**	**0.0089**	**0.0069**	**0.019**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.005	< 0.001	-	**0.0008**	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.017**	< 0.005	**0.003**	**0.00244**	**0.027 E**	< 0.005	**0.020 D**	**0.007**	**0.0051 D**	**0.003**	**0.00274**	**0.0083 D**	< 0.005	**0.0055**	**0.0032**	**0.0042**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	-	**0.017**	**0.022**	**0.02213**	-	-	**0.100 D**	**0.066 D**	**0.091 D**	**0.058**	**0.0554 D**	**0.178 D**	**0.147 D**	**0.200**	**0.120**	**0.280**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	< 0.001	-	-	-	0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	**0.00058**
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	< 0.0005	< 0.005	**0.110 D**	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.100	-	-	-	-	-	-	< 0.050	< 0.200	< 0.1	< 0.050	**1.45 D**	< 0.5	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.005	< 0.001	-	**0.002**	< 0.005	**0.0006**	< 0.002	< 0.0008	< 0.002	< 0.002	< 0.02	< 0.02	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.050	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.005	< 0.02	< 0.01	< 0.005	< 0.050	< 0.05	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.05	< 0.005	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.028**	**0.014**	**0.0084**	**0.00649**	**0.044 D**	**0.013**	**0.035 E**	**0.016**	**0.0078 D**	**0.0061**	**0.00361**	**0.00640 D**	< 0.005	< 0.0005	**0.00053**	**0.0022**
Toluene	108-88-3	mg/L	1		< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.002	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.003	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.005	< 0.004	< 0.001	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.290**	**0.062**	< 0.005	**0.06938**	**0.530 D**	**0.150**	**0.240 D**	**0.16 D**	**0.056 D**	**0.059**	**0.0246**	**0.0406 D**	< 0.0005	**0.0025**	**0.0028**	**0.0035**
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.006	-	**0.0009**	< 0.005	**0.001**	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.010	< 0.01	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.005	-	< 0.007	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.100	< 0.005	< 0.008	-	-	-	-	< 0.002	< 0.0008	< 0.005	< 0.002	< 0.0200	< 0.020	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.009	**0.00137**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.010	< 0.01	**0.0092**	**0.006**	**0.0068**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.005	< 0.010	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.010	< 0.01	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume																							
					ETCMW-114																							
					1/21/1994	1/21/1994 DUP	11/3/1994	11/3/1994 DUP	3/31/1995	3/31/1995 DUP	5/27/1998	8/23/2000	11/10/2000	1/24/2001	1/24/2001 DUP	4/29/2002	4/29/2002 DUP	4/7/2004	4/7/2004 DUP	4/28/2005	10/27/2005	4/20/2006	4/17/2007	4/17/2007 DUP-01	10/24/2007	10/24/2007 DUP-02	12/10/2008	12/16/2009	12/9/2010	12/9/2010 DUP-2
Acetone	67-64-1	mg/L	4		3.300	2.300	0.060	< 0.010	< 5	< 5	-	1.8	< 0.089	< 0.003	< 0.003	-	-	< 0.001	< 0.01	< 0.1	< 0.5	< 0.1	< 0.50	<2	< 0.01	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	2.600	1.500	0.030	0.020	< 5	< 5	-	3.9	< 0.089	< 0.003	< 0.003	< 0.003	< 0.003	< 0.001	< 0.01	< 0.1	< 0.5	< 0.1	< 0.50	<2	< 0.01	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1
Benzene	71-43-2	mg/L	0.005		0.0075	0.018	0.011	0.008	< 0.10	< 0.10	-	< 0.042	< 0.018	0.003	0.003	-	-	0.0016	0.0017	< 0.005	< 0.005	< 0.005	< 0.025	< 0.10	0.00170	0.00165	< 0.005	0.0029	< 0.005	< 0.005
Carbon Disulfide	75-15-0	mg/L	4		< 0.100	< 0.100	< 0.005	< 0.005	< 0.5	< 0.5	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.005	< 0.005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	0.410	1.300	1.2	< 0.010	0.930	1.200	-	< 0.042	0.120	0.061 E	0.062 E	-	-	0.0053	0.0053	< 0.010	< 0.001	< 0.010	< 0.05	< 0.20	0.0149	0.0143	< 0.005	< 0.0005	< 0.005	< 0.005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.005	< 0.005	< 0.010	1.100	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.010	< 0.001	< 0.010	< 0.05	< 0.20	< 0.001	< 0.001	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.010	< 0.010	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	< 0.010	< 0.050	< 0.20	< 0.001	< 0.001	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		0.690	1.200	0.710	0.580	0.400	0.450	0.09321	0.230	0.200	0.12 D	0.12 D	-	-	0.11 D	0.11 D	0.062 D	0.13	0.0839 D	0.102 D	< 0.10	0.0520 E	0.0505 E	0.045	0.033	0.055 D	0.052 D
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		0.011	0.015	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	0.004	0.004	-	-	0.0029	0.0029	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	0.00082	0.00080	< 0.005	< 0.0005	< 0.005	< 0.005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	0.019	0.110	0.570	0.260	0.310	0.330	0.20412	0.260	0.120	0.12 D	0.11 D	0.39 D	0.33 D	0.13 D	0.13 D	0.100 D	0.24	0.138 D	< 0.025	< 0.10	0.00691	0.00642	0.066	0.053	0.085 D	0.081 D
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	-	-	15	12	11	12	4.841	-	-	3.4 D	3.3 D	3.8 D	3.7 D	2.4 D	2.4 D	1.7 D	4.4	3.160 D	1.830 D	1.760 D	0.185 E	0.179 E	1.1	0.820	1.500 D	1.400 D
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	< 0.005	< 0.005	< 0.1	< 0.1	-	-	-	0.004	0.003	0.009	0.007	0.0025	0.0025	< 0.005	< 0.05	0.0314 D	< 0.025	< 0.10	0.00331	0.00313	< 0.005	0.0014	< 0.005	< 0.005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	< 0.042	< 0.018	3.1 D	3.1 D	3.9 D	3.8 D	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		0.0085	0.020	0.007	0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		0.310	0.330	-	-	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050	< 0.500	< 5	< 0.5	<2.5	<10	< 0.050	< 0.050	< 0.5	< 0.050	< 0.5	< 0.5
Methylene Chloride	75-09-2	mg/L	0.005		0.0088	0.0052	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	0.001	0.003	-	-	< 0.002	< 0.002	< 0.020	< 0.1	< 0.0200	< 0.10	< 0.40	< 0.002	< 0.002	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		0.077	0.080	0.018	0.015	< 5	< 5	-	< 0.210	< 0.089	< 0.003	< 0.003	-	-	< 0.005	< 0.005	< 0.05	< 0.5	< 0.050	< 0.25	< 1.0	< 0.005	< 0.005	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.01	< 0.05	< 0.010	< 0.05	< 0.2	< 0.001	< 0.001	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.001	< 0.001	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.1	< 0.0005	< 0.0005	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	0.039	0.120	0.013	0.012	< 0.100	< 0.100	0.03293	0.140	0.036	0.039 E	0.039 E	-	-	0.11 D	0.12 D	0.074 D	0.13	0.101 D	< 0.025	< 0.10	< 0.0005	< 0.0005	0.006	0.0092	0.021 D	0.020 D
Toluene	108-88-3	mg/L	1		0.072	0.150	0.057	0.049	< 0.100	< 0.1 00	-	< 0.042	< 0.018	0.008	0.008	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	0.00222	0.00202	< 0.005	0.00099	< 0.005	< 0.005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	< 0.010	< 0.025	< 0.10	< 0.001	< 0.001	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	< 0.01	< 0.050	< 0.20	< 0.001	< 0.001	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		0.041	0.170	< 0.005	< 0.005	< 0.100	< 0.100	< 0.001	< 0.042	< 0.018	0.002	0.002	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.005	< 0.005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	0.420	0.670	0.14	0.120	0.400	0.440	0.662	3.100 D	0.740	0.82 D	0.79 D	4.5 D	4.0 D	1.6 D	1.7 D	1.0 D	2.2	1.480 D	< 0.025	< 0.10	0.00897	0.00823	0.44	0.34	0.520 D	0.500 D
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.010	< 0.05	< 0.010	< 0.05	< 0.001	< 0.001	< 0.001	< 0.005	< 0.0005	< 0.005	< 0.005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0057	< 0.0058	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		3.800	3.600	< 0.005	< 0.010	< 1.000	< 1.0	-	-	-	-	-	-	-	< 0.002	< 0.002	< 0.020	< 0.1	< 0.0200	< 0.10	< 0.40	< 0.002	< 0.002	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.01	< 0.01	< 0.100	< 0.100	0.01956	< 0.042	< 0.018	0.001	0.001	-	-	< 0.001	< 0.001	< 0.010	0.026	0.0236 D	3.740 D	3.550 D	.524 E	0.547 E	< 0.005	0.0052	0.047 D	0.040 D
Xylenes (total)	1330-20-7	mg/L	0.01		0.045	0.095	0.024	0.020	< 0.300	< 0.300	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.010	< 0.05	< 0.20	0.00169	0.00165	< 0.005	0.00057	< 0.005	< 0.005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume CH2MW-114D										In Plume ETCMW-115									
					6/4/1998	4/7/2004	4/28/2005	10/26/2005	4/20/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/8/2010	11/3/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008	12/16/2009	12/8/2010
Acetone	67-64-1	mg/L	4		-	< 0.01	**0.190 D**	**0.52**	< 0.01	< 0.1	**0.123 E**	< 0.010	**0.53**	**0.390**	< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	< 0.025	< 0.025	< 0.010	< 0.010	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	< 0.01	**0.430 D**	< 0.1	< 0.01	< 0.1	**0.0442**	**0.063**	< 0.01	**0.120**	< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	< 0.025	< 0.025	< 0.010	< 0.010	< 0.010
Benzene	71-43-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.0005	**0.00062**	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	**0.00074**	**0.00076**	**0.0015**	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.0018**	**0.0077**	**0.00830 D**	< 0.01	< 0.001	< 0.005	**0.00249**	**0.0007**	**0.00098**	**0.0012**	**0.042**	**0.025**	**0.0064**	**0.0063**	**0.0076**	**0.00367**	**0.00848 D**	**0.00308 D**	**0.00087**	**0.0011**	**0.0039**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.005 J	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0046**	**0.0053**	**0.0060 D**	< 0.01	< 0.001	**0.00580 D**	**0.00395**	**0.0051**	**0.0081**	**0.13**	< 0.005	< 0.001	< 0.0005	< 0.0025	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.0161**	**0.088 D**	**0.120 D**	**0.097**	< 0.001	**0.204 D**	**0.146 E**	**0.120**	**0.280**	**0.400**	**0.210**	**0.120**	**0.086 D**	**0.041 D**	**0.094**	**0.0346**	**0.120 D**	**0.0318 D**	**0.0078**	**0.011**	**0.040**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	**0.00076**	< 0.005	< 0.001	< 0.0005	**0.00067**	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	< 0.050	< 0.500	< 1	< 0.1	< 0.005	**0.622 E**	**1.300**	< 0.050	**0.079**	-	-	< 0.050	< 0.250	< 0.1	< 0.050	< 0.125	< 0.125	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	< 0.002	< 0.002	< 0.02	< 0.002	< 0.0200	< 0.002	-	-	-	< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	< 0.005	< 0.005	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	< 0.005	< 0.005	< 0.1	< 0.01	< 0.050	< 0.005	-	-	-	< 0.01	< 0.50	< 0.005	< 0.005	< 0.01	< 0.005	< 0.0125	< 0.0125	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.011**	**0.010**	**0.0072 D**	< 0.01	< 0.001	**0.00530 D**	**0.00288**	**0.0042**	**0.0038**	**0.0046**	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0025	< 0.00125	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.105**	**0.200 D**	**0.230 D**	**0.240**	< 0.001	**0.135 D**	**0.056 E**	**0.140**	**0.087**	**0.076**	**0.170**	**0.120**	**0.016**	**0.0057**	**0.0039**	**0.00901**	**0.0214 D**	**0.0079 D**	**0.0027**	**0.0032**	**0.0068**
Trichlorofluoromethane	75-69-4	mg/L	2		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	< 0.002	< 0.002	< 0.05	< 0.005	< 0.0200	< 0.002	-	-	-	< 0.005	< 0.010	< 0.002	< 0.002	< 0.005	< 0.002	< 0.005	< 0.005	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.005 J	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	**0.00068**	< 0.001	< 0.001	**0.0015**	**0.025**	**0.014**	**0.00346**	**0.00915 D**	< 0.0025	**0.0011**	< 0.0005	**0.0010**
Xylenes (total)	1330-20-7	mg/L	0.01		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.003	< 0.0005	**0.00061**	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume														
					ETMW-116														
					12/20/1994	3/31/1995	5/26/1998	8/23/2000	8/23/2000 DUP	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/16/2009	12/7/2010
Acetone	67-64-1	mg/L	4		< 0.010	< 0.25	-	**0.010**	**0.011**	**0.036 B**	< 0.003	< 0.01	**0.360 D**	**1.6**	**0.968 D**	**0.398 D**	< 0.05	**0.29**	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.25	-	< 0.003	< 0.003	< 0.025	< 0.003	< 0.01	**0.053 D**	**0.38**	**0.163 D**	< 0.1	< 0.05	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.025	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0037 D**	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.010	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	**0.007**	**0.0088**	**0.0079**
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	**0.0007**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.062**	**0.045**	**0.03585**	**0.045 D**	**0.039 D**	**0.012**	**0.012**	**0.018**	**0.023 D**	< 0.01	**0.00870 D**	**0.00910 D**	**0.00660 D**	**0.0065**	**0.0084**	**0.0099**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.005	-	**0.0007**	**0.0007**	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.005 J	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.008**	**0.012**	**0.01349**	**0.016**	**0.018**	< 0.005	**0.004**	**0.0055**	**0.0090 D**	< 0.007 J	**0.00540 D**	< 0.005	< 0.0025	< 0.0005	< 0.0005	**0.00082**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.085**	**0.074**	**0.05735**	-	-	-	**0.026 D**	**0.039**	**0.100 D**	**0.18**	**0.221 D**	**0.0831 D**	< 0.0025	**0.011**	**0.0043**	**0.014**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	-	-	-	-	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	< 0.0005	< 0.0005	< 0.005	**0.024**	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	-	-	< 0.050	**1.8**	**1.5**	< 0.5	< 0.005	< 0.25	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.005	-	**0.001**	**0.0009**	< 0.005	< 0.0005	< 0.002	< 0.001	< 0.002	< 0.005	< 0.0200	< 0.01	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.25	-	< 0.003	< 0.003	< 0.025	< 0.003	< 0.005	< 0.025	< 0.1	< 0.05	< 0.050	< 0.025	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.034**	**0.022**	**0.018**	**0.024**	**0.022 D**	**0.007**	**0.005**	**0.011**	**0.012 D**	**0.0062 J**	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	**0.0025**	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.560**	**0.420**	**0.26512**	**0.420 D**	**0.350 D**	**0.130**	**0.100 D**	**0.15 D**	**0.170 D**	**0.12**	< 0.005	**0.0291 D**	< 0.0025	< 0.0005	< 0.0005	**0.0017**
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	**0.001**	**0.001**	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.050	-	-	-	-	-	< 0.002	< 0.01	< 0.05	< 0.020	< 0.020	< 0.01	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.005 J	**0.0171 D**	**0.0581 D**	**0.0384 D**	**0.120**	**0.170**	**0.130**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.015	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.01	< 0.010	< 0.005	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
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May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
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April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume														
					ETMW-117														
					12/21/1994	3/31/1995	8/23/2000	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/2008 DUP-2	12/15/2009	12/15/2009 DUP-2	12/8/2010
Acetone	67-64-1	mg/L	4		< 0.010	< 0.1	< 0.018	< 0.003	**0.003**	< 0.01	< 0.04	< 0.01	< 0.01	**2.090 D**	**0.513 ED**	**0.016**	**0.012**	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.213 D**	**0.0785 D**	< 0.01	< 0.01	< 0.0005	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.002	< 0.004	**0.0008**	**0.002**	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	**0.0015**	**0.0017**	**0.0014**	**0.0013**	**0.0010**
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.010	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	**0.00054**	**0.0007**	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	**0.0027**	**0.0029**	< 0.0005	**0.003**	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.012**	**0.025**	**0.017**	**0.017**	**0.008**	**0.0098**	**0.014 D**	**0.013**	**0.0105**	**0.00935 D**	**0.00825 D**	**0.0048**	**0.0056**	**0.0043**	**0.004**	**0.0066**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	**0.005**	< 0.004	**0.003**	**0.002**	**0.0022**	**0.0038 D**	**0.0026**	**0.00075**	**0.00305 D**	< 0.0025	< 0.0005	**0.0010**	< 0.0005	< 0.0005	**0.00078**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.014**	`	-	-	**0.016**	**0.02**	**0.030 D**	**0.03**	**0.0225**	**0.0315 D**	**0.0762 D**	**0.041**	**0.050**	**0.021**	**0.018**	**0.027**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.002	-	-	< 0.0005	< 0.0005	< 0.002	< 0.001	**0.00213**	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	< 0.004	< 0.0005	**0.015**	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	< 0.050	< 0.2	< 0.1	< 0.050	**2.930 D**	< 0.25	< 0.0005	< 0.0005	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.002	< 0.004	**0.0006**	**0.002**	< 0.002	< 0.008	< 0.002	< 0.002	< 0.010	< 0.010	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.005	< 0.02	< 0.01	< 0.005	< 0.025	< 0.025	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.005	**0.008**	**0.005**	**0.005**	**0.002**	**0.0032**	**0.0050 D**	**0.0042**	**0.00378**	**0.00435 D**	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.130**	**0.210**	**0.120**	**0.070**	**0.050 D**	**0.064 D**	**0.094 D**	**0.098**	**0.079 D**	**0.0744 D**	**0.0302 D**	**0.00056**	**0.00066**	< 0.0005	< 0.0005	**0.0017**
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.020	-	-	-	< 0.002	< 0.008	< 0.005	< 0.002	< 0.010	< 0.010	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	**0.024**	**0.025**	**0.044**	**0.050**	**0.045**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.006	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [8]	In Plume												Cross Gradient												
					ETMW-118												ETMW-119												
					12/20/1994	3/31/1995	5/26/1998	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	10/24/2007 DUP-01	12/9/2008	12/15/2009	12/9/2010	12/20/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	10/25/2005 DUP 1	4/18/2006	4/17/2007	10/25/2007	12/9/2008	12/9/2008 DUP-1	12/14/2009	12/14/2009 DUP-1	12/9/2010
Acetone	67-64-1	mg/L	4		< 0.005	< 0.05	-	< 0.01	**0.021**	< 0.02	< 0.01	**0.192 D**	< 0.5	< 0.5	**0.37**	**0.56**	**0.37**	< 0.005	< 0.050	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0212**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.05	-	< 0.01	< 0.01	< 0.02	< 0.01	< 0.050	< 0.5	< 0.5	**0.26**	**0.49**	**0.22**	< 0.01	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0998 DH**	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	-	< 0.0005	**0.00079**	< 0.002	< 0.0005	**0.00370 D**	< 0.025	< 0.025	**0.0028**	**0.0012**	**0.0010**	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.001	-	< 0.001	< 0.001	**0.0038**	**0.00437**	< 0.005	< 0.05	< 0.05	**0.0032**	**0.0019**	**0.0013**	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.001	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.014**	**0.021**	**0.01884**	**0.0033**	**0.014**	**0.011**	**0.00961**	**0.0139 D**	< 0.025	< 0.025	**0.014**	**0.012**	**0.0064**	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	**0.0046**	**0.00292**	**0.00061**	**0.0037**	**0.0054**	**0.00489**	**0.00575 D**	< 0.025	< 0.025	**0.003**	**0.0024**	**0.00081**	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.012**	**0.023**	**0.01722**	**0.0057**	**0.120 D**	**0.13**	**0.127 D**	**0.117 D**	**0.108 D**	**0.111 D**	**0.088**	**0.096**	**0.050**	< 0.05	**0.0016**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.00064**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	< 0.050	< 0.050	< 0.2	< 0.050	**25.6 DH**	**13.0 D**	**13.2 D**	**0.069**	< 0.050	< 0.050	-	-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.002	< 0.002	< 0.004	< 0.002	< 0.010	< 0.100	< 0.100	-	-	-	< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.05	-	< 0.005	< 0.005	< 0.02	< 0.005	< 0.025	< 0.25	< 0.25	-	-	-	< 0.010	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.010	**0.009**	**0.008**	**0.0019**	< 0.0005	**0.0032**	**0.00257**	**0.00460 D**	< 0.025	< 0.025	**0.0032**	**0.0015**	< 0.0005	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.069**	**0.110**	**0.08682**	**0.021**	**0.0031**	**0.049**	**0.0316**	**0.0489 D**	**0.0390 D**	**0.0400 D**	**0.037**	**0.018**	**0.002**	< 0.005	**0.0034**	< 0.0005	**0.00061**	< 0.001	< 0.001	**0.00053**	**0.00074**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.010	-	< 0.002	< 0.002	< 0.01	< 0.002	< 0.010	< 0.100	< 0.100	-	-	-	< 0.010	< 0.010	< 0.002	< 0.002	< 0.005	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.001	< 0.001	< 0.001	**< 0.001**	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	**0.033**	**0.031**	**0.016**	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.005	< 0.05	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.003	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient												Upgradient												
					ETMW-120												ETMW-121												
					12/20/1994	3/31/1995	5/26/1998	5/26/1998 DUP	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/23/2007	12/11/2008	12/14/2009	12/9/2010	12/20/1994	3/31/1995	5/27/1998	8/23/2000	11/10/2000	1/24/2001	4/7/2004	4/28/2005	10/26/2005	4/19/2006	4/18/2007	10/23/2007	12/11/2008	12/14/2009	12/6/2010
Acetone	67-64-1	mg/L	4		< 0.005	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.05	-	**0.009**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	< 0.010	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.001	**0.00184**	**0.00166**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.05	**0.0048**	**0.00543**	**0.00525**	**0.0011**	**0.0012**	**0.0052**	< 0.0005	**0.00135**	**0.00094**	**0.00056**	**0.00073**	**0.0032**	< 0.05	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	< 0.005	< 0.001	-	**0.0009**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.05	-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.010	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.010	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	**0.0018**	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.005	**0.0017**	**0.00138**	**0.00128**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0021**	< 0.005	< 0.001	< 0.001	**0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.010	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	< 0.010	< 0.010	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.010	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
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May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
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April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient OBGMW-122								Cross Gradient OBGMW-123									
					8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	9/8/2000	11/9/2000	1/24/2001	4/29/2002	4/6/2004	4/6/2004 DUP	4/27/2005	10/25/2005	4/20/2006	4/18/2007
Acetone	67-64-1	mg/L	4		**0.016**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.003	< 0.003	< 0.003	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	**0.003**	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.0005	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		**0.001**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	**0.001**	< 0.0005	< 0.0005	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.003	< 0.003	< 0.003	-	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005
Naphthalene	91-20-3	mg/L	0.02		< 0.0005	**0.001**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.0005	**0.002**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.0005	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX A.1.
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Down Gradient					Cross Gradient										Upgradient		In Plume	
					OBGMW-124					CH2PP-1										CH2PP-2	CH2PP-3 [8]	Sump 1	Sump 2
					4/21/2004	4/27/2005	10/26/2005	4/20/2006	4/18/2007	6/30/1998	4/7/2004	4/26/2005	10/25/2005	4/19/2006	4/17/2007	10/24/2007	12/10/2008	12/15/2009	12/8/2010	5/29/1998	(not sampled)	11/3/1994	11/3/1994
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	**0.021**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	**0.790**	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	**0.420**	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.005	< 0.005
Carbon Disulfide	75-15-0	mg/L	4		**0.00063**	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.005	< 0.005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.010	< 0.010
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	**1.3**	< 0.010
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	**0.00057**	**0.00055**	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	**0.240**	< 0.005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.005	< 0.005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	**0.046**	< 0.005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	**0.013**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	**1.5**	< 0.005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.005	< 0.005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.005	< 0.005
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	< 0.005	< 0.005
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	< 0.010	< 0.010
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.005	< 0.005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0021**	< 0.001	-	**0.077**	< 0.005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	**0.018**	< 0.005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	**0.140**	< 0.005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0017**	< 0.001	-	**0.250**	**0.016**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	< 0.010	< 0.010
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.010	< 0.010
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.005	< 0.005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

A.2 – Historical Summary of Ground Water Geochemical Parameters

APPENDIX A.2.
Historical Summary of Ground Water Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Downgradient CH2MW-1										Downgradient CH2MW-1A							Upgradient CH2MW-2									
		4/29/2002	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/24/2007	12/8/2008	12/14/2009	12/6/2010	4/29/2002	4/7/2004	4/28/2005	10/26/2005	4/20/2006	4/19/2007	10/22/2007	5/29/1998	8/23/2000	11/21/2000	1/24/2001	4/6/2004	4/27/2005	10/25/2005	4/18/2006	4/18/2007	10/22/2007
Laboratory Parameters																												
Alkalinity	mg/L	-	-	-	-	-	-	-	-	-	-	-	**22**	**2.6**	NA	**24**	NA	-	**2.0**	< 10	< 10	< 10	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	**15**	**8.8**	**11**	**9.4**	**7.8**	**-**	**38.5**	**37.6**	**33.7**	**39.3**	**-**	**-**	-	-	-	-
Iron	mg/L		-	-	-	-	-	-	-	-	-	-	**0.63**	**1.2**	NA	**1.8**	**2.1**	**-**	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050	NA	< 0.050	< 0.050	-	-	**15.1**	**0.3**	**0.2**	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	**1.6**	**0.27**	**0.64**	**0.71**	**1.2**	**-**	**5.6**	**6.12**	**6.2**	**6.95**	**-**	**-**	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.07	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-	-	-	-	**1.3**	**2.7**	< 2.0	**1.6**	**7.7**	**-**	**14**	**19.7**	**27**	**20.2**	**-**	**-**	-	-	-	-
Sulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-	< 0.8	< 0.9	NA	< 0.80	NA	-	< 1.0	< 0.2	< 0.5	< 0.5	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-	-	-	-	-	-	< 2.0	< 5.0	< 2.0	< 2.1	< 0.0021	-	**0.747**	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-
Ethane	ug/L	-	-	-	-	-	-	-	-	-	-	-	< 4.0	< 5.0	< 4.0	< 4.2	< 0.0042	-	**0.039**	< 0.01	< 0.01	< 0.01	-	-	-	-	-	-
Ethene	ug/L	-	-	-	-	-	-	-	-	-	-	-	< 4.0	< 5.0	< 4.0	< 4.2	< 0.0042	-	**0.055**	**0.02**	< 0.01	< 0.01	-	-	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	-	-	-	-	-	-	**1.3**	**11**	NA	-	**2.7**	**-**	**2.7**	**18.4**	**23.1**	**37**	**-**	**-**	-	-	-	-
Total Organic Carbon	mg/L	-	-	-	-	-	-	-	-	-	-	-	**1.3**	**9.6**	**3.5**	**6.3**	**3.9**	**-**	-	**37.4**	**29.1**	**47.4**	**-**	**-**	-	-	-	-
Field Parameters																												
Ferrous Iron	mg/L	-	-	ND	-	-	ND	ND	ND	ND	-	-	**0.3**	ND	**2.87**	-	**0.6**	-	< 0.20	**0.7**	**0.4**	**0.01**	-	ND	-	-	ND	-
Carbon Dioxide	mg/L	**-**	**-**	**20**	**-**	**-**	**>100**	**80**	**75**	-	-	**-**	**14**	**13**	**70**	**-**	**>100**	**-**	**-**	**-**	**-**	**-**	**-**	**13**	-	-	**95**	**-**
pH	S.U.	**4.60**	**4.54**	**5.51**	**4.52**	**5.11**	**5.05**	**5.33**	**5.16**	**4.71**	**4.94**	**5.50**	**5.47**	**5.90**	**5.33**	**5.13**	**5.36**	**-**	**4.36**	**4.50**	**4.40**	**3.78**	**4.11**	**3.71**	**4.41**	**5.03**	**5.47**	**-**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.9**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.29**
Conductivity	mS/cm	**0.090**	**0.139**	**0.183**	**0.128**	**0.137**	**0.115**	**0.134**	**0.218**	**0.169**	**0.127**	**0.080**	**0.102**	**0.137**	**0.088**	**0.098**	**0.092**	**-**	**0.220**	**0.270**	**0.317**	**0.215**	**0.232**	**0.284**	**0.206**	**0.217**	**0.207**	**-**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.019**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.039**
Dissolved Oxygen	mg/L	**5.50**	**4.53**	**3.93**	**3.44**	**5.93**	**4.96**	**3.53**	**0.01**	**3.15**	**2.17**	**5.30**	**4.07**	**2.52**	**1.12**	**4.78**	**0.79**	**-**	**4.39**	**8.70**	**9.60**	**4.70**	**2.20**	**1.45**	**1.86**	**4.12**	**4.86**	**-**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.74**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.52**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**4.0**	**2.5**	**2.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Oxidation/Reduction Potential (ORP)	mV	**293**	**527**	**222**	**179**	**414**	**340**	**124**	**403**	**348**	**218**	**231**	**499**	**181**	**186**	**357**	**353**	**-**	**253**	**32.5**	**404**	**248**	**553**	**387**	**234**	**448**	**399**	**-**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**262.4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**251**
Temperature	°C	-	**21.30**	**20.57**	**20.35**	**23.07**	**21.62**	**25.71**	**20.84**	**23.10**	**21.94**	-	**19.75**	**19.46**	**23.99**	**19.97**	**19.57**	**-**	-	**27.88**	-	**14.60**	**20.64**	**19.51**	**24.79**	**20.24**	**19.66**	**-**
Temperature (Downhole Probe)	°C	-	-	-	-	-	-	-	**-**	**-**	**-**	-	-	-	-	-	**-**	**25.96**	-	-	-	-	-	-	-	-	-	-	**25.84**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not recovered.
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (1998),
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Upgradient															Cross Gradient											
		CH2MW-3															CH2MW-4D											
		5/29/1998	8/23/2000	11/21/2000	11/21/00 DUP	1/24/2001	4/6/2004	4/27/2005	4/27/2005 DUP2	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010	8/23/2000	11/21/2000	1/25/2001	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009	12/8/2010
Laboratory Parameters																												
Alkalinity	mg/L	**4.0**	< 10	< 10	< 10	< 10	< 10	**18**	**18**	< 10	**12**	< 10	< 10	**58**	**45**	< 10	**39.5**	**62**	**32**	-	-	-	-	-	-	-	-	-
Chloride	mg/L	**14**	**18.6**	**19**	**18.8**	**13.2**	**14**	**9.9**	**13**	**18**	**9.3**	**6.7**	**12**	**3.1**	**5.2**	**13**	< 3.0	< 3.0	< 3.0	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	< 0.050	0.11	< 0.050	< 0.050	**0.094**	**0.072**	**0.16**	< 0.10	< 0.10	NA	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Manganese	mg/L	**-**	**1.8**	**0.6**	**-**	**0.3**	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.015	NA	< 0.05	**1.5**	**0.2**	**-**	**-**	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	**0.8**	**2.26**	**2.38**	**2.36**	**0.906**	**0.65**	**0.55**	**0.79**	**1.6**	**0.61**	**0.51**	**1.1**	**0.25**	**0.27**	**1.5**	**0.87**	**-**	**0.896**	**-**	**-**	-	-	-	-	-	-	-
Nitrite	mg/L	< 0.07	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	**-**	**-**	-	-	< 0.05	-	< 0.05	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**	-	-	-	**0.89**	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**5.8**	**6.71**	**5.4**	**6.0**	**49.8**	**41**	**39**	**32**	**16**	**38**	**44**	**19**	**34**	**41**	**15**	< 5.0	< 5.0	< 5.0	-	-	-	-	-	-	-	**-**	**-**
Sulfide	mg/L	< 1.0	< 0.2	**0.6**	**0.6**	< 0.5	< 1.6	< 0.8	< 0.8	< 0.8	< 0.8	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 0.2	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-
Methane	ug/L	**0.559**	< 0.2	< 0.2	< 0.2	< 0.2	< 2.0	< 5.0	< 5.0	< 2.0	< 2.1	< 2.3	< 2.1	< 10	**24**	< 10	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-	-	-	-
Ethane	ug/L	**0.016**	< 0.01	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0	< 5.0	< 4.0	< 4.2	< 4.5	< 4.1	< 10	< 10	< 10	**0.01**	< 0.01	**0.02**	**-**	**-**	-	-	-	-	-	**-**	**-**
Ethene	ug/L	**0.017**	< 0.01	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0	< 5.0	< 4.0	< 4.2	< 4.5	< 4.1	< 10	< 10	< 10	**0.08**	**0.01**	**0.01**	**-**	**-**	-	-	-	-	-	**-**	**-**
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	< 2.00	**9.98**	**8.75**	**19.1**	**19.4**	**1.8**	**3.8**	**3.9**	**6.8**	**16**	**1.7**	**2.1**	**4.2**	**1.5**	NA	**5.95**	**3.91**	**4.44**	**-**	**-**	-	-	-	-	-	**-**	**-**
Total Organic Carbon	mg/L	-	**22.9**	**26.1**	**20.7**	**22.3**	**2.1**	**2.6**	**3.0**	**2.4**	**3.1**	**3.6**	**2.1**	**4.1**	**2.3**	**1.6**	**5.71**	**7.8**	**6.78**	**-**	**-**	-	-	-	-	-	-	-
Field Parameters																												
Ferrous Iron	mg/L	< 0.20	**0.23**	**0.02**	**-**	**0.02**	**0.1**	ND	-	**0.31**	ND	**0.5**	ND	ND	ND	-	**0.4**	**0.38**	**0.01**	**-**	ND	-	-	ND	**0.2**	ND	ND	**-**
Carbon Dioxide	mg/L	**-**	**-**	**-**	**-**	**-**	**14**	**14**	-	**50**	**14**	**75**	**30**	**50**	-	-	**-**	**-**	**-**	**-**	**14**	-	-	**30**	**14**	**15**	**20**	**-**
pH	S.U.	**4.56**	**4.35**	**4.61**	**-**	**4.35**	**5.06**	**5.12**	-	**4.57**	**4.91**	**5.10**	**4.56**	**6.45**	**6.53**	**5.04**	**6.50**	**4.87**	**6.01**	**8.59**	**8.67**	**7.66**	**7.86**	**6.66**	**6.56**	**7.30**	**6.71**	**6.67**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.49**		-	**5.18**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**7.01**	**7.54**	-	**7.19**
Conductivity	mS/cm	**0.086**	**0.130**	**0.146**	**-**	**0.167**	**0.150**	**0.186**	-	**0.106**	**0.170**	**0.152**	**0.095**	**0.178**	**0.203**	**0.102**	**0.100**	**0.122**	**0.09**	**0.071**	**0.081**	**0.067**	**0.069**	**0.066**	**0.059**	**0.078**	**0.077**	**0.055**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.032**		-	**0.108**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.016**	**0.061**	-	**0.330**
Dissolved Oxygen	mg/L	**4.23**	**4.80**	**6.85**	**-**	**6.01**	**5.50**	**2.36**	-	**1.83**	**6.66**	**6.90**	**3.85**	**5.70**	**4.95**	**4.15**	**9.50**	**9.18**	**5.14**	**4.70**	**4.11**	**5.16**	**7.05**	**7.10**	**4.76**	**-**	**6.03**	**6.94**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.20**	**-**	-	**5.77**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.35**	**7.06**	-	**4.82**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.0**	**6.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.0**	**6.0**	**-**
Oxidation/Reduction Potential (ORP)	mV	**272**	**353**	**363**	**-**	**209**	**644**	**446**	-	**187**	**370**	**339**	**206**	**190**	**175**	**208**	**193**	**60**	**59**	**436**	**282**	**172**	**411**	**360**	**188**	**380**	**158**	**136.9**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**354.1**	**-**	-	**348.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**158**	**79**	-	**2.7**
Temperature	°C	-	**27.97**	-	-	**20.72**	**20.31**	**20.78**	-	**23.80**	**21.91**	**22.91**	**23.95**	**20.45**	**21.33**	**21.87**	**27.90**	-	**22.77**	**22.85**	**21.87**	**23.39**	**23.13**	**23.19**	**23.03**	**22.77**	**22.7**	**19.48**
Temperature (Downhole Probe)	°C	-	-	-	-	-	-	-	-	-	-	-	**25.60**	**-**	-	**23.70**	-	-	-	-	-	-	-	-	**24.99**	**23.94**	-	**23.87**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not re
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (199
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient								In Plume												
		CH2MW-5								ETCMW-113												
		4/7/2004	4/27/2005	10/26/2005	10/26/2005 DUP02	4/20/2006	4/20/2006 DUP2	4/17/2007	10/22/2007	5/27/1998	9/7/2000	11/21/2000	1/25/2001	4/6/2004	4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010
Laboratory Parameters																						
Alkalinity	mg/L	**60**	**98**	**36**	**34**	**110**	**120**	**42**	-	**8**	< 10	< 10	< 10	-	-	-	-	-	-	**100**	**170**	**42**
Chloride	mg/L	**5.6**	**2.8**	**6.6**	**7.2**	**8.3**	**8.2**	**5.1**	-	**13.5**	**12.9**	**11.7**	**13.4**	-	-	-	-	-	-	**10**	**11**	**15**
Iron	mg/L	**4.2**	**1.3**	**2.7**	**3.5**	**0.077**	< 0.050	**0.81**	-	-	-	-	-	-	-	-	-	-	-	**7.9**	**5.5**	NA
Manganese	mg/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	**5.6**	**0.3**	**0.2**	< 0.05	< 0.05	-	-	-	-	-	**0.016**	NA
Nitrate (as N)	mg/L	**1.0**	**0.57**	**1.6**	**1.7**	**1.6**	**1.6**	**0.96**	-	**10.2**	**7.05**	**10.7**	**11.8**	-	-	-	-	-	-	**0.021**	< 0.020	< 0.020
Nitrite	mg/L	-	-	-	-	-	-	-	-	< 0.07	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**4.5**	**2.2**	**2.5**	**2.5**	**1.4**	**1.4**	**2.8**	-	**10.1**	< 5	**5.8**	< 5	-	-	-	-	-	-	**12**	**14**	**4.9**
Sulfide	mg/L	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	**1.7**	-	< 1.0	< 0.2	**0.8**	< 0.5	-	-	-	-	-	-	**< 1.0**	< 1.0	NA
Methane	ug/L	< 0.002	< 5.0	< 2.0	< 2.0	**7.30**	**2000**	< 0.0021	-	**0.149**	< 0.2	< 0.2	**0.3**	-	-	-	-	-	-	**4100**	**2800**	**210**
Ethane	ug/L	< 0.004	< 5.0	< 4.0	< 4.0	< 4.9	< 49	< 0.0042	-	**0.029**	**0.09**	< 0.01	**0.13**	-	-	-	-	-	-	< 10	< 10	< 10
Ethene	ug/L	< 0.004	< 5.0	< 4.0	< 4.0	< 4.9	< 49	< 0.0042	-	< 0.005	**0.02**	< 0.01	**0.03**	-	-	-	-	-	-	< 10	< 10	< 10
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	**1.8**	**11**	**2.9**	**11**	**2.5**	**16**	**2.1**	-	-	**4.42**	**6.65**	**8.51**	-	-	-	-	-	-	**5**	**1.5**	NA
Total Organic Carbon	mg/L	**1.7**	**9.6**	**2.2**	**2.4**	**2.8**	**2.8**	**2.8**	-	-	**7.94**	**5.6**	**11.7**	-	-	-	-	-	-	**5.2**	**2.7**	NA
Field Parameters																						
Ferrous Iron	mg/L	**0.2**	**0.5**	**2.2**	-	ND	-	**1.0**	-	< 0.20	**11**	**0.03**	**0.05**	-	**1**	-	-	**4.2**	**6.6**	**6.8**	**1.6**	-
Carbon Dioxide	mg/L	**18**	**15**	**40**	-	**14**	-	**55**	-	-	-	-	-	-	**14**	-	-	**>100**	**>100**	**>100**	-	-
pH	S.U.	**6.10**	**6.40**	**5.51**	-	**5.79**	-	**6.22**	-	**5.83**	**4.94**	**4.70**	**4.09**	**6.12**	**6.53**	**6.21**	**5.71**	**4.67**	**4.64**	**6.38**	**6.78**	**6.18**
pH (Downhole Probe)	S.U.	-	-	-	-	-	-	-	**6.20**	-	-	-	-	-	-	-	-	-	**4.72**	-	-	**6.06**
Conductivity	mS/cm	**0.126**	**0.196**	**0.100**	-	**0.263**	-	**0.122**	-	**0.169**	**0.190**	**0.220**	**0.293**	**0.197**	**0.342**	**0.352**	**0.298**	**0.668**	**0.320**	**0.263**	**0.550**	**0.243**
Conductivity (Downhole Probe)	mS/cm	-	-	-	-	-	-	-	**0.038**	-	-	-	-	-	-	-	-	-	**0.097**	-	-	**0.202**
Dissolved Oxygen	mg/L	**5.10**	**2.85**	**1.77**	-	**4.00**	-	**2.45**	-	**6.79**	**6.30**	**8.89**	**6.71**	**6.12**	**2.47**	**1.27**	**6.39**	**0.62**	**2.93**	**0.0**	**1.07**	**1.42**
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	-	-	**2.15**	-	-	-	-	-	-	-	-	-	**7.85**	-	-	**0.44**
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**1.0**	**3.0**	**3.0**	-
Oxidation/Reduction Potential (ORP)	mV	**457**	**156**	**184**	-	**395**	-	**320**	-	**192**	**261**	**196**	**217**	**446**	**217**	**192**	**348**	**259**	**67**	**-8**	**158**	**41**
Oxidation/Reduction Potential (Downhole Probe)	mV	-	-	-	-	-	-	-	**249.2**	-	-	-	-	-	-	-	-	-	**89**	-	-	**35.2**
Temperature	°C	**17.99**	**19.79**	**22.40**	-	**19.42**	-	**20.50**	-	-	**24.10**	-	**19.28**	**18.06**	**18.02**	**23.34**	**20.43**	**18.75**	**23.53**	**19.86**	**16.99**	**16.27**
Temperature (Downhole Probe)	°C	-	-	-	-	-	-	-	**25.15**	-	-	-	-	-	-	-	-	-	**24.64**	-	-	**21.06**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not rec
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (199
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume																			In Plume									
		ETCMW-114																			CH2MW-114D									
		5/27/1998	8/23/2000	9/7/2000	11/21/2000	1/24/2001	1/24/2001 DUP	4/29/2002	4/7/2004	4/7/2004 DUP-2	4/29/2005	10/27/2005	4/20/2006	4/17/2007	4/17/2007 DUP-01	10/23/2007	12/10/2008	12/16/2009	12/9/2010	12/9/2010 DUP-2	4/7/2004	4/29/2005	10/26/2005	4/20/2006	4/19/2007	10/24/2007	12/8/2008	12/14/2009	12/6/2010
Laboratory Parameters																														
Alkalinity	mg/L	**112**	**82.2**	-	**128**	**134**	**135**	-	**94**	**96**	**120**	**120**	**140**	**470**	**500**	**350**	**220**	**230**	**130**	**130**	< 10	**3000**	**2200**	**830**	-	-	-	-	-
Chloride	mg/L	**32.5**	**90.1**	-	**108**	**82.8**	**82.1**	-	**37**	**37**	**26**	**32**	**29**	**110**	**110**	**73 D**	**26**	**18**	**19**	**19**	**2.1**	**89**	**190**	**200**	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	**2**	**1.8**	**0.22**	**0.88**	**1.0**	**11**	**11**	**0.85**	**0.96**	**0.16**	**0.86**	**0.59**	**17**	**55**	**79**	**160**	-	**150**	-	**-**	**-**
Manganese	mg/L	**-**	**0.5**	-	**0.3**	**0.3**	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	**0.54**	**0.55**	**0.080**	-	**0.023**	**0.035**	**0.026**	< 0.050	**0.64**	**0.53**	**0.26**	-	**0.22**	-	-	-
Nitrate (as N)	mg/L	**7.6**	**18.15**	-	-	**44.8**	**45.8**	-	**1.2**	**1.1**	**8.2 H**	**1.4**	**-**	< 0.020	< 0.020	**1.9 D**	**3.4**	**4.7**	**2.8 D**	**3.8 D**	**0.46**	< 0.50 H	**1.2**	< 0.50	-	-	-	-	-
Nitrite	mg/L	< 0.07	**0.053**	-	-	< 0.05	< 0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	**-**	-	**58**	-	-	-	-	-	-	-	< 0.050	-	-	**-**	**-**	**-**	**-**	**-**	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**12.8**	**54.1**	-	**110**	**75.6**	**75.6**	-	**33**	**33**	**39**	**31**	**51 D**	< 1.0	< 1.0	**35 D**	**22**	**29**	**25**	**23**	**3.6**	**47**	**100**	**150**	-	-	-	**-**	**-**
Sulfide	mg/L	< 1.0	-	< 0.2	**0.5**	< 0.5	< 0.5	-	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 1.0	**1.8**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 0.8	< 0.8	< 0.8	**1.4**	-	-	-	-	-
Methane	ug/L	**129.2**	**43.9**	-	**0.5**	< 0.2	< 0.2	-	< 2.0	< 2.0	< 5.0	**14**	**14**	**0.14**	**0.14**	**54**	< 10	**27**	**18**	**13**	< 2.0	< 5.0	< 2.0	-	**2.8**	**-**	-	-	-
Ethane	ug/L	**0.249**	**0.16**	-	**0.03**	**0.03**	**0.02**	-	< 4.0	< 4.0	< 5.0	< 4.0	< 4.5	< 44	< 44	< 4.2	< 10	< 10	< 10	< 10	< 4.0	< 5.0	< 4.0	-	< 0.21	-	-	**-**	**-**
Ethene	ug/L	**0.205**	**0.51**	-	**0.03**	**0.01**	**0.01**	-	< 4.0	< 4.0	< 5.0	< 4.0	< 4.5	**7.0**	**7.6**	**38**	< 10	< 10	< 10	< 10	< 4.0	< 5.0	< 4.0	-	< 0.21	-	-	**-**	**-**
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	**32.9**	**40.6**	**27.3**	-	**2.3**	**2.2**	**2.9**	**12**	**17**	**41**	**42**	**3.4**	**3.8**	**3.3**	**1.8**	**1.7**	**1.1**	**8900**	**4800**	-	**2.0**	**1600 D**	-	**-**	**-**
Total Organic Carbon	mg/L	-	**21.6**	-	**40.5**	**51.2**	**52.2**	-	**2.6**	**2.6**	**2.2**	**3.2**	**14.0**	**51.0**	**47.0**	**4.4**	**2.8**	**3.5**	**2.0**	**2.1**	**2.3**	**9800**	**3500**	**3800**	-	**1700 D**	-	-	-
Field Parameters																														
Ferrous Iron	mg/L	< 0.20	**0.2**	-	**0.05**	**0.03**	-	-	**0.8**	**0.8**	ND	**0.19**	ND	**4.2**	-	**1.2**	ND	ND	ND	-	**0.2**	**5.0**	**2.0**	-	**4.2**	-	**5.2**	**>10**	-
Carbon Dioxide	mg/L	**-**	-	**-**	**-**	-	**-**	**-**	**20**	**22**	**14**	**30**	**14**	**>100**	-	**90**	**80**	-	**30**	-	**> 100**	**50**	**350 D**	-	**>100**	-	**>100**	-	-
pH	S.U.	**6.36**	-	**6.60**	**4.70**	**4.80**	-	**6.10**	**6.38**	-	**6.61**	**6.46**	**6.16**	**6.73**	-	**6.20**	**6.67**	**6.80**	**6.47**	-	**5.60**	**5.95**	**6.08**	**5.58**	**5.55**	**4.88**	**5.12**	**5.50**	**6.16**
pH (Downhole Probe)	S.U.	**-**	-	**-**	-	-	-	-	-	-	-	-	-	-	-	**6.34**	**6.76**	-	**7.27**	-	-	-	-	-	-	-	-	-	-
Conductivity	mS/cm	**0.375**	-	**0.0012**	**1.26**	**0.7350**	-	**0.330**	**0.333**	-	**0.485**	**0.342**	**0.437**	**1.295**	-	**0.958**	**0.566**	**0.611**	**0.334**	-	**0.030**	**3.620**	**4.650**	**2.050**	**2.780**	**2.020**	**2.560**	**2.490**	**1.898**
Conductivity (Downhole Probe)	mS/cm	**-**	-	**-**	-	-	-	-	-	-	-	-	-	-	-	**0.210**	**0.496**	-	**0.288**	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen	mg/L	**0.19**	-	**3.10**	**10.55**	**6.40**	-	**0.0**	**2.76**	-	**3.02**	**1.31**	**0.70**	**0.68**	-	**0.96**	-	**1.78**	**3.08**	-	**3.30**	**0.97**	**0.51**	**3.00**	**0.90**	**0.54**	**0.0**	**0.90**	**1.36**
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**6.67**	**1.01**	-	**2.48**	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen (Titration Kit)	mg/L	**-**	-	**-**	-	-	-	-	-	-	-	-	-	-	-	**1.5**	**3.0**	**3.0**	**2.0**	-	-	-	-	-	-	-	**1.5**	**1.5**	-
Oxidation/Reduction Potential (ORP)	mV	**168**	-	**98**	**134**	**127**	-	**171**	**471**	-	**66**	**160**	**356**	**255**	-	**150**	**356**	**151**	**118**	-	**463**	**-8**	**-76**	**289**	**309**	**97**	**22**	**124**	**-33.3**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	-	**-**	-	-	-	-	-	-	-	-	-	-	-	**97.2**	**115**	-	**95.5**	-	-	-	-	-	-	-	-	-	-
Temperature	°C	-	**26.55**	-	-	**16.40**	-	-	**17.26**	-	**17.98**	**22.88**	**18.56**	**18.14**	-	**24.36**	**18.10**	**17.50**	**17.52**	-	**19.36**	**20.43**	**21.06**	**21.65**	**20.59**	**22.89**	**18.88**	**22.29**	**16.89**
Temperature (Downhole Probe)	°C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**23.91**	**18.27**	-	**20.12**	-	-	-	-	-	-	-	-	-	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not re
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (199
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume ETCMW-115									In Plume ETMW-116												
		4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008	12/16/2009	12/8/2010	5/26/1998	8/23/2000	11/21/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009	12/7/2010
Laboratory Parameters																							
Alkalinity	mg/L	-	-	-	-	-	**230**	**260**	**250**	**110**	**38**	**12.5**	< 10	**62**	**-**	**-**	-	-	-	**670**	**370**	**330**	**290**
Chloride	mg/L	-	-	-	-	-	**6.4 D**	**4.4**	**2.3**	**6.1**	**12**	**11.7**	**8.77**	**11.6**	**-**	**-**	-	-	-	**16**	**19**	**29**	**22**
Iron	mg/L	-	-	-	-	-	**1.9**	**2.9**	**12**	**3.7**	-	-	-	-	-	-	-	-	-	**48**	**25**	**27**	**28**
Manganese	mg/L	-	-	-	-	-	**0.074**	**-**	**0.087**	**0.081**	-	**0.2**	**0.3**	**0.1**	**-**	**-**	-	-	-	**0.58**	**-**	**0.20**	**0.15**
Nitrate (as N)	mg/L	-	-	-	-	-	**2.5 D**	**0.24**	< 0.020	**0.83**	**6.2**	**8.25**	**-**	**7.7**	**-**	**-**	-	-	-	< 0.10	**0.065**	< 0.020	< 0.020
Nitrite	mg/L	-	-	-	-	-	-	**-**	-	-	< 0.07	< 0.05	-	**0.405**	**-**	**-**	-	-	-	-	**-**	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	**-**	**-**	-	-	-	-	**7.72**	**-**	**-**	**-**	-	-	-	-	**-**	-	-
Sulfate	mg/L	-	-	-	-	-	**10 D**	**28**	**7.4**	**12**	**14.8**	**5.12**	**5.2**	**42.8**	**-**	**-**	-	-	-	< 5.0	**9.8**	< 1.0	**1.1**
Sulfide	mg/L	-	-	-	-	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2	-	< 0.5	-	-	-	-	-	< 1.0	**2.8**	< 1.0	< 1.0
Methane	ug/L	-	-	-	-	-	**0.019**	**41**	**160**	**430**	**0.247**	< 0.2	< 0.2	< 0.2	-	-	-	-	-	**3500 D**	**5800**	**5800**	**5400**
Ethane	ug/L	-	-	-	-	-	< 0.42	< 10	< 10	< 10	**0.093**	**0.07**	**0.01**	**0.01**	**-**	**-**	-	-	-	< 210	< 10	< 10	< 10
Ethene	ug/L	-	-	-	-	-	< 0.42	< 10	< 10	< 10	**0.023**	**0.04**	**0.03**	**0.02**	**-**	**-**	-	-	-	< 210	< 10	< 10	< 10
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	**3.5**	**4.4**	**2.3**	**2.3**	-	**9.14**	**7.7**	**25.4**	**-**	**-**	-	-	-	**9.6**	**19**	**9.4**	**4.3**
Total Organic Carbon	mg/L	-	-	-	-	-	**4.1**	**3.6**	**3.0**	**3.2 D**	-	**15.1**	**9.1**	**32**	**-**	**-**	-	-	-	**16**	**17**	**12**	**4.9**
Field Parameters																							
Ferrous Iron	mg/L	**-**	**4.3**	-	-	**4.8**	**2.8**	**0.6**	**0.6**	**3.5**	< 0.20	ND	**0.02**	ND	-	**5.0**	-	-	**6.0**	**6.2**	**6.4**	**6.6**	**6.5**
Carbon Dioxide	mg/L	**276**	**19**	-	-	**>100**	**60**	**10**	-	**7.5**	**-**	**-**	**-**	**-**	**-**	**15**	-	-	**>100**	**>100**	**>100**	**>100**	**>100**
pH	S.U.	**5.87**	**6.37**	**5.82**	**5.70**	**5.70**	**6.01**	**6.76**	**6.70**	**6.19**	**6.18**	**5.50**	**4.35**	**4.76**	**5.88**	**5.03**	**4.99**	**5.56**	**4.89**	**6.17**	**6.38**	**6.17**	**6.01**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**6.01**	**-**	-	**7.04**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.29**	**-**	-	**6.59**
Conductivity	mS/cm	**0.166**	**0.366**	**0.174**	**0.205**	**0.184**	**0.456**	**0.462**	**0.469**	**0.213**	**0.181**	**0.180**	**0.186**	**0.220**	**0.141**	**2.370**	**1.540**	**0.983**	**1.456**	**0.988**	**0.710**	**0.782**	**0.606**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**0.063**	**-**	**-**	**0.197**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.301**	**-**	**-**	**0.580**
Dissolved Oxygen	mg/L	**0.38**	**0.23**	**0.54**	**2.09**	**0.49**	**2.65**	**0.62**	**0.97**	**0.56**	**1.51**	**3.90**	**9.93**	**7.59**	**3.63**	**0.15**	**0.45**	**0.35**	**0.42**	**0.24**	**0.0**	**0.37**	**1.1**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**4.87**	**-**	-	**1.89**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**13.32**	**-**	-	**0.65**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**2.0**	**1.0**	**2.0**	**2.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2.0**	**1.5**	**2.0**	**-**
Oxidation/Reduction Potential (ORP)	mV	**276**	**131**	**84**	**377**	**312**	**162**	**68**	**174**	**209**	**191**	**199**	**157**	**119**	**560**	**141**	**108**	**281**	**309**	**-34**	**-79**	**106**	**149**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**133.3**	**-**	-	**9.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-92.5**	**-**	-	**79.6**
Temperature	°C	**20.07**	**20.32**	**22.58**	**22.36**	**21.45**	**27.50**	**18.61**	**17.56**	**16.92**	-	-	**17.55**	-	**17.42**	**18.23**	**23.81**	**19.10**	**18.82**	**24.43**	**19.13**	**19.60**	**17.06**
Temperature (Downhole Probe)	°C	-	-	-	-	-	**27.02**	**-**	-	**22.08**	-	-	-	-	-	-	-	-	-	**24.55**	**-**	-	**18.35**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not re
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (199
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	In Plume ETMW-117														In Plume ETMW-118									
		8/23/2000	11/21/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/08 DUP-2	12/15/2009	12/15/2009 DUP - 2	12/8/2010	5/26/1998	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/24/2007	12/9/2008	12/15/2009	12/9/2010
Laboratory Parameters																									
Alkalinity	mg/L	**13.9**	< 10	**58**	-	-	-	-	-	**86**	**180**	**200**	**170**	**150**	**150**	< 2.0	-	-	-	-	-	-	**180**	< 10	**110**
Chloride	mg/L	**10.7**	**12**	**6.73**	-	-	-	-	-	**8.8 D**	**21**	**20**	**23**	**23**	**23**	**11.5**	**-**	**-**	-	-	-	-	**18**	**18**	**23**
Iron	mg/L	-	-	-	-	-	-	-	-	**50**	**36**	**36**	**39**	**35**	**32**	-	-	-	-	-	-	-	**96**	**64**	NA
Manganese	mg/L	**6.3**	**0.2**	< 0.050	-	-	-	-	-	**0.76**	**-**	**-**	**0.29**	**0.25**	**0.16**	-	-	-	-	-	-	-	-	**0.39**	NA
Nitrate (as N)	mg/L	**6.72**	-	**4.47**	-	-	-	-	-	< 0.10	**0.051**	< 0.020	< 0.020	< 0.020	< 0.020	**9.4**	**-**	**-**	-	-	-	-	**0.062**	< 0.020	**0.078**
Nitrite	mg/L	< 0.05	-	< 0.05	-	-	-	-	-	-	**-**	**-**	-	-	-	< 0.07	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	**6.72**	**7.64**	-	-	-	-	-	-	-	**-**	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**7.62**	**5.2**	**19.7**	-	-	-	-	-	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**8.1**	**-**	**-**	-	-	-	-	**2.3**	**2.0**	< 1.0
Sulfide	mg/L	-	**0.6**	< 0.5	-	-	-	-	-	< 1.0	**1.3**	**1.2**	< 1.0	< 1.0	< 1.0	< 1.0	-	-	-	-	-	-	**3.1**	**2.9**	< 1.0
Methane	ug/L	< 0.2	< 0.2	< 0.2	-	-	-	-	-	**3600 D**	**5900**	**5100**	**6300**	**5600**	**5900**	**0.508**	**-**	**-**	-	-	-	-	**4900**	**4200**	**3900**
Ethane	ug/L	**0.02**	**0.02**	**0.01**	-	-	-	-	-	< 210	< 10	< 10	< 10	< 10	< 10	**0.044**	**-**	**-**	-	-	-	-	< 10	< 10	< 10
Ethene	ug/L	**0.03**	**0.02**	**0.03**	-	-	-	-	-	< 210	< 10	< 10	< 10	< 10	< 10	**0.036**	**-**	**-**	-	-	-	-	< 10	< 10	< 10
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	**8.44**	**28.3**	-	-	-	-	-	**910 D**	**51**	**33**	**4.1**	**4.8**	**3.8**	-	-	-	-	-	-	-	**2300**	**1100**	**330 D**
Total Organic Carbon	mg/L	**7.9**	**17.3**	**38.7**	-	-	-	-	-	**930 D**	**55**	**38**	**7.6**	**10**	**4.3**	-	-	-	-	-	-	-	**2400**	**1100**	**5.0 D**
Field Parameters																									
Ferrous Iron	mg/L	ND	**0.03**	**0.01**	-	**2.2**	-	-	**5.8**	**7.4**	**6.0**	**-**	**6.6**	**-**	**6.0**	< 0.20	-	**4.4**	-	-	**5.0**	**6.4**	**5.2**	**7.0**	**-**
Carbon Dioxide	mg/L	**-**	**-**	**-**	**-**	**10**	-	-	**>100**	**>100**	**>100**	**-**	**>100**	**-**	**>100**	**-**	**-**	**15**	-	-	**>100**	**>100**	**>100**	**>100**	**-**
pH	S.U.	**5.74**	**3.46**	**4.68**	**5.57**	**6.03**	**5.60**	**5.23**	**4.40**	**4.04**	**5.90**	**-**	**5.85**	**-**	**5.81**	**4.30**	**5.91**	**5.86**	**5.10**	**5.35**	**4.38**	**4.60**	**4.70**	**4.72**	**4.42**
pH (Downhole Probe)	S.U.	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.82**	**-**	**-**	-	-	**6.32**	**-**	**-**	**-**	**-**	**-**	**-**	**4.58**	**-**	-	**5.26**
Conductivity	mS/cm	**0.170**	**0.189**	**0.181**	**0.152**	**0.303**	**0.163**	**0.188**	**1.450**	**0.696**	**0.900**	**-**	**0.588**	**-**	**0.336**	**0.150**	**0.067**	**0.307**	**0.089**	**0.152**	**0.909**	**2.20**	**1.54**	**0.90**	**0.55**
Conductivity (Downhole Probe)	mS/cm	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.207**	**-**	**-**	-	-	**0.339**	**-**	**-**	**-**	**-**	**-**	**-**	**0.56**	**-**	-	**0.537**
Dissolved Oxygen	mg/L	**7.40**	**10.58**	**7.52**	**2.38**	**0.49**	**1.05**	**1.86**	**0.42**	**0.38**	**0.0**	**-**	**0.55**	**-**	**0.34**	**0.07**	**4.23**	**0.34**	**0.46**	**0.59**	**0.50**	**0.40**	**0.0**	**0.0**	**0.53**
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**12.96**	**-**	**-**	-	-	**1.00**	**-**	**-**	**-**	**-**	**-**	**-**	**12.49**	**-**	-	**0.81**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.0**	**3.0**	**-**	**1.0**	**-**	**2.0**	**-**	**-**	**-**	**-**	**-**	**-**	**1.5**	**1.5**	**1.0**	**-**
Oxidation/Reduction Potential (ORP)	mV	**212**	**157**	**108**	**555**	**278**	**144**	**363**	**335**	**127**	**-13**	**-**	**132**	**-**	**156**	**218**	**519**	**125**	**155**	**346**	**327**	**141**	**133**	**-2**	**166**
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**90.7**	**-**	**-**	-	-	**-40.1**	**-**	**-**	**-**	**-**	**-**	**-**	**134.3**	**-**	-	**9.5**
Temperature	°C	**27.14**	-	**18.20**	**20.91**	**21.41**	**26.20**	**22.82**	**22.27**	**25.48**	**19.9**	**-**	**18.93**	**-**	**17.79**	-	**19.68**	**20.50**	**24.86**	**22.71**	**21.01**	**25.30**	**18.08**	**19.6**	**17.92**
Temperature (Downhole Probe)	°C	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**27.39**	**-**	**-**	-	-	**18.37**	**-**	**-**	**-**	**-**	**-**	**-**	**25.81**	**-**	-	**19.75**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not rec
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (199
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient ETMW-119									Cross Gradient ETMW-120								
		4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/25/2007	12/9/2008	12/14/2009	12/8/2010	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/16/2007	10/23/2007	12/9/2008	12/14/2009	12/7/2010
Laboratory Parameters																			
Alkalinity	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Parameters																			
Ferrous Iron	mg/L	-	1.0	-	-	4.2	4.8	1.2	0.9	-	-	3.5	-	-	6.0	0.6	ND	0.5	-
Carbon Dioxide	mg/L	-	18	-	-	>100	70	95	75	-	-	15	-	-	65	40	50	45	-
pH	S.U.	6.21	6.25	5.64	5.82	6.20	5.78	6.87	6.83	6.16	5.93	6.19	5.36	5.64	5.50	5.87	6.50	6.48	6.12
pH (Downhole Probe)	S.U.	-	-	-	-	-	6.22	-	-	7.64	-	-	-	-	-	5.97	-	-	7.25
Conductivity	mS/cm	0.295	0.449	0.203	0.281	0.554	0.342	0.512	0.612	0.283	0.136	0.218	0.097	0.144	0.161	0.216	0.237	0.326	0.148
Conductivity (Downhole Probe)	mS/cm	-	-	-	-	-	0.13	-	-	0.291	-	-	-	-	-	0.048	-	-	0.114
Dissolved Oxygen	mg/L	3.47	0.33	1.34	1.31	2.78	0.57	0.0	0.40	0.64	2.66	0.69	0.67	2.19	5.00	3.05	1.94	4.34	2.29
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	6.55	-	-	3.58	-	-	-	-	-	3.64	-	-	3.08
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	-	2.0	2.0	3.0	-	-	-	-	-	-	3.5	5.0	4.0	-
Oxidation/Reduction Potential (ORP)	mV	486	138	115	370	251	128	157	108	14.2	485	169	92	379	327	175	361	153	136.4
Oxidation/Reduction Potential (Downhole Probe)	mV	-	-	-	-	-	57.5	-	-	16.1	-	-	-	-	-	286.8	-	-	251.5
Temperature	°C	19.07	19.97	20.86	20.73	19.18	23.71	16.63	18.64	14.54	19.41	20.43	20.88	21.94	21.74	25.67	16.88	19.7	19.85
Temperature (Downhole Probe)	°C	-	-	-	-	-	24.98	-	-	18.64	-	-	-	-	-	25.33	-	-	21.68

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not re
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (199
Vaportech Services, Inc. in-house method (2001)
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Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Upgradient													Cross Gradient									
		ETMW-121													OBGMW-122									
		5/27/1998	8/24/2000	11/21/2000	1/24/2001	4/7/2004	4/28/2005	10/26/2005	4/19/2006	4/19/2007	10/23/2007	12/11/2008	12/14/2009	12/6/2010	8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/22/2007
Laboratory Parameters																								
Alkalinity	mg/L	**28**	**30.7**	**32**	**57**	**38**	**5.8**	**26**	**28**	**38**	**82**	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	**15.5**	**10.5**	**10.8**	**3.34**	**7.8**	**5.2**	**11**	**6**	-	**1.9**	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	**1.1**	**0.84**	**16**	**0.52**	**0.89**	**0.87**	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	**0.1**	< 0.050	< 0.050	< 0.050	**0.15**	< 0.050	< 0.050	< 0.050	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	**1.8**	**1.94**	-	**1.19**	**0.65**	**0.59**	**1.2**	**0.35**	-	**0.20**	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrite	mg/L	< 0.07	< 0.05	-	< 0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	**1.86**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	**10.1**	**10.3**	**12.6**	**8.93**	**8.5**	**9.9**	**4.6**	**13**	-	**5.4**	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	mg/L	< 1.0	-	< 0.5	< 0.5	< 0.8	< 0.8	< 0.8	< 0.8	**1.8**	< 1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	**0.195**	< 0.2	< 0.2	< 0.2	< 2.0	< 5.0	< 2.0	< 2.1	< 2.1	< 2.1	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	< 0.005	< 0.01	< 0.01	**0.01**	< 4.0	< 5.0	< 4.0	< 4.2	< 4.2	< 4.1	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	**0.005**	**0.02**	**0.01**	**0.02**	< 4.0	< 5.0	< 4.0	< 4.2	< 4.2	< 4.1	-	-	-	-	-	-	-	-	-	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	**12.9**	**7.74**	**21.1**	**1.9**	**7.9**	**12**	**9.7**	**1.6**	**3.0**	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/L	-	-	**15.6**	**25.7**	**1.9**	**4.9**	**3.3**	**4.5**	**2.1**	**3.9**	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Parameters																								
Ferrous Iron	mg/L	< 0.20	**0.25**	**0.05**	**0.03**	**0.1**	ND	**0.39**	ND	**2.4**	**0.4**	ND	ND	-	-	-	-	-	-	ND	-	-	ND	-
Carbon Dioxide	mg/L	**-**	-	**-**	**-**	**26**	**15**	**35**	**25**	**40**	**18**	**30**	**25**	-	**-**	**-**	**-**	**-**	**5**	-	-	**70**	**-**	
pH	S.U.	**5.32**	-	**4.50**	**5.11**	**6.20**	**6.25**	**5.94**	**5.83**	**6.00**	**6.23**	**6.78**	**7.02**	**6.31**	**6.31**	**4.80**	**4.65**	**6.27**	**6.08**	**6.38**	**6.18**	**6.31**	**-**	
pH (Downhole Probe)	S.U.	**-**	-	-	-	-	-	-	-	-	**6.45**	**8.05**	-	**6.45**	**-**	**-**	-	-	-	-	-	-	-	**5.70**
Conductivity	mS/cm	**0.112**	-	**0.214**	**0.134**	**0.134**	**0.142**	**0.116**	**0.192**	**0.107**	**0.167**	**0.199**	**0.210**	**0.105**	**0.640**	**0.810**	**0.393**	**0.272**	**0.076**	**0.183**	**0.226**	**0.233**	**-**	
Conductivity (Downhole Probe)	mS/cm	**-**	-	-	-	-	-	-	-	-	**0.038**	**0.195**	-	**0.047**	**-**	-	-	-	-	-	-	-	-	**0.03**
Dissolved Oxygen	mg/L	**5.12**	-	**10.86**	**8.07**	**4.88**	**3.34**	**1.00**	**3.27**	**6.74**	**7.00**	-	**6.58**	**6.59**	**6.40**	**7.81**	**6.20**	**0.98**	**3.25**	**0.77**	**3.58**	**4.08**	**-**	
Dissolved Oxygen (Downhole Probe)	mg/L	**-**	-	-	-	-	-	-	-	-	**6.39**	**8.26**	-	**5.34**	**-**	-	-	-	-	-	-	-	-	**5.99**
Dissolved Oxygen (Titration Kit)	mg/L	**-**	-	-	-	-	-	-	-	-	-	**4.0**	**5.0**	-	**-**	-	-	-	-	-	-	-	-	-
Oxidation/Reduction Potential (ORP)	mV	**146**	-	**134**	**123**	**482**	**197**	**176**	**347**	**332**	**166**	**367**	**136**	**252**	**109**	**1.0**	**164**	**392**	**17.6**	**106**	**395**	**370**	**-**	
Oxidation/Reduction Potential (Downhole Probe)	mV	**-**	-	-	-	-	-	-	-	-	**232.5**	**282**	-	**128.5**	**-**	-	-	-	-	-	-	-	-	**219.4**
Temperature	°C	-	**25.91**	-	**17.40**	**19.17**	**19.22**	**23.60**	**19.36**	**19.56**	**26.03**	**18.72**	**20.39**	**19.62**	**25.53**	-	**20.00**	**20.16**	**18.40**	**22.45**	**19.79**	**19.27**	**-**	
Temperature (Downhole Probe)	°C	-	-	-	-	-	-	-	-	-	**25.02**	**16.39**	-	**21.43**	-	-	-	-	-	-	-	-	-	**24.82**

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not re
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (199
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)
Soluble Organic Carbon - EPA 415.1

APPENDIX A.2.
Historical Summary of Ground Water
Geochemical Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	Units	Cross Gradient								Down Gradient						Down Gradient								
		OBGMW-123								OBGMW-124						CH2PP-1								
		9/8/2000	1/24/2001	4/6/2004	4/27/2005	10/25/2005	4/20/2006	4/18/2007	10/22/2007	4/20/2004	4/27/2005	10/26/2005	4/19/2006	4/19/2007	10/22/2007	4/7/2004	4/26/2005	10/25/2005	4/18/2006	4/16/2007	10/24/2007	12/8/2008	12/15/2009	12/6/2010
Laboratory Parameters																								
Alkalinity	mg/L	-	-	-	-	-	-	-	-	**300**	**430**	**410**	**390**	**350**	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-	**410 D**	**180**	**210**	**44**	**200**	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	-	-	-	-	-	-	-	-	**0.41**	**1.3**	**2.0**	**0.076**	**0.1**	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	-	-	-	-	-	-	-	-	**0.09**	**0.15**	**0.20**	< 0.050	< 0.050	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	-	-	-	-	-	-	**0.14**	< 0.050	**0.10**	-	**6.7**	-	-	-	-	-	-	-	-	-	-
Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate-Nitrite	mg/L	-	-	-	-	-	-	-	-	-	-	-	**0.21**	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-	**310 D**	**170**	**190**	**60**	**150**	-	-	-	-	-	-	-	-	-	-
Sulfide	mg/L	-	-	-	-	-	-	-	-	< 0.80	< 0.80	< 0.8	< 0.80	**1.6**	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-	-	-	< 2.0	**38 H**	< 2.0	**2.1**	< 0.0021	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	-	-	-	-	-	-	-	-	< 4.0	< 0.5	< 4.0	< 4.2	< 0.0042	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	-	-	-	-	-	-	-	-	< 4.0	< 0.5	< 4.0	< 4.2	< 0.0042	-	-	-	-	-	-	-	-	-	-
Soluble Organic Carbon (DOC) - Field Filtered	mg/L	-	-	-	-	-	-	-	-	**5.1**	**6.3**	**17**	**5.8**	**3.4**	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/L	-	-	-	-	-	-	-	-	**4.9**	**5.2**	**4.9**	**5.1**	**3.5**	-	-	-	-	-	-	-	-	-	-
Field Parameters																								
Ferrous Iron	mg/L	-	-	-	**4.7**	-	-	**1.5**	-	ND	**1.8**	**1.72**	ND	ND	-	-	ND	-	-	-	ND	ND	**0.5**	-
Carbon Dioxide	mg/L	-	-	-	**18**	-	-	**50**	-	-	**50**	**70**	**15**	**75**	-	-	**12**	-	-	-	**20**	**45**	**32**	-
pH	S.U.	**4.60**	**6.06**	**5.94**	**6.27**	**5.25**	**5.29**	**4.75**	-	**6.82**	**6.40**	**6.82**	**6.55**	**7.25**	-	**5.22**	**5.93**	**5.01**	**4.56**	**5.53**	**5.28**	**6.14**	**6.21**	**5.78**
pH (Downhole Probe)	S.U.	-	-	-	-	-	-	-	**5.18**	-	-	-	-	-	**6.67**	-	-	-	-	-	-	-	-	-
Conductivity	mS/cm	**0.160**	**0.117**	**0.122**	**0.162**	**0.092**	**0.091**	**0.083**	-	**2.130**	**1.061**	**1.314**	**0.875**	**1.019**	-	**0.117**	**0.141**	**0.108**	**0.120**	**0.146**	**0.107**	**0.222**	**0.226**	**0.113**
Conductivity (Downhole Probe)	mS/cm	-	-	-	-	-	-	-	**0.020**	-	-	-	-	-	**0.344**	-	-	-	-	-	-	-	-	-
Dissolved Oxygen	mg/L	**7.00**	**7.73**	**0.51**	**0.41**	**0.52**	**7.22**	**0.66**	-	**1.34**	**1.11**	**0.63**	**1.85**	**5.83**	-	**4.11**	**4.75**	**3.19**	**7.51**	**6.98**	**3.95**	**3.8**	**2.34**	**4.93**
Dissolved Oxygen (Downhole Probe)	mg/L	-	-	-	-	-	-	-	**2.14**	-	-	-	-	-	**3.46**	-	-	-	-	-	-	-	-	-
Dissolved Oxygen (Titration Kit)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**3.0**	**3.0**	**4.0**	-
Oxidation/Reduction Potential (ORP)	mV	**231**	**201**	**280**	**76**	**115**	**480**	**429**	-	**125**	**140**	**98**	**326**	**318**	**171.2**	**466**	**325**	**207**	**439**	**330**	**122**	**119**	**128**	**285**
Oxidation/Reduction Potential (Downhole Probe)	mV	-	-	-	-	-	-	-	**185.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Temperature	°C	**19.10**	-	**20.18**	**20.10**	**24.64**	**19.99**	**19.76**	-	**19.80**	**20.30**	**21.83**	**21.65**	**20.96**	-	**20.05**	**20.72**	**25.77**	**21.84**	**21.57**	**25.27**	**19.81**	**20.4**	**19.48**
Temperature (Downhole Probe)	°C	-	-	-	-	-	-	-	**25.50**	-	-	-	-	-	**25.30**	-	-	-	-	-	-	-	-	-

Notes:
BOLD- Parameter detected
NA - Adequate sample volume to perform all analyses was not re
ND - Constituent not detected
D - Dilution
mg/L Milligrams per liter
- Not Analyzed
H Hold time for preparation or analysis exceeded
Samples were analyzed using the following methods:
Alkalinity - EPA 310.1
Chloride - SM4500CL-B
Ferrous Iron - 3500-Fe D
Nitrate - EPA 353.1
Nitrite - EPA 353.1
Sulfate - EPA375.4
Sulfide - EPA376.1
Methane, Ethane, and Ethene - Microseeps method AM20G (199
Vaportech Services, Inc. in-house method (2001)
O'Brien & Gere Laboratories - in-house method (2004-2006)
Soluble Organic Carbon - EPA 415.1

Ground Water Sampling Log Forms

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-1
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	46942

PURGE START DATE/TIME:	12/6/10 13:22		PURGE END DATE/TIME:	12/6/10	14:09
WEATHER CONDITIONS:	Sunny ~50°F		WELL CONDITION:	Good	
WELL DEPTH:	10'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	1250mL	gal.
SWL:	5.20'	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	5	ft.
WELL DIAMETER:	1"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8	ft.
WELL VOLUME:	745.6mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1326	6.22 50	—	19.89	0.137	3.07	5.67	195.6	8.3
1345	6.65 50	250	18.90	0.134	~~5.45~~ 4.97	5.45	198.4	3.7
1350	7.00 50	500	20.46	0.127	2.68	5.03	212.7	2.7
1355	7.17 50	750	19.99	0.129	3.65	5.13	218.1	1.9
1400	7.33 50	1000	19.73	0.133	4.91	5.29	217.5	-1.9
1405	7.81 50	1250	21.94	0.127	2.17	~~4.94~~	217.5	4.7
		DRY AT 14:09 - PURGED DRY						
		12/8/10 1205 DTW = 8.2 FbS						
		TOTAL WELL DEPTH = 10.00 Ft						
		TUBING PLACED @ 9.5 Ft						
12/8/10 1455			20.48	0.114	5.14	5.20	194	18.3

SAMPLING DATA

SAMPLE DATE/TIME:	12/8/10 1445
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	CLEAR - NO ODOR
SAMPLING DEVICE:	STRAW METHOD

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: 1327 changed to smaller tubing

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-3
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	46942

PURGE START DATE/TIME:	12/7/10 1224		PURGE END DATE/TIME:	12/7/10 1311	
WEATHER CONDITIONS:	SUNNY ~45°F		WELL CONDITION:	GOOD	
WELL DEPTH:	13'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	3000 ~~gal.~~ mL	
SWL:	9.32	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	3	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8	ft.
WELL VOLUME:	2.27L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
		PUMP SETTING IS HIGHER THAN SWL NEW TUBING PLACED ~ 6" ABOVE BOTTOM OF WELL						
1228	9.97 75	--	19.59	0.099	5.90	7.27	179	14.8
1233	10.31 75	375	20.74	0.099	4.89	5.50	186	12.0
1238	10.62 75	750	20.95	0.098	4.86	5.34	188	7.4
1243	11.13 75	1125	21.25	0.097	4.76	5.20	193	0.8
1248	11.48 75	1500	21.35	0.097	4.56	5.06	198	1.2
1253	11.92 75	1875	21.49	0.098	4.43	5.05	201	0.3
1258	12.11 75	2250	21.28	0.098	4.45	5.06	204	0.0
1303	12.39 75	2625	21.39	0.100	4.30	5.03	206	1.9
1308	12.52 75	3000	21.87	0.102	4.15	5.04	208	7.6
1313	75	3375						
		DRY @ 1311						
		12/9/10 1041 DTW 12.92 depth to bottom 13.61'						
		D						
		TUBING PLACED APPROX. 6" ABOVE BOTTOM OF WELL						
		ONLY VOC, DISSOLVED GASES, ANIONS + TDL COLLECTED						
		1053 WELL DRY						

SAMPLING DATA

SAMPLE DATE/TIME:	12/9/10 1045
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	CLEAR - NO ODOR
SAMPLING DEVICE:	PERISTALTIC - STRAW METHOD

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-4D
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	46942

PURGE START DATE/TIME:	12/8/10 1042		PURGE END DATE/TIME:	12/8/10	1300
WEATHER CONDITIONS:	SUNNY ~45°F		WELL CONDITION:	Good	
WELL DEPTH:	45.93'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	17	L ~~gal.~~
SWL:	19.22'	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	36	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	40	ft.
WELL VOLUME:	16.48L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1042	20.30 125	—	18.66	0.001	0.00	3.23	133.9	-6.1
1045	21.23 125	375	19.46	0.046	7.60	6.88	51.9	9.5
1050	21.54 125	1000	20.27	0.045	6.92	6.51	80.1	5.4
1056	22.00 125	16025	20.15	0.045	6.77	6.46	88.1	4.9
1105	22.94 125	2875	20.02	0.045	6.64	6.41	99.4	2.1
1115	23.84 125	4125	20.09	0.046	6.71	6.39	107.8	3.9
1135	25.05 125	6625	20.34	0.045	6.76	6.37	120.3	3.3
1155	25.84 125	9125	19.70	0.047	7.05	6.39	129.2	3.1
1215	26.31 125	11625	19.58	0.045	7.00	6.49	133.3	3.9
1235	26.61 125	~~12875~~ 12375	19.34	0.054	6.82	6.47	135.0	3.2
1245	26.68 125	15375	19.30	0.054	7.09	6.60	136.2	4.1
1253	26.79 125	16375	19.59	0.055	7.14	6.65	136.3	14.8
1255	26.81 125	16625	19.74	0.055	7.12	6.62	136.4	3.2
1257	26.82 125	16775	19.64	0.055	7.31	6.70	136.5	27.5
1300	26.84 125	17000	19.48	0.055	6.94	6.67	136.9	3.4

SAMPLING DATA

SAMPLE DATE/TIME:	12/8/10 1305
DEPTH TO WATER AFTER PURGING:	ft.
APPEARANCE:	Clear w/slight odor
SAMPLING DEVICE:	STRAW METHOD

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Collected DUP-1, MS, MSD

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-11B
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	46942

PURGE START DATE/TIME:	12/7/10 ~~0930~~ 0938		PURGE END DATE/TIME:	12/7/10	
WEATHER CONDITIONS:	SUNNY		WELL CONDITION:	Good	
WELL DEPTH:	12'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	3.1 L ~~gal.~~	
SWL:	6.51'	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	2	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	9	ft.
WELL VOLUME:	3387 mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0909	7.81 50	–	13.47	0.213	0.0	6.71	114.6	27.3
0913	7.96 50	200	13.95	0.231	2.26	6.45	103.0	25.9
0916	8.10 50	350	14.77	0.238	2.16	6.39	91.8	26.5
0919	8.27 50	500	15.14	0.239	1.94	6.31	82.3	25.3
0922	8.40 50	650	15.46	0.240	1.71	6.31	71.2	24.6
0925	8.58 50	800	15.70	0.241	1.62	6.26	62.8	21.9
0928	8.71 50	950	16.00	0.242	1.49	6.24	54.9	23.6
0931	8.77 50	1100	16.25	0.242	1.45	6.22	47.6	22.0
0934	8.91 50	1250	16.27	0.243	1.42	6.18	41.0	21.5
		DRY AT 0936						
Tubing dropped to bottom of well 0937								
0940	9.28 50	1550	16.63	0.244	1.24	6.17	28.4	23.1
0944	9.42 50	1750	16.66	0.244	1.30	6.14	24.2	51.2
0947	9.52 50	1900	16.84	0.245	1.22	6.08	21.2	73.1
0950	9.62 50	2050	16.90	0.245	1.22	6.10	18.3	70.9
0953	9.80 50	2200	16.94	0.244	1.26	6.09	15.4	60.2
0956	9.92 50	2350	16.93	0.243	1.28	6.07	13.1	55.1
0959	10.07 50	2500	17.20	0.240	1.26	6.06	9.1	49.3
1002	10.29 50	2650	17.34	0.240	1.23	6.05	6.6	43.7
1005	10.53 50	2800	17.54	0.237	1.56	6.04	3.3	37.3
1008	10.86 50	2950	17.69	0.234	1.38	6.02	-0.2	30.7
1011	10.94 50	3100	17.90	0.230	1.53	5.99	-3.6	27.6
		DRY AT 1012						

12/8/10 DTW = 9.33 TOTAL DEPTH = 11.25 TUBING HARDCOX. 6" ABOVE BOTTOM OF WELL

SAMPLING DATA

SAMPLE DATE/TIME:	12/9/10 945		
DEPTH TO WATER AFTER PURGING:	CLEAR - SLIGHT ODOR		
APPEARANCE:	CLEAR - SLIGHT ODOR		
SAMPLING DEVICE:	PERISTALTIC - STRAW		

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES: 12/8/10 1220 DTW 9.59'
ONLY COLLECTED VOCs, DISSOLVED GASES + AMONS
WELL DRY 953

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-114
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	46942

PURGE START DATE/TIME:	12/7/10 1055			PURGE END DATE/TIME:	12/7/10 1225
WEATHER CONDITIONS:	Sunny ~40°F			WELL CONDITION:	Good
WELL DEPTH:	11.7'	1 in. Dia.	0.041 gal./ft.	TOTAL PURGE VOLUME:	9000 mL ~~gal.~~
SWL:	7.66'	2 in. Dia.	0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1.7 ft.
WELL DIAMETER:	4"	4 in. Dia.	0.653 gal./ft.	PUMP SETTING:	9 ft.
WELL VOLUME:	9985mL	1 gallon = 3785 mL		PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (~~gal~~) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1055	7.72 100	—	7.11	0.001	11.06	5.93	82.1	39.3
1058	7.81 100	300	16.17	0.328	3.25	6.39	69.2	8.7
1103	7.83 100	800	15.93	0.328	3.18	6.40	73.0	6.2
1115	8.00 100	2000	16.78	0.329	2.98	6.40	86.1	3.0
1118	8.06 100	2300	16.88	0.329	2.97	6.46	88.7	2.6
1125	8.18 100	3000	16.95	0.329	2.98	6.47	94.0	2.4
1137	8.27 100	4200	17.05	0.330	3.01	6.48	100.8	2.4
1145	8.39 100	5000	17.08	0.331	3.03	6.47	104.2	2.3
1155	8.55 100	6000	17.32	0.331	3.08	6.46	108.4	2.7
1205	8.64 100	7000	17.36	0.332	3.05	6.45	111.4	2.4
1210	8.76 100	7500	17.30	0.332	3.08	6.48	113.4	2.9
1215	8.87 100	8000	17.33	0.332	3.07	6.51	115.1	2.7
1220	8.89 100	8500	17.42	0.333	3.07	6.46	116.3	2.7
1225	8.95 100	9000	17.52	0.334	3.08	6.47	117.7	2.6
		WELL DRY @ 1229						
		Tubing to bottom of Well @ 1246						
~~1250~~ DTW		And WELL PURGED DRY						
		12/8/10 1222 DTW 8.63						
		12/9/10 811 DTW 8.03						
		TUBING PLACED APPROX 6" ABOVE BOTTOM OF WELL						
		BOTTOM OF WELL MEASURED AT 1512						
12/9/10 840			14.41	0.322	4.37	7.39	329	9.1

SAMPLING DATA

SAMPLE DATE/TIME:	12/9/10 815
DEPTH TO WATER AFTER PURGING:	CLEAR · SLIGHT ODOR ft.
APPEARANCE:	CLEAR, SLIGHT ODOR
SAMPLING DEVICE:	PERISTALTIC / STRAW

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☑	OTHER	☐	PCBs

NOTES:

COLLECTED DUP-2

Fe = 0 mg/L DO = 2 mg/L CO_2 = 30 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-119D
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	46942

PURGE START DATE/TIME:	12/6/10 1525		PURGE END DATE/TIME:	12/6/10	1538
WEATHER CONDITIONS:	SUNNY ~50°F		WELL CONDITION:	Good	
WELL DEPTH:	22.5	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	650	mL gal.
SWL:	10.84	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	17.5	ft.
WELL DIAMETER:	1"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	21	ft.
WELL VOLUME:	1809.5mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1525	12.69 50	—	16.62	1.838	2.61	6.07	7.2	154.9
1529	15.70 50	200	16.63	1.882	1.91	6.15	-17.8	170.3
1532	18.43 50	350	16.69	1.891	1.64	6.16	-25.8	199.6
1535	19.80 50	500	16.83	1.895	1.49	6.17	-30.1	224.5
1538	20.98 50	650	16.89	1.898	1.36	6.16	-33.3	234.2
			DRY AT 1539 - Purged Dry					
	1210 12/8/10 DTW 18.73'							
12/8/10 1520			17.55	1.263	2.87	6.18	170	2000

SAMPLING DATA

SAMPLE DATE/TIME:	12/8/10 1510
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	CLEAR, SLIGHT ODOR
SAMPLING DEVICE:	PERISTALTIC - STRAW METHOD

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	EPCMW-115
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	46942

PURGE START DATE/TIME:	12/8/10 806		PURGE END DATE/TIME:	12/8/10 854	
WEATHER CONDITIONS:	COLD, SUNNY ~25°F		WELL CONDITION:	GOOD	
WELL DEPTH:	11.5	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:		gal.
SWL:	5.81	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:		ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8	ft.
WELL VOLUME:	3.5 L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
806	5.91 75	—	14.70	0.054	5.39	8.21	215	37.1
809	6.11 75	225	13.82	0.209	1.11	6.92	214	34.1
812	6.19 75	450	17.24	0.209	1.12	6.61	213	26.8
815	6.24 75	675	16.30	0.209	1.02	6.53	212	24.2
818	6.32 75	900	17.05	0.209	0.85	6.44	212	15.0
821	6.40 75	1125	17.25	0.208	0.79	6.40	211	9.4
824	6.56 75	1350	16.32	0.209	0.84	6.34	211	7.6
827	6.65 75	1575	16.75	0.208	0.78	6.31	211	4.6
830	6.67 75	1800	16.87	0.209	0.76	6.30	210	1.2
833	6.70 75	2025	16.50	0.209	0.72	6.28	210	1.5
836	6.74 75	2250	16.92	0.208	0.65	6.26	210	0.0
839	6.83 75	2475	16.50	0.211	0.90	6.37	210	0.0
842	6.86 75	2700	16.75	0.211	0.70	6.29	208	0.0
845	6.90 75	2925	16.25	0.211	0.64	6.26	208	0.0
848	6.96 75	3150	16.04	0.212	0.53	6.22	209	0.0
851	7.01 75	3375	16.10	0.212	0.57	6.20	209	0.0
854	7.13 75	3600	16.92	0.213	0.56	6.19	209	0.0

SAMPLING DATA

SAMPLE DATE/TIME:	12/8/10 910
DEPTH TO WATER AFTER PURGING:	7.13 ft.
APPEARANCE:	CLEAR NO ODOR
SAMPLING DEVICE:	PERISTALTIC / STRAW

