

August 21, 2018

Mr. David Hayes
Georgia Department of Natural Resources
Hazardous Sites Voluntary Remediation Program
2 Martin Luther King Jr. Drive SE
Suite 1410, East Tower
Atlanta, Georgia 30334

RE: Voluntary Remediation Program Application and Remediation Plan

Former Lucky Cleaners Hazardous Site Inventory #10845 2801 Washington Road Augusta, Richmond County, GA 30909 Contour Project Number: E18KRO:07

Dear Mr. Hayes,

Contour Engineering, LLC (Contour), on behalf of The Kroger Co. (Kroger), is pleased to submit the enclosed Voluntary Remediation Program Application and the Voluntary Investigation and Remediation Plan (VIRP) for the above-referenced site. The Voluntary Remediation Program Application fee is included with this submittal.

If you have any questions regarding this plan or if we may be of further service, please call our office at (770) 794-0266.

Sincerely,

CONTOUR ENGINEERING, LLC

Kevin McGowan

Vice President-Environmental Services Manager

Greg Rowell, P.G.

You Rowell

Senior Project Manager

c: Mr. Scott Siebert / The Kroger Co.

Enclosures: Voluntary Remediation Program Application

Voluntary Investigation and Remediation Plan



VOLUNTARY INVESTIGATION AND REMEDIATION PLAN

Former Lucky Cleaners
Hazardous Site Inventory #10845
2801 Washington Road
Augusta, Richmond County, GA 30909
Contour Project Number: E18KRO:07

Prepared For:

The Kroger Co. 2175 Parklake Drive NE Atlanta, Georgia 30345

Submitted To:

Georgia Department of Natural Resources

Hazardous Sites Voluntary Remediation Program
Suite 1410, East Tower
2 Martin Luther King Jr. Drive SE
Atlanta, Georgia 30334

Prepared By:

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AUGUST 21, 2018

Contents

Cont	ents	•••••		i	
Acro	nyms and	d Abbrevia	ations	iv	
1	Intro	duction		1-1	
	1.1		ration and Description		
	1.2		ing Property and Participant Eligibility		
2	Summary of Previous Investigations and Corrective Actions				
	2.1	-	l ESA		
	2.2	Correct	ive Action Plan (CAP) Assessments	2-1	
		2.2.1	Soil and Groundwater Assessment: December 2006 through January 2007	2-1	
		2.2.2	Corrective Action and Soil Delineation: August 2007	2-2	
		2.2.3	Groundwater Assessment: September 2008	2-4	
		2.2.4	Groundwater Assessment: August 2011	2-5	
		2.2.5	Groundwater Assessment: February through May 2013	2-6	
		2.2.6	Groundwater Assessment: August through November 2013	2-7	
		2.2.7	Groundwater Assessment: October 2014	2-8	
		2.2.8	Groundwater Assessment: September 2015		
		2.2.9	Pilot Study and Groundwater Assessment: November 2015 and March 2016	2-9	
		2.2.10	Groundwater Assessment: October 2016 and June 2017	2-10	
		2.2.11	Assessment of Vapor Intrusion Potential: October 2017	2-11	
3	Conceptual Site Model				
	3.1	Geology	y and Hydrogeology	3-1	
	3.2	Residua	Il Contaminants of Concern	3-1	
		3.2.1	Soil	3-1	
		3.2.2	Groundwater	3-3	
	3.3 Potential Receptors and Exposure Pathways			3-5	
		3.3.1	Soil Direct Contact and Ingestion - Human Health Risk	3-5	
		3.3.2	Groundwater Exposure – Human Health Risk	3-5	
			Surface Water Exposure - Human Health Risk and Ecological Risk		
			Vapor Intrusion Exposure - Human Health Risk		
	3.4	Environ	mental Remediation Standards	3-6	
		3.4.1	Soil Criteria		
		3.4.2	Groundwater Criteria	3-6	
		3.4.3	Surface Water Criteria	3-6	
4	Proposed Voluntary Investigation and Remediation Plan				
	4.1	Restrictive Covenant			
	4.2	Soil Investigation and Remediation			
	4.3	4.3 Groundwater Investigation and Remediation			
		4.3.1	Deep Well Installation	4-1	
			Well Plugging and Abandonment	4-1	
			Groundwater Sampling		
	4.4	Fate an	d Transport Modeling	4-2	



THE KROGER	co.	CONTOUR PROJECT NO. E18KRO:07
5 1	Vilestone Schedule	5-1
6 F	References	6-1
Figures		
Figure 1	Site Location Map	
Figure 2	Site Map	
Figure 3	Boring Location Map	
Figure 4	Boring Data Map	
Figure 5	Soil Excavation Area Confirmation Sample Locations	
Figure 6	Monitoring Well Soil Quality Map	
Figure 7	Potentiometric Surface Map (6/7/2017)	
Figure 8	Groundwater Quality Map (6/7/2017 & 6/8/2017)	
Figure 9	Vapor Implant Locations	
Figure 10		
Figure 11	Proposed Deep Well Location	
Tables		
Table 1	Soil Boring Analytical Data Summary	
Table 2	Soil Excavation Sample Analytical Data Summary	
Table 3	Groundwater Analytical Data Summary (VOCs)	
Table 4	Groundwater Elevations	
Table 5	Groundwater Analytical Data Summary (RCRA Metals)	
Table 6	Soil Vapor Analytical Data Summary	

Appendixes

Appendix A:	VRP Application and Checklist
Appendix B:	Legal Description, Warranty Deed, and Tax Plat
Appendix C:	June 2017 Groundwater Analytical Report
Appendix D:	Soil Vapor Laboratory Report
Appendix E:	VISL Screening Results
Appendix F:	Soil Boring Logs
Appendix G:	Conceptual Milestone Schedule



Acronyms and Abbreviations

AES Analytical Environmental Services, Inc.

bgs below ground surface
BRL below reporting limits
CAP corrective action plan
CSM Conceptual Site Model

DCE dichloroethene
DO dissolved oxygen

DNR Department of Natural Resources

DPT Direct Push Technology

EPA U.S. Environmental Protection Agency

ESA environmental site assessment

FID flame ionization-detector

ft/day feet per day
ft/ft feet per foot
ft/year feet per year

GA EPD Georgia Environmental Protection Division

HDPE high density polyethylene

HQ Hazard Quotient

HSI Hazardous Sites Inventory

HSRA Hazardous Site Response Act

HSRP Hazardous Site Response Program
HWMA Hazardous Waste Management Act

ID internal diameter

ISCO in-situ chemical oxidation

IWQS In-stream Water Quality Standard

KMnO₄ potassium permanganate

µg/L micrograms per liter
mg/kg milligrams per kilogram

MCL Maximum Contaminant Level

MNA monitored natural attenuation

NC notification concentration

NOV notice of violation



O.C.G.A. Official Code of Georgia Annotated

ORP oxidation/reduction potential

PCE tetrachloroethene

PID photoionization detector

POD Point of Demonstration

PVC polyvinyl chloride

RCRA Resource Conservation and Recovery Act

RRS risk reduction standard

TCE trichloroethene

TOC total organic carbon

UEC Uniform Environmental Covenant

VOC volatile organic compound

VIRP Voluntary Investigation and Remediation Plan

VISL Vapor Intrusion Screening Level
VRP Voluntary Remediation Program



Introduction

Contour Engineering, LLC (Contour), on behalf of The Kroger Co. (Kroger), is pleased to present this Voluntary Investigation and Remediation Plan (VIRP) and the included Voluntary Remediation Program (VRP) Application and Checklist for the former Lucky Cleaners located in Augusta, Richmond County, Georgia. It is the intent of Kroger to enroll the former Lucky Cleaners facility in the Georgia Environmental Protection Division's (GA EPD) VRP. The facility is currently listed as Site No. 10845 on the Georgia Hazardous Site Inventory (HSI) and is currently undergoing corrective action under the Georgia Hazardous Site Response Act (HSRA). The VRP Application and Checklist are included in Appendix A.

1.1 Site Location and Description

The former Lucky Cleaners facility is located at 2801 Washington Road, Augusta, Richmond County, Georgia, which is near the northwest corner of the intersection of Washington Road and Alexander Drive. The subject property is described as a 20.05-acre parcel of land (tax parcel #013-0-013-00-0) currently owned by Kroger and is referred to hereinafter as "Site". The Site is currently developed with several retail tenants and an anchor store occupied by Kroger, which were constructed on the Site in 2008 and collectively known as the Washington Walk Shopping Center. Figure 1 presents the Site Location Map.

The Site was previously improved as a shopping center with a 22-year old, 64,300 square feet one story block structure with several individual tenant spaces from 1986 to 2007. The former shopping center consisted of seven retail tenant spaces and an anchor store occupied by Kroger. The retail tenant spaces were demolished in August 2007 and the old Kroger store was demolished shortly thereafter. The former Lucky Cleaners was a tenant at the former shopping center. In 2008, the new Kroger store was constructed over the footprint of the former Lucky Cleaners tenant space. Figure 2 presents the Site Map and location of the former Lucky Cleaners tenant space building footprint.

The former Lucky Cleaners facility occupied approximately 1,000 square feet of tenant space of the former shopping center. Dry cleaning operations reportedly began in 1986 by an unknown dry cleaner business when the tenant space was first occupied. In 1992, the former Lucky Cleaners reportedly began dry cleaning operations until 2006. According to the *Groundwater Corrective Action Plan* dated December 2008 that was prepared by Enercon Services, Inc. (ENERCON), a single dry cleaning machine was operated onsite. Tetrachloroethylene (PCE) was reportedly stored in 5-gallon containers inside the storage building at the rear of the facility and spent solvent and filters were reportedly stored in 5-gallon containers near the service entrance at the northwest corner of the space.

1.2 Qualifying Property and Participant Eligibility

Contour, on behalf of Kroger, is submitting this VIRP under the Georgia Voluntary Remediation Act (the Act) for the former Lucky Cleaners facility (HSI No. 10845). According to Official Code of Georgia Annotated (O.C.G.A.) 12-8-105, in order to be considered a qualifying property, the Property must be listed on the HSI or meet the criteria of the Georgia Brownfields Act (O.C.G.A. 12-8-205), or have a release of regulated substances to the environment. Under O.C.G.A. 12-8-105 the property shall also not:

- 1. Be listed on the federal National Priorities List;
- 2. Be currently undergoing response activities required by an Order of the Regional Administration of the United States Environmental Protection Agency (EPA);
- 3. Be a facility required to have a permit under the Georgia Hazardous Waste Management Act (HWMA);



- 4. Violate the terms and conditions under which the GA EPD operates and administers remedial programs by delegation or similar authorization from the EPA; and
- 5. Have any unsatisfied or unsettled lien filed under subsection (e) of the HWMA or subsection (b) of the Georgia Underground Storage Tank Management Act.

The Site is listed as HSI No. 10845. None of the other criteria listed in items 1 - 5 apply. Therefore, the Site is a qualifying property under the Act. A copy of the Legal Description containing the Warranty Deed and Tax Plat for the Qualifying Property is included in Appendix B.

In order for the Participant to meet the qualifications of the VRP according to O.C.G.A. 12-8-106, the following additional criteria must be met:

- 1. The Applicant must be the owner of the VRP property or have express permission to enter another's property to perform corrective action including, to the extent applicable, implementing controls for the Site pursuant to written lease, license, order or indenture;
- 2. Not be in violation of any order, judgement, statute, rule or regulation subject to the enforcement authority of the Director; and
- 3. Meet other such criteria as may be established by the Department of Natural Resources (DNR) Board pursuant to O.C.G.A. 12-8-103.

As the Participant meets all the criteria stated above, the Participant is qualified for admission into the VRP.

The contact for the Applicant is as follows:

The Kroger Co. Mr. Scott Siebert 2175 Parklake Drive NE Atlanta, Georgia 30345 (770) 496-7489



Summary of Previous Investigations and Corrective Actions

The following sections present a summary of the previous investigations and corrective actions performed at the Site.

2.1 Phase II ESA

In June 2006, Epic Consulting, Inc. (Epic) performed a Phase II Environmental Site Assessment (ESA) at the Site. Soil and groundwater samples were collected from two soil borings advanced into shallow groundwater and were analyzed for volatile organic compounds (VOCs) by EPA Method 8260B. The two borings were located near the northeast and northwest (outside) corners of the former tenant space. Analytical results for the two soil samples collected were below laboratory reporting limits (BRL); however, the analytical results for the groundwater samples collected from the two borings indicated PCE at concentrations of 5.2 micrograms per liter (μ g/L) and 5.5 μ g/L. Trichloroethene (TCE) was detected at concentrations of 12 μ g/L and 13 μ g/L and cis-1,2-dichloroethene (DCE) was also detected at concentrations ranging from 180 μ g/L to 200 μ g/L. Based on the presence of PCE, TCE, cis-1,2-DCE in groundwater, the release was reported to the GA EPD. Due to the release of chlorinated solvents from the former drycleaners and the Site location hydraulically downgradient of a private drinking water supply well located approximately 1,600 feet south, the Site was listed in on the Georgia HSI on October 13, 2006.

2.2 Corrective Action Plan (CAP) Assessments

2.2.1 Soil and Groundwater Assessment: December 2006 through January 2007

Between December 2006 and January 2007, Epic conducted additional assessment activities at the Site in an attempt to determine the source and extent of solvent impact at the Site. A total of 14 soil borings were advanced to groundwater using Direct Push Technology (DPT) at the locations illustrated on Figure 3. Borings B-1 through B-7 were completed on December 8 and 9, 2006, while borings B-8 through B-14 were completed on January 8, 2007. Four of the soil borings (B-1, B-3, B-4 and B-5) were advanced inside the former Lucky Cleaners tenant space in areas where the presence of dry cleaning equipment or solvent use was previously known or readily apparent. One boring, B-2, was advanced in the storage shed at the rear of the building where the boiler was located and where virgin solvents are known to have been stored. The remaining nine borings were advanced in the driveway area at the rear of the building in order to assess the nature and extent of the VOC plume associated with the dry cleaning solvent release.

The soil borings were extended to a depth of 28 feet below ground surface (bgs) that was several feet below the observed groundwater table. Soils were generally classified as sandy silts and silty sands, which are typical Fall Line and Coastal Plain materials. They were observed to be predominantly fine-grained, low plasticity, residual soils. It appeared that fill materials were imported to the Site during initial construction in 1986, as evidenced by a layer of organics encountered during soil boring completion. The elevation of the layer of organics was observed to increase with depth from the front of the property to the rear, and was generally located between 14 to 25 feet bgs.

Each soil sample was placed in a laboratory-prepared container, labeled, preserved and shipped under standard chain-of-custody procedures to Analytical Environmental Services, Inc. (AES) in Atlanta, Georgia for analysis of VOCs by EPA Method 8260B.

Data collected in December 2006 and January 2007 indicated that the highest concentration of PCE in soil was present from 12 to 16 feet bgs. The PCE level increased with depth, from 0.0043 milligrams per kilogram (mg/kg) at four to eight feet bgs in B-7 to 2.8 mg/kg at 12 to 16 feet bgs in B-6. The PCE appeared to be undergoing natural biodegradation due to the presence of TCE and DCE at all three samples collected from boring B-6. Figure 4



presents the soil quality map from the Epic soil borings and Table 1 presents a summary of the soil boring analytical data.

Following soil sample collection, temporary monitoring wells were installed in each boring to facilitate well development and groundwater sample collection. The temporary wells were constructed so the well screens straddled the water table at the time of construction. The temporary monitoring wells were constructed with variable lengths of 1-inch internal-diameter (ID) Schedule 40 polyvinyl chloride (PVC) riser and 1-inch-ID PVC 0.010-inch machine-slotted well screen. Temporary wells installed in borings B-1 through B-7 were completed with 20 feet of well screen and riser to the surface and the temporary wells installed in borings B-8 through B-14 were completed with 15 feet of well screen and riser to the surface.

After temporary well installation, the wells were developed via hand-bailing with dedicated PVC bailers to remove fine-grained material and improve the hydraulic connection with the formation. Static groundwater measurements collected from each well after groundwater recharged into the monitoring wells following development and generally ranged between 20 and 25 feet bgs. Groundwater elevations were calculated and generally indicated that groundwater flow was in a predominantly west direction from the source area with flow components to the southwest and northwest.

A groundwater sample was collected from each well following purging using a dedicated polyethylene bailer. Each groundwater sample was placed in a laboratory-prepared container and shipped under standard chain-of-custody procedures to AES in Atlanta, Georgia for analysis of VOCs by EPA Method 8260B.