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES:

837 CHANGED BATTERIES IN HYDROLAB

Fe: 3.5 mg/L DO = 2.0 mg/L CO_2 = 7.5 mg/L (BOB)

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

12/8/10

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-116
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	46942

PURGE START DATE/TIME:	12/7/10 815		PURGE END DATE/TIME:	12/7/10 1057	
WEATHER CONDITIONS:	SUNNY ~30°		WELL CONDITION:	GOOD	
WELL DEPTH:	11'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	24 L	gal.
SWL:	1.45	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	4"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	9	ft.
WELL VOLUME:	23.6 L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV) ✓	TURB. (NTUs) ✓
817	1.64 150	—	15.03	0.645	5.30	7.10	218	2.3
820	1.73 150	450	16.73	0.645	0.99	6.57	240	0.0
824	1.94 150	1050	17.00	0.645	0.83	6.38	235	0.0
827	2.05 150	1500	16.97	0.645	0.77	6.31	229	0.0
832	2.24 150	2250	16.79	0.645	0.87	6.21	215	0.0
837	2.40 150	3000	16.44	0.645	0.82	6.19	206	0.0
847	2.77 150	4500	16.60	0.647	0.92	6.06	196	0.0
857	3.22 150	6000	16.50	0.651	0.83	6.14	187	0.0
907	3.61 150	7500	16.37	0.657	0.86	6.06	180	0.0
917	4.04 150	9000	16.52	0.660	0.83	6.09	176	0.0
927	4.48 150	10500	16.75	0.661	0.89	6.13	170	0.0
947	5.16 150	13500	16.51	0.659	0.86	5.87	164	0.0
1007	5.99 150	16500	17.09	0.646	0.84	5.98	159	0.0
1017	6.41 150	18000	17.12	0.638	0.86	5.97	157	0.0
1027	6.75 150	19500	17.19	0.625	0.86	6.01	153	0.0
1037	7.03 150	21000	16.69	0.623	1.02	5.90	152	0.0
1047	7.38 150	22500	17.10	0.609	1.13	6.04	150	0.0
1052	7.58 150	23250	17.05	0.607	1.09	5.99	149	0.0
1057	7.82 150	24000	17.06	0.606	1.10	6.01	149	0.0

SAMPLING DATA

SAMPLE DATE/TIME:	12/7/10 1110
DEPTH TO WATER AFTER PURGING:	7.82 ft.
APPEARANCE:	CLEAR - NO ODOR
SAMPLING DEVICE:	PERISTALTIC - STRAW METHOD

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

1110

NOTES:

BIOLOGICAL FILM ON WATER SURFACE Fe: 6.5 mg/L

CO_2 > 100 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-117
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	46942

PURGE START DATE/TIME:	12/8/10		PURGE END DATE/TIME:	12/8/10	1114
WEATHER CONDITIONS:	SUNNY ~30°		WELL CONDITION:	GOOD	
WELL DEPTH:	11.41	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	6 L	gal.
SWL:	1.86	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	7.5	ft.
WELL VOLUME:	5.63	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) or L	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1017	2.01 100	300	15.33	0.333	9.11	7.08	189	0.0
1020	2.31 100	600	17.42	0.332	1.00	6.12	188	0.0
1023	2.44 100	900	16.56	0.334	0.63	5.97	188	0.0
1026	2.56 100	1200	16.41	0.333	0.61	5.92	188	0.0
1029	2.69 100	1500	16.36	0.334	0.78	5.92	188	0.0
1032	2.91 100	1800	16.27	0.339	0.47	5.86	186	0.0
1035	3.11 100	2100	16.31	0.338	0.46	5.87	186	0.0
1038	3.28 100	2400	16.44	0.349	0.46	5.89	184	0.0
1041	3.44 100	2700	16.25	0.353	0.43	5.87	183	0.0
1044	3.71 100	3000	16.76	0.354	0.41	5.86	180	0.0
1047	3.89 100	3300	16.89	0.360	0.40	5.87	176	0.0
1050	4.01 100	3600	16.83	0.364	0.41	5.87	173	0.0
1053	4.12 100	3900	16.83	0.367	0.38	5.87	169	0.0
1056	4.30 100	4200	16.74	0.366	0.37	5.87	167	0.0
1059	4.66 100	4500	16.91	0.364	0.36	5.86	164	0.0
1102	5.05 100	4800	16.99	0.360	0.34	5.85	161	0.0
1105	5.21 100	5100	17.51	0.351	0.36	5.84	158	0.0
1108	5.56 100	5400	17.63	0.343	0.34	5.81	157	0.0
1111	5.69 100	5700	18.01	0.340	0.33	5.80	157	0.0
1114	5.87 100	6000	17.74	0.336	0.34	5.81	156	0.0

SAMPLING DATA

SAMPLE DATE/TIME:	12/8/10 1120
DEPTH TO WATER AFTER PURGING:	5.87 ft.
APPEARANCE:	CLEAR, NO ODOR
SAMPLING DEVICE:	PEristaltic - STRAW METHOD

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES: BIOFILM FILM OBSERVED ON WATER SURFACE
Fe = 6.0 mg/L
DO = 2.0 mg/L
CO_2 > 100 mg/L

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

30
45
0

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-11S
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	46942

PURGE START DATE/TIME:	12/7/10 1347		PURGE END DATE/TIME:	12/7/10	1454
WEATHER CONDITIONS:	SUNNY ~50°F		WELL CONDITION:	GOOD	
WELL DEPTH:	11	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	4.8 L ~~gal~~	
SWL:	3.42	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	7.5	ft.
WELL VOLUME:	4.67 L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV) ✓	TURB. (NTUs) ✓
1347	3.58 75	-	15.91	0.596	2.89	4.98	184	6.6
1352	3.72 75	375	17.48	0.591	1.44	4.73	178	0.0
1357	4.03 75	750	17.46	0.591	1.13	4.65	173	0.0
1402	4.51 75	1125	17.20	0.594	0.94	4.64	173	0.0
1407	4.66 75	1500	15.12	0.596	1.34	4.62	172	0.4
1412	4.91 75	1875	17.10	0.598	1.01	4.62	167	0.0
1417	5.37 75	2250	17.30	0.598	0.79	4.61	165	0.0
1422	5.49 75	2625	17.34	0.598	0.72	4.60	165	0.0
1427	5.93 75	3000	17.22	0.593	0.66	4.59	165	0.0
1432	6.43 75	3375	17.55	0.585	0.61	4.53	165	0.0
1437	6.79 75	3750	17.68	0.576	0.60	4.47	164	0.0
1442	7.19 75	4125	17.95	0.563	0.54	4.43	166	0.0
1447	7.31 75	4500	17.92	0.554	0.78	4.43	167	0.0
1452	7.54 75	4875	17.92	0.549	0.53	4.42	166	0.0
		WELL DRY @ 1454 PLACED NEW TUBING ~ 6" FROM BOTTOM OF WELL AND PURGED DRY						
		1218 12/8/10 IN WELL DRY						
		12/9/10 0908 DTW = 9.10 TUBING PLACED APPROX 6" ABOVE BOTTOM OF WELL						
		ALL PARAMETERS COLLECTED EXCEPT METALS & FIELD PARAMETER 924 - WELL DRY						

SAMPLING DATA

SAMPLE DATE/TIME:	12/9/10 915
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	CLEAR - STRONG ODOR
SAMPLING DEVICE:	PERISTALTIC - STRAW METHOD

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☒	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-11I
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	46942

PURGE START DATE/TIME:	12/8/10 0818		PURGE END DATE/TIME:	12/8/10 0918	
WEATHER CONDITIONS:	SUNNY ~35°F		WELL CONDITION:	Good	
WELL DEPTH:	11'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	4.5L	gal.
SWL:	6.51'	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8.5	ft.
WELL VOLUME:	2.77L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0818	6.56 75	—	3.36	0.001	0.00	6.48	282.8	5.5
0826	6.76 75	600	13.30	0.282	2.63	6.77	141.6	11.5
0831	6.91 75	975	13.48	0.301	1.64	6.43	109.1	12.9
0836	7.01 75	1350	13.93	0.303	1.32	6.34	95.0	13.9
0841	7.25 75	1725	14.47	0.302	1.05	6.30	80.1	12.0
0844	7.30 75	1950	14.43	0.303	0.96	6.29	69.6	11.2
0847	7.44 75	2175	14.53	0.304	0.92	6.29	63.9	11.9
0850	7.55 75	2400	14.58	0.305	0.84	6.28	56.6	9.4
0853	7.64 75	2625	14.50	0.305	0.82	6.28	50.5	9.3
0856	7.76 75	2850	14.56	0.306	0.78	6.28	44.6	9.2
0859	7.85 75	3075	14.70	0.305	0.75	6.27	38.9	8.0
0902	7.97 75	3300	14.68	0.304	0.72	6.27	35.1	7.1
0914	8.32 75	4200	14.55	0.290	0.65	6.20	20.5	7.4
0916	8.36 75	4350	14.52	0.287	0.64	6.18	18.2	6.7
0918	8.49 75	4500	14.54	0.293	0.64	6.16	14.2	7.2
		WELL DRY AT 0919						
		inserted tubing to bottom of well and purged dry						
		12/9/10 1005 DTW 12.75' depth to bottom 13.98'						
		TUBING PLACED APPROX 6" ABOVE BOTTOM OF WELL						
12/9/10 1010			15.76	0.224	3.21	6.75	273	49.0

SAMPLING DATA

SAMPLE DATE/TIME:	12/9/10 1010
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	CLEAR - NO ODOR
SAMPLING DEVICE:	STRAW METHOD

PARAMETERS

☐	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Water clear w/ slight odor

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-120
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	46942

PURGE START DATE/TIME:	12/7/10 1354		PURGE END DATE/TIME:	12/7/10 1513	
WEATHER CONDITIONS:	SUNNY ~50°F		WELL CONDITION:	GOOD	
WELL DEPTH:	11'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	3525	gal. ~~mL~~
SWL:	6.21'	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8.5	ft.
WELL VOLUME:	2.9GL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) ~~mL~~	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1354	6.32 75	--	30.18	0.002	0.00	5.30	183.8	-6.9
1400	6.65 75	450	19.28	0.143	3.19	6.81	120.3	4.1
1429	6.97 75	450	19.46	0.145	4.18	6.41	125.5	4.7
1432	7.20 75	675	19.72	0.144	3.44	6.20	126.8	3.7
1435	7.27 75	900	19.76	0.144	3.39	6.14	127.4	3.5
1440	7.31 75	1275	19.84	0.146	3.18	6.15	129.1	3.1
1445	7.50 75	1650	19.82	0.151	3.18	6.15	131.2	3.7
1450	7.71 75	2025	19.86	0.153	3.24	6.14	132.3	3.0
1455	7.93 75	2400	19.81	0.154	3.14	6.14	133.4	2.8
1500	8.12 75	2775	19.73	0.154	2.87	6.09	134.6	2.8
1505	8.30 75	3150	19.66	0.152	2.57	6.11	135.5	3.1
1510	8.42	3525	19.85	0.148	2.29	6.12	136.4	3.1
		DRY AT 1513						
		Inserted tubing to bottom of well and purged until dry						
		12/8/10 1223 DTW 10.55'						
		12/9/10 750 DTW 10.48'						
		BOTTOM TUBING MEASURED @ 13.95 ft BELOW TOC PLACED APPROX 0.5 ft ABOVE BOTTOM						
12/9/10 805			17.53	0.114	3.51	7.53	422	155

12/9/10 500

SAMPLING DATA

SAMPLE DATE/TIME:	~~12/7/10 1510~~	PARAMETERS	
DEPTH TO WATER AFTER PURGING:	DRY ft.	☒ VOCs	☐ Metals (U)
APPEARANCE:	TURBID - NO ODOR	☐ SVOCs	☐ Metals (F)
SAMPLING DEVICE:	STRAW METHOD	☐ OTHER	☐ PCBs

NOTES: 1400 changed to smaller tubing

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-12
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	46942

PURGE START DATE/TIME:	12/6/10 1523		PURGE END DATE/TIME:	12/6/10 1620	
WEATHER CONDITIONS:	SUNNY ~55°F		WELL CONDITION:	GOOD	
WELL DEPTH:	11 fbs	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	2.4 L	gal.
SWL:	~~10.03~~ 11.56	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8	ft.
WELL VOLUME:	~~1277 mL~~ 999 mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
		SWL LOWER THAN PUMP SETTING PLACED NEW TUBING @ BOTTOM OF THE WELL (~ 6" OFF OF BOTTOM)						
1548	11.56 ~~75 mL/min~~	~	19.73	0.108	7.73	6.64	242	373
1553	12.00 75	375	19.88	0.106	6.94	6.61	247	261
1556	12.15 75	600	19.76	0.106	6.89	6.59	249	210
1559	12.25 75	825	19.80	0.105	6.88	6.55	250	189
1602	12.34 75	1050	19.50	0.103	7.18	6.51	250	370
1605	12.51 75	1275	19.64	0.101	7.32	6.47	250	363
1608	12.66 75	1500	19.89	0.100	6.85	6.37	251	147
1611	12.83 75	1725	19.76	0.099	6.77	6.32	252	110
1614	12.92 75	1950	19.74	0.101	6.62	6.30	252	75.9
1617	13.01 75	2175	19.51	0.104	6.42	6.30	252	81.4
1620	13.34 75	2400	19.62	0.105	6.59	6.31	252	77.2
		SAMPLED @ 1630						

SAMPLING DATA

SAMPLE DATE/TIME:	12/6/10 1630
DEPTH TO WATER AFTER PURGING:	13.36 ft.
APPEARANCE:	CLEAR - NO ODOR
SAMPLING DEVICE:	STRAW METHOD

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2PP-1
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	46942

PURGE START DATE/TIME:	12/6/10 1415		PURGE END DATE/TIME:	12/6/10 1447	
WEATHER CONDITIONS:	SUNNY ~50°F		WELL CONDITION:	GOOD	
WELL DEPTH:	12 ft	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	.45 L gal.	
SWL:	9.30	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	7 ft.	
WELL DIAMETER:	1"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	9.5 ft.	
WELL VOLUME:	419 mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
			COULD NOT					
			WELL DRY BEFORE	FLOW-THROUGH				
			CELL COULD BE	FILLED				
			PLACED TUBING	AT BOTTOM OF	WELL			
			AND BEGAN	PURGING AGAIN	- VERY	SILTY		
1437	10.82 50	-	18.95	0.113	6.41	7.37	275	2000
1440	11.23 50	150	19.78	0.109	5.02	6.59	281	2000
1443	11.78 50	300	19.49	0.111	40.85	6.00	286	1463
1446	11.89 50	450	19.48	0.113	4.93	5.78	285	1248
			DRY @ 1447					
	12/8/10 1215	—	DTW 11.11'					
			SAMPLE COLLECTED	12/8/10 @ 1400				
			ONLY 2 VOAS	FILLED BEFORE DRY				
			TUBING PLACED	~ 6" ABOVE BOTTOM OF				
			WELL - BOTTOM	MEASURED @ 12.75 ft.				
			WELL & CONCRETE PAD	APPROX 1 ft ABOVE GROUND				
			ON ARRIVAL					

SAMPLING DATA

SAMPLE DATE/TIME:	12/8/10 1400
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	CLEAR · NO ODOR
SAMPLING DEVICE:	STRAW METHOD

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

Laboratory Certification

Georgia Stipulation Letter

Laboratory: Shealy Environmental Services, Inc.

Accreditor: NELAP (FL)

Accreditation ID: E87653

Scope: See Attached

Effective: July 1, 2010

Expires: June 30, 2011

FLORIDA DEPARTMENT OF HEALTH

State of Florida

Department of Health, Bureau of Laboratories

This is to certify that

E87653

SHEALY ENVIRONMENTAL SERVICES, INC. - 1
106 VANTAGE POINT DRIVE
WEST COLUMBIA, SC 29172

has complied with Florida Administrative Code 64E-1,
for the examination of Environmental samples in the following categories

DRINKING WATER - MICROBIOLOGY, DRINKING WATER - PRIMARY INORGANIC CONTAMINANTS, DRINKING WATER - SECONDARY INORGANIC CONTAMINANTS, DRINKING WATER - SYNTHETIC ORGANIC CONTAMINANTS, NON-POTABLE WATER - EXTRACTABLE ORGANICS, NON-POTABLE WATER - GENERAL CHEMISTRY, NON-POTABLE WATER - METALS, NON-POTABLE WATER - MICROBIOLOGY, NON-POTABLE WATER - PESTICIDES-HERBICIDES-PCB'S, NON-POTABLE WATER - VOLATILE ORGANICS, SOLID AND CHEMICAL MATERIALS - EXTRACTABLE ORGANICS, SOLID AND CHEMICAL MATERIALS - GENERAL CHEMISTRY, SOLID AND CHEMICAL MATERIALS - METALS, SOLID AND CHEMICAL MATERIALS - PESTICIDES-HERBICIDES-PCB'S, SOLID AND CHEMICAL MATERIALS - VOLATILE ORGANICS

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

EFFECTIVE July 01, 2010 THROUGH June 30, 2011

Max Salfinger, M.D.
Chief, Bureau of Laboratories
Florida Department of Health
DH Form 1697, 7/04
NON-TRANSFERABLE E87653-16-07/01/2010
Supersedes all previously issued certificates

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-16, expiration date June 30, 2011. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,2-Dibromo-3-chloropropane (DBCP)	EPA 504.1	Synthetic Organic Contaminants	NELAP	7/3/2001
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 504.1	Synthetic Organic Contaminants	NELAP	7/3/2001
Alkalinity as CaCO3	SM 2320 B	Primary Inorganic Contaminants	NELAP	2/6/2003
Aluminum	EPA 200.7	Secondary Inorganic Contaminants	NELAP	10/17/2005
Aluminum	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/17/2005
Antimony	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Arsenic	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Arsenic	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Barium	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Barium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Beryllium	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Beryllium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Cadmium	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Cadmium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Calcium	EPA 200.7	Primary Inorganic Contaminants	NELAP	10/17/2005
Chloride	EPA 300.0	Secondary Inorganic Contaminants	NELAP	3/25/2003
Chromium	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Chromium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Color	EPA 110.2	Secondary Inorganic Contaminants	NELAP	7/3/2001
Conductivity	SM 2510 B	Primary Inorganic Contaminants	NELAP	10/17/2005
Copper	EPA 200.7	Primary Inorganic Contaminants,Secondary Inorganic Contaminants	NELAP	7/3/2001
Copper	EPA 200.8	Primary Inorganic Contaminants,Secondary Inorganic Contaminants	NELAP	10/17/2005
Escherichia coli	SM 9223 B	Microbiology	NELAP	7/3/2001
Fluoride	EPA 300.0	Secondary Inorganic Contaminants,Primary Inorganic Contaminants	NELAP	7/3/2001
Iron	EPA 200.7	Secondary Inorganic Contaminants	NELAP	3/25/2003
Lead	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Magnesium	EPA 200.7	Primary Inorganic Contaminants	NELAP	10/17/2005
Manganese	EPA 200.7	Secondary Inorganic Contaminants	NELAP	7/3/2001
Manganese	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/17/2005
Mercury	EPA 245.1	Primary Inorganic Contaminants	NELAP	11/7/2002
Molybdenum	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/17/2005
Nickel	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Nickel	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005

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E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Nitrate as N	EPA 300.0	Primary Inorganic Contaminants	NELAP	3/25/2003
Nitrate as N	EPA 353.2	Primary Inorganic Contaminants	NELAP	11/7/2002
Nitrite as N	EPA 300.0	Primary Inorganic Contaminants	NELAP	3/25/2003
Nitrite as N	EPA 353.2	Primary Inorganic Contaminants	NELAP	1/31/2003
Orthophosphate as P	SM 4500-P E	Primary Inorganic Contaminants	NELAP	10/17/2005
pH	EPA 150.1	Primary Inorganic Contaminants,Secondary Inorganic Contaminants	NELAP	7/3/2001
Residue-filterable (TDS)	SM 2540 C	Secondary Inorganic Contaminants	NELAP	10/17/2005
Selenium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Silver	EPA 200.7	Secondary Inorganic Contaminants	NELAP	1/31/2003
Silver	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/17/2005
Sodium	EPA 200.7	Primary Inorganic Contaminants	NELAP	10/17/2005
Sulfate	EPA 300.0	Secondary Inorganic Contaminants,Primary Inorganic Contaminants	NELAP	7/3/2001
Thallium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Total coliforms	SM 9223 B	Microbiology	NELAP	7/3/2001
Total cyanide	EPA 335.4	Primary Inorganic Contaminants	NELAP	10/17/2005
Total dissolved solids	EPA 160.1	Secondary Inorganic Contaminants	NELAP	7/3/2001
Total nitrate-nitrite	EPA 300.0	Primary Inorganic Contaminants	NELAP	10/17/2005
Total nitrate-nitrite	EPA 353.2	Primary Inorganic Contaminants	NELAP	10/17/2005
Total residual chlorine	SM 4500-Cl G	Primary Inorganic Contaminants	NELAP	10/17/2005
Turbidity	EPA 180.1	Secondary Inorganic Contaminants	NELAP	3/18/2008
Vanadium	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/17/2005
Zinc	EPA 200.7	Secondary Inorganic Contaminants	NELAP	7/3/2001

Laboratory Scope of Accreditation

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State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,1-Trichloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,2,2-Tetrachloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,2-Trichloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloroethylene	EPA 624	Volatile Organics	NELAP	7/3/2001
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,3-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4,5-Tetrachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromo-3-chloropropane (DBCP)	EPA 504	Volatile Organics	NELAP	7/3/2001
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8011	Volatile Organics	NELAP	7/1/2003
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 504	Volatile Organics	NELAP	7/3/2001
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8011	Volatile Organics	NELAP	7/1/2003
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	7/3/2001
1,2-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2-Dichloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichloropropane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Diphenylhydrazine	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	7/3/2001

Laboratory Scope of Accreditation

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State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,3-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,4-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	7/3/2001
1,4-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,4-Naphthoquinone	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,4-Phenylenediamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
1-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1-Naphthylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
2,3,4,6-Tetrachlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4,5-T	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4,6-Trichlorophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-D	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
2,4-DB	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,4-Dichlorophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dimethylphenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dinitrophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dinitrotoluene (2,4-DNT)	EPA 625	Extractable Organics	NELAP	7/3/2001
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,6-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,6-Dinitrotoluene (2,6-DNT)	EPA 625	Extractable Organics	NELAP	7/3/2001
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Acetylaminofluorene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Chloroethyl vinyl ether	EPA 624	Volatile Organics	NELAP	7/3/2001
2-Chloroethyl vinyl ether	EPA 8260	Volatile Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-16, expiration date June 30, 2011. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2-Chloronaphthalene	EPA 625	Extractable Organics	NELAP	7/3/2001
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Chlorophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
2-Hexanone	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Methyl-4,6-dinitrophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Naphthylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitrophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Picoline (2-Methylpyridine)	EPA 8270	Extractable Organics	NELAP	7/1/2003
3,3'-Dichlorobenzidine	EPA 625	Extractable Organics	NELAP	7/3/2001
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
3,3'-Dimethylbenzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
3/4-Methylphenols (m/p-Cresols)	EPA 8270	Extractable Organics	NELAP	10/17/2005
3-Methylcholanthrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4,4'-DDD	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-DDE	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-DDT	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4-Aminobiphenyl	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Bromophenyl phenyl ether	EPA 625	Extractable Organics	NELAP	7/3/2001
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chloro-3-methylphenol	EPA 625	Extractable Organics	NELAP	7/3/2001
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorophenyl phenylether	EPA 625	Extractable Organics	NELAP	7/3/2001
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-16, expiration date June 30, 2011. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
4-Dimethyl aminoazobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Nitrophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
5-Nitro-o-toluidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
7,12-Dimethylbenz(a) anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
a-a-Dimethylphenethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acenaphthene	EPA 625	Extractable Organics	NELAP	7/3/2001
Acenaphthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acenaphthylene	EPA 625	Extractable Organics	NELAP	7/3/2001
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acetone	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acetonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acetophenone	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acrolein (Propenal)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acrylonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Aldrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Alkalinity as CaCO3	SM 2320 B	General Chemistry	NELAP	12/31/2008
Allyl chloride (3-Chloropropene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
alpha-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/24/2008
Aluminum	EPA 200.7	Metals	NELAP	7/3/2001
Aluminum	EPA 200.8	Metals	NELAP	10/17/2005
Aluminum	EPA 6010	Metals	NELAP	7/1/2003
Aluminum	EPA 6020	Metals	NELAP	10/17/2005
Amenable cyanide	EPA 9012	General Chemistry	NELAP	7/1/2003
Amenable cyanide	SM 4500-CN G	General Chemistry	NELAP	12/31/2008
Ammonia as N	EPA 350.1	General Chemistry	NELAP	7/3/2001
Aniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
Anthracene	EPA 625	Extractable Organics	NELAP	7/3/2001
Anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Antimony	EPA 200.7	Metals	NELAP	7/3/2001
Antimony	EPA 200.8	Metals	NELAP	10/17/2005

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Antimony	EPA 6010	Metals	NELAP	7/1/2003
Antimony	EPA 6020	Metals	NELAP	10/17/2005
Aramite	EPA 8270	Extractable Organics	NELAP	10/17/2005
Aroclor-1016 (PCB-1016)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1221 (PCB-1221)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1232 (PCB-1232)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1242 (PCB-1242)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1248 (PCB-1248)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1254 (PCB-1254)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1260 (PCB-1260)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Arsenic	EPA 200.7	Metals	NELAP	7/3/2001
Arsenic	EPA 200.8	Metals	NELAP	10/17/2005
Arsenic	EPA 6010	Metals	NELAP	7/1/2003
Arsenic	EPA 6020	Metals	NELAP	10/17/2005
Barium	EPA 200.7	Metals	NELAP	7/3/2001
Barium	EPA 200.8	Metals	NELAP	10/17/2005
Barium	EPA 6010	Metals	NELAP	7/1/2003
Barium	EPA 6020	Metals	NELAP	10/17/2005
Benzene	EPA 624	Volatile Organics	NELAP	7/3/2001
Benzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Benzidine	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)anthracene	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)pyrene	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(b)fluoranthene	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(g,h,i)perylene	EPA 625	Extractable Organics	NELAP	7/3/2001

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Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(k)fluoranthene	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzoic acid	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzyl chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Beryllium	EPA 200.7	Metals	NELAP	7/3/2001
Beryllium	EPA 200.8	Metals	NELAP	10/17/2005
Beryllium	EPA 6010	Metals	NELAP	7/1/2003
Beryllium	EPA 6020	Metals	NELAP	10/17/2005
beta-BHC (beta-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Biochemical oxygen demand	SM 5210 B	General Chemistry	NELAP	12/31/2008
bis(2-Chloroethoxy)methane	EPA 625	Extractable Organics	NELAP	7/3/2001
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Chloroethyl) ether	EPA 625	Extractable Organics	NELAP	7/3/2001
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 625	Extractable Organics	NELAP	7/3/2001
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 625	Extractable Organics	NELAP	7/3/2001
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Boron	EPA 200.7	Metals	NELAP	7/3/2001
Boron	EPA 6010	Metals	NELAP	7/1/2003
Boron	EPA 6020	Metals	NELAP	10/17/2005
Bromide	EPA 300.0	General Chemistry	NELAP	7/3/2001
Bromide	EPA 9056	General Chemistry	NELAP	7/1/2003
Bromobenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromodichloromethane	EPA 624	Volatile Organics	NELAP	7/3/2001
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromoform	EPA 624	Volatile Organics	NELAP	7/3/2001
Bromoform	EPA 8260	Volatile Organics	NELAP	7/1/2003
Butyl benzyl phthalate	EPA 625	Extractable Organics	NELAP	7/3/2001
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Cadmium	EPA 200.7	Metals	NELAP	7/3/2001

Laboratory Scope of Accreditation

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Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Cadmium	EPA 200.8	Metals	NELAP	10/17/2005
Cadmium	EPA 6010	Metals	NELAP	7/1/2003
Cadmium	EPA 6020	Metals	NELAP	10/17/2005
Calcium	EPA 200.7	Metals	NELAP	7/3/2001
Calcium	EPA 6010	Metals	NELAP	7/1/2003
Calcium	EPA 6020	Metals	NELAP	10/17/2005
Carbazole	EPA 8270	Extractable Organics	NELAP	7/1/2003
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	7/1/2003
Carbon tetrachloride	EPA 624	Volatile Organics	NELAP	7/3/2001
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Carbonaceous BOD (CBOD)	SM 5210 B	General Chemistry	NELAP	7/3/2001
Chemical oxygen demand	SM 5220 D	General Chemistry	NELAP	12/31/2008
Chlordane (tech.)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
Chloride	EPA 300.0	General Chemistry	NELAP	7/3/2001
Chloride	EPA 9056	General Chemistry	NELAP	10/17/2005
Chlorobenzene	EPA 624	Volatile Organics	NELAP	7/3/2001
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chlorobenzilate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Chloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
Chloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroform	EPA 624	Volatile Organics	NELAP	7/3/2001
Chloroform	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroprene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chromium	EPA 200.7	Metals	NELAP	7/3/2001
Chromium	EPA 200.8	Metals	NELAP	10/17/2005
Chromium	EPA 6010	Metals	NELAP	7/1/2003
Chromium	EPA 6020	Metals	NELAP	10/17/2005
Chromium VI	EPA 7196	General Chemistry	NELAP	10/17/2005
Chromium VI	SM 3500-Cr D (18th/19th Ed.)/UV-VIS	General Chemistry	NELAP	2/11/2003
Chrysene	EPA 625	Extractable Organics	NELAP	7/3/2001
Chrysene	EPA 8270	Extractable Organics	NELAP	7/1/2003
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
cis-1,3-Dichloropropene	EPA 624	Volatile Organics	NELAP	7/3/2001
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Cobalt	EPA 200.7	Metals	NELAP	7/3/2001

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Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Cobalt	EPA 200.8	Metals	NELAP	10/17/2005
Cobalt	EPA 6010	Metals	NELAP	7/1/2003
Cobalt	EPA 6020	Metals	NELAP	10/17/2005
Color	SM 2120 B	General Chemistry	NELAP	12/31/2008
Color	SM 2120 E	General Chemistry	NELAP	12/31/2008
Conductivity	EPA 120.1	General Chemistry	NELAP	7/3/2001
Copper	EPA 200.7	Metals	NELAP	7/3/2001
Copper	EPA 200.8	Metals	NELAP	10/17/2005
Copper	EPA 6010	Metals	NELAP	7/1/2003
Copper	EPA 6020	Metals	NELAP	10/17/2005
Cyanide	EPA 335.4	General Chemistry	NELAP	12/31/2008
Dalapon	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
delta-BHC	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Diallate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibenz(a,h)anthracene	EPA 625	Extractable Organics	NELAP	7/3/2001
Dibenz(a,h)anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibromochloromethane	EPA 624	Volatile Organics	NELAP	7/3/2001
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dibromomethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dicamba	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
Dichlorodifluoromethane	EPA 624	Volatile Organics	NELAP	7/3/2001
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dichloroprop (Dichlorprop)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Dieldrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Diesel range organics (DRO)	EPA 8015	Extractable Organics	NELAP	7/1/2003
Diethyl ether	EPA 8260	Volatile Organics	NELAP	7/1/2003
Diethyl phthalate	EPA 625	Extractable Organics	NELAP	7/3/2001
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dimethoate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dimethyl phthalate	EPA 625	Extractable Organics	NELAP	7/3/2001
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Di-n-butyl phthalate	EPA 625	Extractable Organics	NELAP	7/3/2001
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Di-n-octyl phthalate	EPA 625	Extractable Organics	NELAP	7/3/2001
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan I	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan II	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan sulfate	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin aldehyde	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin ketone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Ethyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Ethyl methanesulfonate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Ethylbenzene	EPA 624	Volatile Organics	NELAP	7/3/2001
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Famphur	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fecal coliforms	SM 9222 D	Microbiology	NELAP	7/3/2001
Fluoranthene	EPA 625	Extractable Organics	NELAP	7/3/2001
Fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fluorene	EPA 625	Extractable Organics	NELAP	7/3/2001
Fluorene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fluoride	EPA 300.0	General Chemistry	NELAP	3/27/2003
Fluoride	EPA 9056	General Chemistry	NELAP	7/1/2003
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
gamma-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/24/2008
Gasoline range organics (GRO)	EPA 8015	Extractable Organics	NELAP	7/1/2003
Hardness	EPA 130.1	General Chemistry	NELAP	3/21/2008
Hardness	SM 2340 C	General Chemistry	NELAP	12/31/2008
Heptachlor	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Heptachlor epoxide	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Hexachlorobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorobutadiene	EPA 625	Extractable Organics	NELAP	7/3/2001
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorocyclopentadiene	EPA 625	Extractable Organics	NELAP	7/3/2001
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachloroethane	EPA 625	Extractable Organics	NELAP	7/3/2001
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorophene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachloropropene	EPA 8270	Extractable Organics	NELAP	10/17/2005
Ignitability	EPA 1010	General Chemistry	NELAP	7/1/2003
Indeno(1,2,3-cd)pyrene	EPA 625	Extractable Organics	NELAP	7/3/2001
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Iodomethane (Methyl iodide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Iron	EPA 200.7	Metals	NELAP	7/3/2001
Iron	EPA 6010	Metals	NELAP	7/1/2003
Iron	EPA 6020	Metals	NELAP	10/17/2005
Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Isodrin	EPA 8270	Extractable Organics	NELAP	7/1/2003
Isophorone	EPA 625	Extractable Organics	NELAP	7/3/2001
Isophorone	EPA 8270	Extractable Organics	NELAP	7/1/2003
Isopropylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Isosafrole	EPA 8270	Extractable Organics	NELAP	7/1/2003
Kjeldahl nitrogen - total	EPA 351.2	General Chemistry	NELAP	11/7/2002
Lead	EPA 200.7	Metals	NELAP	7/3/2001
Lead	EPA 200.8	Metals	NELAP	10/17/2005
Lead	EPA 6010	Metals	NELAP	7/1/2003
Lead	EPA 6020	Metals	NELAP	10/17/2005
Magnesium	EPA 200.7	Metals	NELAP	7/3/2001
Magnesium	EPA 6010	Metals	NELAP	7/1/2003
Magnesium	EPA 6020	Metals	NELAP	10/17/2005
Manganese	EPA 200.7	Metals	NELAP	7/3/2001
Manganese	EPA 200.8	Metals	NELAP	10/17/2005
Manganese	EPA 6010	Metals	NELAP	7/1/2003
Manganese	EPA 6020	Metals	NELAP	10/17/2005

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-16, expiration date June 30, 2011. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
MCPA	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
MCPP	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Mercury	EPA 1631	Metals	NELAP	10/17/2005
Mercury	EPA 245.1	Metals	NELAP	2/5/2003
Mercury	EPA 7470	Metals	NELAP	7/1/2003
Methacrylonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methapyrilene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Methyl bromide (Bromomethane)	EPA 624	Volatile Organics	NELAP	7/3/2001
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl chloride (Chloromethane)	EPA 624	Volatile Organics	NELAP	7/3/2001
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl methanesulfonate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Methyl parathion (Parathion, methyl)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methylene chloride	EPA 624	Volatile Organics	NELAP	7/3/2001
Methylene chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Molybdenum	EPA 200.7	Metals	NELAP	7/3/2001
Molybdenum	EPA 200.8	Metals	NELAP	10/17/2005
Molybdenum	EPA 6010	Metals	NELAP	7/1/2003
Molybdenum	EPA 6020	Metals	NELAP	10/17/2005
Naphthalene	EPA 625	Extractable Organics	NELAP	7/3/2001
Naphthalene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Naphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Nickel	EPA 200.7	Metals	NELAP	7/3/2001
Nickel	EPA 200.8	Metals	NELAP	10/17/2005
Nickel	EPA 6010	Metals	NELAP	7/1/2003
Nickel	EPA 6020	Metals	NELAP	10/17/2005
Nitrate	EPA 9056	General Chemistry	NELAP	7/1/2003
Nitrate as N	EPA 300.0	General Chemistry	NELAP	3/27/2003
Nitrate as N	EPA 353.2	General Chemistry	NELAP	7/3/2001
Nitrate-nitrite	EPA 353.2	General Chemistry	NELAP	7/3/2001
Nitrite	EPA 9056	General Chemistry	NELAP	7/1/2003
Nitrite as N	EPA 300.0	General Chemistry	NELAP	3/27/2003

Laboratory Scope of Accreditation

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Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Nitrite as N	EPA 353.2	General Chemistry	NELAP	8/25/2008
Nitrobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Nitroquinoline-1-oxide	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodiethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodimethylamine	EPA 625	Extractable Organics	NELAP	7/3/2001
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitroso-di-n-butylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodi-n-propylamine	EPA 625	Extractable Organics	NELAP	7/3/2001
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodiphenylamine	EPA 625	Extractable Organics	NELAP	7/3/2001
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosomethylethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosomorpholine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosopiperidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosopyrrolidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
o,o,o-Triethyl phosphorothioate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Oil & Grease	EPA 1664A	General Chemistry	NELAP	10/17/2005
Orthophosphate as P	EPA 365.2	General Chemistry	NELAP	7/3/2001
o-Toluidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Pentachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Pentachloronitrobenzene (Quintozene)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Pentachlorophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
Pentachlorophenol	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
pH	EPA 9040	General Chemistry	NELAP	7/1/2003
pH	SM 4500-H+-B	General Chemistry	NELAP	12/31/2008
Phenacetin	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phenanthrene	EPA 625	Extractable Organics	NELAP	7/3/2001
Phenanthrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phenol	EPA 625	Extractable Organics	NELAP	7/3/2001
Phenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phorate	EPA 8270	Extractable Organics	NELAP	7/1/2003
p-Isopropyltoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Potassium	EPA 200.7	Metals	NELAP	10/17/2005

Laboratory Scope of Accreditation

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E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Potassium	EPA 6010	Metals	NELAP	7/1/2003
Potassium	EPA 6020	Metals	NELAP	10/17/2005
Pronamide (Kerb)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Propionitrile (Ethyl cyanide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Pyrene	EPA 625	Extractable Organics	NELAP	7/3/2001
Pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Pyridine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Residue-filterable (TDS)	SM 2540 C	General Chemistry	NELAP	12/31/2008
Residue-nonfilterable (TSS)	SM 2540 D	General Chemistry	NELAP	12/31/2008
Residue-total	SM 2540 B	General Chemistry	NELAP	12/31/2008
Safrole	EPA 8270	Extractable Organics	NELAP	7/1/2003
Salinity	SM 2520 B	General Chemistry	NELAP	10/17/2005
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Selenium	EPA 200.7	Metals	NELAP	7/3/2001
Selenium	EPA 200.8	Metals	NELAP	10/17/2005
Selenium	EPA 6010	Metals	NELAP	7/1/2003
Selenium	EPA 6020	Metals	NELAP	10/17/2005
Silver	EPA 200.7	Metals	NELAP	7/3/2001
Silver	EPA 200.8	Metals	NELAP	10/17/2005
Silver	EPA 6010	Metals	NELAP	7/1/2003
Silver	EPA 6020	Metals	NELAP	10/17/2005
Silvex (2,4,5-TP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
Sodium	EPA 200.7	Metals	NELAP	7/3/2001
Sodium	EPA 6010	Metals	NELAP	7/1/2003
Sodium	EPA 6020	Metals	NELAP	10/17/2005
Styrene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Sulfate	EPA 300.0	General Chemistry	NELAP	7/3/2001
Sulfate	EPA 9056	General Chemistry	NELAP	7/1/2003
Sulfide	SM 4500-S F	General Chemistry	NELAP	12/31/2008
Sulfite-SO3	SM 4500-SO3 B	General Chemistry	NELAP	12/31/2008
Sulfotepp	EPA 8270	Extractable Organics	NELAP	7/1/2003
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Tetrachloroethylene (Perchloroethylene)	EPA 624	Volatile Organics	NELAP	7/3/2001
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Thallium	EPA 200.7	Metals	NELAP	7/3/2001
Thallium	EPA 200.8	Metals	NELAP	10/17/2005

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-16, expiration date June 30, 2011. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Thallium	EPA 6010	Metals	NELAP	7/1/2003
Thallium	EPA 6020	Metals	NELAP	10/17/2005
Thionazin (Zinophos)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Tin	EPA 200.7	Metals	NELAP	3/27/2003
Tin	EPA 6010	Metals	NELAP	7/1/2003
Tin	EPA 6020	Metals	NELAP	10/17/2005
Titanium	EPA 6010	Metals	NELAP	7/1/2003
Titanium	EPA 6020	Metals	NELAP	10/17/2005
Toluene	EPA 624	Volatile Organics	NELAP	7/3/2001
Toluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Total cyanide	EPA 9012	General Chemistry	NELAP	7/1/2003
Total hardness as CaCO3	EPA 130.2	General Chemistry	NELAP	3/27/2003
Total organic carbon	EPA 9060	General Chemistry	NELAP	7/1/2003
Total organic carbon	SM 5310 D	General Chemistry	NELAP	12/31/2008
Total Petroleum Hydrocarbons (TPH)	FL-PRO	Extractable Organics	NELAP	7/24/2008
Total phenolics	EPA 420.4	General Chemistry	NELAP	3/27/2003
Total phenolics	EPA 9066	General Chemistry	NELAP	10/17/2005
Total residual chlorine	SM 4500-Cl G	General Chemistry	NELAP	12/31/2008
Toxaphene (Chlorinated camphene)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
trans-1,2-Dichloroethylene	EPA 624	Volatile Organics	NELAP	7/3/2001
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
trans-1,3-Dichloropropylene	EPA 624	Volatile Organics	NELAP	7/3/2001
trans-1,3-Dichloropropylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
trans-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichloroethene (Trichloroethylene)	EPA 624	Volatile Organics	NELAP	7/3/2001
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichlorofluoromethane	EPA 624	Volatile Organics	NELAP	7/3/2001
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Turbidity	EPA 180.1	General Chemistry	NELAP	7/3/2001
Vanadium	EPA 200.7	Metals	NELAP	7/3/2001
Vanadium	EPA 200.8	Metals	NELAP	10/17/2005
Vanadium	EPA 6010	Metals	NELAP	7/1/2003
Vanadium	EPA 6020	Metals	NELAP	10/17/2005
Vinyl acetate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Vinyl chloride	EPA 624	Volatile Organics	NELAP	7/3/2001

Laboratory Scope of Accreditation

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State Laboratory ID: E87653 **EPA Lab Code:** SC00162 **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Xylene (total)	EPA 624	Volatile Organics	NELAP	10/17/2005
Xylene (total)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Zinc	EPA 200.7	Metals	NELAP	7/3/2001
Zinc	EPA 200.8	Metals	NELAP	10/17/2005
Zinc	EPA 6010	Metals	NELAP	7/1/2003
Zinc	EPA 6020	Metals	NELAP	10/17/2005

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State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2,3-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2,4,5-Tetrachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Diphenylhydrazine	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,3,5-Trinitrobenzene (1,3,5-TNB)	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,3-Dinitrobenzene (1,3-DNB)	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,4-Naphthoquinone	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,4-Phenylenediamine	EPA 8270	Extractable Organics	NELAP	7/3/2001
1-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	7/3/2001
1-Naphthylamine	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/3/2001
2,3,4,6-Tetrachlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,4,5-T	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001

Laboratory Scope of Accreditation

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State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,4-D	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
2,4-DB	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,6-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Acetylaminofluorene	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	7/3/2001
2-Chloroethyl vinyl ether	EPA 8260	Volatile Organics	NELAP	7/3/2001
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
2-Hexanone	EPA 8260	Volatile Organics	NELAP	7/3/2001
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Naphthylamine	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Picoline (2-Methylpyridine)	EPA 8270	Extractable Organics	NELAP	7/3/2001
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	7/3/2001
3,3'-Dimethylbenzidine	EPA 8270	Extractable Organics	NELAP	7/3/2001
3/4-Methylphenols (m/p-Cresols)	EPA 8270	Extractable Organics	NELAP	10/17/2005
3-Methylcholanthrene	EPA 8270	Extractable Organics	NELAP	7/3/2001
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/3/2001
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4-Aminobiphenyl	EPA 8270	Extractable Organics	NELAP	7/3/2001
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	7/3/2001
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	7/3/2001
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	7/3/2001

Laboratory Scope of Accreditation

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Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
4-Dimethyl aminoazobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	7/3/2001
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/3/2001
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
5-Nitro-o-toluidine	EPA 8270	Extractable Organics	NELAP	7/3/2001
7,12-Dimethylbenz(a) anthracene	EPA 8270	Extractable Organics	NELAP	7/3/2001
a-a-Dimethylphenethylamine	EPA 8270	Extractable Organics	NELAP	7/3/2001
Acenaphthene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Acetone	EPA 8260	Volatile Organics	NELAP	7/3/2001
Acetonitrile	EPA 8260	Volatile Organics	NELAP	7/3/2001
Acetophenone	EPA 8270	Extractable Organics	NELAP	7/3/2001
Acrolein (Propenal)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Acrylonitrile	EPA 8260	Volatile Organics	NELAP	7/3/2001
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Allyl chloride (3-Chloropropene)	EPA 8260	Volatile Organics	NELAP	7/3/2001
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
alpha-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/24/2008
Aluminum	EPA 6010	Metals	NELAP	7/3/2001
Aniline	EPA 8270	Extractable Organics	NELAP	7/3/2001
Anthracene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Antimony	EPA 6010	Metals	NELAP	7/3/2001
Aramite	EPA 8270	Extractable Organics	NELAP	10/17/2005
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Arsenic	EPA 6010	Metals	NELAP	7/3/2001
Barium	EPA 6010	Metals	NELAP	7/3/2001
Benzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Benzidine	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	7/3/2001

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-16, expiration date June 30, 2011. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzoic acid	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzyl chloride	EPA 8260	Volatile Organics	NELAP	7/3/2001
Beryllium	EPA 6010	Metals	NELAP	7/3/2001
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	7/3/2001
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	7/3/2001
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 8270	Extractable Organics	NELAP	7/3/2001
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	7/3/2001
Boron	EPA 6010	Metals	NELAP	7/3/2001
Bromobenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Bromoform	EPA 8260	Volatile Organics	NELAP	7/3/2001
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	7/3/2001
Cadmium	EPA 6010	Metals	NELAP	7/3/2001
Calcium	EPA 6010	Metals	NELAP	7/3/2001
Carbazole	EPA 8270	Extractable Organics	NELAP	7/3/2001
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	7/3/2001
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	7/3/2001
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/7/2003
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Chlorobenzilate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Chloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Chloroform	EPA 8260	Volatile Organics	NELAP	7/3/2001
Chloroprene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Chromium	EPA 6010	Metals	NELAP	7/3/2001
Chromium VI	EPA 7196	General Chemistry	NELAP	10/17/2005
Chrysene	EPA 8270	Extractable Organics	NELAP	7/3/2001
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/3/2001
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Cobalt	EPA 6010	Metals	NELAP	7/3/2001

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Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Copper	EPA 6010	Metals	NELAP	7/3/2001
Dalapon	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Diallate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Dibenz(a,h)anthracene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	7/3/2001
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Dibromomethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Dicamba	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Dichloroprop (Dichlorprop)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Diesel range organics (DRO)	EPA 8015	Extractable Organics	NELAP	7/3/2001
Diethyl ether	EPA 8260	Volatile Organics	NELAP	7/3/2001
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/3/2001
Dimethoate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/3/2001
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	7/3/2001
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	7/3/2001
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endrin ketone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Ethyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/3/2001
Ethyl methanesulfonate	EPA 8270	Extractable Organics	NELAP	7/3/2001
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Famphur	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Fluoranthene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Fluorene	EPA 8270	Extractable Organics	NELAP	7/3/2001
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
gamma-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/24/2008
Gasoline range organics (GRO)	EPA 8015	Extractable Organics	NELAP	7/3/2001
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001

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E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	7/3/2001
Hexachloropropene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Ignitability	EPA 1010	General Chemistry	NELAP	7/3/2001
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Iodomethane (Methyl iodide)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Iron	EPA 6010	Metals	NELAP	7/3/2001
Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Isodrin	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Isophorone	EPA 8270	Extractable Organics	NELAP	7/3/2001
Isopropylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Isosafrole	EPA 8270	Extractable Organics	NELAP	7/3/2001
Lead	EPA 6010	Metals	NELAP	7/3/2001
Magnesium	EPA 6010	Metals	NELAP	7/3/2001
Manganese	EPA 6010	Metals	NELAP	7/3/2001
MCPA	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
MCPP	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Mercury	EPA 7471	Metals,General Chemistry	NELAP	7/3/2001
Methacrylonitrile	EPA 8260	Volatile Organics	NELAP	7/3/2001
Methapyrilene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Methyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/3/2001
Methyl methanesulfonate	EPA 8270	Extractable Organics	NELAP	7/3/2001
Methyl parathion (Parathion, methyl)	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Methylene chloride	EPA 8260	Volatile Organics	NELAP	7/3/2001
Molybdenum	EPA 6010	Metals	NELAP	7/3/2001
Naphthalene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Naphthalene	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Nickel	EPA 6010	Metals	NELAP	7/3/2001

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Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Nitroquinoline-1-oxide	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Nitrosodiethylamine	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Nitroso-di-n-butylamine	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Nitrosomethylethylamine	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Nitrosomorpholine	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Nitrosopiperidine	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Nitrosopyrrolidine	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
o,o,o-Triethyl phosphorothioate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Oil & Grease	EPA 9071	General Chemistry	NELAP	7/3/2001
o-Toluidine	EPA 8270	Extractable Organics	NELAP	7/3/2001
Paint Filter Liquids Test	EPA 9095	General Chemistry	NELAP	7/3/2001
Parathion, ethyl	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
p-Dioxane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Pentachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Pentachloronitrobenzene (Quintozene)	EPA 8270	Extractable Organics	NELAP	7/3/2001
Pentachlorophenol	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
pH	EPA 9045	General Chemistry	NELAP	7/3/2001
Phenacetin	EPA 8270	Extractable Organics	NELAP	7/3/2001
Phenanthrene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Phenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
Phorate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
p-Isopropyltoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Potassium	EPA 6010	Metals	NELAP	7/3/2001
Pronamide (Kerb)	EPA 8270	Extractable Organics	NELAP	7/3/2001
Propionitrile (Ethyl cyanide)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Pyrene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Pyridine	EPA 8270	Extractable Organics	NELAP	7/3/2001
Reactive cyanide	Sec. 7.3 SW-846	General Chemistry	NELAP	7/3/2001
Reactive sulfide	Sec. 7.3 SW-846	General Chemistry	NELAP	7/3/2001
Safrole	EPA 8270	Extractable Organics	NELAP	7/3/2001

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West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Selenium	EPA 6010	Metals	NELAP	7/3/2001
Silver	EPA 6010	Metals	NELAP	7/3/2001
Silvex (2,4,5-TP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
Sodium	EPA 6010	Metals	NELAP	7/3/2001
Styrene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Sulfotepp	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Synthetic Precipitation Leaching Procedure	EPA 1312	General Chemistry	NELAP	10/17/2005
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Thallium	EPA 6010	Metals	NELAP	7/3/2001
Thionazin (Zinophos)	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Tin	EPA 6010	Metals	NELAP	7/3/2001
Titanium	EPA 6010	Metals	NELAP	7/3/2001
Toluene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Total cyanide	EPA 9012	General Chemistry	NELAP	7/3/2001
Total Petroleum Hydrocarbons (TPH)	FL-PRO	Extractable Organics	NELAP	7/24/2008
Total phenolics	EPA 9066	General Chemistry	NELAP	10/17/2005
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Toxicity Characteristic Leaching Procedure	EPA 1311	General Chemistry	NELAP	7/3/2001
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/3/2001
trans-1,3-Dichloropropylene	EPA 8260	Volatile Organics	NELAP	7/3/2001
trans-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Vanadium	EPA 6010	Metals	NELAP	7/3/2001
Vinyl acetate	EPA 8260	Volatile Organics	NELAP	7/3/2001
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	7/3/2001
Xylene (total)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Zinc	EPA 6010	Metals	NELAP	7/3/2001

Laboratory Analytical Results

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

O'Brien and Gere
2610 Wycliff Road
Suite 104
Raleigh, NC 27607
Attention: Sarah Slagle-Garrett

Project Name: **Miller Moultrie**

Project Number: **46942**

Lot Number: **LL08008**

Date Completed: **12/22/2010**



Nisreen Saikaly
Project Manager

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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

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Case Narrative
O'Brien and Gere
Lot Number: LL08008

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Nitrate

The MS/MSD recoveries in batch 48303 were outside acceptance criteria. All other QA/QC criteria for the batch were within acceptance criteria and method control limits. The MS/MSD recovery results are attributed to matrix interference. The associated sample results were reported and no corrective action was required.

Volatile Organic Compounds

The LCS recovery for Isobutyl alcohol was outside method control limits in batch 48568. The LCSD results were within limits. Therefore the associated sample results were reported and no corrective action was required.

Sample Summary
O'Brien and Gere
Lot Number: LL08008

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	ETMW-121	Aqueous	12/06/2010 1630	12/08/2010
002	ETMW-116	Aqueous	12/07/2010 1110	12/08/2010
003	Trip Blank	Aqueous	12/07/2010	12/08/2010
004	ETCMW-115	Aqueous	12/08/2010 0910	12/09/2010
005	ETMW-117	Aqueous	12/08/2010 1120	12/09/2010
006	Trip Blank	Aqueous	12/08/2010	12/09/2010
007	CH2MW-1	Aqueous	12/08/2010 1445	12/09/2010
008	CH2PP-1	Aqueous	12/08/2010 1400	12/09/2010
009	CH2MW-114D	Aqueous	12/08/2010 1510	12/09/2010
010	CH2MW-4D	Aqueous	12/08/2010 1305	12/09/2010
011	DUP-1	Aqueous	12/08/2010 0910	12/09/2010
012	ETMW-120	Aqueous	12/09/2010 0800	12/10/2010
013	ETCMW-114	Aqueous	12/09/2010 0815	12/10/2010
014	ETMW-118	Aqueous	12/09/2010 0915	12/10/2010
015	ETCMW-113	Aqueous	12/09/2010 0945	12/10/2010
016	DUP-2	Aqueous	12/09/2010	12/10/2010
017	ETMW-119	Aqueous	12/09/2010 1010	12/10/2010
018	CH2MW-3	Aqueous	12/09/2010 1045	12/10/2010
019	Trip Blank	Aqueous	12/10/2010 0900	12/10/2010

(19 samples)

Executive Summary
O'Brien and Gere
Lot Number: LL08008

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	ETMW-116	Aqueous	Alkalinity	SM 2320B	290		mg/L	8
002	ETMW-116	Aqueous	Chloride	300.0	22		mg/L	8
002	ETMW-116	Aqueous	DOC	5310D	4.3		mg/L	8
002	ETMW-116	Aqueous	Sulfate	300.0	1.1		mg/L	8
002	ETMW-116	Aqueous	TOC	5310D	4.9		mg/L	8
002	ETMW-116	Aqueous	Chloroethane	8260B	7.9		ug/L	9
002	ETMW-116	Aqueous	1,1-Dichloroethane	8260B	9.9		ug/L	9
002	ETMW-116	Aqueous	1,1-Dichloroethene	8260B	0.82		ug/L	9
002	ETMW-116	Aqueous	cis-1,2-Dichloroethene	8260B	14		ug/L	9
002	ETMW-116	Aqueous	Trichloroethene	8260B	1.7		ug/L	9
002	ETMW-116	Aqueous	Vinyl chloride	8260B	130		ug/L	9
002	ETMW-116	Aqueous	Methane	RSK - 175	5400		ug/L	10
002	ETMW-116	Aqueous	Iron	6010C	28		mg/L	11
002	ETMW-116	Aqueous	Manganese	6010C	0.15		mg/L	11
004	ETCMW-115	Aqueous	Alkalinity	SM 2320B	110		mg/L	13
004	ETCMW-115	Aqueous	Chloride	300.0	6.1		mg/L	13
004	ETCMW-115	Aqueous	DOC	5310D	2.3		mg/L	13
004	ETCMW-115	Aqueous	Nitrate - N	353.2	0.83		mg/L	13
004	ETCMW-115	Aqueous	Sulfate	300.0	12		mg/L	13
004	ETCMW-115	Aqueous	TOC	5310D	3.2		mg/L	13
004	ETCMW-115	Aqueous	1,1-Dichloroethane	8260B	3.9		ug/L	14
004	ETCMW-115	Aqueous	cis-1,2-Dichloroethene	8260B	40		ug/L	14
004	ETCMW-115	Aqueous	Trichloroethene	8260B	6.8		ug/L	14
004	ETCMW-115	Aqueous	Vinyl chloride	8260B	1.0		ug/L	14
004	ETCMW-115	Aqueous	Methane	RSK - 175	430		ug/L	15
004	ETCMW-115	Aqueous	Iron	6010C	3.7		mg/L	16
004	ETCMW-115	Aqueous	Manganese	6010C	0.081		mg/L	16
005	ETMW-117	Aqueous	Alkalinity	SM 2320B	150		mg/L	17
005	ETMW-117	Aqueous	Chloride	300.0	23		mg/L	17
005	ETMW-117	Aqueous	DOC	5310D	3.8		mg/L	17
005	ETMW-117	Aqueous	TOC	5310D	4.3		mg/L	17
005	ETMW-117	Aqueous	Benzene	8260B	1.0		ug/L	18
005	ETMW-117	Aqueous	1,1-Dichloroethane	8260B	6.6		ug/L	18
005	ETMW-117	Aqueous	1,1-Dichloroethene	8260B	0.78		ug/L	18
005	ETMW-117	Aqueous	cis-1,2-Dichloroethene	8260B	27		ug/L	18
005	ETMW-117	Aqueous	Trichloroethene	8260B	1.7		ug/L	18
005	ETMW-117	Aqueous	Vinyl chloride	8260B	45		ug/L	18
005	ETMW-117	Aqueous	Methane	RSK - 175	5900		ug/L	19
005	ETMW-117	Aqueous	Iron	6010C	32		mg/L	20
005	ETMW-117	Aqueous	Manganese	6010C	0.16		mg/L	20
007	CH2MW-1	Aqueous	cis-1,2-Dichloroethene	8260B	0.59		ug/L	22
007	CH2MW-1	Aqueous	Trichloroethene	8260B	2.3		ug/L	22
008	CH2PP-1	Aqueous	Tetrachloroethene	8260B	2.1		ug/L	23
008	CH2PP-1	Aqueous	Trichloroethene	8260B	1.7		ug/L	23
009	CH2MW-114D	Aqueous	Acetone	8260B	390		ug/L	24

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
009	CH2MW-114D	Aqueous	2-Butanone (MEK)	8260B	120		ug/L	24
009	CH2MW-114D	Aqueous	Carbon disulfide	8260B	1.5		ug/L	24
009	CH2MW-114D	Aqueous	1,1-Dichloroethane	8260B	1.2		ug/L	24
009	CH2MW-114D	Aqueous	1,1-Dichloroethene	8260B	13		ug/L	24
009	CH2MW-114D	Aqueous	cis-1,2-Dichloroethene	8260B	400		ug/L	24
009	CH2MW-114D	Aqueous	trans-1,2-Dichloroethene	8260B	0.76		ug/L	24
009	CH2MW-114D	Aqueous	Isobutyl alcohol	8260B	79		ug/L	24
009	CH2MW-114D	Aqueous	Tetrachloroethene	8260B	4.6		ug/L	24
009	CH2MW-114D	Aqueous	Trichloroethene	8260B	76		ug/L	24
009	CH2MW-114D	Aqueous	Vinyl chloride	8260B	0.68		ug/L	24
012	ETMW-120	Aqueous	cis-1,2-Dichloroethene	8260B	3.2		ug/L	27
012	ETMW-120	Aqueous	Trichloroethene	8260B	2.1		ug/L	27
013	ETCMW-114	Aqueous	Alkalinity	SM 2320B	130		mg/L	28
013	ETCMW-114	Aqueous	Chloride	300.0	19		mg/L	28
013	ETCMW-114	Aqueous	DOC	5310D	1.8		mg/L	28
013	ETCMW-114	Aqueous	Nitrate - N	353.2	2.8		mg/L	28
013	ETCMW-114	Aqueous	Sulfate	300.0	25		mg/L	28
013	ETCMW-114	Aqueous	TOC	5310D	2.0		mg/L	28
013	ETCMW-114	Aqueous	1,1-Dichloroethane	8260B	55		ug/L	29
013	ETCMW-114	Aqueous	1,1-Dichloroethene	8260B	85		ug/L	29
013	ETCMW-114	Aqueous	cis-1,2-Dichloroethene	8260B	1500		ug/L	29
013	ETCMW-114	Aqueous	Tetrachloroethene	8260B	21		ug/L	29
013	ETCMW-114	Aqueous	Trichloroethene	8260B	520		ug/L	29
013	ETCMW-114	Aqueous	Vinyl chloride	8260B	47		ug/L	29
013	ETCMW-114	Aqueous	Methane	RSK - 175	18		ug/L	30
013	ETCMW-114	Aqueous	Iron	6010C	0.86		mg/L	31
013	ETCMW-114	Aqueous	Manganese	6010C	0.035		mg/L	31
014	ETMW-118	Aqueous	Alkalinity	SM 2320B	110		mg/L	32
014	ETMW-118	Aqueous	Chloride	300.0	23		mg/L	32
014	ETMW-118	Aqueous	DOC	5310D	330		mg/L	32
014	ETMW-118	Aqueous	Nitrate - N	353.2	0.078		mg/L	32
014	ETMW-118	Aqueous	TOC	5310D	380		mg/L	32
014	ETMW-118	Aqueous	Acetone	8260B	370		ug/L	33
014	ETMW-118	Aqueous	2-Butanone (MEK)	8260B	220		ug/L	33
014	ETMW-118	Aqueous	Carbon disulfide	8260B	1.0		ug/L	33
014	ETMW-118	Aqueous	Chloroethane	8260B	1.3		ug/L	33
014	ETMW-118	Aqueous	1,1-Dichloroethane	8260B	6.4		ug/L	33
014	ETMW-118	Aqueous	1,1-Dichloroethene	8260B	0.81		ug/L	33
014	ETMW-118	Aqueous	cis-1,2-Dichloroethene	8260B	50		ug/L	33
014	ETMW-118	Aqueous	Trichloroethene	8260B	2.0		ug/L	33
014	ETMW-118	Aqueous	Vinyl chloride	8260B	16		ug/L	33
014	ETMW-118	Aqueous	Methane	RSK - 175	3900		ug/L	34
015	ETCMW-113	Aqueous	Alkalinity	SM 2320B	42		mg/L	35
015	ETCMW-113	Aqueous	Chloride	300.0	15		mg/L	35
015	ETCMW-113	Aqueous	Sulfate	300.0	4.9		mg/L	35
015	ETCMW-113	Aqueous	Benzene	8260B	0.92		ug/L	36
015	ETCMW-113	Aqueous	Chloroethane	8260B	2.4		ug/L	36
015	ETCMW-113	Aqueous	1,1-Dichloroethane	8260B	19		ug/L	36

Executive Summary (Continued)

Lot Number: LL08008

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
015	ETCMW-113	Aqueous	1,1-Dichloroethene	8260B	4.2		ug/L	36
015	ETCMW-113	Aqueous	cis-1,2-Dichloroethene	8260B	280		ug/L	36
015	ETCMW-113	Aqueous	trans-1,2-Dichloroethene	8260B	0.58		ug/L	36
015	ETCMW-113	Aqueous	Tetrachloroethene	8260B	2.2		ug/L	36
015	ETCMW-113	Aqueous	Trichloroethene	8260B	3.5		ug/L	36
015	ETCMW-113	Aqueous	Vinyl chloride	8260B	6.8		ug/L	36
015	ETCMW-113	Aqueous	Methane	RSK - 175	210		ug/L	37
016	DUP-2	Aqueous	Alkalinity	SM 2320B	130		mg/L	38
016	DUP-2	Aqueous	Chloride	300.0	19		mg/L	38
016	DUP-2	Aqueous	DOC	5310D	1.7		mg/L	38
016	DUP-2	Aqueous	Nitrate - N	353.2	3.8		mg/L	38
016	DUP-2	Aqueous	Sulfate	300.0	23		mg/L	38
016	DUP-2	Aqueous	TOC	5310D	2.1		mg/L	38
016	DUP-2	Aqueous	1,1-Dichloroethane	8260B	52		ug/L	39
016	DUP-2	Aqueous	1,1-Dichloroethene	8260B	81		ug/L	39
016	DUP-2	Aqueous	cis-1,2-Dichloroethene	8260B	1400		ug/L	39
016	DUP-2	Aqueous	Tetrachloroethene	8260B	20		ug/L	39
016	DUP-2	Aqueous	Trichloroethene	8260B	500		ug/L	39
016	DUP-2	Aqueous	Vinyl chloride	8260B	40		ug/L	39
016	DUP-2	Aqueous	Methane	RSK - 175	13		ug/L	40
016	DUP-2	Aqueous	Iron	6010C	0.59		mg/L	41
016	DUP-2	Aqueous	Manganese	6010C	0.026		mg/L	41
017	ETMW-119	Aqueous	cis-1,2-Dichloroethene	8260B	0.64		ug/L	42
018	CH2MW-3	Aqueous	Chloride	300.0	13		mg/L	43
018	CH2MW-3	Aqueous	Nitrate - N	353.2	1.5		mg/L	43
018	CH2MW-3	Aqueous	Sulfate	300.0	15		mg/L	43
018	CH2MW-3	Aqueous	TOC	5310D	1.6		mg/L	43

(120 detections)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-001**
Description: **ETMW-121**
Matrix: **Aqueous**
Date Sampled: **12/06/2010 1630**
Date Received: **12/08/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/11/2010 0526	LBS		48568

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		109	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Inorganic non-metals

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-002**
Description: **ETMW-116**
Matrix: **Aqueous**
Date Sampled: **12/07/2010 1110**
Date Received: **12/08/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/09/2010 1804	MML		48467
1		(Chloride) 300.0	1	12/12/2010 0103	MML		48630
1		(DOC) 5310D	1	12/21/2010 1316	DAS		49254
1		(Nitrate - N) 353.2	1	12/08/2010 1506	SAM		48303
1		(Sulfate) 300.0	1	12/12/2010 0103	MML		48634
1		(Sulfide) SM 4500-S2 F	1	12/08/2010 1010	SNM		48503
1		(TOC) 5310D	1	12/21/2010 1206	SAM		49020

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		**SM 2320B**	**290**		**10**	**mg/L**	**1**
Chloride		**300.0**	**22**		**1.0**	**mg/L**	**1**
DOC		**5310D**	**4.3**		**1.0**	**mg/L**	**1**
Nitrate - N		353.2	ND		0.020	mg/L	1
Sulfate		**300.0**	**1.1**		**1.0**	**mg/L**	**1**
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		**5310D**	**4.9**		**1.0**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-002**
Description: **ETMW-116**
Matrix: **Aqueous**
Date Sampled: **12/07/2010 1110**
Date Received: **12/08/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/11/2010 0547	LBS		48568

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	**75-00-3**	**8260B**	**7.9**		**0.50**	**ug/L**	**1**
1,1-Dichloroethane	**75-34-3**	**8260B**	**9.9**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	**75-35-4**	**8260B**	**0.82**		**0.50**	**ug/L**	**1**
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**14**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**1.7**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**130**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		110	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Dissolved Gases

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-002**
Description: **ETMW-116**
Matrix: **Aqueous**
Date Sampled: **12/07/2010 1110**
Date Received: **12/08/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/16/2010 0038	JCM		48940

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	**74-82-8**	**RSK - 175**	**5400**		**10**	**ug/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

ICP-AES

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-002**
Description: **ETMW-116**
Matrix: **Aqueous**
Date Sampled: **12/07/2010 1110**
Date Received: **12/08/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	12/15/2010 2041	CDF	12/14/2010 1105	48683

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	**7439-89-6**	**6010C**	**28**		**0.10**	**mg/L**	**1**
Manganese	**7439-96-5**	**6010C**	**0.15**		**0.015**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-003**
Description: **Trip Blank**
Matrix: **Aqueous**
Date Sampled: **12/07/2010**
Date Received: **12/08/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/11/2010 0608	LBS		48568

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		108	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Inorganic non-metals

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-004**
Description: **ETCMW-115**
Matrix: **Aqueous**
Date Sampled: **12/08/2010 0910**
Date Received: **12/09/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/09/2010 1815	MML		48467
1		(Chloride) 300.0	1	12/12/2010 0126	MML		48630
1		(DOC) 5310D	1	12/21/2010 1334	DAS		49254
1		(Nitrate - N) 353.2	1	12/10/2010 0850	SAM		48497
1		(Sulfate) 300.0	1	12/12/2010 0126	MML		48634
1		(Sulfide) SM 4500-S2 F	1	12/08/2010 1010	SNM		48503
1		(TOC) 5310D	2	12/20/2010 1612	SAM		49020

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		**SM 2320B**	**110**		**10**	**mg/L**	**1**
Chloride		**300.0**	**6.1**		**1.0**	**mg/L**	**1**
DOC		**5310D**	**2.3**		**1.0**	**mg/L**	**1**
Nitrate - N		**353.2**	**0.83**		**0.020**	**mg/L**	**1**
Sulfate		**300.0**	**12**		**1.0**	**mg/L**	**1**
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		**5310D**	**3.2**		**2.0**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-004**
Description: **ETCMW-115**
Matrix: **Aqueous**
Date Sampled: **12/08/2010 0910**
Date Received: **12/09/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/11/2010 0629	LBS		48568

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	**75-34-3**	**8260B**	**3.9**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**40**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**6.8**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**1.0**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		109	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Dissolved Gases

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-004**
Description: **ETCMW-115**
Matrix: **Aqueous**
Date Sampled: **12/08/2010 0910**
Date Received: **12/09/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/16/2010 0105	JCM		48940

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	**74-82-8**	**RSK - 175**	**430**		**10**	**ug/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

ICP-AES

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-004**
Description: **ETCMW-115**
Matrix: **Aqueous**
Date Sampled: **12/08/2010 0910**
Date Received: **12/09/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	12/15/2010 2047	CDF	12/14/2010 1105	48683

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	**7439-89-6**	**6010C**	**3.7**		**0.10**	**mg/L**	**1**
Manganese	**7439-96-5**	**6010C**	**0.081**		**0.015**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Inorganic non-metals

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-005**
Description: **ETMW-117**
Matrix: **Aqueous**
Date Sampled: **12/08/2010 1120**
Date Received: **12/09/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/09/2010 1825	MML		48467
1		(Chloride) 300.0	1	12/12/2010 0233	MML		48630
1		(DOC) 5310D	1	12/21/2010 1654	DAS		49254
1		(Nitrate - N) 353.2	1	12/10/2010 0851	SAM		48497
1		(Sulfate) 300.0	1	12/12/2010 0233	MML		48634
1		(Sulfide) SM 4500-S2 F	1	12/08/2010 1010	SNM		48503
1		(TOC) 5310D	1	12/21/2010 1233	SAM		49020

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		**SM 2320B**	**150**		**10**	**mg/L**	**1**
Chloride		**300.0**	**23**		**1.0**	**mg/L**	**1**
DOC		**5310D**	**3.8**		**1.0**	**mg/L**	**1**
Nitrate - N		353.2	ND		0.020	mg/L	1
Sulfate		300.0	ND		1.0	mg/L	1
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		**5310D**	**4.3**		**1.0**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **LL08008-005**

Description: **ETMW-117** Matrix: **Aqueous**

Date Sampled: **12/08/2010 1120**

Date Received: **12/09/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/11/2010 0650	LBS		48568

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	**71-43-2**	**8260B**	**1.0**		**0.50**	**ug/L**	**1**
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	**75-34-3**	**8260B**	**6.6**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	**75-35-4**	**8260B**	**0.78**		**0.50**	**ug/L**	**1**
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**27**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**1.7**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**45**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		109	70-130

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Dissolved Gases

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-005**
Description: **ETMW-117**
Matrix: **Aqueous**
Date Sampled: **12/08/2010 1120**
Date Received: **12/09/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/16/2010 0152	JCM		48940

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	**74-82-8**	**RSK - 175**	**5900**		**10**	**ug/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

ICP-AES

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-005**
Description: **ETMW-117**
Matrix: **Aqueous**
Date Sampled: **12/08/2010 1120**
Date Received: **12/09/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	12/15/2010 2053	CDF	12/14/2010 1105	48683

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	**7439-89-6**	**6010C**	**32**		**0.10**	**mg/L**	**1**
Manganese	**7439-96-5**	**6010C**	**0.16**		**0.015**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-006**
Description: **Trip Blank**
Matrix: **Aqueous**
Date Sampled: **12/08/2010**
Date Received: **12/09/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/11/2010 0711	LBS		48568

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		109	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **LL08008-007**

Description: **CH2MW-1** Matrix: **Aqueous**

Date Sampled: **12/08/2010 1445**

Date Received: **12/09/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/11/2010 0732	LBS		48568

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**0.59**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**2.3**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		111	70-130

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **LL08008-008**

Description: **CH2PP-1** Matrix: **Aqueous**

Date Sampled: **12/08/2010 1400**

Date Received: **12/09/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/11/2010 0753	LBS		48568

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**2.1**		**0.50**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**1.7**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		110	70-130

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-009**
Description: **CH2MW-114D**
Matrix: **Aqueous**
Date Sampled: **12/08/2010 1510**
Date Received: **12/09/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/11/2010 0814	LBS		48568

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	**67-64-1**	**8260B**	**390**		**10**	**ug/L**	**1**
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	**78-93-3**	**8260B**	**120**		**10**	**ug/L**	**1**
Carbon disulfide	**75-15-0**	**8260B**	**1.5**		**0.50**	**ug/L**	**1**
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	**75-34-3**	**8260B**	**1.2**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	**75-35-4**	**8260B**	**13**		**0.50**	**ug/L**	**1**
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**400**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	**156-60-5**	**8260B**	**0.76**		**0.50**	**ug/L**	**1**
Isobutyl alcohol	**78-83-1**	**8260B**	**79**		**50**	**ug/L**	**1**
Tetrachloroethene	**127-18-4**	**8260B**	**4.6**		**0.50**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**76**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**0.68**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		111	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **LL08008-010**

Description: **CH2MW-4D** Matrix: **Aqueous**

Date Sampled: **12/08/2010 1305**

Date Received: **12/09/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/15/2010 1434	DLB		48985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **LL08008-011**

Description: **DUP-1** Matrix: **Aqueous**

Date Sampled: **12/08/2010 0910**

Date Received: **12/09/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/11/2010 0835	LBS		48568

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		111	70-130

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-012**
Description: **ETMW-120**
Matrix: **Aqueous**
Date Sampled: **12/09/2010 0800**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/11/2010 0856	LBS		48568

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**3.2**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**2.1**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		111	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Inorganic non-metals

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-013**
Description: **ETCMW-114**
Matrix: **Aqueous**
Date Sampled: **12/09/2010 0815**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/13/2010 1724	SAM		48693
1		(Chloride) 300.0	1	12/12/2010 0916	MML		48635
1		(DOC) 5310D	1	12/21/2010 1411	DAS		49254
1		(Nitrate - N) 353.2	2	12/10/2010 1500	SAM		48510
1		(Sulfate) 300.0	1	12/12/2010 0916	MML		48641
1		(Sulfide) SM 4500-S2 F	1	12/14/2010 1430	SNM		48741
1		(TOC) 5310D	1	12/20/2010 1646	SAM		49020

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		**SM 2320B**	**130**		**10**	**mg/L**	**1**
Chloride		**300.0**	**19**		**1.0**	**mg/L**	**1**
DOC		**5310D**	**1.8**		**1.0**	**mg/L**	**1**
Nitrate - N		**353.2**	**2.8**		**0.040**	**mg/L**	**1**
Sulfate		**300.0**	**25**		**1.0**	**mg/L**	**1**
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		**5310D**	**2.0**		**1.0**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-013**
Description: **ETCMW-114**
Matrix: **Aqueous**
Date Sampled: **12/09/2010 0815**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	10	12/15/2010 1653	DLB		48985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		100	ug/L	2
Benzene	71-43-2	8260B	ND		5.0	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		100	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		5.0	ug/L	2
Chloroethane	75-00-3	8260B	ND		5.0	ug/L	2
1,1-Dichloroethane	**75-34-3**	**8260B**	**55**		**5.0**	**ug/L**	**2**
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	ug/L	2
1,1-Dichloroethene	**75-35-4**	**8260B**	**85**		**5.0**	**ug/L**	**2**
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**1500**		**5.0**	**ug/L**	**2**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	ug/L	2
Isobutyl alcohol	78-83-1	8260B	ND		500	ug/L	2
Tetrachloroethene	**127-18-4**	**8260B**	**21**		**5.0**	**ug/L**	**2**
Toluene	108-88-3	8260B	ND		5.0	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	ug/L	2
Trichloroethene	**79-01-6**	**8260B**	**520**		**5.0**	**ug/L**	**2**
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	ug/L	2
Vinyl chloride	**75-01-4**	**8260B**	**47**		**5.0**	**ug/L**	**2**
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Dissolved Gases

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-013**
Description: **ETCMW-114**
Matrix: **Aqueous**
Date Sampled: **12/09/2010 0815**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/16/2010 0216	JCM		48940

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	**74-82-8**	**RSK - 175**	**18**		**10**	**ug/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

ICP-AES

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-013**
Description: **ETCMW-114**
Matrix: **Aqueous**
Date Sampled: **12/09/2010 0815**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	12/15/2010 2059	CDF	12/14/2010 1105	48683

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	**7439-89-6**	**6010C**	**0.86**		**0.10**	**mg/L**	**1**
Manganese	**7439-96-5**	**6010C**	**0.035**		**0.015**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Inorganic non-metals

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-014**
Description: **ETMW-118**
Matrix: **Aqueous**
Date Sampled: **12/09/2010 0915**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/13/2010 1732	SAM		48693
1		(Chloride) 300.0	1	12/12/2010 0939	MML		48635
1		(DOC) 5310D	5	12/21/2010 1429	DAS		49254
1		(Nitrate - N) 353.2	1	12/10/2010 1501	SAM		48510
1		(Sulfate) 300.0	1	12/12/2010 0939	MML		48641
1		(Sulfide) SM 4500-S2 F	1	12/14/2010 1430	SNM		48741
1		(TOC) 5310D	5	12/20/2010 1704	SAM		49020

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		**SM 2320B**	**110**		**10**	**mg/L**	**1**
Chloride		**300.0**	**23**		**1.0**	**mg/L**	**1**
DOC		**5310D**	**330**		**5.0**	**mg/L**	**1**
Nitrate - N		**353.2**	**0.078**		**0.020**	**mg/L**	**1**
Sulfate		300.0	ND		1.0	mg/L	1
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		**5310D**	**380**		**5.0**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **LL08008-014**

Description: **ETMW-118** Matrix: **Aqueous**

Date Sampled: **12/09/2010 0915**

Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	12/15/2010 1957	DLB		48985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	**67-64-1**	**8260B**	**370**		**10**	**ug/L**	**2**
Benzene	71-43-2	8260B	ND		0.50	ug/L	2
2-Butanone (MEK)	**78-93-3**	**8260B**	**220**		**10**	**ug/L**	**2**
Carbon disulfide	**75-15-0**	**8260B**	**1.0**		**0.50**	**ug/L**	**2**
Chloroethane	**75-00-3**	**8260B**	**1.3**		**0.50**	**ug/L**	**2**
1,1-Dichloroethane	**75-34-3**	**8260B**	**6.4**		**0.50**	**ug/L**	**2**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	2
1,1-Dichloroethene	**75-35-4**	**8260B**	**0.81**		**0.50**	**ug/L**	**2**
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**50**		**0.50**	**ug/L**	**2**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	2
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	2
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	2
Toluene	108-88-3	8260B	ND		0.50	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	2
Trichloroethene	**79-01-6**	**8260B**	**2.0**		**0.50**	**ug/L**	**2**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	2
Vinyl chloride	**75-01-4**	**8260B**	**16**		**0.50**	**ug/L**	**2**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		84	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		96	70-130

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Dissolved Gases

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-014**
Description: **ETMW-118**
Matrix: **Aqueous**
Date Sampled: **12/09/2010 0915**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/16/2010 0229	JCM		48940

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	**74-82-8**	**RSK - 175**	**3900**		**10**	**ug/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Inorganic non-metals

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-015**
Description: **ETCMW-113**
Matrix: **Aqueous**
Date Sampled: **12/09/2010 0945**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/13/2010 1742	SAM		48693
1		(Chloride) 300.0	1	12/12/2010 1001	MML		48635
1		(Nitrate - N) 353.2	1	12/10/2010 1502	SAM		48510
1		(Sulfate) 300.0	1	12/12/2010 1001	MML		48641

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		**SM 2320B**	**42**		**10**	**mg/L**	**1**
Chloride		**300.0**	**15**		**1.0**	**mg/L**	**1**
Nitrate - N		353.2	ND		0.020	mg/L	1
Sulfate		**300.0**	**4.9**		**1.0**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-015**
Description: **ETCMW-113**
Matrix: **Aqueous**
Date Sampled: **12/09/2010 0945**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/11/2010 0916	LBS		48568

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	**71-43-2**	**8260B**	**0.92**		**0.50**	**ug/L**	**1**
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	**75-00-3**	**8260B**	**2.4**		**0.50**	**ug/L**	**1**
1,1-Dichloroethane	**75-34-3**	**8260B**	**19**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	**75-35-4**	**8260B**	**4.2**		**0.50**	**ug/L**	**1**
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**280**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	**156-60-5**	**8260B**	**0.58**		**0.50**	**ug/L**	**1**
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**2.2**		**0.50**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**3.5**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**6.8**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		109	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Dissolved Gases

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-015**
Description: **ETCMW-113**
Matrix: **Aqueous**
Date Sampled: **12/09/2010 0945**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/16/2010 0239	JCM		48940

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	**74-82-8**	**RSK - 175**	**210**		**10**	**ug/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Inorganic non-metals

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-016**
Description: **DUP-2**
Matrix: **Aqueous**
Date Sampled: **12/09/2010**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/13/2010 1754	SAM		48693
1		(Chloride) 300.0	1	12/12/2010 1024	MML		48635
1		(DOC) 5310D	1	12/21/2010 1521	DAS		49254
1		(Nitrate - N) 353.2	5	12/10/2010 1503	SAM		48510
1		(Sulfate) 300.0	1	12/12/2010 1024	MML		48641
1		(Sulfide) SM 4500-S2 F	1	12/14/2010 1430	SNM		48741
1		(TOC) 5310D	1	12/20/2010 1723	SAM		49020

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		**SM 2320B**	**130**		**10**	**mg/L**	**1**
Chloride		**300.0**	**19**		**1.0**	**mg/L**	**1**
DOC		**5310D**	**1.7**		**1.0**	**mg/L**	**1**
Nitrate - N		**353.2**	**3.8**		**0.10**	**mg/L**	**1**
Sulfate		**300.0**	**23**		**1.0**	**mg/L**	**1**
Sulfide	18496-25-8	SM 4500-S2 F	ND		1.0	mg/L	1
TOC		**5310D**	**2.1**		**1.0**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **LL08008-016**

Description: **DUP-2** Matrix: **Aqueous**

Date Sampled: **12/09/2010**

Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	10	12/15/2010 1716	DLB		48985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		100	ug/L	2
Benzene	71-43-2	8260B	ND		5.0	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		100	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		5.0	ug/L	2
Chloroethane	75-00-3	8260B	ND		5.0	ug/L	2
1,1-Dichloroethane	**75-34-3**	**8260B**	**52**		**5.0**	**ug/L**	**2**
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	ug/L	2
1,1-Dichloroethene	**75-35-4**	**8260B**	**81**		**5.0**	**ug/L**	**2**
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**1400**		**5.0**	**ug/L**	**2**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	ug/L	2
Isobutyl alcohol	78-83-1	8260B	ND		500	ug/L	2
Tetrachloroethene	**127-18-4**	**8260B**	**20**		**5.0**	**ug/L**	**2**
Toluene	108-88-3	8260B	ND		5.0	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	ug/L	2
Trichloroethene	**79-01-6**	**8260B**	**500**		**5.0**	**ug/L**	**2**
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	ug/L	2
Vinyl chloride	**75-01-4**	**8260B**	**40**		**5.0**	**ug/L**	**2**
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

B = Detected in the method blank

J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Dissolved Gases

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-016**
Description: **DUP-2**
Matrix: **Aqueous**
Date Sampled: **12/09/2010**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/16/2010 0316	JCM		48940

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	**74-82-8**	**RSK - 175**	**13**		**10**	**ug/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

ICP-AES

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-016**
Description: **DUP-2**
Matrix: **Aqueous**
Date Sampled: **12/09/2010**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6010C	1	12/15/2010 2105	CDF	12/14/2010 1105	48683

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Iron	**7439-89-6**	**6010C**	**0.59**		**0.10**	**mg/L**	**1**
Manganese	**7439-96-5**	**6010C**	**0.026**		**0.015**	**mg/L**	**1**

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-017**
Description: **ETMW-119**
Matrix: **Aqueous**
Date Sampled: **12/09/2010 1010**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/11/2010 0958	LBS		48568
2	5030B	8260B	1	12/15/2010 1457	DLB		48985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**0.64**		**0.50**	**ug/L**	**2**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		105	70-130		96	70-130
Bromofluorobenzene		107	70-130		107	70-130
Toluene-d8		110	70-130		97	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Inorganic non-metals

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-018**
Description: **CH2MW-3**
Matrix: **Aqueous**
Date Sampled: **12/09/2010 1045**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Alkalinity) SM 2320B	1	12/13/2010 1802	SAM		48693
1		(Chloride) 300.0	1	12/12/2010 1131	MML		48635
1		(Nitrate - N) 353.2	1	12/10/2010 1511	SAM		48510
1		(Sulfate) 300.0	1	12/12/2010 1131	MML		48641
1		(TOC) 5310D	1	12/20/2010 1732	SAM		49020

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Alkalinity		SM 2320B	ND		10	mg/L	1
Chloride		**300.0**	**13**		**1.0**	**mg/L**	**1**
Nitrate - N		**353.2**	**1.5**		**0.020**	**mg/L**	**1**
Sulfate		**300.0**	**15**		**1.0**	**mg/L**	**1**
TOC		**5310D**	**1.6**		**1.0**	**mg/L**	**1**

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-018**
Description: **CH2MW-3**
Matrix: **Aqueous**
Date Sampled: **12/09/2010 1045**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/11/2010 1019	LBS		48568

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		109	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Dissolved Gases

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-018**
Description: **CH2MW-3**
Matrix: **Aqueous**
Date Sampled: **12/09/2010 1045**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		RSK - 175	1	12/16/2010 0326	JCM		48940

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Ethane	74-84-0	RSK - 175	ND		10	ug/L	1
Ethene	74-85-1	RSK - 175	ND		10	ug/L	1
Methane	74-82-8	RSK - 175	ND		10	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **LL08008-019**
Description: **Trip Blank**
Matrix: **Aqueous**
Date Sampled: **12/10/2010 0900**
Date Received: **12/10/2010**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/15/2010 1520	DLB		48985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

QC Summary

Inorganic non-metals - MB

Sample ID: LQ48303-001
Batch: 48303
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	12/08/2010 1503

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: LQ48303-002
Batch: 48303
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.83		1	104	90-110	12/08/2010 1504

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: LQ48303-003
Batch: 48303
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.80	0.84		1	105	0.84	90-110	20	12/08/2010 1505

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: LL08008-002MS
Batch: 48303
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	ND	0.80	0.096	N	1	12	90-110	12/08/2010 1507

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: LL08008-002MD
Batch: 48303
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	ND	0.80	0.090	N	1	11	6.5	90-110	20	12/08/2010 1509

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: LQ48467-001
Batch: 48467
Analytical Method: SM 2320B
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Alkalinity	ND		1	10	mg/L	12/09/2010 1445

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: LQ48467-002
Batch: 48467
Analytical Method: SM 2320B
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Alkalinity	100	100		1	100	90-110	12/09/2010 1502

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: LQ48467-003
Batch: 48467
Analytical Method: SM 2320B
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Alkalinity	100	99		1	99	0.80	90-110	20	12/09/2010 1517

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: LQ48497-001
Batch: 48497
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	12/10/2010 0846

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: LQ48497-002
Batch: 48497
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.83		1	104	90-110	12/10/2010 0847

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N - Recovery is out of criteria
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: LQ48497-003
Batch: 48497
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.80	0.83		1	104	0.24	90-110	20	12/10/2010 0849

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: LQ48503-001
Batch: 48503
Analytical Method: SM 4500-S2 F
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Sulfide	ND		1	1.0	mg/L	12/08/2010 1010

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: LQ48503-002
Batch: 48503
Analytical Method: SM 4500-S2 F

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfide	10	9.1		1	91	80-120	12/08/2010 1010

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: LQ48503-003
Batch: 48503
Analytical Method: SM 4500-S2 F

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfide	10	9.1		1	91	0.00	80-120	20	12/08/2010 1010

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: LQ48510-001
Batch: 48510
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	12/10/2010 1453

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: LQ48510-002
Batch: 48510
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.83		1	104	90-110	12/10/2010 1455

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: LQ48510-003 **Matrix:** Aqueous
Batch: 48510
Analytical Method: 353.2

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.80	0.83		1	104	0.36	90-110	20	12/10/2010 1456

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: LQ48630-001
Batch: 48630
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Chloride	ND		1	1.0	mg/L	12/11/2010 1244

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: LQ48630-002
Batch: 48630
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	12/11/2010 1306

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: LQ48630-003
Batch: 48630
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	20	20		1	99	0.33	90-110	20	12/11/2010 1329

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: LQ48634-001
Batch: 48634
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Sulfate	ND		1	1.0	mg/L	12/11/2010 1244

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: LQ48634-002
Batch: 48634
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	19		1	95	90-110	12/11/2010 1306

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: LQ48634-003 **Matrix:** Aqueous
Batch: 48634
Analytical Method: 300.0

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	20	19		1	95	0.24	90-110	20	12/11/2010 1329

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: LQ48635-001
Batch: 48635
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Chloride	ND		1	1.0	mg/L	12/12/2010 0425

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: LQ48635-002
Batch: 48635
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	99	90-110	12/12/2010 0447

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: LQ48635-003
Batch: 48635
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	20	20		1	100	0.56	90-110	20	12/12/2010 0510

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: LQ48641-001
Batch: 48641
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Sulfate	ND		1	1.0	mg/L	12/12/2010 0425

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: LQ48641-002
Batch: 48641
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	99	90-110	12/12/2010 0447