Groundwater results of the samples collected in January 2007 showed PCE to be present above laboratory reporting limits in groundwater collected from soil borings B-6, B-7, B-12 and B-13 at levels ranging from 30 μ g/L in B-12 to 2,300 μ g/L in B-6. TCE was found to be present above laboratory reporting limits in groundwater collected from soil borings B-6 at a concentration of 720 μ g/L and in B-13 at a concentration of 100 μ g/L. cis-1,2-DCE was found to be present above laboratory reporting limits in groundwater collected from soil borings B-6, B-13 and B-14 at levels ranging from 59 μ g/L in B-14 to 250 μ g/L in B-6.

Epic proposed to excavate the soil impacts from the vicinity of a sanitary sewer manhole prior to the redevelopment of the shopping center, as the proposed new Kroger store would be constructed over the contaminant source area. Therefore in a letter dated February 6, 2007, Epic submitted a Proposed Soil Excavation Plan to the GA EPD that outlined a plan for excavating impacted soils. The GA EPD issued their conditional approval for the soil removal activities in a letter dated March 9, 2007. Epic prepared a CAP dated March 29, 2007 that outlined Risk Reduction Standards (RRS) for remediating the impacted areas. In a letter dated July 17, 2007, the GA EPD noted several deficiencies with the CAP.

2.2.2 Corrective Action and Soil Delineation: August 2007

Soil Excavation

Between August 13 and August 22, 2007, Epic conducted soil excavation activities at the Site. Figure 5 presents the area where soils were excavated, which consists of an area of approximately 693 square feet around boring location B-6. The excavation extended to a depth of approximately 16 feet bgs resulting in approximately 411 cubic yards of excavated soil. Confirmatory soil samples were collected from the bottom and sidewalls of the excavation to document soils exceeding the non-residential Type 3 RRS were removed. Samples were collected approximately every 25 feet along the sidewalls of the excavation, with one sample collected just north of the sanitary sewer manhole. Additionally, samples were collected from these locations over several excavation lifts in order to characterize, segregate and dispose of the impacted soils. Soils were stockpiled at the surface by excavation lift pending receipt of confirmatory laboratory analytical data. While stockpiled, soils were placed on and fully covered by high-density polyethylene (HDPE) sheeting to ensure that impacted soils did not impact surface soils or erode due to wind or water. Upon completion of the excavation, soil samples were collected from the floor and walls of the excavation using a hand auger for laboratory analysis.



Soil samples were screened throughout the excavation for the presence of total VOCs with a calibrated flame ionization detector (FID). Each soil sample collected was placed in a laboratory-prepared container and shipped under standard chain-of-custody procedures to AES in Atlanta, Georgia for analysis of VOCs by EPA Method 8260B. The excavated soils were treated as hazardous wastes and transported to a hazardous waste landfill as indicated by analytical results. According to the manifests, a total of 471.4 tons of impacted soils were removed from the Site and disposed of as hazardous waste. Following excavation, the excavated area was backfilled and compacted to an appropriate density for ongoing construction activities.

The data collected during the excavation indicated that the most impacted unsaturated soils have been removed from the Site subsurface. Figure 5 presents the analytical data for the soil samples collected during the excavation activities. Analytical data collected from the corners of the excavation verify soils exceeding the non-residential Type 3 RRS have been removed from the source area. Table 2 summarizes the soil excavation sample analytical data.

The analytical data collected prior to and during the excavation activities indicated that only PCE was present in sufficient quantities to exceed the non-residential Type 3 RRS. The concentrations of PCE in soil observed from 16 and 16.5 feet bgs was likely attributable to the soils being saturated due to their proximity to the groundwater table. While only soils at the total excavation depth were found to exceed the non-residential Type 3 RRS, Epic found that due to the soils being saturated by impacted groundwater, further excavation would likely not have yielded meaningful reductions in PCE concentrations in the soil.

Soil Delineation

On August 14, 2007, Epic advanced five soil borings (B-15 through B-19) using DPT methodology following telephonic discussions with Ms. Carrie Williams of the Hazardous Site Response Program (HSRP). Ms. Williams directed Epic to collect soil samples at the depth of the invert elevation of the sanitary sewer line along its length and at its lowest elevation at the manhole located to the north in an effort to assess whether the soil impacts were due to leaching from the sewer line along its length and at the northern manhole. Additionally, soils collected from the southwestern corner of the excavation pit were adjacent to the sewer line and served to delineate soils along the sewer line to the west of the source area. The locations of the five soil borings, B-15 through B-19, are presented on Figure 3. The borings were placed in linear increments of approximately 20 feet along the along the sewer line to the north of the soil excavation pit.

Soil borings B-15 through B-18 were advanced to a depth of 12 feet bgs, the approximate invert elevation of the sanitary sewer line, and soil samples were screened for the presence of total VOCs with a calibrated FID. Soil boring B-19 was intended to be advanced to 35 feet bgs, which is the total depth of the sewer trunk line, but was terminated at 32 feet bgs due to refusal. The soil samples were placed in a laboratory-prepared containers and shipped under standard chain-of-custody procedures to AES in Atlanta, Georgia for analysis of VOCs by EPA Method 8260B.

Soil sample data collected in August 2007 along the sanitary sewer line indicated that PCE at a depth of 10 feet, which is the approximate sewer invert elevation, decreases to below laboratory reporting limits between 25 and 50 feet north of the of the sewer manhole directly behind the former dry cleaners. The soil samples collected along the sewer line to the north at a depth of 8 to 12 feet bgs including a sample collected at a depth of 28 to 32 feet bgs adjacent to the northern manhole were below reporting limits for all constituents. Soil impacts to the north along the sewer line pathway were delineated. Figure 4 presents the soil quality map from the Epic soil borings and Table 1 presents a summary of the soil boring analytical data.

Soils collected from the southwestern corner of the excavation, approximately 13 feet from the sewer manhole, were adjacent to the sewer line at varying depths. Analytical results indicated that minor concentrations of PCE were detected at depths of 6 and 10 feet bgs with PCE concentrations slightly increasing at a depth of 16 feet bgs, which was likely due to groundwater saturation of the soils. PCE was not detected at any other depth interval analyzed and TCE and cis-1,2-DCE were not detected in any of the samples.



Based on the results of the collected data, it appeared that the source of PCE was the result of surface dumping, spillage or leakage from storage containers and infiltration through to the soils via cracks in the overlying concrete around the sanitary sewer manhole. The highest soil concentrations of PCE, TCE and cis-1,2-DCE were found near the sanitary sewer manhole were also detected upgradient of the sewer manhole in the southeastern corner of the excavation area. The sewer line may have served as a preferential pathway for the spilled product, but ultimate leaching from the sewer line does not appear to have occurred. The soil investigation performed in support of CAP development was successful in delineating both vertical and horizontal soil impacts. Additionally, the source area has been removed in order to prevent further leaching to the groundwater.

Epic prepared a revised CAP dated December 13, 2007 that discussed the soil excavation completed onsite and also addressed the deficiencies in the initial CAP that were previously cited by the GA EPD in July 2007.

2.2.3 Groundwater Assessment: September 2008

ENERCON purchased Epic and took over remedial actions at the Site in August 2008. In September 2008, following construction of the present day structure, ENERCON installed three, 45 degree angle, directional monitoring wells (MW-1, MW-2, and MW-3) at the Site. The location for monitoring well MW-1 was placed using GPS data collected from the previous location of boring B-6, located near the former manhole and in the area of greatest PCE impact. Monitoring wells MW-2 and MW-3 were then located at a spacing of 15 to 20 feet on center to the north-northwest of monitoring well MW-1 in order to assess current groundwater conditions beneath the edge of the former excavation area (MW-2) and further north along the path of the former sanitary sewer line (MW-3). The locations of the monitoring well borings are presented on Figure 3.

Because the borings were completed at a 45 degree angle, sampling of the subsurface via split spoon or other method was not feasible. Therefore, soil samples were collected from auger cuttings from near the bottom of each auger flight as representative of the interval. Soil samples were screened for the presence of total VOCs with a calibrated FID. Soil borings were extended to a depth of 35 vertical feet bgs, for a total horizontal drilled length of 50 feet.

Soil samples were collected from the interval from each boring exhibiting the highest FID reading for laboratory analysis. Each soil sample was placed in a laboratory-prepared container and shipped under standard chain-of-custody procedures AES in Atlanta, Georgia for analysis of VOCs by EPA Method 8260B. Soil samples collected from borings MW-1 and MW-3 did not exhibit any VOC constituents above laboratory reporting limits. PCE was present at 0.041 mg/kg in the soil sample collected from boring MW-2, which was collected at a depth of 10.5 to 14 feet bgs. The PCE detected in MW-2 soils did not exceed the non-residential Type 3 RRS. Figure 6 presents the soil quality map from the monitoring well borings and Table 1 presents a summary of the monitoring well boring analytical data.

Following soil sample collection, monitoring wells were installed in each boring to facilitate well development and groundwater sample collection. The monitoring wells were constructed so the well screens straddled the water table at the time of construction. The monitoring wells were constructed with 20 feet of 2-inch ID Schedule 40 PVC riser and 30 feet of 2-inch-ID PVC 0.010-inch machine-slotted well screen.

After well installation, the wells were developed via hand-bailing with dedicated PVC bailers to remove fine-grained material and improve the hydraulic connection with the formation. Static groundwater measurements collected from each well after groundwater recharged into the monitoring wells following development and generally ranged between 15 and 18 feet bgs.

Groundwater samples were collected from each monitoring well (MW-1 through MW-3) following purging using a dedicated polyethylene bailer. Each groundwater sample was placed in a laboratory-prepared container and shipped under standard chain-of-custody procedures to AES in Atlanta, Georgia for analysis of VOCs by EPA Method 8260B.

The groundwater samples were analyzed for VOCs and showed dry cleaning constituents to be present. PCE was found to be present above laboratory reporting limits in groundwater collected from monitoring wells MW-1 and



MW-2 at concentrations of 14 μ g/L and 11 μ g/L, respectively. TCE and cis-1,2-DCE were not detected in the samples collected during September 2008. Table 3 presents a summary of the groundwater analytical data.

ENERCON prepared a Groundwater CAP dated December 16, 2008 that summarized the results of the directional monitoring well installation and the results of a vapor intrusion model. In the Groundwater CAP, ENERCON recommended monitored natural attenuation (MNA) as the corrective action technology for the Site. In a letter dated June 5, 2009, the GA EPD noted several deficiencies with the Groundwater CAP. ENERCON addressed the comments in a Comment Response Letter dated March 29, 2010. A Notice of Violation (NOV) letter was issued for the Site on January 26, 2011 for failure to submit an Updated Groundwater CAP. On January 26, 2011, ENERCON submitted a letter to the GA EPD requesting review and approval of the Groundwater CAP Comment Response Letter that was submitted by ENERCON in March 2010. Additionally, ENERCON also submitted a revised milestone schedule for the Site. In a letter dated May 19, 2011, the GA EPD responded to the March 2010 letter and approved the Revised Milestone Schedule.

2.2.4 Groundwater Assessment: August 2011

In August 2011, ENERCON installed six monitoring wells (MW-4 through MW-9) to delineate the groundwater impacts at the Site. During installation, soil samples were collected in 5 foot depth intervals and field screened with a photoionization detector (PID) and soil samples were collected from the well borings ranging in depth from 5 to 15 ft bgs and submitted to the laboratory for analysis of VOCs by EPA Method 8260B. No VOCs were detected in the soil samples above the laboratory reporting limits with the exception of acetone from the soil sample collected from MW-8 at 0.22 mg/kg. The locations of the monitoring well borings are presented on Figure 3 and Figure 6 presents the soil quality map from the monitoring well borings. Table 1 presents a summary of the monitoring well boring analytical data.

Following soil sample collection, monitoring wells were installed in each boring to facilitate well development and groundwater sample collection. The monitoring wells were constructed so the well screens straddled the water table at the time of construction. The monitoring wells were constructed with 10 feet of 2-inch ID Schedule 40 PVC riser and 20 feet of 2-inch-ID PVC 0.010-inch machine-slotted well screen. After well installation, the wells were developed using either a submersible pump and new polyethylene tubing or a dedicated polyethylene bailer to remove fine-grained material and improve the hydraulic connection with the formation.

On September 12, 2011, ENERCON conducted a comprehensive groundwater sampling event. Low-flow purging and sampling techniques were used to collect the groundwater samples with a peristaltic pump and tubing. Additionally, a flow-through cell was used to establish the stabilization time for several parameters (pH, oxidation reduction potential [ORP], temperature, dissolved oxygen [DO], specific conductance, and turbidity). Measurements were taken every 3 to 5 minutes and sampling was initiated upon parameter stabilization. Each groundwater sample was placed in a laboratory-prepared container and shipped under standard chain-of-custody procedures to AES in Atlanta, Georgia for analysis of VOCs by EPA Method 8260B.

The VOC results of the groundwater samples indicated:

- PCE was detected in wells MW-1, MW-2, and MW-5 at concentrations ranging from 45 µg/L to 1,900 µg/L;
- TCE was detected in wells MW-1, MW-2, and MW-3 at concentrations ranging from 5.9 μg/L to 500 μg/L;
- Cis-1,2-DCE was detected in wells MW-1 and MW-2 at 27 μg/L and 25 μg/L, respectively;
- Trans-1,2-DCE was detected in wells MW-1 and MW-2 at 8.8 μg/L and 15 μg/L, respectively;
- Monitoring wells MW-4, MW-6, MW-7, and MW-8 were below laboratory reporting limits for all VOC constituents;
- MW-9 was dry and therefore not sampled.

Table 3 presents a summary of the groundwater analytical data.



In December 2011, ENERCON submitted an Updated Groundwater CAP recommending the installation of additional delineation monitoring wells and MNA as a corrective action technology. The GA EPD conditionally approved the Updated Groundwater CAP in a letter dated November 30, 2012. ENERCON submitted a Milestone Schedule dated December 18, 2012 to the GA EPD that outlined the time period for the additional monitoring well installation as well as the quarterly groundwater sampling events, and the semi-annual reporting schedule.

2.2.5 Groundwater Assessment: February through May 2013

In February 2013, ENERCON installed five monitoring wells (MW-10 through MW-14) to further delineate the groundwater impacts at the Site. During installation, soil samples were collected in 5 foot depth intervals and field screened with a PID and soil samples were collected from the well borings ranging in depth from 15 to 30 ft bgs and submitted to AES in Atlanta, Georgia under standard chain-of-custody protocol for analysis of VOCs by EPA Method 8260B. No VOCs were detected in the soil samples above the laboratory reporting limits with the exception of acetone from the soil sample collected from MW-13 at 0.18 mg/kg. The locations of the monitoring well borings are presented on Figure 3, and Figure 6 presents the soil quality map from the monitoring well borings. Table 1 presents a summary of the monitoring well boring analytical data.

Following soil sample collection, monitoring wells were installed in each boring to facilitate well development and groundwater sample collection. The monitoring wells were constructed so the well screens straddled the water table at the time of construction. The monitoring wells were constructed with 2-inch ID Schedule 40 PVC riser and 2-inch-ID PVC 0.010-inch machine-slotted well screen. After well installation, the wells were developed using a polyethylene bailer to remove fine-grained material and improve the hydraulic connection with the formation.

ENERCON conducted two comprehensive groundwater sampling events in February 2013 and in May 2013. During the monitoring events, groundwater levels were measured and elevations were calculated to determine the groundwater flow direction. The groundwater flow direction during both events appeared to be toward the north and northwest. Table 4 presents the groundwater elevations.

Prior to collection of groundwater samples during the monitoring events, the wells were purged using either a peristaltic pump or a submersible micro-flow bladder pump until the pH, specific conductance, DO, ORP, and turbidity stabilized. Following stabilization, groundwater samples were collected and submitted to AES in Atlanta, Georgia under standard chain-of-custody procedures. Groundwater samples were collected during February 2013 and May 2013 monitoring events and analyzed for VOCs, total organic carbon (TOC), and sulfide by EPA Methods 8260B, 9060A, 9030B/9034, respectively, and chloride, nitrate, and sulfate by EPA Method 9056A, ethane and methane by EPA Method SOP-RSK175, and ferrous iron by EPA Method 3500-Fe-B.

The VOC results of the groundwater samples indicated:

- PCE was detected in wells MW-1, MW-2, and MW-5. During February 2013, PCE was detected at concentrations ranging from 53 μg/L to 820 μg/L while in May 2013, PCE was detected at concentrations ranging from 50 μg/L to 560 μg/L;
- TCE was detected in wells MW-1, MW-2, MW-3, and MW-5. During February 2013, TCE was detected at concentrations ranging from 9.1 μ g/L to 260 μ g/L while in May 2013, TCE was detected at concentrations ranging from 6.4 μ g/L to 180 μ g/L;
- Cis-1,2-DCE was detected in wells MW-1, MW-2, and MW-5 during February 2013 and in wells MW-1, MW-2, and MW-3 in May 2013. During February 2013, cis-1,2-DCE was detected at concentrations ranging from 5.1 μ g/L to 27 μ g/L while in May 2013, cis-1,2-DCE was detected at concentrations ranging from 5.5 μ g/L to 13 μ g/L;
- Trans-1,2-DCE was detected in wells MW-1 and MW-2 in February 2013 at 8.5 μ g/L and 11 μ g/L, respectively, and in May 2013 at 8.0 μ g/L and 13 μ g/L, respectively;



- Monitoring wells MW-4, MW-6, MW-7, MW-8, MW-10, MW-11, MW-12, MW-13, and MW-14 were below laboratory reporting limits for all VOC constituents during the February and May 2013 monitoring events;
- MW-9 was dry during the February and May 2013 monitoring events and therefore not sampled.