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: LQ48641-003
Batch: 48641
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	20	20		1	99	0.047	90-110	20	12/12/2010 0510

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: LQ48693-001
Batch: 48693
Analytical Method: SM 2320B
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Alkalinity	ND		1	10	mg/L	12/13/2010 1617

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: LQ48693-002
Batch: 48693
Analytical Method: SM 2320B
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Alkalinity	100	100		1	103	90-110	12/13/2010 1632

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: LQ48693-003
Batch: 48693
Analytical Method: SM 2320B

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Alkalinity	100	100		1	100	3.0	90-110	20	12/13/2010 1647

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: LQ48741-001
Batch: 48741
Analytical Method: SM 4500-S2 F
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Sulfide	ND		1	1.0	mg/L	12/14/2010 1430

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: LQ48741-002
Batch: 48741
Analytical Method: SM 4500-S2 F

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfide	10	9.1		1	91	80-120	12/14/2010 1430

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: LQ48741-003
Batch: 48741
Analytical Method: SM 4500-S2 F

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfide	10	9.1		1	91	0.00	80-120	20	12/14/2010 1430

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - Duplicate

Sample ID: LL08008-013DU
Batch: 48741
Analytical Method: SM 4500-S2 F
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Result (mg/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Sulfide	ND	ND		1	0.00	20	12/14/2010 1430

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - Duplicate

Sample ID: LL08008-014DU
Batch: 48741
Analytical Method: SM 4500-S2 F
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Result (mg/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Sulfide	ND	ND		1	0.00	20	12/14/2010 1430

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: LQ49020-001
Batch: 49020
Analytical Method: 5310D
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
TOC	ND		1	1.0	mg/L	12/20/2010 1451

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: LQ49020-002
Batch: 49020
Analytical Method: 5310D
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
TOC	20	18		1	90	90-110	12/20/2010 1508

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: LQ49020-003
Batch: 49020
Analytical Method: 5310D

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
TOC	20	19		1	93	2.5	90-110	20	12/21/2010 1138

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: LQ49254-001
Batch: 49254
Analytical Method: 5310D
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
DOC	ND		1	1.0	mg/L	12/21/2010 1121

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: LQ49254-002
Batch: 49254
Analytical Method: 5310D
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
DOC	20	20		1	98	90-110	12/21/2010 1241

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: LQ49254-003 **Matrix:** Aqueous
Batch: 49254
Analytical Method: 5310D

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
DOC	20	19		1	96	2.1	90-110	20	12/21/2010 1258

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: LL08008-016MS
Batch: 49254
Analytical Method: 5310D
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
DOC	1.7	20	20		1	90	70-130	12/21/2010 1539

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: LL08008-016MD
Batch: 49254
Analytical Method: 5310D
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
DOC	1.7	20	20		1	90	0.66	70-130	20	12/21/2010 1558

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: LQ48568-001
Batch: 48568
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/11/2010 0403
Benzene	ND		1	0.50	ug/L	12/11/2010 0403
2-Butanone (MEK)	ND		1	10	ug/L	12/11/2010 0403
Carbon disulfide	ND		1	0.50	ug/L	12/11/2010 0403
Chloroethane	ND		1	0.50	ug/L	12/11/2010 0403
1,2-Dichloroethane	ND		1	0.50	ug/L	12/11/2010 0403
1,1-Dichloroethane	ND		1	0.50	ug/L	12/11/2010 0403
1,1-Dichloroethene	ND		1	0.50	ug/L	12/11/2010 0403
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/11/2010 0403
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/11/2010 0403
Isobutyl alcohol	ND		1	50	ug/L	12/11/2010 0403
Tetrachloroethene	ND		1	0.50	ug/L	12/11/2010 0403
Toluene	ND		1	0.50	ug/L	12/11/2010 0403
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/11/2010 0403
Trichloroethene	ND		1	0.50	ug/L	12/11/2010 0403
Trichlorofluoromethane	ND		1	0.50	ug/L	12/11/2010 0403
Vinyl chloride	ND		1	0.50	ug/L	12/11/2010 0403
Xylenes (total)	ND		1	0.50	ug/L	12/11/2010 0403

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		109	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: LQ48568-002
Batch: 48568
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	91		1	91	46-153	12/11/2010 0218
Benzene	50	59		1	117	70-130	12/11/2010 0218
2-Butanone (MEK)	100	94		1	94	60-140	12/11/2010 0218
Carbon disulfide	50	38		1	76	60-140	12/11/2010 0218
Chloroethane	50	51		1	102	42-163	12/11/2010 0218
1,2-Dichloroethane	50	57		1	113	70-130	12/11/2010 0218
1,1-Dichloroethane	50	58		1	117	70-130	12/11/2010 0218
1,1-Dichloroethene	50	59		1	117	70-130	12/11/2010 0218
trans-1,2-Dichloroethene	50	57		1	113	70-130	12/11/2010 0218
cis-1,2-Dichloroethene	50	56		1	112	70-130	12/11/2010 0218
Isobutyl alcohol	500	360		1	71	70-130	12/11/2010 0218
Tetrachloroethene	50	53		1	106	70-130	12/11/2010 0218
Toluene	50	60		1	119	70-130	12/11/2010 0218
1,1,1-Trichloroethane	50	57		1	115	70-130	12/11/2010 0218
Trichloroethene	50	53		1	106	70-130	12/11/2010 0218
Trichlorofluoromethane	50	52		1	105	60-140	12/11/2010 0218
Vinyl chloride	50	50		1	100	60-140	12/11/2010 0218
Xylenes (total)	100	100		1	103	70-130	12/11/2010 0218

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		110	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: LQ48568-003
Batch: 48568
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	93		1	93	1.7	46-153	20	12/11/2010 0300
Benzene	50	57		1	113	3.5	70-130	20	12/11/2010 0300
2-Butanone (MEK)	100	93		1	93	0.40	60-140	20	12/11/2010 0300
Carbon disulfide	50	36		1	72	5.5	60-140	20	12/11/2010 0300
Chloroethane	50	50		1	99	3.1	42-163	20	12/11/2010 0300
1,2-Dichloroethane	50	56		1	112	1.2	70-130	20	12/11/2010 0300
1,1-Dichloroethane	50	57		1	113	2.8	70-130	20	12/11/2010 0300
1,1-Dichloroethene	50	55		1	110	6.7	70-130	20	12/11/2010 0300
trans-1,2-Dichloroethene	50	55		1	109	3.4	70-130	20	12/11/2010 0300
cis-1,2-Dichloroethene	50	54		1	109	3.4	70-130	20	12/11/2010 0300
Isobutyl alcohol	500	340	N	1	68	4.0	70-130	20	12/11/2010 0300
Tetrachloroethene	50	51		1	102	4.0	70-130	20	12/11/2010 0300
Toluene	50	57		1	114	4.0	70-130	20	12/11/2010 0300
1,1,1-Trichloroethane	50	55		1	110	4.4	70-130	20	12/11/2010 0300
Trichloroethene	50	50		1	101	4.9	70-130	20	12/11/2010 0300
Trichlorofluoromethane	50	48		1	96	8.6	60-140	20	12/11/2010 0300
Vinyl chloride	50	47		1	94	5.8	60-140	20	12/11/2010 0300
Xylenes (total)	100	100		1	100	3.2	70-130	20	12/11/2010 0300

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		110	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: LQ48985-001
Batch: 48985
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/15/2010 1101
Benzene	ND		1	0.50	ug/L	12/15/2010 1101
2-Butanone (MEK)	ND		1	10	ug/L	12/15/2010 1101
Carbon disulfide	ND		1	0.50	ug/L	12/15/2010 1101
Chloroethane	ND		1	0.50	ug/L	12/15/2010 1101
1,1-Dichloroethane	ND		1	0.50	ug/L	12/15/2010 1101
1,2-Dichloroethane	ND		1	0.50	ug/L	12/15/2010 1101
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/15/2010 1101
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/15/2010 1101
1,1-Dichloroethene	ND		1	0.50	ug/L	12/15/2010 1101
Isobutyl alcohol	ND		1	50	ug/L	12/15/2010 1101
Tetrachloroethene	ND		1	0.50	ug/L	12/15/2010 1101
Toluene	ND		1	0.50	ug/L	12/15/2010 1101
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/15/2010 1101
Trichloroethene	ND		1	0.50	ug/L	12/15/2010 1101
Trichlorofluoromethane	ND		1	0.50	ug/L	12/15/2010 1101
Vinyl chloride	ND		1	0.50	ug/L	12/15/2010 1101
Xylenes (total)	ND		1	0.50	ug/L	12/15/2010 1101

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		97	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: LQ48985-002
Batch: 48985
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	94		1	94	46-153	12/15/2010 0928
Benzene	50	49		1	99	70-130	12/15/2010 0928
2-Butanone (MEK)	100	99		1	99	60-140	12/15/2010 0928
Carbon disulfide	50	47		1	95	60-140	12/15/2010 0928
Chloroethane	50	52		1	105	42-163	12/15/2010 0928
1,1-Dichloroethane	50	49		1	98	70-130	12/15/2010 0928
1,2-Dichloroethane	50	51		1	103	70-130	12/15/2010 0928
trans-1,2-Dichloroethene	50	48		1	97	70-130	12/15/2010 0928
cis-1,2-Dichloroethene	50	48		1	97	70-130	12/15/2010 0928
1,1-Dichloroethene	50	49		1	98	70-130	12/15/2010 0928
Isobutyl alcohol	500	490		1	99	70-130	12/15/2010 0928
Tetrachloroethene	50	43		1	87	70-130	12/15/2010 0928
Toluene	50	47		1	94	70-130	12/15/2010 0928
1,1,1-Trichloroethane	50	50		1	101	70-130	12/15/2010 0928
Trichloroethene	50	44		1	89	70-130	12/15/2010 0928
Trichlorofluoromethane	50	46		1	93	60-140	12/15/2010 0928
Vinyl chloride	50	44		1	87	60-140	12/15/2010 0928
Xylenes (total)	100	94		1	94	70-130	12/15/2010 0928

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		97	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: LQ48985-003
Batch: 48985
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	91		1	91	2.5	46-153	20	12/15/2010 0951
Benzene	50	50		1	101	2.2	70-130	20	12/15/2010 0951
2-Butanone (MEK)	100	98		1	98	1.4	60-140	20	12/15/2010 0951
Carbon disulfide	50	47		1	94	1.1	60-140	20	12/15/2010 0951
Chloroethane	50	51		1	101	3.7	42-163	20	12/15/2010 0951
1,1-Dichloroethane	50	50		1	99	0.91	70-130	20	12/15/2010 0951
1,2-Dichloroethane	50	51		1	103	0.17	70-130	20	12/15/2010 0951
trans-1,2-Dichloroethene	50	49		1	97	0.19	70-130	20	12/15/2010 0951
cis-1,2-Dichloroethene	50	49		1	98	1.3	70-130	20	12/15/2010 0951
1,1-Dichloroethene	50	49		1	99	0.41	70-130	20	12/15/2010 0951
Isobutyl alcohol	500	500		1	100	0.88	70-130	20	12/15/2010 0951
Tetrachloroethene	50	47		1	94	7.8	70-130	20	12/15/2010 0951
Toluene	50	49		1	97	3.0	70-130	20	12/15/2010 0951
1,1,1-Trichloroethane	50	51		1	103	2.1	70-130	20	12/15/2010 0951
Trichloroethene	50	46		1	92	3.8	70-130	20	12/15/2010 0951
Trichlorofluoromethane	50	47		1	93	0.30	60-140	20	12/15/2010 0951
Vinyl chloride	50	44		1	87	0.053	60-140	20	12/15/2010 0951
Xylenes (total)	100	98		1	98	4.9	70-130	20	12/15/2010 0951

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - MB

Sample ID: LQ48940-001
Batch: 48940
Analytical Method: RSK - 175
Matrix: Aqueous

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Ethane	ND		1	10	ug/L	12/16/2010 2304
Ethene	ND		1	10	ug/L	12/16/2010 2304
Methane	ND		1	10	ug/L	12/16/2010 2304

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - LCS

Sample ID: LQ48940-002
Batch: 48940
Analytical Method: RSK - 175
Matrix: Aqueous

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Ethane	32	24		1	76	70-130	12/16/2010 2152
Ethene	30	26		1	88	70-130	12/16/2010 2152
Methane	17	14		1	81	70-130	12/16/2010 2152

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N - Recovery is out of criteria
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Dissolved Gases - LCSD

Sample ID: LQ48940-003
Batch: 48940
Analytical Method: RSK - 175

Matrix: Aqueous

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Ethane	32	24		1	75	1.3	70-130	20	12/16/2010 2315
Ethene	30	24		1	82	6.9	70-130	20	12/16/2010 2315
Methane	17	14		1	80	1.4	70-130	40	12/16/2010 2315

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - MB

Sample ID: LQ48683-001
Batch: 48683
Analytical Method: 6010C
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/14/2010 1105

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Iron	ND		1	0.10	mg/L	12/15/2010 1813
Manganese	ND		1	0.015	mg/L	12/15/2010 1813

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - LCS

Sample ID: LQ48683-002
Batch: 48683
Analytical Method: 6010C
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/14/2010 1105

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Iron	20	22		1	111	80-120	12/15/2010 1819
Manganese	2.0	2.1		1	106	80-120	12/15/2010 1819

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-AES - LCSD

Sample ID: LQ48683-003
Batch: 48683
Analytical Method: 6010C
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 12/14/2010 1105

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Iron	20	22		1	110	0.40	80-120	20	12/15/2010 1825
Manganese	2.0	2.1		1	106	0.16	80-120	20	12/15/2010 1825

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111

Number 108790

Client: O'BRIEN + GERE	Report to Contact: SARAH SLAGLE-GARRETT	Telephone No. / Fax No. / E-mail: 919-414-6368	Quote No: 11910
Address: 2610 WYCLIFF RD. SUITE 104	Sampler's Signature: x Sarah Slagle-Garrett	Workbill No.	Page 1 of 1
City: RALEIGH / State: NC / Zip Code: 27607	Printed Name: SARAH SLAGLE-GARRETT	Analysis (Attach list if more space is needed.)	
Project Name: MILLER MOULTRIE			
Project No.	P.O. No.		Lot No. L108008

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Soils	Non-Aqueous	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc NaOH	Na2S2O3	VOCs (SEE ATTACHED TABLE)	DISSOLVED GASES	ANIONS	SULFIDE	DOC	TOC	METALS				Remarks / Cooler I.D.
ETMW-121	12/6/10	1630	G	X					3				3											
ETMW-116	12/7/10	1110	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
TRIP BLANK	12/7/10	—								2				2										

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison [ ] Unknown

Sample Disposal: [ ] Return to Client [X] Disposal by Lab

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

Turn Around Time Required (Prior lab approval required for expedited TAT.): [X] Standard [ ] Rush (Specify)

QC Requirements (Specify):

	Relinquished by	Date	Time	Received by	Date	Time
1.	FEDEX	12/2/10	1000	Sarah Slagle-Garrett	12/2/10	1200
2.	Sarah Slagle-Garrett	12/7/10	1730	FEDEX		
3.	FEDEX	12/8/10	0930	Laboratory received by	12/8/10	0930

Comments:

LAB USE ONLY
Received on Ice (Circle): Yes No Ice Pack

Receipt Temp. 2.6 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-012 Effective Date: 08-04-09

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Level 1 Report v2.1

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 6

Replaces Date: 09/22/06
Effective Date: 05/29/07

Sample Receipt Checklist (SRC)

Client: O'Brien & Gere Cooler Inspected by/date: GR / 12/8/10 Lot #: L608008

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Airborne Exp ☐ Other			
Yes ☑	No ☐	NA ☐	1. Were custody seals present on the cooler?
Yes ☐	No ☐	NA ☑	2. If custody seals were present, were they intact and unbroken?
Cooler ID/temperature upon receipt 2.6 °C / °C / °C / °C / °C / °C / °C / °C			
Method: ☐ Temperature Blank ☐ Against Bottles Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None			
If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.			
Yes ☐	No ☐	NA ☐	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other:_____. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☑	No ☐	NA ☐	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐	NA ☐	5. Were proper custody procedures (relinquished/received) followed?
Yes ☑	No ☐	NA ☐	6. Were sample IDs listed?
Yes ☑	No ☐	NA ☐	7. Was collection date & time listed?
Yes ☑	No ☐	NA ☐	8. Were tests to be performed listed on the COC or was quote # provided?
Yes ☑	No ☐	NA ☐	9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐	NA ☐	10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐	NA ☐	11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐	NA ☐	12. Was adequate sample volume available?
Yes ☑	No ☐	NA ☐	13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑	NA ☐	14. Were any samples containers missing?
Yes ☐	No ☑	NA ☐	15. Were there any excess samples not listed on COC?
Yes ☐	No ☑	NA ☐	16. Were bubbles present >"pea-size" (¼" or 6mm in diameter) in any VOA vials?
Yes ☑	No ☐	NA ☐	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☑	No ☐	NA ☐	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☑	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) and toxicity (<0.1mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?

GR 12/8/10

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s)_____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number)

Sample(s)_____ were received with bubbles >6 mm in diameter.

Sample(s)_____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb.

Toxicity sample(s)_____ analyzed by method 330.5.

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐

SESI employee:_____

Comments:_____

This portion can be removed for recipient's records.

FedEx Tracking Number 865963823972

Date 12/7/10

Sender's Name ANITA TRECARTIN Phone 919 783-7777

Company O'BRIEN & GERE ENGINEERS INC

Address 2610 WYCLIFF RD STE 104 Dept/Floor/Suite/Room

City RALEIGH State NC ZIP 27607-3073

Your Internal Billing Reference 40942

Table 1
Summary of Monitoring Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Target Analytes	Laboratory Geochemical Parameters	Field Geochemical Parameters
Acetone	Alkalinity	Temperature
2-Butanone (MEK)	Chloride	Conductivity
Benzene	Nitrate	Dissolved Oxygen
Carbon Disulfide	Sulfate	pH
Chloroethane	Sulfide	Oxidation/Reduction Potential (ORP)
1,1-Dichloroethane (1,1-DCA)	Methane	Carbon Dioxide
1,2-Dichloroethane (1-,2-DCA)	Ethane	Ferrous Iron
1,1-Dichloroethene (1,1-DCE)	Ethene	
cis-1,2-dichloroethene (cis-1,2-DCE)	Soluble Organic Carbon (Dissolved)	
trans-1,2-dichloroethene (trans-1,2-DCE)	Total Organic Carbon	
Isobutyl Alcohol	Manganese	
Tetrachloroethene (PCE)	Total Iron	
Toluene		
1,1,1-Trichloroethane (TCA)		
Trichloroethene (TCE)		
Trichlorofluoromethane		
Vinyl Chloride		
Xylenes (total)		

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

SHEALY **Chain of Custody Record**

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111

Number 108791

Client: O'BRIEN + GERE	Report to Contact: Sarah Slagle-Garrett	Telephone No. / Fax No. / E-mail: 9194146368	Quote No.: 11910
Address: 2610 Wycliff Rd Suite 104	Sampler's Signature: X [signature]	Waybill No.:	Page 1 of 1
City: Raleigh; State: NC; Zip Code: 27607	Printed Name: Laurel Webb	Analysis (Attach list if more space is needed.)	
Project Name: Miller Moultrie			
Project No.:	P.O. No.:		Lot No.: ~~LL0904~~ LL0808 EW 12/9/10

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Solid	Non-Aqueous		No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	2O3 KI	NaOH/Zn	VOCs * SEE ATTACHED TABLE *	DISSOLVED GASES	ANIONS	SULFIDE	DOC	TOC	METALS				Remarks / Cooler I.D.
ETCMW-115	12/8/10	910	G	X				2	1	1	5			1	3	2	1	1	1	1	1				
ETMW-117	12/8/10	1120	G	X				2	1	1	5			1	3	2	1	1	1	1	1				
TRIP BLANK	12/8/10	-									2				2										
CH2MW-1	12/8/10	1445	G	X							3				3										
CH2PP-1	12/8/10	1400	G	X							2				2										
CH2MW-114D	12/8/10	1510	G	X							3				3										
CH2MW-4D	12/8/10	1305	G	X							3				3										
CH2MW-4D (MS)	12/8/10	—	G	X							3				3										
CH2MW-4D (MSD)	12/8/10	—	G	X							3				3										
DUP-1	12/8/10	—	G	X							3				3										

Possible Hazard Identification: X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

Sample Disposal: ☐ Return to Client X Disposal by Lab

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

Turn Around Time Required (Prior lab approval required for expedited TAT.): X Standard ☐ Rush (Specify)

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished by: Fedex	12/2/10	1000	1. Received by: [signature]	12/2/10	1200
2. Relinquished by: [signature]	12/8/10	1730	2. Received by: Fedex		
3. Relinquished by: FEDEX	12-9-10	0900	3. Laboratory received by: [signature]	12-9-10	0900

Comments:

LAB USE ONLY: Received on ice (Circle) Yes No Ice Pack

Receipt Temp 2.4 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-012 Effective Date: 08-04-02

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 6

Page 1 of 1
Replaces Date: 09/22/06
Effective Date: 05/29/07

Sample Receipt Checklist (SRC)

Client: O'Brien & Gere Cooler Inspected by/date: tlw 12/9/10 Lot #: LL08008

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Airborne Exp ☐ Other			
Yes ☑	No ☐	NA ☐	1. Were custody seals present on the cooler?
Yes ☑	No ☐	NA ☐	2. If custody seals were present, were they intact and unbroken?
Cooler ID/temperature upon receipt 2-4 °C / °C / °C / °C / °C / °C / °C / °C Method: ☐ Temperature Blank ☑ Against Bottles Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None			
If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.			
Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☑	No ☐	NA ☐	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐	NA ☐	5. Were proper custody procedures (relinquished/received) followed?
Yes ☑	No ☐	NA ☐	6. Were sample IDs listed?
Yes ☑	No ☐	NA ☐	7. Was collection date & time listed?
Yes ☑	No ☐	NA ☐	8. Were tests to be performed listed on the COC or was quote # provided?
Yes ☑	No ☐	NA ☐	9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐	NA ☐	10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐	NA ☐	11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐	NA ☐	12. Was adequate sample volume available?
Yes ☑	No ☐	NA ☐	13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑	NA ☐	14. Were any samples containers missing?
Yes ☐	No ☑	NA ☐	15. Were there any excess samples not listed on COC?
Yes ☐	No ☑	NA ☐	16. Were bubbles present>"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☑	No ☐	NA ☐	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☑	No ☐	NA ☐	18. *Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) and toxicity (<0.1mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number) _____.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Sample(s) _____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb.

Toxicity sample(s) _____ analyzed by method 330.5.

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐

SESI employee: _____

Comments: _____

...m this portion can be removed for recipient's records.
me 12/9/10 FedEx Tracking Number 869638239611
ender's ame ANITA TRECARTIN Phone 919 783-7777
Company O'BRIEN & GERE ENGINEERS INC
Address 2610 WYCLIFF RD STE 104
...y RALEIGH State NC ZIP 27607-3073
our Internal Billing Reference 46842

SHEALY **Chain of Custody Record**

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111

Number 108792

Client: O'BRIEN + GERE	Report to Contact: SARAH SLAGLE-GARRETT	Telephone No. / Fax No. / E-mail: 919-783-7777	Quote No.: 11910
Address: 2610 WYCLIFF RD. SUITE 104	Sampler's Signature: x Sarah Slagle-Garrett	Waybill No.:	Page 1 of 1
City: RALEIGH; State: NC; Zip Code: 27607	Printed Name: SARAH SLAGLE-GARRETT	Analysis (Attach list if more space is needed.)	
Project Name: MILLER MOULTRIE			
Project No.: 46942	P.O. No.:		Lot No.: LL08008

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No. of Containers by Preservative Type: Unpres	H2SO4	HNO3	HCl	NaOH	5035 Kit	Na2S2O3	VOCs #SEE ATTACHED TABLE	DISSOLVED GASES	ANIONS	SULFIDE	DOC	TOC	METALS				Remarks / Cooler I.D.
ETMW-120	12/9/10	800	G	X						3				3										
ETCMW-114	12/9/10	815	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
ETMW-118	12/9/10	915	G	X			2	1		5			1	3	2	1	1	1	1					
ETCMW-113	12/9/10	945	G	X			1			5				3	2	1								
DUR-2	12/9/10	—	G	X			2	1	1	5			1	3	2	1	1	1	1	1				
ETMW-119	12/9/10	1010	G	X						3				3										
CH2MW-3	12/9/10	1045	G	X			1	1		5				3	2	1			1					
TRIP BLANK				Y						2				2										

Possible Hazard Identification: X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

Sample Disposal: ☐ Return to Client X Disposal by Lab

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

Turn Around Time Required (Prior lab approval required for expedited TAT.): X Standard ☐ Rush (Specify)

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished by: FEDEX	12/2/10	1000	1. Received by: Sarah Slagle-Garrett	12/2/10	1200
2. Relinquished by: Sarah Slagle-Garrett	12/9/10	1500	2. Received by:		
3. Relinquished by: FEDEX	12/10/10	0900	3. Laboratory received by: [signature]	12/10/10	0900

Comments:

LAB USE ONLY: Received on ice (Circle) Yes No Ice Pack — Receipt Temp. 1.0 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-012 Effective Date: 08-04-02

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 6

Page 1 of 1
Replaces Date: 09/22/06
Effective Date: 05/29/07

Sample Receipt Checklist (SRC)

Client: O'Brien & Gere Cooler Inspected by/date: ETL 12/10/10 Lot #: LL08008

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Airborne Exp ☐ Other

Yes ☑	No ☐	NA ☐	1. Were custody seals present on the cooler?
Yes ☐	No ☐	NA ☐	2. If custody seals were present, were they intact and unbroken?

Cooler ID/temperature upon receipt 1.0/ °C / °C / °C / °C / °C / °C / °C / °C

Method: ☐ Temperature Blank ☑ Against Bottles

Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other:_____. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☑	No ☐	NA ☐	4. Is the commercial courier's packing slip attached to this form?
Yes ☐	No ☑	NA ☐	5. Were proper custody procedures (relinquished/received) followed?
Yes ☑	No ☐	NA ☐	6. Were sample IDs listed?
Yes ☑	No ☐	NA ☐	7. Was collection date & time listed?
Yes ☑	No ☐	NA ☐	8. Were tests to be performed listed on the COC or was quote # provided?
Yes ☑	No ☐	NA ☐	9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐	NA ☐	10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐	NA ☐	11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐	NA ☐	12. Was adequate sample volume available?
Yes ☐	No ☑	NA ☐	13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑	NA ☐	14. Were any samples containers missing?
Yes ☐	No ☑	NA ☐	15. Were there any excess samples not listed on COC?
Yes ☐	No ☑	NA ☐	16. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☑	No ☐	NA ☐	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☑	No ☐	NA ☐	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) and toxicity (<0.1mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s)_____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number) _____.

Sample(s)_____ were received with bubbles >6 mm in diameter.

Sample(s)_____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb.

Toxicity sample(s)_____ analyzed by method 330.5.

This portion can be removed for Accounting's records.

Date 9 DEC 10 FedEx Tracking Number 869794267882

Sender's Name ANITA TRECARTIN Phone 919 783-7777

Company O'BRIEN & GERE ENGINEERS INC

Address 2610 WYCLIFF RD STE 104 Dept./Floor/Suite/Room

City RALEIGH State NC ZIP 27607-3073

Your Internal Billing Reference 46942

Corrective Action taken, if necessary:

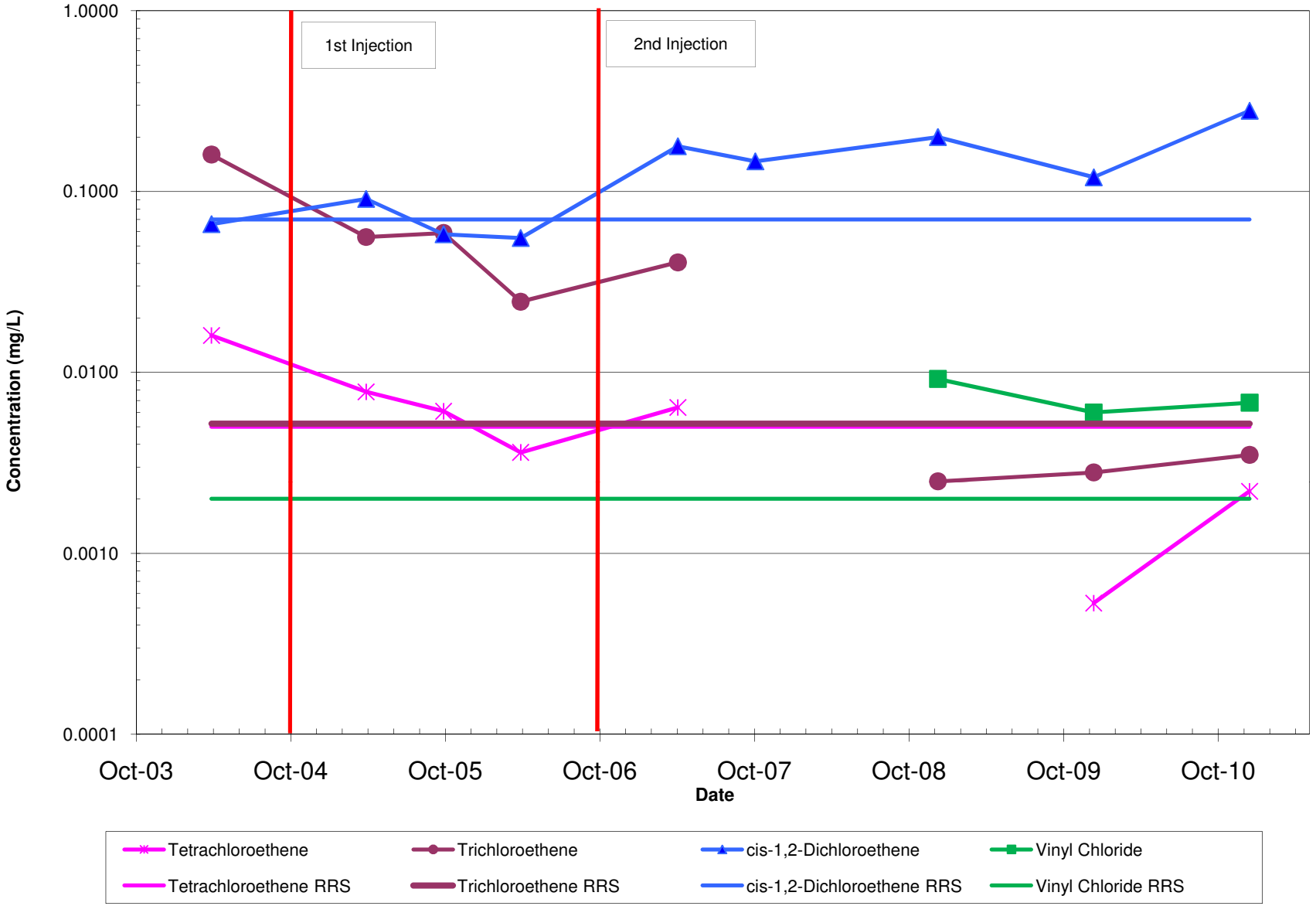
Was client notified: Yes ☐ No ☐

SESI employee:_____

Comments:

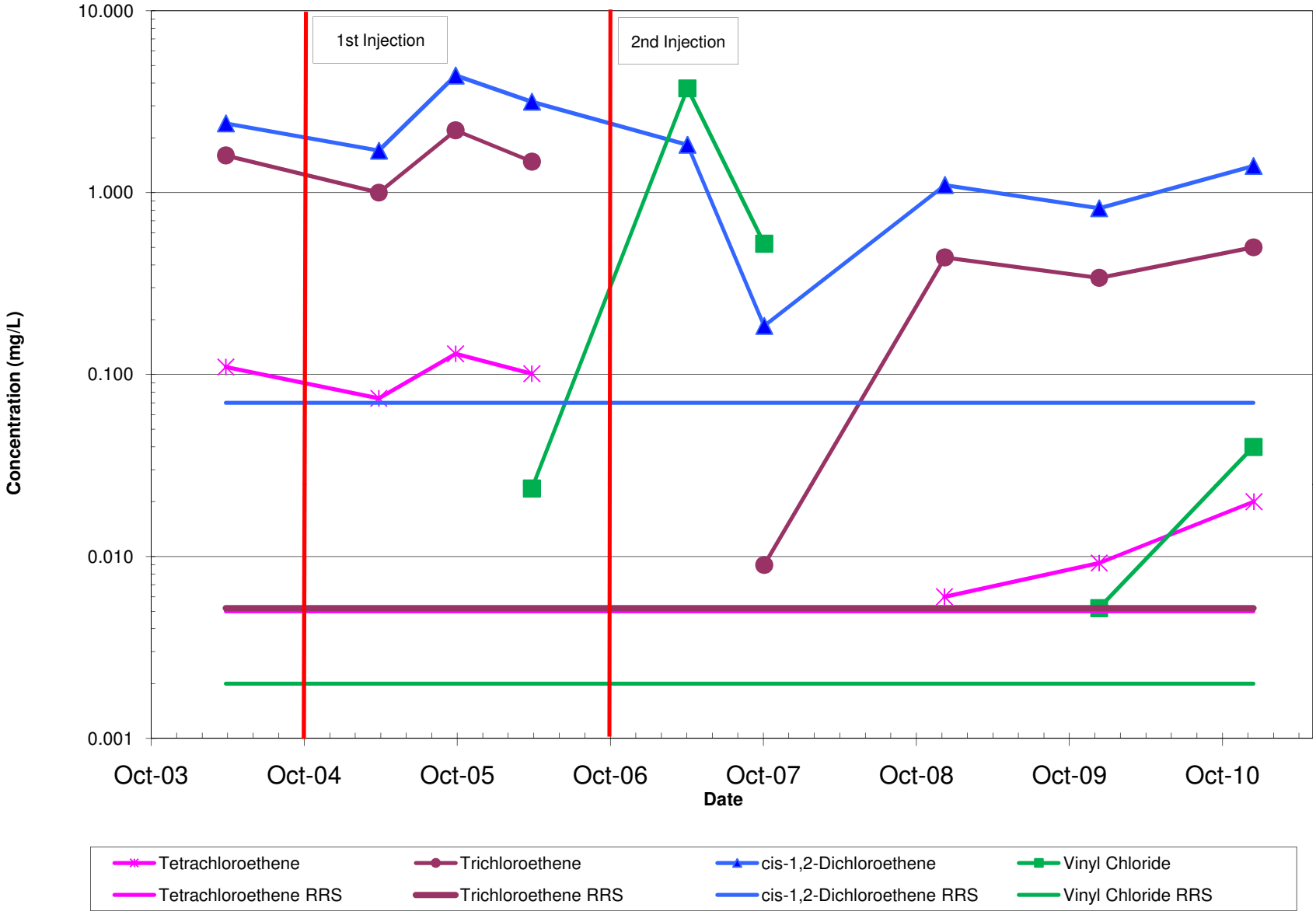
Trend Graphs for Volatile Organic Constituents

ETCMW-113
VOCs and Type 1/3 RRS



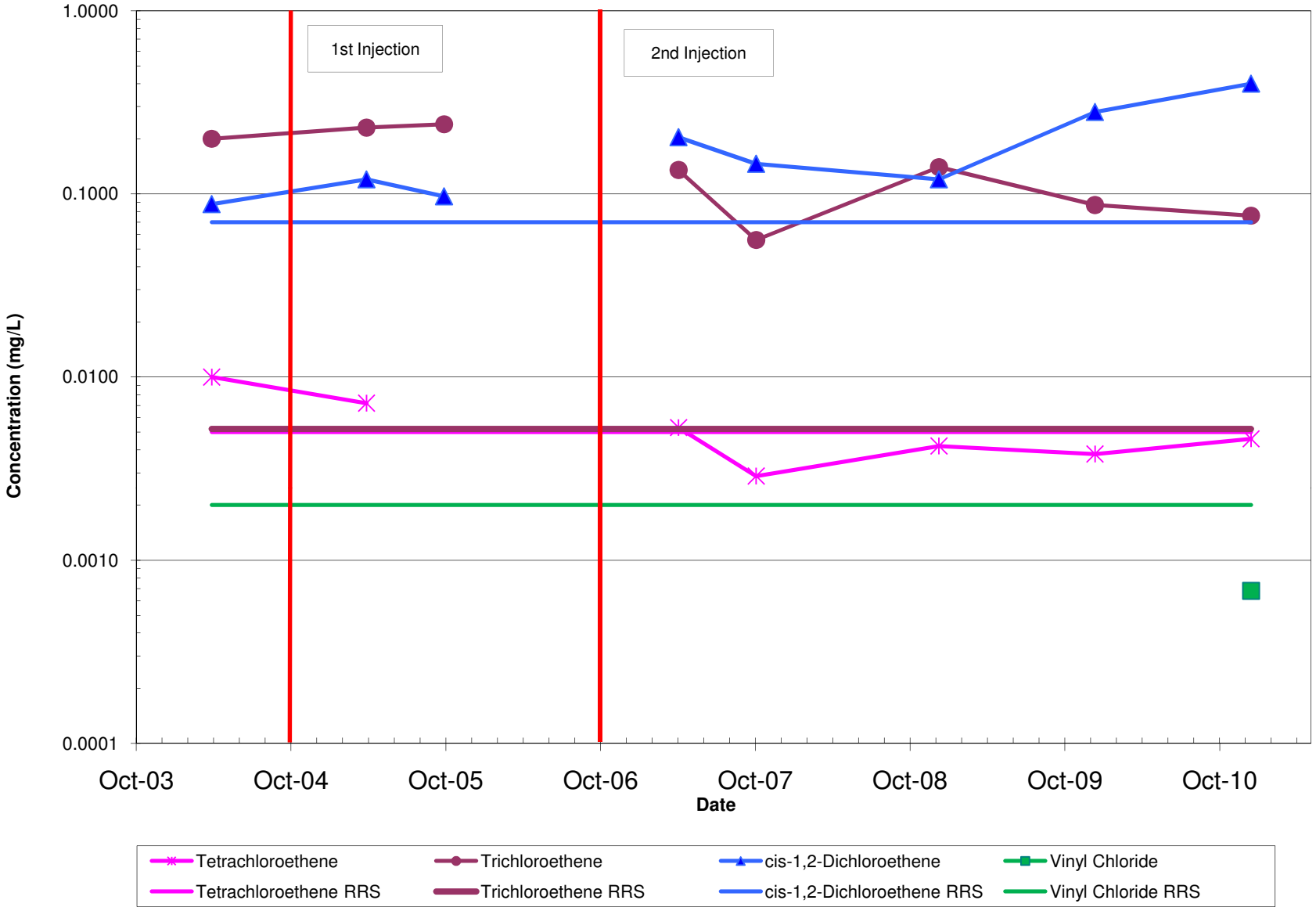
Note: Gaps in data indicate constituent was below detectable limits

ETCMW-114
VOCs and Type 1/3 RRS

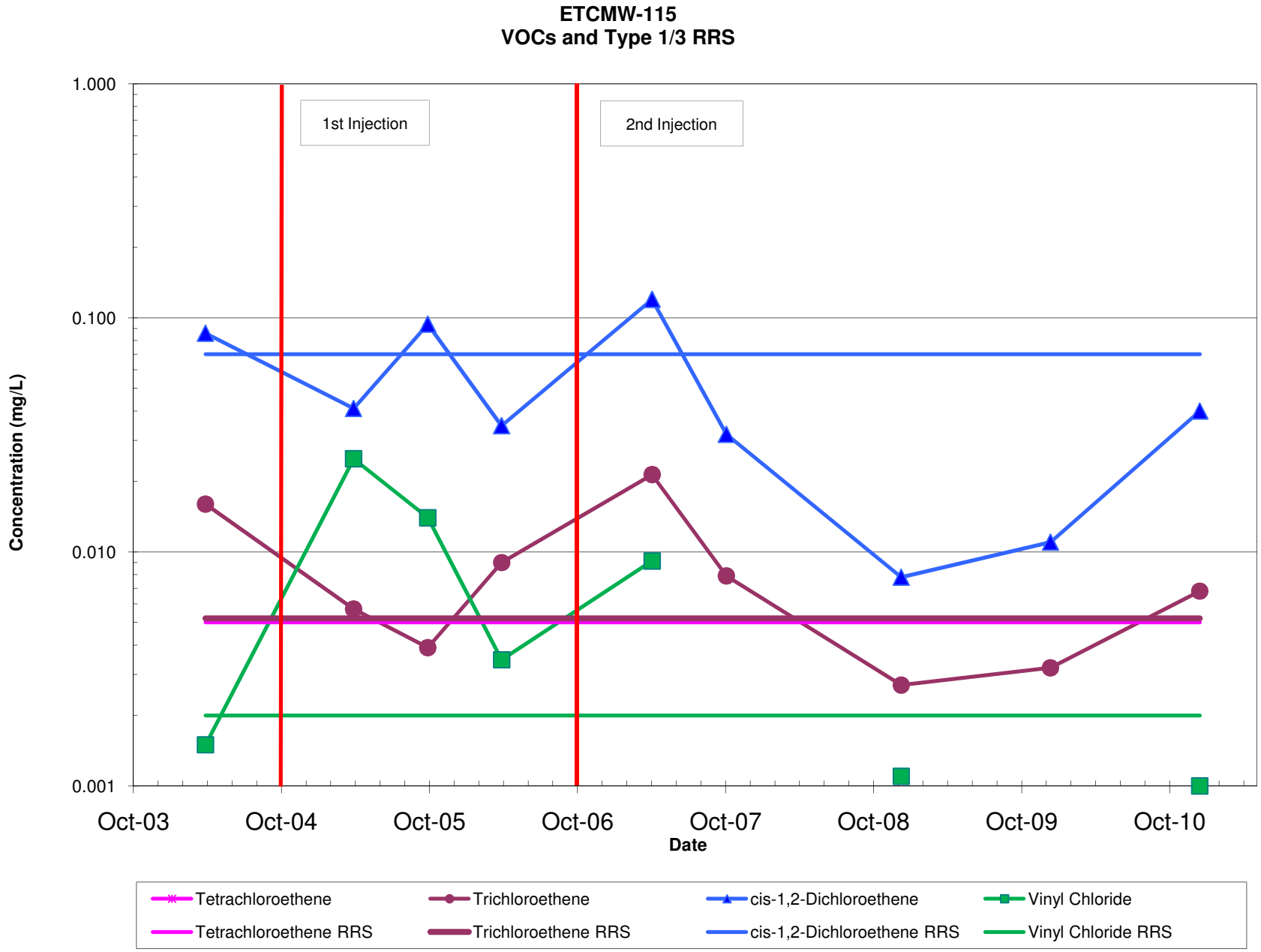


Note: Gaps in data indicate constituent was below detectable limits

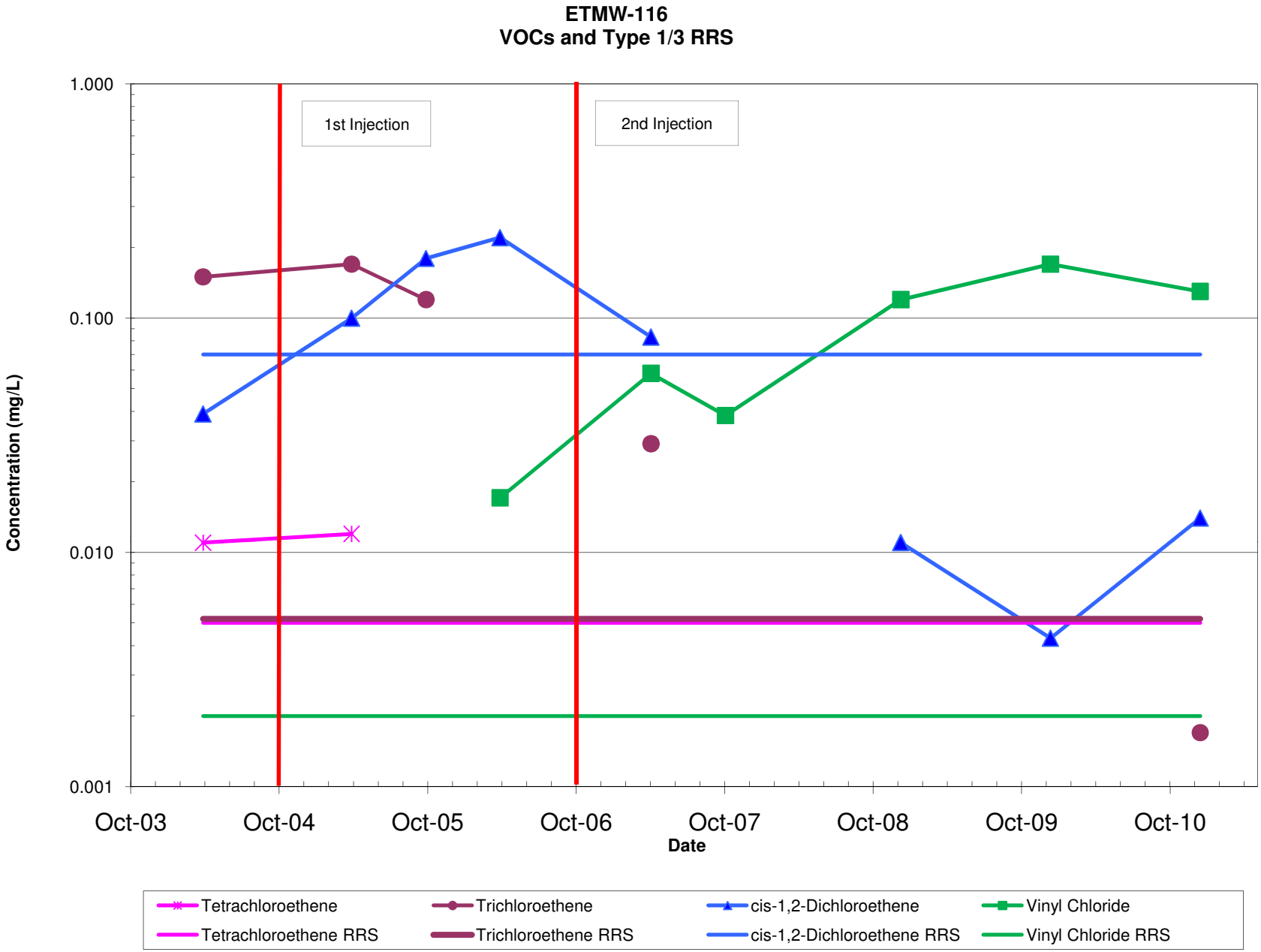
CH2MW-114D
VOCs and Type 1/3 RRS



Note: Gaps in data indicate constituent was below detectable limits

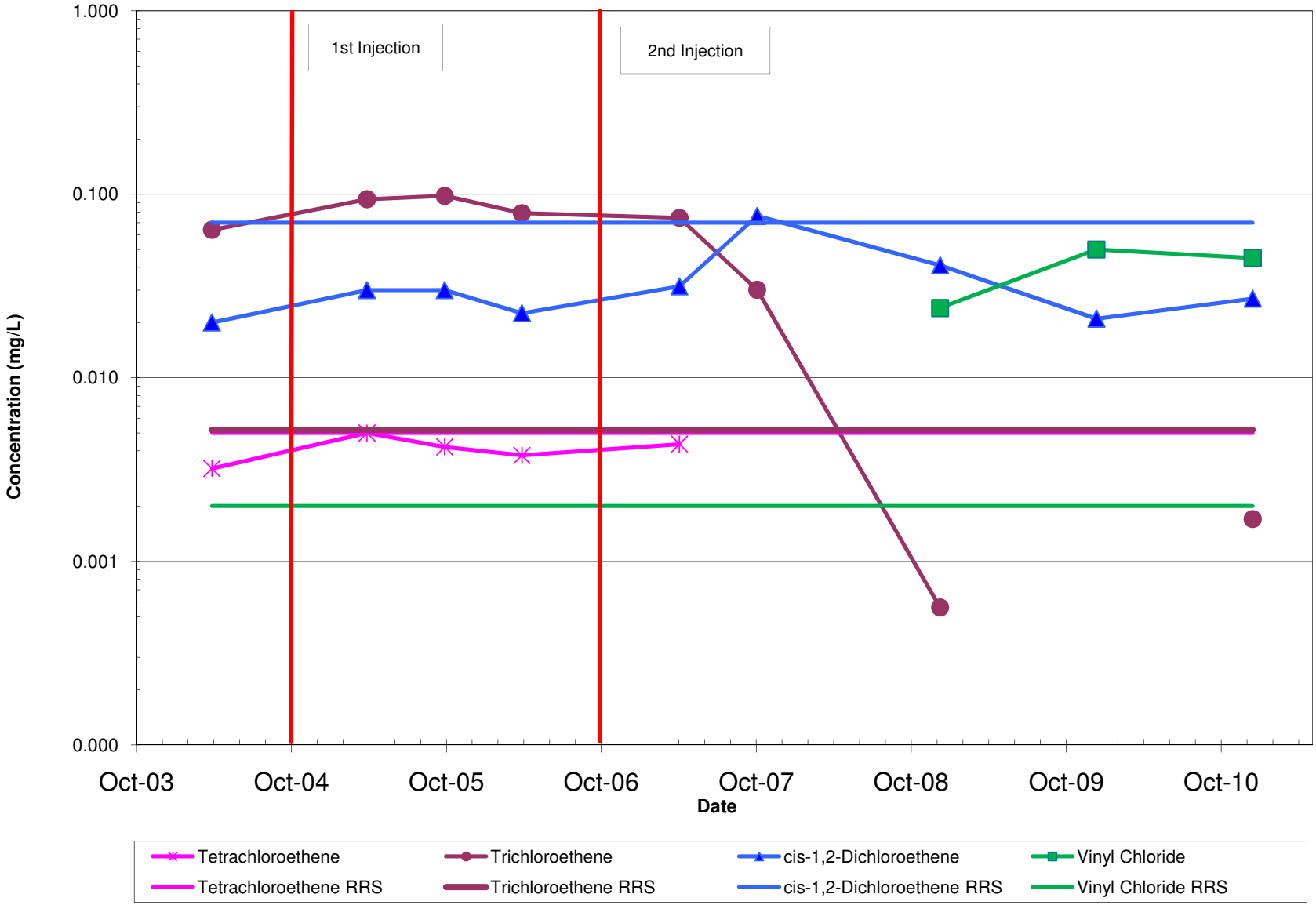


Note: Gaps in data indicate constituent was below detectable limits

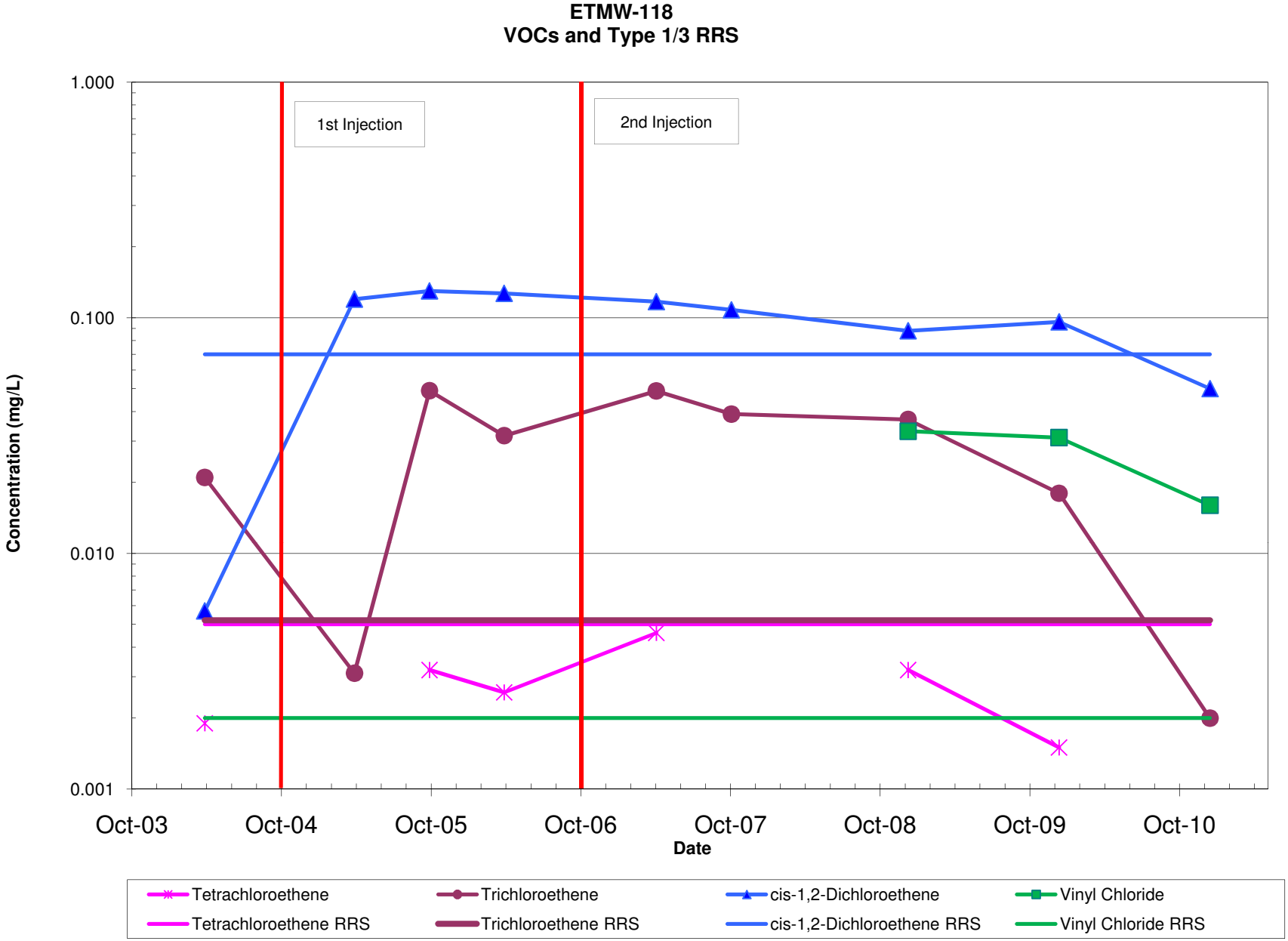


Note: Gaps in data indicate constituent was below detectable limits

ETMW-117
VOCs and Type 1/3 RRS



Note: Gaps in data indicate constituent was below detectable limits



Note: Gaps in data indicate constituent was below detectable limits

Appendix M

2011 Annual Monitoring Report (O'Brien & Gere, March 2012)

REPORT

2011 Annual Monitoring Report
Miller Brewing Company Can Plant
Moultrie, Georgia

Miller Brewing Company
Moultrie, Georgia

March 20, 2012

O'BRIEN & GERE

TABLE OF CONTENTS

Table of Contents i
1. Introduction 1
1.1 Background 1
1.2 Corrective Action Objectives 2
2. Scope and Methodology 3
3. Ground Water Monitoring Results 4
3.1 Hydrogeologic Conditions 4
3.2 Ground Water Analytical Results 4
3.2.1 Ground Water VOC Results 4
3.2.2 Treatment Area Well Summary 4
4. Conclusions 7
5. Recommendations 8
6. References 9

Tables

1. Summary of Monitoring Parameters
2. Summary of Well Construction Details and Ground Water Elevations
3. Summary of Volatile Organic Constituents in Ground Water

Figures

1. Site Location
2. Site Plan I
3. Ground Water Monitoring Network
4. Ground Water Potentiometric Surface, December 2011
5. Constituents Detected in Ground Water
6. PCE Concentration above RRS
7. TCE Concentration above RRS
8. Cis-1,2-DCE Concentration above RRS
9. Vinyl Chloride Concentration above RRS

Appendices

A. October 4, 2011 GAEPD Letter
B. Historical Summary of Volatile Organic Constituents in Ground Water
C. Ground Water Sampling Log Forms
D. Laboratory Certification
E. Laboratory Analytical Results
F. Trend Graphs for Volatile Organic Constituents

1. INTRODUCTION

This report presents the progress of corrective measures performed on the surficial ground water zone at the former Miller Brewing Company Canning Facility (site) in Moultrie, Georgia (Figure 1). Corrective action at the site is being conducted under the Georgia Hazardous Site Response Act (HSRA). The Corrective Action Plan (CAP) was submitted to the Georgia Department of Natural Resources, Environmental Protection Division (GAEPD) in January 2004 (O'Brien & Gere, January 2004) and with minor amendments, approved by GAEPD in March 2004. The corrective measure approved by GAEPD was enhanced bioremediation by underground injection of a lactate formula followed by monitored natural attenuation (MNA).

The first lactate injection occurred in October 2004. This was followed by semiannual ground water monitoring in April 2005, October 2005, and April 2006. A second lactate injection occurred in October 2006 followed by ground water monitoring in April and October 2007. Following the October 2007 event, natural attenuation screening was performed following the Office of Solid Waste and Emergency Response (OSWER) directive on MNA (9200.4-17). The MNA evaluation also included Biochlor® modeling to predict future migration and attenuation of the chlorinated ethene plume. The results of these analyses are presented in the Corrective Action Monitoring and Evaluation Report (O'Brien & Gere, April 2008). This report proposed that the site proceed with MNA as the primary remedy. The GAEPD agreed to evaluate this remedy for a five year period during an October 28, 2008 conference call. At the end of the five year period, the plan was to once again perform MNA screening and Biochlor® modeling to evaluate the continuing efficacy of MNA.

Based on monitoring obtained over the last three years, Miller Brewing Company plans to discontinue the current MNA corrective action, and is evaluating other regulatory options for the site. These options include entering the site into the Georgia Voluntary Remediation Program (VRP) and reclassifying the site under the Type 5 Risk Reduction Standards (RRS). On September 15, 2011 Miller submitted a letter to GAEPD requesting that the monitoring program be reduced to include only sampling of volatile organic compounds (VOCs) and to eliminate the geochemical parameters from the sampling and analysis program. In a letter dated October 4, 2011 GAEPD agreed to this approach, and samples for geochemical analyses were not collected for the 2011 sampling event (Appendix A).

The purpose of this report is to document the results of the December 2011 ground water monitoring, and to gauge the progress of this corrective action.

1.1 BACKGROUND

In September 1988, four underground storage tanks (USTs) were removed from the site. These consisted of two No. 2 fuel oil USTs, a waste oil UST, and a waste solvent UST. During the removal, a release was discovered from a portion of the piping that was connected to the waste solvent UST. In response to this release, the following activities and investigations were performed:

- Closure of four USTs in September 1988
- Removal of piping associated with the former waste solvent tank, and excavation and disposal of soils contaminated with chlorinated solvents in 1988
- Phase II Site Assessment performed in 1993
- Site Investigation performed in 1994
- Supplemental Site Investigation performed in 1995
- Phase II Subsurface Investigation performed in 1998
- Compliance status investigation performed in 1998
- Supplemental compliance status investigations performed in 2000, 2001, and 2004
- Ground water monitoring in 2002.

The final Compliance Status Report (CSR) was submitted to GAEPD in June 2004 (O'Brien & Gere). Analytical data provided in the CSR delineated the nature and extent of chlorinated ethenes in soil and ground water and defined the area of ground water affected by the concentrations of chlorinated aliphatic hydrocarbons (CAHs) above the RRS. Site soil meets the Type 4 site-specific, non-residential property RRS and has been certified as doing so in the CSR. No further action is required with respect to site soil.

CAHs, and in particular, chlorinated ethenes, have been detected in ground water at concentrations above the RRS in a number of wells surrounding the former waste solvent tank piping (Figure 2). The migration of these constituents has been limited because of the extremely low hydraulic conductivity of the soil. It is likely that these constituents are derived from a historic release from the waste solvent tank piping.

The conservative risk evaluation performed for the site ground water constituents indicates that site ground water meets neither non-residential nor residential RRS. The area of ground water constituents that exceed non-residential RRS is well contained, and extends approximately 100 ft downgradient of the suspected source area (Figure 3). Further details of the site background are presented in the approved CSR. A summary of historical ground water analytical results is provided in Appendix B.

Corrective Action at the Moultrie Facility was prompted by the understanding that site ground water does not meet Georgia RRS. The approved Corrective Action Program details the selected remedial measures and provides the basis for corrective action at the site. As described in the CAP, there are two components to the ground water corrective action. The first component was enhanced bioremediation consisting of injection of a lactate formulation, ABC©, into ground water with concentrations of chlorinated ethenes above RRS. The lactate formulation accelerates microbial activity, which, in turn facilitates reductive dechlorination of the chlorinated ethenes. The goal of this component was to reduce VOCs in the ground water to below the Type 4 RRS. Injection was performed with a Geoprobe® at injection nodes laid out on a grid pattern. The injection events occurred two years apart in October 2004 and October 2006. During the second injection event, in October 2006, zero valent iron was added to the lactate solution in order to improve its efficacy by further enhancing reducing conditions. These injection events were followed by semiannual monitoring which took place in April 2005, October 2005, April 2006, April 2007, and October 2007. The second component of the approved corrective action is MNA. The goal of MNA is to reduce VOCs in the groundwater to below the Type 1/3 RRS. Following the October 2007 monitoring event, the Corrective Action Monitoring and Evaluation Report (O'Brien & Gere, April 2008) recommended the implementation of MNA at the site. This recommendation was accepted by GAEPD for a five year evaluation period. This report represents the results from the fourth year of this period. After five years of monitoring at the site, the plan is to review the cumulative data, perform Biochlor© modeling, and evaluate the efficacy of MNA; however, based on monitoring data obtained over the last three years, Miller Brewing Company plans to discontinue the current MNA corrective action and is evaluating other regulatory options including entering the Georgia VRP or reclassifying the site under Type 5 RRS due to technical impracticability.

1.2 CORRECTIVE ACTION OBJECTIVES

The goal of the lactate injection was to bring site ground water into compliance with non-residential (Type 4) RRS. These were calculated for the CSR following the requirements as set forth in Chapter 391-3-19 of the HSRA. The RRS values represent an acceptable level of theoretical human health risk associated with analytes found in soil and ground water at the site. The lactate injection at the site has reduced most VOCs to levels below the Type 4 RRS. Once the Type 4 RRS are achieved, the approved Corrective Action Program identifies the second component of the corrective action as MNA to bring site ground water into compliance with Type 1/3 RRS. Following the October 2007 ground water monitoring event, two constituents (trichloroethene and vinyl chloride) remained above the Type 4 RRS; however, for these constituents, the Type 4 RRS are the same as the Type 1/3 RRS Therefore, to the extent possible, the lactate injection corrective action has met the requirements of the CAP for the first component of the corrective action and MNA has been implemented. The site is currently undergoing MNA with the goal of bringing site ground water into compliance with the Type 1/3 RRS.

2. SCOPE AND METHODOLOGY

Ground water monitoring took place the week of December 5, 2011. Except where noted, field activities were performed following procedures described in the Corrective Action Investigation Work Plan (O'Brien & Gere, February 2004). The paragraphs that follow provide an overview of field activities.

Upon arrival at the site, monitoring wells were opened and allowed to equilibrate to atmospheric pressure for a minimum of two hours prior to measuring water levels. Water levels were measured with a decontaminated electronic water level meter to the nearest 0.01-ft relative to the top of the well casing.

Following the water level survey, each well was purged following low-flow purging protocols. Each well was purged at the lowest feasible rate, with the majority of wells purged at 100 mL/min or less. Because of their depths, and the time required to purge one well volume, two wells, CH2MW-4D and ETMW-116, were purged at 125 mL/min (Appendix C). During purging, water quality parameters--temperature, pH, conductivity, dissolved oxygen, and oxidation reduction potential (ORP) – as listed on Table 1, were measured continuously with a Horiba™ U-53 water quality meter equipped with a flow-through cell. Purging continued until at least one well volume of water was removed from the well, and water quality parameters had stabilized.

During purging, groundwater levels in five monitoring wells (CH2MW-1, CH2PP-1, CH2MW-3, ETCMW-113, and CH2MW-114D) ran dry. These wells were allowed to recovery (for at least 24 hours) until a sufficient quantity of water was present in the well to collect a groundwater sample, after which they were sampled, with no further purging. In one of these wells, CH2PP-1, the well had not recovered adequately after two days of recovery and no sample could be collected.

Samples were collected for VOC analysis at thirteen wells using the "reverse pump method". Under this method, the peristaltic pump was turned off and the tubing was removed from the well. The pump was reversed and the sample was emptied into 40-mL sample vials preserved with hydrochloric acid. Completely emptying the tubing was avoided to prevent introducing water that was in contact with the flexible pump head tubing into the sample.

One field duplicate was collected for every ten field samples. A matrix spike/matrix spike duplicate sample was collected for every 20 field samples.

Once sample containers were properly labeled and filled, they were wrapped, sealed, and placed immediately in a cooler with ice. A chain of custody form listing each sample and the analysis requested was also included with the cooler. At the conclusion of each day, additional ice was provided in the cooler. Once field activities were complete, samples were shipped via overnight delivery to Shealy Laboratories of Columbia, South Carolina, which holds a NELAP (National Environmental Laboratory Accreditation Program) accreditation authority (Appendix D). Groundwater samples were analyzed for VOCs, following SW846 Method 8260 for the target list parameters identified on Table 1.

3. GROUND WATER MONITORING RESULTS

This section presents the results of the December 2011 monitoring event. Ground water purging and sampling logs, which include field data obtained, are provided as Appendix C.

The analytical data reports, provided by the laboratory are included as Appendix E.

3.1 HYDROGEOLOGIC CONDITIONS

The following provides a summary of current hydrogeologic conditions. For a more detailed description of hydrogeologic conditions, please refer to the Compliance Status Report (O'Brien & Gere, June 2004). Ground water at the site is unconfined and encountered at depths ranging from approximately 1 foot to greater than 17 feet below surface (fbs) (Table 2). Shallow monitoring wells in the surficial ground water zone range in depth from 10 to 15 fbs and have either 5 or 10 ft screen lengths. Water levels obtained in December 2011 were consistent with those measured during the previous monitoring event.

Hydraulic conductivity at the site is extremely low (1.4×10^{-7} cm/sec to 7.5×10^{-6} cm/sec), and ground water flow is minimal (0.053 ft/yr to 0.53 ft/yr). Because of the low hydraulic conductivity and varied recharge rates resulting from the impermeable cover provided by the building and paved areas, ground water flow at this site is highly irregular. In general, ground water on the eastern edge of the facility flows to the east and ground water at the western portion of the treatment area flows to the west. In December 2011 there appeared to be a potentiometric high in the center of the site, with flow to both the east and west (Figure 4).

The primary potential ground water receptors at the site are two small ponds that are located to the southwest and southeast of the Moultrie facility (Figure 1). The damming of an ephemeral creek that originates near the Moultrie facility formed the pond to the southeast. Given the low hydraulic conductivity, ground water originating at the site is not expected to be a contributing source to these ponds; it is likely that precipitation is the predominant source of recharge for water in the creek and pond.

3.2 GROUND WATER ANALYTICAL RESULTS

Ground water analytical results from the December 2011 monitoring event are presented in the sections below.

3.2.1 Ground Water VOC Results

During the December 2011 sampling event, samples from four of the thirteen wells sampled had no VOCs detected. These wells include CH2MW-3, CH2MW-4D, ETMW-119, and ETMW-121 (Table 3). Samples collected from the remaining nine wells contained VOCs, with seven wells (ETCMW-113, ETCMW-114, CH2MW-114D, ETCMW-115, ETMW-116, ETMW-117, and ETMW-118) with concentrations above the Type 1/3 RRS (Figure 5).

Six constituents -- chloroethane, cis-1,2-dichloroethene (cis-1,2-DCE), 1-1-dichloroethene (1,1-DCE), tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride -- were detected at concentrations above the Type 1/3 RRS. Discussion of VOC trends in individual wells within the treatment zone is included in section 3.2.2.

3.2.2 Treatment Area Well Summary

Samples from wells within the treatment area, represent a nearly idealized distribution of chlorinated ethenes undergoing biodegradation via reductive dechlorination, with PCE or TCE highest in the source area, elevated cis-1,2-DCE and vinyl chloride concentrations in the source area and extending downgradient, and ethenes present in the source area with increasing concentrations near the downgradient extent of the plume (Figures 6-9). These figures represent the concentration of each of the key constituents in excess of the Type 1/3 RRS. For example, vinyl chloride was detected in the sample from ETCMW-114 at 0.0033 mg/L. Because the Type 1/3 RRS for vinyl chloride is 0.0020 mg/L, a value of 0.0013 mg/L is represented on the map as the concentration of vinyl chloride in excess of the Type 1/3 RRS (0.0033 mg/L – 0.0020 mg/L = 0.0013 mg/L).

PCE is present in excess of the Type 1/3 RRS only in samples from the source area around ETCMW-114 (Figure 6).

TCE concentrations in excess of the Type 1/3 RRS are detected in the source area in samples from ETCMW-114 and CH2MW-114D, and also extend slightly further downgradient than PCE to ETCMW-115 (Figure 7). The constituent cis-1,2-DCE, which is a daughter product of the biodegradation of both PCE and TCE, extends still further downgradient of the source area (Figure 8). The highest concentration of cis-1,2-DCE in excess of the Type 1/3 RRS remains centered around ETCMW-114. Vinyl chloride, which is a daughter product of the degradation of cis-1,2-DCE is present at concentrations in excess of the Type 1/3 RRS further downgradient of the source area and across a wider area of the treatment zone, in samples from wells ETCMW-113, ETCMW-114, CH2MW-114D, ETCMW-115, ETMW-116, ETMW-117 and ETMW-118 (Figure 9). The sections that follow provide an overview of the results from each of the affected wells in the treatment area. The treatment area consists of the area where lactate injection was performed and includes wells ETCMW-113, ETCMW-114, CH2MW-114D, ETCMW-115, ETMW-116, ETMW-117 and ETMW-118. Graphs of the concentrations of chlorinated ethenes for samples from each of these wells are included in Appendix F.

ETCMW-114

Samples from this well, which is located in the source area, have consistently had the highest concentration of chlorinated ethenes. Following the second injection in October 2006, PCE concentrations in this well were reduced to non-detectable levels. Although PCE was detected again in 2008 above Type 1/3 RRS and has increased in concentration through 2011, the current concentration (0.026 mg/L) remains well below the concentration of PCE detected in this well prior to injection (0.13 mg/L). Both TCE and cis-1,2-DCE continue to be detected at concentrations above the Type 1/3 RRS, but have remained at relatively stable concentrations since 2008. Vinyl chloride, which had not been detected in this well in October 2007 or December 2008, was again detected above the Type 1/3 RRS in 2011, but at a lower concentration than in 2010. In 2011, 1,1-DCE was also detected above the Type 1/3 RRS; however, the 2011 concentration remains below the levels observed prior to the injection treatments in 2004 and 2006.

The renewed detections of PCE and TCE suggest some level of rebound, probably as a result of dissolution from the matrix of the aquifer, but the corresponding increases in cis-1,2-DCE and presence of vinyl chloride suggest that biodegradation is ongoing in the vicinity of this well.

CH2MW-114D

Samples from this well, located in the source area but at a greater depth than ETCMW-114, have PCE concentrations that dropped below the Type 1/3 RRS following injection, and have remained at this level. The concentration of TCE was also reduced following injection, but has remained at a concentration above the Type 1/3 RRS. The concentrations of both PCE and TCE decreased from 2010 to 2011. The concentration of cis-1,2-DCE has been consistently above the Type 1/3 RRS since the injections, and has been increasing since 2008. Vinyl chloride, which was detected for the first time in 2010, was detected above the Type 1/3 RRS for the first time in 2011. The concentration of 1,1-DCE was also observed above the Type 1/3 RRS. There has been some increase in this concentration since the injection treatments in 2004 and 2006 and this constituent will continue to be observed during future monitoring events.

Although both cis-1,2-DCE and vinyl chloride have increased since the second injection, the corresponding decrease in PCE and TCE suggests that biodegradation is ongoing in the vicinity of this well, and that the increase in the former constituents results from the degradation of the latter.

ETCMW-113

The constituents PCE and TCE remain at concentrations below the Type 1/3 RRS. The constituents cis-1,2-DCE and vinyl chloride continue to be detected at concentrations in excess of their respective Type 1/3 RRS . Vinyl chloride, which was detected for the first time in 2008, continues to be detected above the Type 1/3 RRS and has increased from the relatively stable concentrations detected from 2008 to 2010. The constituent 1,1-DCE was also detected above the Type 1/3 RRS at this well. Although 1,1-DCE has historically been detected in this well, the trends have been inconsistent and the only other exceedance of the Type 1/3 RRS was in April 2007.

The overall reduction in the concentration of PCE and TCE, coupled with the increase in cis-1,2-DCE and vinyl chloride suggest that biodegradation is ongoing in the vicinity of this well.

ETMW-115

This well is located on the downgradient edge of the plume. The constituent PCE has not been detected in this well. Cis-1,2-DCE has been detected below the Type 1/3 RRS since October 2007. Both TCE and cis-1,2-DCE have shown a gradual increase in concentration since 2008, and TCE has been detected above the Type 1/3 RRS since 2010. Although vinyl chloride fell below detectable levels in 2009, it was detected again at a concentration below the Type 1/3 RRS in 2010 and above the Type 1/3 RRS in 2011.

The increasing concentration of TCE since 2008 suggests some level of rebound, probably as a result of dissolution from the matrix of the aquifer, but the corresponding increase in cis-1,2-DCE, as well as the renewed detection of vinyl chloride, suggests that biodegradation is ongoing in the vicinity of this well.

ETMW-116

This well is located in the middle of the plume. PCE has not been detected in this well since April 2005. In 2010, TCE was detected for the first time since April 2007 at a concentration below the Type 1/3 RRS, but was not detected in 2011. The concentration of cis-1,2-DCE decreased from 2010 to 2011, continues to remain below the Type 1/3 RRS, and is well below the concentration detected in this well prior to injection. Vinyl chloride has remained relatively stable since 2008 and continues to be the only constituent in excess of the Type 1/3 RRS. Chloroethane was also detected above the Type 1/3 RRS in 2011. This constituent has been above the Type 1/3 RRS since 2008; however, the 2011 concentration indicates a decreasing trend.

The decreasing trend in cis-1,2-DCE and corresponding increasing trend for vinyl chloride suggests biodegradation is ongoing in the vicinity of this well.

ETMW-117

This well is located on the downgradient edge of the plume. The constituent PCE has not been detected in this well since April 2007. The concentration of cis-1,2-DCE has decreased since October 2007, and remains below the Type 1/3 RRS. The constituent TCE was not detected in 2011. Vinyl chloride is currently the only constituent in excess of the Type 1/3 RRS. It was detected for the first time in 2008 and the concentration has remained relatively stable since December 2009.Chloroethane was also detected above the Type 1/3 RRS in 2011. This constituent has been detected sporadically in this well since 2008 and will continue to be evaluated at future monitoring events.

The decrease in both TCE and cis-1,2-DCE, and corresponding increase in vinyl chloride over the past several monitoring events suggests biodegradation is ongoing in the vicinity of this well.

ETMW-118

This well is located on the downgradient edge of the plume. The constituent PCE has not been detected in samples from this well since 2009. Concentrations of TCE and cis-1,2-DCE have steadily decreased since December 2008 and remained below their respective Type 1/3 RRS in 2011. The concentration of vinyl chloride increased from 2010 to 2011, and is currently the only constituent in excess of the Type 1/3 RRS.

The decrease in the concentrations of PCE, TCE and cis-1,2-DCE, and corresponding increase in vinyl chloride over the past several monitoring events suggests biodegradation is ongoing in the vicinity of this well.

OTHER TRENDS

Outside of the treatment area, there were no constituents detected above the RRS. Cis-1,2-DCE was detected during the 2011 monitoring event at ETMW-120; however this concentration is below the Type 1/3 RRS and has decreased since 2010. Additionally, PCE and TCE were detected at CH2PP-1 in 2010; however, this well was dry in 2011 and a sample could not be collected. These constituents will continue to be evaluated during future monitoring events.

4. CONCLUSIONS

The historical analytical results for the site indicate that following the injection of lactate in 2004 and 2006, a reduction in contaminant concentrations was observed. In general, PCE and TCE concentrations decreased as cis-1,2-DCE and vinyl chloride (daughter products of PCE and TCE degradation) concentrations increased. This trend suggests that active biodegradation of chlorinated ethenes was taking place. Although the concentration of some chlorinated ethenes has increased since the second injection, this rebound is typical of injection in-situ remediation sites, and is likely related to contaminants desorbing from the aquifer matrix into the surrounding groundwater.

At this point, additional injection of lactate would not be beneficial, and is likely to produce conditions that are less favorable for biodegradation. The low hydraulic conductivity at the site continues to limit the migration of the contaminant plume. Migration of the plume has not been observed in over fifteen years of sampling and as with previous monitoring events, no constituents were detected above the RRS outside of the treatment area in 2011. The low potential for migration of constituents is also supported by the Biochlor® modeling that was performed and included in the Corrective Action Monitoring and Evaluation Report (O'Brien & Gere, April 2008). Furthermore, review of the analytical data at the site indicates active biodegradation is occurring within the treatment zone and that this has reduced the concentration of constituents within the affected area. The chlorinated ethenes are showing a generally decreasing concentration overall, with increasing concentrations observed only for degradation by-products.

5. RECOMMENDATIONS

Miller is currently evaluating other regulatory options for this site. These options include entry into the Georgia VRP and reclassification of the site under the Type 5 RRS due to technical impracticability. While this evaluation is taking place, Miller recommends that groundwater monitoring continue at the site on an annual basis with the next ground water monitoring event in December 2012.

6. REFERENCES

O'Brien & Gere, *Corrective Action Investigation Work Plan, Miller Brewing Company Can Plant, Moultrie, Georgia,* February 2004.

O'Brien & Gere, *Corrective Action Monitoring and Evaluation Report, Miller Brewing Company Can Plant, Moultrie, Georgia*, April 2008.

O'Brien & Gere, *Corrective Action Plan, Former Miller Brewing Company Can Plant, Moultrie, Georgia*, January 2004.

O'Brien & Gere, *Revised Compliance Status Report, Miller Brewing Company, Moultrie, Georgia*, June 2004.

USEPA, 1998, Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water; Office of Research and Development, EPA/600/R-98/128.

TABLES

Table 1
Summary of Monitoring Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Target Analytes	Field Parameters
Acetone	Temperature
2-Butanone (MEK)	Conductivity
Benzene	Dissolved Oxygen
Carbon Disulfide	pH
Chloroethane	Oxidation/Reduction Potential (ORP)
1,1-Dichloroethane (1,1-DCA)	
1,2-Dichloroethane (1-,2-DCA)	
1,1-Dichloroethene (1,1-DCE)	
cis-1,2-dichloroethene (cis-1,2-DCE)	
trans-1,2-dichloroethene (trans-1,2-DCE)	
Isobutyl Alcohol	
Tetrachloroethene (PCE)	
Toluene	
1,1,1-Trichloroethane (TCA)	
Trichloroethene (TCE)	
Trichlorofluoromethane	
Vinyl Chloride	
Xylenes (total)	

Table 2
Summary of Well Construction Details and Ground Water Elevations
Former Miller Brewing Can Plant
Moultrie, Georgia

Well	Ground Surface Elevation (ft msl)	TOC Elevation (ft msl)	Total Well Depth from Ground Surface (ft)	Screened Interval (ft bgs)	Well Diameter (in)	Depth to Water Below Top of Casing (ft)									
						4/6/2004	4/25/2005	10/24/2005	4/17/2006	4/16/2007	10/22/2007	12/8/2008	12/14/2009	12/6/2010	12/5/2011
CH2MW-1	293.62	293.84	10	5 - 10	1	6.45	4.55	8.13	5.43	7.33	3.18	2.62	1.22	5.16	5.72
CH2MW-3	295.45	295.53	13	3 -13	2	4.92	3.55	8.10	4.72	5.85	0.97	3.69	2.08	9.96	8.11
CH2MW-4D	293.65	293.54	45.93	36 - 46	2	16.05	16.10	19.44	15.62	16.71	18.88	13.79	13.88	19.31	17.87
ETCMW-113	296.32	296.32	12	2 - 12	2	6.25	4.40	7.07	5.58	5.75	5.94	5.12	4.93	6.51	6.48
ETCMW-114	294.02	297.66	11.7	1.7 - 11.7	4	7.78	6.60	8.15	7.36	7.94	6.52	6.67	5.89	7.61	7.76
CH2MW-114D	294.16	297.45	22.5	17.5 - 22.5	1	8.54	7.00	9.88	8.40	9.32	9.99	8.64	8.55	11.13	9.64
ETCMW-115	293.22	296.10	11.5	1.5 - 11.5	2	6.19	5.14	6.96	5.39	6.49	4.79	4.72	3.76	5.85	6.51
ETMW-116	292.29	292.29	11	1 - 11	4	1.98	0.70	1.81	1.16	1.46	0.89	0.70	0.52	1.37	1.95
ETMW-117	292.3	292.30	11	1 - 11	2	2.40	0.89	2.71	1.29	2.42	0.71	1.30	0.24	1.90	1.81
ETMW-118	292.34	292.34	11	1 - 11	2	2.90	0.40	3.42	2.15	1.61	1.73	2.20	1.54	3.32	2.69
ETMW-119	294.26	297.05	11	1 - 11	2	6.86	5.70	8.02	6.31	6.65	5.66	5.32	4.14	6.38	6.86
ETMW-120	293.76	296.84	11	1 - 11	2	6.69	4.50	9.42	5.46	7.18	4.77	4.56	3.69	6.27	7.29
ETMW-121	294.84	298.02	11	1 - 11	2	7.70	5.78	11.72	6.43	8.72	6.75	4.53	2.91	11.48	10.12
CH2PP-1	293.56	293.72	12	7 - 12	1	7.67	5.55	9.45	7.63	8.81	6.00	3.56	2.87	9.22	8.61

Well	Ground Surface Elevation (ft msl)	TOC Elevation (ft msl)	Total Well Depth from Ground Surface (ft)	Screened Interval (ft bgs)	Well Diameter (in)	Water Level Elevation (ft msl)									
						4/6/2004	4/25/2005	10/24/2005	4/17/2006	4/16/2007	10/22/2007	12/8/2008	12/14/2009	12/6/2010	12/5/2011
CH2MW-1	293.62	293.84	10	5 - 10	1	287.39	289.29	285.71	288.41	286.51	290.66	291.22	292.62	288.68	288.12
CH2MW-3	295.45	295.53	13	3 -13	2	290.61	291.98	287.43	290.81	289.68	294.56	291.84	293.45	285.57	287.42
CH2MW-4D	293.65	293.54	45.93	36 - 46	2	277.49	277.44	274.10	277.92	276.83	274.66	279.75	279.66	274.23	275.67
ETCMW-113	296.32	296.32	12	2 - 12	2	290.07	291.92	289.25	290.74	290.57	290.38	291.20	291.39	289.81	289.84
ETCMW-114	294.02	297.66	11.7	1.7 - 11.7	4	289.88	291.06	289.51	290.30	289.72	291.14	290.99	291.77	290.05	289.90
CH2MW-114D	294.16	297.45	22.5	17.5 - 22.5	1	288.91	290.45	287.57	289.05	288.13	287.46	288.81	288.90	286.32	287.81
ETCMW-115	293.22	296.10	11.5	1.5 - 11.5	2	289.91	290.96	289.14	290.71	289.61	291.31	291.38	292.34	290.25	289.59
ETMW-116	292.29	292.29	11	1 - 11	4	290.31	291.59	290.48	291.13	290.83	291.40	291.59	291.77	290.92	290.34
ETMW-117	292.3	292.30	11	1 - 11	2	289.90	291.41	289.59	291.01	289.88	291.59	291.00	292.06	290.40	290.49
ETMW-118	292.34	292.34	11	1 - 11	2	289.44	291.94	288.92	290.19	290.73	290.61	290.14	290.80	289.02	289.65
ETMW-119	294.26	297.05	11	1 - 11	2	290.19	291.35	289.03	290.74	290.40	291.39	291.73	292.91	290.67	290.19
ETMW-120	293.76	296.84	11	1 - 11	2	290.15	292.34	287.42	291.38	289.66	292.07	292.28	293.15	290.57	289.55
ETMW-121	294.84	298.02	11	1 - 11	2	290.32	292.24	286.30	291.59	289.30	291.27	293.49	295.11	286.54	287.90
CH2PP-1	293.56	293.72	12	7 - 12	1	286.05	288.17	284.27	286.09	284.91	287.72	290.16	290.85	284.50	285.11

Notes
Elevations based on a survey performed by H.J. Griffen and Associates in June 1998. Elevations reference a DOT benchmark.
Wells CH2MW-1A, CH2MW-2, CH2MW-5, OBGMW-122, OBGMW-123 and OBGMW-124 were abandoned on 12/8/2008

Table 3
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume ETCMW-113									In Plume ETCMW-114										
					4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010	12/7/2011	4/28/2005	10/27/2005	4/20/2006	4/17/2007	4/17/2007 DUP-01	10/24/2007	10/24/2007 DUP-02	12/10/2008	12/16/2009	12/9/2010	12/9/2010 DUP-2	12/5/2011
Acetone	67-64-1	mg/L	4		< 0.04	< 0.01	< 0.01	**0.235 D**	**0.448 D**	**0.038**	< 0.01	< 0.01	**0.028**	< 0.1	< 0.5	< 0.100	< 0.50	<2	< 0.01	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.04	< 0.01	< 0.01	**0.191 D**	**0.380 D**	**0.014**	< 0.01	< 0.01	< 0.01	< 0.1	< 0.5	< 0.100	< 0.50	<2	< 0.01	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	**0.0016**	**0.00052**	**0.00092**	**0.00069**	< 0.005	< 0.005	< 0.005	< 0.025	< 0.10	**0.00170**	**0.00165**	< 0.005	**0.0029**	< 0.005	< 0.005	**0.00096**
Carbon Disulfide	75-15-0	mg/L	4		**0.0056 D**	< 0.001	< 0.0005	**0.00810 D**	< 0.005	**0.00072**	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	**0.0057**	< 0.0005	**0.0024**	< 0.0005	< 0.010	< 0.001	< 0.010	< 0.05	< 0.20	**0.0149**	**0.0143**	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.018 D**	**0.011**	**0.00884**	**0.0173 D**	**0.0117 D**	**0.0089**	**0.0069**	**0.019**	**0.020**	**0.062 D**	**0.13**	**0.0839 D**	**0.102 D**	< 0.10	**0.0520 E**	**0.0505 E**	**0.045**	**0.033**	**0.055 D**	**0.052 D**	**0.043**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	**0.00082**	**0.00080**	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0051 D**	**0.003**	**0.00274**	**0.0083 D**	< 0.005	**0.0055**	**0.0032**	**0.0042**	**0.0085**	**0.100 D**	**0.24**	**0.138 D**	< 0.025	< 0.10	**0.00691**	**0.00642**	**0.066**	**0.053**	**0.085 D**	**0.081 D**	**0.085**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.091 D**	**0.058**	**0.0554 D**	**0.178 D**	**0.147 D**	**0.200**	**0.120**	**0.280**	**0.300**	**1.7 D**	**4.4**	**3.160 D**	**1.830 D**	**1.760 D**	**0.185 E**	**0.179 E**	**1.1**	**0.820**	**1.500 D**	**1.400 D**	**1.500 D**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	**0.00058**	< 0.0005	< 0.005	< 0.05	**0.0314 D**	< 0.025	< 0.10	**0.00331**	**0.00313**	< 0.005	**0.0014**	< 0.005	< 0.005	**0.0032**
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.200	< 0.1	< 0.050	**1.45 D**	< 0.5	< 0.050	< 0.050	< 0.050	< 0.050	< 0.500	< 5	< 0.5	<2.5	< 10	< 0.050	< 0.050	< 0.5	< 0.050	< 0.5	< 0.5	< 0.05
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.0078 D**	**0.0061**	**0.00361**	**0.00640 D**	< 0.005	< 0.0005	**0.00053**	**0.0022**	< 0.0005	**0.074 D**	**0.13**	**0.101 D**	< 0.025	< 0.10	< 0.0005	< 0.0005	**0.006**	**0.0092**	**0.021 D**	**0.020 D**	**0.026**
Toluene	108-88-3	mg/L	1		< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	**0.00222**	**0.00202**	< 0.005	**0.00099**	< 0.005	< 0.005	< 0.0005
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005[7]	**0.056 D**	**0.059**	**0.0246**	**0.0406 D**	< 0.0005	**0.0025**	**0.0028**	**0.0035**	**0.0016**	**1.0 D**	**2.2**	**1.480 D**	< 0.025	< 0.10	**0.00897**	**0.00823**	**0.44**	**0.34**	**0.520 D**	**0.500 D**	**0.590 D**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.0004	< 0.001	< 0.001	< 0.010	< 0.01	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.010	< 0.05	< 0.010	< 0.05	< 0.001	< 0.001	< 0.001	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.0004	< 0.001	< 0.001	< 0.010	< 0.01	**0.0092**	**0.006**	**0.0068**	**0.027**	< 0.010	**0.026**	**0.0236 D**	**3.740 D**	**3.550 D**	**.524 E**	**0.547 E**	< 0.005	**0.0052**	**0.047 D**	**0.040 D**	**0.0033**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0002	< 0.001	< 0.0005	< 0.010	< 0.01	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.010	< 0.05	< 0.20	**0.00169**	**0.00165**	< 0.005	**0.00057**	< 0.005	< 0.005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April 2005 through December 2011 corrective action monitoring
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Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed
NM Not Measured, Dry well

Detected concentration

Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 3
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume CH2MW-114D									In Plume ETCMW-115								
					4/28/2005	10/26/2005	4/20/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/8/2010	12/7/2011	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008	12/16/2009	12/8/2010	12/7/2011
Acetone	67-64-1	mg/L	4		**0.190 D**	**0.52**	< 0.01	< 0.1	**0.123 E**	< 0.010	**0.53**	**0.390**	**0.410**	< 0.010	< 0.01	< 0.010	< 0.025	< 0.025	< 0.010	< 0.010	< 0.010	**0.012**
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	**0.430 D**	< 0.1	< 0.01	< 0.1	**0.0442**	**0.063**	< 0.01	**0.120**	**0.096**	< 0.010	< 0.01	< 0.010	< 0.025	< 0.025	< 0.010	< 0.010	< 0.010	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.00062**	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	**0.00074**	**0.00076**	**0.0015**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.00830 D**	< 0.01	< 0.001	< 0.005	**0.00249**	**0.0007**	**0.00098**	**0.0012**	**0.00078**	**0.0063**	**0.0076**	**0.00367**	**0.00848 D**	**0.00308 D**	**0.00087**	**0.0011**	**0.0039**	**0.0038**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.005 J	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0060 D**	< 0.01	< 0.001	**0.00580 D**	**0.00395**	**0.0051**	**0.0081**	**0.013**	**0.012**	< 0.0025	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.120 D**	**0.097**	< 0.001	**0.204 D**	**0.146 E**	**0.120**	**0.280**	**0.400**	**0.400 D**	**0.041 D**	**0.094**	**0.0346**	**0.120 D**	**0.0318 D**	**0.0078**	**0.011**	**0.040**	**0.046 D**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	**0.00076**	**0.00051**	**0.00067**	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.500	< 1	< 0.1	< 0.005	**0.622 E**	**1.300**	< 0.050	**0.079**	< 0.050	< 0.250	< 0.1	< 0.050	< 0.125	< 0.125	< 0.050	< 0.050	< 0.050	< 0.050
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.0072 D**	< 0.01	< 0.001	**0.00530 D**	**0.00288**	**0.0042**	**0.0038**	**0.0046**	**0.00055**	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0025	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005[7]	**0.230 D**	**0.240**	< 0.001	**0.135 D**	**0.056 E**	**0.140**	**0.087**	**0.076**	**0.025**	**0.0057**	**0.0039**	**0.00901**	**0.0214 D**	**0.0079 D**	**0.0027**	**0.0032**	**0.0068**	**0.014 D**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.005 J	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	**0.00068**	**0.0025**	**0.025**	**0.014**	**0.00346**	**0.00915 D**	< 0.0025	**0.0011**	< 0.0005	**0.0010**	**0.0029**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.00061**	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005

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(6) Originally reported as a detection in dilution analysis as a result o
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(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed
NM Not Measured, Dry well

Detected concentration

Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.
** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 3
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume ETMW-116									In Plume ETMW-117									
					4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/16/2009	12/7/2010	12/6/2011	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/2008 DUP-2	12/15/2009	12/15/2009 DUP-2	12/8/2010	12/6/2011
Acetone	67-64-1	mg/L	4		**0.360 D**	**1.6**	**0.968 D**	**0.398 D**	< 0.05	**0.29**	< 0.01	< 0.01	< 0.01	< 0.04	< 0.01	< 0.01	**2.090 D**	**0.513 ED**	**0.016**	**0.012**	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	**0.053 D**	**0.38**	**0.163 D**	< 0.1	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.04	< 0.01	< 0.01	**0.213 D**	**0.0785 D**	< 0.01	< 0.01	< 0.0005	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	**0.0015**	**0.0017**	**0.0014**	**0.0013**	**0.0010**	**0.00069**
Carbon Disulfide	75-15-0	mg/L	4		**0.0037 D**	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	**0.00054**	**0.0007**	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	**0.007**	**0.0088**	**0.0079**	**0.0049**	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	**0.0027**	**0.0029**	< 0.0005	**0.003**	< 0.0005	**0.0011**
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.023 D**	< 0.01	**0.00870 D**	**0.00910 D**	**0.00660 D**	**0.0065**	**0.0084**	**0.0099**	**0.0089**	**0.014 D**	**0.013**	**0.0105**	**0.00935 D**	**0.00825 D**	**0.0048**	**0.0056**	**0.0043**	**0.004**	**0.0066**	**0.0049**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0025	< 0.005 J	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0090 D**	< 0.007 J	**0.00540 D**	< 0.005	< 0.0025	< 0.0005	< 0.0005	**0.00082**	< 0.0005	**0.0038 D**	**0.0026**	**0.00075**	**0.00305 D**	< 0.0025	< 0.0005	**0.0010**	< 0.0005	< 0.0005	**0.00078**	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.100 D**	**0.18**	**0.221 D**	**0.0831 D**	< 0.0025	**0.011**	**0.0043**	**0.014**	**0.0026 D**	**0.030 D**	**0.03**	**0.0225**	**0.0315 D**	**0.0762 D**	**0.041**	**0.050**	**0.021**	**0.018**	**0.027**	**0.019**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	**0.00213**	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		**1.8**	**1.5**	< 0.5	< 0.005	< 0.25	< 0.050	< 0.050	< 0.050	< 0.050	< 0.2	< 0.1	< 0.050	**2.930 D**	< 0.25	< 0.0005	< 0.0005	< 0.050	< 0.050	< 0.050	< 0.050
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.012 D**	**0.0062 J**	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0050 D**	**0.0042**	**0.00378**	**0.00435 D**	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	**0.0025**	< 0.0005	< 0.0005	**0.00065**	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005[7]	**0.170 D**	**0.12**	< 0.005	**0.0291 D**	< 0.0025	< 0.0005	< 0.0005	**0.0017**	< 0.0005	**0.094 D**	**0.098**	**0.079 D**	**0.0744 D**	**0.0302 D**	**0.00056**	**0.00066**	< 0.0005	< 0.0005	**0.0017**	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.005	< 0.005 J	**0.0171 D**	**0.0581 D**	**0.0384 D**	**0.120**	**0.170**	**0.130**	**0.120**	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	**0.024**	**0.025**	**0.044**	**0.050**	**0.045**	**0.047**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0025	< 0.01	< 0.01	< 0.010	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
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May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
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August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April 2005 through December 2011 corrective action monitoring
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Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene usec
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
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(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed
NM Not Measured, Dry well

Detected concentration

Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 3
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume											Upgradient										
					ETMW-118											CH2MW-3										
					4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	10/24/2007 DUP-01	12/9/2008	12/15/2009	12/9/2010	12/6/2011	12/6/2011 DUP-2	4/27/2005	4/27/2005 DUP2	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010	12/7/2011
Acetone	67-64-1	mg/L	4		**0.021**	< 0.02	< 0.01	**0.192 D**	< 0.5	< 0.5	**0.37**	**0.56**	**0.37**	**0.066**	**0.065**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.02	< 0.01	< 0.050	< 0.5	< 0.5	**0.26**	**0.49**	**0.22**	**0.031**	**0.028**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		**0.00079**	< 0.002	< 0.0005	**0.00370 D**	< 0.025	< 0.025	**0.0028**	**0.0012**	**0.0010**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	**0.0038**	**0.00437**	< 0.005	< 0.05	< 0.05	**0.0032**	**0.0019**	**0.0013**	**0.00071**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.014**	**0.011**	**0.00961**	**0.0139 D**	< 0.025	< 0.025	**0.014**	**0.012**	**0.0064**	**0.0065**	**0.0062**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0037**	**0.0054**	**0.00489**	**0.00575 D**	< 0.025	< 0.025	**0.003**	**0.0024**	**0.00081**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.120 D**	**0.13**	**0.127 D**	**0.117 D**	**0.108 D**	**0.111 D**	**0.088**	**0.096**	**0.050**	**0.0085**	**0.0080**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.2	< 0.050	**25.6 DH**	**13.0 D**	**13.2 D**	**0.069**	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	**0.0032**	**0.00257**	**0.00460 D**	< 0.025	< 0.025	**0.0032**	**0.0015**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.005	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.0031**	**0.049**	**0.0316**	**0.0489 D**	**0.0390 D**	**0.0400 D**	**0.037**	**0.018**	**0.002**	**0.00083**	**0.00069**	< 0.0005	< 0.0005	< 0.001	< 0.0005	**< 0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	**< 0.001**	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	**0.033**	**0.031**	**0.016**	**0.044**	**0.041**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.002	< 0.0005	< 0.005	< 0.05	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

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Notes:

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(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of
contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed
NM Not Measured, Dry well

Detected concentration

Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 3
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient ETMW-119												Cross Gradient ETMW-120								
					4/28/2005	10/25/2005	10/25/2005 DUP 1	4/18/2006	4/17/2007	10/25/2007	12/9/2008	12/9/2008 DUP-1	12/14/2009	12/14/2009 DUP-1	12/9/2010	12/5/2011	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/23/2007	12/11/2008	12/14/2009	12/9/2010	12/5/2011
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	**0.0212**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	**0.0998 DH**	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.00064**	< 0.0005	**0.0012**	**0.0052**	< 0.0005	**0.00135**	**0.00094**	**0.00056**	**0.00073**	**0.0032**	**0.0014**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.1	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.00061**	< 0.001	< 0.001	**0.00053**	**0.00074**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0021**	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005

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(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
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B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed
NM Not Measured, Dry well

Detected concentration

Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 3
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient ETMW-121										Cross Gradient CH2PP-1								
					4/28/2005	10/26/2005	4/19/2006	4/18/2007	10/23/2007	12/11/2008	12/14/2009	12/6/2010	12/6/2011	12/6/2011 DUP-1	4/26/2005	10/25/2005	4/19/2006	4/17/2007	10/24/2007	12/10/2008	12/15/2009	12/8/2010	12/6/2011
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.01	**0.021**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NM
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NM
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NM
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NM
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	NM
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.00055**	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NM
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NM
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NM
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NM
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NM
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	NM
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0021**	NM
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NM
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NM
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0017**	NM
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	NM
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	NM
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	NM

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April 2005 through December 2011 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed
NM Not Measured, Dry well

Detected concentration

Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

Table 3
Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient											Downgradient								
					CH2MW-4D											CH2MW-1								
					4/26/2005	4/26/2005 DUP1	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009	12/8/2010	12/8/2010 DUP-1	12/7/2011	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/24/2007	12/8/2008	12/16/2009	12/8/2010	12/7/2011
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0013**	< 0.001	**0.00059**	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0011**	**0.0011**	**0.00052**	< 0.0005	< 0.0005	< 0.0005	< 0.0025	**0.00059**	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.25	< 0.050	< 0.050
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	**0.00071**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005[7]	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0041**	**0.0044**	**0.00202**	**0.00176**	**0.00082**	**0.0012**	< 0.0025	**0.0023**	**0.00069**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.0005
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.0005

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Notes:

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Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank
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E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed
NM Not Measured, Dry well

Detected concentration

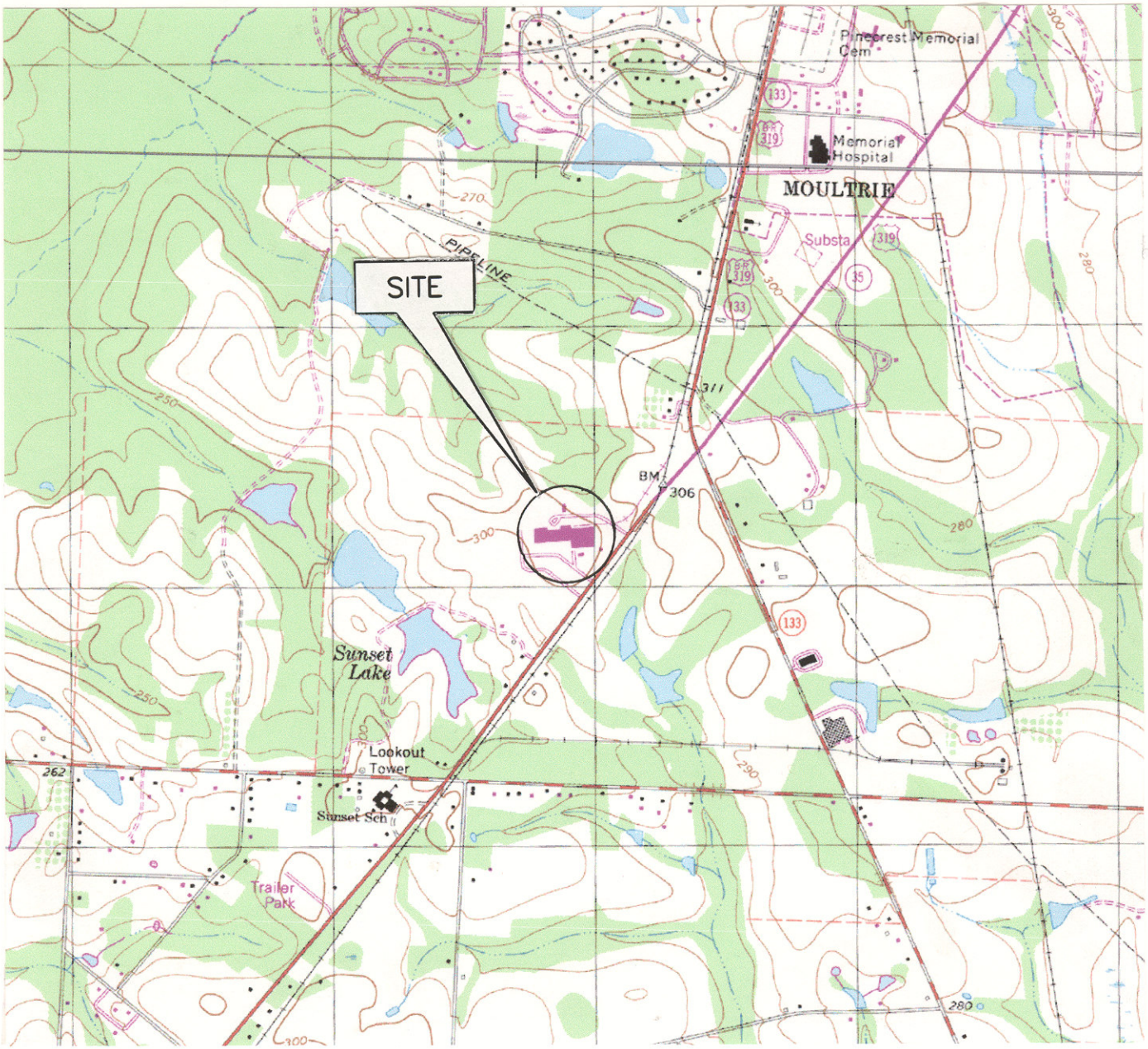
Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

FIGURES

I:\RALEIGH\PROJECTS\1669\26765\DWGS\SITELOC.dwg

FIGURE 1



SITE LOCATION MAP

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GA.

MAP SOURCE: USGS 7.5-MIN. SERIES TOPOGRAPHIC QUADRANGLE "COOLIDGE, GA" AND "MOULTRIE, GA".

1 0 1/2 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 0 5 1 KILOMETER

SCALE: 1:24000

O'BRIEN & GERE ENGINEERS, INC.

FILE NO. 26765

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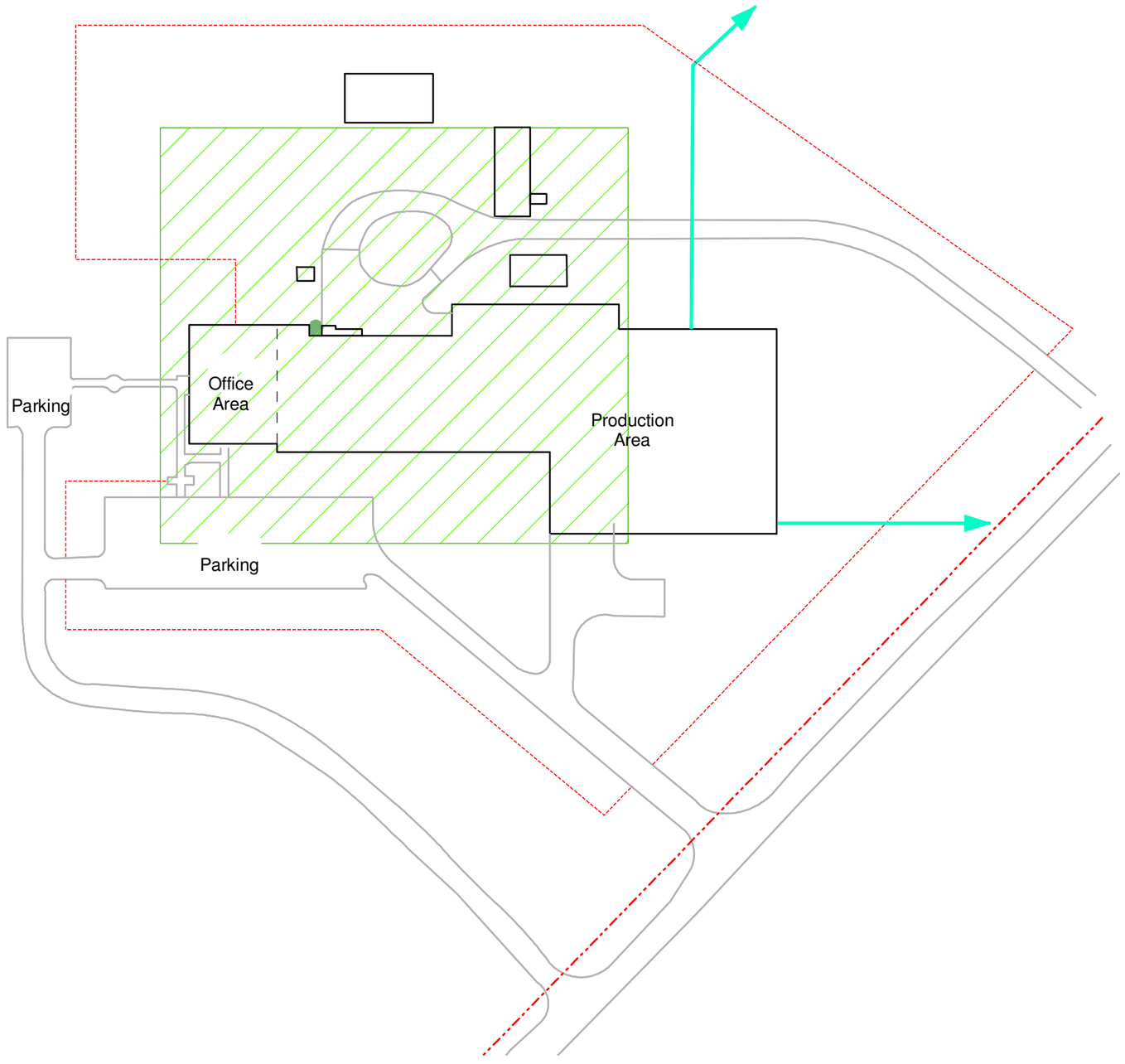

FIGURE 2

Chain Link Fence

Property Boundary

Road

Storm Water Drainage

Area shown on Figure 3

Former Waste Solvent Tank Piping Release

N

0 150 300

Feet

SITE PLAN

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2011

O'BRIEN & GERE

NAME: Site Plan I

DATE: 12/28/11

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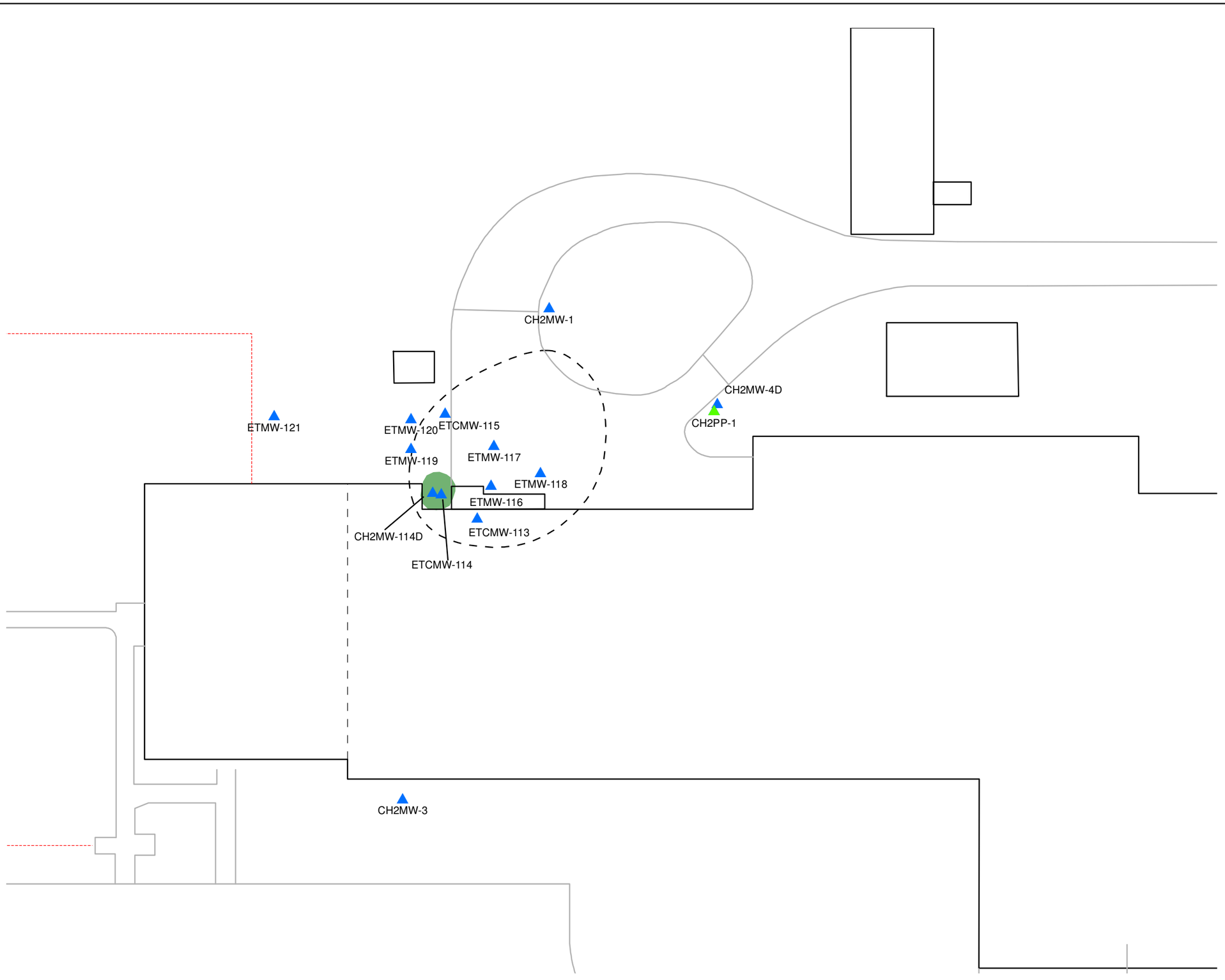
FIGURE 3



Monitoring Well

Sample Analysis

- VOCs
- Not Sampled
- Former Waste Solvent Tank Piping Release
- Chain Linked Fence
- Road
- Treatment Area

N

0 25 50 100

Feet

GROUND WATER MONITORING NETWORK

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2011

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PATH: I:\Millercoors.166\48328.Groundwater-Sam\Docs\Reports\Figures

NAME: Ground Water Monitoring Network

DATE: 12/29/11

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NAME: Potentiometric Surface_December 2011

DATE: 12/29/11

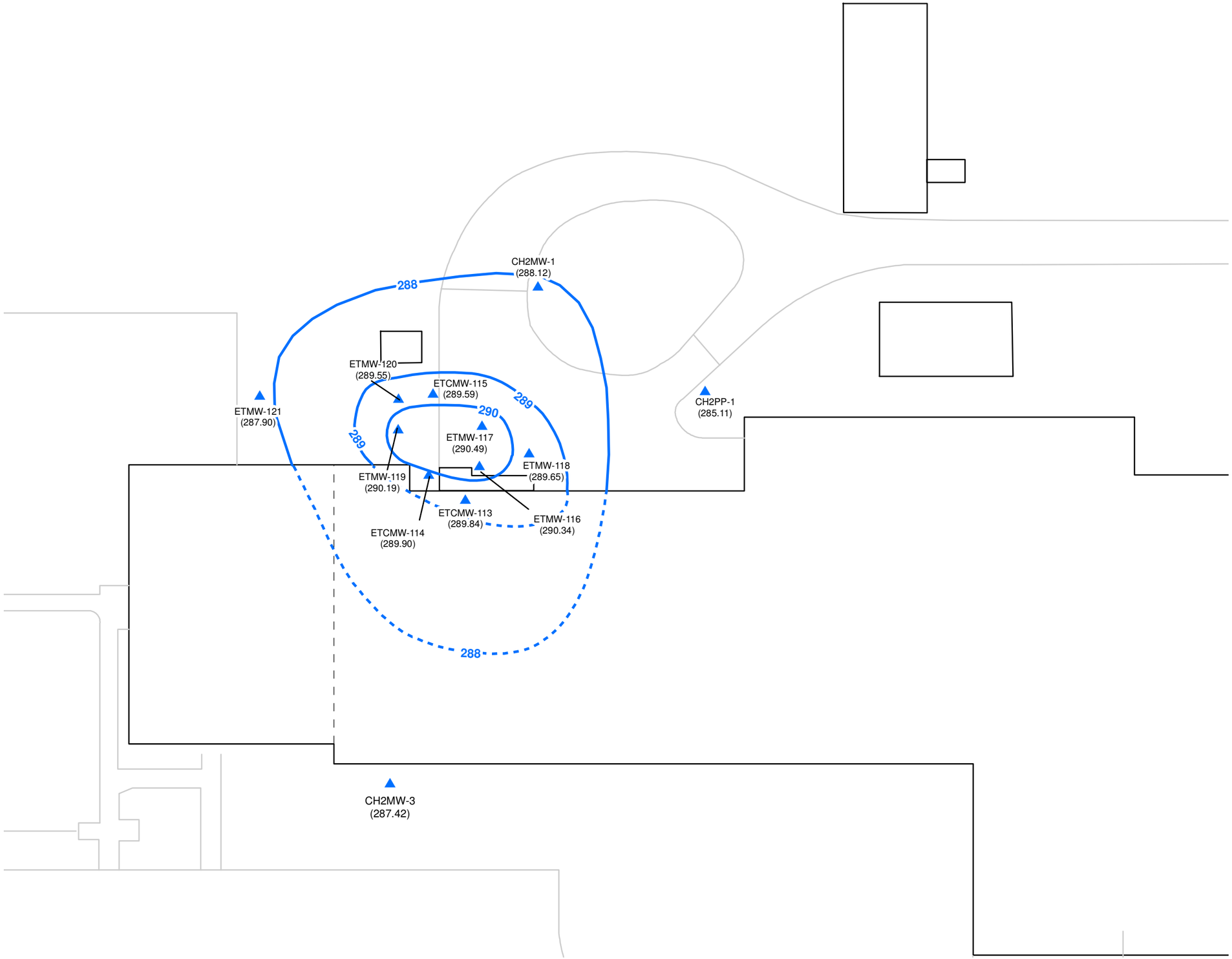

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FIGURE 4

Monitoring Wells

Ground Water Elevation (ft msl)

Inferred Ground Water Elevation (ft msl)

N

0 25 50 100

Feet

GROUND WATER POTENTIOMETRIC SURFACE

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2011

O'BRIEN & GERE

FIGURE 5

Constituent (mg/L)	CH2MW-1
Trichloroethene	0.00069

Constituent (mg/L)	ETCMW-115
Acetone	0.012
1,1-Dichloroethane	0.0038
cis-1,2-Dichloroethene	0.046
Trichloroethene	0.014
Vinyl Chloride	0.0029

Constituent (mg/L)	ETMW-120
cis-1,2-Dichloroethene	0.0014

Constituent (mg/L)	ETMW-117
Benzene	0.00069
Chloroethane	0.0011
1,1-Dichloroethane	0.0049
cis-1,2-Dichloroethene	0.019
Vinyl Chloride	0.047

Constituent (mg/L)	ETMW-118
Acetone	0.066
2-Butanone	0.031
Chloroethane	0.00071
1,1-Dichloroethane	0.0065
cis-1,2-Dichloroethene	0.0085
Trichloroethene	0.00083
Vinyl Chloride	0.044

Constituent (mg/L)	CH2MW-114D
Acetone	0.410
2-Butanone	0.096
1,1-Dichloroethane	0.00078
1,1-Dichloroethene	0.012
cis-1,2-Dichloroethene	0.400
trans-1,2-Dichloroethene	0.00051
Tetrachloroethene	0.00055
Trichloroethene	0.025
Vinyl Chloride	0.0025

Constituent (mg/L)	ETMW-116
Chloroethane	0.0049
1,1-Dichloroethane	0.0089
cis-1,2-Dichloroethene	0.0026
Toluene	0.00065
Vinyl Chloride	0.120

Constituent (mg/L)	ETCMW-114
Benzene	0.00096
1,1-Dichloroethane	0.043
1,1-Dichloroethene	0.085
cis-1,2-Dichloroethene	1.500
trans-1,2-Dichloroethene	0.0032
Tetrachloroethene	0.026
Trichloroethene	0.590
Vinyl Chloride	0.0033

Constituent (mg/L)	ETCMW-113
Acetone	0.028
Benzene	0.00069
1,1-Dichloroethane	0.020
1,1-Dichloroethene	0.0085
cis-1,2-Dichloroethene	0.300
Trichloroethene	0.0016
Vinyl Chloride	0.027

▲ Monitoring Well

Treatment Area

Note: Constituents were not detected in the background well (CH2MW-3).

N

FORMER MILLER BREWING CANNING FACILITY MOULTRIE, GA

CONSTITUENTS DETECTED IN GROUNDWATER

0 7.5 15 30

Feet

1/31/2012
48328

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PLOTDATE: 02/01/12 9:53:01 AM GarretS

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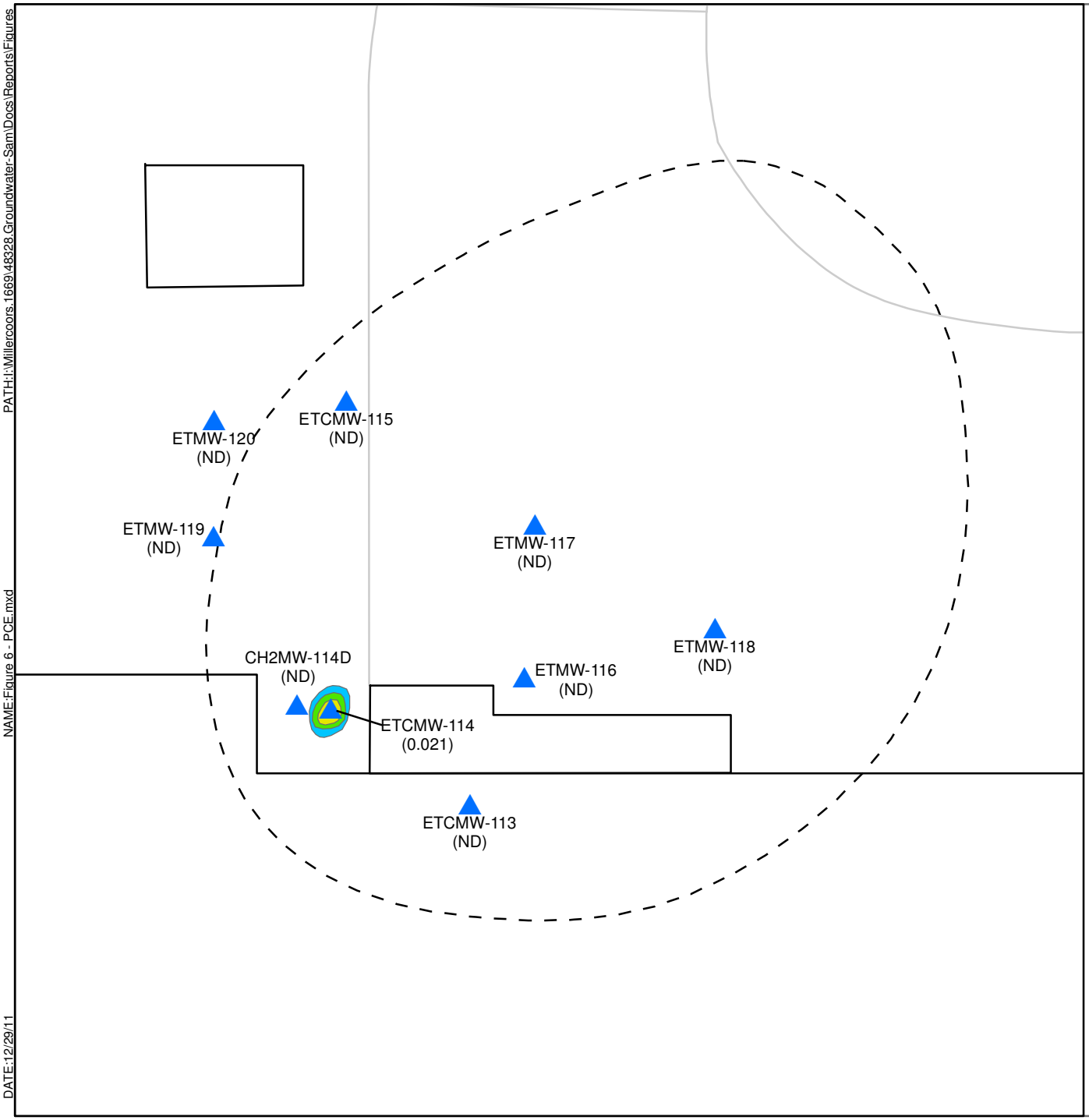


FIGURE 6

Monitoring Well

Treatment Area

Tetrachloroethene (PCE) concentration above RRS (mg/L)

- >1.0000
- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

ND indicates that PCE was not detected at concentrations above the Type 1/3 RRS

PCE Type 1/3 RRS = 0.005

N

0 10 20

Feet

TETRACHLOROETHENE CONCENTRATION ABOVE RRS IN 2011

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2011

O'BRIEN & GERE

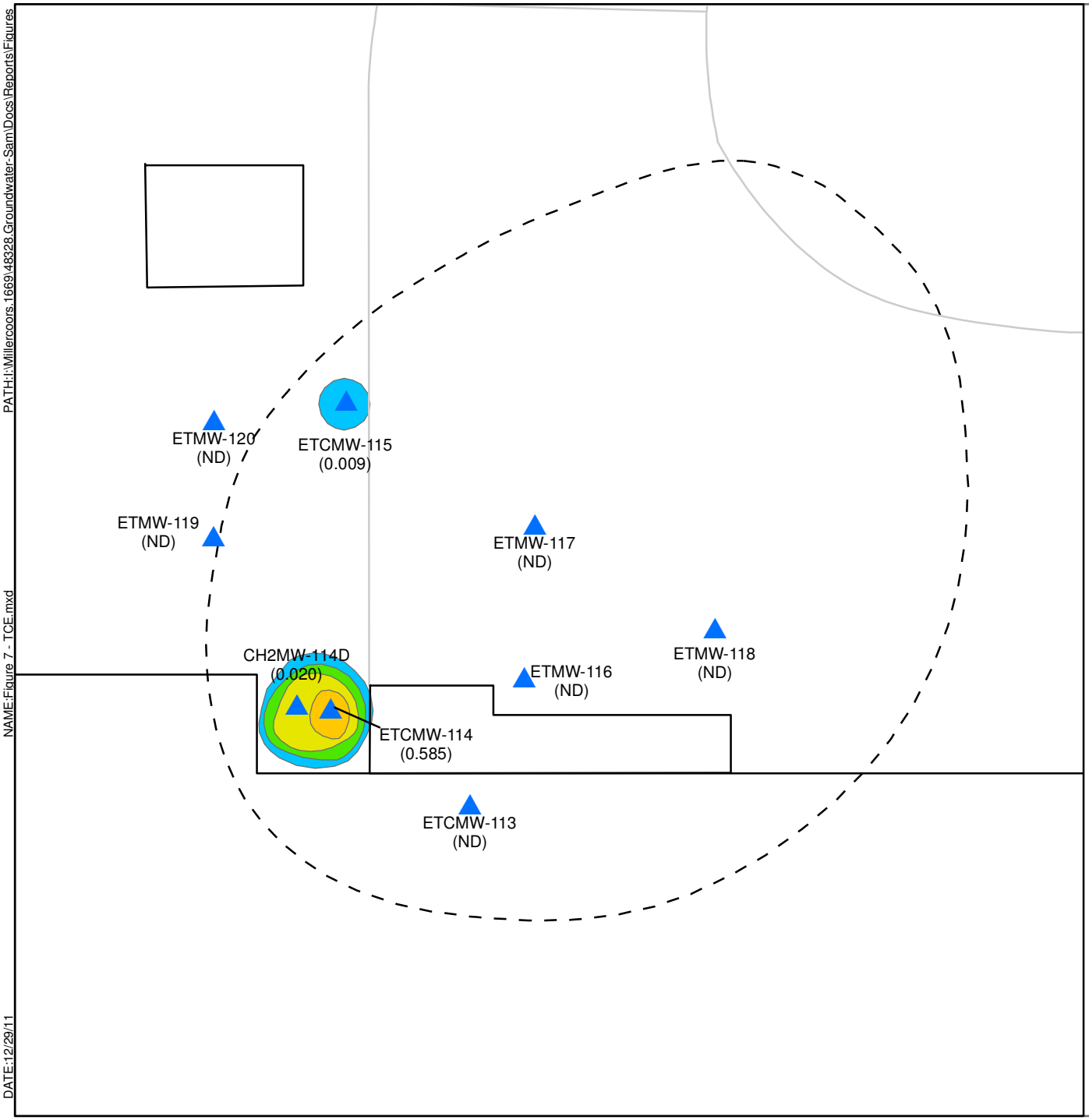


FIGURE 7

Monitoring Well

Treatment Area

Trichloroethene (TCE)
concentration above RRS (mg/L)

- >1.0000
- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

ND indicates that TCE was not detected at concentrations above the Type 1/3 RRS

TCE Type 1/3 RRS = 0.005

N

0 10 20

Feet

TRICHLOROETHENE CONCENTRATION ABOVE RRS IN 2011

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2011

O'BRIEN & GERE

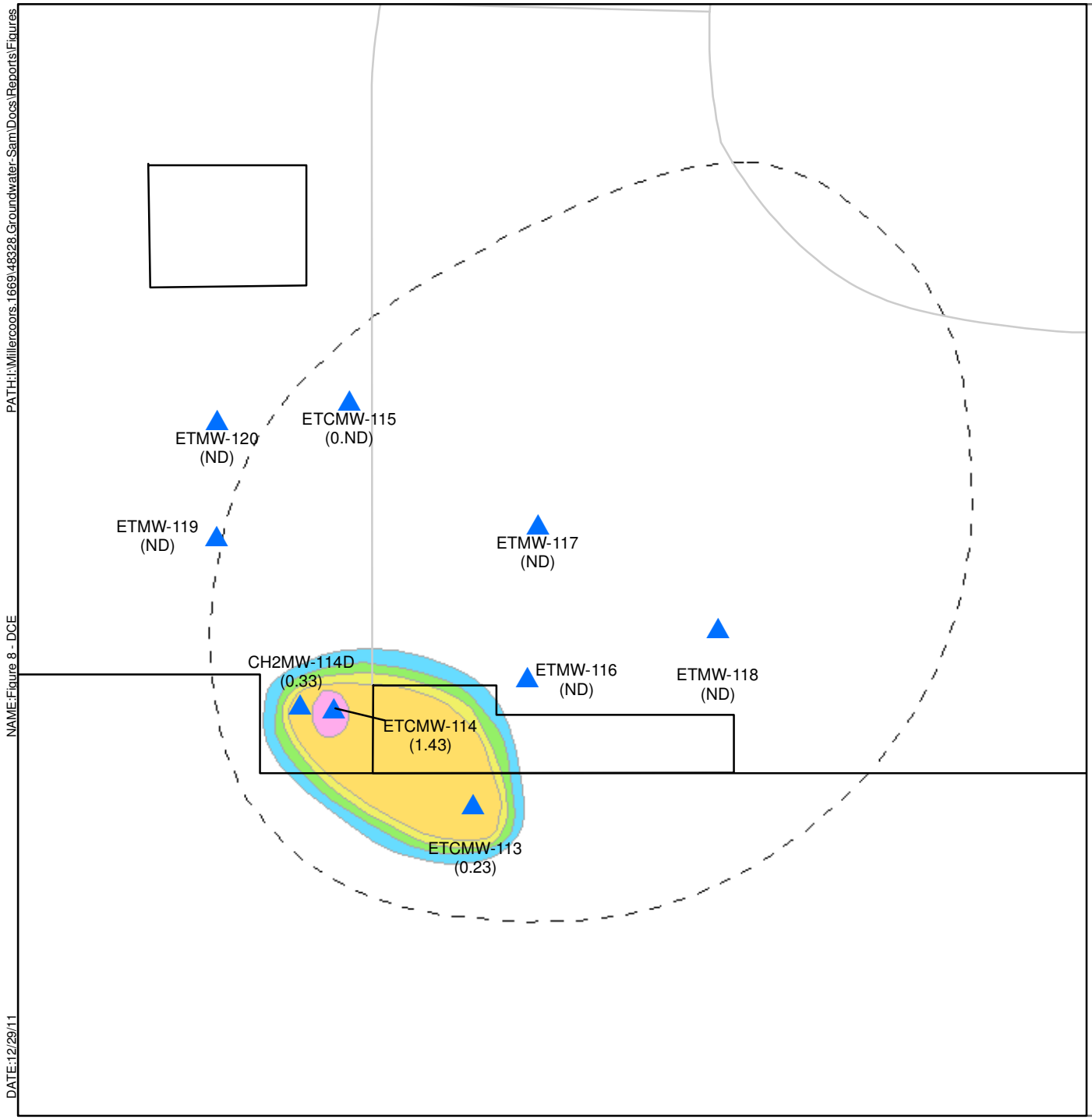


FIGURE 8

Monitoring Well

Treatment Area

cis-1,2-dichloroethene (cis-1,2-DCE) concentration above RRS (mg/L)

- >1.0000
- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

ND indicates that cis-1,2-DCE was not detected at concentrations above the Type 1/3 RRS

cis-1,2-DCE Type 1/3 RRS = 0.07

N

0 10 20

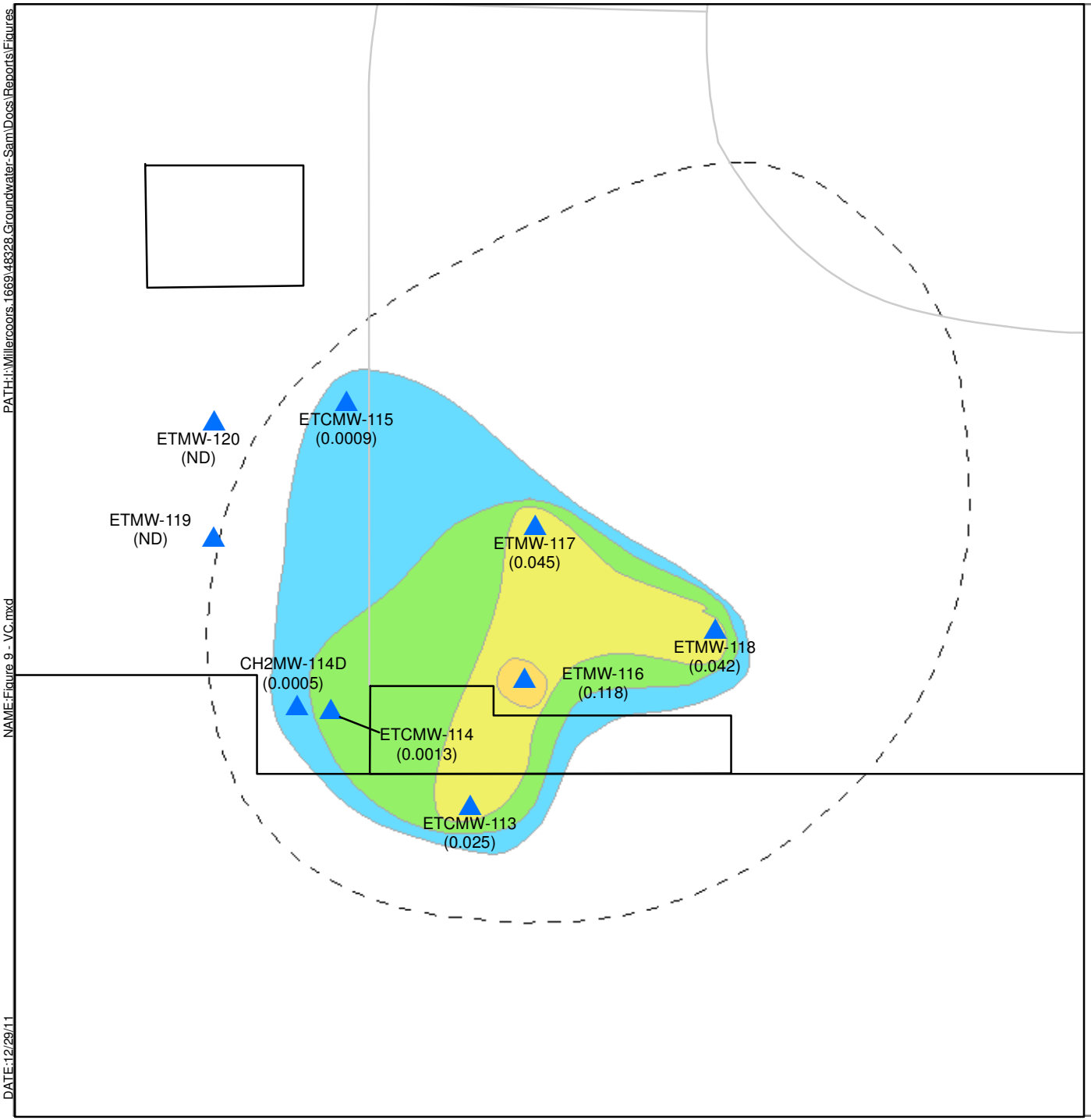
Feet

CIS-1,2-DICHLOROETHENE CONCENTRATION ABOVE RRS IN 2011

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2011

O'BRIEN & GERE



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NAME:Figure 9 - VC.mxd

DATE:12/29/11

FIGURE 9

Monitoring Well

Treatment Area

Vinyl chloride concentration above RRS (mg/L)

- >1.0000
- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

ND indicates that vinyl chloride was not detected at concentrations above the Type 1/3 RRS

vinyl chloride Type 1/3 RRS = 0.002

N

0 10 20

Feet

VINYL CHLORIDE CONCENTRATION ABOVE RRS IN 2011

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2011

O'BRIEN & GERE

APPENDICES

October 4, 2011 GAEPD Letter

Georgia Department of Natural Resources

2 Martin Luther King, Jr. Dr., S.E., Suite 1462 East, Atlanta, Georgia 30334
Mark Williams, Commissioner
Environmental Protection Division
F. Allen Barnes, Director
Land Protection Branch
Mark Smith, Branch Chief

Reply To:
Response and Remediation Program
2 Martin Luther King, Jr. Drive, S.E.
Suite 1462, East Tower
Atlanta, Georgia 30334-9000
Office 404/657-8600 Fax 404-657-0807

October 4, 2011

O'Brien & Gere Engineers, Inc.
C/O Ms. Sarah Slagle-Garret, P.E.
2610 Wycliff Road, Suite 104
Raleigh, NC 27607

Re: Former Miller Brewing Company Can Plant, HSI # 10425
Request to Omit Geochemical Parameters from Monitoring Plan, September 15, 2011

Dear Ms. Slagle-Garret:

The Georgia Environmental Protection Division (EPD) has reviewed your recent request on behalf of Miller Brewing Company to limit the constituents included in the sampling program to volatile organic compounds, eliminating the following geochemical parameters from the sampling program: alkalinity, chloride, iron, manganese, nitrate, sulfate, sulfide, methane, ethane, ethene, soluble organic carbon, total organic carbon, ferrous iron, and carbon dioxide. EPD concurs that it is no longer necessary to monitor these parameters.

Please direct questions regarding this matter to Terry Allison of the Response and Remediation Program at (404) 657-8664.

Sincerely,

David Reuland
Unit Coordinator
Response and Remediation Program

File: HSI Site # 10425

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Historical Summary of Volatile Organic Constituents in Ground Water

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Downgradient CH2MW-1											Downgradient CH2MW-1A						
					5/29/1998	4/29/2002	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/24/2007	12/8/2008	12/16/2009	12/8/2010	12/7/2011	6/4/1998	4/29/2002	4/7/2004	4/28/2005	10/26/2005	4/18/2006	4/18/2007
Acetone	67-64-1	mg/L	4		-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.01	-		< 0.01	< 0.01	**0.031**	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.01	-	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		-		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	-		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0.001 [2]		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.001	-	**0.0015**	**0.0013**	< 0.001	**0.00059**	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.00284**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.00107**	**0.003**	**0.0013**	**0.0011**	**0.0011**	**0.00052**	< 0.0005	< 0.0005	< 0.0005	< 0.0025	**0.00059**	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	**0.003**	-	-	-	-	-	-	-	-	-	-	-	< 0.0005	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.25	< 0.050	< 0.050	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005
Naphthalene	91-20-3	mg/L	0.02		-	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.001	**0.0012**	**0.0039**	**0.0041**	**0.0044**	**0.00202**	**0.00176**	**0.00082**	**0.0012**	< 0.0025	**0.0023**	**0.00069**	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Upgradient											
					CH2MW-2											
					5/29/1998	6/4/1998	8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2006 DUP1	4/18/2007	4/18/2007 DUP-02
Acetone	67-64-1	mg/L	4		-	-	**0.003**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0.001 [2]		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0001	< 0.001	< 0.0001	< 0.0001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	-	**0.0007**	**0.0006**	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Upgradient															
					CH2MW-3															
					5/29/1998	6/4/1998	8/23/2000	11/9/2000	11/9/2000 DUP	1/24/2001	4/6/2004	4/27/2005	4/27/2005 DUP2	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010	12/7/2011
Acetone	67-64-1	mg/L	4		-	-	< 0.003	< 0.003	**0.003**	**0.003**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	-	**0.0007**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.0005	**0.0006**	**0.0005**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.001	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	-	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.0005	**0.002**	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.0005	**0.001**	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.0005	**0.0007**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	**< 0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient CH2MW-4D													Cross Gradient CH2MW-5							
					8/6/1998	8/23/2000	11/9/2000	1/25/2001	4/8/2004	4/26/2005	4/26/2005 DUP1	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009	12/8/2010	12/8/2010 DUP-1	12/7/2011	8/5/1998	4/7/2004	4/27/2005	10/26/2005	10/26/2005 DUP 2	4/20/2006	4/20/2006 DUP2	4/17/2007
Acetone	67-64-1	mg/L	4		-	**0.007**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0.001 [2]		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.1	< 0.1	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	**0.0008**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005
Naphthalene	91-20-3	mg/L	0.02		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Toluene	108-88-3	mg/L	1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	**0.00071**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	**< 0.0005**
Trichlorofluoromethane	75-69-4	mg/L	2		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume															
					ETCMW-113															
					1/21/1994	11/3/1994	3/31/1995	5/27/1998	9/7/2000	11/9/2000	1/25/2001	4/6/2004	4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010	12/7/2011
Acetone	67-64-1	mg/L	4		< 0.100	< 0.001	< 0.050	-	**0.007**	**0.026**	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.235 D**	**0.448 D**	**0.038**	< 0.01	< 0.01	**0.028**
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.100	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.191 D**	**0.380 D**	**0.014**	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.005	< 0.001	-	**0.0006**	< 0.005	**0.002**	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	**0.0016**	**0.00052**	**0.00092**	**0.00069**
Carbon Disulfide	75-15-0	mg/L	4		< 0.100	< 0.005	< 0.005	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0056 D**	< 0.001	< 0.0005	**0.00810 D**	< 0.005	**0.00072**	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.010	< 0.001	< 0.001	-	**0.001**	< 0.005	**0.002**	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	**0.0057**	< 0.0005	**0.0024**	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.005	< 0.010	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.010	-	-	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.005	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.063**	**0.035**	**0.026**	**0.01006**	**0.056 D**	**0.024**	**0.036 D**	**0.022**	**0.018 D**	**0.011**	**0.00884**	**0.0173 D**	**0.0117 D**	**0.0089**	**0.0069**	**0.019**	**0.020**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.005	< 0.001	-	**0.0008**	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.017**	< 0.005	**0.003**	**0.00244**	**0.027 E**	< 0.005	**0.020 D**	**0.007**	**0.0051 D**	**0.003**	**0.00274**	**0.0083 D**	< 0.005	**0.0055**	**0.0032**	**0.0042**	**0.0085**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	-	**0.017**	**0.022**	**0.02213**	-	-	**0.100 D**	**0.066 D**	**0.091 D**	**0.058**	**0.0554 D**	**0.178 D**	**0.147 D**	**0.200**	**0.120**	**0.280**	**0.300**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	< 0.001	-	-	-	0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	**0.00058**	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	< 0.0005	< 0.005	**0.110 D**	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.100	-	-	-	-	-	-	< 0.050	< 0.200	< 0.1	< 0.050	**1.45 D**	< 0.5	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.005	< 0.001	-	**0.002**	< 0.005	**0.0006**	< 0.002	< 0.0008	< 0.002	< 0.002	< 0.02	< 0.02	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.050	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.005	< 0.02	< 0.01	< 0.005	< 0.050	< 0.05	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.05	< 0.005	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.028**	**0.014**	**0.0084**	**0.00649**	**0.044 D**	**0.013**	**0.035 E**	**0.016**	**0.0078 D**	**0.0061**	**0.00361**	**0.00640 D**	< 0.005	< 0.0005	**0.00053**	**0.0022**	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.002	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.003	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.005	< 0.004	< 0.001	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.290**	**0.062**	< 0.005	**0.06938**	**0.530 D**	**0.150**	**0.240 D**	**0.16 D**	**0.056 D**	**0.059**	**0.0246**	**0.0406 D**	< 0.0005	**0.0025**	**0.0028**	**0.0035**	**0.0016**
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.006	-	**0.0009**	< 0.005	**0.001**	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.010	< 0.01	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.005	-	< 0.007	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.100	< 0.005	< 0.008	-	-	-	-	< 0.002	< 0.0008	< 0.005	< 0.002	< 0.0200	< 0.020	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.009	**0.00137**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.010	< 0.01	**0.0092**	**0.006**	**0.0068**	**0.027**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.005	< 0.010	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.010	< 0.01	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
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April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume																						
					ETCMW-114																						
					1/21/1994	1/21/1994 DUP	11/3/1994	11/3/1994 DUP	3/31/1995	3/31/1995 DUP	5/27/1998	8/23/2000	11/10/2000	1/24/2001	1/24/2001 DUP	4/29/2002	4/29/2002 DUP	4/7/2004	4/7/2004 DUP	4/28/2005	10/27/2005	4/20/2006	4/17/2007	4/17/2007 DUP-01	10/24/2007	10/24/2007 DUP-02	12/10/2008	12/16/2009	12/9/2010	12/9/2010 DUP-2	12/5/2011
Acetone	67-64-1	mg/L	4		3.300	2.300	0.060	< 0.010	< 5	< 5	-	1.8	< 0.089	< 0.003	< 0.003	-	-	< 0.001	< 0.01	< 0.1	< 0.5	< 0.1	< 0.50	<2	< 0.01	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	2.600	1.500	0.030	0.020	< 5	< 5	-	3.9	< 0.089	< 0.003	< 0.003	< 0.003	< 0.003	< 0.001	< 0.01	< 0.1	< 0.5	< 0.1	< 0.50	<2	< 0.01	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1	< 0.01
Benzene	71-43-2	mg/L	0.005		0.0075	0.018	0.011	0.008	< 0.10	< 0.10	-	< 0.042	< 0.018	0.003	0.003	-	-	0.0016	0.0017	< 0.005	< 0.005	< 0.005	< 0.025	< 0.10	0.00170	0.00165	< 0.005	0.0029	< 0.005	< 0.005	0.00096
Carbon Disulfide	75-15-0	mg/L	4		< 0.100	< 0.100	< 0.005	< 0.005	< 0.5	< 0.5	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	0.410	1.300	1.2	< 0.010	0.930	1.200	-	< 0.042	0.120	0.061 E	0.062 E	-	-	0.0053	0.0053	< 0.010	< 0.001	< 0.010	< 0.05	< 0.20	0.0149	0.0143	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.005	< 0.005	< 0.010	1.100	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.010	< 0.001	< 0.010	< 0.05	< 0.20	< 0.001	< 0.001	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.010	< 0.010	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	< 0.010	< 0.050	< 0.20	< 0.001	< 0.001	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		0.690	1.200	0.710	0.580	0.400	0.450	0.09321	0.230	0.200	0.12 D	0.12 D	-	-	0.11 D	0.11 D	0.062 D	0.13	0.0839 D	0.102 D	< 0.10	0.0520 E	0.0505 E	0.045	0.033	0.055 D	0.052 D	0.043
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		0.011	0.015	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	0.004	0.004	-	-	0.0029	0.0029	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	0.00082	0.00080	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	0.019	0.110	0.570	0.260	0.310	0.330	0.20412	0.260	0.120	0.12 D	0.11 D	0.39 D	0.33 D	0.13 D	0.13 D	0.100 D	0.24	0.138 D	< 0.025	< 0.10	0.00691	0.00642	0.066	0.053	0.085 D	0.081 D	0.085
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	-	-	15	12	11	12	4.841	-	-	3.4 D	3.3 D	3.8 D	3.7 D	2.4 D	2.4 D	1.7 D	4.4	3.160 D	1.830 D	1.760 D	0.185 E	0.179 E	1.1	0.820	1.500 D	1.400 D	1.500 D
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	< 0.005	< 0.005	< 0.1	< 0.1	-	-	-	0.004	0.003	0.009	0.007	0.0025	0.0025	< 0.005	< 0.05	0.0314 D	< 0.025	< 0.10	0.00331	0.00313	< 0.005	0.0014	< 0.005	< 0.005	0.0032
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	< 0.042	< 0.018	3.1 D	3.1 D	3.9 D	3.8 D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		0.0085	0.020	0.007	0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		0.310	0.330	-	-	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050	< 0.500	< 5	< 0.5	<2.5	<10	< 0.050	< 0.050	< 0.5	< 0.050	< 0.5	< 0.5	< 0.05
Methylene Chloride	75-09-2	mg/L	0.005		0.0088	0.0052	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	0.001	0.003	-	-	< 0.002	< 0.002	< 0.020	< 0.1	< 0.0200	< 0.10	< 0.40	< 0.002	< 0.002	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		0.077	0.080	0.018	0.015	< 5	< 5	-	< 0.210	< 0.089	< 0.003	< 0.003	-	-	< 0.005	< 0.005	< 0.05	< 0.5	< 0.050	< 0.25	< 1.0	< 0.005	< 0.005	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.01	< 0.05	< 0.010	< 0.05	< 0.2	< 0.001	< 0.001	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.001	< 0.001	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.1	< 0.0005	< 0.0005	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	0.039	0.120	0.013	0.012	< 0.100	< 0.100	0.03293	0.140	0.036	0.039 E	0.039 E	-	-	0.11 D	0.12 D	0.074 D	0.13	0.101 D	< 0.025	< 0.10	< 0.0005	< 0.0005	0.006	0.0092	0.021 D	0.020 D	0.026
Toluene	108-88-3	mg/L	1		0.072	0.150	0.057	0.049	< 0.100	< 0.1 00	-	< 0.042	< 0.018	0.008	0.008	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	0.00222	0.00202	< 0.005	0.00099	< 0.005	< 0.005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	< 0.010	< 0.025	< 0.10	< 0.001	< 0.001	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	< 0.01	< 0.050	< 0.20	< 0.001	< 0.001	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		0.041	0.170	< 0.005	< 0.005	< 0.100	< 0.100	< 0.001	< 0.042	< 0.018	0.002	0.002	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	0.420	0.670	0.14	0.120	0.400	0.440	0.662	3.100 D	0.740	0.82 D	0.79 D	4.5 D	4.0 D	1.6 D	1.7 D	1.0 D	2.2	1.480 D	< 0.025	< 0.10	0.00897	0.00823	0.44	0.34	0.520 D	0.500 D	0.590 D
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.010	< 0.05	< 0.010	< 0.05	< 0.001	< 0.001	< 0.001	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0057	< 0.0058	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		3.800	3.600	< 0.005	< 0.010	< 1.000	< 1.0	-	-	-	-	-	-	-	< 0.002	< 0.002	< 0.020	< 0.1	< 0.0200	< 0.10	< 0.40	< 0.002	< 0.002	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.01	< 0.01	< 0.100	< 0.100	0.01956	< 0.042	< 0.018	0.001	0.001	-	-	< 0.001	< 0.001	< 0.010	0.026	0.0236 D	3.740 D	3.550 D	.524 E	0.547 E	< 0.005	0.0052	0.047 D	0.040 D	0.0033
Xylenes (total)	1330-20-7	mg/L	0.01		0.045	0.095	0.024	0.020	< 0.300	< 0.300	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.010	< 0.05	< 0.20	0.00169	0.00165	< 0.005	0.00057	< 0.005	< 0.005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume CH2MW-114D											In Plume ETCMW-115											
					6/4/1998	4/7/2004	4/28/2005	10/26/2005	4/20/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/8/2010	12/7/2011	11/3/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008	12/16/2009	12/8/2010	12/7/2011
Acetone	67-64-1	mg/L	4		-	< 0.01	**0.190 D**	**0.52**	< 0.01	< 0.1	**0.123 E**	< 0.010	**0.53**	**0.390**	**0.410**	< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	< 0.025	< 0.025	< 0.010	< 0.010	< 0.010	**0.012**
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	< 0.01	**0.430 D**	< 0.1	< 0.01	< 0.1	**0.0442**	**0.063**	< 0.01	**0.120**	**0.096**	< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	< 0.025	< 0.025	< 0.010	< 0.010	< 0.010	< 0.010
Benzene	71-43-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.0005	**0.00062**	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	**0.00074**	**0.00076**	**0.0015**	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.0018**	**0.0077**	**0.00830 D**	< 0.01	< 0.001	< 0.005	**0.00249**	**0.0007**	**0.00098**	**0.0012**	**0.00078**	**0.042**	**0.025**	**0.0064**	**0.0063**	**0.0076**	**0.00367**	**0.00848 D**	**0.00308 D**	**0.00087**	**0.0011**	**0.0039**	**0.0038**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.005 J	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0046**	**0.0053**	**0.0060 D**	< 0.01	< 0.001	**0.00580 D**	**0.00395**	**0.0051**	**0.0081**	**0.013**	**0.012**	< 0.005	< 0.001	< 0.0005	< 0.0025	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.0161**	**0.088 D**	**0.120 D**	**0.097**	< 0.001	**0.204 D**	**0.146 E**	**0.120**	**0.280**	**0.400**	**0.400 D**	**0.210**	**0.120**	**0.086 D**	**0.041 D**	**0.094**	**0.0346**	**0.120 D**	**0.0318 D**	**0.0078**	**0.011**	**0.040**	**0.046 D**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	**0.00076**	**0.00051**	< 0.005	< 0.001	< 0.0005	**0.00067**	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	< 0.050	< 0.500	< 1	< 0.1	< 0.005	**0.622 E**	**1.300**	< 0.050	**0.079**	< 0.050	-	-	< 0.050	< 0.250	< 0.1	< 0.050	< 0.125	< 0.125	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	< 0.002	< 0.002	< 0.02	< 0.002	< 0.0200	< 0.002	-	-	-	-	< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	< 0.005	< 0.005	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	< 0.005	< 0.005	< 0.1	< 0.01	< 0.050	< 0.005	-	-	-	-	< 0.01	< 0.50	< 0.005	< 0.005	< 0.01	< 0.005	< 0.0125	< 0.0125	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.011**	**0.010**	**0.0072 D**	< 0.01	< 0.001	**0.00530 D**	**0.00288**	**0.0042**	**0.0038**	**0.0046**	**0.00055**	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0025	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.105**	**0.200 D**	**0.230 D**	**0.240**	< 0.001	**0.135 D**	**0.056 E**	**0.140**	**0.087**	**0.076**	**0.025**	**0.170**	**0.120**	**0.016**	**0.0057**	**0.0039**	**0.00901**	**0.0214 D**	**0.0079 D**	**0.0027**	**0.0032**	**0.0068**	**0.014 D**
Trichlorofluoromethane	75-69-4	mg/L	2		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	< 0.002	< 0.002	< 0.05	< 0.005	< 0.0200	< 0.002	-	-	-	-	< 0.005	< 0.010	< 0.002	< 0.002	< 0.005	< 0.002	< 0.005	< 0.005	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.005 J	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	**0.00068**	**0.0025**	< 0.001	< 0.001	**0.0015**	**0.025**	**0.014**	**0.00346**	**0.00915 D**	< 0.0025	**0.0011**	< 0.0005	**0.0010**	**0.0029**
Xylenes (total)	1330-20-7	mg/L	0.01		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.003	< 0.0005	**0.00061**	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
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August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
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April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume														
					ETMW-116														
					12/20/1994	3/31/1995	5/26/1998	8/23/2000	8/23/2000 DUP	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/16/2009	12/7/2010	12/6/2011
Acetone	67-64-1	mg/L	4		< 0.010	< 0.25	-	**0.010**	**0.011**	**0.036 B**	< 0.003	< 0.01	**0.360 D**	**1.6**	**0.968 D**	**0.398 D**	< 0.05	**0.29**	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.25	-	< 0.003	< 0.003	< 0.025	< 0.003	< 0.01	**0.053 D**	**0.38**	**0.163 D**	< 0.1	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.025	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0037 D**	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.010	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	**0.007**	**0.0088**	**0.0079**	**0.0049**
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	**0.0007**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.062**	**0.045**	**0.03585**	**0.045 D**	**0.039 D**	**0.012**	**0.012**	**0.018**	**0.023 D**	< 0.01	**0.00870 D**	**0.00910 D**	**0.00660 D**	**0.0065**	**0.0084**	**0.0099**	**0.0089**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.005	-	**0.0007**	**0.0007**	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.005 J	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.008**	**0.012**	**0.01349**	**0.016**	**0.018**	< 0.005	**0.004**	**0.0055**	**0.0090 D**	< 0.007 J	**0.00540 D**	< 0.005	< 0.0025	< 0.0005	< 0.0005	**0.00082**	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.085**	**0.074**	**0.05735**	-	-	-	**0.026 D**	**0.039**	**0.100 D**	**0.18**	**0.221 D**	**0.0831 D**	< 0.0025	**0.011**	**0.0043**	**0.014**	**0.0026 D**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	-	-	-	-	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	< 0.0005	< 0.0005	< 0.005	**0.024**	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	-	-	< 0.050	**1.8**	**1.5**	< 0.5	< 0.005	< 0.25	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.005	-	**0.001**	**0.0009**	< 0.005	< 0.0005	< 0.002	< 0.001	< 0.002	< 0.005	< 0.0200	< 0.01	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.25	-	< 0.003	< 0.003	< 0.025	< 0.003	< 0.005	< 0.025	< 0.1	< 0.05	< 0.050	< 0.025	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.034**	**0.022**	**0.018**	**0.024**	**0.022 D**	**0.007**	**0.005**	**0.011**	**0.012 D**	**0.0062 J**	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	**0.0025**	< 0.0005	< 0.0005	**0.00065**
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.560**	**0.420**	**0.26512**	**0.420 D**	**0.350 D**	**0.130**	**0.100 D**	**0.15 D**	**0.170 D**	**0.12**	< 0.005	**0.0291 D**	< 0.0025	< 0.0005	< 0.0005	**0.0017**	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	**0.001**	**0.001**	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.050	-	-	-	-	-	< 0.002	< 0.01	< 0.05	< 0.020	< 0.020	< 0.01	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.005 J	**0.0171 D**	**0.0581 D**	**0.0384 D**	**0.120**	**0.170**	**0.130**	**0.120**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.015	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.01	< 0.010	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
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Notes:

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(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

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(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume															
					ETMW-117															
					12/21/1994	3/31/1995	8/23/2000	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/2008 DUP-2	12/15/2009	12/15/2009 DUP-2	12/8/2010	12/6/2011
Acetone	67-64-1	mg/L	4		< 0.010	< 0.1	< 0.018	< 0.003	**0.003**	< 0.01	< 0.04	< 0.01	< 0.01	**2.090 D**	**0.513 ED**	**0.016**	**0.012**	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.213 D**	**0.0785 D**	< 0.01	< 0.01	< 0.0005	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.002	< 0.004	**0.0008**	**0.002**	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	**0.0015**	**0.0017**	**0.0014**	**0.0013**	**0.0010**	**0.00069**
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.010	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	**0.00054**	**0.0007**	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	**0.0027**	**0.0029**	< 0.0005	**0.003**	< 0.0005	**0.0011**
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.012**	**0.025**	**0.017**	**0.017**	**0.008**	**0.0098**	**0.014 D**	**0.013**	**0.0105**	**0.00935 D**	**0.00825 D**	**0.0048**	**0.0056**	**0.0043**	**0.004**	**0.0066**	**0.0049**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	**0.005**	< 0.004	**0.003**	**0.002**	**0.0022**	**0.0038 D**	**0.0026**	**0.00075**	**0.00305 D**	< 0.0025	< 0.0005	**0.0010**	< 0.0005	< 0.0005	**0.00078**	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.014**	`	-	-	**0.016**	**0.02**	**0.030 D**	**0.03**	**0.0225**	**0.0315 D**	**0.0762 D**	**0.041**	**0.050**	**0.021**	**0.018**	**0.027**	**0.019**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.002	-	-	< 0.0005	< 0.0005	< 0.002	< 0.001	**0.00213**	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	< 0.004	< 0.0005	**0.015**	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	< 0.050	< 0.2	< 0.1	< 0.050	**2.930 D**	< 0.25	< 0.0005	< 0.0005	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.002	< 0.004	**0.0006**	**0.002**	< 0.002	< 0.008	< 0.002	< 0.002	< 0.010	< 0.010	-	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.005	< 0.02	< 0.01	< 0.005	< 0.025	< 0.025	-	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.005	**0.008**	**0.005**	**0.005**	**0.002**	**0.0032**	**0.0050 D**	**0.0042**	**0.00378**	**0.00435 D**	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.130**	**0.210**	**0.120**	**0.070**	**0.050 D**	**0.064 D**	**0.094 D**	**0.098**	**0.079 D**	**0.0744 D**	**0.0302 D**	**0.00056**	**0.00066**	< 0.0005	< 0.0005	**0.0017**	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.020	-	-	-	< 0.002	< 0.008	< 0.005	< 0.002	< 0.010	< 0.010	-	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	**0.024**	**0.025**	**0.044**	**0.050**	**0.045**	**0.047**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.006	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
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(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume														
					ETMW-118														
					12/20/1994	3/31/1995	5/26/1998	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	10/24/2007 DUP-01	12/9/2008	12/15/2009	12/9/2010	12/6/2011	12/6/2011 DUP-2
Acetone	67-64-1	mg/L	4		< 0.005	< 0.05	-	< 0.01	**0.021**	< 0.02	< 0.01	**0.192 D**	< 0.5	< 0.5	**0.37**	**0.56**	**0.37**	**0.066**	**0.065**
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.05	-	< 0.01	< 0.01	< 0.02	< 0.01	< 0.050	< 0.5	< 0.5	**0.26**	**0.49**	**0.22**	**0.031**	**0.028**
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	-	< 0.0005	**0.00079**	< 0.002	< 0.0005	**0.00370 D**	< 0.025	< 0.025	**0.0028**	**0.0012**	**0.0010**	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.001	-	< 0.001	< 0.001	**0.0038**	**0.00437**	< 0.005	< 0.05	< 0.05	**0.0032**	**0.0019**	**0.0013**	**0.00071**	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.001	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.014**	**0.021**	**0.01884**	**0.0033**	**0.014**	**0.011**	**0.00961**	**0.0139 D**	< 0.025	< 0.025	**0.014**	**0.012**	**0.0064**	**0.0065**	**0.0062**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	**0.0046**	**0.00292**	**0.00061**	**0.0037**	**0.0054**	**0.00489**	**0.00575 D**	< 0.025	< 0.025	**0.003**	**0.0024**	**0.00081**	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.012**	**0.023**	**0.01722**	**0.0057**	**0.120 D**	**0.13**	**0.127 D**	**0.117 D**	**0.108 D**	**0.111 D**	**0.088**	**0.096**	**0.050**	**0.0085**	**0.0080**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	< 0.050	< 0.050	< 0.2	< 0.050	**25.6 DH**	**13.0 D**	**13.2 D**	**0.069**	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.002	< 0.002	< 0.004	< 0.002	< 0.010	< 0.100	< 0.100	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.05	-	< 0.005	< 0.005	< 0.02	< 0.005	< 0.025	< 0.25	< 0.25	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.010	**0.009**	**0.008**	**0.0019**	< 0.0005	**0.0032**	**0.00257**	**0.00460 D**	< 0.025	< 0.025	**0.0032**	**0.0015**	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.069**	**0.110**	**0.08682**	**0.021**	**0.0031**	**0.049**	**0.0316**	**0.0489 D**	**0.0390 D**	**0.0400 D**	**0.037**	**0.018**	**0.002**	**0.00083**	**0.00069**
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.010	-	< 0.002	< 0.002	< 0.01	< 0.002	< 0.010	< 0.100	< 0.100	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.001	< 0.001	< 0.001	**< 0.001**	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	**0.033**	**0.031**	**0.016**	**0.044**	**0.041**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.005	< 0.05	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient													
					ETMW-119													
					12/20/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	10/25/2005 DUP 1	4/18/2006	4/17/2007	10/25/2007	12/9/2008	12/9/2008 DUP-1	12/14/2009	12/14/2009 DUP-1	12/9/2010	12/5/2011
Acetone	67-64-1	mg/L	4		< 0.005	< 0.050	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0212**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0998 DH**	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.05	**0.0016**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.00064**	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.005	**0.0034**	< 0.0005	**0.00061**	< 0.001	< 0.001	**0.00053**	**0.00074**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.010	< 0.002	< 0.002	< 0.005	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
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August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient ETMW-120													
					12/20/1994	3/31/1995	5/26/1998	5/26/1998 DUP	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/23/2007	12/11/2008	12/14/2009	12/9/2010	12/5/2011
Acetone	67-64-1	mg/L	4		< 0.005	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.001	**0.00184**	**0.00166**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	< 0.05	**0.0048**	**0.00543**	**0.00525**	**0.0011**	**0.0012**	**0.0052**	< 0.0005	**0.00135**	**0.00094**	**0.00056**	**0.00073**	**0.0032**	**0.0014**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.05	-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.010	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	**0.0018**	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005[7]	< 0.005	**0.0017**	**0.00138**	**0.00128**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0021**	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.010	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Upgradient ETMW-121														
					12/20/1994	3/31/1995	5/27/1998	8/23/2000	11/10/2000	1/24/2001	4/7/2004	4/28/2005	10/26/2005	4/19/2006	4/18/2007	10/23/2007	12/11/2008	12/14/2009	12/6/2010	12/6/2011	12/6/2011 DUP-1
Acetone	67-64-1	mg/L	4		< 0.005	< 0.05	-	**0.009**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.05	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	-	**0.0009**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.010	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.005	< 0.001	< 0.001	**0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.010	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient OBGMW-122								Cross Gradient OBGMW-123								
					8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	9/8/2000	11/9/2000	1/24/2001	4/29/2002	4/6/2004	4/6/2004 DUP	4/27/2005	10/25/2005	4/20/2006	4/18/2007
Acetone	67-64-1	mg/L	4		**0.016**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.003	< 0.003	< 0.003	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	**0.003**	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.0005	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		**0.001**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	**0.001**	< 0.0005	< 0.0005	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.003	< 0.003	< 0.003	-	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005
Naphthalene	91-20-3	mg/L	0.02		< 0.0005	**0.001**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.0005	**0.002**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.0005	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Down Gradient					Cross Gradient									Upgradient		In Plume	
					OBGMW-124					CH2PP-1									CH2PP-2	CH2PP-3 [8]	Sump 1	Sump 2
					4/21/2004	4/27/2005	10/26/2005	4/20/2006	4/18/2007	6/30/1998	4/7/2004	4/26/2005	10/25/2005	4/19/2006	4/17/2007	10/24/2007	12/10/2008	12/15/2009	12/8/2010	5/29/1998	(not sampled)	11/3/1994	11/3/1994
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	**0.021**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	**0.790**	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	**0.420**	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.005	< 0.005
Carbon Disulfide	75-15-0	mg/L	4		**0.00063**	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.005	< 0.005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.010	< 0.010
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	**1.3**	< 0.010
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	**0.00057**	**0.00055**	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	**0.240**	< 0.005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.005	< 0.005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	**0.046**	< 0.005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	**0.013**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	**1.5**	< 0.005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.005	< 0.005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.005	< 0.005
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	< 0.005	< 0.005
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	< 0.010	< 0.010
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.005	< 0.005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0021**	< 0.001	-	**0.077**	< 0.005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	**0.018**	< 0.005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	**0.140**	< 0.005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0017**	< 0.001	-	**0.250**	**0.016**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	< 0.010	< 0.010
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	-	< 0.010	< 0.010
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	< 0.005	< 0.005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
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May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
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April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

Ground Water Sampling Log Forms

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-1
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	~~46942~~ 48328

PURGE START DATE/TIME:	12/5/11 1448		PURGE END DATE/TIME:	12/5/11	1532 - DRY
WEATHER CONDITIONS:	SUNNY ~75°		WELL CONDITION:	GOOD	
WELL DEPTH:	10'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	1750	gal. mL
SWL:	5.79	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	5	ft.
WELL DIAMETER:	1"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	9	ft.
WELL VOLUME:	1653 mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1455	6.30 50	—	26.71	0.142	1.72	5.05	185	3.30
1500	6.55 50	250	26.10	0.139	1.41	4.96	211	1.77
1505	6.74 50	500	25.93	0.139	0.99	4.91	236	0.85
1510	7.00 50	750	25.89	0.141	0.89	4.78	264	0.74
1515	7.22 50	1000	25.80	0.141	0.87	4.75	273	0.96
1520	7.48 50	1250	25.63	0.138	0.82	4.71	294	0.75
1525	7.61 50	1500	25.30	0.135	0.75	4.46	327	0.60
1530	7.99 50	1750	25.26	0.135	0.75	4.57	322	0.59
		DRY @ 1532			12/5/11			
		12/7/11 0850 DTW = 7.49						
		NOT ENOUGH WELL VOLUME TO COLLECT WATER QUALITY PARAMETERS						

SAMPLING DATA

SAMPLE DATE/TIME:	12/7/11 0900
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	CLEAR
SAMPLING DEVICE:	REVERSE PUMP

PARAMETERS			
☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: CLEAR - NO ODOR

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-3
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	~~46942~~ 48328

PURGE START DATE/TIME:	12/6/11 1406		PURGE END DATE/TIME:	12/6/11 1510 - DRY	
WEATHER CONDITIONS:	SUNNY ~75°		WELL CONDITION:	GOOD	
WELL DEPTH:	13"	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	2750 ~~gal.~~ mL	
SWL:	8.14	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	3	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	10.5	ft.
WELL VOLUME:	2998 mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1413	8.38 50	–	23.68	0.140	6.43	5.89	72	18.2
1418	8.50 50	250	23.62	0.142	4.12	5.61	159	18.3
1423	8.62 50	500	23.89	0.142	2.78	5.58	178	17.2
1428	8.80 50	750	23.87	0.142	2.52	5.56	190	16.9
1433	9.00 50	1000	24.10	0.142	2.31	5.49	199	16.6
1438	9.17 50	1250	24.31	0.138	1.89	5.48	208	15.9
1443	9.44 50	1500	24.41	0.132	1.72	5.44	217	14.9
1448	9.59 50	1725	24.32	0.128	1.61	5.42	222	14.5
1453	9.78 50	2000	24.05	0.129	2.17	5.45	224	11.9
1458	9.90 50	2250	24.16	0.129	2.01	5.43	226	11.6
1503	10.19 50	2500	23.93	0.129	1.98	5.42	227	11.3
1508	10.41 50	2750	23.82	0.126	1.49	5.40	231	11.2
			WELL DRY @ 1510 ON 12/6/11					
			8.23 = DTW ON 12/7/11 @ 1005					
			FLUSH UP FLOW THROUGH CELL AND COLLECTED ONE READING WITH THE HORIBA ON 12/7/11 @ 1020					
			22.48	0.123	4.47	5.32	176	10.5
			DO READING APPEARS TO BE ANOMALOUS - TOO HIGH DUE TO BUBBLES IN TUBE					

SAMPLING DATA

SAMPLE DATE/TIME:	12/7/11 1010
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	CLEAR - NO ODOR
SAMPLING DEVICE:	REVERSE PUMP

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: TUBING PLACED @ 10.5 ft BUC TO LOW WATER LEVEL PLACED ~ 1/2 WAY BTWN BOTTOM OF SCREEN & WATER SURFACE

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CIT2MW-4D
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	48328

PURGE START DATE/TIME:	12/7/11 1130		PURGE END DATE/TIME:	12/7/11 1355	
WEATHER CONDITIONS:	CLOUDY WINDY ~35°		WELL CONDITION:	GOOD	
WELL DEPTH:	45.93	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	18125	gal. mL
SWL:	17.91	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	36	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	40	ft.
WELL VOLUME:	17.38	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm) ✓	D.O. (mg/L) ✓	pH (SUs) ✓	REDOX (mV) ✓	TURB. (NTUs) ✓
1130	19.00 125	—	19.31	0.057	11.04	6.71	171	0.0
1135	20.00 125	625	20.26	0.059	6.35	6.44	183	0.0
1140	20.70 125	1250	20.27	0.059	5.10	6.40	182	0.0
1145	21.29 125	1875	20.34	0.058	4.28	6.38	185	0.0
1155	22.33 125	3125	20.18	0.058	3.97	6.37	187	0.0
1205	23.02 125	4375	20.11	0.058	4.42	6.36	190	0.0
1225	24.23 125	6875	19.97	0.058	4.06	6.37	191	0.0
1245	24.93 125	9375	19.70	0.060	3.63	6.39	192	0.0
1305	25.43 125	11875	19.36	0.065	3.66	6.51	187	0.0
1325	25.85 125	14375	19.11	0.068	3.60	6.59	185	0.0
1335	26.00 125	15625	18.97	0.069	4.05	6.61	183	0.0
1345	26.10 125	16875	19.09	0.071	4.06	6.64	182	0.0
1350	26.18 125	17500	19.09	0.071	4.05	6.65	182	0.0
1355	26.20 125	18125	19.00	0.071	4.04	6.66	182	0.0

SAMPLING DATA

SAMPLE DATE/TIME:	12/7/11 1400
DEPTH TO WATER AFTER PURGING:	26.20 ft.
APPEARANCE:	CLEAR - NO ODOR
SAMPLING DEVICE:	PERISTALTIC PUMP

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-113
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	~~46942~~ 48328

PURGE START DATE/TIME:	12/6/11 900		PURGE END DATE/TIME:	12/6/11 0958 - DRY	
WEATHER CONDITIONS:	CLOUDY ~60°		WELL CONDITION:	GOOD	
WELL DEPTH:	12'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	2500 ~~gal.~~ mL	
SWL:	6.45	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	2 ft.	
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	9 ft.	
WELL VOLUME:	3424 mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0907	6.83 50	—	17.06	0.144	7.12	7.04	162	19.4
0912	7.10 50	250	18.84	0.239	2.21	6.07	183	17.9
0917	7.39 50	500	19.08	0.232	1.61	6.06	169	17.1
0922	7.65 50	750	19.23	0.231	1.53	6.06	139	16.2
0927	7.88 50	1000	19.42	0.230	1.43	6.05	145	16.3
0932	8.11 50	1250	19.51	0.230	1.35	6.03	119	15.6
0937	8.33 50	1500	19.54	0.231	0.46	6.06	67	16.1
0942	8.53 50	1750	19.54	0.237	0.46	6.03	61	15.1
0947	8.81 50	2000	19.62	0.235	0.45	6.04	42	15.0
0952	8.97 50	2250	19.69	0.235	0.76	6.02	35	14.3
0957	9.12 50	2500	19.75	0.235	0.69	6.01	23	14.4
		DRY @ 0958 ON 12/6/11						
		12/7/11 0935 DTW = 8.18						
		FLUSH UP FLOW THROUGH CELL AND COLLECTED ONE READING W/ HORIBA ON 12/7/11 @ 0952						
			21.25	0.225	1.23	5.70	81	124

SAMPLING DATA

SAMPLE DATE/TIME:	12/7/11 0940
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	CLEAR
SAMPLING DEVICE:	REVERSE PUMP

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: CLEAR - VERY SLIGHT ODOR

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETC MW-11A
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	~~46942~~ 48328

PURGE START DATE/TIME:	12/05/11 1030		PURGE END DATE/TIME:	12/05/11 1311	
WEATHER CONDITIONS:	sunny ~ 70°F		WELL CONDITION:	good	
WELL DEPTH:	11.7'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	9.6 L	~~gal.~~
SWL:	7.83	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1.7	ft.
WELL DIAMETER:	4"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	9	ft.
WELL VOLUME:	2.53 gal 9.57 L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm) 3%	D.O. (mg/L) 10%	pH (SUs) 0.1	REDOX (mV) 10%	TURB. (NTUs) 10%
1035	7.99 100	—	20.61	0.385	4.90	6.39	202	1.53
1043	8.06 100	800	20.03	0.370	2.22	6.46	210	1.78
1048	8.11 100	1300	19.95	0.367	1.38	6.49	208	1.22
1053	8.23 100	1800	19.66	0.233	4.04	6.53	216	0.90
1058	8.33 100	2300	19.63	0.358	4.03	6.53	217	0.96
1203	8.35 100	2800	19.56	0.356	3.78	6.52	222	0.79
1208	8.42 100	3300	19.51	0.355	3.68	6.53	224	0.92
1213	8.49 100	3800	19.48	0.355	3.62	6.53	222	0.76
1218	8.57 100	4300	19.44	0.355	3.52	6.54	220	0.57
1223	8.58 100	4800	19.41	0.355	3.43	6.55	231	0.50
1228	8.64 100	5300	19.40	0.356	3.26	6.55	234	0.63
1233	8.71 100	5800	19.40	0.356	3.26	6.55	243	0.49
1238	8.79 100	6300	19.41	0.356	3.29	6.55	249	0.60
1243	8.86 100	6800	19.41	0.356	3.20	6.56	252	0.59
1248	8.92 100	7300	19.44	0.357	3.13	6.56	258	0.43
1253	8.99 100	7800	19.46	0.357	3.10	6.56	260	0.50
1258	8.99 100	8300	19.49	0.357	3.06	6.57	261	0.32
1301	9.02 100	8600	19.51	0.357	3.02	6.58	261	0.37
1306	9.05 100	9100	19.54	0.357	2.95	6.58	264	0.25
1311	9.12 100	9600	19.57	0.358	2.99	6.58	265	0.45

SAMPLING DATA

SAMPLE DATE/TIME:	12/05/11 1315
DEPTH TO WATER AFTER PURGING:	9.12 ft.
APPEARANCE:	clear, no odor
SAMPLING DEVICE:	~~straw method~~ reverse pump

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	C12MW - 114D
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	48328

PURGE START DATE/TIME:	12/5/11 1144		PURGE END DATE/TIME:	12/5/11 1221 - DRY	
WEATHER CONDITIONS:	SUNNY ~70° F		WELL CONDITION:	GOOD	
WELL DEPTH:	22.5	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	~~2035~~ 1500	gal. mL
SWL:	9.39	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	17.5	ft.
WELL DIAMETER:	1"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	21	ft.
WELL VOLUME:	2035 mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic - RENTAL	

HYDROLAB

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1150	12.11 50	-	20.86	2.08	1.35	6.03	-8.6	101
1155	13.35 50	250	20.37	2.07	0.76	6.03	-9.9	176
1200	14.82 50	500	20.51	2.07	0.60	6.03	-9.9	180
1205	16.23 50	750	20.69	2.07	0.46	6.02	-107	163
1210	17.57 50	1000	20.73	2.07	0.39	6.02	-111	175
1215	19.01 50	1250	20.76	2.07	0.31	6.01	-112	269
1220	20.32 50	1500	20.82	2.35	0.27	6.03	-113	602

DRY @ 1221 ON 12/5/11

12/7/11 0805 DTW = 17.20

HORIBA READING 12/7/11 @ 0835

21.05 2.10 1.68 6.06 -97 983

READING COLLECTED JUST AS WELL WENT DRY
LOTS OF BUBBLES IN THE FLOW THROUGH CELL
DO READING IS PROBABLY NOT REPRESENTATIVE

SAMPLING DATA

SAMPLE DATE/TIME:	12/7/11 815
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	SLIGHTLY MILKY
SAMPLING DEVICE:	PERISTALTIC

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: SLIGHTLY MILKY
STRONG ODOR

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-15
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	~~46942~~ 48328

PURGE START DATE/TIME:	12/07/11 0832		PURGE END DATE/TIME:	12/07/11 0921	
WEATHER CONDITIONS:	cloudy w/rain ~60°F		WELL CONDITION:	good	
WELL DEPTH:	11.5'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	3.4	L ~~gal.~~
SWL:	6.51'	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1.5	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8	ft.
WELL VOLUME:	3.1 L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm) ✓	D.O. (mg/L) ✓	pH (SUs) ✓	REDOX (mV) ✓	TURB. (NTUs) ✓
0836	6.78 75	—	19.48	0.242	1.84	5.95	209	27.1
0840	6.78 75	300	19.86	0.232	2.27	5.89	206	25.8
0845	6.88 75	675	20.04	0.233	1.73	5.89	194	23.4
0850	6.97 75	1050	20.12	0.229	1.10	5.89	175	20.9
0855	7.07 75	1425	20.18	0.227	1.08	5.89	157	21.1
0900	7.18 75	1800	20.20	0.226	1.15	5.88	144	19.2
0905	7.35 75	2175	20.24	0.224	0.64	5.90	123	17.5
0910	7.43 75	2550	20.25	0.224	0.60	5.90	116	16.7
0915	7.66 75	2925	20.27	0.223	0.56	5.90	102	15.4
0918	7.62 75	3150	20.28	0.224	0.52	5.90	98	14.9
0921	7.66 75	3375	20.29	0.225	0.52	5.90	96	14.2

SAMPLING DATA

SAMPLE DATE/TIME:	12/07/11 0925
DEPTH TO WATER AFTER PURGING:	7.66 ft.
APPEARANCE:	clear no odor
SAMPLING DEVICE:	reverse pump

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-116
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	~~46942~~ 48328