Table 3 presents a summary of the groundwater analytical data.

2.2.6 Groundwater Assessment: August through November 2013

ENERCON conducted two comprehensive groundwater sampling events in August 2013 and November 2013. During the monitoring events, groundwater levels were measured and elevations were calculated to determine the groundwater flow direction. The groundwater flow direction during both events appeared to be toward the north and northwest. Table 4 presents the groundwater elevations.

Prior to collection of groundwater samples during the monitoring events, the wells were purged using either a peristaltic pump or a submersible micro-flow bladder pump until the pH, specific conductance, DO, ORP, and turbidity stabilized. Following stabilization, groundwater samples were collected and submitted to AES in Atlanta, Georgia under standard chain-of-custody procedures. Groundwater samples were collected during August 2013 and November 2013 monitoring events and analyzed for VOCs, TOC, and sulfide by EPA Methods 8260B, 9060A, 9030B/9034, respectively, and chloride, nitrate, and sulfate by EPA Method 9056A, ethane and methane by EPA Method SOP-RSK175, and ferrous iron by EPA Method 3500-Fe-B.

The VOC results of the groundwater samples indicated:

- PCE was detected in wells MW-1, MW-2, MW-3, and MW-5 during August 2013 and in wells MW-1, MW-2, and MW-5 in November 2013. During August 2013, PCE was detected at concentrations ranging from 7.8 μg/L to 450 μg/L while in November 2013, PCE was detected at concentrations ranging from 42 μg/L to 890 μg/L;
- TCE was detected in wells MW-1, MW-2, MW-3 in August 2013 and in wells MW-1, MW-2, MW-3, and MW-5 in November 2013. During August 2013, TCE was detected at concentrations ranging from 12 μg/L to 300 μg/L while in November 2013, TCE was detected at concentrations ranging from 7.6 μg/L to 320 μg/L;
- Cis-1,2-DCE was detected in wells MW-1 and MW-2 in August 2013 at 8.3 μ g/L and 25 μ g/L, respectively, and in November 2013 at 29 μ g/L and 22 μ g/L, respectively;
- Trans-1,2-DCE was detected in well MW-2 in August 2013 at 16 μg/L and in wells MW-1 and MW-2 in November 2013 at 30 μg/L and 17 μg/L, respectively;
- Monitoring wells MW-4, MW-6, MW-7, MW-8, MW-10, MW-11, MW-12, MW-13, and MW-14 were below laboratory reporting limits for all VOC constituents during the August and November 2013 monitoring events;
- MW-9 was dry during the August and November 2013 monitoring events and therefore not sampled.

Table 3 presents a summary of the groundwater analytical data.

Hydraulic conductivity tests were performed in monitoring wells MW-4, MW-5, and MW-6 using the rising head slug test method. Due to the slow groundwater recharge rate observed on the Site, slug test data was recorded with a data logger device. The hydraulic conductivity of the aquifer was calculated based on the method developed by Bouwer and Rice in 1976. The measured hydraulic conductivities for wells MW-4, MW-5, and MW-6, were 1.03×10^{-2} feet per day (ft/day), 2.346×10^{-2} ft/day, and 6.377×10^{-2} ft/day, respectively. The geometric average of the three wells produced an average hydraulic conductivity of 3.251×10^{-2} ft/day.

Based on the potentiometric surface at the Site, an approximate hydraulic gradient of 0.045 feet per foot (ft/ft) was calculated between MW-4 and MW-5.



Using the average hydraulic conductivity and approximate hydraulic gradient and an assumed effective porosity of 16 percent, the groundwater velocity across the Site was calculated to be 0.914×10^{-2} ft/day or approximately 3.34 feet per year (ft/year).

2.2.7 Groundwater Assessment: October 2014

ENERCON conducted a comprehensive groundwater sampling event in October 2014. During the monitoring event, groundwater levels were measured and elevations were calculated to determine the groundwater flow direction. The groundwater flow direction appeared to be toward the north and northwest. Table 4 presents the groundwater elevations.

Prior to collection of groundwater samples during the monitoring event, the wells were purged using either a peristaltic pump or a submersible micro-flow bladder pump until the pH, specific conductance, DO, ORP, and turbidity stabilized. Following stabilization, groundwater samples were collected and submitted to AES in Atlanta, Georgia under standard chain-of-custody procedures. Groundwater samples were collected during October 2014 monitoring event and analyzed for VOCs, TOC, and sulfide by EPA Methods 8260B, 9060A, 9030B/9034, respectively, and chloride, nitrate, and sulfate by EPA Method 9056A, ethane and methane by EPA Method SOP-RSK175, and ferrous iron by EPA Method 3500-Fe-B.

The VOC results of the groundwater samples indicated:

- PCE was detected in wells MW-1, MW-2, and MW-5 during October 2014 at concentrations ranging from 110 μg/L to 760 μg/L;
- TCE was detected in wells MW-1, MW-2, MW-3, and MW-5 in October 2014 at concentrations ranging from 15 μ g/L to 300 μ g/L;
- Cis-1,2-DCE was detected in wells MW-1, MW-2, MW-3, and MW-5 in October 2014 at concentrations ranging from 5.4 μg/L to 31 μg/L;
- Trans-1,2-DCE was detected in wells MW-1 and MW-2 in October 2014 at 25 μ g/L and 17 μ g/L, respectively;
- Monitoring wells MW-4, MW-6, MW-7, MW-8, MW-10, MW-11, MW-12, MW-13, and MW-14 were below laboratory reporting limits for all VOC constituents during the October 2014 monitoring event;
- MW-9 was dry during the October 2014 monitoring event and therefore not sampled.

Table 3 presents a summary of the groundwater analytical data.

ENERCON recommended performing a pilot study by injecting potassium permanganate (KMnO₄) to accelerate the degradation of the chlorinated solvents that remain in the subsurface at Site. ENERCON proposed injecting a 6-12 percent potassium permanganate solution into wells MW-1, MW-2, MW-3 and MW-5. In addition, ENERCON proposed to install well PMW-15 near the location of MW-9 because well MW-9 has been dry since being installed in 2011. Furthermore, PMW-15 and remaining Site monitoring wells were recommended for monitoring on a semi-annual basis.

2.2.8 Groundwater Assessment: September 2015

In September 2015, ENERCON installed one monitoring well (MW-15) to replace well MW-9 that had been observed to be dry since it was installed in 2011. During installation, soil samples were collected in 5 foot depth intervals and field screened with a PID and soil samples were collected from the well boring from 25 to 27 feet bgs and submitted to AES in Atlanta, Georgia under standard chain-of-custody protocol for analysis of VOCs by EPA Method 8260B. No VOCs were detected in the soil sample above the laboratory reporting limits. The locations of the monitoring well borings are presented on Figure 3, and Figure 6 presents the soil quality map from the monitoring well borings. Table 1 presents a summary of the monitoring well boring analytical data.



Following soil sample collection, monitoring well MW-15 was installed in the boring to facilitate well development and groundwater sample collection. The monitoring well was constructed so the well screen straddled the water table at the time of construction. The monitoring well was constructed with 2-inch ID Schedule 40 PVC riser and 2-inch-ID PVC 0.010-inch machine-slotted well screen. After well installation, the well was developed using a polyethylene bailer to remove fine-grained material and improve the hydraulic connection with the formation.

ENERCON conducted a comprehensive groundwater sampling event in September 2015. During the monitoring event, groundwater levels were measured and elevations were calculated to determine the groundwater flow direction. The groundwater flow direction appeared to be toward the north. Table 4 presents the groundwater elevations.

Prior to collection of groundwater samples during the monitoring event, the wells were purged using either a peristaltic pump or a submersible micro-flow bladder pump until the pH, specific conductance, DO, ORP, and turbidity stabilized. Following stabilization, groundwater samples were collected and submitted to AES in Atlanta, Georgia under standard chain-of-custody procedures. Groundwater samples were collected during September 2015 monitoring event and analyzed for VOCs, TOC, and sulfide by EPA Methods 8260B, 9060A, 9030B/9034, respectively, and chloride, nitrate, and sulfate by EPA Method 9056A, ethane and methane by EPA Method SOP-RSK175, and ferrous iron by EPA Method 3500-Fe-B.

The VOC results of the groundwater samples indicated:

- PCE was detected in wells MW-1, MW-2, and MW-5 during September 2015 at concentrations ranging from 55 μg/L to 710 μg/L;
- TCE was detected in wells MW-1, MW-2, MW-3, and MW-5 in September 2015 at concentrations ranging from 9.7 μg/L to 330 μg/L;
- Cis-1,2-DCE was detected in wells MW-1, MW-2, and MW-3 in September 2015 at concentrations ranging from 8.4 μg/L to 40 μg/L;
- Trans-1,2-DCE was detected in wells MW-1 and MW-2 in September 2015 at 31 μ g/L and 22 μ g/L, respectively;
- Monitoring wells MW-4, MW-6, MW-7, MW-8, MW-10, MW-11, MW-12, MW-13, MW-14 and MW-15
 were below laboratory reporting limits for all VOC constituents during the September 2015 monitoring
 event;
- MW-9 was dry during the September 2015 monitoring event and therefore not sampled.

Table 3 presents a summary of the groundwater analytical data.

ENERCON revised their previous pilot study recommendation of injecting KMnO₄ to a pilot study using sodium persulfate to accelerate the degradation of the chlorinated solvents that remain in the subsurface at Site. ENERCON proposed injecting a 25 percent sodium persulfate solution with chelated iron into wells MW-1, MW-2, MW-3 and MW-5.

2.2.9 Pilot Study and Groundwater Assessment: November 2015 and March 2016

ENERCON performed an in-situ chemical oxidation (ISCO) injection pilot study at the Site in November 2015. The pilot study utilized an approximate 20 percent sodium persulfate solution activated by chelated iron that was injected under low pressure into wells MW-1, MW-2, MW-3 and MW-5.

Approximately four months after the ISCO pilot study was conducted at the Site, ENERCON conducted a comprehensive groundwater sampling event in March 2016. During the monitoring event, groundwater levels were measured and elevations were calculated to determine the groundwater flow direction. The groundwater flow direction appeared to be toward the north. Table 4 presents the groundwater elevations.



Prior to collection of groundwater samples during the monitoring event, the wells were purged using either a peristaltic pump or a submersible micro-flow bladder pump until the pH, specific conductance, DO, ORP, and turbidity stabilized. Following stabilization, groundwater samples were collected and submitted to Pace Analytical in Huntersville, North Carolina under standard chain-of-custody procedures. Groundwater samples were collected during September 2015 monitoring event and analyzed for VOCs, TOC, and sulfide by EPA Methods 8260B, 9060A, 9030B/9034, respectively, and chloride, nitrate, and sulfate by EPA Method 9056A, ethane and methane by EPA Method SOP-RSK175, and ferrous iron by EPA Method 3500-Fe-B.

The VOC results of the groundwater samples indicated:

- PCE was detected in wells MW-1, MW-2, and MW-5 during March 2016 at concentrations ranging from 4.9 μg/L to 87.4 μg/L;
- TCE was detected in wells MW-1, MW-2, MW-3, and MW-5 in March 2016 at concentrations ranging from 2.6 μg/L to 42 μg/L;
- Cis-1,2-DCE was detected in wells MW-1 and MW-2 in March 2016 at concentrations of 9.2 μ g/L and 1.3 μ g/L, respectively;
- Trans-1,2-DCE was detected in well MW-1 in March 2016 at 2.6 μg/L;
- Vinyl chloride was detected in well MW-1 in March 2016 at 3.6 μg/L;
- Monitoring wells MW-4, MW-6, MW-7, MW-8, MW-10, MW-11, MW-12, MW-13, MW-14 and MW-15 were below laboratory reporting limits for all VOC constituents during the March 2016 monitoring event;
- MW-9 was dry during the March 2016 monitoring event and therefore not sampled.

Table 3 presents a summary of the groundwater analytical data.

2.2.10 Groundwater Assessment: October 2016 and June 2017

ENERCON conducted two comprehensive groundwater sampling events in October 2016 and June 2017. During the monitoring events, groundwater levels were measured and elevations were calculated to determine the groundwater flow direction. The groundwater flow direction during both events appeared to be toward the north. Figure 7 presents the potentiometric surface map for the June 2017 groundwater sampling event and Table 4 presents the groundwater elevations.

Prior to collection of groundwater samples during the monitoring events, the wells were purged using either a peristaltic pump or a submersible micro-flow bladder pump until the pH, specific conductance, DO, ORP, and turbidity stabilized. Following stabilization, groundwater samples were collected and submitted to Pace Analytical in Huntersville, North Carolina under standard chain-of-custody procedures. Groundwater samples were collected during October 2016 and June 2017 monitoring events and analyzed for VOCs, TOC, sulfide and chloride by EPA Methods 8260B, 5310B, and SM 4500 S2D/Cl-E, respectively, and nitrate and sulfate by EPA Methods 353.2 and 300.0, respectively, ethane, ethane and methane by EPA Method SOP-RSK175, ferrous iron by EPA Method 3500-Fe-B, and Resource Conservation and Recovery Act (RCRA) Metals by EPA Method 6010/7470.

The VOC results of the groundwater samples indicated:

- PCE was detected in wells MW-1, MW-2, MW-3, MW-5, and MW-14 in October 2016 and in wells MW-1, MW-2, MW-3, and MW-5 in June 2017. During October 2016, PCE was detected at concentrations ranging from 3.4 μg/L to 168 μg/L while in June 2017, PCE was detected at concentrations ranging from 4.2 μg/L to 283 μg/L;
- TCE was detected in wells MW-1, MW-2, MW-3, and MW-5. During October 2016, TCE was detected at concentrations ranging from 10.4μg/L to 71.8 μg/L while in June 2017, TCE was detected at concentrations ranging from 9.9 μg/L to 144 μg/L;



- Cis-1,2-DCE was detected in wells MW-1, MW-2, and MW-3 in October 2016 and in wells MW-1, MW-2, MW-3, and MW-5 in June 2017. During October 2016, cis-1,2-DCE was detected at concentrations ranging from 7.3 μg/L to 13.4 μg/L while in June 2017, cis-1,2-DCE was detected at concentrations ranging from 1.0 μg/L to 24 μg/L;
- Trans-1,2-DCE was detected in wells MW-1, MW-2, MW-3, and MW-5 in October 2016 at concentrations ranging from 1.0 μg/L to 5.6 μg/L while in June 2017, trans-1,2-DCE was detected in wells MW-1 and MW-2 at concentrations of 12.0 μg/L and 11.7 μg/L, respectively;
- 1,1-DCE was detected in well MW-3 in October 2016 1.0 μg/L.
- Monitoring wells MW-4, MW-6, MW-7, MW-8, MW- 10, MW-11, MW-12, MW-13, and MW-15 were below laboratory reporting limits for all VOC constituents during the October 2016 monitoring event while monitoring wells MW-4, MW-6, MW-7, MW-8, MW- 10, MW-11, MW-12, MW-13, MW-14, and MW-15 were below laboratory reporting limits for all VOC constituents during the June 2017 monitoring event;
- MW-9 was dry during the October 2016 and June 2017 monitoring events and therefore not sampled.

Figure 8 presents the groundwater quality map for the June 2017 groundwater monitoring event, and Table 3 summarizes the historical groundwater sample results through June 2017. Table 5 presents the summary of the analytical data for RCRA metals in groundwater. The laboratory report for the June 2017 groundwater sampling event is presented in Appendix C.

ENERCON recommended a second ISCO injection event consisting of 450 gallons of a 20 percent sodium persulfate solution with chelated iron into wells MW-1, MW-2, MW-3 and MW-5.

2.2.11 Assessment of Vapor Intrusion Potential: October 2017

Contour installed five soil vapor implants (SVI-1 through SVI-5) through the concrete slab inside the Kroger building using a rotary impact hammer drill on October 25, 2017 and collected sub-slab soil vapor samples on October 26, 2017. The vapor implant locations are shown on Figure 9. The soil vapor implants were placed approximately two feet below the base of the concrete slab. One soil vapor sample was collected from each location in summa canisters and submitted to AES in Atlanta, Georgia under standard chain-of-custody procedures for laboratory analysis of VOCs using EPA Method TO-15. The results of the soil vapor samples are summarized in Table 6 and a copy of soil vapor laboratory report is presented in Appendix D.

Low level concentrations of VOCs were detected in each soil vapor sample location. Contour performed a vapor intrusion evaluation for the Site using the EPA's vapor intrusion screening level (VISL) calculator to evaluate whether the VOC concentrations in the soil vapor samples posed a risk to indoor air via the soil gas to indoor air pathway. The VISL evaluation was a comparison of the VOC concentrations detected in sub-slab soil vapor samples during the October 2017 soil vapor sampling effort to target risk levels (1E-5 target risk for carcinogenic compounds and a 1.0 target hazard quotient [HQ] for non-carcinogenic compounds, under a commercial exposure scenario) using the VISL calculator.

The cumulative carcinogenic risk, as calculated with the VISL calculator, ranged from 1.27E-7 (1.27 in 10,000,000) in SVI-3 to 1.72E-6 (1.72 in 1,000,000) in SVI-2. The HQ ranged from 3.43E-2 in SVI-3 to 4.65E-1 in SVI-2. The results of the VISL calculation indicates the VOC concentrations in the sub-slab soil vapor samples do not pose a vapor intrusion risk above the accepted carcinogen risk factor under a commercial scenario (1E-5 or 1 in 100,000) or the target HQ for non-carcinogens of 1.0. A copy of the VISL screening results are presented in Appendix E.

Based on the sub-slab soil vapor data collected during the October 2017 soil vapor sampling effort and the results of the VISL evaluation, there does not appear to be a potential for vapor intrusion into the Kroger building that would exceed regulatory established risk factors under a commercial exposure scenario.



Conceptual Site Model

A Conceptual Site Model (CSM) has been developed for this Site using the data obtained during previous investigative activities at the Site and from the previous reports. The preliminary CSM will be updated and refined, as additional information is collected. The preliminary CSM details the Site's surface and subsurface conditions, known or suspected sources of contamination, potential contamination transport mechanisms, the known extent of contamination, and exposure pathways for potential receptors. Figures 4 through 10 illustrate the CSM components discussed in the following sections.

3.1 Geology and Hydrogeology

The Site is located in the Fall Line region, which separates the Upper Coastal Plain Physiographic Province of coastal Georgia from the Piedmont Physiographic Province of northern Georgia. The fall line is a geologic boundary about twenty miles wide that runs across Georgia northeastward from Columbus to Augusta. As the Mesozoic shoreline of the Atlantic Ocean, it separates Upper Coastal Plain sedimentary rocks to the south from Piedmont crystalline rocks to the north. Study area bedrock is mapped as meta-argillite-phyllite (*Geologic Map of Georgia*, Georgia Geologic Survey, 1977).

Based on soil sampling and lithology descriptions by others, observed soils consist of a mix of residual and imported fill materials that are predominantly fine- grained with low plasticity, which have been generally classified as typical Fall Line and Coastal Plain materials consisting of sandy silts and silty sands. In addition, a layer of organics has been encountered during soil borings and the elevation of the organic layer typically increases with depth from the south toward the north (i.e., front of the property to the rear), and was generally located between 14 to 25 feet bgs. Soil boring logs are presented in Appendix F. Figure 10 presents a north/south cross-sections of the Site based on the soil boring logs.

Shallow groundwater at the Site occurs between approximately 14 feet bgs in the upgradient (southern) direction to approximately 37 feet bgs in the downgradient (northern) direction of the Site. Seasonal groundwater fluctuations range from approximately 4 feet on the southern portion to approximately 3 feet on the northern portion of the Site. Using depth to groundwater measurements, groundwater elevations have been calculated to determine the groundwater flow direction. Table 4 presents the historical groundwater measurements and elevations. The groundwater flow direction across the Site has been consistently determined to be toward the north to northwest. Figure 7 presents the most recent potentiometric surface map for the Site based on groundwater measurements from June 2017.

Previous aquifer testing, consisting of rising head slug tests, has been conducted to determine the hydraulic conductivity and to assess the groundwater seepage velocity across the Site. By using the average hydraulic conductivity of 3.251×10^{-2} ft/day, a gradient of 0.045, and an assumed effective porosity of 16 percent, the groundwater seepage velocity across the Site has been calculated to be 0.914 x 10^{-2} ft/day or approximately 3.34 feet/year.

3.2 Residual Contaminants of Concern

3.2.1 Soil

Between June 2006 and August 2007, numerous soil borings were advanced for collection of soil samples to identify the source of the PCE release and to evaluate the extent of PCE and its degradation by-products TCE and cis-1,2-DCE. During the soil assessments, results of the soil sampling activities indicated the source of PCE was a result of surface dumping, spillage and/or leakage from storage containers. It appeared that the PCE infiltrated to the soils via cracks in the overlying concrete around a sanitary sewer manhole, as the highest soil concentrations of PCE, TCE, and cis-1,2-DCE were found near the sewer manhole, with lower concentrations found in other areas



near a sanitary sewer line. Figure 4 presents the soil quality map from the 2006 and 2007 soil borings and Table 1 presents a summary of the soil boring analytical data.

In August 2007, corrective action consisting of soil excavation was conducted to remove PCE, TCE, and cis-1,2-DCE impacted soils that exceeded the non-residential Type 3 RRS. The area where soils were excavated consisted of approximately 693 square feet around boring location B-6, which exhibited the highest concentration of PCE (2.8 mg/kg) detected during the soil assessments. The excavation extended to a depth of approximately 16 feet bgs, which represents the approximate depth to the water table, resulting in approximately 411 cubic yards of excavated soil. Confirmatory soil samples were collected from the bottom and sidewalls of the excavation to document soils exceeding the non-residential Type 3 RRS were removed. Samples were collected approximately every 25 feet along the sidewalls of the excavation, with one sample collected just north of the sanitary sewer manhole. Additionally, samples were collected from these locations over several excavation lifts in order to characterize, segregate and dispose of the impacted soils. Upon completion of the excavation, soil samples were collected from the floor and walls of the excavation using a hand auger for laboratory analysis.

The data collected during the excavation indicated that the most impacted unsaturated soils have been removed from the Site subsurface and that remaining impacts were below the non-residential Type 3 RRS. Figure 5 presents the analytical data for the soil samples collected during the excavation activities. Analytical data collected from the corners of the excavation verify soils exceeding the non-residential Type 3 RRS have been removed from the source area. Table 2 summarizes the soil excavation sample analytical data.

The analytical data collected prior to a during the excavation activities indicated that only PCE was present in sufficient quantities to exceed the non-residential Type 3 RRS. The concentrations of PCE in soil observed from 16 and 16.5 feet bgs is likely attributable to the soils being saturated due to their proximity to the groundwater table. This depth is within the water table smear zone and the concentrations are likely attributable to the soils being saturated due to their proximity to the groundwater table. Further excavation would have extended into the water table and into the groundwater plume and would not have likely yielded meaningful reductions in PCE concentrations in the soil samples.

Following the excavation activities, the GA EPD requested five additional soil borings for collection of soil samples at the depth of the invert elevation of the sanitary sewer line along its length and at its lowest elevation at the manhole located downgradient to the north in an effort to assess whether the soil impacts were due to leaching from the sewer line along its length and at the northern manhole. The locations of the five soil borings, B-15 through B-19, are presented on Figure 4. The borings were placed in linear increments of approximately 20 feet along the sewer line to the north of the soil excavation pit. Table 1 presents a summary of the soil boring analytical data.

Soil sample data collected in August 2007 along the sanitary sewer line indicated that PCE at a depth of 10 feet, which is the approximate sewer invert elevation, decreases to below laboratory reporting limits between 25 and 50 feet north of the of the sewer manhole directly behind the former dry cleaners. The soil samples collected along the sewer line to the north at a depth of 8 to 12 feet bgs including a sample collected at a depth of 28 to 32 feet bgs adjacent to the northern manhole were below reporting limits for all constituents. Soil impacts to the north along the sewer line pathway was completely delineated.

The soils located on the Site were sampled and analyzed for VOCs and the laboratory reporting limits for those analytes tested were established at levels less than the applicable non-residential Type 3 RRS. Based on the extensive soil sampling efforts, removal of impacted soils exceeding the applicable RRS above the water table/vadose zone interface (i.e., smear zone), and confirmation sampling, the soil impacts at the Site have been horizontally and vertically delineated and/or remediated. Below is a listing of the highest concentration of each analyte remaining in soil at the Site. Where possible, the concentrations of each analyte were compared to the residential Type 1 RRS; however, compounds exceeding the Type 1 RRS were compared to their respective non-residential Type 3 RRS below:



Compound	Location	Depth	Highest Concentration	RRS	RRS Type
Acetone	MW-8	5 feet	0.22 mg/kg	400 mg/kg	Type 1/Type 3 ¹
Tetrachloroethene ²	MW-2	14 feet	0.041 mg/kg	0.50 mg/kg	Type 1/Type 3 ¹
Tetrachloroethene ³	W2	16 feet	1.17 mg/kg	0.50 mg/kg	Type 1/Type 3 ¹
Trichloroethene ^{3, 4}	W1 L8 S36	16 feet 16.5 feet	0.057 mg/kg	0.50 mg/kg	Type 1/Type 3 ¹
cis-1,2-dichloroethene ^{3, 4}	L8 S36	16.5 feet	0.039 mg/kg	7.00 mg/kg	Type 1/Type 3 ¹

Notes:

- 1 = Type 1 and Type 3 RRS are the same value for this compound.
- ² = The highest concentration of tetrachloroethene in unsaturated soils above the water table/vadose zone interface (i.e., smear zone).
- ³ = The highest concentrations of tetrachloroethene, trichloroethene, and cis-1,2-dichloroethene remaining in soils on the Site were collected within the water table/vadose zone interface (i.e., smear zone) and therefore these concentrations are likely influenced by the presence of the constituents present in the groundwater. Concentrations of these constituents above the water table/vadose zone interface (i.e., smear zone) are below the Type 1/Type 3 RRS.
- ⁴ = No residual trichloroethene or cis-1,2-dichloroethene were detected above the laboratory reporting limit in unsaturated soils above the water table/vadose zone interface (i.e., smear zone).

3.2.2 Groundwater

As discussed in Section 2, groundwater samples have been collected from the Site since June 2006. Most recently, groundwater samples were collected from 14 of the 15 existing shallow groundwater monitoring wells between June 7 and 8, 2017. MW-1 through MW-8 and MW-10 through MW-15. Well MW-9 was dry during the monitoring period.

During the June 2017 monitoring event, the average groundwater elevation increased 1.06 feet across the Site since the previous monitoring event conducted in October 2016. The measured groundwater levels were used to create a potentiometric map for the June 2017 monitoring event. The groundwater flow direction for this event was toward the north, which is similar to the previous sampling events. The potentiometric map for June 2017 is presented on Figure 7. Table 4 presents the historical groundwater level measurements at the Site.

Groundwater samples were collected during the June 2017 monitoring event and analyzed for ethane, ethene, and methane by Method RSK 175, mercury by EPA Method 7470, VOCs by US EPA Method 8260B, ferrous iron (Fe+2) by Method SM 3500, sulfide and chloride by Method SM 4500 S2D/Cl-E, sulfate by EPA Method 300.0, Nitrate by EPA Method 353.2, and TOC by EPA Method 5310B. Groundwater Wells MW-1, MW-2, MW-3, and MW-5 were also analyzed for RCRA metals by EPA Method 6010.

During the monitoring event, a peristaltic pump using dedicated Teflon-lined tubing was used to purge groundwater in monitoring wells MW-1 through MW-8, MW-10, MW-11, and MW-15. A submersible micro-flow bladder pump using Teflon-lined tubing was used to purge groundwater in monitoring wells MW-12, MW-13, and MW-15. The Teflon-lined tubing was placed at the mid-way point of the groundwater/screen interval in each of the monitoring wells. All monitoring wells were purged using low-flow techniques and a groundwater sample was collected following stabilization of pH, specific conductance, DO, ORP, and turbidity. All reusable sampling equipment was decontaminated following the sampling of each well.

The groundwater samples collected during the June 2017 sampling event were placed directly into laboratory provided and preserved containers, labeled, placed on ice, and couriered to Pace Analytical in Huntersville, North Carolina under standard COC procedures. The sample containers for each monitoring well were handled using new disposable nitrile gloves. Additionally, the sampling equipment that came into contact with the groundwater was decontaminated using a mixture of alconox soap and distilled water, followed by rinsing with distilled water.

Ten of the 14 groundwater samples collected at the Site (MW-4, MW-6, MW-7, MW-8, MW-10, MW-11, MW-12, MW-13, MW-14, and MW-15) did not have any detection of VOCs during the June 2017 monitoring event. The groundwater sample collected from monitoring well MW-1 was observed to have the highest PCE concentration



during the June 2017 groundwater sampling event at 283 μ g/L. A copy of the June 2017 groundwater laboratory report in provided in Appendix C.

During the June 2017 monitoring event, the groundwater sample collected from monitoring well MW-1 contained PCE at 283 μ g/L, TCE at 144 μ g/L, cis-1,2-DCE at 24.0 μ g/L, and trans-1,2-DCE at 12.0 μ g/L. The groundwater sample collected from monitoring well MW-2 contained PCE at 73.5 μ g/L, TCE at 64.3 μ g/L, cis-1,2-DCE at 11.6 μ g/L, and trans-1-,2-DCE at 11.7 μ g/L. The groundwater sample collected from monitoring well MW-3 contained PCE at 4.2 μ g/L, TCE at 16.7 μ g/L, and cis-1,2-DCE at 5.4 μ g/L. The groundwater sample collected from monitoring well MW-5 contained PCE at 48.7 μ g/L, TCE at 9.9 μ g/L, and cis-1,2-DCE at 1.0 μ g/L. Table 3 presents the summary of VOC analytical data and Figure 8 presents the groundwater quality map for the June 2017 groundwater sampling event.

The concentrations of PCE and TCE exceeded the non-residential Type 3 RRS for the Site in the samples collected from monitoring wells MW-1, MW-2, MW-3 (TCE only), and MW-5 during the June 2017 sampling event. Overall VOC concentrations following the November 2015 ISCO injection event show a significant decrease in monitoring wells MW-1, MW-2, and MW-3, but a slight rebound from the March 2016 and October 2016 sampling events. Monitoring wells MW-1, MW-2, and MW-3 are located in the former source area where soils were excavated in August 2007. A slight decrease in PCE and TCE concentrations was observed in the sample collected from monitoring well MW-5 from the October 2016 sampling event to the June 2017 sampling event. The highest PCE concentration observed onsite remains in a sample collected from monitoring well MW-1 at 283 μ g/L. Also, the highest TCE concentration observed onsite was in the sample collected from monitoring well MW-1 at 144 μ g/L.

Following the ISCO injection event conducted in November, 2015 during the both the March and October 2016 sampling events, additional VOC's (acetone, bromochloromethane, bromomethane, 2-butanone, chloroform, chloromethane, 1,1-DCE, methylene chloride, 1,1,2,2-trichloroethane, and vinyl chloride) not associated with the initial release were observed in the samples collected from monitoring wells MW-1, MW-2, MW-3 and MW-5. During the June 2017 sampling event, only chloromethane was observed in the sample collected from monitoring well MW-2 at 2.5 μ g/L.

During the June 2017 monitoring event, groundwater samples that were collected from the ISCO injection wells (MW-1, MW-2, MW-3, and MW-5) were analyzed for RCRA metals. Arsenic, barium, cadmium, and chromium were detected above laboratory reporting limits in samples collected from wells MW-1 and MW-2. MW-3 and MW-5 contained barium at concentrations above the laboratory reporting limits. MW-3 also contained chromium at a concentration above the laboratory reporting limit. None of the samples collected for RCRA metals exhibited concentrations exceeding the non-residential Type 3 RRS. Table 5 presents the summary of RCRA metal analytical data.