PURGE START DATE/TIME:	12/06/11 1030			PURGE END DATE/TIME:	12/06/11 1358
WEATHER CONDITIONS:	cloudy ~70°F			WELL CONDITION:	good
WELL DEPTH:	11'	1 in. Dia.	0.041 gal./ft.	TOTAL PURGE VOLUME:	24.1 ~~gal.~~ L
SWL:	2.0'	2 in. Dia.	0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1 ft.
WELL DIAMETER:	4"	4 in. Dia.	0.653 gal./ft.	PUMP SETTING:	9 ft.
WELL VOLUME:	22.24L	1 gallon = 3785 mL		PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1033	2.17 125	[illegible]	21.34	0.646	3.69	6.21	-149	12.5
1038	2.35 125	625	21.07	0.656	2.75	6.23	-158	12.5
1043	2.48 125	1250	20.59	0.689	1.14	6.26	-170	11.5
1048	2.66 125	1875	20.59	0.689	1.10	6.26	-171	11.8
1053	2.89 125	2500	20.60	0.686	0.98	6.26	-171	12.4
1103	3.11 125	3750	20.60	0.687	0.89	6.26	-170	12.3
1113	3.39 125	5000	20.62	0.685	0.84	6.26	-170	12.9
1123	3.70 125	6250	20.67	0.685	0.80	6.25	-168	13.7
1143	4.36 125	8750	20.70	0.688	0.72	6.26	-167	15.7
1203	4.97 125	11250	20.92	0.690	0.69	6.24	-166	18.7
1223	5.56 125	13750	21.02	0.691	0.65	6.23	-165	22.6
1243	6.31 125	16250	21.11	0.685	0.63	6.21	-163	27.0
1253	6.56 125	17500	21.28	0.670	0.63	6.20	-161	28.9
1303	6.68 125	18750	21.34	0.667	0.63	6.18	-160	29.0
1313	6.98 125	20000	21.42	0.658	0.60	6.19	-162	31.4
1321	6.99 125	21000	21.66	0.667	1.72	6.33	-144	17.9
1334	7.07 125	21125	21.90	0.693	3.44	6.29	-142	16.7
1337	7.16 125	21500	21.66	0.691	2.52	6.25	-139	17.0
1340	7.22 125	21875	21.54	0.677	1.73	6.22	-139	17.0
1343	7.32 125	22250	21.55	0.668	1.09	6.21	-140	16.3
1346	7.39 125	22625	21.57	0.666	0.97	6.21	-141	16.7
1349	7.53 125	23000	21.58	0.663	1.07	6.21	-142	16.6
1352	7.57 125	23375	21.61	0.661	0.95	6.21	-142	17.1
1355	7.64 125	23750	21.61	0.659	0.94	6.20	-142	17.1
1358	7.77 125	24125	21.65	0.657	0.88	6.20	-143	17.3

pump shut down from 1321-1333

SAMPLING DATA

SAMPLE DATE/TIME:	12/06/11 1400
DEPTH TO WATER AFTER PURGING:	7.77 ft.
APPEARANCE:	clear mild odor
SAMPLING DEVICE:	reverse pump

PARAMETERS

- ☒ VOCs
- ☐ SVOCs
- ☐ OTHER
- ☐ Metals (U)
- ☐ Metals (F)
- ☐ PCBs

NOTES: CLEAR - MILD ODOR
BIOLOGICAL FILM OBSERVED ON WATER SURFACE
1321 turned off pump and readjusted tubing to 9'
1333 restarted purging

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-117
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	48328

PURGE START DATE/TIME:	12/06/11 1433		PURGE END DATE/TIME:	12/06/11 1555	
WEATHER CONDITIONS:	Sunny ~70°F		WELL CONDITION:	good	
WELL DEPTH:	11'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	5.78 L ~~gal.~~	
SWL:	1.65'	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	7.5	ft.
WELL VOLUME:	5.77L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1438	2.03 75	—	23.52	0.410	3.76	5.92	-91	24.2
1441	2.12 75	225	22.83	0.411	1.75	5.80	-86	25.6
1445	2.26 75	525	22.84	0.406	1.37	5.80	-87	25.0
1450	2.46 75	900	22.68	0.403	0.98	5.80	-87	25.3
1455	2.69 75	1275	22.63	0.401	0.84	5.80	-88	24.7
1500	2.95 75	1650	22.68	0.401	0.75	5.81	-91	25.6
1505	3.03 75	2025	22.70	0.402	0.73	5.81	-92	24.9
1510	3.27 75	2400	22.60	0.406	0.69	5.82	-93	26.1
1515	3.44 75	2775	22.70	0.411	0.67	5.83	-95	25.8
1520	3.61 75	3150	22.74	0.414	0.66	5.83	-94	25.7
1525	3.88 75	3525	22.80	0.417	0.69	5.83	-96	25.7
1530	4.01 75	3900	22.82	0.420	0.66	5.83	-96	26.1
1535	4.18 75	4275	22.86	0.421	0.62	5.83	-99	26.4
1540	4.36 75	4650	22.86	0.424	0.64	5.83	-100	27.6
1543	4.48 75	4875	22.86	0.425	0.63	5.83	-103	27.1
1546	4.64 75	5100	22.91	0.426	0.62	5.83	-104	26.9
1549	4.72 75	5325	22.92	0.426	0.64	5.83	-104	28.3
1552	4.83 75	5550	22.93	0.425	0.61	5.82	-105	27.9
1555	4.94 75	5775	22.93	0.424	0.60	5.82	-104	28.1

SAMPLING DATA

SAMPLE DATE/TIME:	12/06/11 1600
DEPTH TO WATER AFTER PURGING:	4.94 ft.
APPEARANCE:	clear - moderate odor
SAMPLING DEVICE:	reverse pump

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: clear - faint odor
biological film observed on water surface

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-11S
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	~~46942~~ 48328

PURGE START DATE/TIME:	12/6/11 1032		PURGE END DATE/TIME:	12/6/11 1235	
WEATHER CONDITIONS:	CLOUDY ~65°F		WELL CONDITION:	OK - WELL CAP NEEDS TO BE REPLACED	
WELL DEPTH:	11	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:		gal.
SWL:	2.70	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	7.5	ft.
WELL VOLUME:	5120 mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal) mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
				3%	10%	0.1	10%	10%
1040	2.95 50	—	19.72	0.475	0.58	6.03	53	30.1
1045	3.06 50	250	19.73	0.643	0.52	6.02	-10	29.2
1050	3.22 50	500	19.86	0.658	0.41	6.01	-16	30.6
1055	3.36 50	750	19.85	0.671	0.55	6.01	-20	30.7
1100	3.52 50	1000	19.87	0.675	0.51	6.01	-25	31.9
1105	3.68 50	1250	20.04	0.672	0.89	6.01	-31	34.0
1110	3.79 50	1500	20.06	0.672	0.49	6.00	-32	33.4
1115	3.96 50	1750	20.23	0.670	0.33	6.01	-37	34.4
1120	4.08 50	2000	20.31	0.671	1.19	6.01	-40	34.5
1125	4.25 50	2250	20.38	0.671	0.56	6.02	-45	36.1
1130	4.41 50	2500	20.35	0.672	0.28	6.02	-47	35.8
1135	4.60 50	2750	20.46	0.674	0.32	6.01	-50	35.8
1140	4.82 50	3000	20.65	0.675	0.43	6.01	-53	36.9
1145	4.90 50	3250	20.75	0.672	0.57	5.99	-55	37.4
1150	5.10 50	3500	20.87	0.668	0.73	6.00	-59	37.5
1155	5.22 50	3750	20.87	0.664	0.57	6.00	-61	38.1
1200	5.39 50	4000	20.95	0.656	0.56	5.99	-63	39.2
1205	5.57 50	4250	21.11	0.650	0.41	5.97	-65	39.3
1210	5.81 50	4500	21.19	0.640	0.72	5.96	-68	39.8
1215	6.00 50	4750	21.28	0.624	0.87	5.95	-72	40.6
1220	6.11 50	5000	21.29	0.621	0.72	5.94	-73	40.9
1225	6.25 50	5250	21.37	0.614	0.40	5.94	-78	41.1
1230	6.43 50	5500	21.42	0.612	0.38	5.94	-80	42.0
1235	6.62 50	5750	21.52	0.608	0.37	5.93	-81	42.1

SAMPLING DATA

SAMPLE DATE/TIME:	12/6/11 1245
DEPTH TO WATER AFTER PURGING:	6.62 ft.
APPEARANCE:	CLEAR
SAMPLING DEVICE:	REVERSE PUMP

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: BIOLOGICAL FILM OBSERVED ON SURFACE OF THE WATER
CLEAR - MODERATE SULFURIC ODOR
COLLECTED DUP-2, MS + MSD (MS @ 1300)

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-119
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	48328

PURGE START DATE/TIME:	12/5/11 1245		PURGE END DATE/TIME:	12/5/11 1345	
WEATHER CONDITIONS:	SUNNY ~70°F		WELL CONDITION:	GOOD	
WELL DEPTH:	11'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	2750 ~~gal.~~ mL	
SWL:	6.87	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1 ft.	
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8.5 ft.	
WELL VOLUME:	2548 mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic - RENTAL	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C) ✓	SP. COND. (mS/cm) ✓	D.O. (mg/L) ✓	pH (SUs) ✓	REDOX (mV)	TURB. (NTUs) ✓
1250	7.29 50	–	23.42	0.320	3.51	6.15	164	16.3
1255	7.34 50	250	22.41	0.326	1.58	6.06	70	14.0
1300	7.48 50	500	22.15	0.321	1.39	6.08	49	14.0
1305	7.61 50	750	21.89	0.320	1.26	6.09	31	14.6
1310	7.73 50	1000	21.82	0.317	1.11	6.11	6	12.6
1315	7.81 50	1250	21.69	0.316	1.10	6.11	-2	11.8
1320	7.92 50	1500	21.62	0.315	1.09	6.12	-10	11.7
1325	7.99 50	1750	21.69	0.313	1.02	6.11	-15	11.5
1330	8.16 50	2000	21.38	0.314	1.01	6.10	-26	10.8
1335	8.31 50	2250	21.40	0.313	0.98	6.11	-28	10.9
1340	8.41 50	2500	21.39	0.311	1.04	6.13	-40	10.4
1345	8.52 50	2750	21.41	0.310	1.03	6.11	-41	10.6

SAMPLING DATA

SAMPLE DATE/TIME:	12/5/11 1350
DEPTH TO WATER AFTER PURGING:	8.52 ft.
APPEARANCE:	CLEAR
SAMPLING DEVICE:	REVERSE PUMP

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: CLEAR, SLIGHT ODOR

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-120
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	48328

PURGE START DATE/TIME:	12/05/11 1421		PURGE END DATE/TIME:	12/05/11 1520	
WEATHER CONDITIONS:	Sunny ~75°F		WELL CONDITION:	good	
WELL DEPTH:	11'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	2.35 ~~gal.~~	
SWL:	7.28'	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8.5	ft.
WELL VOLUME:	0.61 gal 2.3 L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1426	7.65 50	—	26.98	0.161	9.09	6.83	263	11.9
1428 turned pump off to switch tubing - restarted pump @ 1435								
1443	8.01 50	500	25.76	0.141	3.14	6.26	282	13.6
1448	8.07 50	750	25.72	0.140	2.41	6.17	253	13.3
1453	8.20 50	1000	25.67	0.140	2.40	6.16	249	12.7
1458	8.28 50	1250	25.55	0.142	2.26	6.13	244	12.6
1503	8.43 50	1600	25.54	0.143	2.21	6.14	245	12.9
1508	8.52 50	1750	25.64	0.145	2.07	6.14	251	12.1
1511	8.58 50	1900	25.70	0.146	2.07	6.15	253	12.1
1514	8.64 50	2050	25.78	0.147	1.97	6.14	254	12.0
1517	8.71 50	2200	25.80	0.148	1.93	6.13	255	11.9
1520	8.76 50	2350	25.97	0.148	1.83	6.12	260	12.0

SAMPLING DATA

SAMPLE DATE/TIME:	12/05/11 1525
DEPTH TO WATER AFTER PURGING:	8.76 ft.
APPEARANCE:	clear no odor
SAMPLING DEVICE:	reverse pump

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: 1428 changed to smaller masterflex tubing
1435 started purging again

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-12I
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	~~46942~~ 48328

PURGE START DATE/TIME:	12/06/11 0842		PURGE END DATE/TIME:	12/06/11 ~~0930~~ 0945	
WEATHER CONDITIONS:	Cloudy ~45°F		WELL CONDITION:	good	
WELL DEPTH:	14.18 TOC 11' fbs	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	2.55 L ~~gal.~~	
SWL:	10.18	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1 ft.	
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	12 ft.	
WELL VOLUME:	2.5 L	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0854	0.51 50	—	19.71	0.126	8.32	3.14	84	38.8
0857	10.60 50	150	19.86	0.130	6.93	3.13	91	37.9
0900	10.69 50	300	20.19	0.135	~~3.11~~ 550	3.11	110	37.4
0903	10.74 50	450	20.24	0.129	5.49	3.10	111	36.8
0908	10.88 50	700	20.31	0.122	5.38	3.09	108	36.2
0913	10.95 50	950	20.42	0.118	5.09	3.08	110	35.2
0918	11.08 50	1200	20.49	0.113	5.01	3.08	108	34.7
0921	11.15 50	1350	20.57	0.112	4.88	3.08	109	34.2
0924	11.21 50	1500	20.61	0.112	4.85	3.08	108	33.9
0927	11.33 50	1650	20.67	0.112	4.69	3.08	106	33.7
0930	11.36 50	~~2,100~~ 1800	20.73	0.112	4.61	3.08	104	33.4
0933	11.43 50	~~350~~ 1950	20.81	0.111	4.49	3.08	103	33.0
0936	11.51 50	~~2,000~~ 2100	20.88	0.111	4.38	3.08	101	32.8
0939	11.58 50	2250	20.91	0.110	4.22	3.08	99	32.6
0942	11.61 50	2400	20.94	0.110	4.33	3.08	96	32.2
0945	11.67 50	2550	21.00	0.111	4.06	3.08	91	31.8

SAMPLING DATA

SAMPLE DATE/TIME:	12/06/11 0950
DEPTH TO WATER AFTER PURGING:	ft.
APPEARANCE:	clear, no odor
SAMPLING DEVICE:	reverse pump

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Water level below original pump setting of 8' tubing placed half way between water level (10.18') and bottom of well (14.18')

Collected DUP-1

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2PP-1
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	~~46042~~ 48328

PURGE START DATE/TIME:	12/5/11 1550		PURGE END DATE/TIME:	12/5/11 1606 - DRY	
WEATHER CONDITIONS:	SUNNY ~75°		WELL CONDITION:	GOOD	
WELL DEPTH:	12	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	DRY	gal.
SWL:	8.63	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	7	ft.
WELL DIAMETER:	1"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	9.5	ft.
WELL VOLUME:	523 mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. ~~(gal)~~ mL	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1604	9.51 50	—	25.62	0.120	3.80	5.12	292	31.9
		WELL DRY @	1606	ON	12/5/11			
		DTW = 9.97' on	12/07/11	@	1147			
		Well is dry - sample not collected						

SAMPLING DATA

SAMPLE DATE/TIME:	~~12/07/11~~ ~~1150~~
DEPTH TO WATER AFTER PURGING:	DRY ft.
APPEARANCE:	NO SAMPLE
SAMPLING DEVICE:	NO SAMPLE

PARAMETERS

☐	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Sarah Slagle-Garrett & Laurel Webb

Laboratory Certification

Georgia Stipulation Letter

Laboratory: Shealy Environmental Services, Inc.

Accreditor: NELAP (FL)

Accreditation ID: E87653

Scope: See Attached

Effective: July 1, 2011

Expires: June 30, 2012

FLORIDA DEPARTMENT OF
HEALTH

State of Florida
Department of Health, Bureau of Laboratories

This is to certify that

E87653

SHEALY ENVIRONMENTAL SERVICES, INC. - 1
106 VANTAGE POINT DRIVE
WEST COLUMBIA, SC 29172

has complied with Florida Administrative Code 64E-1,
for the examination of Environmental samples in the following categories

DRINKING WATER - MICROBIOLOGY, DRINKING WATER - PRIMARY INORGANIC CONTAMINANTS, DRINKING WATER - SECONDARY INORGANIC CONTAMINANTS, DRINKING WATER - SYNTHETIC ORGANIC CONTAMINANTS, NON-POTABLE WATER - EXTRACTABLE ORGANICS, NON-POTABLE WATER - GENERAL CHEMISTRY, NON-POTABLE WATER - METALS, NON-POTABLE WATER - MICROBIOLOGY, NON-POTABLE WATER - PESTICIDES-HERBICIDES-PCB'S, NON-POTABLE WATER - VOLATILE ORGANICS, SOLID AND CHEMICAL MATERIALS - EXTRACTABLE ORGANICS, SOLID AND CHEMICAL MATERIALS - GENERAL CHEMISTRY, SOLID AND CHEMICAL MATERIALS - METALS, SOLID AND CHEMICAL MATERIALS - PESTICIDES-HERBICIDES-PCB'S, SOLID AND CHEMICAL MATERIALS - VOLATILE ORGANICS

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

Date Issued: July 01, 2011 Expiration Date: June 30, 2012

Max Salfinger, M.D.
Chief, Bureau of Laboratories
Florida Department of Health
DH Form 1697, 7/04
NON-TRANSFERABLE E87653-18-07/01/2011
Supersedes all previously issued certificates

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-18, expiration date June 30, 2012. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,2-Dibromo-3-chloropropane (DBCP)	EPA 504.1	Synthetic Organic Contaminants	NELAP	7/3/2001
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 504.1	Synthetic Organic Contaminants	NELAP	7/3/2001
Alkalinity as CaCO3	SM 2320 B	Primary Inorganic Contaminants	NELAP	2/6/2003
Aluminum	EPA 200.7	Secondary Inorganic Contaminants	NELAP	10/17/2005
Aluminum	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/17/2005
Antimony	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Arsenic	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Arsenic	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Barium	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Barium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Beryllium	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Beryllium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Cadmium	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Cadmium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Calcium	EPA 200.7	Primary Inorganic Contaminants	NELAP	10/17/2005
Chloride	EPA 300.0	Secondary Inorganic Contaminants	NELAP	3/25/2003
Chromium	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Chromium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Color	EPA 110.2	Secondary Inorganic Contaminants	NELAP	7/3/2001
Conductivity	SM 2510 B	Primary Inorganic Contaminants	NELAP	10/17/2005
Copper	EPA 200.7	Primary Inorganic Contaminants,Secondary Inorganic Contaminants	NELAP	7/3/2001
Copper	EPA 200.8	Primary Inorganic Contaminants,Secondary Inorganic Contaminants	NELAP	10/17/2005
Escherichia coli	SM 9223 B	Microbiology	NELAP	7/3/2001
Fluoride	EPA 300.0	Secondary Inorganic Contaminants,Primary Inorganic Contaminants	NELAP	7/3/2001
Iron	EPA 200.7	Secondary Inorganic Contaminants	NELAP	3/25/2003
Lead	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Magnesium	EPA 200.7	Primary Inorganic Contaminants	NELAP	10/17/2005
Manganese	EPA 200.7	Secondary Inorganic Contaminants	NELAP	7/3/2001
Manganese	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/17/2005
Mercury	EPA 245.1	Primary Inorganic Contaminants	NELAP	11/7/2002
Molybdenum	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/17/2005
Nickel	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Nickel	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-18, expiration date June 30, 2012. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code:** SC00162 (803) 791-9700

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Nitrate as N	EPA 300.0	Primary Inorganic Contaminants	NELAP	3/25/2003
Nitrate as N	EPA 353.2	Primary Inorganic Contaminants	NELAP	11/7/2002
Nitrite as N	EPA 300.0	Primary Inorganic Contaminants	NELAP	3/25/2003
Nitrite as N	EPA 353.2	Primary Inorganic Contaminants	NELAP	1/31/2003
Orthophosphate as P	SM 4500-P E	Primary Inorganic Contaminants	NELAP	10/17/2005
pH	EPA 150.1	Primary Inorganic Contaminants,Secondary Inorganic Contaminants	NELAP	7/3/2001
Residue-filterable (TDS)	SM 2540 C	Secondary Inorganic Contaminants	NELAP	10/17/2005
Selenium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Silver	EPA 200.7	Secondary Inorganic Contaminants	NELAP	1/31/2003
Silver	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/17/2005
Sodium	EPA 200.7	Primary Inorganic Contaminants	NELAP	10/17/2005
Sulfate	EPA 300.0	Secondary Inorganic Contaminants,Primary Inorganic Contaminants	NELAP	7/3/2001
Thallium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Total coliforms	SM 9223 B	Microbiology	NELAP	7/3/2001
Total cyanide	EPA 335.4	Primary Inorganic Contaminants	NELAP	10/17/2005
Total dissolved solids	EPA 160.1	Secondary Inorganic Contaminants	NELAP	7/3/2001
Total nitrate-nitrite	EPA 300.0	Primary Inorganic Contaminants	NELAP	10/17/2005
Total nitrate-nitrite	EPA 353.2	Primary Inorganic Contaminants	NELAP	10/17/2005
Total residual chlorine	SM 4500-Cl G	Primary Inorganic Contaminants	NELAP	10/17/2005
Turbidity	EPA 180.1	Secondary Inorganic Contaminants	NELAP	3/18/2008
Vanadium	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/17/2005
Zinc	EPA 200.7	Secondary Inorganic Contaminants	NELAP	7/3/2001

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-18, expiration date June 30, 2012. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,1-Trichloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,2,2-Tetrachloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,2-Trichloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloroethylene	EPA 624	Volatile Organics	NELAP	7/3/2001
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,3-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromo-3-chloropropane (DBCP)	EPA 504	Volatile Organics	NELAP	7/3/2001
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8011	Volatile Organics	NELAP	7/1/2003
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 504	Volatile Organics	NELAP	7/3/2001
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8011	Volatile Organics	NELAP	7/1/2003
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	7/3/2001
1,2-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2-Dichloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichloropropane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Diphenylhydrazine	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	7/3/2001
1,3-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001

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Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,4-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	7/3/2001
1,4-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
2,4,5-T	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4,6-Trichlorophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-D	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
2,4-DB	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,4-Dichlorophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dimethylphenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dinitrophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dinitrotoluene (2,4-DNT)	EPA 625	Extractable Organics	NELAP	7/3/2001
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,6-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,6-Dinitrotoluene (2,6-DNT)	EPA 625	Extractable Organics	NELAP	7/3/2001
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Chloroethyl vinyl ether	EPA 624	Volatile Organics	NELAP	7/3/2001
2-Chloroethyl vinyl ether	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Chloronaphthalene	EPA 625	Extractable Organics	NELAP	7/3/2001
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Chlorophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
2-Hexanone	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Methyl-4,6-dinitrophenol	EPA 625	Extractable Organics	NELAP	7/3/2001

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Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitrophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
3,3'-Dichlorobenzidine	EPA 625	Extractable Organics	NELAP	7/3/2001
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
3,3'-Dimethylbenzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
3/4-Methylphenols (m/p-Cresols)	EPA 8270	Extractable Organics	NELAP	10/17/2005
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4,4'-DDD	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-DDE	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-DDT	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4-Bromophenyl phenyl ether	EPA 625	Extractable Organics	NELAP	7/3/2001
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chloro-3-methylphenol	EPA 625	Extractable Organics	NELAP	7/3/2001
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorophenyl phenylether	EPA 625	Extractable Organics	NELAP	7/3/2001
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Nitrophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acenaphthene	EPA 625	Extractable Organics	NELAP	7/3/2001
Acenaphthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acenaphthylene	EPA 625	Extractable Organics	NELAP	7/3/2001
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acetone	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acetonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acetophenone	EPA 8270	Extractable Organics	NELAP	7/1/2003

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Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Acrolein (Propenal)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acrylonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Aldrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Alkalinity as CaCO3	SM 2320 B	General Chemistry	NELAP	12/31/2008
Allyl chloride (3-Chloropropene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
alpha-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/24/2008
Aluminum	EPA 200.7	Metals	NELAP	7/3/2001
Aluminum	EPA 200.8	Metals	NELAP	10/17/2005
Aluminum	EPA 6010	Metals	NELAP	7/1/2003
Aluminum	EPA 6020	Metals	NELAP	10/17/2005
Amenable cyanide	EPA 9012	General Chemistry	NELAP	7/1/2003
Amenable cyanide	SM 4500-CN G	General Chemistry	NELAP	12/31/2008
Ammonia as N	EPA 350.1	General Chemistry	NELAP	7/3/2001
Aniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
Anthracene	EPA 625	Extractable Organics	NELAP	7/3/2001
Anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Antimony	EPA 200.7	Metals	NELAP	7/3/2001
Antimony	EPA 200.8	Metals	NELAP	10/17/2005
Antimony	EPA 6010	Metals	NELAP	7/1/2003
Antimony	EPA 6020	Metals	NELAP	10/17/2005
Aroclor-1016 (PCB-1016)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1221 (PCB-1221)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1232 (PCB-1232)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1242 (PCB-1242)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1248 (PCB-1248)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1254 (PCB-1254)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1260 (PCB-1260)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001

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Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Arsenic	EPA 200.7	Metals	NELAP	7/3/2001
Arsenic	EPA 200.8	Metals	NELAP	10/17/2005
Arsenic	EPA 6010	Metals	NELAP	7/1/2003
Arsenic	EPA 6020	Metals	NELAP	10/17/2005
Barium	EPA 200.7	Metals	NELAP	7/3/2001
Barium	EPA 200.8	Metals	NELAP	10/17/2005
Barium	EPA 6010	Metals	NELAP	7/1/2003
Barium	EPA 6020	Metals	NELAP	10/17/2005
Benzene	EPA 624	Volatile Organics	NELAP	7/3/2001
Benzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Benzidine	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)anthracene	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)pyrene	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(b)fluoranthene	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(g,h,i)perylene	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(k)fluoranthene	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzoic acid	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzyl chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Beryllium	EPA 200.7	Metals	NELAP	7/3/2001
Beryllium	EPA 200.8	Metals	NELAP	10/17/2005
Beryllium	EPA 6010	Metals	NELAP	7/1/2003
Beryllium	EPA 6020	Metals	NELAP	10/17/2005
beta-BHC (beta-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Biochemical oxygen demand	SM 5210 B	General Chemistry	NELAP	12/31/2008
bis(2-Chloroethoxy)methane	EPA 625	Extractable Organics	NELAP	7/3/2001
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Chloroethyl) ether	EPA 625	Extractable Organics	NELAP	7/3/2001

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Analyte	Method/Tech	Category	Certification Type	Effective Date
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 625	Extractable Organics	NELAP	7/3/2001
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 625	Extractable Organics	NELAP	7/3/2001
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Boron	EPA 200.7	Metals	NELAP	7/3/2001
Boron	EPA 6010	Metals	NELAP	7/1/2003
Boron	EPA 6020	Metals	NELAP	10/17/2005
Bromide	EPA 300.0	General Chemistry	NELAP	7/3/2001
Bromide	EPA 9056	General Chemistry	NELAP	7/1/2003
Bromobenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromodichloromethane	EPA 624	Volatile Organics	NELAP	7/3/2001
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromoform	EPA 624	Volatile Organics	NELAP	7/3/2001
Bromoform	EPA 8260	Volatile Organics	NELAP	7/1/2003
Butyl benzyl phthalate	EPA 625	Extractable Organics	NELAP	7/3/2001
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Cadmium	EPA 200.7	Metals	NELAP	7/3/2001
Cadmium	EPA 200.8	Metals	NELAP	10/17/2005
Cadmium	EPA 6010	Metals	NELAP	7/1/2003
Cadmium	EPA 6020	Metals	NELAP	10/17/2005
Calcium	EPA 200.7	Metals	NELAP	7/3/2001
Calcium	EPA 6010	Metals	NELAP	7/1/2003
Calcium	EPA 6020	Metals	NELAP	10/17/2005
Carbazole	EPA 8270	Extractable Organics	NELAP	7/1/2003
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	7/1/2003
Carbon tetrachloride	EPA 624	Volatile Organics	NELAP	7/3/2001
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Carbonaceous BOD (CBOD)	SM 5210 B	General Chemistry	NELAP	7/3/2001
Chemical oxygen demand	SM 5220 D	General Chemistry	NELAP	12/31/2008
Chlordane (tech.)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
Chloride	EPA 300.0	General Chemistry	NELAP	7/3/2001
Chloride	EPA 9056	General Chemistry	NELAP	10/17/2005

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Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Chlorobenzene	EPA 624	Volatile Organics	NELAP	7/3/2001
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
Chloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroform	EPA 624	Volatile Organics	NELAP	7/3/2001
Chloroform	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroprene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chromium	EPA 200.7	Metals	NELAP	7/3/2001
Chromium	EPA 200.8	Metals	NELAP	10/17/2005
Chromium	EPA 6010	Metals	NELAP	7/1/2003
Chromium	EPA 6020	Metals	NELAP	10/17/2005
Chromium VI	EPA 7196	General Chemistry	NELAP	10/17/2005
Chromium VI	SM 3500-Cr D (18th/19th Ed.)/UV-VIS	General Chemistry	NELAP	2/11/2003
Chrysene	EPA 625	Extractable Organics	NELAP	7/3/2001
Chrysene	EPA 8270	Extractable Organics	NELAP	7/1/2003
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
cis-1,3-Dichloropropene	EPA 624	Volatile Organics	NELAP	7/3/2001
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Cobalt	EPA 200.7	Metals	NELAP	7/3/2001
Cobalt	EPA 200.8	Metals	NELAP	10/17/2005
Cobalt	EPA 6010	Metals	NELAP	7/1/2003
Cobalt	EPA 6020	Metals	NELAP	10/17/2005
Color	SM 2120 B	General Chemistry	NELAP	12/31/2008
Color	SM 2120 E	General Chemistry	NELAP	12/31/2008
Conductivity	EPA 120.1	General Chemistry	NELAP	7/3/2001
Copper	EPA 200.7	Metals	NELAP	7/3/2001
Copper	EPA 200.8	Metals	NELAP	10/17/2005
Copper	EPA 6010	Metals	NELAP	7/1/2003
Copper	EPA 6020	Metals	NELAP	10/17/2005
Cyanide	EPA 335.4	General Chemistry	NELAP	12/31/2008
Dalapon	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
delta-BHC	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Dibenz(a,h)anthracene	EPA 625	Extractable Organics	NELAP	7/3/2001
Dibenz(a,h)anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-18, expiration date June 30, 2012. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code:** SC00162 **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Dibromochloromethane	EPA 624	Volatile Organics	NELAP	7/3/2001
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dibromomethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dicamba	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dichloroprop (Dichlorprop)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Dieldrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Diesel range organics (DRO)	EPA 8015	Extractable Organics	NELAP	7/1/2003
Diethyl ether	EPA 8260	Volatile Organics	NELAP	7/1/2003
Diethyl phthalate	EPA 625	Extractable Organics	NELAP	7/3/2001
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dimethyl phthalate	EPA 625	Extractable Organics	NELAP	7/3/2001
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Di-n-butyl phthalate	EPA 625	Extractable Organics	NELAP	7/3/2001
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Di-n-octyl phthalate	EPA 625	Extractable Organics	NELAP	7/3/2001
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan I	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan II	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan sulfate	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin aldehyde	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin ketone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Ethyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Ethylbenzene	EPA 624	Volatile Organics	NELAP	7/3/2001
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Fecal coliforms	SM 9222 D	Microbiology	NELAP	7/3/2001
Fluoranthene	EPA 625	Extractable Organics	NELAP	7/3/2001
Fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

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State Laboratory ID: E87653 **EPA Lab Code:** SC00162 (803) 791-9700

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Fluorene	EPA 625	Extractable Organics	NELAP	7/3/2001
Fluorene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fluoride	EPA 300.0	General Chemistry	NELAP	3/27/2003
Fluoride	EPA 9056	General Chemistry	NELAP	7/1/2003
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
gamma-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/24/2008
Gasoline range organics (GRO)	EPA 8015	Extractable Organics	NELAP	7/1/2003
Hardness	SM 2340 C	General Chemistry	NELAP	12/31/2008
Heptachlor	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Heptachlor epoxide	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Hexachlorobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorobutadiene	EPA 625	Extractable Organics	NELAP	7/3/2001
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorocyclopentadiene	EPA 625	Extractable Organics	NELAP	7/3/2001
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachloroethane	EPA 625	Extractable Organics	NELAP	7/3/2001
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	7/1/2003
Ignitability	EPA 1010	General Chemistry	NELAP	7/1/2003
Indeno(1,2,3-cd)pyrene	EPA 625	Extractable Organics	NELAP	7/3/2001
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Iodomethane (Methyl iodide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Iron	EPA 200.7	Metals	NELAP	7/3/2001
Iron	EPA 6010	Metals	NELAP	7/1/2003
Iron	EPA 6020	Metals	NELAP	10/17/2005
Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Isodrin	EPA 8270	Extractable Organics	NELAP	7/1/2003
Isophorone	EPA 625	Extractable Organics	NELAP	7/3/2001
Isophorone	EPA 8270	Extractable Organics	NELAP	7/1/2003
Isopropylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Kjeldahl nitrogen - total	EPA 351.2	General Chemistry	NELAP	11/7/2002
Lead	EPA 200.7	Metals	NELAP	7/3/2001

Laboratory Scope of Accreditation

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State Laboratory ID: E87653 **EPA Lab Code:** SC00162 (803) 791-9700

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Lead	EPA 200.8	Metals	NELAP	10/17/2005
Lead	EPA 6010	Metals	NELAP	7/1/2003
Lead	EPA 6020	Metals	NELAP	10/17/2005
Magnesium	EPA 200.7	Metals	NELAP	7/3/2001
Magnesium	EPA 6010	Metals	NELAP	7/1/2003
Magnesium	EPA 6020	Metals	NELAP	10/17/2005
Manganese	EPA 200.7	Metals	NELAP	7/3/2001
Manganese	EPA 200.8	Metals	NELAP	10/17/2005
Manganese	EPA 6010	Metals	NELAP	7/1/2003
Manganese	EPA 6020	Metals	NELAP	10/17/2005
MCPA	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
MCPP	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Mercury	EPA 1631	Metals	NELAP	10/17/2005
Mercury	EPA 245.1	Metals	NELAP	2/5/2003
Mercury	EPA 7470	Metals	NELAP	7/1/2003
Methacrylonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Methyl bromide (Bromomethane)	EPA 624	Volatile Organics	NELAP	7/3/2001
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl chloride (Chloromethane)	EPA 624	Volatile Organics	NELAP	7/3/2001
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methylene chloride	EPA 624	Volatile Organics	NELAP	7/3/2001
Methylene chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Molybdenum	EPA 200.7	Metals	NELAP	7/3/2001
Molybdenum	EPA 200.8	Metals	NELAP	10/17/2005
Molybdenum	EPA 6010	Metals	NELAP	7/1/2003
Molybdenum	EPA 6020	Metals	NELAP	10/17/2005
Naphthalene	EPA 625	Extractable Organics	NELAP	7/3/2001
Naphthalene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Naphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Nickel	EPA 200.7	Metals	NELAP	7/3/2001
Nickel	EPA 200.8	Metals	NELAP	10/17/2005
Nickel	EPA 6010	Metals	NELAP	7/1/2003

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-18, expiration date June 30, 2012. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code:** SC00162 (803) 791-9700

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Nickel	EPA 6020	Metals	NELAP	10/17/2005
Nitrate	EPA 9056	General Chemistry	NELAP	7/1/2003
Nitrate as N	EPA 300.0	General Chemistry	NELAP	3/27/2003
Nitrate as N	EPA 353.2	General Chemistry	NELAP	7/3/2001
Nitrate-nitrite	EPA 353.2	General Chemistry	NELAP	7/3/2001
Nitrite	EPA 9056	General Chemistry	NELAP	7/1/2003
Nitrite as N	EPA 300.0	General Chemistry	NELAP	3/27/2003
Nitrite as N	EPA 353.2	General Chemistry	NELAP	8/25/2008
Nitrobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodimethylamine	EPA 625	Extractable Organics	NELAP	7/3/2001
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodi-n-propylamine	EPA 625	Extractable Organics	NELAP	7/3/2001
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodiphenylamine	EPA 625	Extractable Organics	NELAP	7/3/2001
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Oil & Grease	EPA 1664A	General Chemistry	NELAP	10/17/2005
Orthophosphate as P	EPA 365.2	General Chemistry	NELAP	7/3/2001
Pentachlorophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
Pentachlorophenol	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
pH	EPA 9040	General Chemistry	NELAP	7/1/2003
pH	SM 4500-H+-B	General Chemistry	NELAP	12/31/2008
Phenanthrene	EPA 625	Extractable Organics	NELAP	7/3/2001
Phenanthrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phenol	EPA 625	Extractable Organics	NELAP	7/3/2001
Phenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
p-Isopropyltoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Potassium	EPA 200.7	Metals	NELAP	10/17/2005
Potassium	EPA 6010	Metals	NELAP	7/1/2003
Potassium	EPA 6020	Metals	NELAP	10/17/2005
Propionitrile (Ethyl cyanide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Pyrene	EPA 625	Extractable Organics	NELAP	7/3/2001
Pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Pyridine	EPA 8270	Extractable Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-18, expiration date June 30, 2012. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Residue-filterable (TDS)	SM 2540 C	General Chemistry	NELAP	12/31/2008
Residue-nonfilterable (TSS)	SM 2540 D	General Chemistry	NELAP	12/31/2008
Residue-total	SM 2540 B	General Chemistry	NELAP	12/31/2008
Salinity	SM 2520 B	General Chemistry	NELAP	10/17/2005
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Selenium	EPA 200.7	Metals	NELAP	7/3/2001
Selenium	EPA 200.8	Metals	NELAP	10/17/2005
Selenium	EPA 6010	Metals	NELAP	7/1/2003
Selenium	EPA 6020	Metals	NELAP	10/17/2005
Silver	EPA 200.7	Metals	NELAP	7/3/2001
Silver	EPA 200.8	Metals	NELAP	10/17/2005
Silver	EPA 6010	Metals	NELAP	7/1/2003
Silver	EPA 6020	Metals	NELAP	10/17/2005
Silvex (2,4,5-TP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
Sodium	EPA 200.7	Metals	NELAP	7/3/2001
Sodium	EPA 6010	Metals	NELAP	7/1/2003
Sodium	EPA 6020	Metals	NELAP	10/17/2005
Styrene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Sulfate	EPA 300.0	General Chemistry	NELAP	7/3/2001
Sulfate	EPA 9056	General Chemistry	NELAP	7/1/2003
Sulfide	SM 4500-S F	General Chemistry	NELAP	12/31/2008
Sulfite-SO3	SM 4500-SO3 B	General Chemistry	NELAP	12/31/2008
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Tetrachloroethylene (Perchloroethylene)	EPA 624	Volatile Organics	NELAP	7/3/2001
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Thallium	EPA 200.7	Metals	NELAP	7/3/2001
Thallium	EPA 200.8	Metals	NELAP	10/17/2005
Thallium	EPA 6010	Metals	NELAP	7/1/2003
Thallium	EPA 6020	Metals	NELAP	10/17/2005
Tin	EPA 200.7	Metals	NELAP	3/27/2003
Tin	EPA 6010	Metals	NELAP	7/1/2003
Tin	EPA 6020	Metals	NELAP	10/17/2005
Titanium	EPA 6010	Metals	NELAP	7/1/2003
Titanium	EPA 6020	Metals	NELAP	10/17/2005
Toluene	EPA 624	Volatile Organics	NELAP	7/3/2001
Toluene	EPA 8260	Volatile Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

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State Laboratory ID: E87653 **EPA Lab Code:** SC00162 **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Total cyanide	EPA 9012	General Chemistry	NELAP	7/1/2003
Total hardness as CaCO3	EPA 130.2	General Chemistry	NELAP	3/27/2003
Total organic carbon	EPA 9060	General Chemistry	NELAP	7/1/2003
Total organic carbon	SM 5310 D	General Chemistry	NELAP	12/31/2008
Total Petroleum Hydrocarbons (TPH)	FL-PRO	Extractable Organics	NELAP	7/24/2008
Total phenolics	EPA 420.4	General Chemistry	NELAP	3/27/2003
Total phenolics	EPA 9066	General Chemistry	NELAP	10/17/2005
Total residual chlorine	SM 4500-Cl G	General Chemistry	NELAP	12/31/2008
Toxaphene (Chlorinated camphene)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
trans-1,2-Dichloroethylene	EPA 624	Volatile Organics	NELAP	7/3/2001
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
trans-1,3-Dichloropropylene	EPA 624	Volatile Organics	NELAP	7/3/2001
trans-1,3-Dichloropropylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
trans-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichloroethene (Trichloroethylene)	EPA 624	Volatile Organics	NELAP	7/3/2001
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichlorofluoromethane	EPA 624	Volatile Organics	NELAP	7/3/2001
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Turbidity	EPA 180.1	General Chemistry	NELAP	7/3/2001
Vanadium	EPA 200.7	Metals	NELAP	7/3/2001
Vanadium	EPA 200.8	Metals	NELAP	10/17/2005
Vanadium	EPA 6010	Metals	NELAP	7/1/2003
Vanadium	EPA 6020	Metals	NELAP	10/17/2005
Vinyl acetate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Vinyl chloride	EPA 624	Volatile Organics	NELAP	7/3/2001
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Xylene (total)	EPA 624	Volatile Organics	NELAP	10/17/2005
Xylene (total)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Zinc	EPA 200.7	Metals	NELAP	7/3/2001
Zinc	EPA 200.8	Metals	NELAP	10/17/2005
Zinc	EPA 6010	Metals	NELAP	7/1/2003
Zinc	EPA 6020	Metals	NELAP	10/17/2005

Laboratory Scope of Accreditation

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State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2,3-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Diphenylhydrazine	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/3/2001
2,4,5-T	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,4-D	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
2,4-DB	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,6-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-18, expiration date June 30, 2012. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	7/3/2001
2-Chloroethyl vinyl ether	EPA 8260	Volatile Organics	NELAP	7/3/2001
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
2-Hexanone	EPA 8260	Volatile Organics	NELAP	7/3/2001
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	7/3/2001
3,3'-Dimethylbenzidine	EPA 8270	Extractable Organics	NELAP	7/3/2001
3/4-Methylphenols (m/p-Cresols)	EPA 8270	Extractable Organics	NELAP	10/17/2005
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/3/2001
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	7/3/2001
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	7/3/2001
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	7/3/2001
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	7/3/2001
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/3/2001
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
Acenaphthene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Acetone	EPA 8260	Volatile Organics	NELAP	7/3/2001
Acetonitrile	EPA 8260	Volatile Organics	NELAP	7/3/2001
Acetophenone	EPA 8270	Extractable Organics	NELAP	7/3/2001
Acrolein (Propenal)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Acrylonitrile	EPA 8260	Volatile Organics	NELAP	7/3/2001
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Allyl chloride (3-Chloropropene)	EPA 8260	Volatile Organics	NELAP	7/3/2001

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E87653
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106 Vantage Point Drive
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Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
alpha-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/24/2008
Aluminum	EPA 6010	Metals	NELAP	7/3/2001
Anthracene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Antimony	EPA 6010	Metals	NELAP	7/3/2001
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Arsenic	EPA 6010	Metals	NELAP	7/3/2001
Barium	EPA 6010	Metals	NELAP	7/3/2001
Benzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Benzidine	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzoic acid	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzyl chloride	EPA 8260	Volatile Organics	NELAP	7/3/2001
Beryllium	EPA 6010	Metals	NELAP	7/3/2001
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	7/3/2001
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	7/3/2001
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 8270	Extractable Organics	NELAP	7/3/2001
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	7/3/2001
Boron	EPA 6010	Metals	NELAP	7/3/2001
Bromobenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Bromoform	EPA 8260	Volatile Organics	NELAP	7/3/2001
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	7/3/2001

Laboratory Scope of Accreditation

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State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Cadmium	EPA 6010	Metals	NELAP	7/3/2001
Calcium	EPA 6010	Metals	NELAP	7/3/2001
Carbazole	EPA 8270	Extractable Organics	NELAP	7/3/2001
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	7/3/2001
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	7/3/2001
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/7/2003
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Chloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Chloroform	EPA 8260	Volatile Organics	NELAP	7/3/2001
Chloroprene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Chromium	EPA 6010	Metals	NELAP	7/3/2001
Chromium VI	EPA 7196	General Chemistry	NELAP	10/17/2005
Chrysene	EPA 8270	Extractable Organics	NELAP	7/3/2001
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/3/2001
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Cobalt	EPA 6010	Metals	NELAP	7/3/2001
Copper	EPA 6010	Metals	NELAP	7/3/2001
Dalapon	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Dibenz(a,h)anthracene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	7/3/2001
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Dibromomethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Dicamba	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Dichloroprop (Dichlorprop)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Diesel range organics (DRO)	EPA 8015	Extractable Organics	NELAP	7/3/2001
Diethyl ether	EPA 8260	Volatile Organics	NELAP	7/3/2001
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/3/2001
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/3/2001
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	7/3/2001
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	7/3/2001
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001

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West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endrin ketone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Ethyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/3/2001
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Fluoranthene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Fluorene	EPA 8270	Extractable Organics	NELAP	7/3/2001
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
gamma-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/24/2008
Gasoline range organics (GRO)	EPA 8015	Extractable Organics	NELAP	7/3/2001
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	7/3/2001
Ignitability	EPA 1010	General Chemistry	NELAP	7/3/2001
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Iodomethane (Methyl iodide)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Iron	EPA 6010	Metals	NELAP	7/3/2001
Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Isodrin	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Isophorone	EPA 8270	Extractable Organics	NELAP	7/3/2001
Isopropylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Lead	EPA 6010	Metals	NELAP	7/3/2001
Magnesium	EPA 6010	Metals	NELAP	7/3/2001
Manganese	EPA 6010	Metals	NELAP	7/3/2001
MCPA	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
MCPP	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Mercury	EPA 7471	Metals,General Chemistry	NELAP	7/3/2001
Methacrylonitrile	EPA 8260	Volatile Organics	NELAP	7/3/2001
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Methyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/3/2001

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E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Methylene chloride	EPA 8260	Volatile Organics	NELAP	7/3/2001
Molybdenum	EPA 6010	Metals	NELAP	7/3/2001
Naphthalene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Naphthalene	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Nickel	EPA 6010	Metals	NELAP	7/3/2001
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Oil & Grease	EPA 9071	General Chemistry	NELAP	7/3/2001
Paint Filter Liquids Test	EPA 9095	General Chemistry	NELAP	7/3/2001
p-Dioxane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Pentachlorophenol	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
pH	EPA 9045	General Chemistry	NELAP	7/3/2001
Phenanthrene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Phenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
p-Isopropyltoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Potassium	EPA 6010	Metals	NELAP	7/3/2001
Propionitrile (Ethyl cyanide)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Pyrene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Pyridine	EPA 8270	Extractable Organics	NELAP	7/3/2001
Reactive cyanide	Sec. 7.3 SW-846	General Chemistry	NELAP	7/3/2001
Reactive sulfide	Sec. 7.3 SW-846	General Chemistry	NELAP	7/3/2001
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Selenium	EPA 6010	Metals	NELAP	7/3/2001
Silver	EPA 6010	Metals	NELAP	7/3/2001
Silvex (2,4,5-TP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
Sodium	EPA 6010	Metals	NELAP	7/3/2001
Styrene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Synthetic Precipitation Leaching Procedure	EPA 1312	General Chemistry	NELAP	10/17/2005
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	7/3/2001

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Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Thallium	EPA 6010	Metals	NELAP	7/3/2001
Tin	EPA 6010	Metals	NELAP	7/3/2001
Titanium	EPA 6010	Metals	NELAP	7/3/2001
Toluene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Total cyanide	EPA 9012	General Chemistry	NELAP	7/3/2001
Total Petroleum Hydrocarbons (TPH)	FL-PRO	Extractable Organics	NELAP	7/24/2008
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Toxicity Characteristic Leaching Procedure	EPA 1311	General Chemistry	NELAP	7/3/2001
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/3/2001
trans-1,3-Dichloropropylene	EPA 8260	Volatile Organics	NELAP	7/3/2001
trans-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Vanadium	EPA 6010	Metals	NELAP	7/3/2001
Vinyl acetate	EPA 8260	Volatile Organics	NELAP	7/3/2001
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	7/3/2001
Xylene (total)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Zinc	EPA 6010	Metals	NELAP	7/3/2001

Laboratory Analytical Results

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

O'Brien and Gere
2610 Wycliff Road
Suite 104
Raleigh, NC 27607
Attention: Sarah Slagle-Garrett

Project Name: **Miller Moultrie**

Lot Number: **ML08018**
Date Completed: **12/22/2011**

Nisreen Saikaly
Project Manager

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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

ML08018

Case Narrative
O'Brien and Gere
Lot Number: ML08018

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
O'Brien and Gere
Lot Number: ML08018

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	CH2MW-1	Aqueous	12/07/2011 0900	12/08/2011
002	CH2MW-3	Aqueous	12/07/2011 1010	12/08/2011
003	CH2MW-4D	Aqueous	12/07/2011 1400	12/08/2011
004	ETCMW-113	Aqueous	12/07/2011 0940	12/08/2011
005	ETCMW-114	Aqueous	12/05/2011 1315	12/08/2011
006	CH2MW--114D	Aqueous	12/07/2011 0815	12/08/2011
007	ETCMW-115	Aqueous	12/07/2011 0925	12/08/2011
008	ETMW-116	Aqueous	12/06/2011 1400	12/08/2011
009	ETMW-117	Aqueous	12/06/2011 1600	12/08/2011
010	ETMW-118	Aqueous	12/06/2011 1245	12/08/2011
011	ETMW-119	Aqueous	12/05/2011 1350	12/08/2011
012	ETMW-120	Aqueous	12/05/2011 1525	12/08/2011
013	ETMW-121	Aqueous	12/06/2011 0950	12/08/2011
014	DUP-1	Aqueous	12/06/2011	12/08/2011
015	DUP-2	Aqueous	12/06/2011	12/08/2011
016	Trip Blank	Aqueous	12/07/2011	12/08/2011

(16 samples)

Executive Summary
O'Brien and Gere
Lot Number: ML08018

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	CH2MW-1	Aqueous	Trichloroethene	8260B	0.69		ug/L	6
004	ETCMW-113	Aqueous	Acetone	8260B	28		ug/L	9
004	ETCMW-113	Aqueous	Benzene	8260B	0.69		ug/L	9
004	ETCMW-113	Aqueous	1,1-Dichloroethane	8260B	20		ug/L	9
004	ETCMW-113	Aqueous	1,1-Dichloroethene	8260B	8.5		ug/L	9
004	ETCMW-113	Aqueous	cis-1,2-Dichloroethene	8260B	300		ug/L	9
004	ETCMW-113	Aqueous	Trichloroethene	8260B	1.6		ug/L	9
004	ETCMW-113	Aqueous	Vinyl chloride	8260B	27		ug/L	9
005	ETCMW-114	Aqueous	Benzene	8260B	0.96		ug/L	10
005	ETCMW-114	Aqueous	1,1-Dichloroethane	8260B	43		ug/L	10
005	ETCMW-114	Aqueous	1,1-Dichloroethene	8260B	85		ug/L	10
005	ETCMW-114	Aqueous	cis-1,2-Dichloroethene	8260B	1500		ug/L	10
005	ETCMW-114	Aqueous	trans-1,2-Dichloroethene	8260B	3.2		ug/L	10
005	ETCMW-114	Aqueous	Tetrachloroethene	8260B	26		ug/L	10
005	ETCMW-114	Aqueous	Trichloroethene	8260B	590		ug/L	10
005	ETCMW-114	Aqueous	Vinyl chloride	8260B	3.3		ug/L	10
006	CH2MW--114D	Aqueous	Acetone	8260B	410		ug/L	11
006	CH2MW--114D	Aqueous	2-Butanone (MEK)	8260B	96		ug/L	11
006	CH2MW--114D	Aqueous	1,1-Dichloroethane	8260B	0.78		ug/L	11
006	CH2MW--114D	Aqueous	1,1-Dichloroethene	8260B	12		ug/L	11
006	CH2MW--114D	Aqueous	cis-1,2-Dichloroethene	8260B	400		ug/L	11
006	CH2MW--114D	Aqueous	trans-1,2-Dichloroethene	8260B	0.51		ug/L	11
006	CH2MW--114D	Aqueous	Tetrachloroethene	8260B	0.55		ug/L	11
006	CH2MW--114D	Aqueous	Trichloroethene	8260B	25		ug/L	11
006	CH2MW--114D	Aqueous	Vinyl chloride	8260B	2.5		ug/L	11
007	ETCMW-115	Aqueous	Acetone	8260B	12		ug/L	12
007	ETCMW-115	Aqueous	1,1-Dichloroethane	8260B	3.8		ug/L	12
007	ETCMW-115	Aqueous	cis-1,2-Dichloroethene	8260B	46		ug/L	12
007	ETCMW-115	Aqueous	Trichloroethene	8260B	14		ug/L	12
007	ETCMW-115	Aqueous	Vinyl chloride	8260B	2.9		ug/L	12
008	ETMW-116	Aqueous	Chloroethane	8260B	4.9		ug/L	13
008	ETMW-116	Aqueous	1,1-Dichloroethane	8260B	8.9		ug/L	13
008	ETMW-116	Aqueous	cis-1,2-Dichloroethene	8260B	2.6		ug/L	13
008	ETMW-116	Aqueous	Toluene	8260B	0.65		ug/L	13
008	ETMW-116	Aqueous	Vinyl chloride	8260B	120		ug/L	13
009	ETMW-117	Aqueous	Benzene	8260B	0.69		ug/L	14
009	ETMW-117	Aqueous	Chloroethane	8260B	1.1		ug/L	14
009	ETMW-117	Aqueous	1,1-Dichloroethane	8260B	4.9		ug/L	14
009	ETMW-117	Aqueous	cis-1,2-Dichloroethene	8260B	19		ug/L	14
009	ETMW-117	Aqueous	Vinyl chloride	8260B	47		ug/L	14
010	ETMW-118	Aqueous	Acetone	8260B	66		ug/L	15
010	ETMW-118	Aqueous	2-Butanone (MEK)	8260B	31		ug/L	15
010	ETMW-118	Aqueous	Chloroethane	8260B	0.71		ug/L	15
010	ETMW-118	Aqueous	1,1-Dichloroethane	8260B	6.5		ug/L	15
010	ETMW-118	Aqueous	cis-1,2-Dichloroethene	8260B	8.5		ug/L	15

Executive Summary (Continued)

Lot Number: ML08018

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
010	ETMW-118	Aqueous	Trichloroethene	8260B	0.83		ug/L	15
010	ETMW-118	Aqueous	Vinyl chloride	8260B	44		ug/L	15
012	ETMW-120	Aqueous	cis-1,2-Dichloroethene	8260B	1.4		ug/L	17
015	DUP-2	Aqueous	Acetone	8260B	65		ug/L	20
015	DUP-2	Aqueous	2-Butanone (MEK)	8260B	28		ug/L	20
015	DUP-2	Aqueous	1,1-Dichloroethane	8260B	6.2		ug/L	20
015	DUP-2	Aqueous	cis-1,2-Dichloroethene	8260B	8.0		ug/L	20
015	DUP-2	Aqueous	Trichloroethene	8260B	0.69		ug/L	20
015	DUP-2	Aqueous	Vinyl chloride	8260B	41		ug/L	20

(54 detections)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **ML08018-001**
Description: **CH2MW-1**
Matrix: **Aqueous**
Date Sampled: **12/07/2011 0900**
Date Received: **12/08/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/09/2011 2116	BM		73418

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**0.69**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **ML08018-002**

Description: **CH2MW-3** Matrix: **Aqueous**

Date Sampled: **12/07/2011 1010**

Date Received: **12/08/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/09/2011 2137	BM		73418

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **ML08018-003**

Description: **CH2MW-4D** Matrix: **Aqueous**

Date Sampled: **12/07/2011 1400**

Date Received: **12/08/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/09/2011 2158	BM		73418

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **ML08018-004**

Description: **ETCMW-113** Matrix: **Aqueous**

Date Sampled: **12/07/2011 0940**

Date Received: **12/08/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/09/2011 2219	BM		73418

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	**67-64-1**	**8260B**	**28**		**10**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**0.69**		**0.50**	**ug/L**	**1**
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	**75-34-3**	**8260B**	**20**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	**75-35-4**	**8260B**	**8.5**		**0.50**	**ug/L**	**1**
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**300**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**1.6**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**27**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **ML08018-005**
Description: **ETCMW-114**
Matrix: **Aqueous**
Date Sampled: **12/05/2011 1315**
Date Received: **12/08/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/09/2011 2240	BM		73418
2	5030B	8260B	10	12/15/2011 2114	JJG		73826

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	**71-43-2**	**8260B**	**0.96**		**0.50**	**ug/L**	**1**
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	**75-34-3**	**8260B**	**43**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	**75-35-4**	**8260B**	**85**		**0.50**	**ug/L**	**1**
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**1500**		**5.0**	**ug/L**	**2**
trans-1,2-Dichloroethene	**156-60-5**	**8260B**	**3.2**		**0.50**	**ug/L**	**1**
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**26**		**0.50**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**590**		**5.0**	**ug/L**	**2**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**3.3**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		102	70-130		99	70-130
Bromofluorobenzene		94	70-130		95	70-130
Toluene-d8		98	70-130		100	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
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Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **ML08018-006**
Description: **CH2MW--114D**
Matrix: **Aqueous**
Date Sampled: **12/07/2011 0815**
Date Received: **12/08/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/09/2011 2302	BM		73418
2	5030B	8260B	1	12/21/2011 0428	JJG		74178
3	5030B	8260B	2	12/21/2011 2307	JJG		74280

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	**67-64-1**	**8260B**	**410**		**10**	**ug/L**	**1**
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	**78-93-3**	**8260B**	**96**		**10**	**ug/L**	**1**
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	**75-34-3**	**8260B**	**0.78**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	**75-35-4**	**8260B**	**12**		**0.50**	**ug/L**	**1**
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**400**		**1.0**	**ug/L**	**3**
trans-1,2-Dichloroethene	**156-60-5**	**8260B**	**0.51**		**0.50**	**ug/L**	**1**
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**0.55**		**0.50**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**25**		**0.50**	**ug/L**	**2**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**2.5**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits	Q	Run 3 % Recovery	Run 3 Acceptance Limits
1,2-Dichloroethane-d4		104	70-130		93	70-130		107	70-130
Bromofluorobenzene		101	70-130		101	70-130		94	70-130
Toluene-d8		100	70-130		97	70-130		103	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **ML08018-007**
Description: **ETCMW-115**
Matrix: **Aqueous**
Date Sampled: **12/07/2011 0925**
Date Received: **12/08/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/09/2011 2323	BM		73418
2	5030B	8260B	1	12/15/2011 2030	JJG		73826

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	**67-64-1**	**8260B**	**12**		**10**	**ug/L**	**1**
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	**75-34-3**	**8260B**	**3.8**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**46**		**0.50**	**ug/L**	**2**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**14**		**0.50**	**ug/L**	**2**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**2.9**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		103	70-130		99	70-130
Bromofluorobenzene		98	70-130		94	70-130
Toluene-d8		99	70-130		98	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **ML08018-008**

Description: **ETMW-116** Matrix: **Aqueous**

Date Sampled: **12/06/2011 1400**

Date Received: **12/08/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/09/2011 2344	BM		73418
2	5030B	8260B	1	12/15/2011 2052	JJG		73826

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	**75-00-3**	**8260B**	**4.9**		**0.50**	**ug/L**	**1**
1,1-Dichloroethane	**75-34-3**	**8260B**	**8.9**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**2.6**		**0.50**	**ug/L**	**2**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	**108-88-3**	**8260B**	**0.65**		**0.50**	**ug/L**	**1**
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**120**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130		100	70-130
Bromofluorobenzene		93	70-130		98	70-130
Toluene-d8		99	70-130		98	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **ML08018-009**

Description: **ETMW-117** Matrix: **Aqueous**

Date Sampled: **12/06/2011 1600**

Date Received: **12/08/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/10/2011 0004	BM		73418

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	**71-43-2**	**8260B**	**0.69**		**0.50**	**ug/L**	**1**
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	**75-00-3**	**8260B**	**1.1**		**0.50**	**ug/L**	**1**
1,1-Dichloroethane	**75-34-3**	**8260B**	**4.9**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**19**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**47**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **ML08018-010**

Description: **ETMW-118** Matrix: **Aqueous**

Date Sampled: **12/06/2011 1245**

Date Received: **12/08/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/10/2011 0025	BM		73418

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	**67-64-1**	**8260B**	**66**		**10**	**ug/L**	**1**
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	**78-93-3**	**8260B**	**31**		**10**	**ug/L**	**1**
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	**75-00-3**	**8260B**	**0.71**		**0.50**	**ug/L**	**1**
1,1-Dichloroethane	**75-34-3**	**8260B**	**6.5**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**8.5**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**0.83**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**44**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **ML08018-011**
Description: **ETMW-119**
Matrix: **Aqueous**
Date Sampled: **12/05/2011 1350**
Date Received: **12/08/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/10/2011 0046	BM		73418

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **ML08018-012**

Description: **ETMW-120** Matrix: **Aqueous**

Date Sampled: **12/05/2011 1525**

Date Received: **12/08/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/10/2011 0107	BM		73418

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**1.4**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **ML08018-013**
Description: **ETMW-121**
Matrix: **Aqueous**
Date Sampled: **12/06/2011 0950**
Date Received: **12/08/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/10/2011 0128	BM		73418

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		109	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **ML08018-014**

Description: **DUP-1** Matrix: **Aqueous**

Date Sampled: **12/06/2011**

Date Received: **12/08/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/10/2011 0149	BM		73418

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **ML08018-015**

Description: **DUP-2** Matrix: **Aqueous**

Date Sampled: **12/06/2011**

Date Received: **12/08/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/10/2011 0210	BM		73418

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	**67-64-1**	**8260B**	**65**		**10**	**ug/L**	**1**
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	**78-93-3**	**8260B**	**28**		**10**	**ug/L**	**1**
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	**75-34-3**	**8260B**	**6.2**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**8.0**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**0.69**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**41**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **ML08018-016**

Description: **Trip Blank** Matrix: **Aqueous**

Date Sampled: **12/07/2011**

Date Received: **12/08/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/10/2011 0231	BM		73418

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: MQ73418-001
Batch: 73418
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/09/2011 2055
Benzene	ND		1	0.50	ug/L	12/09/2011 2055
2-Butanone (MEK)	ND		1	10	ug/L	12/09/2011 2055
Carbon disulfide	ND		1	0.50	ug/L	12/09/2011 2055
Chloroethane	ND		1	0.50	ug/L	12/09/2011 2055
1,2-Dichloroethane	ND		1	0.50	ug/L	12/09/2011 2055
1,1-Dichloroethane	ND		1	0.50	ug/L	12/09/2011 2055
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/09/2011 2055
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/09/2011 2055
1,1-Dichloroethene	ND		1	0.50	ug/L	12/09/2011 2055
Isobutyl alcohol	ND		1	50	ug/L	12/09/2011 2055
Tetrachloroethene	ND		1	0.50	ug/L	12/09/2011 2055
Toluene	ND		1	0.50	ug/L	12/09/2011 2055
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/09/2011 2055
Trichloroethene	ND		1	0.50	ug/L	12/09/2011 2055
Trichlorofluoromethane	ND		1	0.50	ug/L	12/09/2011 2055
Vinyl chloride	ND		1	0.50	ug/L	12/09/2011 2055
Xylenes (total)	ND		1	0.50	ug/L	12/09/2011 2055

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: MQ73418-002
Batch: 73418
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	102	46-153	12/09/2011 1931
Benzene	50	48		1	96	70-130	12/09/2011 1931
2-Butanone (MEK)	100	87		1	87	60-140	12/09/2011 1931
Carbon disulfide	50	55		1	110	60-140	12/09/2011 1931
Chloroethane	50	48		1	97	42-163	12/09/2011 1931
1,2-Dichloroethane	50	50		1	99	70-130	12/09/2011 1931
1,1-Dichloroethane	50	47		1	95	70-130	12/09/2011 1931
trans-1,2-Dichloroethene	50	48		1	95	70-130	12/09/2011 1931
cis-1,2-Dichloroethene	50	50		1	100	70-130	12/09/2011 1931
1,1-Dichloroethene	50	48		1	96	70-130	12/09/2011 1931
Isobutyl alcohol	500	520		1	103	70-130	12/09/2011 1931
Tetrachloroethene	50	52		1	104	70-130	12/09/2011 1931
Toluene	50	48		1	97	70-130	12/09/2011 1931
1,1,1-Trichloroethane	50	50		1	101	70-130	12/09/2011 1931
Trichloroethene	50	50		1	100	70-130	12/09/2011 1931
Trichlorofluoromethane	50	49		1	99	60-140	12/09/2011 1931
Vinyl chloride	50	44		1	89	60-140	12/09/2011 1931
Xylenes (total)	100	100		1	102	70-130	12/09/2011 1931

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		95	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: MQ73418-003
Batch: 73418
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	97		1	97	4.4	46-153	20	12/09/2011 1952
Benzene	50	47		1	94	2.0	70-130	20	12/09/2011 1952
2-Butanone (MEK)	100	88		1	88	0.72	60-140	20	12/09/2011 1952
Carbon disulfide	50	54		1	107	2.3	60-140	20	12/09/2011 1952
Chloroethane	50	47		1	93	3.6	42-163	20	12/09/2011 1952
1,2-Dichloroethane	50	49		1	99	0.45	70-130	20	12/09/2011 1952
1,1-Dichloroethane	50	46		1	93	2.5	70-130	20	12/09/2011 1952
trans-1,2-Dichloroethene	50	47		1	94	1.7	70-130	20	12/09/2011 1952
cis-1,2-Dichloroethene	50	49		1	97	2.9	70-130	20	12/09/2011 1952
1,1-Dichloroethene	50	48		1	96	0.18	70-130	20	12/09/2011 1952
Isobutyl alcohol	500	510		1	102	1.4	70-130	20	12/09/2011 1952
Tetrachloroethene	50	51		1	103	1.1	70-130	20	12/09/2011 1952
Toluene	50	49		1	97	0.20	70-130	20	12/09/2011 1952
1,1,1-Trichloroethane	50	49		1	98	3.1	70-130	20	12/09/2011 1952
Trichloroethene	50	47		1	94	6.0	70-130	20	12/09/2011 1952
Trichlorofluoromethane	50	47		1	94	4.9	60-140	20	12/09/2011 1952
Vinyl chloride	50	43		1	86	2.7	60-140	20	12/09/2011 1952
Xylenes (total)	100	100		1	101	0.43	70-130	20	12/09/2011 1952

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: ML08018-010MS
Batch: 73418
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	66	100	170		1	100	60-140	12/10/2011 0418
Benzene	ND	50	51		1	102	70-130	12/10/2011 0418
2-Butanone (MEK)	31	100	120		1	88	60-140	12/10/2011 0418
Carbon disulfide	ND	50	57		1	114	60-140	12/10/2011 0418
Chloroethane	0.71	50	53		1	104	42-163	12/10/2011 0418
1,2-Dichloroethane	ND	50	52		1	105	70-130	12/10/2011 0418
1,1-Dichloroethane	6.5	50	54		1	96	70-130	12/10/2011 0418
trans-1,2-Dichloroethene	ND	50	51		1	101	70-130	12/10/2011 0418
cis-1,2-Dichloroethene	8.5	50	59		1	101	70-130	12/10/2011 0418
1,1-Dichloroethene	ND	50	50		1	101	70-130	12/10/2011 0418
Isobutyl alcohol	ND	500	490		1	99	70-130	12/10/2011 0418
Tetrachloroethene	ND	50	56		1	112	70-130	12/10/2011 0418
Toluene	ND	50	52		1	104	70-130	12/10/2011 0418
1,1,1-Trichloroethane	ND	50	54		1	108	70-130	12/10/2011 0418
Trichloroethene	0.83	50	53		1	104	70-130	12/10/2011 0418
Trichlorofluoromethane	ND	50	54		1	109	60-140	12/10/2011 0418
Vinyl chloride	44	50	85		1	80	60-140	12/10/2011 0418
Xylenes (total)	ND	100	110		1	108	70-130	12/10/2011 0418

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: ML08018-010MD
Batch: 73418
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	66	100	170		1	106	3.7	60-140	20	12/10/2011 0439
Benzene	ND	50	50		1	100	2.2	70-130	20	12/10/2011 0439
2-Butanone (MEK)	31	100	120		1	93	4.1	60-140	20	12/10/2011 0439
Carbon disulfide	ND	50	57		1	114	0.35	60-140	20	12/10/2011 0439
Chloroethane	0.71	50	52		1	102	1.5	42-163	20	12/10/2011 0439
1,2-Dichloroethane	ND	50	51		1	103	2.0	70-130	20	12/10/2011 0439
1,1-Dichloroethane	6.5	50	54		1	96	0.14	70-130	20	12/10/2011 0439
trans-1,2-Dichloroethene	ND	50	50		1	100	0.85	70-130	20	12/10/2011 0439
cis-1,2-Dichloroethene	8.5	50	58		1	99	1.7	70-130	20	12/10/2011 0439
1,1-Dichloroethene	ND	50	50		1	101	0.19	70-130	20	12/10/2011 0439
Isobutyl alcohol	ND	500	480		1	97	1.9	70-130	20	12/10/2011 0439
Tetrachloroethene	ND	50	54		1	108	3.5	70-130	20	12/10/2011 0439
Toluene	ND	50	52		1	103	0.90	70-130	20	12/10/2011 0439
1,1,1-Trichloroethane	ND	50	53		1	107	0.89	70-130	20	12/10/2011 0439
Trichloroethene	0.83	50	50		1	99	4.9	70-130	20	12/10/2011 0439
Trichlorofluoromethane	ND	50	53		1	106	2.8	60-140	20	12/10/2011 0439
Vinyl chloride	44	50	86		1	84	2.0	60-140	20	12/10/2011 0439
Xylenes (total)	ND	100	110		1	106	1.8	70-130	20	12/10/2011 0439

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: MQ73826-001
Batch: 73826
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/15/2011 1821
Trichloroethene	ND		1	0.50	ug/L	12/15/2011 1821

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		93	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: MQ73826-002
Batch: 73826
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
cis-1,2-Dichloroethene	50	58		1	116	70-130	12/15/2011 1617
Trichloroethene	50	56		1	113	70-130	12/15/2011 1617

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: MQ73826-003
Batch: 73826
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
cis-1,2-Dichloroethene	50	54		1	108	7.7	70-130	20	12/15/2011 1640
Trichloroethene	50	56		1	111	1.7	70-130	20	12/15/2011 1640

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: MQ74178-001
Batch: 74178
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Trichloroethene	ND		1	0.50	ug/L	12/20/2011 2233

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		93	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: MQ74178-002
Batch: 74178
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	58		1	116	70-130	12/20/2011 2027

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: MQ74178-003
Batch: 74178
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	57		1	113	2.0	70-130	20	12/20/2011 2048

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: MQ74280-001
Batch: 74280
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/21/2011 2210

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: MQ74280-002
Batch: 74280
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
cis-1,2-Dichloroethene	50	55		1	110	70-130	12/21/2011 2046

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		114	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: MQ74280-003
Batch: 74280
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
cis-1,2-Dichloroethene	50	54		1	107	2.6	70-130	20	12/21/2011 2107

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		113	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody Record

Number 08651

Client: O'BRIEN + GERE	Report to Contact: SARAH SLAGLE-GARRETT	Sampler (Printed Name): LAUREL WEBB / SARAH SLAGLE-GARRETT	Quote No.
Address: 2610 WYCLIFF RD SUITE 104	Telephone No. / Fax No. / Email: 919-783-7777	Waybill No.: 8698 0606 0905	Page: 1 of 2
City: RALEIGH / State: NC / Zip Code: 27607	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		Number of Containers: 3 A 5
Project Name: MILLER MOULTRIE			Bottle (See Instructions on back) / Preservative
Project Number	P.O Number		Lot No.: ML08018

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: VOCs	Remarks / Cooler ID
CH2MW-1	12/7/11	0900	G	X					X	
CH2MW-3	12/7/11	1010	G	X					X	
CH2MW-4D	12/7/11	1400	G	X					X	
ETCMW-113	12/7/11	0940	G	X					X	
ETCMW-114	12/5/11	1315	G	X					X	
CH2MW-114D	12/7/11	0815	G	X					X	
ETCMW-115	12/7/11	0925	G	X					X	
ETMW-116	12/6/11	1400	G	X					X	
ETMW-117	12/6/11	1600	G	X					X	
ETMW-118	12/6/11	1245	G	X					X	

Turn Around Time Required (Prior lab approval required for expedited TAT): ☒ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

QC Requirements (Specify):

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by Sampler: Sarah Slagle-Garrett	12/7/11	1600	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by: FedEx	12-8-11	1110	4. Laboratory Received by	12-8-11	1110

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Check) ☒ Yes ☐ No ☐ Ice Pack — Receipt Temp. 1.5 °C — Temp. Blank ☐ Y / ☒ N

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

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Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 08652

Client: O'BRIEN + GERE	Report to Contact: SARAH SLAGLE-GARRETT	Sampler (Printed Name): LAUREL WEBB SARAH SLAGLE-GARRETT	Quote No.
Address: 2610 WYCLIFF RD. SUITE 104	Telephone No. / Fax No. / Email: 919-783-7777	Waybill No.: 8698 0606 0905	Page 2 of 2
City: RALEIGH, State: NC Zip Code: 27607	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		Number of Containers: 3
Project Name: MILLER MOULTRIE			Bottle (See Instructions on back): A
Project Number:	P.O Number:		Preservative: 5
			Lot No.: H608018

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis	VOCs	Remarks / Cooler ID
ETMW-118-MS	12/6/11	1300	G	X						X	
ETMW-118-MSD	12/6/11	—	G	X						X	
ETMW-119	12/5/11	1350	G	X						X	
ETMW-120	12/5/11	1525	G	X						X	
ETMW-121	12/6/11	0950	G	X						X	
DUP-1	12/6/11	—	G	X						X	
DUP-2	12/6/11	—	G	X						X	
TRIP BLANK	12/7/11	—	G	X						X	

Turn Around Time Required (Prior lab approval required for expedited TAT): X Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client X Disposal by Lab

QC Requirements (Specify):

Possible Hazard Identification: X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sample: Sarah Slagle-Garrett	12/7/11	1600	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by: FEDEX	12-8-11	1110	4. Laboratory Received by: [signature]	12-8-11	1110

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack — Receipt Temp. 1-5 °C — Temp. Blank ☐ Y / ☑ N

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 9

Page 1 of 1
Replaces Date: 05/06/11
Effective Date: 10/11/11

Sample Receipt Checklist (SRC)

Client: O'Brien + Gere Cooler Inspected by/date: EW 12/8/11 Lot #: ML080 18

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Airborne Exp ☐ Other

Yes ☑	No ☐		1. Were custody seals present on the cooler?
Yes ☑	No ☐		2. If custody seals were present, were they intact and unbroken?

Cooler ID/temperature upon receipt 1.8 °C ___/___ °C ___/___ °C ___/___ °C
Method: ☐ Temperature Blank ☑ Against Bottles
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☑	No ☐	NA ☐	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☑	NA ☐	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed?
Yes ☑	No ☐		7. Was collection date & time listed?
Yes ☑	No ☐		8. Were tests to be performed listed on the COC?
Yes ☑	No ☐		9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		12. Was adequate sample volume available?
Yes ☐	No ☑		13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		14. Were any samples containers missing?
Yes ☐	No ☑		15. Were there any excess samples not listed on COC?
Yes ☐	No ☑	NA ☐	16. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number)

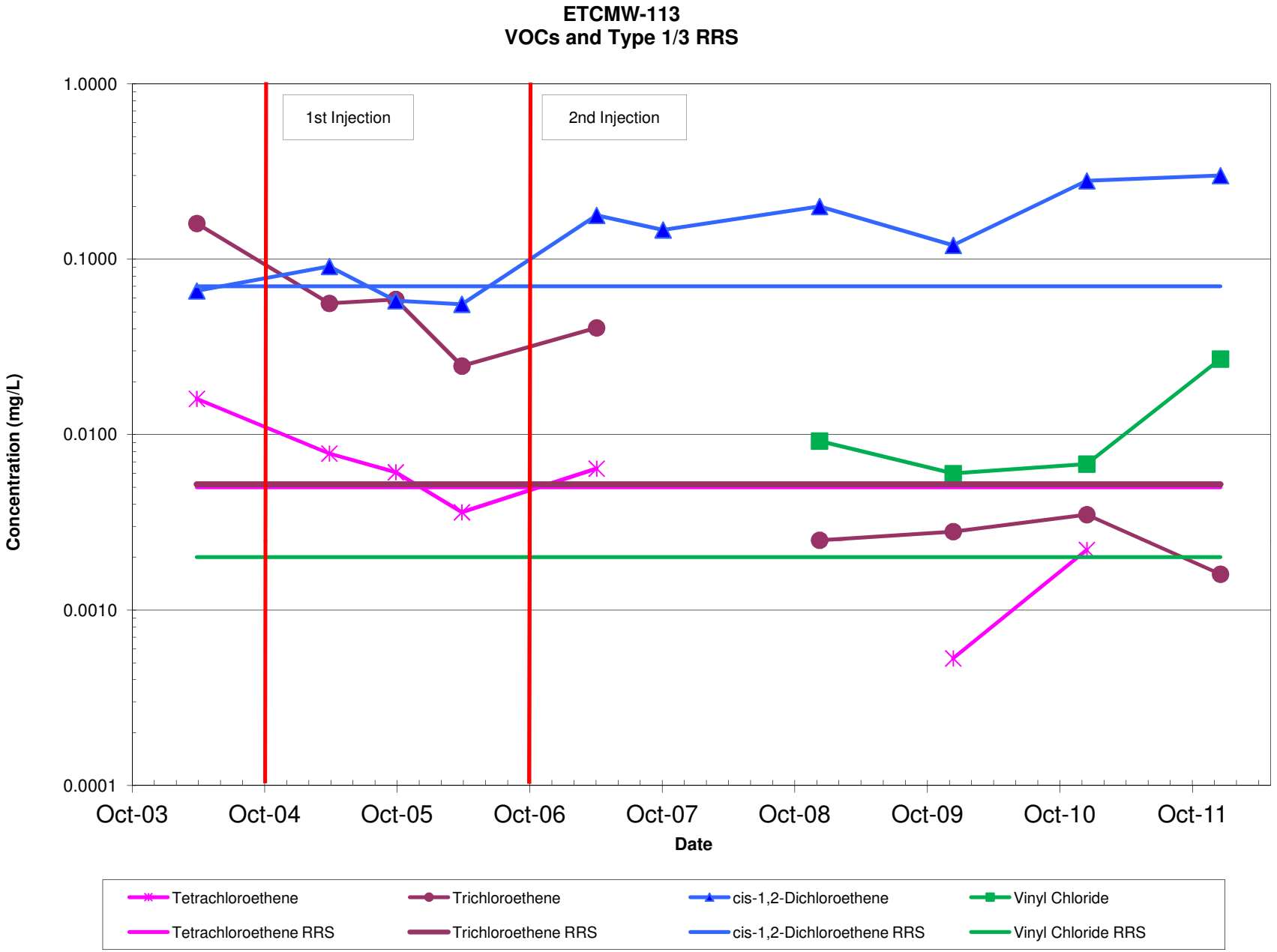
Sample(s) _____ were received with bubbles >6 mm in diameter.

Sample(s) _____
TKN/cyanide/BNA/pest/PCB/herb.

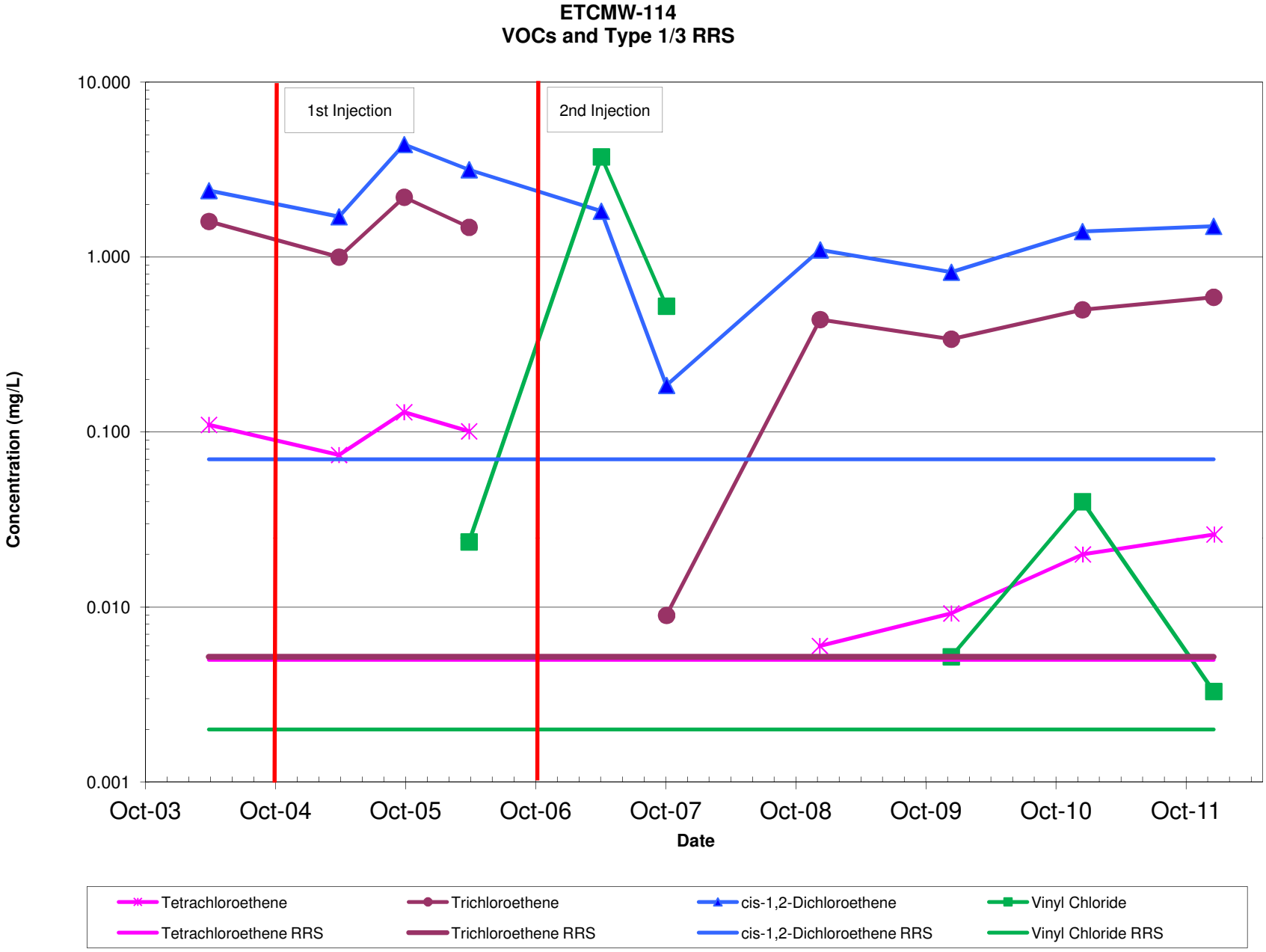
Corrective Action taken, if necessary:
Was client notified: Yes ☐ No ☐
SESI employee: _____
Comments: —010 ETMW-118 for MS/MSD sample has 2 different collection time; logged in the older time
EW 12/8/11

This portion can be removed for Recipient's records.
Date 12/7/11 FedEx Tracking Number 869806060905
Sender's Name ANITA TRECARTIN Phone 919 783-7777
Company O'BRIEN & GERE ENGINEERS INC
Address 2610 WYCLIFF RD STE 104
City RALEIGH State NC ZIP 27607-3073
Your Internal Billing Reference 49328

Trend Graphs for Volatile Organic Constituents

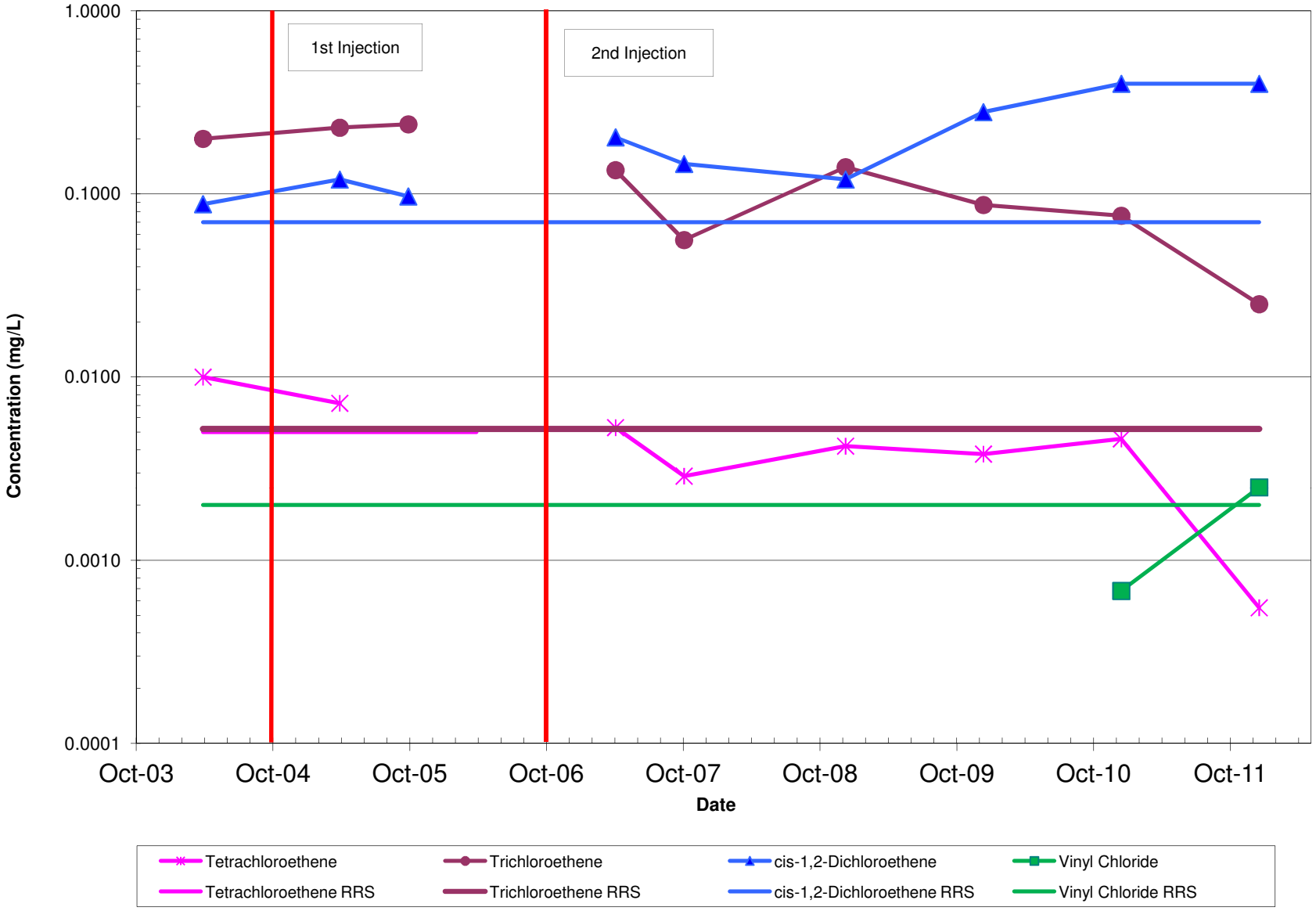


Note: Gaps in data indicate constituent was below detectable limits



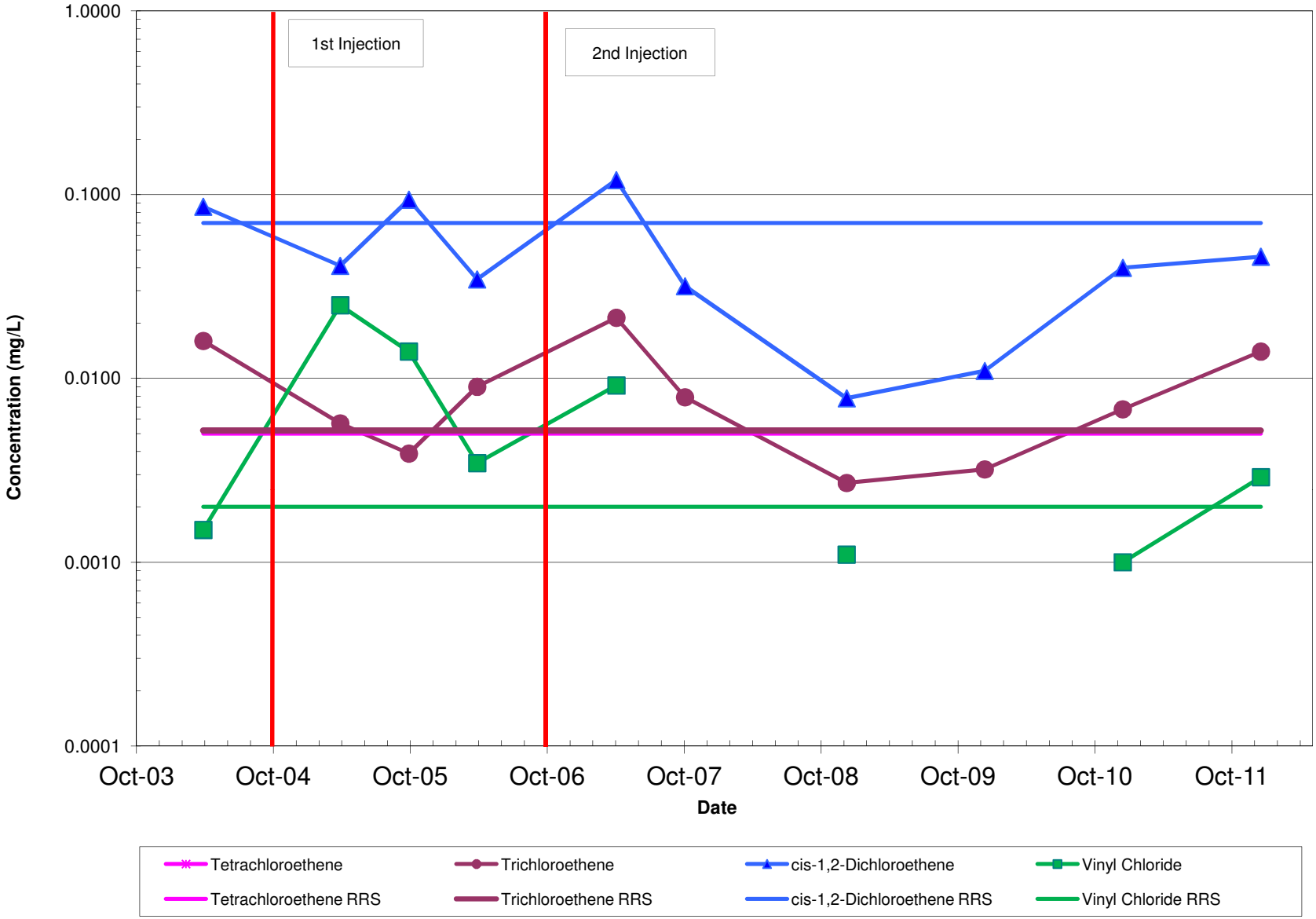
Note: Gaps in data indicate constituent was below detectable limits

CH2MW-114D
VOCs and Type 1/3 RRS

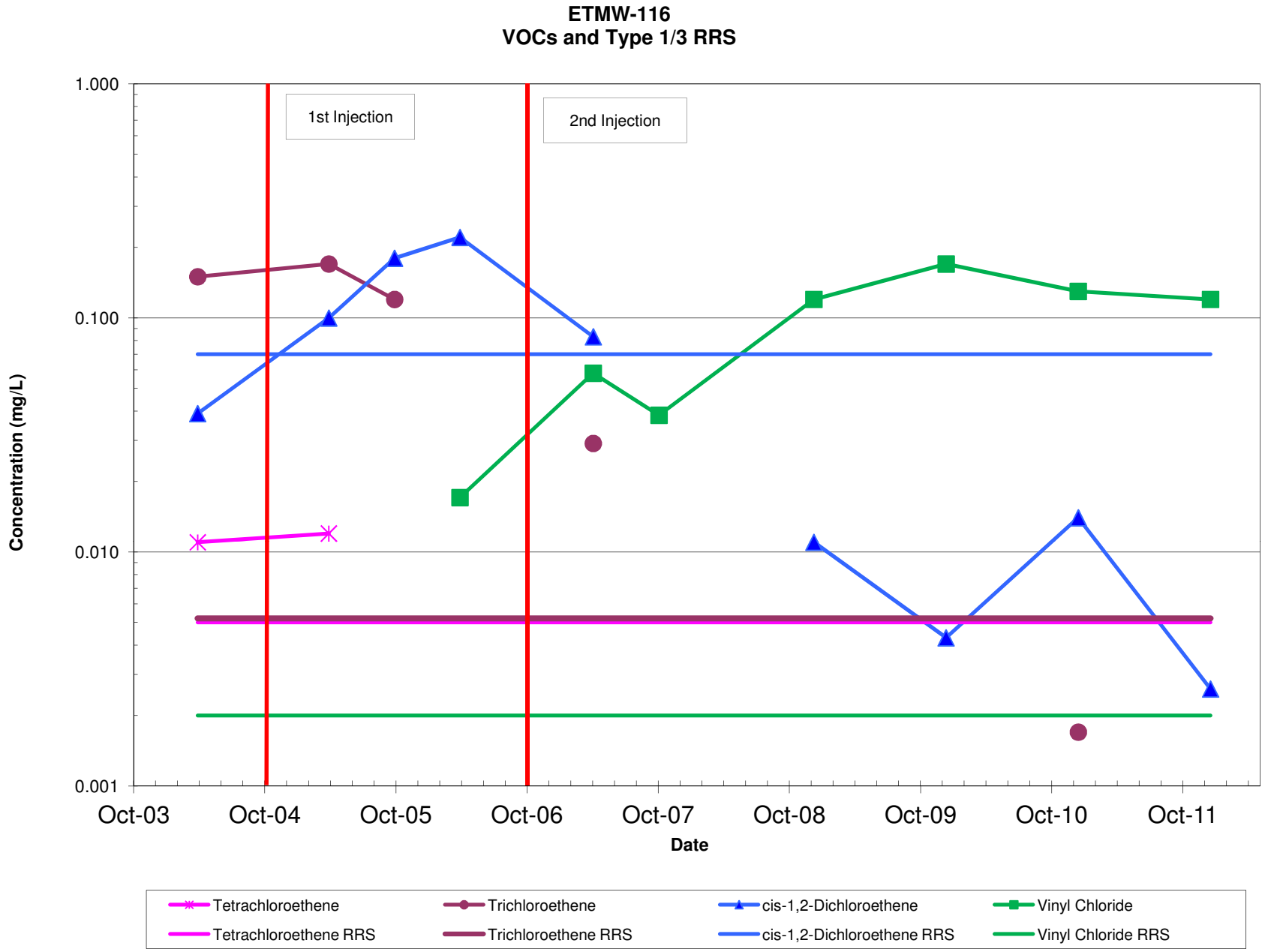


Note: Gaps in data indicate constituent was below detectable limits

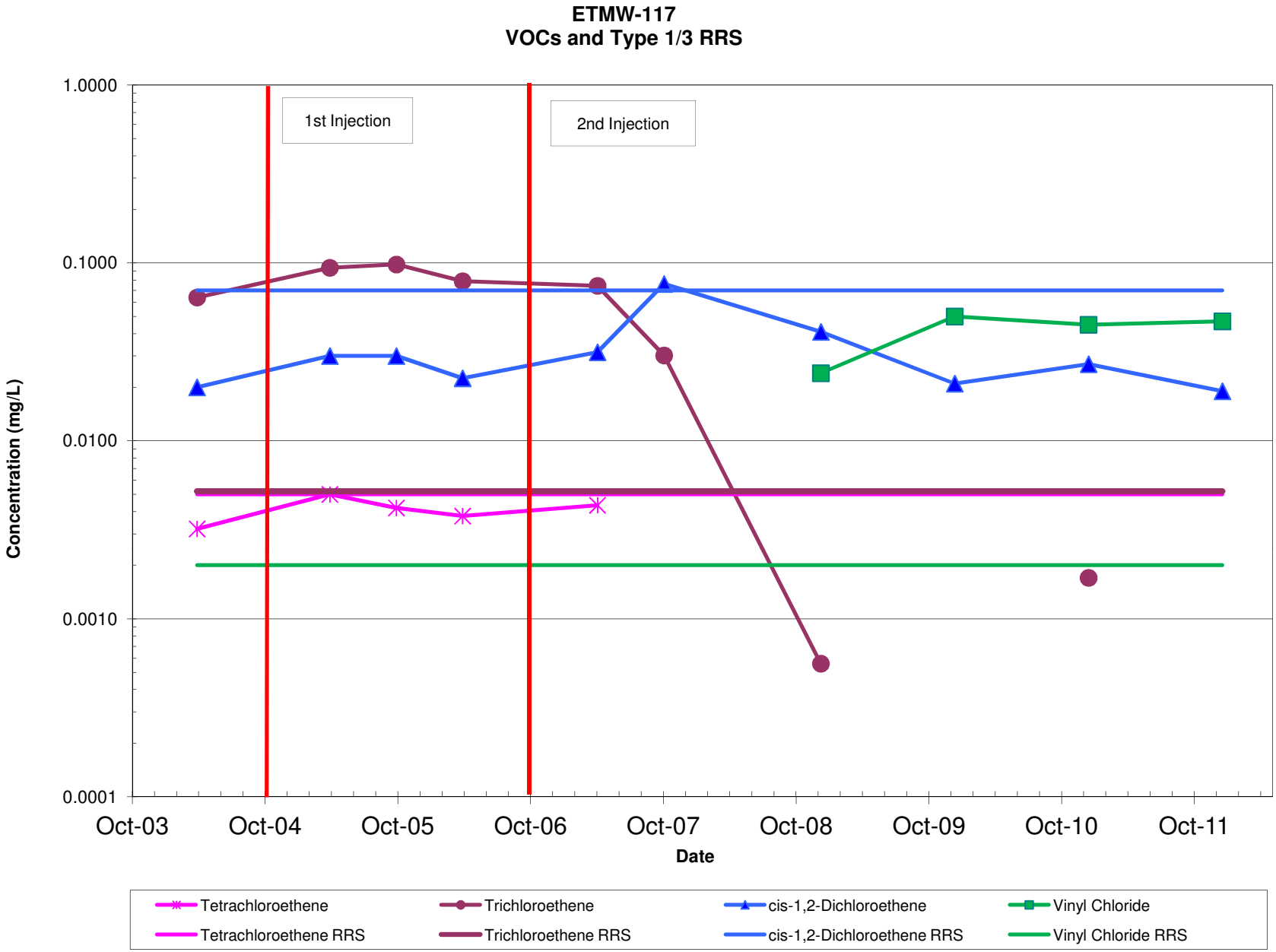
ETCMW-115
VOCs and Type 1/3 RRS



Note: Gaps in data indicate constituent was below detectable limits

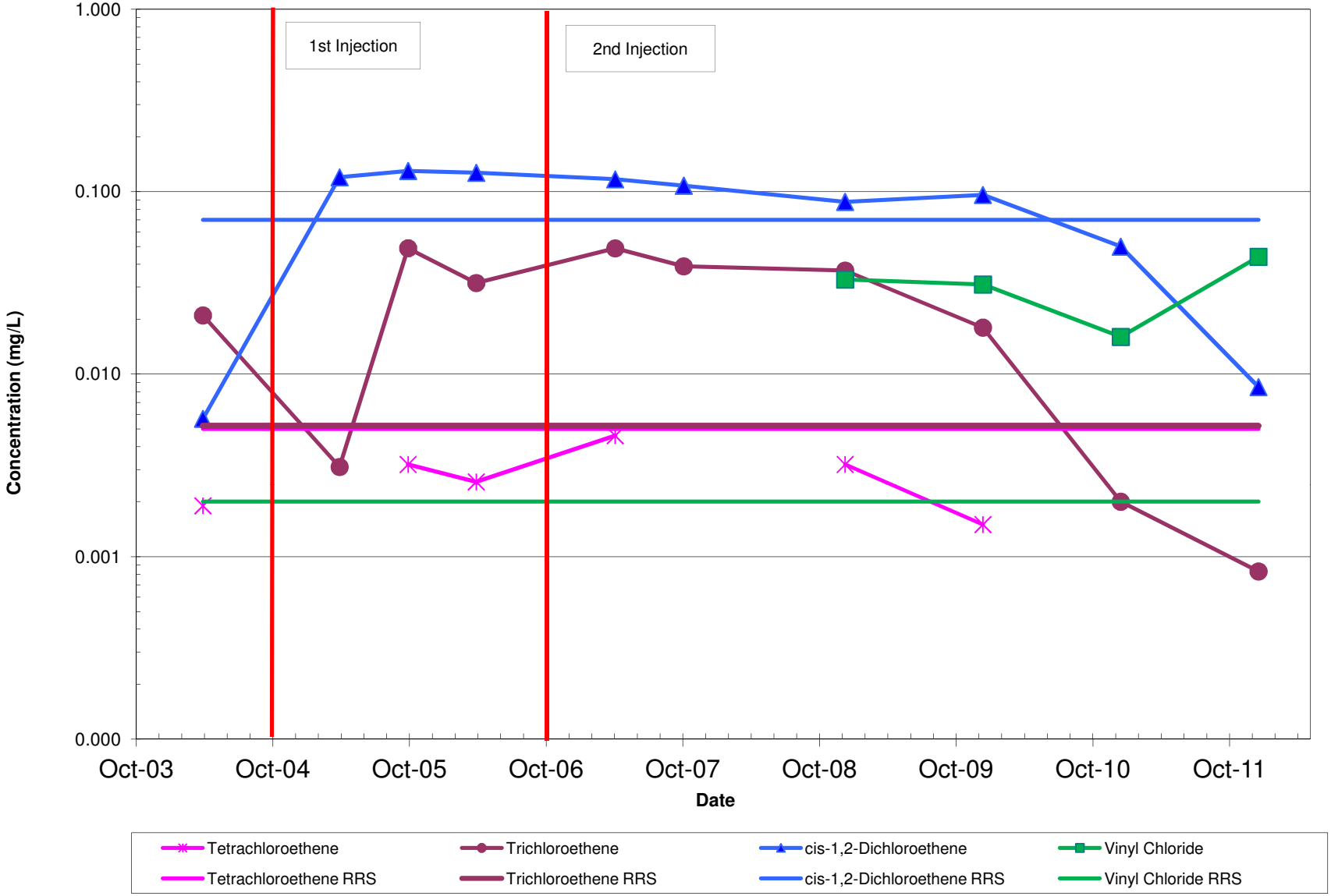


Note: Gaps in data indicate constituent was below detectable limits



Note: Gaps in data indicate constituent was below detectable limits

ETMW-118
VOCs and Type 1/3 RRS



Note: Gaps in data indicate constituent was below detectable limits

Appendix N

2012 Annual Monitoring Report (O'Brien & Gere, August 2013)

REPORT

2012 Annual Monitoring Report
Miller Brewing Company Can Plant
Moultrie, Georgia

Miller Brewing Company
Moultrie, Georgia

April 16, 2013

O'BRIEN & GERE

TABLE OF CONTENTS

Table of Contents i
1. Introduction 1
1.1 Background 1
1.2 Corrective Action Objectives 2
2. Scope and Methodology 3
3. Groundwater Monitoring Results 4
3.1 Hydrogeologic Conditions 4
3.2 Groundwater Analytical Results 4
3.2.1 Groundwater VOC Results 4
3.2.2 Treatment Area Well Summary 4
4. Conclusions 8
5. Recommendations 9
6. References 10

Tables

1. Summary of Monitoring Parameters
2. Summary of Well Construction Details and Groundwater Elevations
3. Summary of Volatile Organic Constituents Detected Above Type 1/3 Risk Reduction Standards

Figures

1. Site Location
2. Site Plan
3. Groundwater Monitoring Network
4. Groundwater Potentiometric Surface, December 2012
5. Constituents Detected Above Type 1/3 RRS in Groundwater
6. PCE Concentration above RRS
7. TCE Concentration above RRS
8. Cis-1,2-DCE Concentration above RRS
9. Vinyl Chloride Concentration above RRS

Appendices

A. October 4, 2011 GAEPD Letter
B. Historical Summary of Volatile Organic Constituents in Groundwater
C. Groundwater Sampling Log Forms
D. Laboratory Certification
E. 2012 Laboratory Analytical Results
F. Trend Graphs for Volatile Organic Constituents

1. INTRODUCTION

This report presents the progress of corrective measures performed on the surficial groundwater zone at the former Miller Brewing Company Canning Facility (site) in Moultrie, Georgia (Figure 1). Corrective action at the site is being conducted under the Georgia Hazardous Site Response Act (HSRA). The Corrective Action Plan (CAP) was submitted to the Georgia Department of Natural Resources, Environmental Protection Division (GAEPD) in January 2004 (O'Brien & Gere, January 2004) and with minor amendments, approved by GAEPD in March 2004. The corrective measure approved by GAEPD was enhanced bioremediation by underground injection of a lactate formula followed by monitored natural attenuation (MNA).

The first lactate injection occurred in October 2004. This was followed by semiannual groundwater monitoring in April 2005, October 2005, and April 2006. A second lactate injection occurred in October 2006 followed by groundwater monitoring in April and October 2007. Following the October 2007 event, natural attenuation screening was performed following the Office of Solid Waste and Emergency Response (OSWER) directive on MNA (9200.4-17). The MNA evaluation also included Biochlor® modeling to predict future migration and attenuation of the chlorinated ethene plume. The results of these analyses are presented in the Corrective Action Monitoring and Evaluation Report (O'Brien & Gere, April 2008). This report proposed that the site proceed with MNA as the primary remedy. The GAEPD agreed to evaluate this remedy for a five year period during an October 28, 2008 conference call. At the end of the five year period, the plan was to once again perform MNA screening and Biochlor® modeling to evaluate the continuing efficacy of MNA.

Based on monitoring results over the last four years, Miller Brewing Company has decided to discontinue the current MNA corrective action and apply for entry into the Georgia Voluntary Remediation Program (VRP). On September 15, 2011 Miller submitted a letter to GAEPD requesting that the monitoring program be reduced to include only sampling of volatile organic compounds (VOCs) and to eliminate the geochemical parameters from the sampling and analysis program. In a letter dated October 4, 2011 GAEPD agreed to this approach, and samples for geochemical analyses were not collected for the 2011 or 2012 sampling events (Appendix A).

This report documents the results of the December 2012 groundwater monitoring. Although this monitoring event represents the five year MNA evaluation period, Biochlor® modeling is not included within this report because Miller is currently pursuing entry into the VRP and MNA parameters have not been evaluated at the Site over the past two years. This report includes a summary of the 2012 groundwater monitoring results and provides and evaluation of the corrective action at the site.

1.1 BACKGROUND

In September 1988, four underground storage tanks (USTs) were removed from the site. These consisted of two No. 2 fuel oil USTs, a waste oil UST, and a waste solvent UST. During the removal, a release was discovered from a portion of the piping that was connected to the waste solvent UST. In response to this release, the following activities and investigations were performed:

- Closure of four USTs in September 1988;
- Removal of piping associated with the former waste solvent tank, and excavation and disposal of soils contaminated with chlorinated solvents in 1988;
- Phase II Site Assessment performed in 1993;
- Site Investigation performed in 1994;
- Supplemental Site Investigation performed in 1995;
- Phase II Subsurface Investigation performed in 1998;
- Compliance status investigation performed in 1998;
- Supplemental compliance status investigations performed in 2000, 2001, and 2004; and
- Groundwater monitoring in 2002.

The final Compliance Status Report (CSR) was submitted to GAEPD in June 2004 (O'Brien & Gere). Analytical data provided in the CSR delineated the nature and extent of chlorinated ethenes in soil and groundwater and defined the area of groundwater affected by the concentrations of chlorinated aliphatic hydrocarbons (CAHs) above the RRS. Site soil meets the Type 4 site-specific, non-residential property RRS and has been certified as doing so in the CSR. No further action is required with respect to site soil.

CAHs, and in particular, chlorinated ethenes, have been detected in groundwater at concentrations above the RRS in a number of wells surrounding the former waste solvent tank piping (Figure 2). The migration of these constituents has been limited because of the extremely low hydraulic conductivity of the soil. It is likely that these constituents are derived from a historic release from the waste solvent tank piping.

The conservative risk evaluation performed for the site groundwater constituents indicates that site groundwater meets neither non-residential nor residential RRS. The area of groundwater constituents that exceed non-residential RRS is well contained, and extends approximately 100 ft downgradient of the suspected source area (Figure 3). Further details of the site background are presented in the approved CSR. A summary of historical groundwater analytical results is provided in Appendix B.

Corrective Action at the Moultrie Facility was prompted by the understanding that site groundwater does not meet Georgia RRS. The approved Corrective Action Program details the selected remedial measures and provides the basis for corrective action at the site. As described in the CAP, there are two components to the groundwater corrective action. The first component was enhanced bioremediation consisting of injection of a lactate formulation, ABC©, into groundwater with concentrations of chlorinated ethenes above RRS. The lactate formulation accelerates microbial activity, which, in turn facilitates reductive dechlorination of the chlorinated ethenes. Injection was performed with a Geoprobe® at injection nodes laid out on a grid pattern. The injection events occurred two years apart in October 2004 and October 2006. During the second injection event, in October 2006, zero valent iron was added to the lactate solution in order to improve its efficacy by further enhancing reducing conditions. These injection events were followed by semiannual monitoring which took place in April 2005, October 2005, April 2006, April 2007, and October 2007. The second component of the approved corrective action is MNA. Following the October 2007 monitoring event, the Corrective Action Monitoring and Evaluation Report (O'Brien & Gere, April 2008) recommended the implementation of MNA at the site. This recommendation was accepted by GAEPD for a five year evaluation period. Because Miller has decided to apply for entry into the VRP and the MNA geochemical parameters were removed from the sampling analyses in 2011, this report does not include an evaluation of MNA but rather a historical evaluation of corrective action at the Site.

1.2 CORRECTIVE ACTION OBJECTIVES

The goal of the lactate injection was to bring site groundwater into compliance with non-residential (Type 4) RRS. These were calculated for the CSR following the requirements as set forth in Chapter 391-3-19 of the HSRA. The RRS values represent an acceptable level of theoretical human health risk associated with analytes found in soil and groundwater at the site. The lactate injection at the site has reduced most VOCs to levels below the Type 4 RRS. Once the Type 4 RRS are achieved, the approved Corrective Action Program identifies the second component of the corrective action as MNA to bring site groundwater into compliance with Type 1/3 RRS. Following the October 2007 groundwater monitoring event, two constituents (trichloroethene and vinyl chloride) remained above the Type 4 RRS; however, for these constituents, the Type 4 RRS are the same as the Type 1/3 RRS. Therefore, to the extent possible, the lactate injection corrective action has met the requirements of the CAP for the first component of the corrective action and MNA has been implemented. The site is currently undergoing MNA with the goal of bringing site groundwater into compliance with the Type 1/3 RRS.

2. SCOPE AND METHODOLOGY

Groundwater monitoring was performed the week of December 3, 2012. Except where noted, field activities followed procedures described in the Corrective Action Investigation Work Plan (O'Brien & Gere, February 2004). The paragraphs that follow provide an overview of field activities.

Upon arrival at the site, monitoring wells were opened and allowed to equilibrate to atmospheric pressure for a minimum of two hours prior to measuring water levels. After equilibration, water levels were measured with a decontaminated electronic water level meter to the nearest 0.01-ft relative to the top of the well casing.

Following the water level survey, each well was purged following low-flow purging protocols. Each well was purged at the lowest feasible rate, with the majority of wells purged at 100 mL/min or less. Because of their depths, and the time required to purge one well volume, two wells, CH2MW-4D and ETMW-116, were purged at 125 mL/min (Appendix C). During purging, water quality parameters--temperature, pH, conductivity, oxidation reduction potential (ORP), and dissolved oxygen (Table 1), were measured continuously with a Horiba™ U-53 water quality meter equipped with a flow-through cell. Purging continued until at least one well volume of water was removed from the well, and water quality parameters had stabilized.

During purging, groundwater levels in six monitoring wells (CH2MW-1, CH2PP-1, CH2MW-3, ETCMW-113, CH2MW-114D, and ETCMW-121) ran dry. These wells were allowed to recovery (for at least 24 hours,) until a sufficient quantity of water was present in the well to collect a groundwater sample, after which they were sampled, with no further purging.

Samples were collected for VOC analysis at thirteen wells using the reverse pump method. Under this method, the peristaltic pump was turned off and the tubing was removed from the well. The pump was reversed and the sample was emptied into 40-mL sample vials preserved with hydrochloric acid. Completely emptying the tubing was avoided to prevent introducing water that was in contact with the flexible pump head tubing into the sample.

One field duplicate was collected for every ten field samples. A matrix spike/matrix spike duplicate sample was collected for every 20 field samples.

Once sample containers were properly labeled and filled, they were wrapped, sealed, and placed immediately in a cooler with ice. A chain of custody form listing each sample and the analysis requested was also included with the cooler. At the conclusion of each day, additional ice was provided in the cooler. Samples were shipped via overnight delivery to Shealy Laboratories of Columbia, South Carolina, which holds a NELAP (National Environmental Laboratory Accreditation Program) accreditation authority (Appendix D). Groundwater samples were analyzed for VOCs, following SW846 Method 8260 for a targeted list of parameters (Table 1).

3. GROUNDWATER MONITORING RESULTS

This section presents the results of the December 2012 monitoring.

3.1 HYDROGEOLOGIC CONDITIONS

The following provides a summary of current hydrogeologic conditions. For a more detailed description of hydrogeologic conditions, please refer to the Compliance Status Report (O'Brien & Gere, June 2004). Groundwater at the site is unconfined and encountered at depths ranging from approximately 1 foot to greater than 19 feet below surface (fbs) (Table 2). Shallow monitoring wells in the surficial groundwater zone range in depth from 10 to 15 fbs and have either 5 or 10 ft screens. Water levels obtained in December 2012 were consistent with those measured during the previous monitoring event.

Hydraulic conductivity at the site is extremely low (1.4×10^{-7} cm/sec to 7.5×10^{-6} cm/sec), and groundwater flow is minimal (0.053 ft/yr to 0.53 ft/yr). Because of the low hydraulic conductivity and varied recharge rates resulting from the impermeable cover provided by the building and paved areas, groundwater flow at this site is highly irregular. Historical level measurements indicate that groundwater on the eastern edge of the facility flows to the east and groundwater on the western portion of the treatment area flows to the west. In December 2012 there appeared to be a potentiometric high in the center of the treatment area, with flow to both the east and west (Figure 4).

The primary potential groundwater receptors at the site are two small ponds that are located to the southwest and southeast of the Moultrie facility (Figure 1). The damming of an ephemeral creek that originates near the Moultrie facility formed the pond to the southeast. Given the low hydraulic conductivity, groundwater originating at the site is not expected to be a significant contributing source to these ponds; it is likely that precipitation is the predominant source of recharge for water in the creek and pond.

3.2 GROUNDWATER ANALYTICAL RESULTS

A summary of groundwater VOC concentrations detected since corrective measures were implemented at the site is included as Table 3. This table includes all constituents detected above the Type 1/3 RRS. The results in this table were rounded to the same number of significant digits as the Type 1/3 RRS. Laboratory analytical reports are provided in Appendix E.

3.2.1 Groundwater VOC Results

In December 2012, samples from three of the fourteen wells sampled had no VOCs detected (CH2MW-3, CH2PP-1, and CH2MW-4D). Samples collected from the remaining eleven wells contained VOCs, and seven wells (ETCMW-113, ETCMW-114, CH2MW-114D, ETCMW-115, ETMW-116, ETMW-117, and ETMW-118) had concentrations above the Type 1/3 RRS (Figure 5).

Six constituents -- chloroethane, 1-1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride -- were detected at concentrations above the Type 1/3 RRS. Discussion of VOC trends in individual wells within the treatment zone is included in Section 3.2.2.

3.2.2 Treatment Area Well Summary

Samples from wells within the treatment area represent a nearly idealized distribution of chlorinated ethenes undergoing biodegradation via reductive dechlorination, with PCE or TCE highest in the source area, and elevated cis-1,2-DCE and vinyl chloride concentrations in the source area and extending downgradient (Figures 6-9). These figures represent the concentration of each of the key constituents in excess of the Type 1/3 RRS. For example, vinyl chloride was detected in the sample from ETCMW-113 at 0.007 mg/L. Because the Type 1/3 RRS for vinyl chloride is 0.002 mg/L, a value of 0.005 mg/L is represented on the map as the concentration of vinyl chloride in excess of the Type 1/3 RRS (0.007 mg/L – 0.002 mg/L = 0.005 mg/L).

PCE is present in excess of the Type 1/3 RRS only in sample from ETCMW-114, which is in the source area (Figure 6).

TCE concentrations in excess of the Type 1/3 RRS were also detected in the source area in samples from ETCMW-114 and CH2MW-114D, and also slightly further downgradient in the sample from ETCMW-115 (Figure 7). The constituent cis-1,2-DCE, which is a daughter product of the biodegradation of both PCE and TCE, was detected at concentrations above the Type 1/3 in samples from wells ETCMW-114, CH2MW-114D, and ETCMW-113, which is still further downgradient of the source area (Figure 8). The highest concentration of cis-1,2-DCE in excess of the Type 1/3 RRS was detected in the sample from ETCMW-114. Vinyl chloride, which is a daughter product of the degradation of cis-1,2-DCE, is present at concentrations in excess of the Type 1/3 RRS further downgradient of the source area and across a wider area of the treatment zone, in samples from wells ETCMW-113, ETMW-116, ETMW-117 and ETMW-118 (Figure 9). The sections that follow provide an overview of the historical trends for each of the affected wells in the treatment area, which consists of the area where lactate injection was performed and includes wells ETCMW-113, ETCMW-114, CH2MW-114D, ETCMW-115, ETMW-116, ETMW-117 and ETMW-118. Historical analytical results have been summarized in both tabular (Appendix B) and graphical (Appendix F) format to support the evaluation of contaminant trends.

ETCMW-114

Samples from this well, which is located in the source area, have consistently had the highest concentration of chlorinated ethenes. Following the second lactate injection in 2006, PCE concentrations in this well were reduced to non-detectable levels. Although PCE was detected again in 2008 above Type 1/3 RRS and increased in concentration through 2011, the current concentration (0.02 mg/L) is slightly below the concentration measured in 2011 and remains well below the concentration of PCE detected in this well prior to injection (0.13 mg/L). Both TCE and cis-1,2-DCE continue to be detected at concentrations above the Type 1/3 RRS, but have remained at relatively stable concentrations since 2008. Vinyl chloride, which has been detected in this well sporadically since 2006 was not detected in 2012; however, the detection limit (0.005 mg/L) was greater than the Type 1/3 RRS (0.002 mg/L).

The renewed detections of PCE and TCE following the second injection suggest some level of rebound, probably as a result of dissolution from the matrix of the aquifer, but the corresponding increases in cis-1,2-DCE suggest that biodegradation is ongoing in the vicinity of this well.

CH2MW-114D

Located in the source area but at a greater depth than ETCMW-114, PCE concentrations in samples from this well dropped below the Type 1/3 RRS following injection, and then remained relatively stable until 2011, when the concentration dropped by an order of magnitude. PCE was not detected in this well in 2012. The concentration of TCE was also reduced following the second injection. While TCE has remained at a concentration above the Type 1/3 RRS it has steadily decreased since 2008. The concentration is more than an order of magnitude below those prior to injection, and is approaching the Type 1/3 RRS. The concentration of cis-1,2-DCE has been consistently above the Type 1/3 RRS since the injections, and has increased since 2008, probably as a result of the degradation of PCE and TCE. The concentration of cis-1,2-DCE has remained stable since 2010, which may be the result of the significant drop in concentration for both TCE and PCE, both of which degrade to this constituent. Vinyl chloride, which was detected for the first time in 2010, was not detected in 2012; however, the detection limit for this sample (0.005 mg/L) was greater than the Type 1/3 RRS (0.002 mg/L). The concentration of 1,1-DCE has also been detected above the Type 1/3 RRS in samples from this well. There has been some increase in this concentration since the injection treatments in 2004 and 2006 but concentrations have remained relatively stable since it was first detected in 2009. This constituent will continue to be observed during future monitoring events.

Although both cis-1,2-DCE and vinyl chloride have increased since the second injection, the corresponding decrease in PCE and TCE suggests that biodegradation is ongoing in the vicinity of this well.

ETCMW-113

This well is located in the upgradient edge of the plume. The concentration of PCE and TCE dropped following injection, and have been at concentrations below the Type 1/3 RRS in samples from this well since 2008. The concentration of cis-1,2-DCE and vinyl chloride are detected at concentrations in excess of their respective Type 1/3 RRS but concentrations of both have decreased since 2011. The concentration of cis-1,2-DCE increased

following injection, and has remained relatively stable since 2007. The increase in the concentration of this constituent is likely the result of the degradation of PCE and TCE. Vinyl chloride was first detected in 2008, and has remained at relatively stable concentrations since then. It is derived from the degradation of cis-1,2-DCE, and its appearance and continued presence is likely the result of the increase in this constituent.

The overall reduction in the concentration of PCE and TCE, coupled with the presence cis-1,2-DCE and vinyl chloride suggest that biodegradation is ongoing in the vicinity of this well.

ETMW-115

This well is located on the downgradient edge of the plume. The constituent PCE has not been detected in this well. The concentration of both TCE and cis-1,2-DCE decreased following injection, falling below the Type 1/3 RRS in 2008 and 2007, respectively. The concentrations of these constituents gradually increased from 2008 to 2010, but have remained relatively stable since. The concentration of TCE has been above the Type 1/3 RRS since 2010, while the concentration of cis-1,2-DCE has remained below the Type 1/3 RRS. Although vinyl chloride fell below detectable levels in 2009, it was detected again at a concentration below the Type 1/3 RRS in 2010 and increased to a concentration above the RRS in 2011 and 2012.

The increasing concentration of TCE since 2008 suggests some level of rebound, probably as a result of dissolution from the matrix of the aquifer, but the corresponding increase in cis-1,2-DCE, as well as the renewed detection of vinyl chloride, suggests that biodegradation is ongoing in the vicinity of this well.

ETMW-116

This well is located in the middle of the plume. The concentration of PCE dropped following injection, and has not been detected in samples from this well since April 2005. The concentration of TCE also dropped following injection, and with the exception of one detection at a concentration below the Type 1/3 RRS in 2010, has not been detected in samples from this well since 2006. . The concentration of cis-1,2-DCE decreased steadily since the second injection, falling below the Type 1/3 RRS in 2007, and continues to remain below the Type 1/3 RRS. Vinyl chloride was first detected in April 2006, following the first injection, and increased following the second injection. The concentration of vinyl chloride has remained relatively stable since 2008 and continues to be the only constituent in excess of the Type 1/3 RRS. The increase in the concentration of vinyl chloride matched the decrease in concentration for cis-1,2-DCE, and it is likely derived from the degradation of this constituent. Chloroethane was also detected above the Type 1/3 RRS in 2008 and has remained above the Type 1/3 RRS since; although the concentration has decreased since 2009.

The decreasing trend in cis-1,2-DCE and corresponding increasing trend for vinyl chloride following the second injection suggests biodegradation is ongoing in the vicinity of this well.

ETMW-117

This well is located on the downgradient edge of the plume. The concentration of PCE dropped following the injections, and has not been detected in samples from this well since April 2007. The concentration of cis-1,2-DCE increased initially following injection, but has decreased since 2007, and remains below the Type 1/3 RRS. The concentration of TCE dropped by two orders of magnitude following injection, fell below the Type 1/3 RRS in 2008, and with the exception of one detection at a concentration below the Type 1/3 RRS in 2010, has not been detected since. Vinyl chloride is currently the only constituent in excess of the Type 1/3 RRS. It was detected for the first time in 2008 and the concentration has remained relatively stable since December 2009.Chloroethane was also detected above the Type 1/3 RRS in 2012 and was only detected once before in samples from this well in 2008.

The decrease in both TCE and cis-1,2-DCE, and corresponding increase in vinyl chloride since 2008 suggests biodegradation is ongoing in the vicinity of this well.

ETMW-118

This well is located on the downgradient edge of the plume. The constituent PCE has not been detected in this well since 2009. Concentrations of TCE and cis-1,2-DCE have steadily decreased since December 2008, falling

below the Type 1/3 RRS in 2010. In 2012, TCE was not detected. The concentration of vinyl chloride has been stable since it was first detected in 2008, and is currently the only constituent in excess of the Type 1/3 RRS in samples from this well.

The decrease in the concentrations of PCE, TCE and cis-1,2-DCE, and corresponding presence of vinyl chloride over the past several monitoring events suggests biodegradation is ongoing in the vicinity of this well.

OTHER TRENDS

Outside of the treatment area, there were no constituents detected above the Type 1/3 RRS. In 2012, TCE was detected at concentrations below the Type 1/3 RRS in samples from CH2MW-1 and ETMW-120. The concentration of TCE at CH2MW-1 remains below the concentrations observed prior to the injection treatment. The concentration of TCE at ETMW-120 remains below the concentration observed in 2010, which was the only other sampling event where TCE was detected in samples from this well.

In 2012, cis-1,2-DCE was detected at ETMW-119, ETMW-120 and ETMW-120. The detections in samples from ETMW-119 and ETMW-120 have been sporadic, and the concentrations in 2012 were below the concentrations measured prior to the injection. In 2012, cis-1,2-DCE was detected for the first time in a sample from ETMW-121, at a concentration below the Type 1/3 RRS.

4. CONCLUSIONS

The historical analytical results for the site indicate that following the injection of lactate in 2004 and 2006, a reduction in contaminant concentrations was observed. In general, PCE and TCE concentrations decreased as cis-1,2-DCE and vinyl chloride (daughter products of PCE and TCE degradation) concentrations increased. This trend suggests that active biodegradation of chlorinated ethenes was taking place. Although the concentration of some chlorinated ethenes has increased since the second injection, this rebound is typical of injection in-situ remediation sites, and is likely related to contaminants desorbing from the aquifer matrix into the surrounding groundwater.

At this point, additional injection of lactate would not be beneficial, and is likely to produce conditions that are less favorable for biodegradation. The low hydraulic conductivity at the site continues to limit the migration of the contaminant plume. Migration of the plume has not been observed in over sixteen years of sampling and as with previous monitoring events, no constituents were detected above the RRS outside of the treatment area in 2012. The low potential for migration of constituents is also supported by the Biochlor® modeling that was performed and included in the Corrective Action Monitoring and Evaluation Report (O'Brien & Gere, April 2008). Furthermore, review of the analytical data at the site indicates active biodegradation is occurring within the treatment zone and that this has reduced the concentration of constituents within the affected area. The chlorinated ethenes are showing a generally decreasing concentration overall, with increasing concentrations observed only for degradation by-products.

5. RECOMMENDATIONS

Miller is currently evaluating other regulatory options for this site and preparing an application for entry into the Georgia VRP. Miller anticipates this application will be submitted in spring 2013.

6. REFERENCES

O'Brien & Gere, *Corrective Action Investigation Work Plan, Miller Brewing Company Can Plant, Moultrie, Georgia,* February 2004.

O'Brien & Gere, *Corrective Action Monitoring and Evaluation Report, Miller Brewing Company Can Plant, Moultrie, Georgia*, April 2008.

O'Brien & Gere, *Corrective Action Plan, Former Miller Brewing Company Can Plant, Moultrie, Georgia*, January 2004.

O'Brien & Gere, *Revised Compliance Status Report, Miller Brewing Company, Moultrie, Georgia*, June 2004.

USEPA, 1998, Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water; Office of Research and Development, EPA/600/R-98/128.

Tables

Table 1
Summary of Monitoring Parameters
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Target Analytes	Field Parameters
Acetone	Temperature
2-Butanone (MEK)	Conductivity
Benzene	Dissolved Oxygen
Carbon Disulfide	pH
Chloroethane	Oxidation/Reduction Potential (ORP)
1,1-Dichloroethane (1,1-DCA)	
1,2-Dichloroethane (1-,2-DCA)	
1,1-Dichloroethene (1,1-DCE)	
cis-1,2-dichloroethene (cis-1,2-DCE)	
trans-1,2-dichloroethene (trans-1,2-DCE)	
Isobutyl Alcohol	
Tetrachloroethene (PCE)	
Toluene	
1,1,1-Trichloroethane (TCA)	
Trichloroethene (TCE)	
Trichlorofluoromethane	
Vinyl Chloride	
Xylenes (total)	

Table 2
Summary of Well Construction Details and Ground Water Elevations
Former Miller Brewing Can Plant
Moultrie, Georgia

Well	Ground Surface Elevation (ft msl)	TOC Elevation (ft msl)	Total Well Depth from Ground Surface (ft)	Screened Interval (ft bgs)	Well Diameter (in)	Depth to Water Below Top of Casing (ft)										
						4/6/2004	4/25/2005	10/24/2005	4/17/2006	4/16/2007	10/22/2007	12/8/2008	12/14/2009	12/6/2010	12/5/2011	12/3/2012
CH2MW-1	293.62	293.84	10	5 - 10	1	6.45	4.55	8.13	5.43	7.33	3.18	2.62	1.22	5.16	5.72	6.79
CH2MW-3	295.45	295.53	13	3 -13	2	4.92	3.55	8.10	4.72	5.85	0.97	3.69	2.08	9.96	8.11	9.51
CH2MW-4D	293.65	293.54	45.93	36 - 46	2	16.05	16.10	19.44	15.62	16.71	18.88	13.79	13.88	19.31	17.87	19.41
ETCMW-113	296.32	296.32	12	2 - 12	2	6.25	4.40	7.07	5.58	5.75	5.94	5.12	4.93	6.51	6.48	7.47
ETCMW-114	294.02	297.66	11.7	1.7 - 11.7	4	7.78	6.60	8.15	7.36	7.94	6.52	6.67	5.89	7.61	7.76	8.19
CH2MW-114D	294.16	297.45	22.5	17.5 - 22.5	1	8.54	7.00	9.88	8.40	9.32	9.99	8.64	8.55	11.13	9.64	10.24
ETCMW-115	293.22	296.10	11.5	1.5 - 11.5	2	6.19	5.14	6.96	5.39	6.49	4.79	4.72	3.76	5.85	6.51	6.90
ETMW-116	292.29	292.29	11	1 - 11	4	1.98	0.70	1.81	1.16	1.46	0.89	0.70	0.52	1.37	1.95	1.34
ETMW-117	292.30	292.30	11	1 - 11	2	2.40	0.89	2.71	1.29	2.42	0.71	1.30	0.24	1.90	1.81	1.94
ETMW-118	292.34	292.34	11	1 - 11	2	2.90	0.40	3.42	2.15	1.61	1.73	2.20	1.54	3.32	2.69	3.15
ETMW-119	294.26	297.05	11	1 - 11	2	6.86	5.70	8.02	6.31	6.65	5.66	5.32	4.14	6.38	6.86	7.73
ETMW-120	293.76	296.84	11	1 - 11	2	6.69	4.50	9.42	5.46	7.18	4.77	4.56	3.69	6.27	7.29	8.32
ETMW-121	294.84	298.02	11	1 - 11	2	7.70	5.78	11.72	6.43	8.72	6.75	4.53	2.91	11.48	10.12	12.31
CH2PP-1	293.56	293.72	12	7 - 12	1	7.67	5.55	9.45	7.63	8.81	6.00	3.56	2.87	9.22	8.61	9.20

Well	Ground Surface Elevation (ft msl)	TOC Elevation (ft msl)	Total Well Depth from Ground Surface (ft)	Screened Interval (ft bgs)	Well Diameter (in)	Water Level Elevation (ft msl)										
						4/6/2004	4/25/2005	10/24/2005	4/17/2006	4/16/2007	10/22/2007	12/8/2008	12/14/2009	12/6/2010	12/5/2011	12/3/2012
CH2MW-1	293.62	293.84	10	5 - 10	1	287.39	289.29	285.71	288.41	286.51	290.66	291.22	292.62	288.68	288.12	287.05
CH2MW-3	295.45	295.53	13	3 -13	2	290.61	291.98	287.43	290.81	289.68	294.56	291.84	293.45	285.57	287.42	286.02
CH2MW-4D	293.65	293.54	45.93	36 - 46	2	277.49	277.44	274.10	277.92	276.83	274.66	279.75	279.66	274.23	275.67	274.13
ETCMW-113	296.32	296.32	12	2 - 12	2	290.07	291.92	289.25	290.74	290.57	290.38	291.20	291.39	289.81	289.84	288.85
ETCMW-114	294.02	297.66	11.7	1.7 - 11.7	4	289.88	291.06	289.51	290.30	289.72	291.14	290.99	291.77	290.05	289.90	289.47
CH2MW-114D	294.16	297.45	22.5	17.5 - 22.5	1	288.91	290.45	287.57	289.05	288.13	287.46	288.81	288.90	286.32	287.81	287.21
ETCMW-115	293.22	296.10	11.5	1.5 - 11.5	2	289.91	290.96	289.14	290.71	289.61	291.31	291.38	292.34	290.25	289.59	289.20
ETMW-116	292.29	292.29	11	1 - 11	4	290.31	291.59	290.48	291.13	290.83	291.40	291.59	291.77	290.92	290.34	290.95
ETMW-117	292.3	292.30	11	1 - 11	2	289.90	291.41	289.59	291.01	289.88	291.59	291.00	292.06	290.40	290.49	290.36
ETMW-118	292.34	292.34	11	1 - 11	2	289.44	291.94	288.92	290.19	290.73	290.61	290.14	290.80	289.02	289.65	289.19
ETMW-119	294.26	297.05	11	1 - 11	2	290.19	291.35	289.03	290.74	290.40	291.39	291.73	292.91	290.67	290.19	289.32
ETMW-120	293.76	296.84	11	1 - 11	2	290.15	292.34	287.42	291.38	289.66	292.07	292.28	293.15	290.57	289.55	288.52
ETMW-121	294.84	298.02	11	1 - 11	2	290.32	292.24	286.30	291.59	289.30	291.27	293.49	295.11	286.54	287.90	285.71
CH2PP-1	293.56	293.72	12	7 - 12	1	286.05	288.17	284.27	286.09	284.91	287.72	290.16	290.85	284.50	285.11	284.52

Notes
Elevations based on a survey performed by H.J. Griffen and Associates in June 1998. Elevations reference a DOT benchmark.
Wells CH2MW-1A, CH2MW-2, CH2MW-5, OBGMW-122, OBGMW-123 and OBGMW-124 were abandoned on 12/8/2008

Table 3
Summary of Volatile Organic Constituents
Detected Above Type 1/3 Risk Reduction Standards
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1,2]	In Plume									
				ETCMW-113									
				4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010	12/7/2011	12/4/2012
Chloroethane	75-00-3	mg/L	0.001	--	--	--	--	--	**0.006**	--	**0.002**	--	--
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	--	--	--	**0.008**	--	--	--	--	**0.009**	--
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	**0.09**	--	--	**0.2**	**0.1**	**0.2**	**0.1**	**0.3**	**0.3**	**0.2**
Isobutyl Alcohol	78-83-1	mg/L	10	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	**0.008**	**0.006**	--	**0.006**	--	--	--	--	--	--
Trichloroethene (TCE)	79-01-6	mg/L	0.005	**0.06**	**0.06**	**0.02**	**0.04**	--	--	--	--	--	--
Vinyl Chloride	75-01-4	mg/L	0.002	--	--	--	--	--	**0.009**	**0.006**	**0.007**	**0.03**	**0.007**

Data Qualifiers:
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis

Notes:
mg/L Milligram per liter
-- Constituent not detected above the Type 1/3 RRS
Concentration exceeds Type 1 RRS.
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Type 4 RRS have been met for all constituents with the exception of PCE, TCE, and vinyl chloride. However, the Type 4 RRS are the same as the type 1/3 RRS for these constituents.
(3) Federal Drinking Water MCL

Table 3
Summary of Volatile Organic Constituents
Detected Above Type 1/3 Risk Reduction Standards
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1,2]	In Plume									
				ETCMW-114									
				4/28/2005	10/27/2005	4/20/2006	4/17/2007	10/24/2007	12/10/2008	12/16/2009	12/9/2010	12/5/2011	12/3/2012
Chloroethane	75-00-3	mg/L	0.001	--	--	--	--	**0.01**	--	--	--	--	--
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	**0.1**	**0.2**	**0.1**	--	--	**0.07**	**0.05**	**0.09**	**0.09**	**0.07**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	**2**	**4**	**3**	**2**	**0.2 E**	**1**	**0.8**	**2**	**2**	**1**
Isobutyl Alcohol	78-83-1	mg/L	10	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	**0.07**	**0.1**	**0.1**	--	--	**0.006**	**0.009**	**0.02**	**0.03**	**0.02**
Trichloroethene (TCE)	79-01-6	mg/L	0.005	**1**	**2**	**1**	--	**0.009**	**0.4**	**0.3**	**0.5**	**0.6**	**0.5**
Vinyl Chloride	75-01-4	mg/L	0.002	--	**0.03**	**0.02**	**4**	**.5 E**	--	**0.005**	**0.05**	**0.003**	--

Data Qualifiers:
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis

Notes:
mg/L Milligram per liter
-- Constituent not detected above the Type 1/3 RRS
Concentration exceeds Type 1 RRS.
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Type 4 RRS have been met for all constituents with the exception of PCE, TCE, and vinyl chloride. However, the Type 4 RRS are the same as the type 1/3 RRS for these constituents.
(3) Federal Drinking Water MCL

Table 3
Summary of Volatile Organic Constituents
Detected Above Type 1/3 Risk Reduction Standards
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1,2]	In Plume									
				CH2MW-114D									
				4/28/2005	10/26/2005	4/20/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/8/2010	12/7/2011	12/10/2012
Chloroethane	75-00-3	mg/L	0.001	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	--	--	--	--	--	--	**0.008**	**0.01**	**0.01**	**0.01**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	**0.100**	**0.1**	--	**0.2**	**0.1 E**	**0.1**	**0.3**	**0.4**	**0.4**	**0.4**
Isobutyl Alcohol	78-83-1	mg/L	10	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	**0.0070**	--	--	--	--	--	--	--	--	--
Trichloroethene (TCE)	79-01-6	mg/L	0.005	**0.200**	**0.2**	--	**0.1**	**0.06 E**	**0.1**	**0.09**	**0.08**	**0.03**	**0.008**
Vinyl Chloride	75-01-4	mg/L	0.002	--	--	--	--	--	--	--	--	**0.003**	--

Data Qualifiers:
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis

Notes:
mg/L Milligram per liter
-- Constituent not detected above the Type 1/3 RRS
Concentration exceeds Type 1 RRS.
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Type 4 RRS have been met for all constituents with the exception of PCE, TCE, and vinyl chloride. However, the Type 4 RRS are the same as the type 1/3 RRS for these constituents.
(3) Federal Drinking Water MCL

Table 3
Summary of Volatile Organic Constituents
Detected Above Type 1/3 Risk Reduction Standards
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1,2]	In Plume									
				ETCMW-115									
				4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008	12/16/2009	12/8/2010	12/7/2011	12/4/2012
Chloroethane	75-00-3	mg/L	0.001	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	--	--	--	--	--	--	--	--	--	--
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	--	**0.1**	--	**0.1**	--	--	--	--	--	--
Isobutyl Alcohol	78-83-1	mg/L	10	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	--	--	--	--	--	--	--	--	--	--
Trichloroethene (TCE)	79-01-6	mg/L	0.005	**0.006**	--	**0.01**	**0.02**	**0.008**	--	--	**0.007**	**0.01**	**0.02**
Vinyl Chloride	75-01-4	mg/L	0.002	**0.03**	**0.01**	**0.003**	**0.009**	--	--	--	--	**0.003**	--

Data Qualifiers:
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis

Notes:
mg/L Milligram per liter
-- Constituent not detected above the Type 1/3 RRS
Concentration exceeds Type 1 RRS.
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Type 4 RRS have been met for all constituents with the exception of PCE, TCE, and vinyl chloride. However, the Type 4 RRS are the same as the type 1/3 RRS for these constituents.
(3) Federal Drinking Water MCL

Table 3
Summary of Volatile Organic Constituents
Detected Above Type 1/3 Risk Reduction Standards
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1,2]	In Plume									
				ETMW-116									
				4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/16/2009	12/7/2010	12/6/2011	12/4/2012
Chloroethane	75-00-3	mg/L	0.001	--	--	--	--	--	**0.007**	**0.009**	**0.008**	**0.005**	**0.005**
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	**0.009**	--	--	--	--	--	--	--	--	--
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	**0.1**	**0.2**	**0.2**	**0.08**	--	--	--	--	--	--
Isobutyl Alcohol	78-83-1	mg/L	10	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	**0.01**	**0.006 J**	--	--	--	--	--	--	--	--
Trichloroethene (TCE)	79-01-6	mg/L	0.005	**0.2**	**0.1**	--	**0.03**	--	--	--	--	--	--
Vinyl Chloride	75-01-4	mg/L	0.002	--	--	**0.02**	**0.06**	**0.04**	**0.1**	**0.2**	**0.1**	**0.1**	**0.1**

Data Qualifiers:
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis

Notes:
mg/L Milligram per liter
-- Constituent not detected above the Type 1/3 RRS
Concentration exceeds Type 1 RRS.
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Type 4 RRS have been met for all constituents with the exception of PCE, TCE, and vinyl chloride. However, the Type 4 RRS are the same as the type 1/3 RRS for these constituents.
(3) Federal Drinking Water MCL

Table 3
Summary of Volatile Organic Constituents
Detected Above Type 1/3 Risk Reduction Standards
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1,2]	In Plume									
				ETMW-117									
				4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/15/2009	12/8/2010	12/6/2011	12/3/2012
Chloroethane	75-00-3	mg/L	0.001	--	--	--	--	--	**0.003**	--	--	--	**0.002**
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	--	--	--	--	--	--	--	--	--	--
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	--	--	--	--	**0.08**	--	--	--	--	--
Isobutyl Alcohol	78-83-1	mg/L	10	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	--	--	--	--	--	--	--	--	--	--
Trichloroethene (TCE)	79-01-6	mg/L	0.005	**0.09**	**0.1**	**0.08**	**0.07**	**0.03**	--	--	--	--	--
Vinyl Chloride	75-01-4	mg/L	0.002	--	--	--	--	--	**0.02**	**0.04**	**0.05**	**0.05**	**0.04**

Data Qualifiers:
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis

Notes:
mg/L Milligram per liter
-- Constituent not detected above the Type 1/3 RRS
Concentration exceeds Type 1 RRS.
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Type 4 RRS have been met for all constituents with the exception of PCE, TCE, and vinyl chloride. However, the Type 4 RRS are the same as the type 1/3 RRS for these constituents.
(3) Federal Drinking Water MCL

Table 3
Summary of Volatile Organic Constituents
Detected Above Type 1/3 Risk Reduction Standards
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1,2]	In Plume									
				ETMW-118									
				4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/9/2008	12/15/2009	12/9/2010	12/6/2011	12/3/2012
Chloroethane	75-00-3	mg/L	0.001	--	--	--	--	--	**0.003**	**0.002**	--	--	--
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	--	--	--	--	--	--	--	--	--	--
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.09**	**0.1**	--	--	--
Isobutyl Alcohol	78-83-1	mg/L	10	--	--	--	**30**	--	--	--	--	--	--
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	--	--	--	--	--	--	--	--	--	--
Trichloroethene (TCE)	79-01-6	mg/L	0.005	--	**0.05**	**0.03**	**0.05**	**0.04**	**0.04**	**0.02**	--	--	--
Vinyl Chloride	75-01-4	mg/L	0.002	--	--	--	--	--	**0.03**	**0.03**	**0.02**	**0.04**	**0.04**

Data Qualifiers:
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis

Notes:
mg/L Milligram per liter
-- Constituent not detected above the Type 1/3 RRS
Concentration exceeds Type 1 RRS.
(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Type 4 RRS have been met for all constituents with the exception of PCE, TCE, and vinyl chloride. However, the Type 4 RRS are the same as the type 1/3 RRS for these constituents.
(3) Federal Drinking Water MCL

Figures

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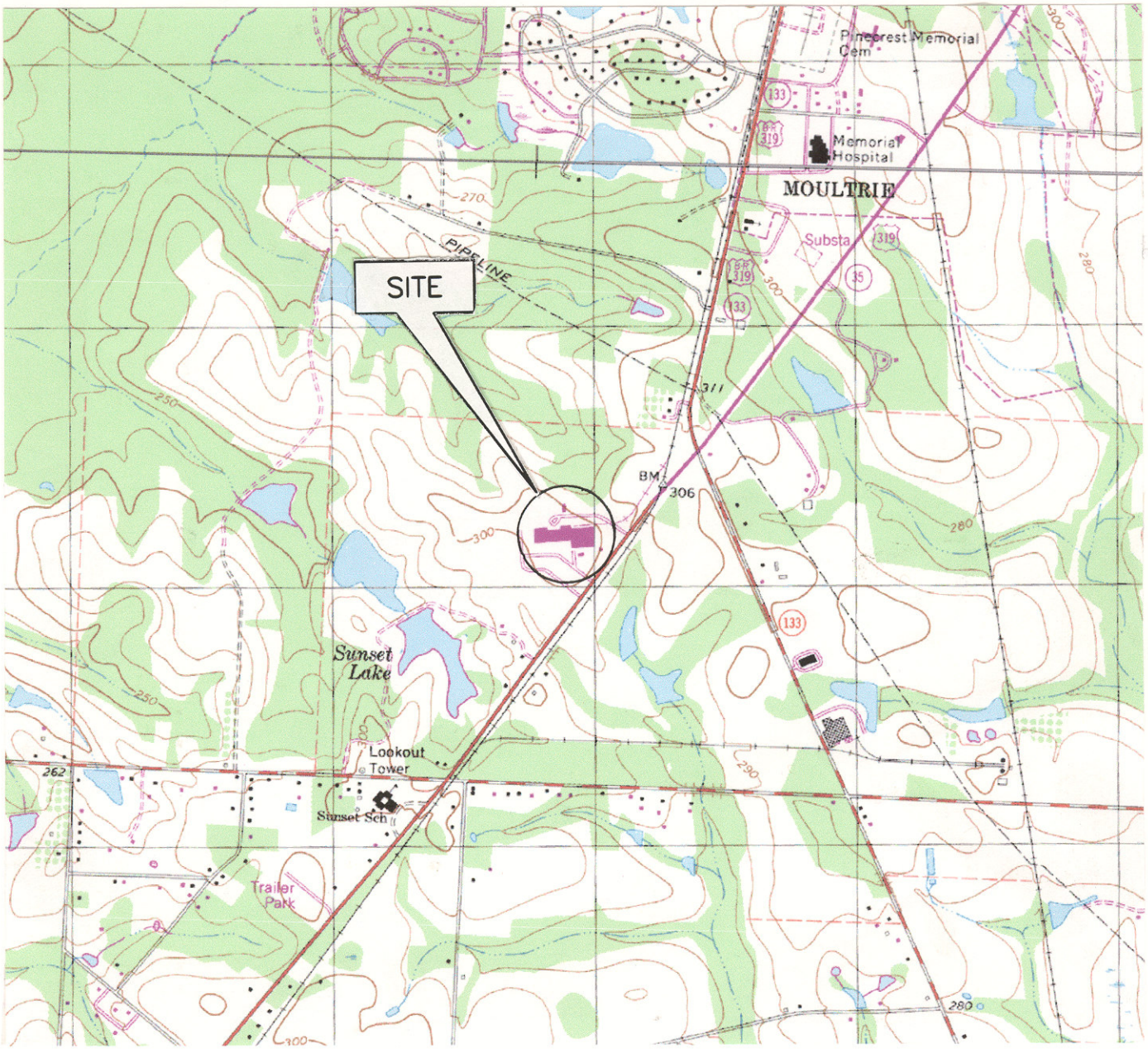
FIGURE 1



SITE LOCATION MAP

FORMER MILLER BREWING
COMPANY CAN PLANT
MOULTRIE, GA.

MAP SOURCE: USGS 7.5-MIN. SERIES TOPOGRAPHIC QUADRANGLE "COOLIDGE, GA" AND "MOULTRIE, GA".

1 0 1/2 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 0 5 1 KILOMETER

SCALE: 1:24000

O'BRIEN & GERE ENGINEERS, INC.

FILE NO. 26765

PATH: I:\Millercoors.1669\48328.2011-Groundwater-Samp\Docs\Figures

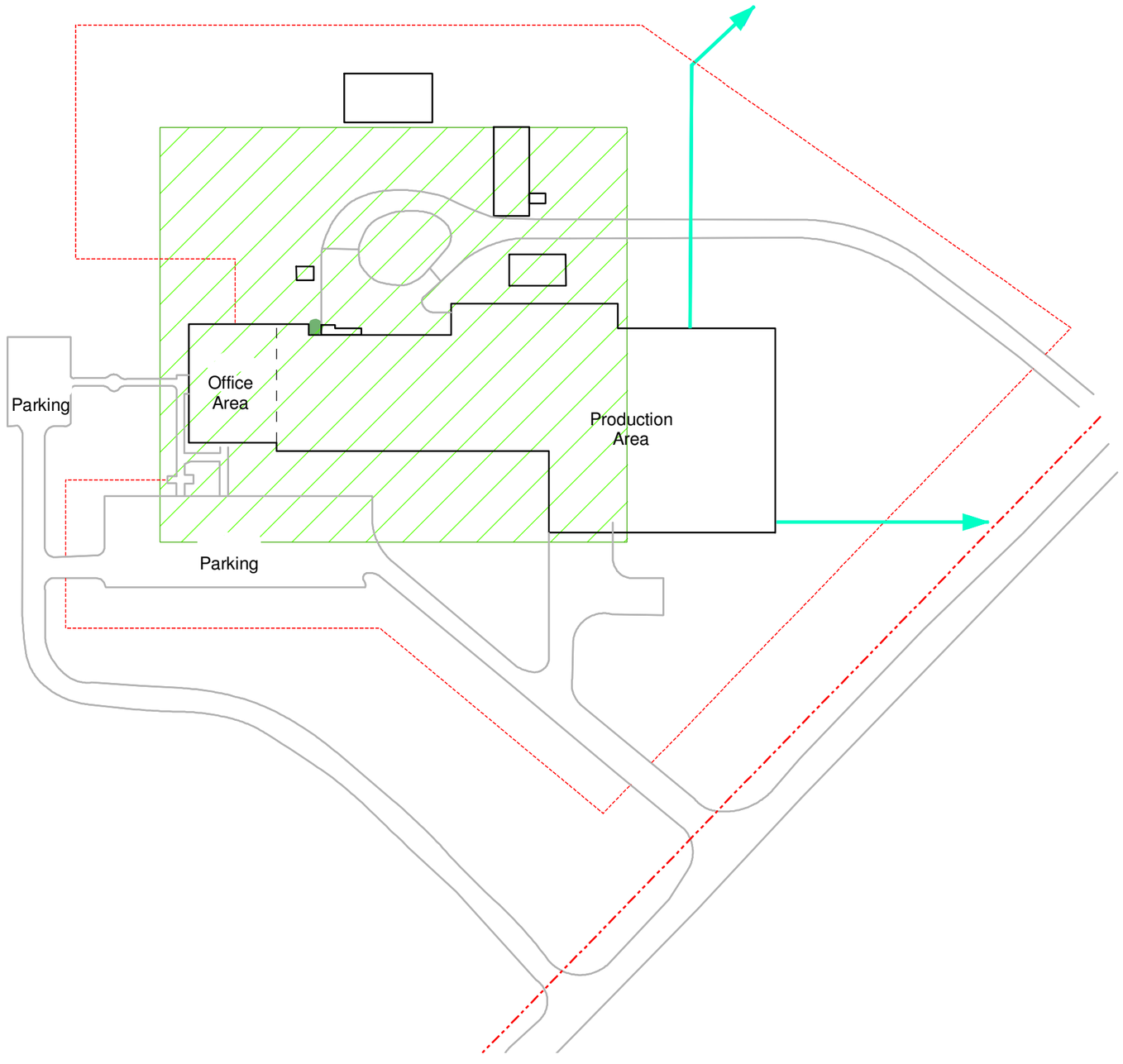


FIGURE 2

Chain Link Fence

Property Boundary

Road

Storm Water Drainage

Area shown on Figure 3

Former Waste Solvent Tank Piping Release

N

0 150 300

Feet

SITE PLAN

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

DECEMBER 2012

O'BRIEN & GERE

NAME: Site Plan I

DATE: 12/28/11

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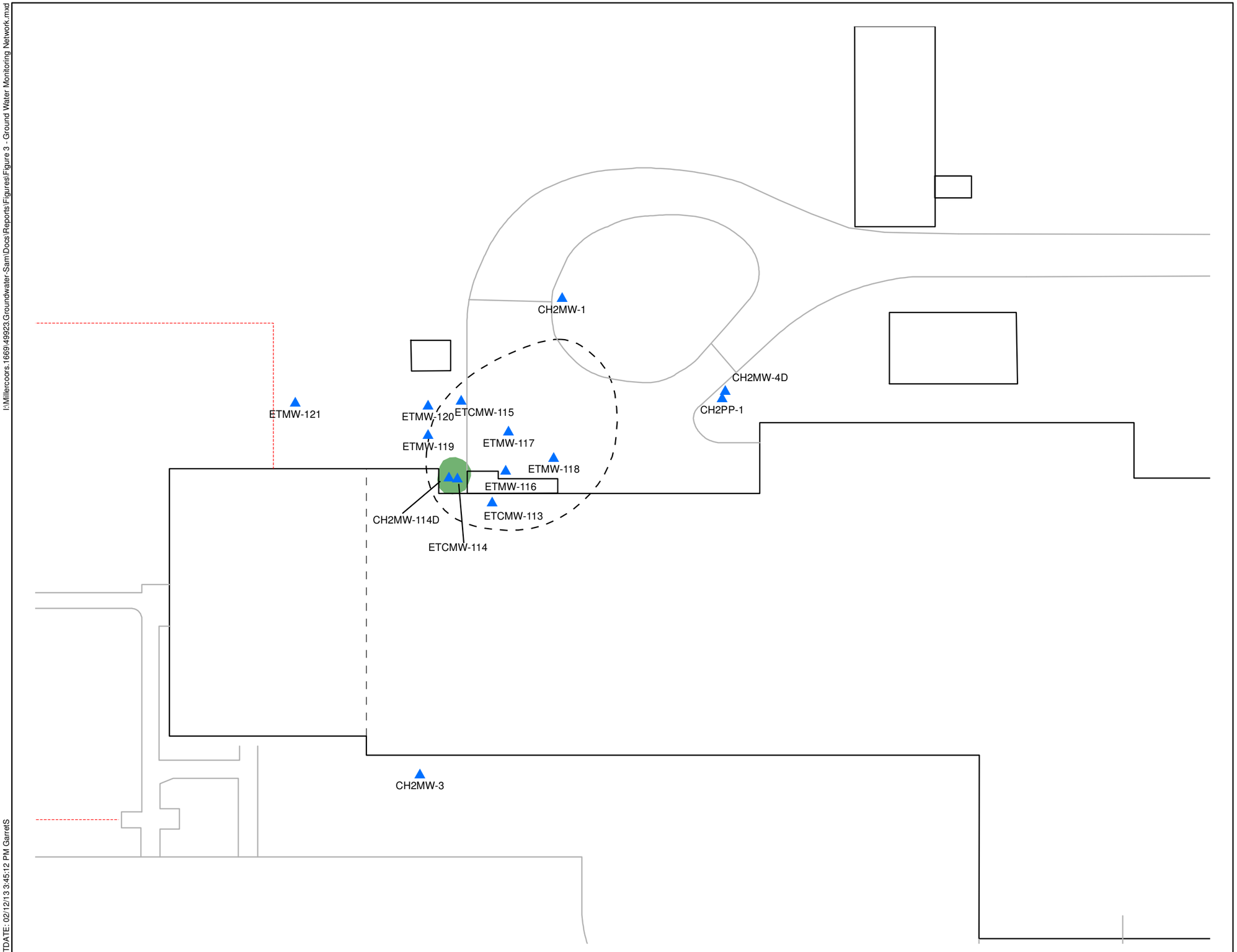
FIGURE 3



- Monitoring Well
- Chain Linked Fence
- Road
- Treatment Area
- Former Waste Solvent Tank Piping Release

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

GROUNDWATER MONITORING NETWORK

0 25 50 100
Feet

1/14/13
49923

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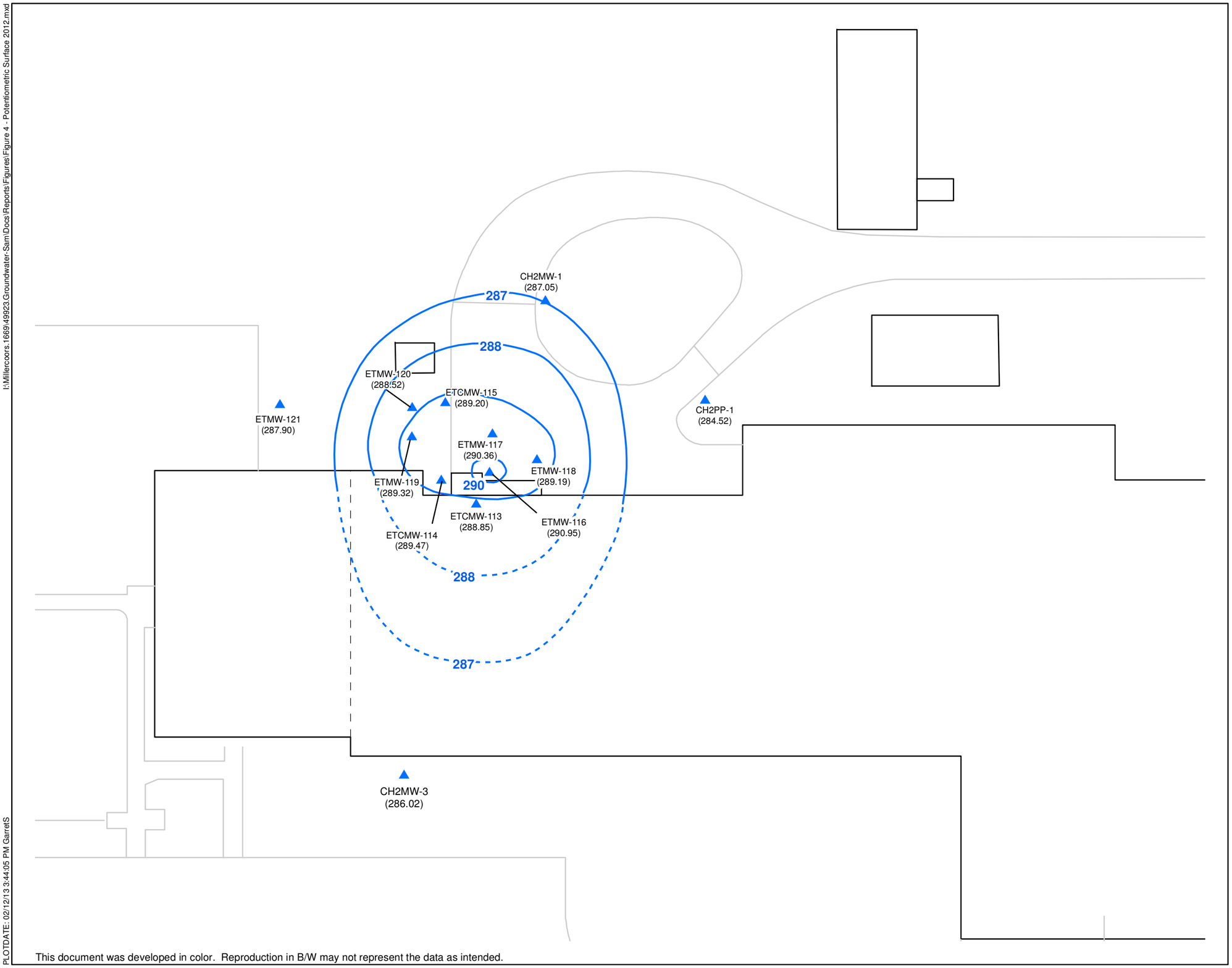
PLOTDATE: 02/12/13 3:45:12 PM GarretS

FIGURE 4



N

- Monitoring Well
- Groundwater Elevation (ft msl)
- Inferred Groundwater Elevation (ft msl)

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

GROUNDWATER POTENTIOMETRIC SURFACE DECEMBER 2012

0 25 50 100
Feet

1/14/13
49923

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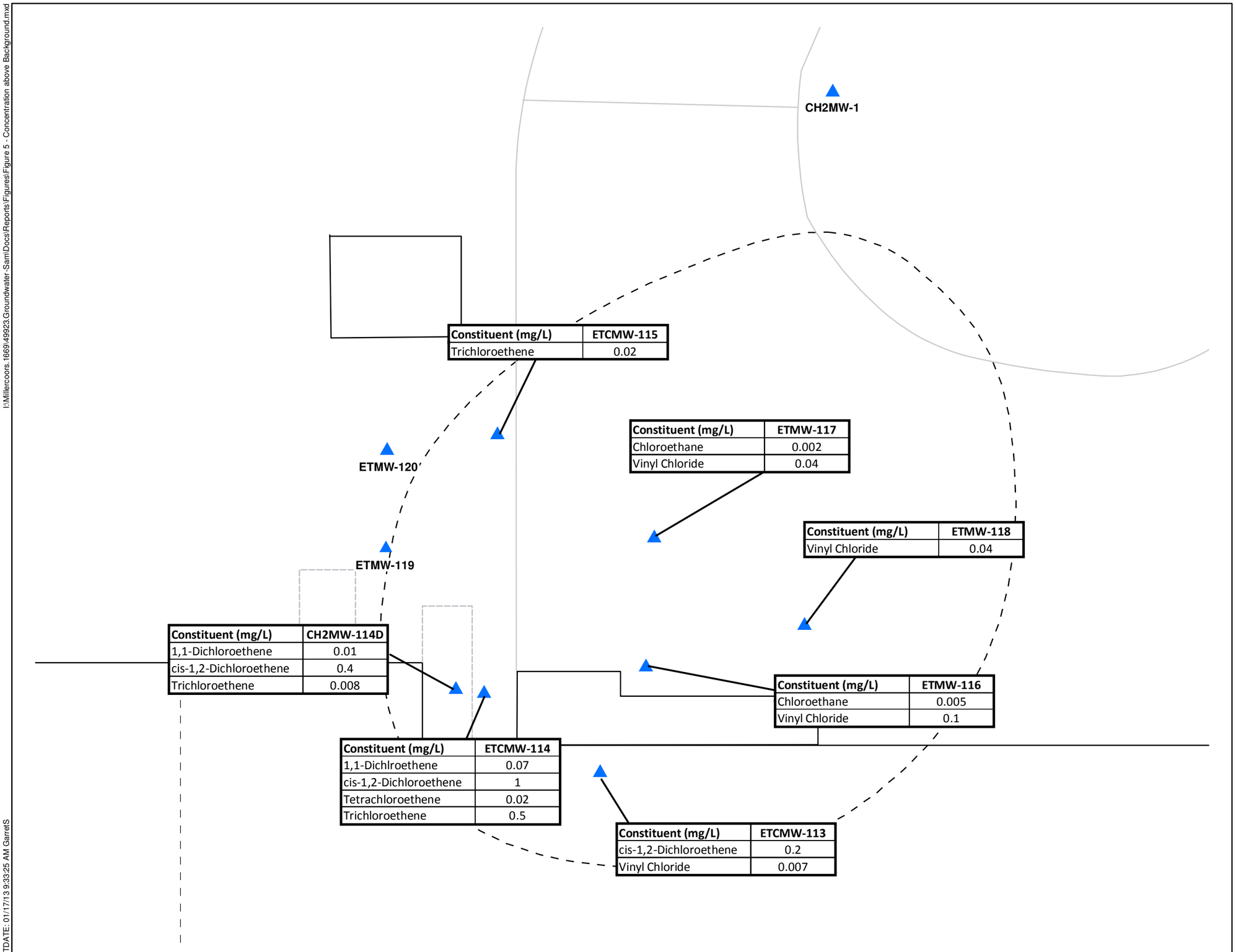
FIGURE 5



Monitoring Well

Treatment Area

Note: Constituents were not detected in the background well (CH2MW-3).

N

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

CONSTITUENTS DETECTED ABOVE TYPE 1/3 RRS IN GROUNDWATER

0 7.5 15 30

Feet

1/31/2012
48328

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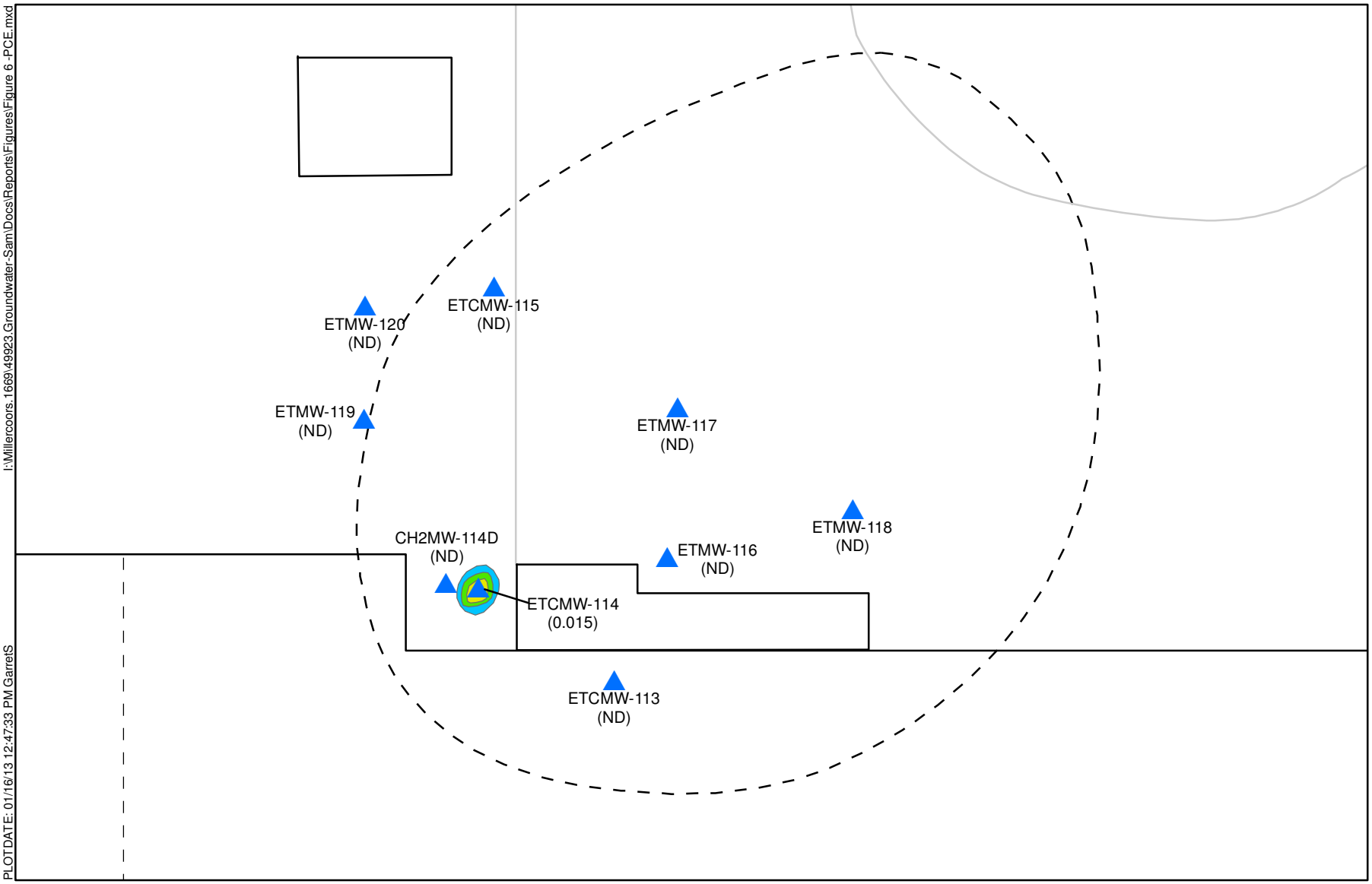

Tetrachloroethene (PCE) concentration above RRS (mg/L)

- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

Monitoring Well

Treatment Area

ND indicates that PCE was not detected at concentrations above the Type 1/3 RRS.

PCE Type 1/3 RRS = 0.005 mg/L

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

TETRACHLOROETHENE CONCENTRATION ABOVE RRS

0 10 20 40
Feet

N

FIGURE 6

1/15/13
49923

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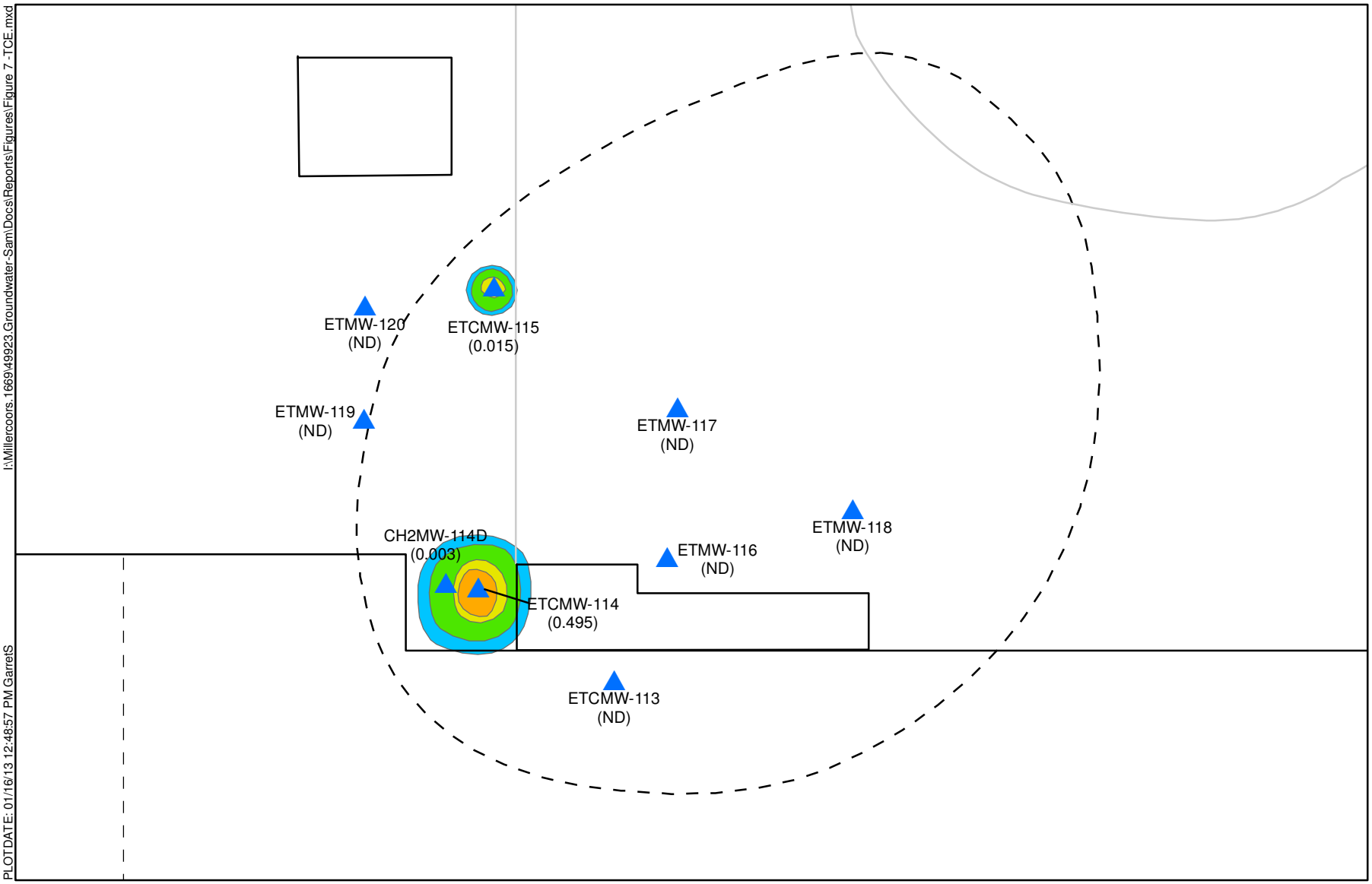


Trichloroethene (TCE)
concentration above RRS (mg/L)

- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

Monitoring Well

Treatment Area

ND indicates that TCE was not detected at concentrations above the Type 1/3 RRS.

TCE Type 1/3 RRS = 0.005 mg/L

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

TRICHLOROETHENE CONCENTRATION ABOVE RRS

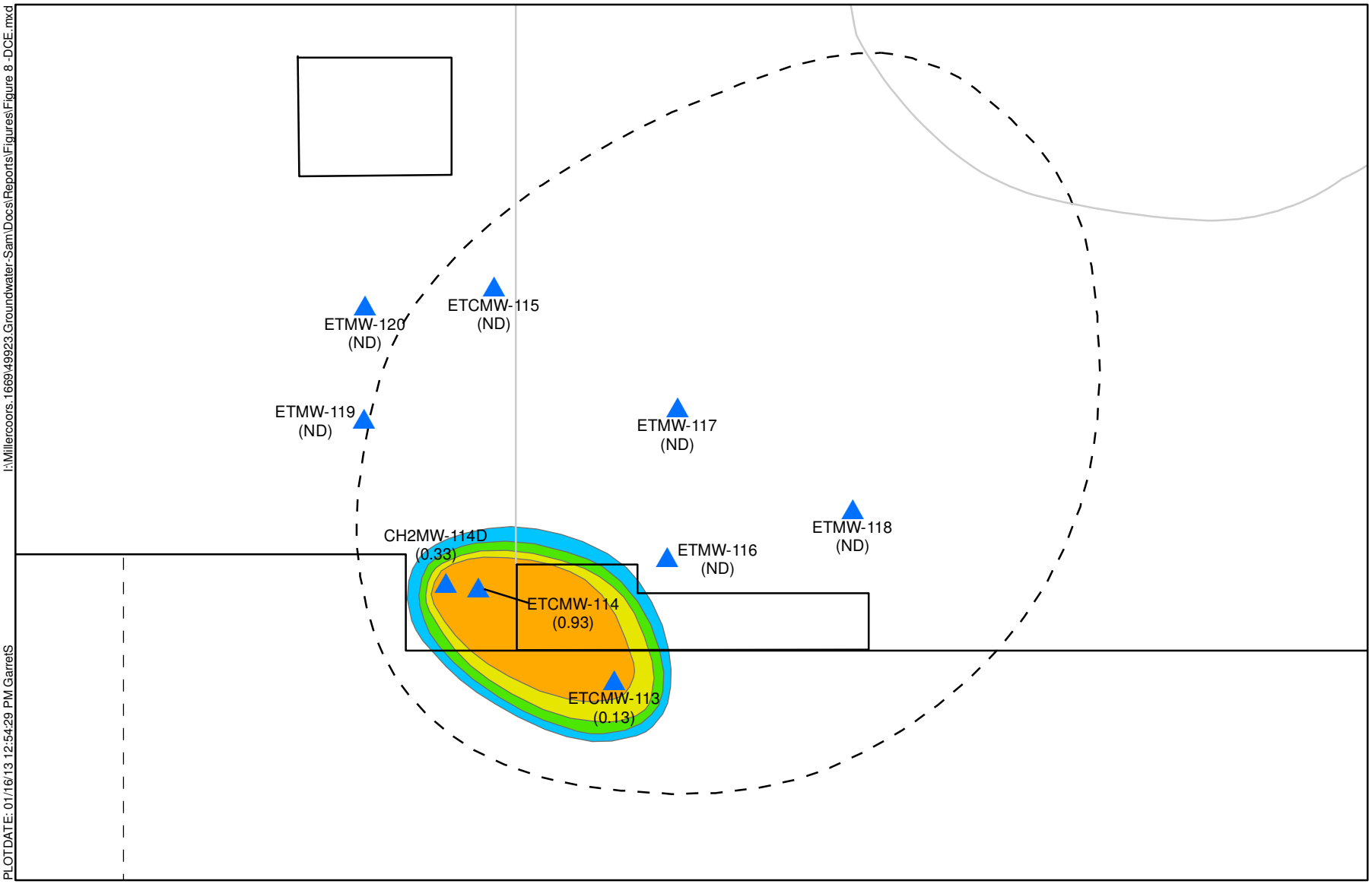
0 10 20 40
Feet

N

FIGURE 7

1/15/13
49923

O'BRIEN & GERE



cis-1,2-Dichloroethene (cis-1,2-DCE) concentration above RRS (mg/L)

- >1.0000
- 0.1000-0.9999
- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009

Monitoring Well

Treatment Area

ND indicates that cis-1,2-DCE was not detected at concentrations above the Type 1/3 RRS.

cis-1,2-DCE Type 1/3 RRS = 0.07 mg/L

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

CIS-1,2-DICHLOROETHENE CONCENTRATION ABOVE RRS

0 10 20 40

Feet

N

FIGURE 8

1/15/13
49923

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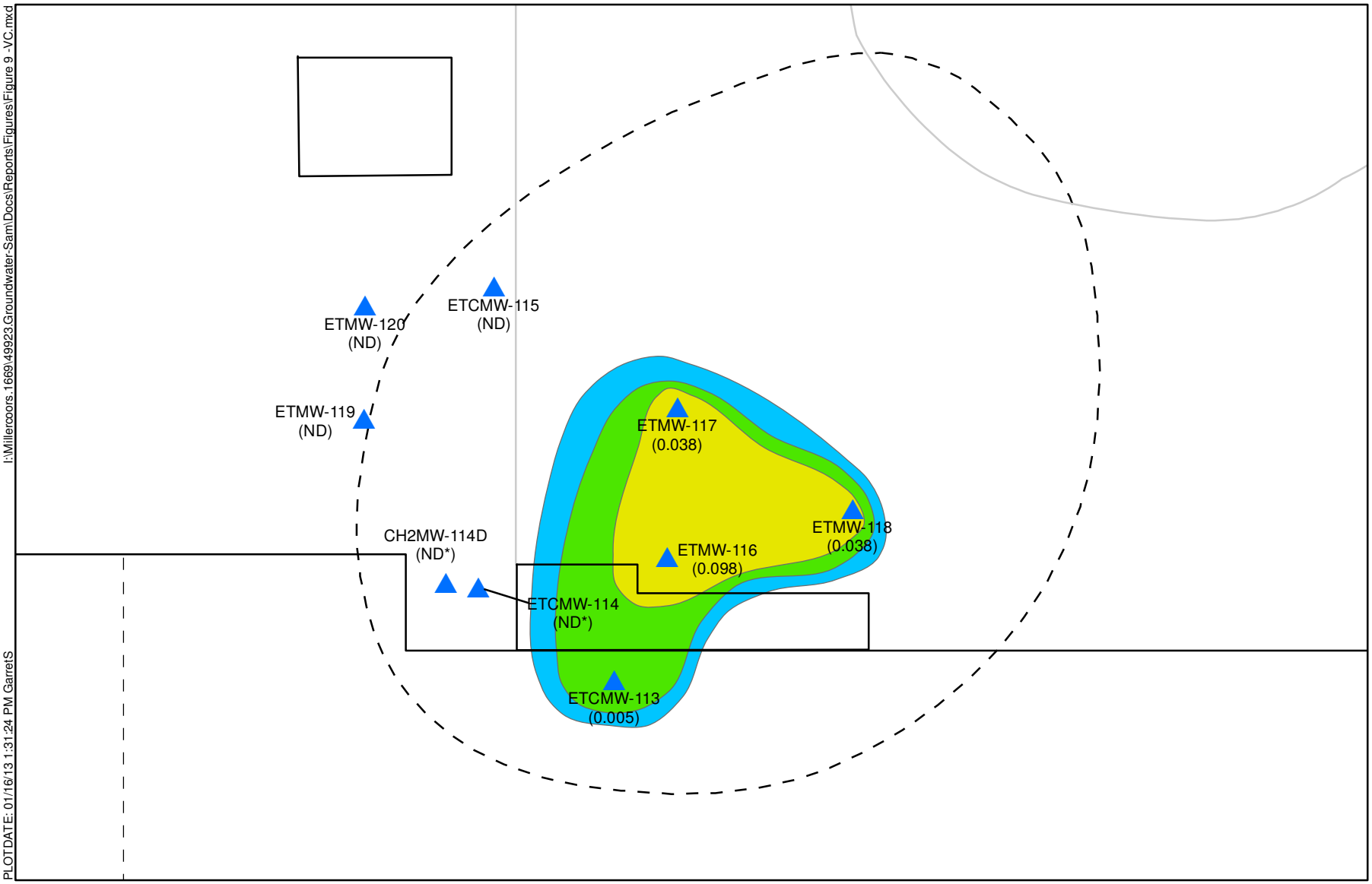

Vinyl Chloride (VC)

concentration above RRS (mg/L)

- 0.0100-0.0999
- 0.0010-0.0099
- 0.0001-0.0009
- Monitoring Well
- Treatment Area

ND indicates that cis-1,2-DCE was not detected at concentrations above the Type 1/3 RRS.