In June 2017, the groundwater at the Site was sampled and analyzed for VOCs and RCRA metals and the laboratory reporting limits for those analytes tested were established at levels less than the applicable non-residential Type 3 RRS. Based on the June 2017 sampling effort, the groundwater impacts at the Site have been horizontally delineated with the shallow monitoring well network. However, vertical delineation of groundwater impacts has not been conducted. Below is a listing of the highest concentration of each analyte remaining in groundwater at the Site based on the June 2017 groundwater sample data. Where possible, the concentrations of each analyte were compared to the residential Type 1 RRS; however, compounds exceeding the Type 1 RRS were compared to their respective non-residential Type 3 RRS below:



Compound	Location	Highest Concentration	RRS	RRS Type
Tetrachloroethene	MW-1	283 μg/L	5 μg/L	Type 1/Type 3 ¹
Trichloroethene	MW-1	144 μg/L	5 μg/L	Type 1/Type 3 ¹
cis-1,2-dichloroethene	MW-1	24 μg/L	70 μg/L	Type 1/Type 3 ¹
trans-1,2-dichloroethene	MW-1	12 μg/L	100 μg/L	Type 1/Type 3 ¹
Chloromethane	MW-2	2.5 μg/L	3 μg/L	Type 1/Type 3 ¹
Barium	MW-3	24.8 μg/L	2,000 μg/L	Type 1/Type 3 ¹
Cadmium	MW-2	2.2 μg/L	5 μg/L	Type 1/Type 3 ¹
Chromium	MW-3	11.9 μg/L	100 μg/L	Type 1/Type 3 ¹
Lead	MW-2	9.2 μg/L	15 μg/L	Type 1/Type 3 ¹

Notes:

3.3 Potential Receptors and Exposure Pathways

Based on the nature and extent of impacts at the Site, the following describes the receptors and potential exposure pathways.

3.3.1 Soil Direct Contact and Ingestion - Human Health Risk

The location of historical impacted soil is beneath the current Kroger building of the Site. As previously discussed, soil sampling efforts have both horizontally and vertically delineated soil impacts and corrective actions were performed where impacts exceeded the non-residential Type 3 RRS. The results of the corrective action and soil sampling data collected during previous investigations demonstrate that residual contaminant impacts in vadose zone/unsaturated soils meet both residential Type 1 RRS and non-residential Type 3 RRS. Therefore, human exposure to residual contaminants in soil that exceed a residential scenario does not exist and therefore, direct soil contact and/or ingestion is not a complete exposure pathway.

3.3.2 Groundwater Exposure - Human Health Risk

The Site and surrounding area are served by a municipal water supply system operated by the City of Augusta Water Department. As such, groundwater in this area is not used a drinking water source. The nearest drinking water intake, per discussions with the City of Augusta Water Department, is approximately 1.5-miles from the Site and is owned by the City of Augusta. The nearest domestic drinking water well is located at 1112 Stanley Drive, which is approximately 1,600-feet south (upgradient) of the Site.

Groundwater at the Site remains impacted by PCE and TCE at concentrations exceeding the residential Type 1 RRS, which is the Federal Maximum Contaminant Level (MCL), also known as the Federal Drinking Water Standard. However, the impacted groundwater plume is delineated to a localized area and has not migrated offsite.

Due to the upgradient location of the nearest domestic drinking water well and the delineation of the groundwater plume within the Site boundary, human exposure to impacted groundwater is not currently a complete exposure pathway. However, a groundwater use restriction is not currently present on the Site and therefore, human exposure to impacted groundwater could be complete if a potable well were constructed.

3.3.3 Surface Water Exposure - Human Health Risk and Ecological Risk

As presented in the CSM, groundwater from the Site flows generally toward the north. An intermittent tributary to Rock Creek is located approximately 800 feet northwest (downgradient) of the Site. The tributary receives groundwater discharge during periods of higher water table elevations.

The most recent groundwater sampling data from June 2017 demonstrates that the impacted groundwater plume is delineated to within the Site boundary and offsite migration toward the downgradient surface water body (intermittent tributary to Rock Creek) has not been observed. Based on the age of the release, the known extent of groundwater impact to date, and the limited residual impacts, the groundwater to surface water exposure



¹ = Type 1 and Type 3 RRS are the same value for this compound.

pathway is not complete and is not likely to be considered complete in the future. Ongoing monitoring of the Point of Demonstration (POD) well will serve to provide validation.

3.3.4 Vapor Intrusion Exposure - Human Health Risk

Five sub-slab soil vapor samples were collected from soil vapor implants installed beneath the Kroger building and from within the footprint of the groundwater contaminant plume. The soil vapor implants were placed approximately two feet below the base of the Kroger building slab.

Low level concentrations of VOCs were detected in each soil vapor sample location and the concentrations were screened for potential indoor air risk by using the EPA's VISL calculator. The VISL screening was a comparison of the VOC concentrations detected in sub-slab soil vapor samples during the October 2017 soil vapor sampling effort to target risk levels (1E-5 target risk for carcinogenic compounds and a 1.0 target HQ for non-carcinogenic compounds, under a commercial exposure scenario) using the VISL calculator.

The cumulative carcinogenic risk, as calculated with the VISL calculator, ranged from 1.27E-7 (1.27 in 10,000,000) to 1.72E-6 (1.72 in 1,000,000). The HQ ranged from 0.0343 to 0.465. The results of the VISL screening indicates the VOC concentrations in the sub-slab soil vapor samples do not pose a vapor intrusion risk above the accepted carcinogen risk factor under a commercial scenario (1E-5 or 1 in 100,000) or the target HQ for non-carcinogens of 1.0.

The results of the sub-slab vapor sampling data and the VISL screening demonstrate that residual contaminant impacts in vadose zone/unsaturated soils and the groundwater plume are not contributing sub-slab vapor concentrations that could pose a risk to indoor air quality above the accepted carcinogen risk factor under a commercial scenario or the target HQ for non-carcinogens. Therefore, the soil vapor to indoor air pathway is not complete and is not likely to be considered complete in the future due to the previous removal of the source material (i.e., impacted soils) and likely degradation and attenuation of the groundwater plume.

3.4 Environmental Remediation Standards

The selected remediation standards available under the VRP for the impacted environmental media are discussed below.

3.4.1 Soil Criteria

The Site is a non-residential property currently developed with several retail tenants and an anchor store occupied by Kroger that were constructed on the Site in 2008 and are collectively known as the Washington Walk Shopping Center. The applicable compliance criteria for soils based on property use are non-residential Type 3 RRS. However, soils exceeding the non-residential Type 3 RRS have been remediated and residual soil impacts are below the residential Type 1 RRS.

3.4.2 Groundwater Criteria

It is currently Kroger's intent to demonstrate that groundwater will comply with the higher of the non-residential Type 3 or 4 RRS that will be calculated that are protective of the closest downgradient receptor, which is the intermittent tributary to Rock Creek located approximately 800 feet northwest (downgradient) of the Site.

VOCs detected in groundwater at concentrations above residential RRS include PCE and TCE. Because the property usage will be restricted to non-residential, the higher of the non-residential Type 3 or 4 RRS applies. Furthermore, an environmental covenant will be used to restrict the use of groundwater wells on the Site until such time that the control can be eliminated for unrestricted use.

3.4.3 Surface Water Criteria

The remediation criteria for surface water are Georgia In-stream Water Quality Standards (IWQS). The current the groundwater plume is delineated to within the Site boundary and offsite migration toward the downgradient surface water body (intermittent tributary to Rock Creek) has not been observed.



SECTION 4.0

Proposed Voluntary Investigation and Remediation Plan

It is Kroger's objective to remove the Site from the HSI through implementation of an efficient voluntary investigation and remediation plan that is protective of human health and the environment. This section outlines the proposed actions anticipated to satisfy the requirements set forth in the Georgia Voluntary Remediation Act.

4.1 Restrictive Covenant

In the VRP, the Uniform Environmental Covenant (UEC) and various controls (e.g., engineering, institutional) can play a role in controlling future use of the property and use of the soil and water resources. For example, groundwater use controls will affect the potential for future exposure to groundwater beneath the Site.

Therefore, institutional controls will be used to eliminate possible groundwater exposure pathways. Kroger will execute a covenant that restricts the use of surficial groundwater to non-potable uses only for the 20.05-acre Site (tax parcel #013-0-013-00-0) currently owned by Kroger. The covenant will be executed in conformance with Georgia's Uniform Environmental Covenants Act (O.C.G.A. § 44-16-1).

4.2 Soil Investigation and Remediation

The extent of soil impacts has been delineated to the residential Type 1 RRS and soil impacts exceeding the non-residential Type 3 RRS have been remediated through a soil removal corrective action in August 2007. As a result, no further soil investigation, sampling, or corrective action is necessary.

4.3 Groundwater Investigation and Remediation

4.3.1 Deep Well Installation

Once the Site is accepted into the Georgia EPD VRP, Contour will oversee a qualified drilling contractor to install one deep, 2-inch diameter monitoring well to obtain vertical delineation of the dissolved groundwater plume. The deep well will be a double-cased well. The initial well boring will be advanced near the source area and advanced to 40-feet bgs and a 6-inch diameter PVC surface casing will be grouted into place. Following sufficient curing time for the grout, the inner cased well will be advanced to 50-feet bgs through the 6-inch surface casing. The inner cased well will be installed with a 2-inch diameter slotted PVC screen placed from 45 to 50-feet bgs with solid PVC riser extending to ground surface. The location of the proposed deep groundwater monitoring well is shown on Figure 11.

4.3.2 Well Plugging and Abandonment

During the deep well installation event, Contour will properly plug and abandon monitoring well MW-9. Monitoring well MW-9 was installed in August of 2011 and has been historically dry since installation. In September 2015, monitoring well MW-15 was installed near well MW-9 as a replacement well to facilitate groundwater sampling in the vicinity of monitoring well MW-9.

4.3.3 Groundwater Sampling

Following installation of the deep well, one round of groundwater sample collection will be conducted from monitoring wells MW-1 through MW-15 plus the deep well. Groundwater level measurements will be collected from each monitoring well onsite followed by well purging and groundwater sample collection. Groundwater samples collected from each onsite monitoring well will be submitted for analysis of VOCs by EPA Method 8260B.



4.4 Fate and Transport Modeling

Using the updated groundwater sampling data, Contour will utilize the BIOCHLOR model to simulate remediation by natural attenuation of the dissolved groundwater plume. The objective will be to evaluate the levels of contaminant concentrations that can be left in place such that groundwater discharge to surface water will not result in surface water concentrations that exceed Georgia IWQS under low stream flow conditions. The BIOCHLOR model will predict the maximum extent of dissolved-phase plume migration, which may then be compared to the distance to potential points of exposure (e.g., drinking water wells or surface water bodies). The modeling would also be used to establish POD wells upgradient of the stream that would be used to verify the model predictions.

The BIOCHLOR model results will be presented in a Fate & Transport Model report describing the groundwater sampling data, the model input parameters, and the modeling results that are predicted over time.



SECTION 5.0

Milestone Schedule

The VRP specifically identifies four milestones (task and schedule for completion) that are required in each VIRP. These milestones are identified on the conceptual milestone schedule included in Appendix G. The conceptual milestone schedule will be regularly updated throughout implementation of the VIRP. A proposed schedule for the investigation and remedial activities detailed in this VIRP, assuming an approval date of October 19, 2018, is included in the table below:

Task	Start	Completion
Notice of VIRP Approval	October 19, 2018	October 19, 2018
Deep Well Installation	November 12, 2018	November 19, 2018
Site Wide Groundwater Monitoring Event	December 3, 2018	December 12, 2018
BIOCHLOR Modeling	December 17, 2018	January 28, 2019
Semi-Annual Status Report	April 16, 2019	April 19, 2019
Compliance Status Report	February 11, 2018	May 13, 2019

Upon acceptance into the VRP, Kroger will proceed with the activities presented in this VIRP. A progress report, including an updated CSM, will be submitted within 6 months of acceptance into the VRP. Subsequent semi-annual progress reports will be submitted routinely for the duration of the investigation and remediation activities under the VRP.

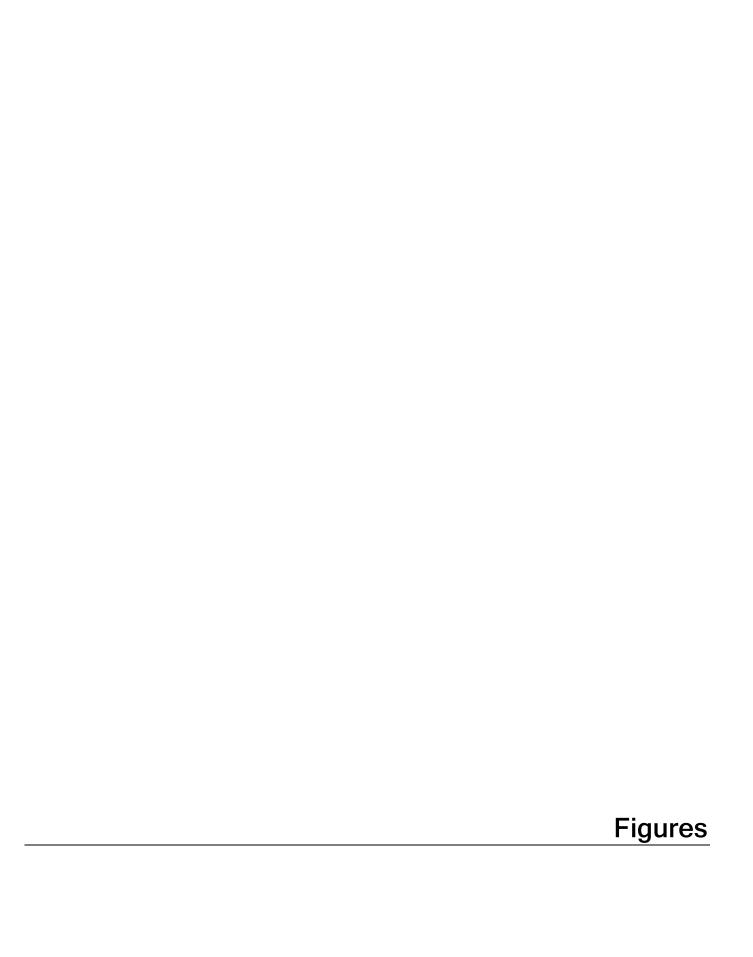


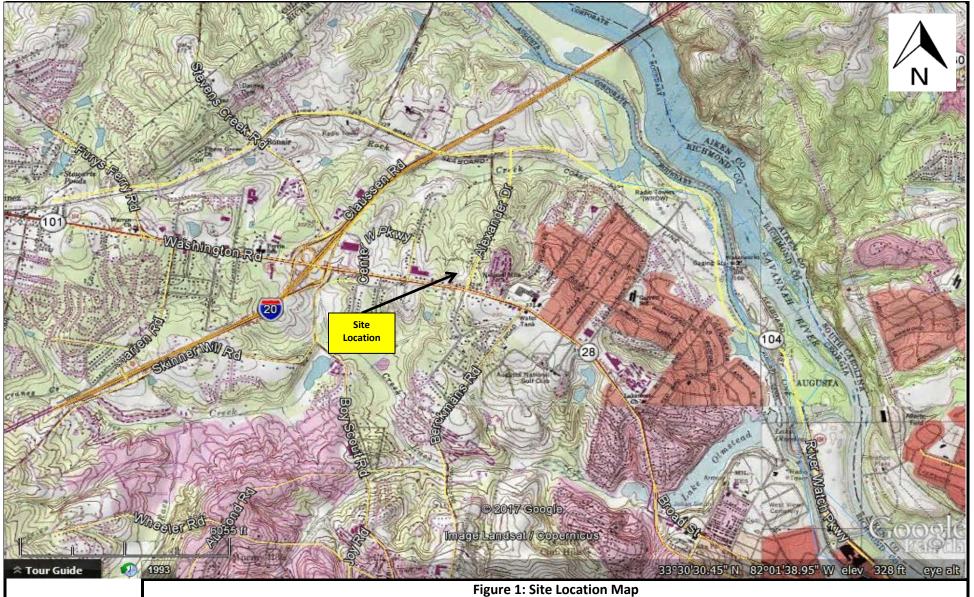
SECTION 6.0

References

- Enercon. 2008. *Groundwater Corrective Action Plan.* Former Lucky Cleaners, 2801 Washington Road, Augusta, Richmond County, Georgia. December.
- Enercon. 2011. *Updated Groundwater Corrective Action Plan.* Former Lucky Cleaners, 2801 Washington Road, Augusta, Richmond County, Georgia, HSI# 10845. December.
- Enercon. 2013. *Semi-Annual Groundwater Monitoring Report #1.* Former Lucky Cleaners HSI# 10845, 2801 Washington Road, Augusta, Richmond County, Georgia 30909. June.
- Enercon. 2014. *Semi-Annual Groundwater Monitoring Report #2.* Former Lucky Cleaners HSI# 10845, 2801 Washington Road, Augusta, Richmond County, Georgia 30909. April.
- Enercon. 2015. *Semi-Annual Groundwater Monitoring Report #3.* Former Lucky Cleaners HSI# 10845, 2801 Washington Road, Augusta, Richmond County, Georgia 30909. February.
- Enercon. 2015. *Semi-Annual Groundwater Monitoring Report #4.* Former Lucky Cleaners HSI# 10845, 2801 Washington Road, Augusta, Richmond County, Georgia 30909. December.
- Enercon. 2016. Semi-Annual Groundwater Monitoring Report #5. Former Lucky Cleaners HSI# 10845, 2801 Washington Road, Augusta, Richmond County, Georgia 30909. May.
- Enercon. 2017. *Semi-Annual Groundwater Monitoring Report #6.* Former Lucky Cleaners HSI# 10845, 2801 Washington Road, Augusta, Richmond County, Georgia 30909. February.
- Enercon. 2017. *Semi-Annual Groundwater Monitoring Report #7.* Former Lucky Cleaners HSI# 10845, 2801 Washington Road, Augusta, Richmond County, Georgia 30909. July.
- Georgia Geologic Survey. 1977. Geologic Map of Georgia.