ND* indicates vinyl cloride was not detected; however, the detection limit was greater than the Type 1/3 RRS.

cis-1,2-DCE Type 1/3 RRS = 0.07 mg/L

FORMER MILLER BREWING
CANNING FACILITY
MOULTRIE, GA

VC CONCENTRATION ABOVE RRS IN 2012

0 10 20 40
Feet

N

FIGURE 9

1/15/13
49923

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Appendices

October 4, 2011 GAEPD Letter

Georgia Department of Natural Resources

2 Martin Luther King, Jr. Dr., S.E., Suite 1462 East, Atlanta, Georgia 30334
Mark Williams, Commissioner
Environmental Protection Division
F. Allen Barnes, Director
Land Protection Branch
Mark Smith, Branch Chief

Reply To:
Response and Remediation Program
2 Martin Luther King, Jr. Drive, S.E.
Suite 1462, East Tower
Atlanta, Georgia 30334-9000
Office 404/657-8600 Fax 404-657-0807

October 4, 2011

O'Brien & Gere Engineers, Inc.
C/O Ms. Sarah Slagle-Garret, P.E.
2610 Wycliff Road, Suite 104
Raleigh, NC 27607

Re: Former Miller Brewing Company Can Plant, HSI # 10425
Request to Omit Geochemical Parameters from Monitoring Plan, September 15, 2011

Dear Ms. Slagle-Garret:

The Georgia Environmental Protection Division (EPD) has reviewed your recent request on behalf of Miller Brewing Company to limit the constituents included in the sampling program to volatile organic compounds, eliminating the following geochemical parameters from the sampling program: alkalinity, chloride, iron, manganese, nitrate, sulfate, sulfide, methane, ethane, ethene, soluble organic carbon, total organic carbon, ferrous iron, and carbon dioxide. EPD concurs that it is no longer necessary to monitor these parameters.

Please direct questions regarding this matter to Terry Allison of the Response and Remediation Program at (404) 657-8664.

Sincerely,

David Reuland
Unit Coordinator
Response and Remediation Program

File: HSI Site # 10425

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Historical Summary of Volatile Organic Constituents in Groundwater

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Downgradient CH2MW-1												Downgradient CH2MW-1A						
					5/29/1998	4/29/2002	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/24/2007	12/8/2008	12/16/2009	12/8/2010	12/7/2011	12/10/2012	6/4/1998	4/29/2002	4/7/2004	4/28/2005	10/26/2005	4/18/2006	4/18/2007
Acetone	67-64-1	mg/L	4		-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.01	< 0.010	-		< 0.01	< 0.01	**0.031**	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.01	< 0.010	-	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		-		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	-		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0.001 [2]		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.001	-	**0.0015**	**0.0013**	< 0.001	**0.00059**	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.00284**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.00107**	**0.003**	**0.0013**	**0.0011**	**0.0011**	**0.00052**	< 0.0005	< 0.0005	< 0.0005	< 0.0025	**0.00059**	< 0.0005	< 0.00050	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	**0.003**	-	-	-	-	-	-	-	-	-	-	-	-	< 0.0005	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.25	< 0.050	< 0.050	< 0.050	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005
Naphthalene	91-20-3	mg/L	0.02		-	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.001	**0.0012**	**0.0039**	**0.0041**	**0.0044**	**0.00202**	**0.00176**	**0.00082**	**0.0012**	< 0.0025	**0.0023**	**0.00069**	**0.00098**	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0025	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Upgradient											
					CH2MW-2											
					5/29/1998	6/4/1998	8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2006 DUP1	4/18/2007	4/18/2007 DUP-02
Acetone	67-64-1	mg/L	4		-	-	**0.003**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0.001 [2]		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0001	< 0.001	< 0.0001	< 0.0001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	-	**0.0007**	**0.0006**	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

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August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
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April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Upgradient																
					CH2MW-3																
					5/29/1998	6/4/1998	8/23/2000	11/9/2000	11/9/2000 DUP	1/24/2001	4/6/2004	4/27/2005	4/27/2005 DUP2	10/26/2005	4/19/2006	4/17/2007	10/24/2007	12/11/2008	12/16/2009	12/9/2010	12/7/2011	12/10/2012
Acetone	67-64-1	mg/L	4		-	-	< 0.003	< 0.003	**0.003**	**0.003**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010
Benzene	71-43-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		-	-	**0.0007**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloromethane	74-87-3	mg/L	0.001 [2]		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.0005	**0.0006**	**0.0005**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	< 0.001	< 0.001	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	-	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.0005	**0.002**	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Toluene	108-88-3	mg/L	1		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.0005	**0.001**	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.0005	**0.0007**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	**< 0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Xylenes (total)	1330-20-7	mg/L	0.01		-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)

- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)

- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)

- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation

- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring

- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient CH2MW-4D															Cross Gradient CH2MW-5							
					8/6/1998	8/23/2000	11/9/2000	1/25/2001	4/8/2004	4/26/2005	4/26/2005 DUP1	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/15/2009	12/8/2010	12/8/2010 DUP-1	12/7/2011	12/4/2012	8/5/1998	4/7/2004	4/27/2005	10/26/2005	10/26/2005 DUP 2	4/20/2006	4/20/2006 DUP2	4/17/2007
Acetone	67-64-1	mg/L	4		-	**0.007**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0.001 [2]		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.1	< 0.1	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	**0.0008**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	-	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005
Naphthalene	91-20-3	mg/L	0.02		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Toluene	108-88-3	mg/L	1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	**0.00071**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	**< 0.0005**
Trichlorofluoromethane	75-69-4	mg/L	2		-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.005	< 0.005	< 0.005	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume															
					ETCMW-113															
					1/21/1994	11/3/1994	3/31/1995	5/27/1998	9/7/2000	11/9/2000	1/25/2001	4/6/2004	4/26/2005	10/26/2005	4/19/2006	4/18/2007	10/24/2007	11/12/2008	12/16/2009	12/9/2010	12/7/2011	12/4/2012
Acetone	67-64-1	mg/L	4		< 0.100	< 0.001	< 0.050	-	**0.007**	**0.026**	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.235 D**	**0.448 D**	**0.038**	< 0.01	< 0.01	**0.028**	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.100	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.191 D**	**0.380 D**	**0.014**	< 0.01	< 0.01	< 0.01	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.005	< 0.001	-	**0.0006**	< 0.005	**0.002**	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	**0.0016**	**0.00052**	**0.00092**	**0.00069**	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		< 0.100	< 0.005	< 0.005	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0056 D**	< 0.001	< 0.0005	**0.00810 D**	< 0.005	**0.00072**	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.010	< 0.001	< 0.001	-	**0.001**	< 0.005	**0.002**	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	**0.0057**	< 0.0005	**0.0024**	< 0.0005	< 0.00050
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.005	< 0.010	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.010	-	-	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.005	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.063**	**0.035**	**0.026**	**0.01006**	**0.056 D**	**0.024**	**0.036 D**	**0.022**	**0.018 D**	**0.011**	**0.00884**	**0.0173 D**	**0.0117 D**	**0.0089**	**0.0069**	**0.019**	**0.020**	**0.0099**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.005	< 0.001	-	**0.0008**	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.017**	< 0.005	**0.003**	**0.00244**	**0.027 E**	< 0.005	**0.020 D**	**0.007**	**0.0051 D**	**0.003**	**0.00274**	**0.0083 D**	< 0.005	**0.0055**	**0.0032**	**0.0042**	**0.0085**	**0.0037**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	-	**0.017**	**0.022**	**0.02213**	-	-	**0.100 D**	**0.066 D**	**0.091 D**	**0.058**	**0.0554 D**	**0.178 D**	**0.147 D**	**0.200**	**0.120**	**0.280**	**0.300**	**0.15**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	< 0.001	-	-	-	0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	**0.00058**	< 0.0005	< 0.00050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	< 0.0005	< 0.005	**0.110 D**	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.100	-	-	-	-	-	-	< 0.050	< 0.200	< 0.1	< 0.050	**1.45 D**	< 0.5	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.005	< 0.001	-	**0.002**	< 0.005	**0.0006**	< 0.002	< 0.0008	< 0.002	< 0.002	< 0.02	< 0.02	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.050	< 0.001	< 0.050	-	< 0.003	< 0.025	< 0.003	< 0.005	< 0.02	< 0.01	< 0.005	< 0.050	< 0.05	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.05	< 0.005	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.028**	**0.014**	**0.0084**	**0.00649**	**0.044 D**	**0.013**	**0.035 E**	**0.016**	**0.0078 D**	**0.0061**	**0.00361**	**0.00640 D**	< 0.005	< 0.0005	**0.00053**	**0.0022**	< 0.0005	< 0.00050
Toluene	108-88-3	mg/L	1		< 0.005	< 0.005	< 0.001	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.002	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.003	-	< 0.0005	< 0.005	< 0.0005 [6]	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.01	< 0.01	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.005	< 0.004	< 0.001	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.290**	**0.062**	< 0.005	**0.06938**	**0.530 D**	**0.150**	**0.240 D**	**0.16 D**	**0.056 D**	**0.059**	**0.0246**	**0.0406 D**	< 0.0005	**0.0025**	**0.0028**	**0.0035**	**0.0016**	**0.00098**
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.006	-	**0.0009**	< 0.005	**0.001**	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.010	< 0.01	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.005	-	< 0.007	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.005	< 0.005	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.100	< 0.005	< 0.008	-	-	-	-	< 0.002	< 0.0008	< 0.005	< 0.002	< 0.0200	< 0.020	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.009	**0.00137**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.0004	< 0.001	< 0.001	< 0.010	< 0.01	**0.0092**	**0.006**	**0.0068**	**0.027**	**0.0066**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.005	< 0.010	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0002	< 0.001	< 0.0005	< 0.010	< 0.01	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)

- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)

- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)

- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation

- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring

- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume																								
					ETCMW-114																								
					1/21/1994	1/21/1994 DUP	11/3/1994	11/3/1994 DUP	3/31/1995	3/31/1995 DUP	5/27/1998	8/23/2000	11/10/2000	1/24/2001	1/24/2001 DUP	4/29/2002	4/29/2002 DUP	4/7/2004	4/7/2004 DUP	4/28/2005	10/27/2005	4/20/2006	4/17/2007	4/17/2007 DUP-01	10/24/2007	10/24/2007 DUP-02	12/10/2008	12/16/2009	12/9/2010	12/9/2010 DUP-2	12/5/2011	12/3/2012
Acetone	67-64-1	mg/L	4		**3.300**	**2.300**	**0.060**	< 0.010	< 5	< 5	-	**1.8**	< 0.089	< 0.003	< 0.003	-	-	< 0.001	< 0.01	< 0.1	< 0.5	< 0.1	< 0.50	<2	< 0.01	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1	< 0.01	< 0.100
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	**2.600**	**1.500**	**0.030**	**0.020**	< 5	< 5	-	**3.9**	< 0.089	< 0.003	< 0.003	< 0.003	< 0.003	< 0.001	< 0.01	< 0.1	< 0.5	< 0.1	< 0.50	<2	< 0.01	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1	< 0.01	< 0.100
Benzene	71-43-2	mg/L	0.005		**0.0075**	**0.018**	**0.011**	**0.008**	< 0.10	< 0.10	-	< 0.042	< 0.018	**0.003**	**0.003**	-	-	**0.0016**	**0.0017**	< 0.005	< 0.005	< 0.005	< 0.025	< 0.10	**0.00170**	**0.00165**	< 0.005	**0.0029**	< 0.005	< 0.005	**0.00096**	< 0.0050
Carbon Disulfide	75-15-0	mg/L	4		< 0.100	< 0.100	< 0.005	< 0.005	< 0.5	< 0.5	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0050
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	**0.410**	**1.300**	**1.2**	< 0.010	**0.930**	**1.200**	-	< 0.042	**0.120**	**0.061 E**	**0.062 E**	-	-	**0.0053**	**0.0053**	< 0.010	< 0.001	< 0.010	< 0.05	< 0.20	**0.0149**	**0.0143**	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0050
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.005	< 0.005	< 0.010	**1.100**	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.010	< 0.001	< 0.010	< 0.05	< 0.20	< 0.001	< 0.001	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.010	< 0.010	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	< 0.010	< 0.050	< 0.20	< 0.001	< 0.001	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.690**	**1.200**	**0.710**	**0.580**	**0.400**	**0.450**	**0.09321**	**0.230**	**0.200**	**0.12 D**	**0.12 D**	-	-	**0.11 D**	**0.11 D**	**0.062 D**	**0.13**	**0.0839 D**	**0.102 D**	< 0.10	**0.0520 E**	**0.0505 E**	**0.045**	**0.033**	**0.055 D**	**0.052 D**	**0.043**	**0.034**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		**0.011**	**0.015**	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	**0.004**	**0.004**	-	-	**0.0029**	**0.0029**	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	**0.00082**	**0.00080**	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.019**	**0.110**	**0.570**	**0.260**	**0.310**	**0.330**	**0.20412**	**0.260**	**0.120**	**0.12 D**	**0.11 D**	**0.39 D**	**0.33 D**	**0.13 D**	**0.13 D**	**0.100 D**	**0.24**	**0.138 D**	< 0.025	< 0.10	**0.00691**	**0.00642**	**0.066**	**0.053**	**0.085 D**	**0.081 D**	**0.085**	**0.0070**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	-	-	**15**	**12**	**11**	**12**	**4.841**	-	-	**3.4 D**	**3.3 D**	**3.8 D**	**3.7 D**	**2.4 D**	**2.4 D**	**1.7 D**	**4.4**	**3.160 D**	**1.830 D**	**1.760 D**	**0.185 E**	**0.179 E**	**1.1**	**0.820**	**1.500 D**	**1.400 D**	**1.500 D**	**1.300**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	< 0.005	< 0.005	< 0.1	< 0.1	-	-	-	**0.004**	**0.003**	**0.009**	**0.007**	**0.0025**	**0.0025**	< 0.005	< 0.05	**0.0314 D**	< 0.025	< 0.10	**0.00331**	**0.00313**	< 0.005	**0.0014**	< 0.005	< 0.005	**0.0032**	< 0.0050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	< 0.042	< 0.018	**3.1 D**	**3.1 D**	**3.9 D**	**3.8 D**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		**0.0085**	**0.020**	**0.007**	**0.005**	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		**0.310**	**0.330**	-	-	-	-	-	-	-	-	-	-	-	< 0.050	< 0.050	< 0.500	< 5	< 0.5	<2.5	<10	< 0.050	< 0.050	< 0.5	< 0.050	< 0.5	< 0.5	< 0.05	< 0.500
Methylene Chloride	75-09-2	mg/L	0.005		**0.0088**	**0.0052**	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	**0.001**	**0.003**	-	-	< 0.002	< 0.002	< 0.020	< 0.1	< 0.0200	< 0.10	< 0.40	< 0.002	< 0.002	-	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		**0.077**	**0.080**	**0.018**	**0.015**	< 5	< 5	-	< 0.210	< 0.089	< 0.003	< 0.003	-	-	< 0.005	< 0.005	< 0.05	< 0.5	< 0.050	< 0.25	< 1.0	< 0.005	< 0.005	-	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.01	< 0.05	< 0.010	< 0.05	< 0.2	< 0.001	< 0.001	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.001	< 0.001	< 0.005	< 0.005	< 0.100	< 0.100	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.1	< 0.0005	< 0.0005	-	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.039**	**0.120**	**0.013**	**0.012**	< 0.100	< 0.100	**0.03293**	**0.140**	**0.036**	**0.039 E**	**0.039 E**	-	-	**0.11 D**	**0.12 D**	**0.074 D**	**0.13**	**0.101 D**	< 0.025	< 0.10	< 0.0005	< 0.0005	**0.006**	**0.0092**	**0.021 D**	**0.020 D**	**0.026**	**0.024**
Toluene	108-88-3	mg/L	1		**0.072**	**0.150**	**0.057**	**0.049**	< 0.100	< 0.1 00	-	< 0.042	< 0.018	**0.008**	**0.008**	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	**0.00222**	**0.00202**	< 0.005	**0.00099**	< 0.005	< 0.005	< 0.0005	< 0.0050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	< 0.010	< 0.025	< 0.10	< 0.001	< 0.001	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.01	< 0.05	< 0.01	< 0.050	< 0.20	< 0.001	< 0.001	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		**0.041**	**0.170**	< 0.005	< 0.005	< 0.100	< 0.100	< 0.001	< 0.042	< 0.018	**0.002**	**0.002**	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.420**	**0.670**	**0.14**	**0.120**	**0.400**	**0.440**	**0.662**	**3.100 D**	**0.740**	**0.82 D**	**0.79 D**	**4.5 D**	**4.0 D**	**1.6 D**	**1.7 D**	**1.0 D**	**2.2**	**1.480 D**	< 0.025	< 0.10	**0.00897**	**0.00823**	**0.44**	**0.34**	**0.520 D**	**0.500 D**	**0.590 D**	**0.450**
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.001	< 0.001	< 0.010	< 0.05	< 0.010	< 0.05	< 0.001	< 0.001	< 0.001	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0057	< 0.0058	-	-	-	-	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.005	< 0.025	< 0.10	< 0.0005	< 0.0005	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		**3.800**	**3.600**	< 0.005	< 0.010	< 1.000	< 1.0	-	-	-	-	-	-	-	< 0.002	< 0.002	< 0.020	< 0.1	< 0.0200	< 0.10	< 0.40	< 0.002	< 0.002	-	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.01	< 0.01	< 0.100	< 0.100	**0.01956**	< 0.042	< 0.018	**0.001**	**0.001**	-	-	< 0.001	< 0.001	< 0.010	**0.026**	**0.0236 D**	**3.740 D**	**3.550 D**	**.524 E**	**0.547 E**	< 0.005	**0.0052**	**0.047 D**	**0.040 D**	**0.0033**	< 0.0050
Xylenes (total)	1330-20-7	mg/L	0.01		**0.045**	**0.095**	**0.024**	**0.020**	< 0.300	< 0.300	-	< 0.042	< 0.018	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.005	< 0.05	< 0.010	< 0.05	< 0.20	**0.00169**	**0.00165**	< 0.005	**0.00057**	< 0.005	< 0.005	< 0.0005	< 0.0050

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
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April and October 2005, April 2006 corrective action monitoring
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Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume CH2MW-114D												In Plume ETCMW-115											
					6/4/1998	4/7/2004	4/28/2005	10/26/2005	4/20/2006	4/18/2007	10/24/2007	12/11/2008	12/16/2009	12/8/2010	12/7/2011	12/10/2012	11/3/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	10/23/2007	12/10/2008	12/16/2009	12/8/2010	12/7/2011	12/6/2012
Acetone	67-64-1	mg/L	4		-	< 0.01	**0.190 D**	**0.52**	< 0.01	< 0.1	**0.123 E**	< 0.010	**0.53**	**0.390**	**0.410**	**0.340**	< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	< 0.025	< 0.025	< 0.010	< 0.010	< 0.010	**0.012**	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	-	< 0.01	**0.430 D**	< 0.1	< 0.01	< 0.1	**0.0442**	**0.063**	< 0.01	**0.120**	**0.096**	< 0.100	< 0.01	< 0.05	< 0.010	< 0.010	< 0.01	< 0.010	< 0.025	< 0.025	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzene	71-43-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050	< 0.005	< 0.001	< 0.0005	**0.00062**	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	**0.00074**	**0.00076**	**0.0015**	< 0.0005	< 0.0050	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050	< 0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloromethane	74-87-3	mg/L	0.001 [2]		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.0018**	**0.0077**	**0.00830 D**	< 0.01	< 0.001	< 0.005	**0.00249**	**0.0007**	**0.00098**	**0.0012**	**0.00078**	< 0.0050	**0.042**	**0.025**	**0.0064**	**0.0063**	**0.0076**	**0.00367**	**0.00848 D**	**0.00308 D**	**0.00087**	**0.0011**	**0.0039**	**0.0038**	**0.0034**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		-	< 0.0005	< 0.0005	< 0.005 J	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.0046**	**0.0053**	**0.0060 D**	< 0.01	< 0.001	**0.00580 D**	**0.00395**	**0.0051**	**0.0081**	**0.013**	**0.012**	**0.013**	< 0.005	< 0.001	< 0.0005	< 0.0025	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.0161**	**0.088 D**	**0.120 D**	**0.097**	< 0.001	**0.204 D**	**0.146 E**	**0.120**	**0.280**	**0.400**	**0.400 D**	**0.400**	**0.210**	**0.120**	**0.086 D**	**0.041 D**	**0.094**	**0.0346**	**0.120 D**	**0.0318 D**	**0.0078**	**0.011**	**0.040**	**0.046 D**	**0.042**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	**0.00076**	**0.00051**	< 0.0050	< 0.005	< 0.001	< 0.0005	**0.00067**	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	< 0.050	< 0.500	< 1	< 0.1	< 0.005	**0.622 E**	**1.300**	< 0.050	**0.079**	< 0.050	< 0.500	-	-	< 0.050	< 0.250	< 0.1	< 0.050	< 0.125	< 0.125	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		-	< 0.002	< 0.002	< 0.02	< 0.002	< 0.0200	< 0.002	-	-	-	-	-	< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	< 0.005	< 0.005	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		-	< 0.005	< 0.005	< 0.1	< 0.01	< 0.050	< 0.005	-	-	-	-	-	< 0.01	< 0.50	< 0.005	< 0.005	< 0.01	< 0.005	< 0.0125	< 0.0125	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-	-	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.011**	**0.010**	**0.0072 D**	< 0.01	< 0.001	**0.00530 D**	**0.00288**	**0.0042**	**0.0038**	**0.0046**	**0.00055**	< 0.0050	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Toluene	108-88-3	mg/L	1		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	-	-	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.001	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0025	< 0.00125	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.105**	**0.200 D**	**0.230 D**	**0.240**	< 0.001	**0.135 D**	**0.056 E**	**0.140**	**0.087**	**0.076**	**0.025**	**0.0079**	**0.170**	**0.120**	**0.016**	**0.0057**	**0.0039**	**0.00901**	**0.0214 D**	**0.0079 D**	**0.0027**	**0.0032**	**0.0068**	**0.014 D**	**0.016**
Trichlorofluoromethane	75-69-4	mg/L	2		-	< 0.001	< 0.001	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.005	< 0.0005	-	-	-	-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.00125	< 0.00125	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	< 0.002	< 0.002	< 0.05	< 0.005	< 0.0200	< 0.002	-	-	-	-	-	< 0.005	< 0.010	< 0.002	< 0.002	< 0.005	< 0.002	< 0.005	< 0.005	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.005 J	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	**0.00068**	**0.0025**	< 0.0050	< 0.001	< 0.001	**0.0015**	**0.025**	**0.014**	**0.00346**	**0.00915 D**	< 0.0025	**0.0011**	< 0.0005	**0.0010**	**0.0029**	**0.0022**
Xylenes (total)	1330-20-7	mg/L	0.01		-	< 0.0005	< 0.0005	< 0.01	< 0.001	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050	< 0.005	< 0.003	< 0.0005	**0.00061**	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume ETMW-116															
					12/20/1994	3/31/1995	5/26/1998	8/23/2000	8/23/2000 DUP	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	12/10/2008	12/16/2009	12/7/2010	12/6/2011	12/4/2012
Acetone	67-64-1	mg/L	4		< 0.010	< 0.25	-	**0.010**	**0.011**	**0.036 B**	< 0.003	< 0.01	**0.360 D**	**1.6**	**0.968 D**	**0.398 D**	< 0.05	**0.29**	< 0.01	< 0.01	< 0.01	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.25	-	< 0.003	< 0.003	< 0.025	< 0.003	< 0.01	**0.053 D**	**0.38**	**0.163 D**	< 0.1	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.025	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	**0.0037 D**	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.010	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	**0.007**	**0.0088**	**0.0079**	**0.0049**	**0.0045**
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	**0.0007**	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.062**	**0.045**	**0.03585**	**0.045 D**	**0.039 D**	**0.012**	**0.012**	**0.018**	**0.023 D**	< 0.01	**0.00870 D**	**0.00910 D**	**0.00660 D**	**0.0065**	**0.0084**	**0.0099**	**0.0089**	**0.0080**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.005	-	**0.0007**	**0.0007**	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.005 J	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	**0.008**	**0.012**	**0.01349**	**0.016**	**0.018**	< 0.005	**0.004**	**0.0055**	**0.0090 D**	< 0.007 J	**0.00540 D**	< 0.005	< 0.0025	< 0.0005	< 0.0005	**0.00082**	< 0.0005	< 0.00050
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.085**	**0.074**	**0.05735**	-	-	-	**0.026 D**	**0.039**	**0.100 D**	**0.18**	**0.221 D**	**0.0831 D**	< 0.0025	**0.011**	**0.0043**	**0.014**	**0.0026 D**	**0.0024**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.005	-	-	-	-	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	< 0.0005	< 0.0005	< 0.005	**0.024**	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	-	-	< 0.050	**1.8**	**1.5**	< 0.5	< 0.005	< 0.25	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.005	-	**0.001**	**0.0009**	< 0.005	< 0.0005	< 0.002	< 0.001	< 0.002	< 0.005	< 0.0200	< 0.01	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.25	-	< 0.003	< 0.003	< 0.025	< 0.003	< 0.005	< 0.025	< 0.1	< 0.05	< 0.050	< 0.025	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	**0.034**	**0.022**	**0.018**	**0.024**	**0.022 D**	**0.007**	**0.005**	**0.011**	**0.012 D**	**0.0062 J**	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Toluene	108-88-3	mg/L	1		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	**0.0025**	< 0.0005	< 0.0005	**0.00065**	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.560**	**0.420**	**0.26512**	**0.420 D**	**0.350 D**	**0.130**	**0.100 D**	**0.15 D**	**0.170 D**	**0.12**	< 0.005	**0.0291 D**	< 0.0025	< 0.0005	< 0.0005	**0.0017**	< 0.0005	< 0.00050
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	**0.001**	**0.001**	< 0.0005	< 0.0005	< 0.001	< 0.005	< 0.01	< 0.01	< 0.010	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	-	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.0025	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.050	-	-	-	-	-	< 0.002	< 0.01	< 0.05	< 0.020	< 0.020	< 0.01	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.001	< 0.005	< 0.005 J	**0.0171 D**	**0.0581 D**	**0.0384 D**	**0.120**	**0.170**	**0.130**	**0.120**	**0.100**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.015	-	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.0025	< 0.01	< 0.01	< 0.010	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)

- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)

- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)

- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation

- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring

- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume															
					ETMW-117															
					12/21/1994	3/31/1995	8/23/2000	11/10/2000	1/24/2001	4/8/2004	4/26/2005	10/25/2005	4/20/2006	4/18/2007	10/25/2007	12/9/2008	12/9/2008 DUP-2	12/15/2009	12/15/2009 DUP-2	12/8/2010	12/6/2011	12/4/2012
Acetone	67-64-1	mg/L	4		< 0.010	< 0.1	< 0.018	< 0.003	**0.003**	< 0.01	< 0.04	< 0.01	< 0.01	**2.090 D**	**0.513 ED**	**0.016**	**0.012**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.01	< 0.04	< 0.01	< 0.01	**0.213 D**	**0.0785 D**	< 0.01	< 0.01	< 0.0005	< 0.01	< 0.01	< 0.01	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.002	< 0.004	**0.0008**	**0.002**	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	**0.0015**	**0.0017**	**0.0014**	**0.0013**	**0.0010**	**0.00069**	**0.00065**
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.010	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	**0.00054**	**0.0007**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	**0.0027**	**0.0029**	< 0.0005	**0.003**	< 0.0005	**0.0011**	**0.002**
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.012**	**0.025**	**0.017**	**0.017**	**0.008**	**0.0098**	**0.014 D**	**0.013**	**0.0105**	**0.00935 D**	**0.00825 D**	**0.0048**	**0.0056**	**0.0043**	**0.004**	**0.0066**	**0.0049**	**0.0061**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	**0.005**	< 0.004	**0.003**	**0.002**	**0.0022**	**0.0038 D**	**0.0026**	**0.00075**	**0.00305 D**	< 0.0025	< 0.0005	**0.0010**	< 0.0005	< 0.0005	**0.00078**	< 0.0005	**0.00056**
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	**0.014**	`	-	-	**0.016**	**0.02**	**0.030 D**	**0.03**	**0.0225**	**0.0315 D**	**0.0762 D**	**0.041**	**0.050**	**0.021**	**0.018**	**0.027**	**0.019**	**0.027**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.002	-	-	< 0.0005	< 0.0005	< 0.002	< 0.001	**0.00213**	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	< 0.004	< 0.0005	**0.015**	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	< 0.050	< 0.2	< 0.1	< 0.050	**2.930 D**	< 0.25	< 0.0005	< 0.0005	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.002	< 0.004	**0.0006**	**0.002**	< 0.002	< 0.008	< 0.002	< 0.002	< 0.010	< 0.010	-	-	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.1	< 0.018	< 0.003	< 0.003	< 0.005	< 0.02	< 0.01	< 0.005	< 0.025	< 0.025	-	-	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.005	**0.008**	**0.005**	**0.005**	**0.002**	**0.0032**	**0.0050 D**	**0.0042**	**0.00378**	**0.00435 D**	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Toluene	108-88-3	mg/L	1		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	-	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.130**	**0.210**	**0.120**	**0.070**	**0.050 D**	**0.064 D**	**0.094 D**	**0.098**	**0.079 D**	**0.0744 D**	**0.0302 D**	**0.00056**	**0.00066**	< 0.0005	< 0.0005	**0.0017**	< 0.0005	< 0.00050
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.0025	< 0.0025	-	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.020	-	-	-	< 0.002	< 0.008	< 0.005	< 0.002	< 0.010	< 0.010	-	-	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.002	< 0.004	< 0.0005	< 0.0005	< 0.001	< 0.004	< 0.001	< 0.001	< 0.005	< 0.005	**0.024**	**0.025**	**0.044**	**0.050**	**0.045**	**0.047**	**0.042**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.006	< 0.004	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.001	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)

- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)

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- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation

- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring

- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	In Plume														
					ETMW-118														
					12/20/1994	3/31/1995	5/26/1998	4/8/2004	4/26/2005	10/25/2005	4/18/2006	4/18/2007	10/24/2007	10/24/2007 DUP-01	12/9/2008	12/15/2009	12/9/2010	12/6/2011	12/6/2011 DUP-2	12/3/2012	12/3/2012 DUP-001
Acetone	67-64-1	mg/L	4		< 0.005	< 0.05	-	< 0.01	**0.021**	< 0.02	< 0.01	**0.192 D**	< 0.5	< 0.5	**0.37**	**0.56**	**0.37**	**0.066**	**0.065**	< 0.010	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.05	-	< 0.01	< 0.01	< 0.02	< 0.01	< 0.050	< 0.5	< 0.5	**0.26**	**0.49**	**0.22**	**0.031**	**0.028**	< 0.010	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	-	< 0.0005	**0.00079**	< 0.002	< 0.0005	**0.00370 D**	< 0.025	< 0.025	**0.0028**	**0.0012**	**0.0010**	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.001	-	< 0.001	< 0.001	**0.0038**	**0.00437**	< 0.005	< 0.05	< 0.05	**0.0032**	**0.0019**	**0.0013**	**0.00071**	< 0.0005	**0.0011**	**0.0016**
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.001	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		**0.014**	**0.021**	**0.01884**	**0.0033**	**0.014**	**0.011**	**0.00961**	**0.0139 D**	< 0.025	< 0.025	**0.014**	**0.012**	**0.0064**	**0.0065**	**0.0062**	**0.0054**	**0.0055**
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	**0.0046**	**0.00292**	**0.00061**	**0.0037**	**0.0054**	**0.00489**	**0.00575 D**	< 0.025	< 0.025	**0.003**	**0.0024**	**0.00081**	< 0.0005	< 0.0005	< 0.00050	< 0.00050
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	**0.012**	**0.023**	**0.01722**	**0.0057**	**0.120 D**	**0.13**	**0.127 D**	**0.117 D**	**0.108 D**	**0.111 D**	**0.088**	**0.096**	**0.050**	**0.0085**	**0.0080**	**0.0054**	**0.0053**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0050	< 0.0050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	< 0.050	< 0.050	< 0.2	< 0.050	**25.6 DH**	**13.0 D**	**13.2 D**	**0.069**	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.002	< 0.002	< 0.004	< 0.002	< 0.010	< 0.100	< 0.100	-	-	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.05	-	< 0.005	< 0.005	< 0.02	< 0.005	< 0.025	< 0.25	< 0.25	-	-	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.010	**0.009**	**0.008**	**0.0019**	< 0.0005	**0.0032**	**0.00257**	**0.00460 D**	< 0.025	< 0.025	**0.0032**	**0.0015**	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	-	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0025	< 0.025	< 0.025	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	**0.069**	**0.110**	**0.08682**	**0.021**	**0.0031**	**0.049**	**0.0316**	**0.0489 D**	**0.0390 D**	**0.0400 D**	**0.037**	**0.018**	**0.002**	**0.00083**	**0.00069**	< 0.00050	< 0.00050
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	< 0.001	< 0.001	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0025	< 0.025	< 0.025	-	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.010	-	< 0.002	< 0.002	< 0.01	< 0.002	< 0.010	< 0.100	< 0.100	-	-	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.001	< 0.001	< 0.001	**< 0.001**	< 0.002	< 0.001	< 0.005	< 0.05	< 0.05	**0.033**	**0.031**	**0.016**	**0.044**	**0.041**	**0.037**	**0.037**
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.005	< 0.05	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient															
					ETMW-119															
					12/20/1994	3/31/1995	4/7/2004	4/28/2005	10/25/2005	10/25/2005 DUP 1	4/18/2006	4/17/2007	10/25/2007	12/9/2008	12/9/2008 DUP-1	12/14/2009	12/14/2009 DUP-1	12/9/2010	12/5/2011	12/4/2012	12/4/2012 DUP-002
Acetone	67-64-1	mg/L	4		< 0.005	< 0.050	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0212**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0998 DH**	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	< 0.010	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.05	**0.0016**	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.00064**	< 0.0005	**0.00054**	**0.00053**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	< 0.050	< 0.050	< 0.1	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.005	**0.0034**	< 0.0005	**0.00061**	< 0.001	< 0.001	**0.00053**	**0.00074**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.010	< 0.002	< 0.002	< 0.005	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.00050

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
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May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response
(2) Lowest Detection Limit (April 2004)
(3) Federal Drinking Water MCL
(4) Type 1 RRS for cis-1,2-Dichloroethene used
(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS
(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration
(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS
(8) No groundwater recovered.
(9) Type 1 RRS used per Georgia EPD
Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank
J - Estimated Value
E - Concentration exceeds upper level of the instrument calibration range for the analysis
D- Dilution analysis result
< Less than detection limit listed
mg/L Milligram per liter
NA Not Available
- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.
Detection limit exceeds Type 1 RRS.
Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents
in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient													
					ETMW-120													
					12/20/1994	3/31/1995	5/26/1998	5/26/1998 DUP	4/7/2004	4/28/2005	10/25/2005	4/18/2006	4/17/2007	10/23/2007	12/11/2008	12/14/2009	12/9/2010	12/5/2011	12/3/2012
Acetone	67-64-1	mg/L	4		< 0.005	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.05	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.001	**0.00184**	**0.00166**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.05	**0.0048**	**0.00543**	**0.00525**	**0.0011**	**0.0012**	**0.0052**	< 0.0005	**0.00135**	**0.00094**	**0.00056**	**0.00073**	**0.0032**	**0.0014**	**0.0018**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.05	-	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.010	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	**0.0018**	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.005	**0.0017**	**0.00138**	**0.00128**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0021**	< 0.0005	< 0.00050
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.010	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	-	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Upgradient																	
					ETMW-121																	
					12/20/1994	3/31/1995	5/27/1998	8/23/2000	11/10/2000	1/24/2001	4/7/2004	4/28/2005	10/26/2005	4/19/2006	4/18/2007	10/23/2007	12/11/2008	12/14/2009	12/6/2010	12/6/2011	12/6/2011 DUP-1	12/10/2012
Acetone	67-64-1	mg/L	4		< 0.005	< 0.05	-	**0.009**	**0.003 B**	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Carbon Disulfide	75-15-0	mg/L	4		< 0.005	< 0.005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.010	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07[3]	1.02	< 0.05	< 0.001	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.00096**
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.005	< 0.001	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	-	-	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		< 0.005	< 0.001	-	**0.0009**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.010	< 0.05	-	< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-
Naphthalene	91-20-3	mg/L	0.02		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.010	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Toluene	108-88-3	mg/L	1		< 0.005	< 0.001	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.005	< 0.001	< 0.001	**0.0005**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Trichlorofluoromethane	75-69-4	mg/L	2		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.010	< 0.010	-	-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.010	< 0.010	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.005	< 0.003	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)

- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)

- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)

- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation

- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring

- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Cross Gradient OBGMW-122								Cross Gradient OBGMW-123									
					8/23/2000	11/9/2000	1/24/2001	4/6/2004	4/28/2005	10/25/2005	4/18/2006	4/18/2007	9/8/2000	11/9/2000	1/24/2001	4/29/2002	4/6/2004	4/6/2004 DUP	4/27/2005	10/25/2005	4/20/2006	4/18/2007
Acetone	67-64-1	mg/L	4		**0.016**	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.003	< 0.003	< 0.003	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.003	< 0.003	< 0.003	< 0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Carbon Disulfide	75-15-0	mg/L	4		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	**0.003**	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.0005	**0.0006**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Isobutyl Alcohol	78-83-1	mg/L	10		-	-	-	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-	< 0.050	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050
Methylene Chloride	75-09-2	mg/L	0.005		**0.001**	< 0.0005	< 0.0005	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	**0.001**	< 0.0005	< 0.0005	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.003	< 0.003	< 0.003	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.003	< 0.003	< 0.003	-	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005
Naphthalene	91-20-3	mg/L	0.02		< 0.0005	**0.001**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.0005	**0.002**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.0005	**0.0009**	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	**0.0006**	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		-	-	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
- EPA Method 8021B (VOCs) and EPA Method 8010 (Halogenated VOCs)

August, September, and November 2000, January 2001, April 2002, April 2004, CSR investigation
- EPA Method 8260 (VOCs)

April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

APPENDIX B
Historical Summary of Volatile Organic Constituents in Ground Water
Former Miller Brewing Company Can Plant
Moultrie, Georgia

Parameters	CAS No.	Units	Type 1/Type 3 RRS [1]	Type 4 RRS [5]	Down Gradient					Cross Gradient										Upgradient		In Plume	
					OBGMW-124					CH2PP-1										CH2PP-2	CH2PP-3 [8]	Sump 1	Sump 2
					4/21/2004	4/27/2005	10/26/2005	4/20/2006	4/18/2007	6/30/1998	4/7/2004	4/26/2005	10/25/2005	4/19/2006	4/17/2007	10/24/2007	12/10/2008	12/15/2009	12/8/2010	12/10/2012	5/29/1998	(not sampled)	11/3/1994	11/3/1994
Acetone	67-64-1	mg/L	4		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	**0.021**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	-	-	**0.790**	< 0.010
2-Butanone (MEK)	78-93-3	mg/L	2	2.79	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.010	-	-	**0.420**	< 0.010
Benzene	71-43-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.005	< 0.005
Carbon Disulfide	75-15-0	mg/L	4		**0.00063**	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.005	< 0.005
Chloroethane	75-00-3	mg/L	0.001 [2]	1.23	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.010	< 0.010
Chloromethane	74-87-3	mg/L	0.001 [2]		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	**1.3**	< 0.010
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/L	0.0002	0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
Dibromomethane	74-95-3	mg/L	0.0005 [2]		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-
1,1-Dichloroethane (1,1-DCA)	75-34-3	mg/L	4		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	**0.00057**	**0.00055**	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	**0.240**	< 0.005
1,2-Dichloroethane (1,2-DCA)	107-06-2	mg/L	0.005		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.005	< 0.005
1,1-Dichloroethene (1,1-DCE)	75-35-4	mg/L	0.007	0.55	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	**0.046**	< 0.005
cis-1,2-dichloroethene (cis-1,2-DCE)	156-59-2	mg/L	0.07 [3]	1.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	**0.013**	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	**1.5**	< 0.005
trans-1,2-dichloroethene (trans-1,2-DCE)	156-60-5	mg/L	0.1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.005	< 0.005
1,2-Dichloroethene (total) (1,2-DCE-total)	540-59-0	mg/L	0.07 [4]	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	mg/L	0.7		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	< 0.005	< 0.005
Isobutyl Alcohol	78-83-1	mg/L	10		< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	-	< 0.050	< 0.050	< 0.1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	-	-	-	-
Methylene Chloride	75-09-2	mg/L	0.005		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	< 0.005	< 0.005
4-methyl-2-pentanone (MIBK)	108-10-1	mg/L	0.005 [2]		< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	< 0.010	< 0.010
Naphthalene	91-20-3	mg/L	0.02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	0.0002	0.02	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	< 0.005	< 0.005
Tetrachloroethene (PCE)	127-18-4	mg/L	0.005	0.005 [9]	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0021**	< 0.00050	< 0.001	-	**0.077**	< 0.005
Toluene	108-88-3	mg/L	1		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	-	**0.018**	< 0.005
1,2,3-Trichlorobenzene	87-61-6	mg/L	0.001 [2]	0.01	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/L	0.07		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane (TCA)	71-55-6	mg/L	0.2		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.005	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	**0.140**	< 0.005
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.005 [7]	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0017**	< 0.00050	< 0.001	-	**0.250**	**0.016**
Trichlorofluoromethane	75-69-4	mg/L	2		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	-	-	-
1,2,3-Trichloropropane	96-18-4	mg/L	0.04		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.0005	< 0.0005	-	-	-	-	-	-	-	-
Vinyl Acetate	108-05-4	mg/L	0.002 [2]		< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.005	< 0.002	< 0.002	< 0.002	-	-	-	-	-	-	< 0.010	< 0.010
Vinyl Chloride	75-01-4	mg/L	0.002	0.002 [7]	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.00050	< 0.001	-	< 0.010	< 0.010
Xylenes (total)	1330-20-7	mg/L	0.01		< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	-	< 0.0005	< 0.0005	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.0005	< 0.0005	< 0.0005	< 0.00050	-	-	< 0.005	< 0.005

Sampling Events and Analytical Methods:

January 1994, as reported in the Site Investigation Report (The Earth Technology Corp, 1994)
- EPA Method 8240 (VOCs)

Nov 1994 - March 1995, as reported in the Supplemental Site Investigation Report (Earth Tech, 1995)
- EPA Method 8240 (VOCs)

May and June 1998, as reported in the Compliance Status Report (CH2M Hill, 1998)
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April and October 2005, April 2006 corrective action monitoring
- EPA Method 8260 (VOCs)

Notes:

(1) Appendix III, Table 1 of GA-EPD Rule 391-3-19 Hazardous Site Response

(2) Lowest Detection Limit (April 2004)

(3) Federal Drinking Water MCL

(4) Type 1 RRS for cis-1,2-Dichloroethene used

(5) Type 4 RRS calculated for compounds exceeding Type 1 RRS

(6) Originally reported as a detection in dilution analysis as a result of contamination from instrument calibration

(7) Type 1 RRS used. The Type 1 RRS is greater than calculated Type 4 RRS

(8) No groundwater recovered.

(9) Type 1 RRS used per Georgia EPD

Data originally reported in units of micrograms per liter (µg/L)

Data Qualifiers:

B - Compound Detected in Method Blank or Trip Blank

J - Estimated Value

E - Concentration exceeds upper level of the instrument calibration range for the analysis

D- Dilution analysis result

< Less than detection limit listed

mg/L Milligram per liter

NA Not Available

- Not Analyzed

Detected concentration

Concentration exceeds Type 1 RRS.

Detection limit exceeds Type 1 RRS.

Concentration exceeds Type 4 RRS.

** - Sum of detected isomer and PQL of undetected isomer+Q2

Groundwater Sampling Log Forms

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2PP-1
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	49923

PURGE START DATE/TIME:	12-3-12 / 11:30			PURGE END DATE/TIME:	12-3-12 /
WEATHER CONDITIONS:	Sunny			WELL CONDITION:	Good
WELL DEPTH:	12 ~~9.18~~	1 in. Dia.	0.041 gal./ft.	TOTAL PURGE VOLUME:	— gal.
SWL:	9.18	2 in. Dia.	0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	ft.
WELL DIAMETER:	1	4 in. Dia.	0.653 gal./ft.	PUMP SETTING:	2 ~~ft.~~
WELL VOLUME:	~~[illegible]~~ 448 mL	1 gallon = 3785 mL		PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (*C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
11:30	9.70	—	—	—	—	—	—	—
11:35	9.81	—	—	—	—	—	—	—

Well Dry @ 11:35 am

DTW - 9.81' on 12/03/12 @ 11:35

SAMPLING DATA

SAMPLE DATE/TIME:	
DEPTH TO WATER AFTER PURGING:	ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

- ☐ VOCs
- ☐ SVOCs
- ☐ OTHER
- ☐ Metals (U)
- ☐ Metals (F)
- ☐ PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Nicole Weaver & Joe Chait

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-113
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	

PURGE START DATE/TIME:	12-3-12 / 12:05		PURGE END DATE/TIME:	12/3/12 / 12:30	
WEATHER CONDITIONS:	Sunny		WELL CONDITION:	GOOD	
WELL DEPTH:	12	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	–	gal.
SWL:	7.40	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	2	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	9	ft.
WELL VOLUME:	2,837.9	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (*C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
12:10	~~8.61~~ 8.61	–	21.72	0.201	2.81	6.61	101.9	28.0
12:15		Stopped purge to resize tubing - could not get to purge at <~100 mL/min after changing to smaller tubing & emptying flow through cell - well dry						
12:30	8.69							
		Well Dry @ 12:30						
		DTW @ 8.69'						

SAMPLING DATA

SAMPLE DATE/TIME:	
DEPTH TO WATER AFTER PURGING:	ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☐	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Nicole Weaver & Joe Chait

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-3
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	49923

PURGE START DATE/TIME:	12/3/12/13:30		PURGE END DATE/TIME:	12/3/12	13:45
WEATHER CONDITIONS:	Sunny 79°		WELL CONDITION:	Good	
WELL DEPTH:	13'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	—	gal.
SWL:	9.51	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	3	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	11	ft.
WELL VOLUME:	2153.17	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
13:40	10.28	—	29.31	0.157	5.26	5.75	168.1	-3.4

Well dry at 13:45

approximately 1.5 volumes of flow through cell.

SAMPLING DATA

SAMPLE DATE/TIME:	
DEPTH TO WATER AFTER PURGING:	ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☐	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Nicole Weaver & Joe Chait

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-118
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	99923

PURGE START DATE/TIME:	12/3/12 / ~~14:20~~		PURGE END DATE/TIME:	12/3/12	
WEATHER CONDITIONS:	Sunny		WELL CONDITION:	GOOD	
WELL DEPTH:	11'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	1.31	gal.
SWL:	3.14	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	7.5	ft.
WELL VOLUME:	4,867.77	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C) ~~3~~	SP. COND. (mS/cm) 3%	D.O. (mg/L) 10%	pH (SUs) ±.1	REDOX (mV) 10%	TURB. (NTUs) 10%
14:35	~~90mL/m~~ 3.69	—	21.33	0.529	2.75	6.40	-48.1	15.2
14:40	90mL/min 3.92	450	21.2	0.530	1.10	6.31	-54.3	13.9
14:45	4.19 90	900	21.19	0.522	1.00	6.36	-59.0	14.1
14:50	4.48 90	1350	20.79	0.518	0.86	6.41	-62.0	14.2
14:55	4.71 90	1800	20.67	0.517	0.87	6.44	-63.4	14.2
15:00	5.07 90	2,250	21.02	0.522	0.80	6.47	-60.7	16.9
15:05	5.37 90	2,700	20.73	0.522	0.76	6.47	-60.9	14.9
15:10	5.67 90	3,150	20.63	0.563	0.73	6.46	-65.3	15.7
15:15	6.93 90	3,600	20.74	0.514	0.74	6.47	-65.8	16.2
15:20	6.24 90	4,050	20.77	0.504	0.71	6.46	-65.2	16.8
15:25	6.47 90	4,500	20.84	0.499	0.71	6.46	-65.6	17.1
15:30	7.01	4,950	20.91	0.492	0.69	6.41	-70.0	17.8

~~Pen~~ ✓ ✓ ✓ ✓

SAMPLING DATA

SAMPLE DATE/TIME:	12-03-12
DEPTH TO WATER AFTER PURGING:	7.04 ft.
APPEARANCE:	& clear
SAMPLING DEVICE:	~~Straw method~~ reverse pump

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

DUP-001 taken at ETMW-118

NOTES: Could not get pump to purge at less than 90 mL/min (pump set on 0) used size 16 tubing (size 14 would not work with pump head

PURGING/SAMPLING PERSONNEL: Nicole Weaver & Joe Chait

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-4D
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	49923

PURGE START DATE/TIME:	08:00 /12/4/12		PURGE END DATE/TIME:	10:44	12/04/12
WEATHER CONDITIONS:	Cloudy 55°		WELL CONDITION:	Good	
WELL DEPTH:	45.93	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	5.05	gal.
SWL:	19.30	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	36	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	43	ft.
WELL VOLUME:	16,429.5	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm) ✓ 3%	D.O. (mg/L) ✓ 10%	pH (SUs) ± .1	REDOX (mV) ✓ 10%	TURB. (NTUs) 10%
08:05	20.82 100	—	21.09	0.063	6.64	6.54	161.7	3.5
08:10	20.82 125	500	21.47	0.063	6.31	5.88	175.4	2.9
08:15	21.62 125	1125	21.84	0.062	6.02	5.63	185.5	2.6
08:20	22.35 125	1750	21.99	0.060	5.90	5.57	188.7	2.5
08:25	22.99 125	2375	22.08	0.059	5.84	5.52	192.7	2.3
08:32	23.60 125	3,000	22.15	0.058	5.90	5.91	193.6	2.5
08:40	24.35 125	3,625	22.19	0.058	5.85	5.50	196.2	2.6
08:45	24.73 125	4,250	22.20	0.059	5.84	5.53	196.5	2.7
09:00	25.45 125	~~4,875~~	22.19	0.063	5.81	5.60	198.1	2.8
09:15	26.08 125	~~5,500~~	22.28	0.066	5.72	5.69	197.5	2.4
09:30	26.45 125	~~6,125~~	22.39	0.069	5.68	5.75	198.0	2.6
09:45	26.61 125	~~6,750~~	22.47	0.072	5.64	5.80	198.5	2.4
10:00	26.96 125	~~13,625~~	23.51	0.074	5.51	5.92	194.0	-2.2
10:05	26.38 125	~~15,500~~	22.87	0.074	5.71	5.80	200.8	2.6
10:10	26.50 125	~~17,375~~	22.99	0.075	5.79	5.78	201.6	2.3
10:15	26.78 125	~~19,250~~	22.97	0.075	5.73	5.78	202.2	2.1
10:20	26.98 125	~~21,125~~	23.00	0.075	5.80	5.83	200.0	1.3
10:25	27.17 125		23.05	0.077	5.87	5.87	199.7	0.8
10:30	27.27 125		23.05	0.077	5.80	5.83	200.6	1.4
10:32	27.36 125		23.11	0.076	6.03	5.81	201.7	-2.2
10:34	27.42 125		23.23	0.074	5.71	5.85	198.3	0.7
10:36	27.49 125		23.26	0.075	5.78	5.79	201.0	0.3
10:38	27.63 125		23.23	0.075	5.92	5.78	201.7	0.5
10:40	27.59 125		23.25	0.074	5.71	5.81	200.0	0.7
10:42	27.65 125		23.19	0.073	5.92	5.80	200.5	0.0
10:44	27.70 125		23.21	0.073	5.68	5.78	201.4	0.0

6,125 8,000 9,875 11,750 13,625 14,250 14,875 15,500 16,125 16,750 17,375 17,625 17,875 18,125 18,375 18,625 18,875 19,125

SAMPLING DATA

SAMPLE DATE/TIME:	12/04/12 - 10:50
DEPTH TO WATER AFTER PURGING:	27.70 ft.
APPEARANCE:	clear
SAMPLING DEVICE:	reverse pump

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Nicole Weaver & Joe Chait

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETCMW-115
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	49923

PURGE START DATE/TIME:	12/04/12 - 11:30		PURGE END DATE/TIME:	12/4/12	
WEATHER CONDITIONS:	Sunny		WELL CONDITION:	Good	
WELL DEPTH:	11.5'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	1.26	gal.
SWL:	6.89	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1.5	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8	ft.
WELL VOLUME:	2,844	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

				3%	10%	±1	10%	10%
TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm) ✓	D.O. (mg/L) ✓	pH (SUs) ✓	REDOX (mV)	TURB. (NTUs)
11:40	7.23 80	—	23.63	0.198	1.63	5.56	135.5	36.0
11:45	7.42 80	400	23.49	0.199	1.17	5.53	163.2	24.4
11:50	7.56 80	800	23.35	0.199	0.92	5.52	178.0	27.5
11:55	7.64 80	1200	23.21	0.198	0.88	5.52	181.1	22.4
12:00	7.73 80	1600	23.06	0.199	0.85	5.50	182.5	14.4
12:05	7.87 80	2000	23.13	0.199	0.73	5.50	181.3	-0.2
12:10	7.99 80	2400	23.54	0.199	0.74	5.50	175.6	1.3
12:15	8.10 80	2800	23.70	0.199	0.68	5.49	141.4	6.4
12:20	8.21 80	3200	23.84	0.200	0.65	5.48	126.8	-2.4
12:25	8.37 80	3600	24.18	0.202	0.65	5.49	107.6	0.4
12:30	8.46 80	4000	24.08	0.204	0.64	5.46	121.8	13.3
12:35	8.59 80	4400	23.62	0.205	0.63	5.43	87.6	12.4
12:40	8.69 80	4800	23.38	0.207	0.60	5.42	82.9	11.5

SAMPLING DATA

SAMPLE DATE/TIME:	12/04/12 / 12:50
DEPTH TO WATER AFTER PURGING:	8.71 ft.
APPEARANCE:	Clear
SAMPLING DEVICE:	reverse pump

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Nicole Weaver & Joe Chait

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-11R
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	49923

PURGE START DATE/TIME:	12/4/12 /13:30		PURGE END DATE/TIME:	12/4/12	
WEATHER CONDITIONS:	Sunny		WELL CONDITION:	Good	
WELL DEPTH:	11	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	3350 gal. mL	
SWL:	7.75'	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1 ft.	
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	9.5 ft.	
WELL VOLUME:	2,005.1	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

				3%	10%	1.1	10%	10%
TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm) ✓	D.O. (mg/L) ✓	pH (SUs) ✓	REDOX (mV)	TURB. (NTUs) ✓
~~1355~~ 1356	7.96 –	—	21.24	0.162	4.44	6.48	67.5	12.0
1400	8.07 50	250	23.06	0.325	1.81	5.91	128.9	12.8
1405	8.22 50	500	22.23	0.329	1.11	5.93	136.7	14.3
1410	8.35 50	750	22.03	0.330	1.04	6.00	141.0	13.1
1415	8.49 50	1000	21.88	0.330	0.96	6.04	139.5	12.3
1420	8.65 50	1250	21.78	0.330	0.89	6.06	124.5	13.9
1425	8.82 50	1500	21.76	0.330	0.83	6.05	92.0	14.0
1430	8.95 50	1750	21.74	0.331	0.78	6.04	72.0	12.2
1435	9.04 50	2,000	21.74	0.331	0.76	6.03	56.7	11.4
1440	9.20 50	2250	21.71	0.331	0.72	6.02	41.3	11.3
1445	9.38 50	2500	21.69	0.331	0.71	6.00	30.2	9.8
1450	9.53 50	2750	21.67	0.331	0.70	5.99	21.8	9.3
1455	9.67 50	3000	21.73	0.330	0.70	5.99	17.0	9.3
1500	9.80 50	3250	21.77	0.329	0.69	5.95	13.7	9.2
3350 1500	9.86 50	~~3500~~	21.78	0.329	0.68	5.97	13.2	9.3

SAMPLING DATA

SAMPLE DATE/TIME:	12/4/12		PARAMETERS	
DEPTH TO WATER AFTER PURGING:	9.87 ft.	☐ VOCs	☐ Metals (U)	
APPEARANCE:	clear	☐ SVOCs	☐ Metals (F)	
SAMPLING DEVICE:	reverse pump	☐ OTHER	☐ PCBs	

NOTES:

PURGING/SAMPLING PERSONNEL: Nicole Weaver & Joe Chait

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ET MW-116
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	49923

PURGE START DATE/TIME:	12/4/12 0757			PURGE END DATE/TIME:	12/4/12 1120
WEATHER CONDITIONS:	Partly Cloudy 60° F			WELL CONDITION:	good
WELL DEPTH:	11'	1 in. Dia.	0.041 gal./ft.	TOTAL PURGE VOLUME:	24,375 mL ~~gal.~~
SWL:	1.35'	2 in. Dia.	0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1 ft.
WELL DIAMETER:	4"	4 in. Dia.	0.653 gal./ft.	PUMP SETTING:	9 ft.
WELL VOLUME:	23,850 mL	1 gallon = 3785 mL		PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
0805	1.54 / 125	—	18.01	0.730	3.92	6.06	-19.4	16.6
0810	1.71 / 125	625	18.40	0.774	2.95	6.16	-20.9	14.4
0815	1.90 / 125	1250	18.61	0.797	2.60	6.24	-23.1	13.3
0820	2.04 / 125	1875	18.73	0.806	2.45	6.14	-24.7	13.5
0825	2.18 / 125	2500	18.77	0.810	2.37	6.12	-25.7	14.2
0830	2.44 / 125	3750	18.83	0.818	2.26	6.26	-26.8	14.8
0845	2.77 / 125	5000	18.80	0.822	2.19	6.33	-27.6	14.0
0905	3.41 / 125	7500	19.02	0.835	2.15	6.31	-29.0	13.3
0925	3.97 / 125	10,000	19.16	0.847	2.13	6.35	-29.8	13.0
0945	4.69 / 125	12,500	19.32	0.855	2.13	6.32	-29.9	13.2
1005	~~4.90~~ 5.20 / 125	15,000	19.48	0.857	2.14	6.34	-29.5	15.0
1025	5.85 / 125	17,500	19.66	0.855	2.13	6.31	-28.1	13.2
1045	6.44 / 125	20,000	19.90	0.846	2.14	6.33	-26.1	12.8
1055	6.89 / 125	21,250	20.03	0.834	2.13	6.29	-24.7	12.7
1105	7.18 / 125	22,500	20.17	0.827	2.11	6.11	-23.3	12.6
1110	7.32 / 125	23,125	20.26	0.824	2.14	6.08	-23.1	13.2
1115	7.59 / 125	23,750	20.32	0.820	2.11	6.06	-22.3	13.0
1120	7.74 / 125	24,375	20.32	0.818	2.12	6.08	-21.7	13.6

SAMPLING DATA

SAMPLE DATE/TIME:	12/4/12 1130
DEPTH TO WATER AFTER PURGING:	ft.
APPEARANCE:	Clear Slight odor
SAMPLING DEVICE:	reverse pump

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: @ 0805 Biological film on surface Clear Slight odor

PURGING/SAMPLING PERSONNEL: Nicole Weaver & Joe Chait

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-117
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	49923

PURGE START DATE/TIME:	12/4/12 1148		PURGE END DATE/TIME:		
WEATHER CONDITIONS:	Partly Cloudy 70°F		WELL CONDITION:	good	
WELL DEPTH:	11'	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:		gal. mL
SWL:	1.89'	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	7.5	ft.
WELL VOLUME:	5,620 mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1155	2.24 75	—	21.39	0.569	3.51	5.81	11.0	12.8
1200	2.56 75	375	21.08	0.575	2.80	5.79	15.7	12.5
1205	2.71 75	750	20.88	0.578	2.50	5.76	16.7	12.2
1210	3.04 75	1125	~~20.88~~ 20.86	0.592	2.35	5.78	12.5	12.3
1215	3.22 75	1500	20.86	0.600	2.30	5.77	12.4	11.7
1220	3.61 75	~~3000~~ 2250	20.88	0.602	2.28	5.78	12.1	10.8
1235	3.98 75	3000	20.99	0.607	2.26	5.74	11.1	12.5
1245	4.53 75	3750	21.76	0.612	2.19	5.74	10.0	6.8
1255	5.21 75	4500	21.91	0.602	2.14	5.70	11.4	7.7
1300	5.44 75	4875	21.96	0.599	2.13	5.68	12.9	7.9
1305	5.61 75	5250	21.99	0.593	2.13	5.67	15.1	6.8
1310	5.81 75	5625	22.07	0.587	2.12	5.64	16.6	6.0
1315	6.04 75	6000	22.09	0.581	2.11	5.60	22.4	6.4
1318	6.18 75	6225	22.04	0.578	2.10	5.61	27.5	6.0
1321	6.29 75	6450	22.29	0.577	2.09	5.60	22.4	5.7

SAMPLING DATA

SAMPLE DATE/TIME:	12/4/12
DEPTH TO WATER AFTER PURGING:	6.29 ft.
APPEARANCE:	Clear ~~Slight~~ odor
SAMPLING DEVICE:	reverse pump

PARAMETERS

☐	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Clear No Odor Biological film of top of water column

PURGING/SAMPLING PERSONNEL: Nicole Weaver & Joe Chait

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	Etcmw-114
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	40923

PURGE START DATE/TIME:	12/3/12 1300		PURGE END DATE/TIME:	12/3/12	1437
WEATHER CONDITIONS:	Sunny 20°F		WELL CONDITION:	good	
WELL DEPTH:	11.7	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	9,000 mL gal.	
SWL:	8.16	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1.7 ft.	
WELL DIAMETER:	4	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	10 ~~9~~ ft.	
WELL VOLUME:	8,744mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA (3% | 10% | ± 0.1 | 10% | 10%)

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1307	8.32 100	—	20.05	0.419	5.03	6.49	14.1	8.7
1312	8.41 100	500	19.93	0.427	4.19	6.35	50.1	6.2
1320	8.44 100	1300	19.98	0.401	3.92	6.43	68.0	6.1
1325	8.58 100	1800	20.00	0.400	3.84	6.46	79.1	6.1
1332	8.67 100	2500	20.01	0.401	3.83	6.46	84.9	6.0
1337	8.71 100	3000	20.01	0.401	3.84	6.48	93.6	5.9
1342	8.80 100	3500	20.04	0.403	3.85	6.48	100.6	5.9
1352	8.95 100	4500	20.10	0.406	3.82	6.49	111.3	6.0
1357	8.99 100	5000	20.06	0.407	3.84	6.49	118.5	5.8
1402	9.03 100	5500	20.07	0.408	3.85	6.50	121.8	6.0
1407	9.13 100	6000	20.17	0.411	3.85	6.50	126.9	8.3
1412	9.19 100	6500	20.16	0.411	3.84	6.50	128.3	5.7
1417	9.24 100	7000	20.12	0.412	3.85	6.50	131.7	6.4
1422	9.29 100	7500	20.08	0.413	3.83	6.51	136.3	5.9
1427	9.35 100	8000	20.13	0.415	3.83	6.50	139.5	5.8
1432	9.41 100	8500	20.16	0.416	3.82	6.50	143.1	5.8
1437	9.46 100	9000	20.16	0.417	3.83	6.50	146.7	5.9

SAMPLING DATA

SAMPLE DATE/TIME:	12/3/12 1445
DEPTH TO WATER AFTER PURGING:	9.46 ft.
APPEARANCE:	Clear no odor
SAMPLING DEVICE:	reverse pump

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Clear moderate odor at begin of purge

PURGING/SAMPLING PERSONNEL: Nicole Weaver & Joe Chait

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETMW-120
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	49923

PURGE START DATE/TIME:	12/3/12 1533		PURGE END DATE/TIME:	12/3/12	1620
WEATHER CONDITIONS:	Partly Cloudy 75° F		WELL CONDITION:	Good	
WELL DEPTH:	11	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	1750mL	gal.
SWL:	8.32	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1.0	ft.
WELL DIAMETER:	2"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	9.5	ft.
WELL VOLUME:	1653mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1545	8.64 50	—	23.22	0.226	5.88	6.05	154.8	23.5
1550	8.82 50	250	22.75	0.221	5.23	5.93	174.3	18.4
1555	9.02 50	500	22.77	0.221	5.07	5.76	179.8	17.9
1600	9.21 50	750	22.75	0.219	4.80	5.70	195.2	17.6
1605	9.27 50	1000	22.67	0.214	4.76	5.85	198.0	17.3
1610	9.40 50	1250	22.77	0.217	4.59	5.80	207.8	17.1
1615	9.49 50	1500	22.68	0.216	4.44	5.78	214.8	16.3
1620	9.64 50	1750	22.69	0.217	4.36	5.71	220.5	15.8

SAMPLING DATA

SAMPLE DATE/TIME:	12/3/12 1630
DEPTH TO WATER AFTER PURGING:	9.64 ft.
APPEARANCE:	Clear Odorless
SAMPLING DEVICE:	reverse pump

PARAMETERS

☑	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES:

PURGING/SAMPLING PERSONNEL: Nicole Weaver & Joe Chait

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-1
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	49923

PURGE START DATE/TIME:	12/3/12 1100		PURGE END DATE/TIME:	12/3/12 1132 – Dry	
WEATHER CONDITIONS:	Sunny 70°F		WELL CONDITION:	Good	
WELL DEPTH:	10	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	~~gal.~~	MC
SWL:	6.76	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	5 ft.	
WELL DIAMETER:	1"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	8 ft.	
WELL VOLUME:	502 mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1115	7.41 / 50	—	25.03	0.224	3.33	4.71	246.9	4.6
1120	7.21 / 50	250	24.85	0.226	2.73	4.55	280.7	5.3
1125	7.98 / 50	500	24.79	0.220	2.52	4.53	284.9	5.2
1130	8.15 / 50	750	25.00	0.221	2.46	4.54	296.2	5.1
			Dry @	1132	12/3/12			

SAMPLING DATA

SAMPLE DATE/TIME:	
DEPTH TO WATER AFTER PURGING:	ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☐	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Clear No - Odor

PURGING/SAMPLING PERSONNEL: Nicole Weaver & Joe Chait

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	ETPW-121
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	49923

PURGE START DATE/TIME:	12/3/12 1505			PURGE END DATE/TIME:	12/3/12 1519 - Dry
WEATHER CONDITIONS:	Partly Cloudy 75°F			WELL CONDITION:	good
WELL DEPTH:	14.09	1 in. Dia.	0.041 gal./ft.	TOTAL PURGE VOLUME:	gal.
SWL:	12.34	2 in. Dia.	0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	1 ft.
WELL DIAMETER:	2"	4 in. Dia.	0.653 gal./ft.	PUMP SETTING:	13 ft.
WELL VOLUME:	1.07	1 gallon = 3785 mL		PURGING DEVICE:	Peristaltic

PURGING DATA

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1518	12.88 450	~	27.50	0.247	7.59	6.52	124.5	20.8
			Dry @	1519	12/3/12			

SAMPLING DATA

SAMPLE DATE/TIME:	
DEPTH TO WATER AFTER PURGING:	Dry ft.
APPEARANCE:	
SAMPLING DEVICE:	

PARAMETERS

☒	VOCs	☐	Metals (U)
☐	SVOCs	☐	Metals (F)
☐	OTHER	☐	PCBs

NOTES: Clear no odor

PURGING/SAMPLING PERSONNEL: Nicole Weaver & Joe Chait

GROUNDWATER PURGING AND SAMPLING LOG

O'BRIEN & GERE ENGINEERS, INC.

WELL NO.:	CH2MW-18D
SITE NAME:	Miller Moultrie
LOCATION:	Moultrie, GA
PROJECT NO.:	49923

PURGE START DATE/TIME:	12/3/12 1154		PURGE END DATE/TIME:	12/3/12 1233 – Dry	
WEATHER CONDITIONS:	Sunny 70°F		WELL CONDITION:	Good	
WELL DEPTH:	27.5	1 in. Dia. 0.041 gal./ft.	TOTAL PURGE VOLUME:	~~gal.~~ mL	
SWL:	10.11	2 in. Dia. 0.163 gal./ft.	DEPTH TO TOP OF SCREEN:	17.5 ft.	
WELL DIAMETER:	1"	4 in. Dia. 0.653 gal./ft.	PUMP SETTING:	21 ft.	
WELL VOLUME:	1922 mL	1 gallon = 3785 mL	PURGING DEVICE:	Peristaltic	

PURGING DATA wt. +

TIME (24 hr)	SWL (ft.)/ RATE (mL/min)	CUM. VOL. (gal)	TEMP. (°C)	SP. COND. (mS/cm)	D.O. (mg/L)	pH (SUs)	REDOX (mV)	TURB. (NTUs)
1205	13.51 50	—	21.40	1.612	3.04	6.17	-35.9	30.3
1210	16.15 50	250	21.31	1.622	2.59	6.16	-27.0	36.2
1215	17.79 50	500	21.20	1.619	2.57	6.16	-28.6	43.5
1220	19.20 50	750	20.96	1.614	2.43	6.18	-34.9	82.5
1225	20.98 50	1000	20.91	1.608	2.40	6.20	-36.2	93.4
1230	21.32 50	1250	21.00	1.603	2.49	6.21	-34.3	58.8
				Dry @ 1233 12/3/12				

SAMPLING DATA

SAMPLE DATE/TIME:		PARAMETERS				
DEPTH TO WATER AFTER PURGING:	Dry ft.	☐	VOCs	☒	Metals (U)	
APPEARANCE:	Slightly Cloudy	☐	SVOCs	☐	Metals (F)	
SAMPLING DEVICE:		☐	OTHER	☐	PCBs	

NOTES: Strong odor – slightly cloudy

PURGING/SAMPLING PERSONNEL: Nicole Weaver & Joe Chait

Laboratory Certification

Appendix D

Georgia Stipulation Letter

Laboratory: Shealy Environmental Services, Inc.

Accreditor: NELAP (FL)

Accreditation ID: E87653

Scope: See Attached

Effective: July 1, 2012

Expires: June 30, 2013

FLORIDA DEPARTMENT OF
HEALTH

State of Florida
Department of Health, Bureau of Laboratories

This is to certify that

E87653

SHEALY ENVIRONMENTAL SERVICES, INC. - 1
106 VANTAGE POINT DRIVE
WEST COLUMBIA, SC 29172

has complied with Florida Administrative Code 64E-1,
for the examination of Environmental samples in the following categories

DRINKING WATER - MICROBIOLOGY, DRINKING WATER - PRIMARY INORGANIC CONTAMINANTS, DRINKING WATER - SECONDARY INORGANIC CONTAMINANTS, DRINKING WATER - SYNTHETIC ORGANIC CONTAMINANTS, NON-POTABLE WATER - EXTRACTABLE ORGANICS, NON-POTABLE WATER - GENERAL CHEMISTRY, NON-POTABLE WATER - METALS, NON-POTABLE WATER - MICROBIOLOGY, NON-POTABLE WATER - PESTICIDES-HERBICIDES-PCB'S, NON-POTABLE WATER - VOLATILE ORGANICS, SOLID AND CHEMICAL MATERIALS - EXTRACTABLE ORGANICS, SOLID AND CHEMICAL MATERIALS - GENERAL CHEMISTRY, SOLID AND CHEMICAL MATERIALS - METALS, SOLID AND CHEMICAL MATERIALS - PESTICIDES-HERBICIDES-PCB'S, SOLID AND CHEMICAL MATERIALS - VOLATILE ORGANICS

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

Date Issued: July 01, 2012 Expiration Date: June 30, 2013

Max Salfinger, M.D.
Chief, Bureau of Laboratories
Florida Department of Health
DH Form 1697, 7/04
NON-TRANSFERABLE E87653-26-07/01/2012
Supersedes all previously issued certificates

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-26, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code:** SC00162 (803) 791-9700

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,2-Dibromo-3-chloropropane (DBCP)	EPA 504.1	Synthetic Organic Contaminants	NELAP	7/3/2001
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 504.1	Synthetic Organic Contaminants	NELAP	7/3/2001
Alkalinity as CaCO3	SM 2320 B	Primary Inorganic Contaminants	NELAP	2/6/2003
Aluminum	EPA 200.7	Secondary Inorganic Contaminants	NELAP	10/17/2005
Aluminum	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/17/2005
Antimony	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Arsenic	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Arsenic	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Barium	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Barium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Beryllium	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Beryllium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Cadmium	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Cadmium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Calcium	EPA 200.7	Primary Inorganic Contaminants	NELAP	10/17/2005
Chloride	EPA 300.0	Secondary Inorganic Contaminants	NELAP	3/25/2003
Chromium	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Chromium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Color	EPA 110.2	Secondary Inorganic Contaminants	NELAP	7/3/2001
Conductivity	SM 2510 B	Primary Inorganic Contaminants	NELAP	12/9/2011
Copper	EPA 200.7	Primary Inorganic Contaminants,Secondary Inorganic Contaminants	NELAP	7/3/2001
Copper	EPA 200.8	Primary Inorganic Contaminants,Secondary Inorganic Contaminants	NELAP	10/17/2005
Escherichia coli	SM 9223 B	Microbiology	NELAP	7/3/2001
Fluoride	EPA 300.0	Secondary Inorganic Contaminants,Primary Inorganic Contaminants	NELAP	12/9/2011
Iron	EPA 200.7	Secondary Inorganic Contaminants	NELAP	3/25/2003
Lead	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Magnesium	EPA 200.7	Primary Inorganic Contaminants	NELAP	10/17/2005
Manganese	EPA 200.7	Secondary Inorganic Contaminants	NELAP	7/3/2001
Manganese	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/17/2005
Mercury	EPA 245.1	Primary Inorganic Contaminants	NELAP	11/7/2002
Molybdenum	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/17/2005
Nickel	EPA 200.7	Primary Inorganic Contaminants	NELAP	7/3/2001
Nickel	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005

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State Laboratory ID: E87653 **EPA Lab Code:** SC00162 (803) 791-9700

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Nitrate as N	EPA 300.0	Primary Inorganic Contaminants	NELAP	3/25/2003
Nitrate as N	EPA 353.2	Primary Inorganic Contaminants	NELAP	1/31/2012
Nitrite as N	EPA 300.0	Primary Inorganic Contaminants	NELAP	3/25/2003
Nitrite as N	EPA 353.2	Primary Inorganic Contaminants	NELAP	1/31/2003
pH	EPA 150.1	Primary Inorganic Contaminants,Secondary Inorganic Contaminants	NELAP	7/3/2001
Residue-filterable (TDS)	SM 2540 C	Secondary Inorganic Contaminants	NELAP	10/17/2005
Selenium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Silver	EPA 200.7	Secondary Inorganic Contaminants	NELAP	1/31/2003
Silver	EPA 200.8	Secondary Inorganic Contaminants	NELAP	11/14/2011
Sodium	EPA 200.7	Primary Inorganic Contaminants	NELAP	10/17/2005
Sulfate	EPA 300.0	Secondary Inorganic Contaminants,Primary Inorganic Contaminants	NELAP	7/3/2001
Thallium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2005
Total coliforms	SM 9223 B	Microbiology	NELAP	7/3/2001
Total cyanide	EPA 335.4	Primary Inorganic Contaminants	NELAP	10/17/2005
Total nitrate-nitrite	EPA 353.2	Primary Inorganic Contaminants	NELAP	10/17/2005
Total residual chlorine	SM 4500-Cl G	Primary Inorganic Contaminants	NELAP	10/17/2005
Turbidity	EPA 180.1	Secondary Inorganic Contaminants	NELAP	3/18/2008
Vanadium	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/17/2005
Zinc	EPA 200.7	Secondary Inorganic Contaminants	NELAP	7/3/2001

Laboratory Scope of Accreditation

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State Laboratory ID: E87653 **EPA Lab Code:** SC00162 **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,1-Trichloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,2,2-Tetrachloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,2-Trichloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloroethylene	EPA 624	Volatile Organics	NELAP	7/3/2001
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,3-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8011	Volatile Organics	NELAP	7/1/2003
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8011	Volatile Organics	NELAP	7/1/2003
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	7/3/2001
1,2-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2-Dichloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichloropropane	EPA 624	Volatile Organics	NELAP	7/3/2001
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Diphenylhydrazine	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	7/3/2001
1,3-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

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State Laboratory ID: E87653 **EPA Lab Code:** SC00162 **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,4-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	7/3/2001
1,4-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
2,4,5-T	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4,6-Trichlorophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-D	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
2,4-DB	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,4-Dichlorophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dimethylphenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dinitrophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dinitrotoluene (2,4-DNT)	EPA 625	Extractable Organics	NELAP	7/3/2001
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,6-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,6-Dinitrotoluene (2,6-DNT)	EPA 625	Extractable Organics	NELAP	7/3/2001
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Chloroethyl vinyl ether	EPA 624	Volatile Organics	NELAP	7/3/2001
2-Chloroethyl vinyl ether	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Chloronaphthalene	EPA 625	Extractable Organics	NELAP	7/3/2001
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Chlorophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
2-Hexanone	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Methyl-4,6-dinitrophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

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State Laboratory ID: E87653 **EPA Lab Code:** SC00162 **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitrophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
3,3'-Dichlorobenzidine	EPA 625	Extractable Organics	NELAP	7/3/2001
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
3,3'-Dimethylbenzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
3/4-Methylphenols (m/p-Cresols)	EPA 8270	Extractable Organics	NELAP	10/17/2005
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4,4'-DDD	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-DDE	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-DDT	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4-Bromophenyl phenyl ether	EPA 625	Extractable Organics	NELAP	7/3/2001
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chloro-3-methylphenol	EPA 625	Extractable Organics	NELAP	7/3/2001
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorophenyl phenylether	EPA 625	Extractable Organics	NELAP	7/3/2001
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Nitrophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acenaphthene	EPA 625	Extractable Organics	NELAP	7/3/2001
Acenaphthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acenaphthylene	EPA 625	Extractable Organics	NELAP	7/3/2001
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acetone	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acetonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acetophenone	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acidity, as CaCO3	SM 2310 B (4a)	General Chemistry	NELAP	3/22/2012
Acrolein (Propenal)	EPA 8260	Volatile Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

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E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Acrylonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Aldrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Alkalinity as CaCO3	SM 2320 B	General Chemistry	NELAP	12/31/2008
Allyl chloride (3-Chloropropene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
alpha-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/24/2008
Aluminum	EPA 200.7	Metals	NELAP	7/3/2001
Aluminum	EPA 200.8	Metals	NELAP	10/17/2005
Aluminum	EPA 6010	Metals	NELAP	7/1/2003
Aluminum	EPA 6020	Metals	NELAP	10/17/2005
Amenable cyanide	EPA 9012	General Chemistry	NELAP	7/1/2003
Amenable cyanide	SM 4500-CN G	General Chemistry	NELAP	12/31/2008
Ammonia as N	EPA 350.1	General Chemistry	NELAP	7/3/2001
Aniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
Anthracene	EPA 625	Extractable Organics	NELAP	7/3/2001
Anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Antimony	EPA 200.7	Metals	NELAP	7/3/2001
Antimony	EPA 200.8	Metals	NELAP	10/17/2005
Antimony	EPA 6010	Metals	NELAP	7/1/2003
Antimony	EPA 6020	Metals	NELAP	10/17/2005
Aroclor-1016 (PCB-1016)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1221 (PCB-1221)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1232 (PCB-1232)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1242 (PCB-1242)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1248 (PCB-1248)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1254 (PCB-1254)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1260 (PCB-1260)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-26, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code:** SC00162 (803) 791-9700

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Aroclor-1262 (PCB-1262)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	3/22/2012
Aroclor-1268 (PCB-1268)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	3/22/2012
Arsenic	EPA 200.7	Metals	NELAP	7/3/2001
Arsenic	EPA 200.8	Metals	NELAP	10/17/2005
Arsenic	EPA 6010	Metals	NELAP	7/1/2003
Arsenic	EPA 6020	Metals	NELAP	10/17/2005
Barium	EPA 200.7	Metals	NELAP	1/17/2012
Barium	EPA 200.8	Metals	NELAP	10/17/2005
Barium	EPA 6010	Metals	NELAP	1/17/2012
Barium	EPA 6020	Metals	NELAP	10/17/2005
Benzene	EPA 624	Volatile Organics	NELAP	7/3/2001
Benzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Benzidine	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)anthracene	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)pyrene	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(b)fluoranthene	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(g,h,i)perylene	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(k)fluoranthene	EPA 625	Extractable Organics	NELAP	7/3/2001
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzoic acid	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzyl chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Beryllium	EPA 200.7	Metals	NELAP	7/3/2001
Beryllium	EPA 200.8	Metals	NELAP	10/17/2005
Beryllium	EPA 6010	Metals	NELAP	7/1/2003
Beryllium	EPA 6020	Metals	NELAP	10/17/2005
beta-BHC (beta-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Biochemical oxygen demand	SM 5210 B	General Chemistry	NELAP	12/31/2008
bis(2-Chloroethoxy)methane	EPA 625	Extractable Organics	NELAP	7/3/2001
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

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E87653
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Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
bis(2-Chloroethyl) ether	EPA 625	Extractable Organics	NELAP	7/3/2001
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 625	Extractable Organics	NELAP	7/3/2001
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 625	Extractable Organics	NELAP	7/3/2001
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Boron	EPA 200.7	Metals	NELAP	7/3/2001
Boron	EPA 6010	Metals	NELAP	7/1/2003
Boron	EPA 6020	Metals	NELAP	10/17/2005
Bromide	EPA 300.0	General Chemistry	NELAP	7/3/2001
Bromide	EPA 9056	General Chemistry	NELAP	7/1/2003
Bromobenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromodichloromethane	EPA 624	Volatile Organics	NELAP	7/3/2001
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromoform	EPA 624	Volatile Organics	NELAP	7/3/2001
Bromoform	EPA 8260	Volatile Organics	NELAP	7/1/2003
Butyl benzyl phthalate	EPA 625	Extractable Organics	NELAP	7/3/2001
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Cadmium	EPA 200.7	Metals	NELAP	7/3/2001
Cadmium	EPA 200.8	Metals	NELAP	10/17/2005
Cadmium	EPA 6010	Metals	NELAP	7/1/2003
Cadmium	EPA 6020	Metals	NELAP	10/17/2005
Calcium	EPA 200.7	Metals	NELAP	7/3/2001
Calcium	EPA 6010	Metals	NELAP	7/1/2003
Calcium	EPA 6020	Metals	NELAP	10/17/2005
Caprolactam	EPA 8270	Extractable Organics	NELAP	3/22/2012
Carbazole	EPA 8270	Extractable Organics	NELAP	7/1/2003
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	7/1/2003
Carbon tetrachloride	EPA 624	Volatile Organics	NELAP	7/3/2001
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Carbonaceous BOD (CBOD)	SM 5210 B	General Chemistry	NELAP	7/3/2001
Chemical oxygen demand	SM 5220 D	General Chemistry	NELAP	12/31/2008
Chlorate	EPA 300.0	General Chemistry	NELAP	3/22/2012
Chlordane (tech.)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001

Laboratory Scope of Accreditation

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E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
Chloride	EPA 300.0	General Chemistry	NELAP	7/3/2001
Chloride	EPA 9056	General Chemistry	NELAP	10/17/2005
Chlorobenzene	EPA 624	Volatile Organics	NELAP	7/3/2001
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroethane	EPA 624	Volatile Organics	NELAP	7/3/2001
Chloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroform	EPA 624	Volatile Organics	NELAP	7/3/2001
Chloroform	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroprene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chromium	EPA 200.7	Metals	NELAP	7/3/2001
Chromium	EPA 200.8	Metals	NELAP	10/17/2005
Chromium	EPA 6010	Metals	NELAP	7/1/2003
Chromium	EPA 6020	Metals	NELAP	10/17/2005
Chromium VI	EPA 7196	General Chemistry	NELAP	10/17/2005
Chromium VI	SM 3500-Cr D (18th/19th Ed.)/UV-VIS	General Chemistry	NELAP	2/11/2003
Chrysene	EPA 625	Extractable Organics	NELAP	7/3/2001
Chrysene	EPA 8270	Extractable Organics	NELAP	7/1/2003
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
cis-1,3-Dichloropropene	EPA 624	Volatile Organics	NELAP	7/3/2001
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Cobalt	EPA 200.7	Metals	NELAP	7/3/2001
Cobalt	EPA 200.8	Metals	NELAP	10/17/2005
Cobalt	EPA 6010	Metals	NELAP	7/1/2003
Cobalt	EPA 6020	Metals	NELAP	10/17/2005
Color	SM 2120 B	General Chemistry	NELAP	12/31/2008
Color	SM 2120 E	General Chemistry	NELAP	12/31/2008
Conductivity	EPA 120.1	General Chemistry	NELAP	7/3/2001
Conductivity	SM 2510 B	General Chemistry	NELAP	3/22/2012
Copper	EPA 200.7	Metals	NELAP	7/3/2001
Copper	EPA 200.8	Metals	NELAP	10/17/2005
Copper	EPA 6010	Metals	NELAP	7/1/2003
Copper	EPA 6020	Metals	NELAP	10/17/2005
Cyanide	EPA 335.4	General Chemistry	NELAP	12/31/2008
Cyanide	SM 4500-CN E	General Chemistry	NELAP	3/22/2012
Dalapon	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003

Laboratory Scope of Accreditation

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State Laboratory ID: E87653 **EPA Lab Code:** SC00162 **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
delta-BHC	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Dibenz(a,h)anthracene	EPA 625	Extractable Organics	NELAP	7/3/2001
Dibenz(a,h)anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibromochloromethane	EPA 624	Volatile Organics	NELAP	7/3/2001
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dibromomethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dicamba	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dichloroprop (Dichlorprop)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Dieldrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Diesel range organics (DRO)	EPA 8015	Extractable Organics	NELAP	7/1/2003
Diesel range organics (DRO)	MA-EPH	Extractable Organics	NELAP	3/22/2012
Diethyl ether	EPA 8260	Volatile Organics	NELAP	7/1/2003
Diethyl phthalate	EPA 625	Extractable Organics	NELAP	7/3/2001
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dimethyl phthalate	EPA 625	Extractable Organics	NELAP	7/3/2001
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Di-n-butyl phthalate	EPA 625	Extractable Organics	NELAP	7/3/2001
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Di-n-octyl phthalate	EPA 625	Extractable Organics	NELAP	7/3/2001
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan I	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan II	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan sulfate	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin aldehyde	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin ketone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-26, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Ethyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Ethylbenzene	EPA 624	Volatile Organics	NELAP	7/3/2001
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Fecal coliforms	COLILERT®-18 (Fecal Coliforms)	Microbiology	NELAP	3/22/2012
Fluoranthene	EPA 625	Extractable Organics	NELAP	7/3/2001
Fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fluorene	EPA 625	Extractable Organics	NELAP	7/3/2001
Fluorene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fluoride	EPA 300.0	General Chemistry	NELAP	3/27/2003
Fluoride	EPA 9056	General Chemistry	NELAP	7/1/2003
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
gamma-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/24/2008
Gasoline range organics (GRO)	EPA 8015	Extractable Organics	NELAP	7/1/2003
Gasoline range organics (GRO)	MA-VPH	Volatile Organics	NELAP	3/22/2012
Hardness	SM 2340 C	General Chemistry	NELAP	12/31/2008
Heptachlor	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Heptachlor epoxide	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Hexachlorobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorobutadiene	EPA 625	Extractable Organics	NELAP	7/3/2001
Hexachlorobutadiene	EPA 8260	Volatile Organics	NELAP	3/22/2012
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorocyclopentadiene	EPA 625	Extractable Organics	NELAP	7/3/2001
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachloroethane	EPA 625	Extractable Organics	NELAP	7/3/2001
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	7/1/2003
Ignitability	EPA 1010	General Chemistry	NELAP	7/1/2003
Indeno(1,2,3-cd)pyrene	EPA 625	Extractable Organics	NELAP	7/3/2001
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Iodomethane (Methyl iodide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Iron	EPA 200.7	Metals	NELAP	7/3/2001
Iron	EPA 6010	Metals	NELAP	7/1/2003

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E87653
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Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Iron	EPA 6020	Metals	NELAP	10/17/2005
Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Isophorone	EPA 625	Extractable Organics	NELAP	7/3/2001
Isophorone	EPA 8270	Extractable Organics	NELAP	7/1/2003
Isopropylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Kjeldahl nitrogen - total	EPA 351.2	General Chemistry	NELAP	11/7/2002
Lead	EPA 200.7	Metals	NELAP	1/17/2012
Lead	EPA 200.8	Metals	NELAP	10/17/2005
Lead	EPA 6010	Metals	NELAP	1/17/2012
Lead	EPA 6020	Metals	NELAP	10/17/2005
Magnesium	EPA 200.7	Metals	NELAP	7/3/2001
Magnesium	EPA 6010	Metals	NELAP	7/1/2003
Magnesium	EPA 6020	Metals	NELAP	10/17/2005
Manganese	EPA 200.7	Metals	NELAP	7/3/2001
Manganese	EPA 200.8	Metals	NELAP	10/17/2005
Manganese	EPA 6010	Metals	NELAP	7/1/2003
Manganese	EPA 6020	Metals	NELAP	10/17/2005
MCPA	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
MCPP	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Mercury	EPA 1631	Metals	NELAP	10/17/2005
Mercury	EPA 245.1	Metals	NELAP	2/5/2003
Mercury	EPA 7470	Metals	NELAP	7/1/2003
Methacrylonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Methyl acetate	EPA 8260	Volatile Organics	NELAP	3/22/2012
Methyl bromide (Bromomethane)	EPA 624	Volatile Organics	NELAP	7/3/2001
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl chloride (Chloromethane)	EPA 624	Volatile Organics	NELAP	7/3/2001
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methylcyclohexane	EPA 8260	Volatile Organics	NELAP	3/22/2012
Methylene chloride	EPA 624	Volatile Organics	NELAP	7/3/2001
Methylene chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Molybdenum	EPA 200.7	Metals	NELAP	7/3/2001
Molybdenum	EPA 200.8	Metals	NELAP	10/17/2005

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E87653
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106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Molybdenum	EPA 6010	Metals	NELAP	7/1/2003
Molybdenum	EPA 6020	Metals	NELAP	10/17/2005
Naphthalene	EPA 625	Extractable Organics	NELAP	7/3/2001
Naphthalene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Naphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Nickel	EPA 200.7	Metals	NELAP	7/3/2001
Nickel	EPA 200.8	Metals	NELAP	10/17/2005
Nickel	EPA 6010	Metals	NELAP	7/1/2003
Nickel	EPA 6020	Metals	NELAP	10/17/2005
Nitrate	EPA 9056	General Chemistry	NELAP	7/1/2003
Nitrate as N	EPA 300.0	General Chemistry	NELAP	3/27/2003
Nitrate as N	EPA 353.2	General Chemistry	NELAP	7/3/2001
Nitrate-nitrite	EPA 353.2	General Chemistry	NELAP	7/3/2001
Nitrite	EPA 9056	General Chemistry	NELAP	7/1/2003
Nitrite as N	EPA 300.0	General Chemistry	NELAP	3/27/2003
Nitrite as N	EPA 353.2	General Chemistry	NELAP	8/25/2008
Nitrobenzene	EPA 625	Extractable Organics	NELAP	7/3/2001
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodimethylamine	EPA 625	Extractable Organics	NELAP	7/3/2001
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodi-n-propylamine	EPA 625	Extractable Organics	NELAP	7/3/2001
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodiphenylamine	EPA 625	Extractable Organics	NELAP	7/3/2001
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Oil & Grease	EPA 1664A	General Chemistry	NELAP	10/17/2005
Orthophosphate as P	EPA 365.1	General Chemistry	NELAP	3/22/2012
Pentachlorophenol	EPA 625	Extractable Organics	NELAP	7/3/2001
Pentachlorophenol	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
pH	EPA 9040	General Chemistry	NELAP	7/1/2003
pH	SM 4500-H+-B	General Chemistry	NELAP	12/31/2008
Phenanthrene	EPA 625	Extractable Organics	NELAP	7/3/2001
Phenanthrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phenol	EPA 625	Extractable Organics	NELAP	7/3/2001