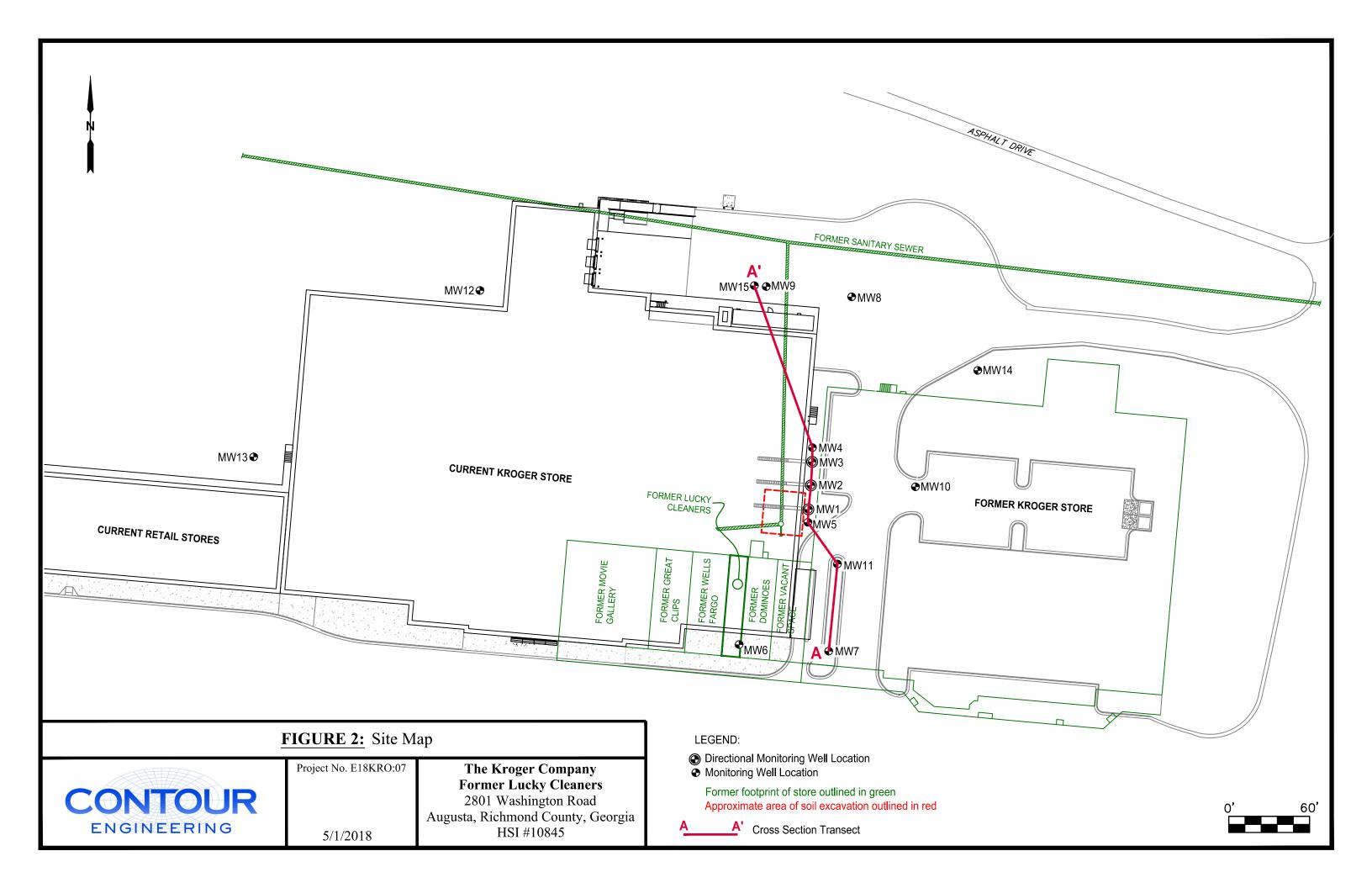


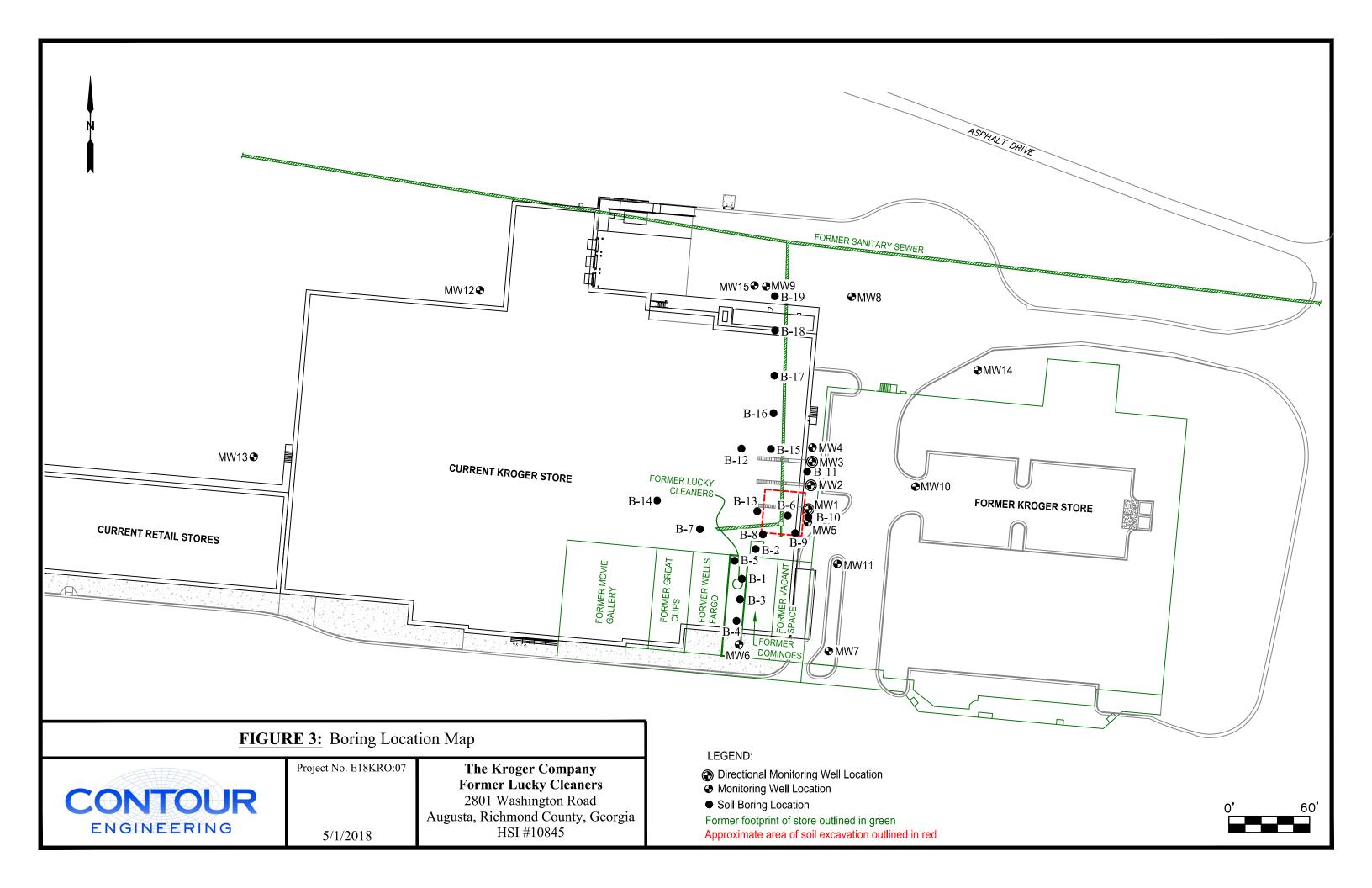
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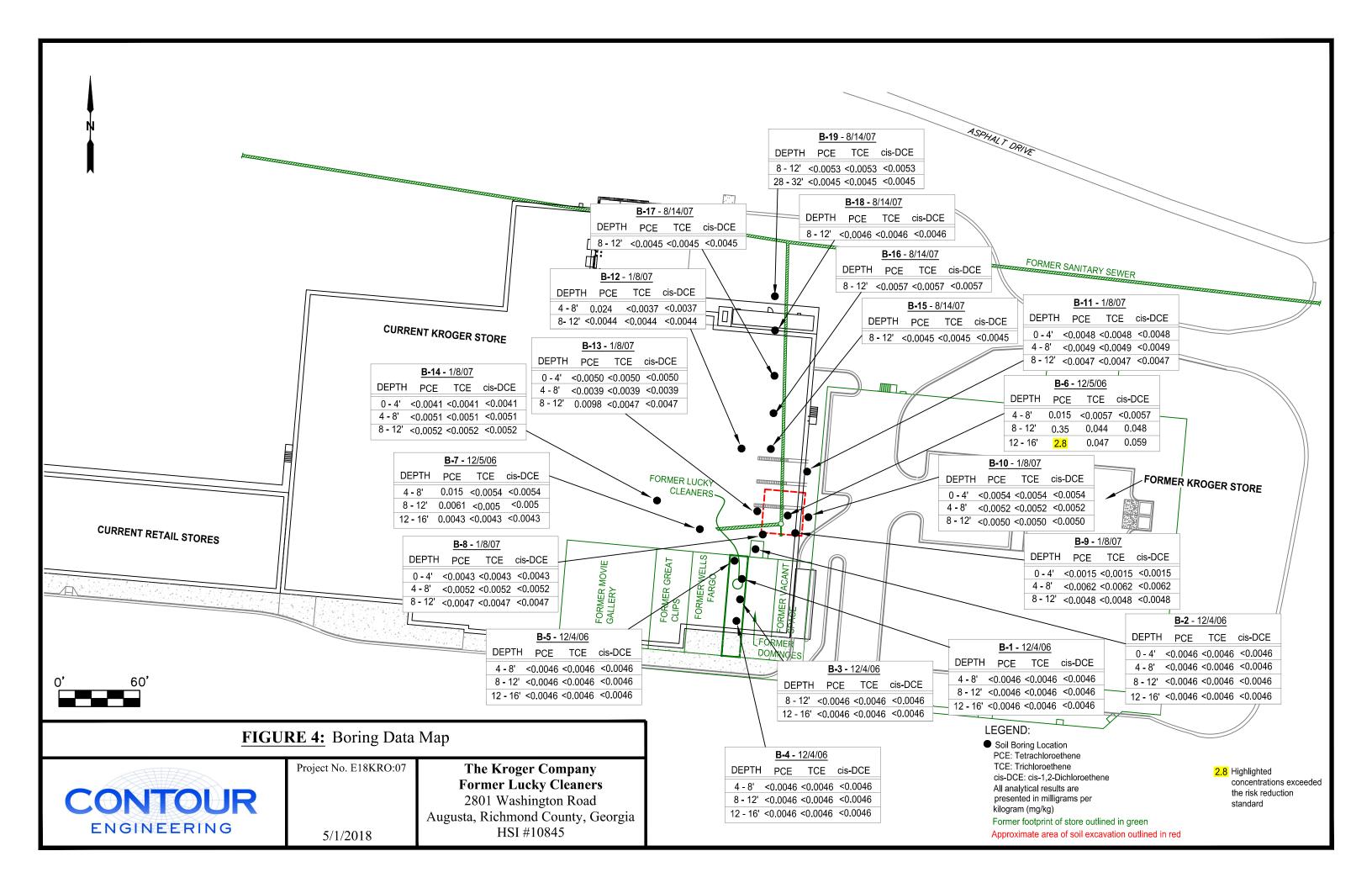
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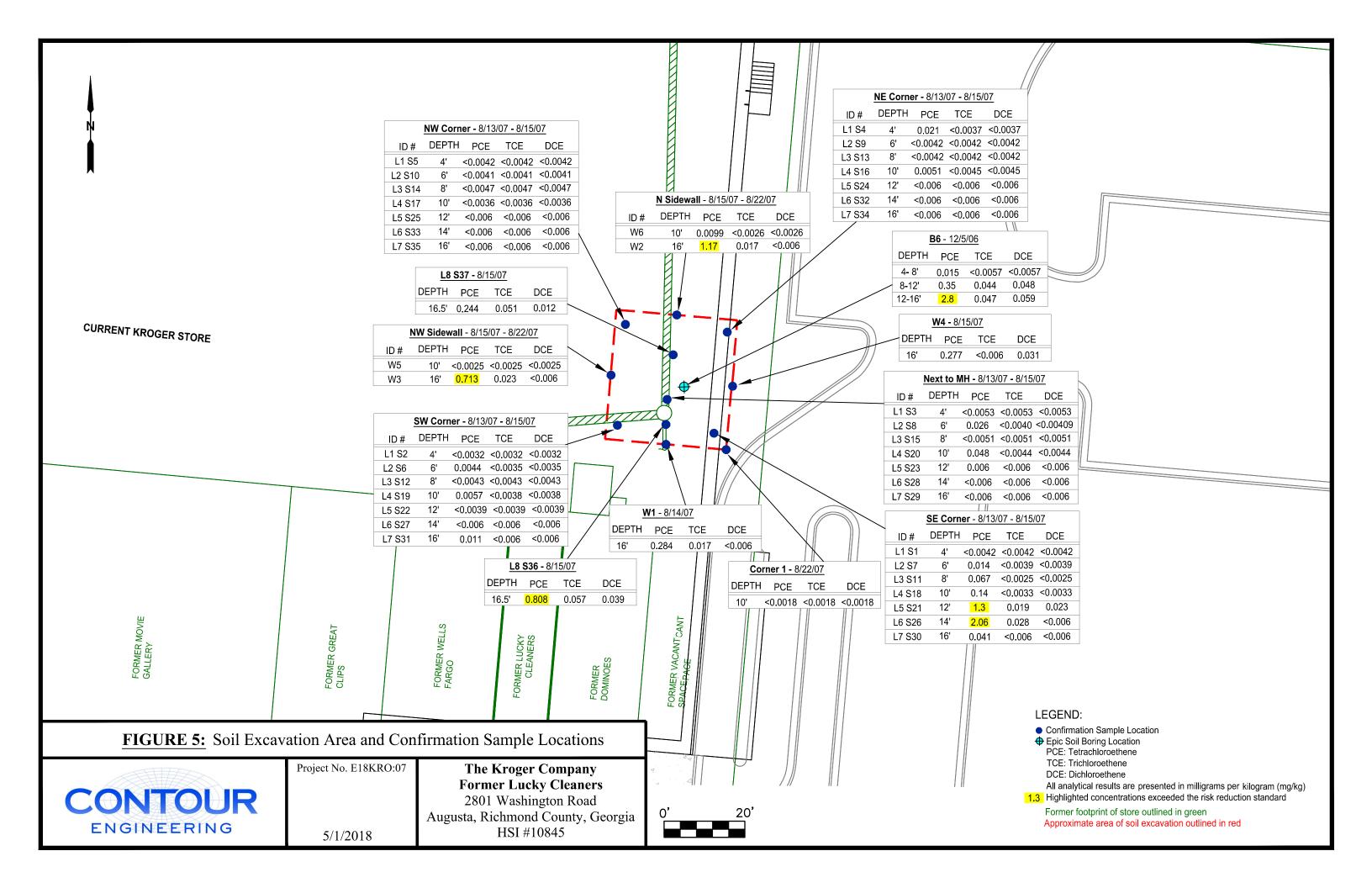
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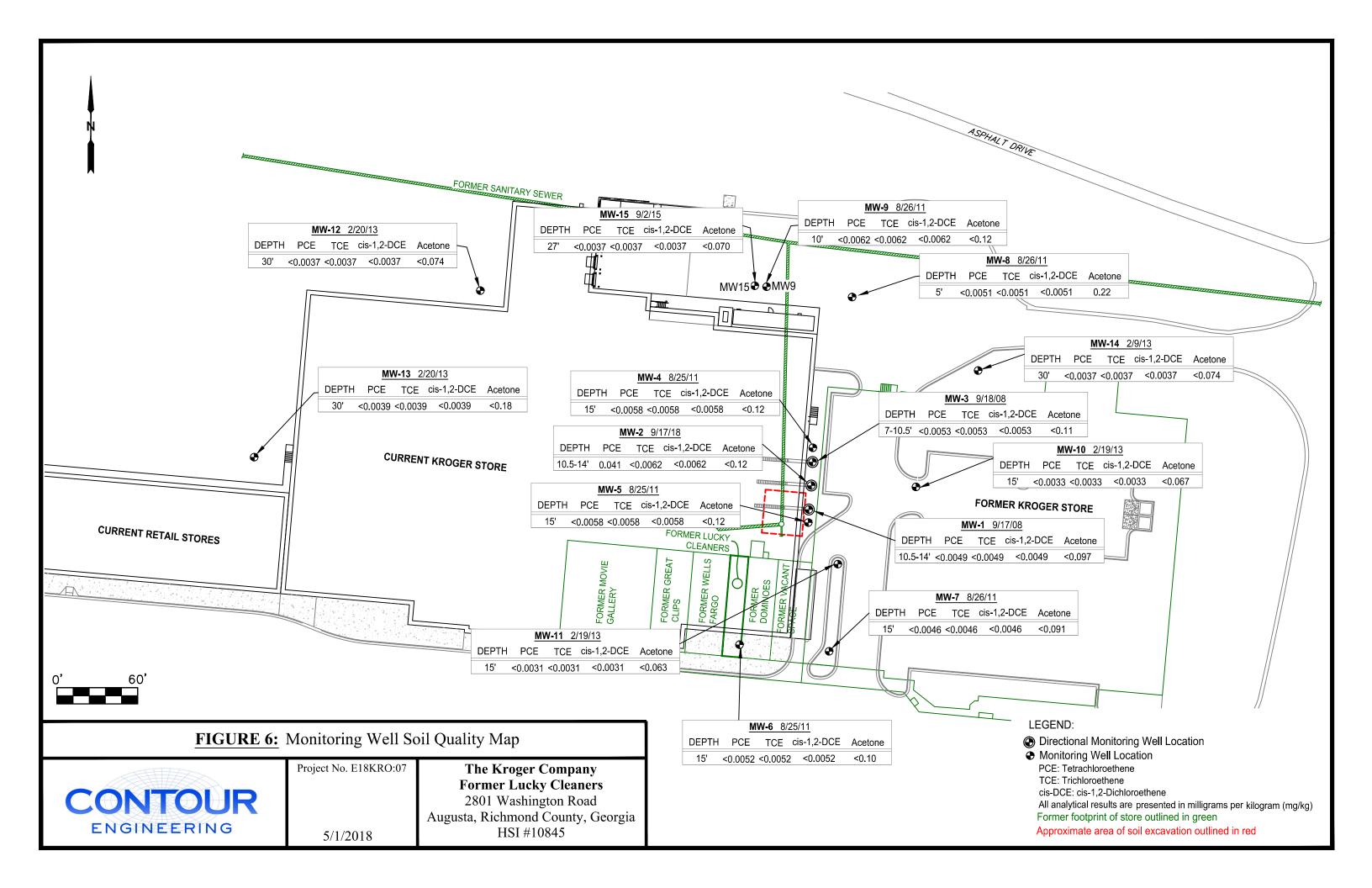
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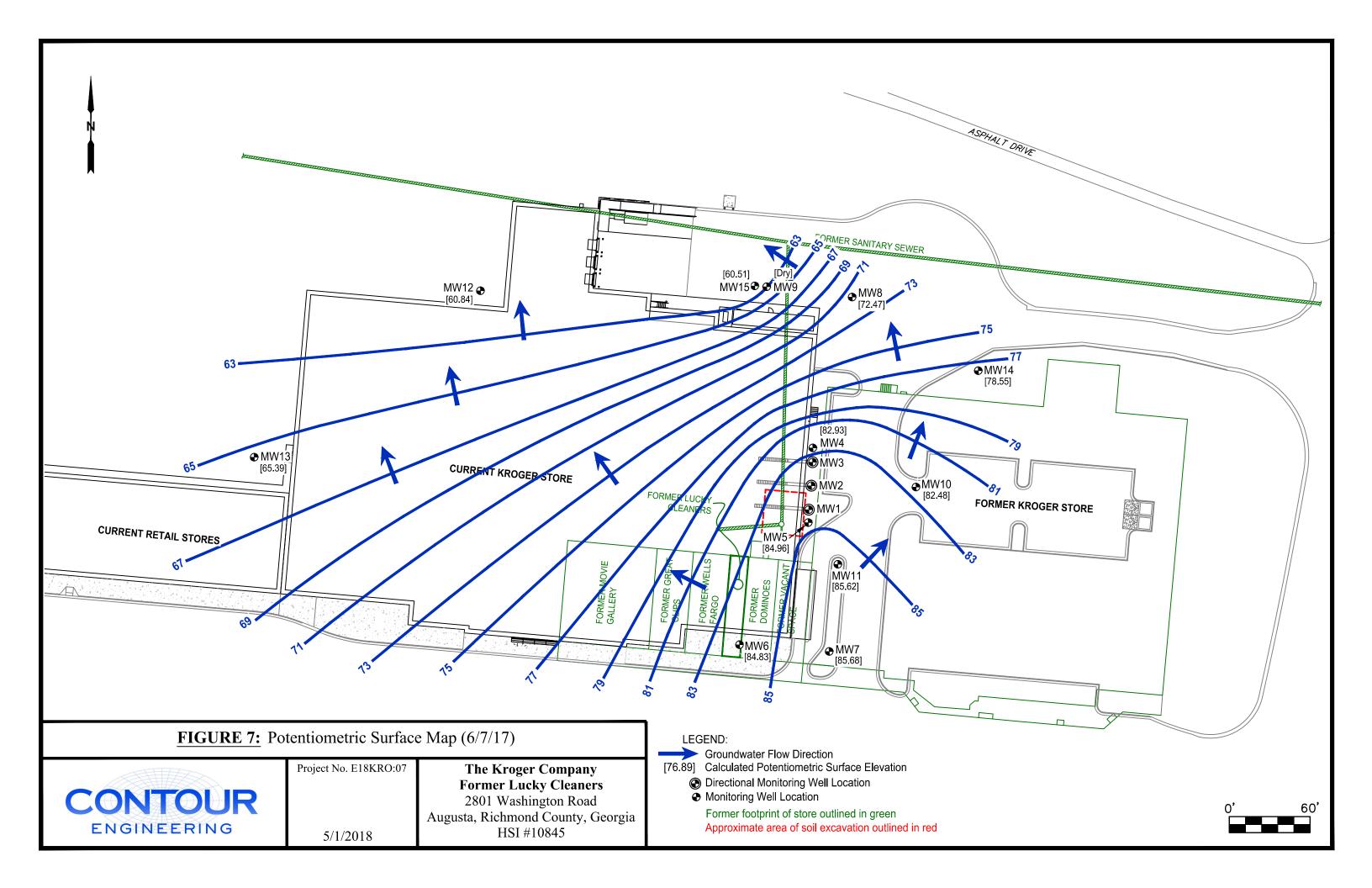