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-26, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Phenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phosphorus, total	EPA 365.1	General Chemistry	NELAP	3/22/2012
p-Isopropyltoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Potassium	EPA 200.7	Metals	NELAP	10/17/2005
Potassium	EPA 6010	Metals	NELAP	7/1/2003
Potassium	EPA 6020	Metals	NELAP	10/17/2005
Propionitrile (Ethyl cyanide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Pyrene	EPA 625	Extractable Organics	NELAP	7/3/2001
Pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Pyridine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Residue-filterable (TDS)	SM 2540 C	General Chemistry	NELAP	12/31/2008
Residue-nonfilterable (TSS)	SM 2540 D	General Chemistry	NELAP	12/31/2008
Residue-total	SM 2540 B	General Chemistry	NELAP	12/31/2008
Salinity	SM 2520 B	General Chemistry	NELAP	10/17/2005
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Selenium	EPA 200.7	Metals	NELAP	7/3/2001
Selenium	EPA 200.8	Metals	NELAP	10/17/2005
Selenium	EPA 6010	Metals	NELAP	7/1/2003
Selenium	EPA 6020	Metals	NELAP	10/17/2005
Silver	EPA 200.7	Metals	NELAP	7/3/2001
Silver	EPA 200.8	Metals	NELAP	10/17/2005
Silver	EPA 6010	Metals	NELAP	7/1/2003
Silver	EPA 6020	Metals	NELAP	10/17/2005
Silvex (2,4,5-TP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
Sodium	EPA 200.7	Metals	NELAP	7/3/2001
Sodium	EPA 6010	Metals	NELAP	7/1/2003
Sodium	EPA 6020	Metals	NELAP	12/13/2011
Styrene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Sulfate	EPA 300.0	General Chemistry	NELAP	7/3/2001
Sulfate	EPA 9056	General Chemistry	NELAP	7/1/2003
Sulfide	SM 4500-S E (18th Ed.)/TITR	General Chemistry	NELAP	3/22/2012
Sulfite-SO3	SM 4500-SO3 B	General Chemistry	NELAP	12/31/2008
Surfactants - MBAS	SM 5540 C	General Chemistry	NELAP	3/22/2012
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Tetrachloroethylene (Perchloroethylene)	EPA 624	Volatile Organics	NELAP	7/3/2001
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	7/1/2003

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E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Thallium	EPA 200.7	Metals	NELAP	7/3/2001
Thallium	EPA 200.8	Metals	NELAP	10/17/2005
Thallium	EPA 6010	Metals	NELAP	7/1/2003
Thallium	EPA 6020	Metals	NELAP	10/17/2005
Tin	EPA 200.7	Metals	NELAP	3/27/2003
Tin	EPA 6010	Metals	NELAP	7/1/2003
Tin	EPA 6020	Metals	NELAP	10/17/2005
Titanium	EPA 6010	Metals	NELAP	7/1/2003
Titanium	EPA 6020	Metals	NELAP	10/17/2005
Toluene	EPA 624	Volatile Organics	NELAP	7/3/2001
Toluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Total cyanide	EPA 9012	General Chemistry	NELAP	7/1/2003
Total cyanide	LACHAT 10-204-00-1-X	General Chemistry	NELAP	3/22/2012
Total organic carbon	EPA 9060	General Chemistry	NELAP	7/1/2003
Total organic carbon	SM 5310 C	General Chemistry	NELAP	3/22/2012
Total Petroleum Hydrocarbons (TPH)	EPA 1664A	General Chemistry	NELAP	3/22/2012
Total Petroleum Hydrocarbons (TPH)	FL-PRO	Extractable Organics	NELAP	7/24/2008
Total phenolics	EPA 420.4	General Chemistry	NELAP	3/27/2003
Total phenolics	EPA 9065	General Chemistry	NELAP	3/22/2012
Total residual chlorine	SM 4500-Cl G	General Chemistry	NELAP	12/31/2008
Toxaphene (Chlorinated camphene)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
trans-1,2-Dichloroethylene	EPA 624	Volatile Organics	NELAP	7/3/2001
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
trans-1,3-Dichloropropene	EPA 624	Volatile Organics	NELAP	7/3/2001
trans-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
trans-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichloroethene (Trichloroethylene)	EPA 624	Volatile Organics	NELAP	7/3/2001
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichlorofluoromethane	EPA 624	Volatile Organics	NELAP	7/3/2001
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Turbidity	EPA 180.1	General Chemistry	NELAP	7/3/2001
Vanadium	EPA 200.7	Metals	NELAP	7/3/2001
Vanadium	EPA 200.8	Metals	NELAP	10/17/2005
Vanadium	EPA 6010	Metals	NELAP	7/1/2003
Vanadium	EPA 6020	Metals	NELAP	10/17/2005

Laboratory Scope of Accreditation

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E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Vinyl acetate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Vinyl chloride	EPA 624	Volatile Organics	NELAP	7/3/2001
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Xylene (total)	EPA 624	Volatile Organics	NELAP	10/17/2005
Xylene (total)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Zinc	EPA 200.7	Metals	NELAP	7/3/2001
Zinc	EPA 200.8	Metals	NELAP	10/17/2005
Zinc	EPA 6010	Metals	NELAP	7/1/2003
Zinc	EPA 6020	Metals	NELAP	10/17/2005

Laboratory Scope of Accreditation

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State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2,3-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,2-Diphenylhydrazine	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/3/2001
2,4,5-T	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,4-D	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
2,4-DB	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	7/3/2001
2,6-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001

Laboratory Scope of Accreditation

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Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	7/3/2001
2-Chloroethyl vinyl ether	EPA 8260	Volatile Organics	NELAP	7/3/2001
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
2-Hexanone	EPA 8260	Volatile Organics	NELAP	7/3/2001
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/3/2001
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	7/3/2001
3,3'-Dimethylbenzidine	EPA 8270	Extractable Organics	NELAP	7/3/2001
3/4-Methylphenols (m/p-Cresols)	EPA 8270	Extractable Organics	NELAP	10/17/2005
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/3/2001
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	7/3/2001
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	7/3/2001
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	7/3/2001
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	7/3/2001
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/3/2001
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
Acenaphthene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Acetone	EPA 8260	Volatile Organics	NELAP	7/3/2001
Acetonitrile	EPA 8260	Volatile Organics	NELAP	7/3/2001
Acetophenone	EPA 8270	Extractable Organics	NELAP	7/3/2001
Acrolein (Propenal)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Acrylonitrile	EPA 8260	Volatile Organics	NELAP	7/3/2001
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Allyl chloride (3-Chloropropene)	EPA 8260	Volatile Organics	NELAP	7/3/2001

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West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
alpha-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/24/2008
Aluminum	EPA 6010	Metals	NELAP	7/3/2001
Anthracene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Antimony	EPA 6010	Metals	NELAP	7/3/2001
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Aroclor-1262 (PCB-1262)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	3/22/2012
Aroclor-1268 (PCB-1268)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	3/22/2012
Arsenic	EPA 6010	Metals	NELAP	7/3/2001
Barium	EPA 6010	Metals	NELAP	7/3/2001
Benzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Benzidine	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzoic acid	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	7/3/2001
Benzyl chloride	EPA 8260	Volatile Organics	NELAP	7/3/2001
Beryllium	EPA 6010	Metals	NELAP	7/3/2001
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	7/3/2001
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	7/3/2001
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 8270	Extractable Organics	NELAP	7/3/2001
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	7/3/2001
Boron	EPA 6010	Metals	NELAP	7/3/2001
Bromobenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	7/3/2001

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Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Bromoform	EPA 8260	Volatile Organics	NELAP	7/3/2001
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	7/3/2001
Cadmium	EPA 6010	Metals	NELAP	7/3/2001
Calcium	EPA 6010	Metals	NELAP	7/3/2001
Caprolactam	EPA 8270	Extractable Organics	NELAP	3/22/2012
Carbazole	EPA 8270	Extractable Organics	NELAP	7/3/2001
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	7/3/2001
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	7/3/2001
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/7/2003
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Chloroethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Chloroform	EPA 8260	Volatile Organics	NELAP	7/3/2001
Chloroprene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Chromium	EPA 6010	Metals	NELAP	7/3/2001
Chromium VI	EPA 7196	General Chemistry	NELAP	10/17/2005
Chrysene	EPA 8270	Extractable Organics	NELAP	7/3/2001
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/3/2001
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Cobalt	EPA 6010	Metals	NELAP	7/3/2001
Copper	EPA 6010	Metals	NELAP	7/3/2001
Dalapon	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Dibenz(a,h)anthracene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	7/3/2001
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Dibromomethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Dicamba	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Dichloroprop (Dichlorprop)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Diesel range organics (DRO)	EPA 8015	Extractable Organics	NELAP	7/3/2001
Diethyl ether	EPA 8260	Volatile Organics	NELAP	7/3/2001
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/3/2001
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/3/2001
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	7/3/2001
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	7/3/2001

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-26, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code: SC00162** **(803) 791-9700**

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Endrin ketone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Ethyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/3/2001
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Fluoranthene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Fluorene	EPA 8270	Extractable Organics	NELAP	7/3/2001
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
gamma-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/24/2008
Gasoline range organics (GRO)	EPA 8015	Extractable Organics	NELAP	7/3/2001
Gasoline range organics (GRO)	MA-VPH	Volatile Organics	NELAP	3/22/2012
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Hexachlorobutadiene	EPA 8260	Volatile Organics	NELAP	3/22/2012
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	7/3/2001
Ignitability	EPA 1010	General Chemistry	NELAP	7/3/2001
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Iodomethane (Methyl iodide)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Iron	EPA 6010	Metals	NELAP	7/3/2001
Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Isophorone	EPA 8270	Extractable Organics	NELAP	7/3/2001
Isopropylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Lead	EPA 6010	Metals	NELAP	7/3/2001
Magnesium	EPA 6010	Metals	NELAP	7/3/2001
Manganese	EPA 6010	Metals	NELAP	7/3/2001
MCPA	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
MCPP	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Mercury	EPA 7471	Metals,General Chemistry	NELAP	7/3/2001
Methacrylonitrile	EPA 8260	Volatile Organics	NELAP	7/3/2001

Laboratory Scope of Accreditation

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State Laboratory ID: E87653 **EPA Lab Code:** SC00162 (803) 791-9700

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Methyl acetate	EPA 8260	Volatile Organics	NELAP	3/22/2012
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Methyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/3/2001
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Methylcyclohexane	EPA 8260	Volatile Organics	NELAP	3/22/2012
Methylene chloride	EPA 8260	Volatile Organics	NELAP	7/3/2001
Molybdenum	EPA 6010	Metals	NELAP	7/3/2001
Naphthalene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Naphthalene	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Nickel	EPA 6010	Metals	NELAP	7/3/2001
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	7/3/2001
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Oil & Grease	EPA 9071	General Chemistry	NELAP	7/3/2001
Paint Filter Liquids Test	EPA 9095	General Chemistry	NELAP	7/3/2001
p-Dioxane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Pentachlorophenol	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
pH	EPA 9045	General Chemistry	NELAP	7/3/2001
Phenanthrene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Phenol	EPA 8270	Extractable Organics	NELAP	7/3/2001
p-Isopropyltoluene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Potassium	EPA 6010	Metals	NELAP	7/3/2001
Propionitrile (Ethyl cyanide)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Pyrene	EPA 8270	Extractable Organics	NELAP	7/3/2001
Pyridine	EPA 8270	Extractable Organics	NELAP	7/3/2001
Reactive cyanide	Sec. 7.3 SW-846	General Chemistry	NELAP	7/3/2001
Reactive sulfide	Sec. 7.3 SW-846	General Chemistry	NELAP	7/3/2001
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Selenium	EPA 6010	Metals	NELAP	7/3/2001
Silver	EPA 6010	Metals	NELAP	7/3/2001

Laboratory Scope of Accreditation

Attachment to Certificate #: E87653-26, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87653 **EPA Lab Code:** SC00162 (803) 791-9700

E87653
Shealy Environmental Services, Inc. - 1
106 Vantage Point Drive
West Columbia, SC 29172

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Silvex (2,4,5-TP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	10/17/2005
Sodium	EPA 6010	Metals	NELAP	7/3/2001
Styrene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Synthetic Precipitation Leaching Procedure	EPA 1312	General Chemistry	NELAP	10/17/2005
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/17/2005
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Thallium	EPA 6010	Metals	NELAP	7/3/2001
Tin	EPA 6010	Metals	NELAP	7/3/2001
Titanium	EPA 6010	Metals	NELAP	7/3/2001
Toluene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Total cyanide	EPA 9012	General Chemistry	NELAP	7/3/2001
Total Petroleum Hydrocarbons (TPH)	FL-PRO	Extractable Organics	NELAP	7/24/2008
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/3/2001
Toxicity Characteristic Leaching Procedure	EPA 1311	General Chemistry	NELAP	7/3/2001
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/3/2001
trans-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/3/2001
trans-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	7/3/2001
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	7/3/2001
Vanadium	EPA 6010	Metals	NELAP	7/3/2001
Vinyl acetate	EPA 8260	Volatile Organics	NELAP	7/3/2001
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	7/3/2001
Xylene (total)	EPA 8260	Volatile Organics	NELAP	7/3/2001
Zinc	EPA 6010	Metals	NELAP	7/3/2001

2012 Laboratory Analytical Results

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

O'Brien and Gere
2610 Wycliff Road
Suite 104
Raleigh, NC 27607
Attention: Sarah Slagle-Garrett

Project Name: **Miller Moultrie**

Project Number: **49923**

Lot Number: **NL06066**

Date Completed: **12/14/2012**



Nisreen Saikaly
Project Manager

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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

NL06066

Case Narrative
O'Brien and Gere
Lot Number: NL06066

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Volatile Organic Compounds

The MS/MSD recoveries in batch 99479 were outside acceptance criteria. All other QA/QC criteria for the batch were within acceptance criteria and method control limits. The MS/MSD recovery results are attributed to matrix interference. The associated sample results were reported and no corrective action was required.

Sample Summary
O'Brien and Gere
Lot Number: NL06066

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	CH2MW4D120412	Aqueous	12/04/2012 1050	12/06/2012
002	ETCMW115120412	Aqueous	12/04/2012 1250	12/06/2012
003	ETCMW113120512	Aqueous	12/05/2012 0815	12/06/2012
004	120312ETMW118	Aqueous	12/03/2012 1600	12/06/2012
005	ETMW-117-120412	Aqueous	12/04/2012 1325	12/06/2012
006	ETMW119120412	Aqueous	12/04/2012 1505	12/06/2012
007	ETCMW-114-120312	Aqueous	12/03/2012 1445	12/06/2012
008	ETMW-120-120312	Aqueous	12/03/2012 1630	12/06/2012
009	ETMW-116-120412	Aqueous	12/04/2012 1130	12/06/2012
010	DUP-001120312	Aqueous	12/03/2012	12/06/2012
011	DUP-002120412	Aqueous	12/04/2012 1505	12/06/2012
012	Trip Blank	Aqueous	12/04/2012	12/06/2012

(12 samples)

Executive Summary
O'Brien and Gere
Lot Number: NL06066

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	ETCMW115120412	Aqueous	1,1-Dichloroethane	8260B	3.4		ug/L	6
002	ETCMW115120412	Aqueous	cis-1,2-Dichloroethene	8260B	42		ug/L	6
002	ETCMW115120412	Aqueous	Trichloroethene	8260B	16		ug/L	6
002	ETCMW115120412	Aqueous	Vinyl chloride	8260B	2.2		ug/L	6
003	ETCMW113120512	Aqueous	1,1-Dichloroethane	8260B	9.9		ug/L	7
003	ETCMW113120512	Aqueous	1,1-Dichloroethene	8260B	3.7		ug/L	7
003	ETCMW113120512	Aqueous	cis-1,2-Dichloroethene	8260B	150		ug/L	7
003	ETCMW113120512	Aqueous	Trichloroethene	8260B	0.98		ug/L	7
003	ETCMW113120512	Aqueous	Vinyl chloride	8260B	6.6		ug/L	7
004	120312ETMW118	Aqueous	Chloroethane	8260B	1.1		ug/L	8
004	120312ETMW118	Aqueous	1,1-Dichloroethane	8260B	5.4		ug/L	8
004	120312ETMW118	Aqueous	cis-1,2-Dichloroethene	8260B	5.4		ug/L	8
004	120312ETMW118	Aqueous	Vinyl chloride	8260B	37		ug/L	8
005	ETMW-117-120412	Aqueous	Benzene	8260B	0.65		ug/L	9
005	ETMW-117-120412	Aqueous	Chloroethane	8260B	2.0		ug/L	9
005	ETMW-117-120412	Aqueous	1,1-Dichloroethane	8260B	6.1		ug/L	9
005	ETMW-117-120412	Aqueous	1,1-Dichloroethene	8260B	0.56		ug/L	9
005	ETMW-117-120412	Aqueous	cis-1,2-Dichloroethene	8260B	27		ug/L	9
005	ETMW-117-120412	Aqueous	Vinyl chloride	8260B	42		ug/L	9
006	ETMW119120412	Aqueous	cis-1,2-Dichloroethene	8260B	0.54		ug/L	10
007	ETCMW-114-120312	Aqueous	1,1-Dichloroethane	8260B	34		ug/L	11
007	ETCMW-114-120312	Aqueous	1,1-Dichloroethene	8260B	70		ug/L	11
007	ETCMW-114-120312	Aqueous	cis-1,2-Dichloroethene	8260B	1300		ug/L	11
007	ETCMW-114-120312	Aqueous	Tetrachloroethene	8260B	24		ug/L	11
007	ETCMW-114-120312	Aqueous	Trichloroethene	8260B	450		ug/L	11
008	ETMW-120-120312	Aqueous	cis-1,2-Dichloroethene	8260B	1.8		ug/L	12
008	ETMW-120-120312	Aqueous	Trichloroethene	8260B	0.59		ug/L	12
009	ETMW-116-120412	Aqueous	Chloroethane	8260B	4.5		ug/L	13
009	ETMW-116-120412	Aqueous	1,1-Dichloroethane	8260B	8.0		ug/L	13
009	ETMW-116-120412	Aqueous	cis-1,2-Dichloroethene	8260B	2.4		ug/L	13
009	ETMW-116-120412	Aqueous	Vinyl chloride	8260B	100		ug/L	13
010	DUP-001120312	Aqueous	Chloroethane	8260B	1.6		ug/L	14
010	DUP-001120312	Aqueous	1,1-Dichloroethane	8260B	5.5		ug/L	14
010	DUP-001120312	Aqueous	cis-1,2-Dichloroethene	8260B	5.3		ug/L	14
010	DUP-001120312	Aqueous	Vinyl chloride	8260B	37		ug/L	14
011	DUP-002120412	Aqueous	cis-1,2-Dichloroethene	8260B	0.53		ug/L	15

(36 detections)

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **NL06066-001**
Description: **CH2MW4D120412**
Matrix: **Aqueous**
Date Sampled: **12/04/2012 1050**
Date Received: **12/06/2012**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/12/2012 1501	RGB		99479

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **NL06066-002**
Description: **ETCMW115120412**
Matrix: **Aqueous**
Date Sampled: **12/04/2012 1250**
Date Received: **12/06/2012**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/12/2012 1523	RGB		99479

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	**75-34-3**	**8260B**	**3.4**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**42**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**16**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**2.2**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Description: **ETCMW113120512**
Date Sampled: **12/05/2012 0815**
Date Received: **12/06/2012**
Laboratory ID: **NL06066-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/12/2012 1545	RGB		99479

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	**75-34-3**	**8260B**	**9.9**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	**75-35-4**	**8260B**	**3.7**		**0.50**	**ug/L**	**1**
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**150**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**0.98**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**6.6**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **NL06066-004**
Description: **120312ETMW118**
Matrix: **Aqueous**
Date Sampled: **12/03/2012 1600**
Date Received: **12/06/2012**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/12/2012 1607	RGB		99479

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	**75-00-3**	**8260B**	**1.1**		**0.50**	**ug/L**	**1**
1,1-Dichloroethane	**75-34-3**	**8260B**	**5.4**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**5.4**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**37**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **NL06066-005**
Description: **ETMW-117-120412**
Matrix: **Aqueous**
Date Sampled: **12/04/2012 1325**
Date Received: **12/06/2012**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/12/2012 1630	RGB		99479

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	**71-43-2**	**8260B**	**0.65**		**0.50**	**ug/L**	**1**
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	**75-00-3**	**8260B**	**2.0**		**0.50**	**ug/L**	**1**
1,1-Dichloroethane	**75-34-3**	**8260B**	**6.1**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	**75-35-4**	**8260B**	**0.56**		**0.50**	**ug/L**	**1**
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**27**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**42**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Description: **ETMW119120412**
Date Sampled: **12/04/2012 1505**
Date Received: **12/06/2012**

Laboratory ID: **NL06066-006**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/12/2012 1652	RGB		99479

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND	S	0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**0.54**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND	S	0.50	ug/L	1
Toluene	108-88-3	8260B	ND	S	0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND	S	0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND	S	0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND	S	0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND	S	0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **NL06066-007**
Description: **ETCMW-114-120312**
Matrix: **Aqueous**
Date Sampled: **12/03/2012 1445**
Date Received: **12/06/2012**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	12/13/2012 0236	DD		99510

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		100	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	ug/L	1
1,1-Dichloroethane	**75-34-3**	**8260B**	**34**		**5.0**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	ug/L	1
1,1-Dichloroethene	**75-35-4**	**8260B**	**70**		**5.0**	**ug/L**	**1**
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**1300**		**5.0**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		500	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**24**		**5.0**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**450**		**5.0**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **NL06066-008**
Description: **ETMW-120-120312**
Matrix: **Aqueous**
Date Sampled: **12/03/2012 1630**
Date Received: **12/06/2012**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/13/2012 0300	DD		99510

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**1.8**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**0.59**		**0.50**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Laboratory ID: **NL06066-009**
Description: **ETMW-116-120412**
Matrix: **Aqueous**
Date Sampled: **12/04/2012 1130**
Date Received: **12/06/2012**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/13/2012 0322	DD		99510

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	**75-00-3**	**8260B**	**4.5**		**0.50**	**ug/L**	**1**
1,1-Dichloroethane	**75-34-3**	**8260B**	**8.0**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**2.4**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**100**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **NL06066-010**

Description: **DUP-001120312** Matrix: **Aqueous**

Date Sampled: **12/03/2012**

Date Received: **12/06/2012**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/13/2012 0344	DD		99510

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	**75-00-3**	**8260B**	**1.6**		**0.50**	**ug/L**	**1**
1,1-Dichloroethane	**75-34-3**	**8260B**	**5.5**		**0.50**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**5.3**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	**75-01-4**	**8260B**	**37**		**0.50**	**ug/L**	**1**
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere**
Description: **DUP-002120412**
Date Sampled: **12/04/2012 1505**
Date Received: **12/06/2012**
Laboratory ID: **NL06066-011**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/13/2012 0407	DD		99510

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**0.53**		**0.50**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: **O'Brien and Gere** Laboratory ID: **NL06066-012**

Description: **Trip Blank** Matrix: **Aqueous**

Date Sampled: **12/04/2012**

Date Received: **12/06/2012**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/13/2012 0429	DD		99510

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ99479-001
Batch: 99479
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/12/2012 0908
Benzene	ND		1	0.50	ug/L	12/12/2012 0908
2-Butanone (MEK)	ND		1	10	ug/L	12/12/2012 0908
Carbon disulfide	ND		1	0.50	ug/L	12/12/2012 0908
Chloroethane	ND		1	0.50	ug/L	12/12/2012 0908
1,2-Dichloroethane	ND		1	0.50	ug/L	12/12/2012 0908
1,1-Dichloroethane	ND		1	0.50	ug/L	12/12/2012 0908
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/12/2012 0908
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/12/2012 0908
1,1-Dichloroethene	ND		1	0.50	ug/L	12/12/2012 0908
Isobutyl alcohol	ND		1	50	ug/L	12/12/2012 0908
Tetrachloroethene	ND		1	0.50	ug/L	12/12/2012 0908
Toluene	ND		1	0.50	ug/L	12/12/2012 0908
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/12/2012 0908
Trichloroethene	ND		1	0.50	ug/L	12/12/2012 0908
Trichlorofluoromethane	ND		1	0.50	ug/L	12/12/2012 0908
Vinyl chloride	ND		1	0.50	ug/L	12/12/2012 0908
Xylenes (total)	ND		1	0.50	ug/L	12/12/2012 0908

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		94	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		106	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ99479-002
Batch: 99479
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	94		1	94	46-153	12/12/2012 0801
Benzene	50	48		1	96	70-130	12/12/2012 0801
2-Butanone (MEK)	100	110		1	109	60-140	12/12/2012 0801
Carbon disulfide	50	42		1	84	60-140	12/12/2012 0801
Chloroethane	50	50		1	100	42-163	12/12/2012 0801
1,2-Dichloroethane	50	48		1	97	70-130	12/12/2012 0801
1,1-Dichloroethane	50	45		1	89	70-130	12/12/2012 0801
trans-1,2-Dichloroethene	50	46		1	92	70-130	12/12/2012 0801
cis-1,2-Dichloroethene	50	49		1	97	70-130	12/12/2012 0801
1,1-Dichloroethene	50	48		1	97	70-130	12/12/2012 0801
Isobutyl alcohol	500	490		1	99	70-130	12/12/2012 0801
Tetrachloroethene	50	51		1	102	70-130	12/12/2012 0801
Toluene	50	51		1	102	70-130	12/12/2012 0801
1,1,1-Trichloroethane	50	49		1	97	70-130	12/12/2012 0801
Trichloroethene	50	49		1	97	70-130	12/12/2012 0801
Trichlorofluoromethane	50	56		1	112	60-140	12/12/2012 0801
Vinyl chloride	50	52		1	103	60-140	12/12/2012 0801
Xylenes (total)	100	100		1	103	70-130	12/12/2012 0801

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ99479-003
Batch: 99479
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	86		1	86	8.8	46-153	20	12/12/2012 0823
Benzene	50	48		1	96	1.0	70-130	20	12/12/2012 0823
2-Butanone (MEK)	100	110		1	110	0.58	60-140	20	12/12/2012 0823
Carbon disulfide	50	40		1	81	3.9	60-140	20	12/12/2012 0823
Chloroethane	50	48		1	96	3.8	42-163	20	12/12/2012 0823
1,2-Dichloroethane	50	47		1	94	2.7	70-130	20	12/12/2012 0823
1,1-Dichloroethane	50	40		1	80	11	70-130	20	12/12/2012 0823
trans-1,2-Dichloroethene	50	42		1	84	8.5	70-130	20	12/12/2012 0823
cis-1,2-Dichloroethene	50	44		1	89	9.6	70-130	20	12/12/2012 0823
1,1-Dichloroethene	50	45		1	90	7.2	70-130	20	12/12/2012 0823
Isobutyl alcohol	500	540		1	108	8.8	70-130	20	12/12/2012 0823
Tetrachloroethene	50	51		1	103	1.0	70-130	20	12/12/2012 0823
Toluene	50	52		1	105	3.0	70-130	20	12/12/2012 0823
1,1,1-Trichloroethane	50	48		1	95	1.7	70-130	20	12/12/2012 0823
Trichloroethene	50	49		1	97	0.068	70-130	20	12/12/2012 0823
Trichlorofluoromethane	50	54		1	107	4.0	60-140	20	12/12/2012 0823
Vinyl chloride	50	48		1	95	8.1	60-140	20	12/12/2012 0823
Xylenes (total)	100	110		1	105	2.1	70-130	20	12/12/2012 0823

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		106	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: NL06066-006MS
Batch: 99479
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	100	120		1	122	60-140	12/12/2012 1714
Benzene	ND	50	65		1	130	70-130	12/12/2012 1714
2-Butanone (MEK)	ND	100	140		1	137	60-140	12/12/2012 1714
Carbon disulfide	ND	50	59		1	119	60-140	12/12/2012 1714
Chloroethane	ND	50	65		1	131	42-163	12/12/2012 1714
1,1-Dichloroethane	ND	50	60		1	120	70-130	12/12/2012 1714
1,2-Dichloroethane	ND	50	65		1	129	70-130	12/12/2012 1714
1,1-Dichloroethene	ND	50	89	N	1	178	70-130	12/12/2012 1714
cis-1,2-Dichloroethene	0.54	50	66		1	130	70-130	12/12/2012 1714
trans-1,2-Dichloroethene	ND	50	65		1	129	70-130	12/12/2012 1714
Isobutyl alcohol	ND	500	610		1	121	70-130	12/12/2012 1714
Tetrachloroethene	ND	50	72	N	1	144	70-130	12/12/2012 1714
Toluene	ND	50	69	N	1	139	70-130	12/12/2012 1714
1,1,1-Trichloroethane	ND	50	72	N	1	145	70-130	12/12/2012 1714
Trichloroethene	ND	50	68	N	1	137	70-130	12/12/2012 1714
Trichlorofluoromethane	ND	50	79	N	1	158	60-140	12/12/2012 1714
Vinyl chloride	ND	50	63		1	125	60-140	12/12/2012 1714
Xylenes (total)	ND	100	140	N	1	139	70-130	12/12/2012 1714

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: NL06066-006MD
Batch: 99479
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	100	92	+	1	92	28	60-140	20	12/12/2012 1737
Benzene	ND	50	52	+	1	103	23	70-130	20	12/12/2012 1737
2-Butanone (MEK)	ND	100	110	+	1	111	21	60-140	20	12/12/2012 1737
Carbon disulfide	ND	50	42	+	1	84	34	60-140	20	12/12/2012 1737
Chloroethane	ND	50	52	+	1	104	23	42-163	20	12/12/2012 1737
1,1-Dichloroethane	ND	50	46	+	1	92	27	70-130	20	12/12/2012 1737
1,2-Dichloroethane	ND	50	51	+	1	101	24	70-130	20	12/12/2012 1737
1,1-Dichloroethene	ND	50	54	+	1	108	49	70-130	20	12/12/2012 1737
cis-1,2-Dichloroethene	0.54	50	50	+	1	98	28	70-130	20	12/12/2012 1737
trans-1,2-Dichloroethene	ND	50	50	+	1	100	25	70-130	20	12/12/2012 1737
Isobutyl alcohol	ND	500	490	+	1	98	21	70-130	20	12/12/2012 1737
Tetrachloroethene	ND	50	57	+	1	113	24	70-130	20	12/12/2012 1737
Toluene	ND	50	55	+	1	110	23	70-130	20	12/12/2012 1737
1,1,1-Trichloroethane	ND	50	55	+	1	110	27	70-130	20	12/12/2012 1737
Trichloroethene	ND	50	54	+	1	107	24	70-130	20	12/12/2012 1737
Trichlorofluoromethane	ND	50	43	+	1	87	58	60-140	20	12/12/2012 1737
Vinyl chloride	ND	50	51		1	103	20	60-140	20	12/12/2012 1737
Xylenes (total)	ND	100	110	+	1	108	24	70-130	20	12/12/2012 1737

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ99510-001
Batch: 99510
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/12/2012 2237
Benzene	ND		1	0.50	ug/L	12/12/2012 2237
2-Butanone (MEK)	ND		1	10	ug/L	12/12/2012 2237
Carbon disulfide	ND		1	0.50	ug/L	12/12/2012 2237
Chloroethane	ND		1	0.50	ug/L	12/12/2012 2237
1,1-Dichloroethane	ND		1	0.50	ug/L	12/12/2012 2237
1,2-Dichloroethane	ND		1	0.50	ug/L	12/12/2012 2237
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/12/2012 2237
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/12/2012 2237
1,1-Dichloroethene	ND		1	0.50	ug/L	12/12/2012 2237
Isobutyl alcohol	ND		1	50	ug/L	12/12/2012 2237
Tetrachloroethene	ND		1	0.50	ug/L	12/12/2012 2237
Toluene	ND		1	0.50	ug/L	12/12/2012 2237
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/12/2012 2237
Trichloroethene	ND		1	0.50	ug/L	12/12/2012 2237
Trichlorofluoromethane	ND		1	0.50	ug/L	12/12/2012 2237
Vinyl chloride	ND		1	0.50	ug/L	12/12/2012 2237
Xylenes (total)	ND		1	0.50	ug/L	12/12/2012 2237

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ99510-002
Batch: 99510
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	108	46-153	12/12/2012 2131
Benzene	50	49		1	97	70-130	12/12/2012 2131
2-Butanone (MEK)	100	110		1	114	60-140	12/12/2012 2131
Carbon disulfide	50	43		1	86	60-140	12/12/2012 2131
Chloroethane	50	48		1	96	42-163	12/12/2012 2131
1,1-Dichloroethane	50	42		1	85	70-130	12/12/2012 2131
1,2-Dichloroethane	50	49		1	98	70-130	12/12/2012 2131
trans-1,2-Dichloroethene	50	43		1	87	70-130	12/12/2012 2131
cis-1,2-Dichloroethene	50	48		1	95	70-130	12/12/2012 2131
1,1-Dichloroethene	50	49		1	99	70-130	12/12/2012 2131
Isobutyl alcohol	500	570		1	115	70-130	12/12/2012 2131
Tetrachloroethene	50	53		1	106	70-130	12/12/2012 2131
Toluene	50	53		1	105	70-130	12/12/2012 2131
1,1,1-Trichloroethane	50	48		1	97	70-130	12/12/2012 2131
Trichloroethene	50	50		1	100	70-130	12/12/2012 2131
Trichlorofluoromethane	50	53		1	105	60-140	12/12/2012 2131
Vinyl chloride	50	46		1	93	60-140	12/12/2012 2131
Xylenes (total)	100	110		1	105	70-130	12/12/2012 2131

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ99510-003
Batch: 99510
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	100		1	103	4.3	46-153	20	12/12/2012 2153
Benzene	50	49		1	98	0.30	70-130	20	12/12/2012 2153
2-Butanone (MEK)	100	110		1	109	3.8	60-140	20	12/12/2012 2153
Carbon disulfide	50	46		1	92	6.0	60-140	20	12/12/2012 2153
Chloroethane	50	45		1	90	6.9	42-163	20	12/12/2012 2153
1,1-Dichloroethane	50	51		1	101	17	70-130	20	12/12/2012 2153
1,2-Dichloroethane	50	48		1	97	1.6	70-130	20	12/12/2012 2153
trans-1,2-Dichloroethene	50	48		1	97	11	70-130	20	12/12/2012 2153
cis-1,2-Dichloroethene	50	48		1	96	1.4	70-130	20	12/12/2012 2153
1,1-Dichloroethene	50	55		1	110	11	70-130	20	12/12/2012 2153
Isobutyl alcohol	500	470		1	93	20	70-130	20	12/12/2012 2153
Tetrachloroethene	50	52		1	104	2.4	70-130	20	12/12/2012 2153
Toluene	50	51		1	101	3.7	70-130	20	12/12/2012 2153
1,1,1-Trichloroethane	50	51		1	101	4.5	70-130	20	12/12/2012 2153
Trichloroethene	50	49		1	99	0.58	70-130	20	12/12/2012 2153
Trichlorofluoromethane	50	55		1	111	5.4	60-140	20	12/12/2012 2153
Vinyl chloride	50	48		1	95	2.6	60-140	20	12/12/2012 2153
Xylenes (total)	100	100		1	104	1.7	70-130	20	12/12/2012 2153

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: NL06066-007MS
Batch: 99510
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	1000	1000		10	104	60-140	12/13/2012 0705
Benzene	ND	500	520		10	104	70-130	12/13/2012 0705
2-Butanone (MEK)	ND	1000	1200		10	121	60-140	12/13/2012 0705
Carbon disulfide	ND	500	470		10	93	60-140	12/13/2012 0705
Chloroethane	ND	500	560		10	111	42-163	12/13/2012 0705
1,1-Dichloroethane	34	500	550		10	103	70-130	12/13/2012 0705
1,2-Dichloroethane	ND	500	510		10	102	70-130	12/13/2012 0705
1,1-Dichloroethene	70	500	650		10	117	70-130	12/13/2012 0705
cis-1,2-Dichloroethene	1300	500	1700		10	77	70-130	12/13/2012 0705
trans-1,2-Dichloroethene	ND	500	480		10	95	70-130	12/13/2012 0705
Isobutyl alcohol	ND	5000	5100		10	102	70-130	12/13/2012 0705
Tetrachloroethene	24	500	590		10	113	70-130	12/13/2012 0705
Toluene	ND	500	560		10	112	70-130	12/13/2012 0705
1,1,1-Trichloroethane	ND	500	550		10	111	70-130	12/13/2012 0705
Trichloroethene	450	500	930		10	96	70-130	12/13/2012 0705
Trichlorofluoromethane	ND	500	450		10	90	60-140	12/13/2012 0705
Vinyl chloride	ND	500	490		10	98	60-140	12/13/2012 0705
Xylenes (total)	ND	1000	1100		10	110	70-130	12/13/2012 0705

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

SHEALY

Chain of Custody Record

Number 34193

Client	Report to Contact	Sampler (Printed Name)	Quote No.
O'Brien & Gere	Sarah Slagle-Barrett	Nicole Weaver	
Address	**Telephone No. / Fax No. / Email**	**Waybill No.**	**Page**
2610 Wycliff Rd	919-783-7777		1 of 2
City / State / Zip Code	**Preservative**		
Raleigh NC 27607	1. Unpres. 4. HNO3 7. NaOH; 2. NaOH/ZnA 5. HCL; 3. H2SO4 6. Na Thio.		
Project Name			
Miller Moultrie			
Project Number	**P.O Number**		
49923			

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: VOC	Number of Containers	Bottle (See Instructions on back)	Preservative	Lot No.	Remarks / Cooler ID
CH2MW4D120412	12/04/12	10:50	G	X					3				NL06066	
ETCMW115120412	12/04/12	12:50	G	X					3					
ETCMW115120512	12/05/12	08:15	G	X					3					
120312 ETMW118	12/03/12	16:00	G	X					3					
ETMW-117_120412	12/04/12	13:25	G	X					3					
ETMW119120412	12/04/12	15:05	G	X					3					
ETCMW-114_120312	12/03/12	14:45	G	X					3					
ETMW-120-120312	12/03/12	16:30	G	X					3					
ETMW-116-120412	12/04/12	11:30	G	X					3					
DUP-001120312	12/03/12		G	X					3					

Turn Around Time Required (Prior lab approval required for expedited TAT): ☒ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler: Nicole Weaver	12/05/12	09:30	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by: FedEx	12/6/12	1040	4. Laboratory Received by	12/6/12	1040

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Check) ☒ Yes ☐ No ☐ Ice Pack; Receipt Temp. 1.0 °C; Temp. Blank ☐ Y / ☐ N

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Level 1 Report v2.1

SHEALY ENVIRONMENTAL SERVICES, INC.

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West Columbia, South Carolina 29172
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SHEALY

Chain of Custody Record

Number 34194

Client: O'Brien & Gere	Report to Contact: Sarah Siegel-Garriet	Sampler (Printed Name): Nicole Weaver	Quote No.
Address: 2610 Wycliff Rd	Telephone No. / Fax No. / Email: 919-783-7777	Waybill No.	Page: 2 of 2
City: Raleigh State: NC Zip Code: 27607	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H_2SO_4 4. HNO_3 5. HCL 6. Na Thio. 7. NaOH		Number of Containers / Bottle (See Instructions on back) / Preservative
Project Name: Miller Moultrie			Lot No.: NL06066
Project Number: 49923	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: VOC	Remarks / Cooler ID
DUP-002 120412	12/04/12	1505	G	X					3	
ETMW119120412-MS	12/04/12	1505	G	X					3	
ETMW119120412-MSD	12/04/12	1505	G	X					3	

Turn Around Time Required (Prior lab approval required for expedited TAT): [X] Standard [ ] Rush (Please Specify)

Sample Disposal: [ ] Return to Client [ ] Disposal by Lab

QC Requirements (Specify):

Possible Hazard Identification: [ ] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison [ ] Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler: Nicole Weaver	12/05/12	09:30	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by: FedEx	12/6/12	1040	4. Laboratory Received by	12/6/12	1040

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) [X] Yes [ ] No [ ] Ice Pack
Receipt Temp. 1.0 °C
Temp. Blank [X] Y / [ ] N

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc. 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 9

Page 1 of 1
Replaces Date: 05/06/11
Effective Date: 10/11/11

Sample Receipt Checklist (SRC)

Client: O'Brien + Gere Cooler Inspected by/date: [illegible] 12/6/11 Lot #: NL-06664

Means of receipt: ☒ SESI ☐ Client ☐ UPS ☒ FedEx ☐ Airborne Exp ☐ Other			
Yes ☒	No ☐		1. Were custody seals present on the cooler?
Yes ☒	No ☐		2. If custody seals were present, were they intact and unbroken?
Cooler ID/temperature upon receipt 1.0 °C / °C / °C / °C Method: ☒ Temperature Blank ☐ Against Bottles Method of coolant: ☒ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None			
If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.			
Yes ☐	No ☐	NA ☒	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☒	No ☐	NA ☒	4. Is the commercial courier's packing slip attached to this form?
Yes ☒	No ☒		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☒	NA ☐	5a Were samples relinquished by client to commercial courier?
Yes ☒	No ☐		6. Were sample IDs listed?
Yes ☒	No ☐		7. Was collection date & time listed?
Yes ☒	No ☐		8. Were tests to be performed listed on the COC?
Yes ☒	No ☐		9. Did all samples arrive in the proper containers for each test?
Yes ☒	No ☐		10. Did all container label information (ID, date, time) agree with COC?
Yes ☒	No ☐		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☒	No ☐		12. Was adequate sample volume available?
Yes ☐	No ☒		13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☒		14. Were any samples containers missing?
Yes ☒	No ☒	[illegible] 12/6/11	15. Were there any excess samples not listed on COC? TRIP BLANK(2)
Yes ☐	No ☒	NA ☐	16. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☒	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☒	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☒	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☒	NA ☐	20. Were collection temperatures documented on the COC for NC samples?
Yes ☒	No ☐	NA ☐	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H2SO4, HNO3, HCl, NaOH) with the SR # (number) _____.

Sample(s) _____ were r

Sample(s) _____ v

TKN/cyanide/BNA/pest/PCB/herb.

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐

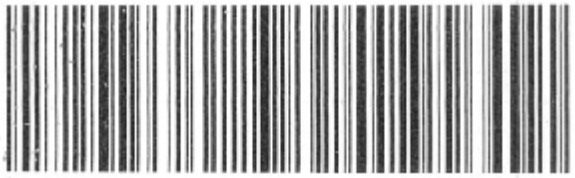
SESI employee: _____

Comments: _____

FedEx TRK# 0200 8015 6020 7692

THU - 06 DEC A1
PRIORITY OVERNIGHT
DSR
29172
SC-US
CAE

28 USCA



Report of Analysis

O'Brien and Gere
2610 Wycliff Road
Suite 104
Raleigh, NC 27607
Attention: Michael Hall

Project Name: Miller Moultrie

Project Number: 49923.001.001

Lot Number: NL11009

Date Completed: 12/21/2012



Nisreen Saikaly
Project Manager

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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

NL11009

Case Narrative
O'Brien and Gere
Lot Number: NL11009

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Volatile Organic Compounds

Surrogate recovery for samples -001 and -002 is higher than the recovery limits. No sample was left for analysis

Sample Summary
O'Brien and Gere
Lot Number: NL11009

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	CH2MW-1-120512	Aqueous	12/10/2012 1500	12/11/2012
002	ETMW-121-120512	Aqueous	12/10/2012 1340	12/11/2012
003	CH2PP1120512	Aqueous	12/10/2012 1310	12/11/2012
004	CH2MW-114D-120512	Aqueous	12/10/2012 1400	12/11/2012
005	CH2MW3120512	Aqueous	12/10/2012 1430	12/11/2012
006	Trip Blank	Aqueous	12/10/2012 1430	12/11/2012

(6 samples)

Executive Summary
O'Brien and Gere
Lot Number: NL11009

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	CH2MW-1-120512	Aqueous	Trichloroethene	8260B	0.98	Q	ug/L	5
002	ETMW-121-120512	Aqueous	cis-1,2-Dichloroethene	8260B	0.96	Q	ug/L	6
004	CH2MW-114D-120512	Aqueous	Acetone	8260B	340		ug/L	8
004	CH2MW-114D-120512	Aqueous	1,1-Dichloroethene	8260B	13		ug/L	8
004	CH2MW-114D-120512	Aqueous	cis-1,2-Dichloroethene	8260B	400		ug/L	8
004	CH2MW-114D-120512	Aqueous	Trichloroethene	8260B	7.9		ug/L	8

(6 detections)

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: CH2MW-1-120512
Date Sampled: 12/10/2012 1500
Date Received: 12/11/2012

Laboratory ID: NL11009-001
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/18/2012 1601	AWM		99922

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND	Q	10	ug/L	1
Benzene	71-43-2	8260B	ND	Q	0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND	Q	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND	Q	0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND	Q	0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND	Q	0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND	Q	0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND	Q	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND	Q	0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND	Q	0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND	Q	50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND	Q	0.50	ug/L	1
Toluene	108-88-3	8260B	ND	Q	0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND	Q	0.50	ug/L	1
Trichloroethene	79-01-6	8260B	0.98	Q	0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND	Q	0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND	Q	0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND	Q	0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4	N	132	70-130
Bromofluorobenzene		113	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: ETMW-121-120512
Date Sampled: 12/10/2012 1340
Date Received: 12/11/2012

Laboratory ID: NL11009-002
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/18/2012 1624	AWM		99922

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND	Q	10	ug/L	1
Benzene	71-43-2	8260B	ND	Q	0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND	Q	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND	Q	0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND	Q	0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND	Q	0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND	Q	0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND	Q	0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.96	Q	0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND	Q	0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND	Q	50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND	Q	0.50	ug/L	1
Toluene	108-88-3	8260B	ND	Q	0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND	Q	0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND	Q	0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND	Q	0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND	Q	0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND	Q	0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4	N	134	70-130
Bromofluorobenzene		113	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: CH2PP1120512
Date Sampled: 12/10/2012 1310
Date Received: 12/11/2012

Laboratory ID: NL11009-003
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/18/2012 1744	AWM		99938

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Laboratory ID: NL11009-004
Description: CH2MW-114D-120512
Matrix: Aqueous
Date Sampled: 12/10/2012 1400
Date Received: 12/11/2012

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	12/19/2012 0018	AWM		99938

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	340		100	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	13		5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	400		5.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		500	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	ug/L	1
Trichloroethene	79-01-6	8260B	7.9		5.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: CH2MW3120512
Date Sampled: 12/10/2012 1430
Date Received: 12/11/2012

Laboratory ID: NL11009-005
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/18/2012 1808	AWM		99938

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		97	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

Volatile Organic Compounds by GC/MS

Client: O'Brien and Gere
Description: Trip Blank
Date Sampled: 12/10/2012 1430
Date Received: 12/11/2012

Laboratory ID: NL11009-006
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/18/2012 1831	AWM		99938

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
Isobutyl alcohol	78-83-1	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		97	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)
S = MS/MSD failure

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ99922-001
Batch: 99922
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/18/2012 0846
Benzene	ND		1	0.50	ug/L	12/18/2012 0846
2-Butanone (MEK)	ND		1	10	ug/L	12/18/2012 0846
Carbon disulfide	ND		1	0.50	ug/L	12/18/2012 0846
Chloroethane	ND		1	0.50	ug/L	12/18/2012 0846
1,1-Dichloroethane	ND		1	0.50	ug/L	12/18/2012 0846
1,2-Dichloroethane	ND		1	0.50	ug/L	12/18/2012 0846
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/18/2012 0846
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/18/2012 0846
1,1-Dichloroethene	ND		1	0.50	ug/L	12/18/2012 0846
Isobutyl alcohol	ND		1	50	ug/L	12/18/2012 0846
Tetrachloroethene	ND		1	0.50	ug/L	12/18/2012 0846
Toluene	ND		1	0.50	ug/L	12/18/2012 0846
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/18/2012 0846
Trichloroethene	ND		1	0.50	ug/L	12/18/2012 0846
Trichlorofluoromethane	ND		1	0.50	ug/L	12/18/2012 0846
Vinyl chloride	ND		1	0.50	ug/L	12/18/2012 0846
Xylenes (total)	ND		1	0.50	ug/L	12/18/2012 0846

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		109	70-130
1,2-Dichloroethane-d4		117	70-130
Toluene-d8		106	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ99922-002
Batch: 99922
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	89		1	89	46-153	12/18/2012 0733
Benzene	50	44		1	88	70-130	12/18/2012 0733
2-Butanone (MEK)	100	83		1	83	60-140	12/18/2012 0733
Carbon disulfide	50	41		1	82	60-140	12/18/2012 0733
Chloroethane	50	41		1	82	42-163	12/18/2012 0733
1,1-Dichloroethane	50	43		1	85	70-130	12/18/2012 0733
1,2-Dichloroethane	50	55		1	109	70-130	12/18/2012 0733
cis-1,2-Dichloroethene	50	45		1	90	70-130	12/18/2012 0733
trans-1,2-Dichloroethene	50	42		1	84	70-130	12/18/2012 0733
1,1-Dichloroethene	50	39		1	77	70-130	12/18/2012 0733
Isobutyl alcohol	500	420		1	84	70-130	12/18/2012 0733
Tetrachloroethene	50	47		1	93	70-130	12/18/2012 0733
Toluene	50	49		1	98	70-130	12/18/2012 0733
1,1,1-Trichloroethane	50	49		1	98	70-130	12/18/2012 0733
Trichloroethene	50	45		1	91	70-130	12/18/2012 0733
Trichlorofluoromethane	50	51		1	101	60-140	12/18/2012 0733
Vinyl chloride	50	42		1	83	60-140	12/18/2012 0733
Xylenes (total)	100	99		1	99	70-130	12/18/2012 0733

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		117	70-130
Toluene-d8		108	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ99922-003
Batch: 99922
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	89		1	89	0.090	46-153	20	12/18/2012 0756
Benzene	50	46		1	92	4.2	70-130	20	12/18/2012 0756
2-Butanone (MEK)	100	78		1	78	6.2	60-140	20	12/18/2012 0756
Carbon disulfide	50	47		1	94	13	60-140	20	12/18/2012 0756
Chloroethane	50	44		1	89	7.4	42-163	20	12/18/2012 0756
1,1-Dichloroethane	50	45		1	90	5.8	70-130	20	12/18/2012 0756
1,2-Dichloroethane	50	54		1	108	1.1	70-130	20	12/18/2012 0756
cis-1,2-Dichloroethene	50	48		1	96	5.9	70-130	20	12/18/2012 0756
trans-1,2-Dichloroethene	50	45		1	90	6.3	70-130	20	12/18/2012 0756
1,1-Dichloroethene	50	41		1	82	6.2	70-130	20	12/18/2012 0756
Isobutyl alcohol	500	400		1	79	5.4	70-130	20	12/18/2012 0756
Tetrachloroethene	50	48		1	97	3.4	70-130	20	12/18/2012 0756
Toluene	50	50		1	100	1.2	70-130	20	12/18/2012 0756
1,1,1-Trichloroethane	50	52		1	104	5.6	70-130	20	12/18/2012 0756
Trichloroethene	50	47		1	94	3.0	70-130	20	12/18/2012 0756
Trichlorofluoromethane	50	54		1	108	6.7	60-140	20	12/18/2012 0756
Vinyl chloride	50	45		1	91	8.5	60-140	20	12/18/2012 0756
Xylenes (total)	100	100		1	101	2.0	70-130	20	12/18/2012 0756

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		114	70-130
Toluene-d8		106	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ99938-001
Batch: 99938
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	12/18/2012 1549
Benzene	ND		1	0.50	ug/L	12/18/2012 1549
2-Butanone (MEK)	ND		1	10	ug/L	12/18/2012 1549
Carbon disulfide	ND		1	0.50	ug/L	12/18/2012 1549
Chloroethane	ND		1	0.50	ug/L	12/18/2012 1549
1,2-Dichloroethane	ND		1	0.50	ug/L	12/18/2012 1549
1,1-Dichloroethane	ND		1	0.50	ug/L	12/18/2012 1549
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	12/18/2012 1549
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	12/18/2012 1549
1,1-Dichloroethene	ND		1	0.50	ug/L	12/18/2012 1549
Isobutyl alcohol	ND		1	50	ug/L	12/18/2012 1549
Tetrachloroethene	ND		1	0.50	ug/L	12/18/2012 1549
Toluene	ND		1	0.50	ug/L	12/18/2012 1549
1,1,1-Trichloroethane	ND		1	0.50	ug/L	12/18/2012 1549
Trichloroethene	ND		1	0.50	ug/L	12/18/2012 1549
Trichlorofluoromethane	ND		1	0.50	ug/L	12/18/2012 1549
Vinyl chloride	ND		1	0.50	ug/L	12/18/2012 1549
Xylenes (total)	ND		1	0.50	ug/L	12/18/2012 1549

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ99938-002
Batch: 99938
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	110	46-153	12/18/2012 1439
Benzene	50	46		1	92	70-130	12/18/2012 1439
2-Butanone (MEK)	100	110		1	107	60-140	12/18/2012 1439
Carbon disulfide	50	49		1	98	60-140	12/18/2012 1439
Chloroethane	50	50		1	100	42-163	12/18/2012 1439
1,2-Dichloroethane	50	48		1	96	70-130	12/18/2012 1439
1,1-Dichloroethane	50	47		1	93	70-130	12/18/2012 1439
trans-1,2-Dichloroethene	50	44		1	88	70-130	12/18/2012 1439
cis-1,2-Dichloroethene	50	46		1	93	70-130	12/18/2012 1439
1,1-Dichloroethene	50	45		1	90	70-130	12/18/2012 1439
Isobutyl alcohol	500	600		1	119	70-130	12/18/2012 1439
Tetrachloroethene	50	53		1	106	70-130	12/18/2012 1439
Toluene	50	50		1	101	70-130	12/18/2012 1439
1,1,1-Trichloroethane	50	48		1	95	70-130	12/18/2012 1439
Trichloroethene	50	48		1	96	70-130	12/18/2012 1439
Trichlorofluoromethane	50	50		1	101	60-140	12/18/2012 1439
Vinyl chloride	50	50		1	99	60-140	12/18/2012 1439
Xylenes (total)	100	110		1	106	70-130	12/18/2012 1439

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ99938-003
Batch: 99938
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	110		1	113	3.4	46-153	20	12/18/2012 1502
Benzene	50	47		1	94	1.8	70-130	20	12/18/2012 1502
2-Butanone (MEK)	100	100		1	105	1.8	60-140	20	12/18/2012 1502
Carbon disulfide	50	49		1	98	0.58	60-140	20	12/18/2012 1502
Chloroethane	50	49		1	99	0.65	42-163	20	12/18/2012 1502
1,2-Dichloroethane	50	48		1	95	1.3	70-130	20	12/18/2012 1502
1,1-Dichloroethane	50	46		1	93	0.38	70-130	20	12/18/2012 1502
trans-1,2-Dichloroethene	50	45		1	89	0.86	70-130	20	12/18/2012 1502
cis-1,2-Dichloroethene	50	47		1	93	0.45	70-130	20	12/18/2012 1502
1,1-Dichloroethene	50	45		1	90	0.20	70-130	20	12/18/2012 1502
Isobutyl alcohol	500	590		1	119	0.47	70-130	20	12/18/2012 1502
Tetrachloroethene	50	53		1	107	0.82	70-130	20	12/18/2012 1502
Toluene	50	50		1	100	0.91	70-130	20	12/18/2012 1502
1,1,1-Trichloroethane	50	46		1	92	3.0	70-130	20	12/18/2012 1502
Trichloroethene	50	48		1	97	0.13	70-130	20	12/18/2012 1502
Trichlorofluoromethane	50	49		1	97	3.2	60-140	20	12/18/2012 1502
Vinyl chloride	50	48		1	96	3.5	60-140	20	12/18/2012 1502
Xylenes (total)	100	110		1	108	2.2	70-130	20	12/18/2012 1502

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		106	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: NL11009-004DU
Batch: 99938
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Result (ug/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Acetone	340	360		10	6.1	20	12/19/2012 0041
Benzene	ND	ND		10	0.00	20	12/19/2012 0041
2-Butanone (MEK)	ND	ND		10	9.7	20	12/19/2012 0041
Carbon disulfide	ND	ND		10	0.00	20	12/19/2012 0041
Chloroethane	ND	ND		10	0.00	20	12/19/2012 0041
1,1-Dichloroethane	ND	ND		10	0.00	20	12/19/2012 0041
1,2-Dichloroethane	ND	ND		10	0.00	20	12/19/2012 0041
1,1-Dichloroethene	13	12		10	4.1	20	12/19/2012 0041
cis-1,2-Dichloroethene	400	400		10	2.3	20	12/19/2012 0041
trans-1,2-Dichloroethene	ND	ND		10	0.00	20	12/19/2012 0041
Isobutyl alcohol	ND	ND		10	0.00	20	12/19/2012 0041
Tetrachloroethene	ND	ND		10	0.00	20	12/19/2012 0041
Toluene	ND	ND		10	0.00	20	12/19/2012 0041
1,1,1-Trichloroethane	ND	ND		10	0.00	20	12/19/2012 0041
Trichloroethene	7.9	7.3		10	7.0	20	12/19/2012 0041
Trichlorofluoromethane	ND	ND		10	0.00	20	12/19/2012 0041
Vinyl chloride	ND	ND		10	0.00	20	12/19/2012 0041
Xylenes (total)	ND	ND		10	0.00	20	12/19/2012 0041

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		115	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: NL11009-004MS
Batch: 99938
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	340	1000	1300		10	98	60-140	12/19/2012 0104
Benzene	ND	500	470		10	94	70-130	12/19/2012 0104
2-Butanone (MEK)	ND	1000	1100		10	98	60-140	12/19/2012 0104
Carbon disulfide	ND	500	490		10	98	60-140	12/19/2012 0104
Chloroethane	ND	500	480		10	97	42-163	12/19/2012 0104
1,1-Dichloroethane	ND	500	480		10	97	70-130	12/19/2012 0104
1,2-Dichloroethane	ND	500	540		10	107	70-130	12/19/2012 0104
1,1-Dichloroethene	13	500	460		10	89	70-130	12/19/2012 0104
cis-1,2-Dichloroethene	400	500	860		10	90	70-130	12/19/2012 0104
trans-1,2-Dichloroethene	ND	500	450		10	90	70-130	12/19/2012 0104
Isobutyl alcohol	ND	5000	4700		10	94	70-130	12/19/2012 0104
Tetrachloroethene	ND	500	540		10	109	70-130	12/19/2012 0104
Toluene	ND	500	510		10	102	70-130	12/19/2012 0104
1,1,1-Trichloroethane	ND	500	540		10	107	70-130	12/19/2012 0104
Trichloroethene	7.9	500	510		10	101	70-130	12/19/2012 0104
Trichlorofluoromethane	ND	500	550		10	110	60-140	12/19/2012 0104
Vinyl chloride	ND	500	480		10	97	60-140	12/19/2012 0104
Xylenes (total)	ND	1000	1100		10	107	70-130	12/19/2012 0104

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		113	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
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SHEALY

Chain of Custody Record

Number 34196

Client: O'Brien & Gere	Report to Contact: Sarah Slagle Garret	Sampler (Printed Name): Nicole Weaver	Quote No.
Address: 2610 Wycliff Rd	Telephone No. / Fax No. / Email	Waybill No.	Page 1 of 1
City: Raleigh State: NC Zip Code: 27607	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		Number of Containers / Bottle (See instructions on back) / Preservative
Project Name: Miller Moultrie			Lot No. NL 11109
Project Number: 49923.001.001	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: VOC	Remarks / Cooler ID
CH2MW-1_120512	12/10/12	1500	G	X					3	
ETMW-121-120512	12/10/12	13:40	G	X					3	
CH2RP1120512	12/10/12	13:10	G	X					3	
CH2MW-114D-120512	12/10/12	14:00	G	X					3	
CH2MW3120512	12/10/12	14:30	G	X					3	

Turn Around Time Required (Prior lab approval required for expedited TAT): [X] Standard [ ] Rush (Please Specify)

Sample Disposal: [ ] Return to Client [X] Disposal by Lab

QC Requirements (Specify):

Possible Hazard Identification: [ ] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison [ ] Unknown

	Date	Time
1. Relinquished by / Sampler: Nicole Weaver	12/10/12	17:00
2. Relinquished by		
3. Relinquished by		
4. Relinquished by: Fedex	12/11/12	0910

	Date	Time
1. Received by		
2. Received by		
3. Received by		
4. Laboratory Received by	12/11/12	0910

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) [ ] Yes [X] No [ ] Ice Pack
Receipt Temp. 1-0 °C
Temp. Blank [X] Y / [ ] N

Level 1 Report v2.1

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 9

Page 1 of 1
Replaces Date: 05/06/11
Effective Date: 10/11/11

Sample Receipt Checklist (SRC)

Client: O'Brien Gere Cooler Inspected by/date: EEC 12/11/12 Lot #: NL11009

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Airborne Exp ☐ Other			
Yes ☑	No ☐		1. Were custody seals present on the cooler?
Yes ☑	No ☐		2. If custody seals were present, were they intact and unbroken?
Cooler ID/temperature upon receipt 1 / 0.0 °C / °C / °C / °C			
Method: ☐ Temperature Blank ☑ Against Bottles			
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None			
If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.			
Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other._____. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☑	No ☐	NA ☐	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☑	NA ☐	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed?
Yes ☑	No ☐		7. Was collection date & time listed?
Yes ☑	No ☐		8. Were tests to be performed listed on the COC?
Yes ☑	No ☐		9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		12. Was adequate sample volume available?
Yes ☑	No ☐		13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		14. Were any samples containers missing?
Yes ☑	No ☑	12/11/12	15. Were there any excess samples not listed on COC? TB, P Blank
Yes ☐	No ☑	NA ☐	16. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s)_____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number)

Sample(s)_____ were received with bubbles >6 mm in diameter.

Sample(s)_____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb.

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐ Did client respond: Yes ☐ No ☐

SESI employee: _____ Date of response: _____

Comments: _____

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 9

Page 1 of 1
Replaces Date: 05/06/11
Effective Date: 10/11/11

Sample Receipt Checklist (SRC)

Client: O'Brien Gere Cooler Inspected by/date: ECC 12/11/12 Lot #: NL 11809

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Airborne Exp ☐ Other

Yes ☑	No ☐		1. Were custody seals present on the cooler?
Yes ☑	No ☐		2. If custody seals were present, were they intact and unbroken?

Cooler ID/temperature upon receipt 1 - 0.1 °C / °C / °C / °C
Method: ☐ Temperature Blank ☑ Against Bottles
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC: phone, note (circle one), other: _____. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☑	No ☐	NA ☐	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☑	NA ☐	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed?
Yes ☑	No ☐		7. Was collection date & time listed?
Yes ☑	No ☐		8. Were tests to be performed listed on the COC?
Yes ☑	No ☐		9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		12. Was adequate sample volume available?
Yes ☑	No ☐		13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		14. Were any samples containers missing?
Yes ☑	No ☒		15. Were there any excess samples not listed on COC? Trip Blank
Yes ☑	No ☒	NA ☐	16. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number)

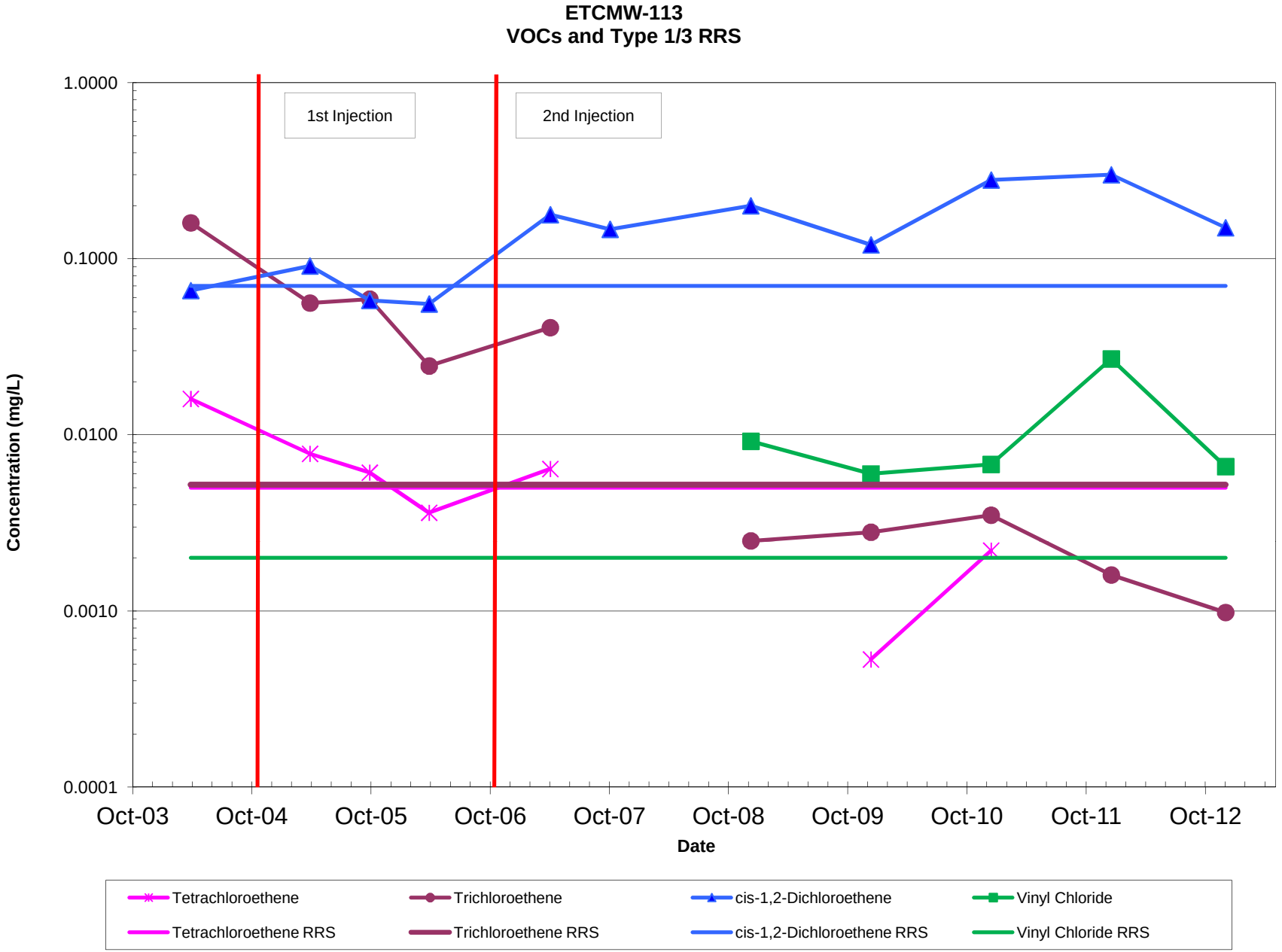
Sample(s) 006 TB (2) were received with bubbles >6 mm in diameter.

Sample(s) _____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb.

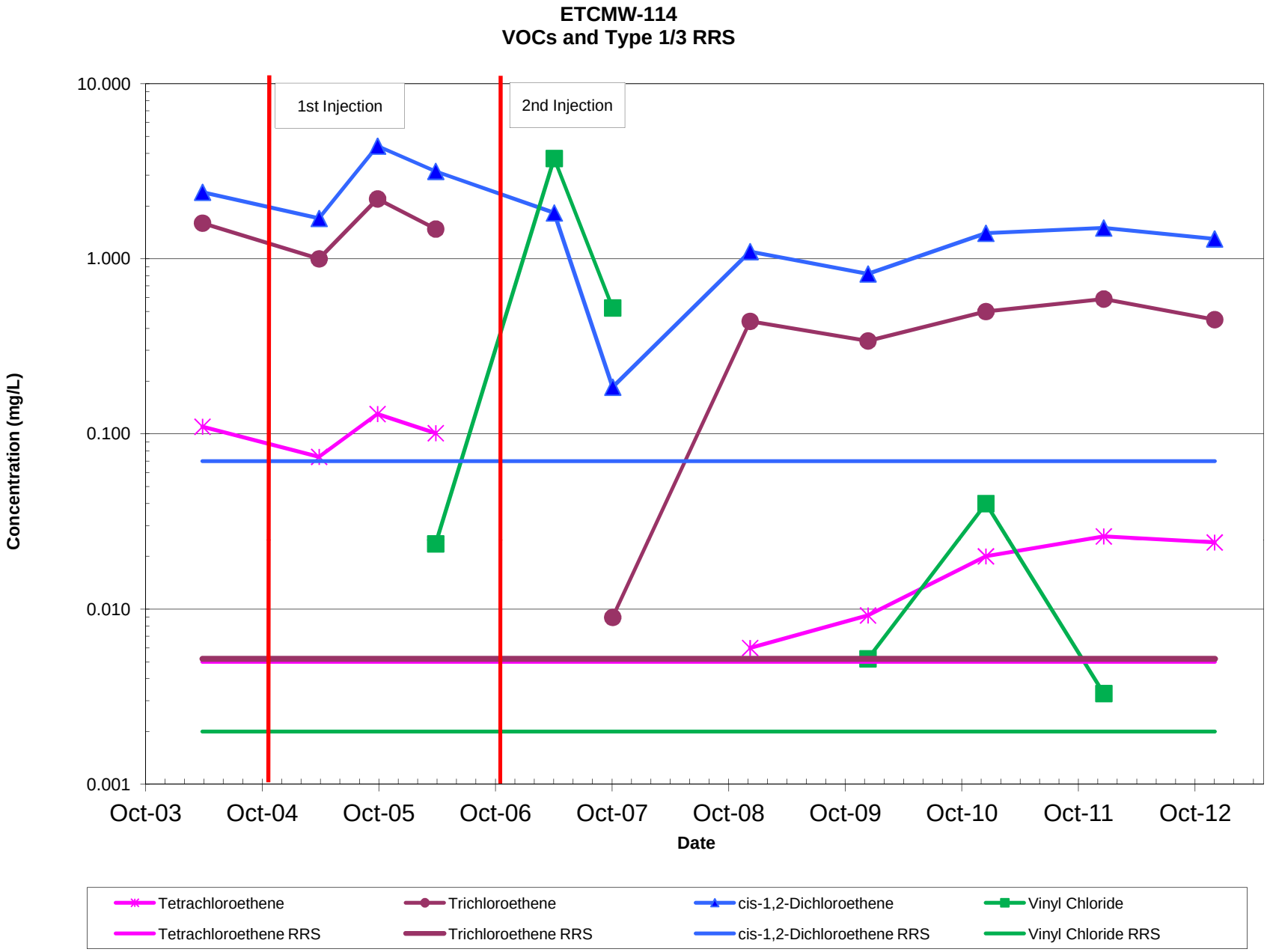
Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐ Did client respond: Yes ☐ No ☐
SESI employee: _____ Date of response: _____
Comments: _____

Trend Graphs for Volatile Organic Constituents



Note: Gaps in data indicate constituent was below detectable limits



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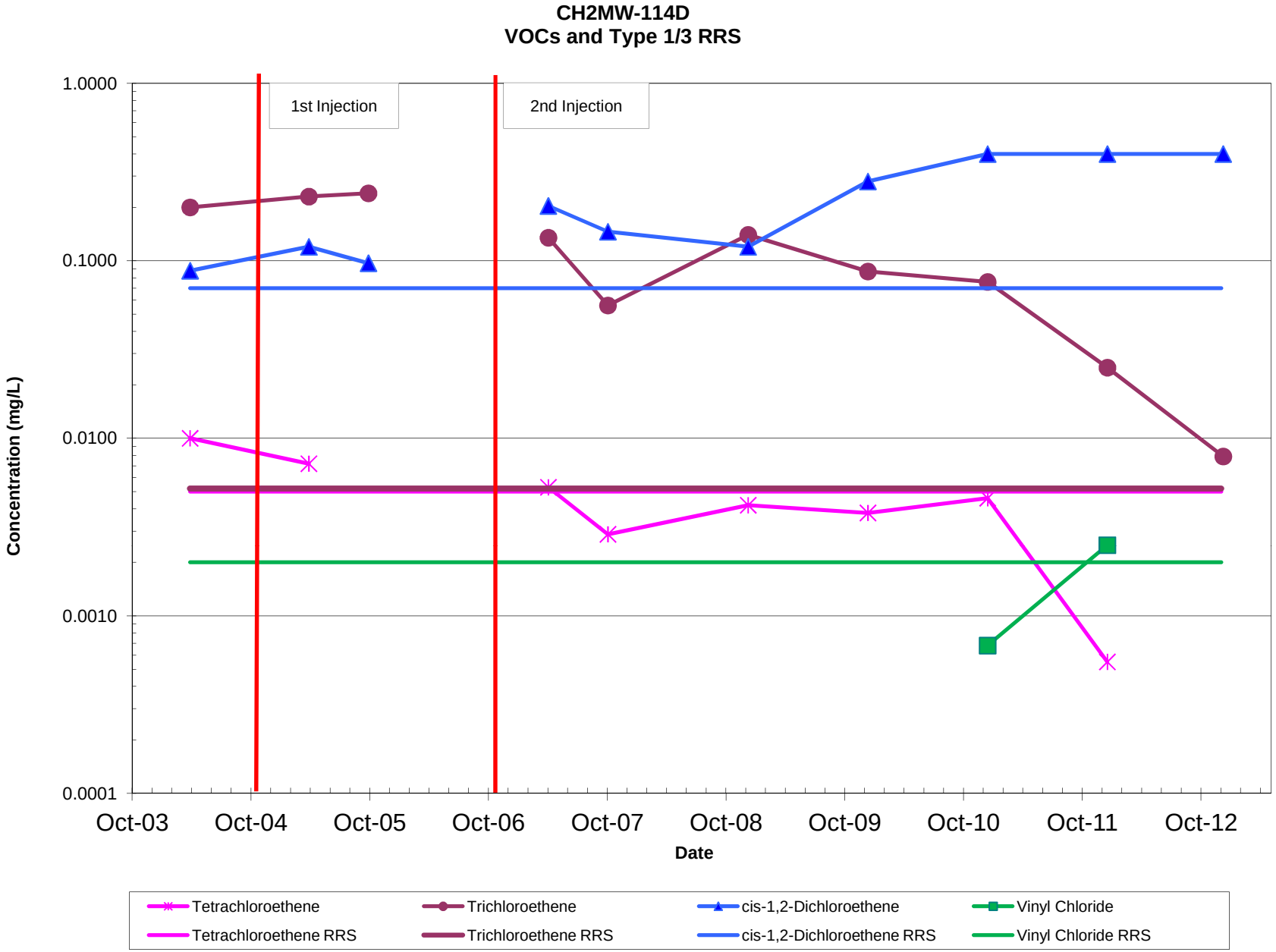
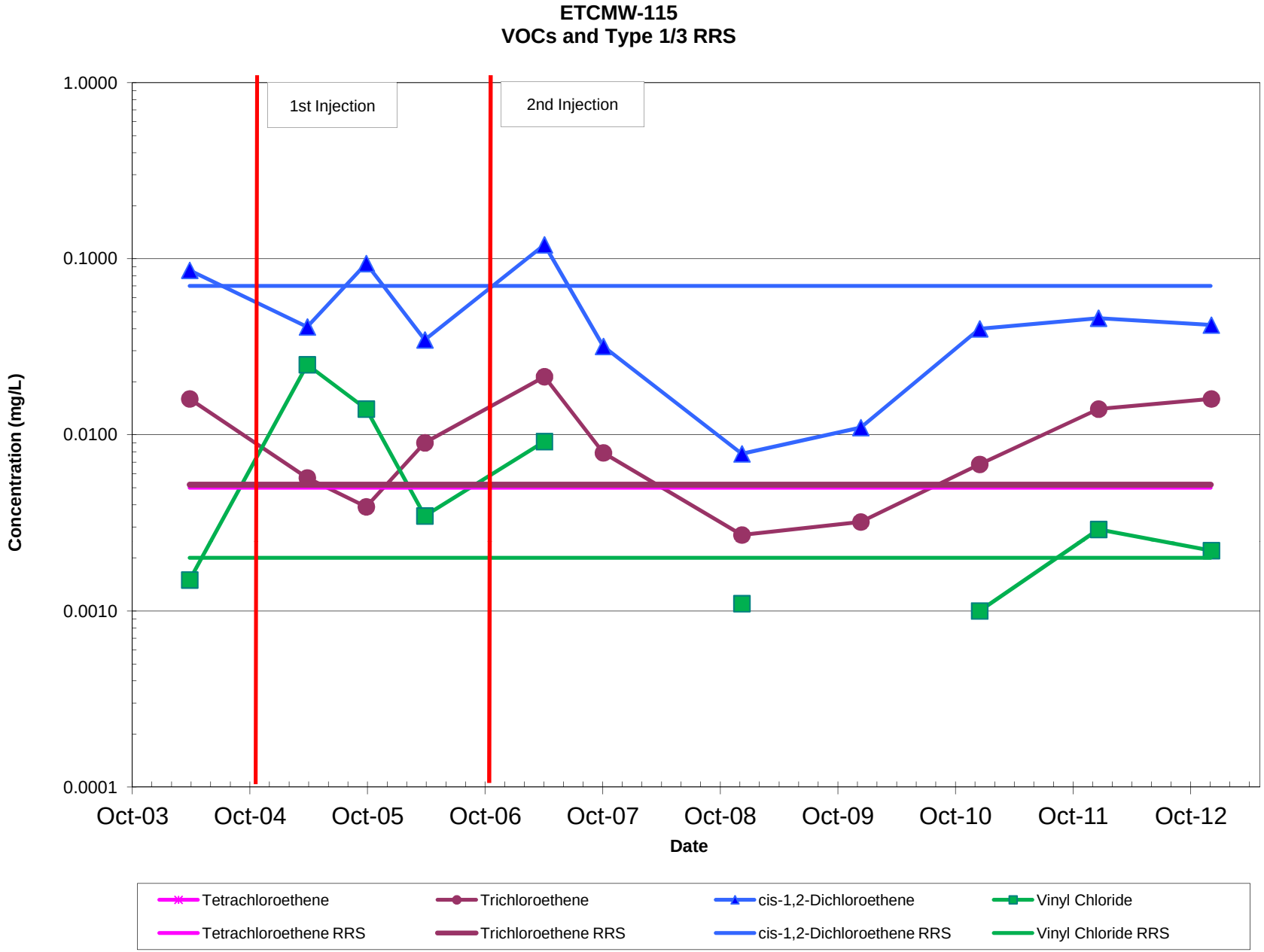


Note: Gaps in data indicate constituent was below detectable limits



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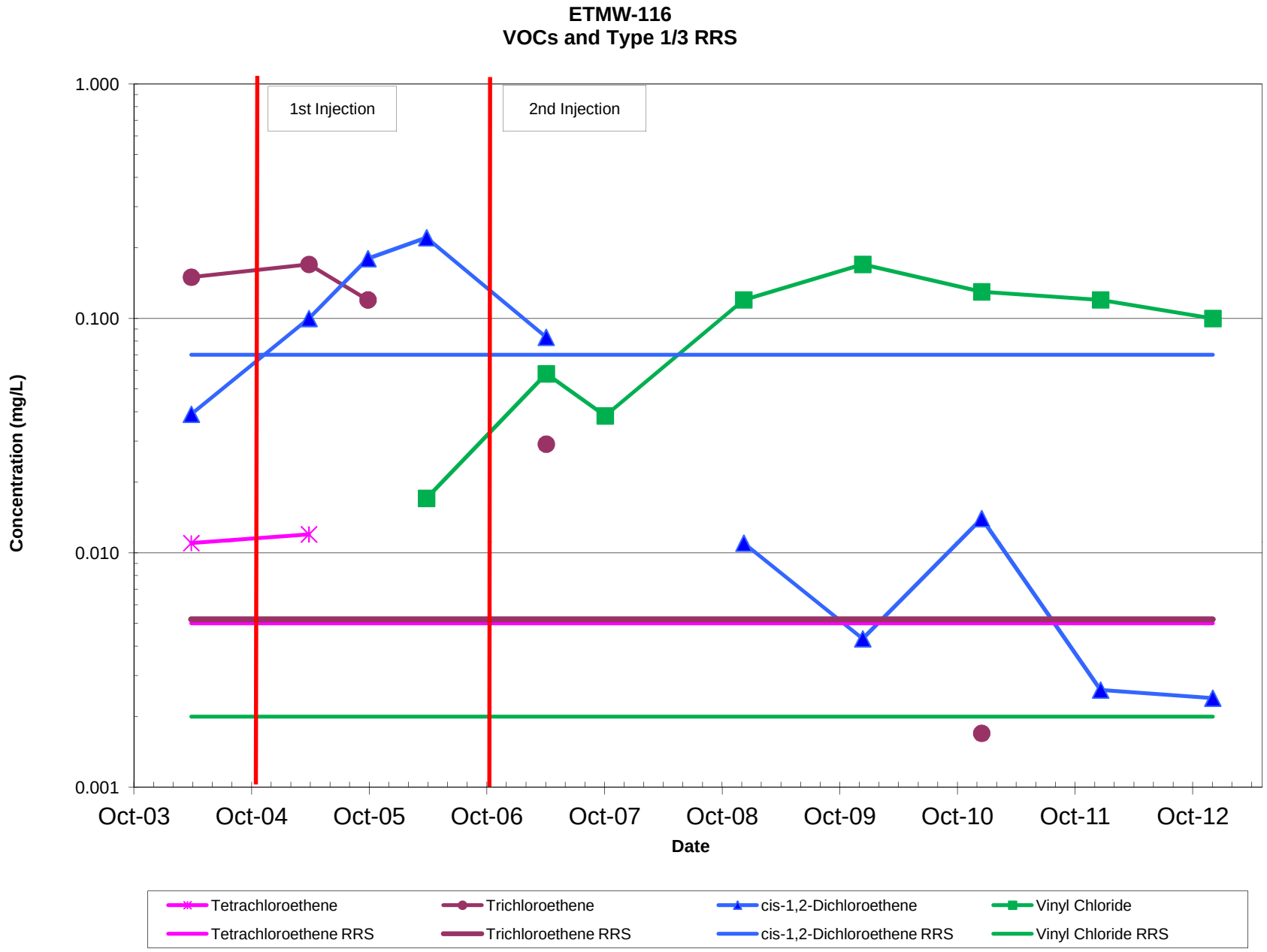

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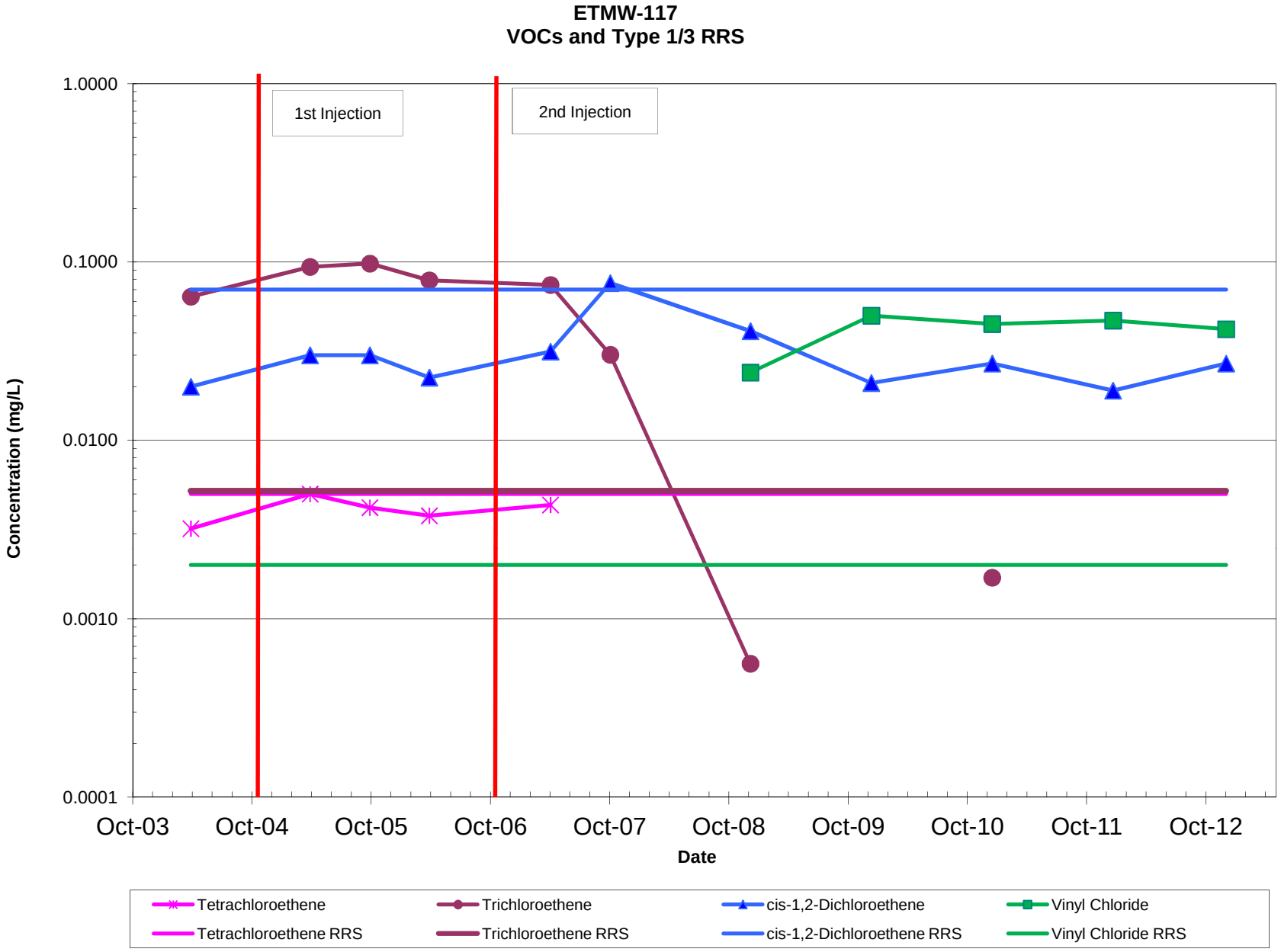

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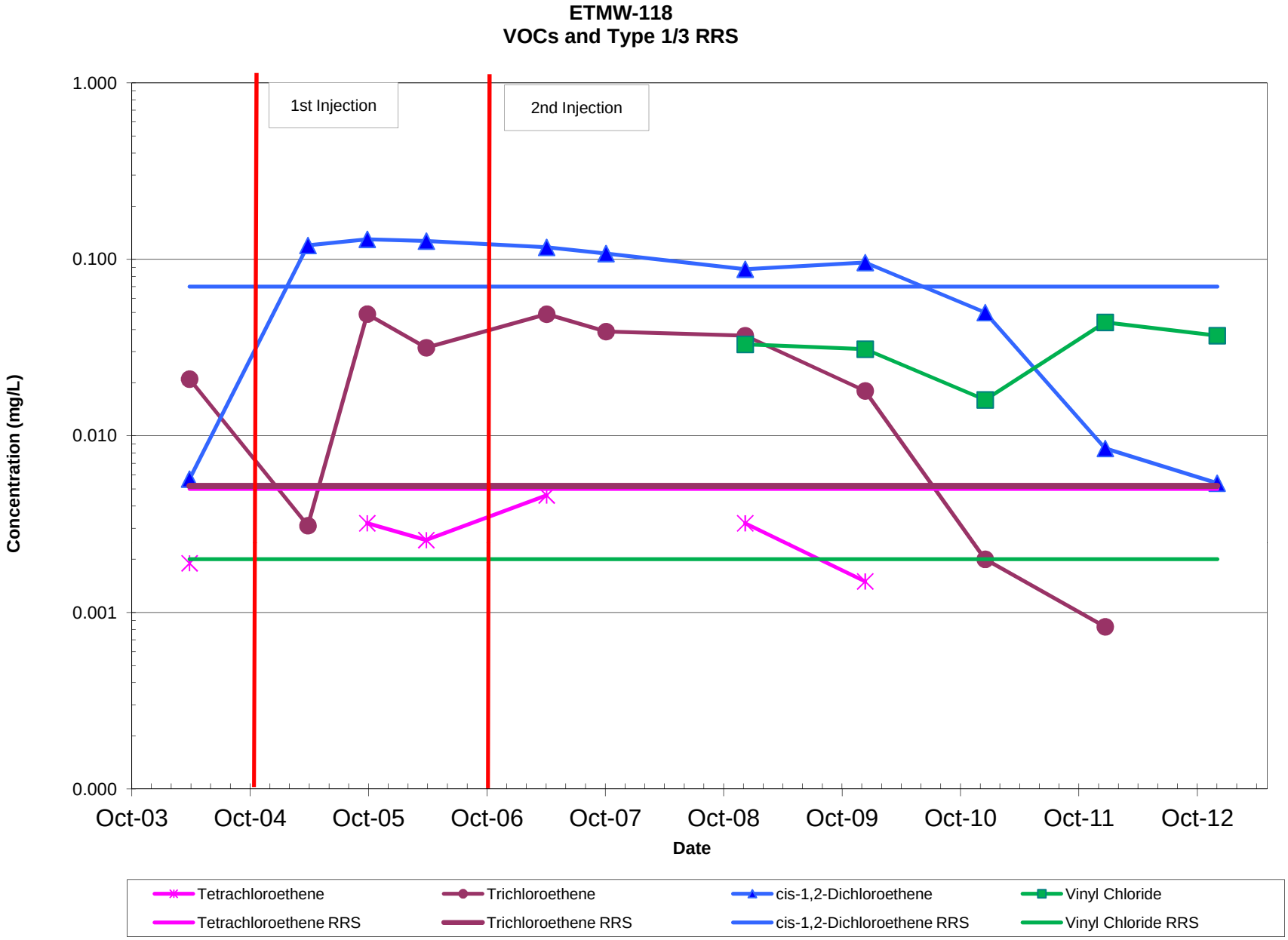

Note: Gaps in data indicate constituent was below detectable limits