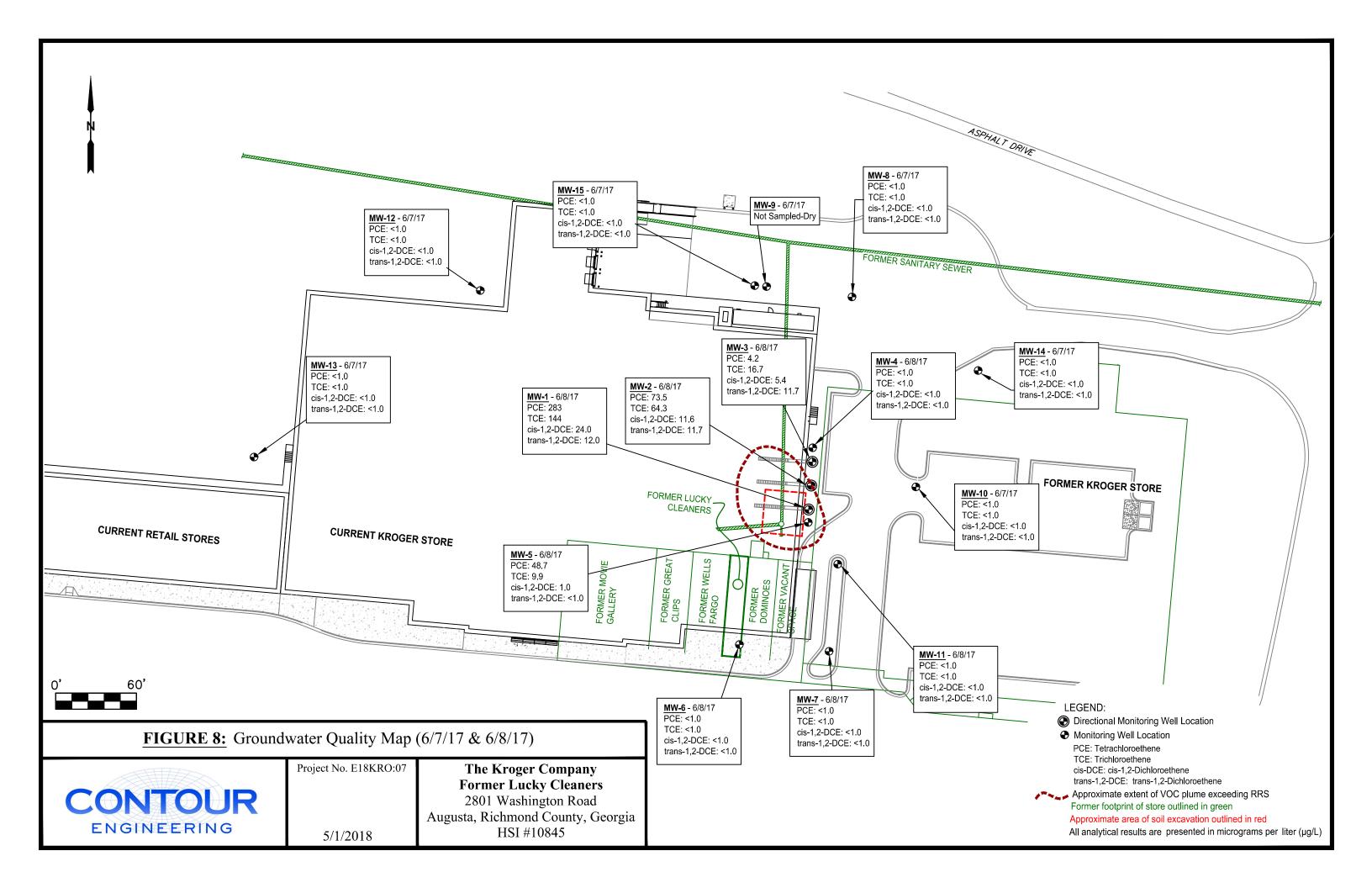


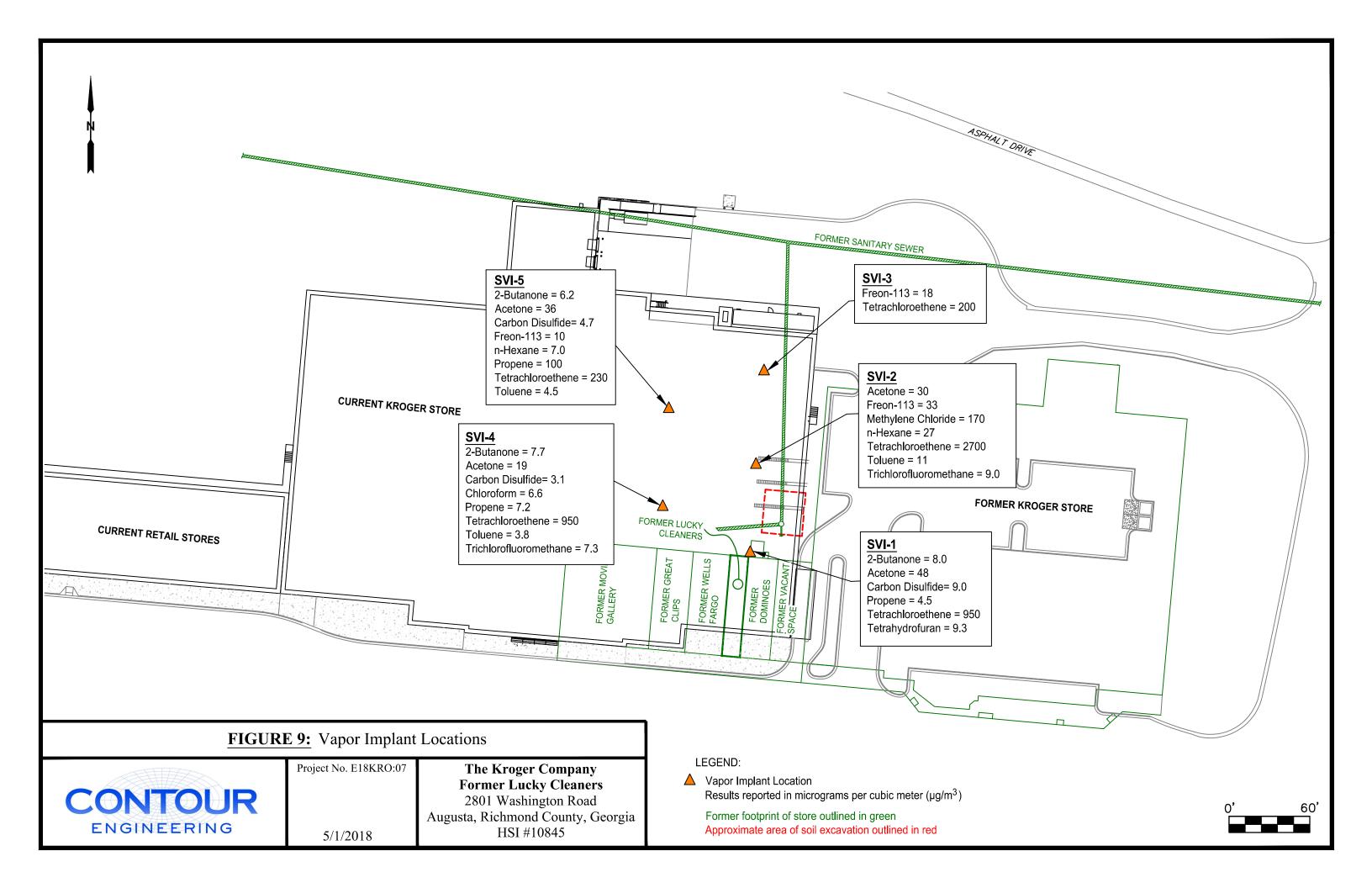


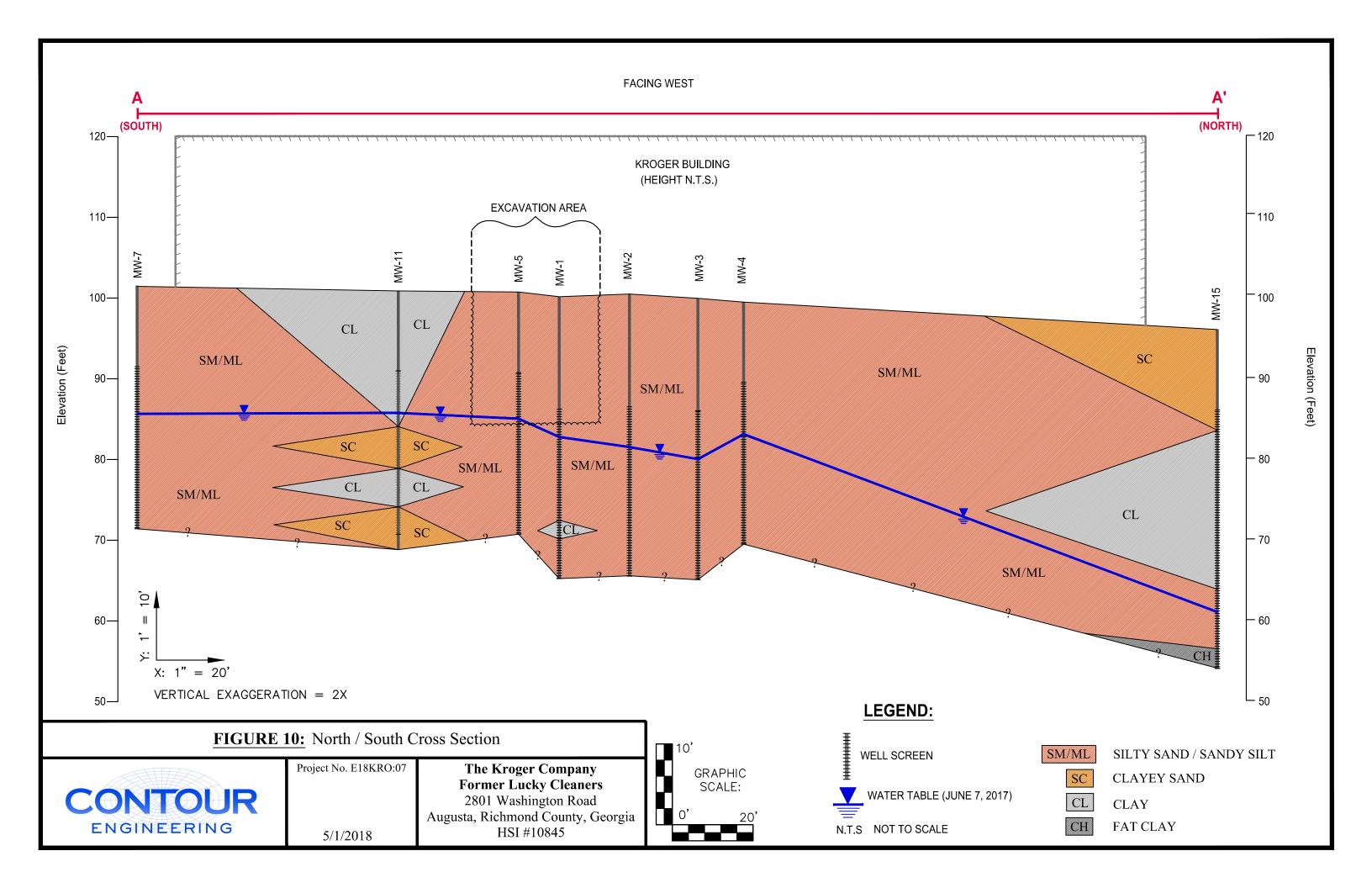


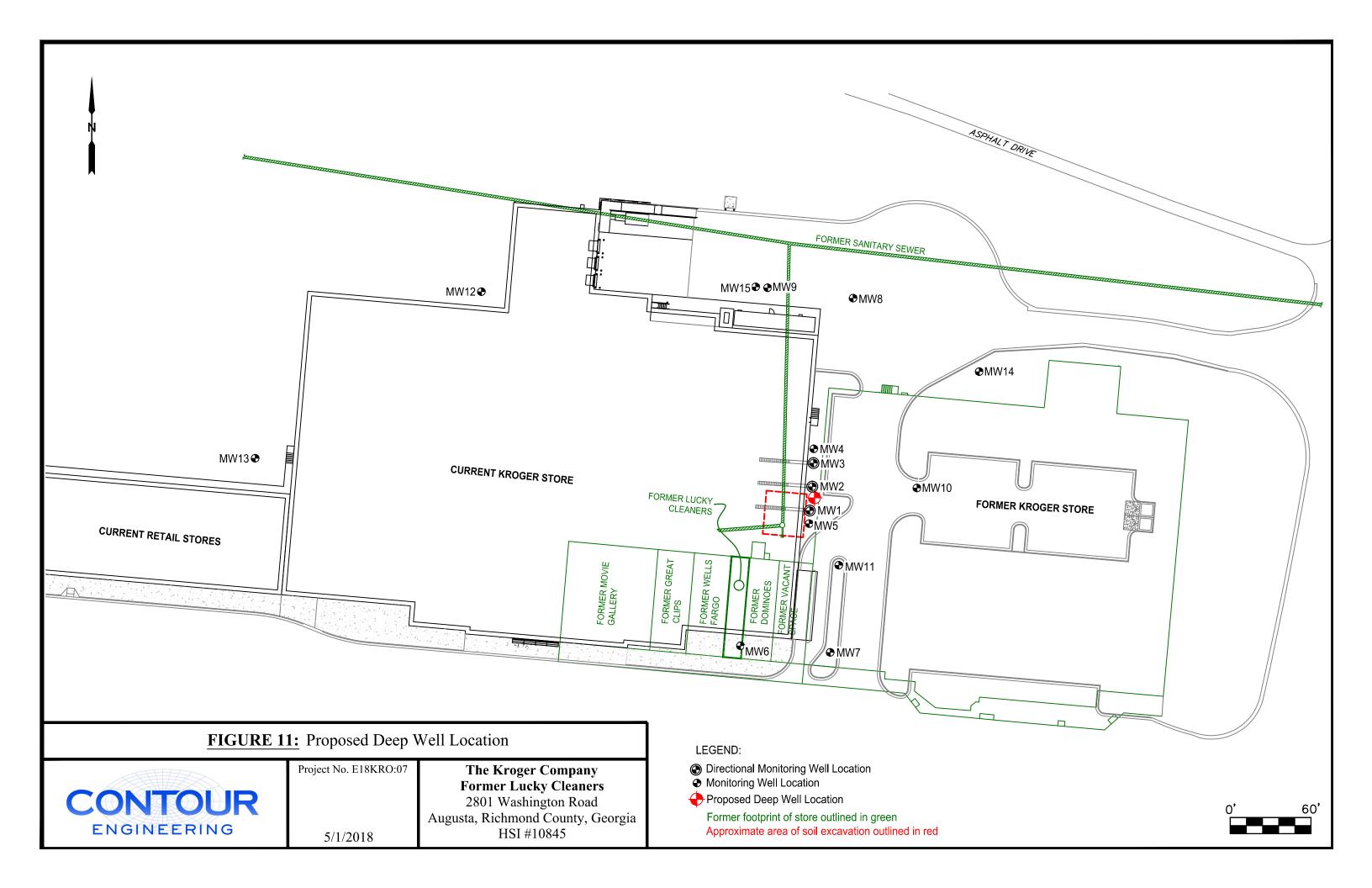


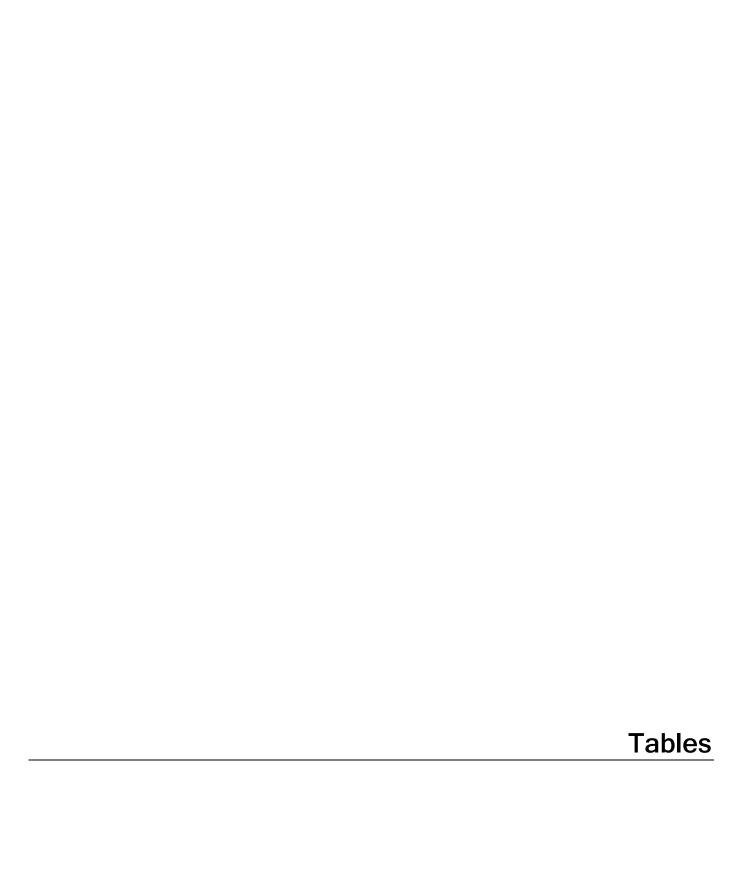












2801 Washington Road Augusta, Richmond County, Georgia HSI #10845

TABLE 1: SOIL BORING ANALYTICAL DATA SUMMARY (VOCs)

Commis I costion	Data Campled		Concentration	ns are in mg/kg		TatalNOCa
Sample Location	Date Sampled	PCE	TCE	cis-1,2-DCE	Acetone	Total VOCs
B-1 @ 4-8'	12/4/2006	<0.0046	<0.0046	<0.0046	<0.091	BRL
B-1 @ 8-12'	12/4/2006	<0.0046	<0.0046	<0.0046	<0.097	BRL
B-1 @ 12-16'	12/4/2006	<0.0046	<0.0046	<0.0046	<0.088	BRL
B-2 @ 0-4'	12/4/2006	<0.0046	<0.0046	<0.0046	<0.100	BRL
B-2 @ 4-8'	12/4/2006	<0.0046	<0.0046	<0.0046	<0.110	BRL
B-2 @ 8-12'	12/4/2006	<0.0046	<0.0046	<0.0046	<0.097	BRL
B-2 @ 12-16'	12/4/2006	<0.0046	<0.0046	<0.0046	<0.085	BRL
B-3 @ 8-12'	12/4/2006	<0.0046	<0.0046	<0.0046	<0.092	BRL
B-3 @ 12-16'	12/4/2006	<0.0046	<0.0046	<0.0046	<0.083	BRL
B-4 @ 4-8'	12/4/2006	<0.0046	<0.0046	<0.0046	<0.084	BRL
B-4 @ 8-12'	12/4/2006	<0.0046	<0.0046	<0.0046	<0.097	BRL
B-4 @ 12-16'	12/4/2006	<0.0046	<0.0046	<0.0046	<0.100	BRL
B-5 @ 4-8'	12/4/2006	<0.0046	<0.0046	<0.0046	<0.092	BRL
B-5 @ 8-12'	12/4/2006	<0.0046	<0.0046	<0.0046	<0.098	BRL
B-5 @ 12-16'	12/4/2006	<0.0046	<0.0046	<0.0046	<0.089	BRL
B-6 @ 4-8'	12/5/2006	0.015	<0.0057	<0.0057	<0.100	0.015
B-6 @ 8-12'	12/5/2006	0.35	0.044	0.048	<0.120	0.442
B-6 @ 12-16'	12/5/2006	2.8	0.047	0.049	<0.120	2.906
B-7 @ 4-8'	12/5/2006	0.015	<0.0054	<0.0054	<0.110	0.015
B-7 @ 8-12'	12/5/2006	0.0061	<0.005	<0.005	<0.100	0.0061
B-7 @ 12-16'	12/5/2006	0.0043	<0.0043	<0.0043	<0.085	0.0043
Storage Sand	12/5/2006	<0.0048	<0.0048	<0.0048	<0.095	BRL
B-8 @ 0-4'	1/8/2007	<0.0043	<0.0043	<0.0043	<0.087	BRL
B-8 @ 4-8'	1/8/2007	<0.0052	<0.0052	<0.0052	<0.100	BRL
B-8 @ 8-12'	1/8/2007	<0.0047	<0.0047	<0.0047	<0.093	BRL
B-9 @ 0-4'	1/8/2007	<0.0015	<0.0015	<0.0015	<0.100	BRL
B-9 @ 4-8'	1/8/2007	<0.0013	<0.0062	<0.0062	<0.120	BRL
B-9 @ 8-12'	1/8/2007	<0.0048	<0.0048	<0.0048	<0.095	BRL
B-10 @ 0-4'	1/8/2007	<0.0054	<0.0054	<0.0054	<0.110	BRL
B-10 @ 4-8'	1/8/2007	<0.0052	<0.0054	<0.0052	<0.110	BRL
B-10 @ 4-8 B-10 @ 8-12'	1/8/2007	<0.0050	<0.0052	<0.0052	<0.100	BRL
B-11 @ 0-4'	1/8/2007	<0.0030	<0.0038	<0.0038	<0.096	BRL
B-11 @ 0-4 B-11 @ 4-8'	1/8/2007	<0.0048	<0.0048	<0.0048	<0.098	BRL
B-11 @ 4-8 B-11 @ 8-12'	1/8/2007	<0.0047	<0.0043	<0.0043	<0.095	BRL
B-11 @ 8-12 B-12 @ 4-8'	1/8/2007	0.024	<0.0047	<0.0047	<0.074	0.024
B-12 @ 4-8 B-12 @ 8-12'	1/8/2007	<0.0044	<0.0037	<0.0037	<0.089	BRL
B-12 @ 8-12 B-13 @ 0-4'	1/8/2007	<0.0050	<0.0050	<0.0050	<0.100	BRL
B-13 @ 4-8'	1/8/2007	<0.0030	<0.0039	<0.0030	<0.100	BRL
B-13 @ 4-8 B-13 @ 8-12'	1/8/2007	0.0039	<0.0039	<0.0039	<0.078	0.0098
B-13 @ 8-12 B-14 @ 0-4'	1/8/2007	<0.0041	<0.0047	<0.0047	<0.093	0.0098 BRL
		<0.0041				-
B-14 @ 4-8'	1/8/2007		<0.0051	<0.0051	<0.100	BRL
B-14 @ 8-12'	1/8/2007	<0.0052	<0.0052	<0.0052	<0.100	BRL
B-15 @ 8-12'	8/14/2007	<0.0045	<0.0045	<0.0045	<0.090	BRL
B-16 @ 8-12'	8/14/2007	<0.0057	<0.0057	<0.0057	<0.110	BRL

2801 Washington Road Augusta, Richmond County, Georgia HSI #10845

TABLE 1: SOIL BORING ANALYTICAL DATA SUMMARY

(VOCs)

Commis I costion	Data Campulad		Concentration	s are in mg/kg		Total VOCa
Sample Location	Date Sampled	PCE	TCE	cis-1,2-DCE	Acetone	Total VOCs
B-17 @ 8-12'	8/14/2007	<0.0045	<0.0045	<0.0045	<0.091	BRL
B-18 @ 8-12'	8/14/2007	<0.0046	<0.0046	<0.0046	< 0.093	BRL
B-19 @ 8-12'	8/14/2007	< 0.0053	< 0.0053	< 0.0053	<0.110	BRL
B-19 @ 28-32'	8/14/2007	< 0.0045	<0.0045	<0.0045	< 0.090	BRL
MW-1 @ 10.5-14'	09/17/08	< 0.0049	< 0.0049	< 0.0049	< 0.097	BRL
MW-2 @ 10.5-14'	09/17/08	0.041	<0.0062	<0.0062	<0.12	0.041
MW-3 @ 7-10.5'	09/18/08	< 0.0053	< 0.0053	< 0.0053	<0.11	BRL
MW-4 @ 15'	08/25/11	<0.0058	<0.0058	<0.0058	<0.12	BRL
MW-5 @ 15'	08/25/11	<0.0058	<0.0058	<0.0058	<0.12	BRL
MW-6 @ 15'	08/25/11	<0.0052	<0.0052	<0.0052	<0.10	BRL
MW-7 @ 15'	08/26/11	<0.0046	<0.0046	<0.0046	<0.091	BRL
MW-8 @ 5'	08/26/11	<0.0051	<0.0051	<0.0051	0.22	0.22
MW-9 @ 10'	08/26/11	<0.0062	<0.0062	<0.0062	<0.12	BRL
MW-10 @ 15'	02/19/13	<0.0033	< 0.0033	< 0.0033	<0.067	BRL
MW-11 @ 15'	02/19/13	<0.0031	< 0.0031	< 0.0031	<0.063	BRL
MW-12 @ 30'	02/20/13	< 0.0037	< 0.0037	< 0.0037	< 0.074	BRL
MW-13 @ 30'	02/20/13	< 0.0039	< 0.0039	< 0.0039	0.18	0.18
MW-14 @ 30'	02/19/13	<0.0037	< 0.0037	< 0.0037	<0.074	BRL
MW-15 @ 27'	09/02/15	<0.0035	<0.0035	<0.0035	<0.070	BRL
Type 1 I	RRS	0.50	0.50	7	400	NA
Type 3 I	RRS	0.50	0.50	7	400	NA

Notes:

HSI = Hazardous Site Inventory

 $\label{eq:VOCs} \mbox{VOCs = volatile organic compounds}$

mg/kg = millgrams per kilogram

PCE = tetrachloroethene

TCE = trichloroethene

DCE = dichloroethene

BRL = below reporting limits

NA = not applicable

RRS = Risk Reduction Standard

Bold indicates compound detected above the laboratory reporting limit

Bold and shading indicates exceedance of RRS

2801 Washington Road Augusta, Richmond County, Georgia HSI #10845

TABLE 2: SOIL EXCAVATION SAMPLE ANALYTICAL DATA SUMMARY (VOCs)

Sample	Sample			Concen	trations are in r	ng/kg		
Location	Depth	Date Sampled	PCE	TCE	cis-1,2-DCE	1,4-DCB	Acetone	Total VOCs
L1 S1	4	8/13/2007	<0.0042	<0.0042	<0.0042	<0.0042	<0.084	BRL
L1 S2	4	8/13/2007	<0.0032	<0.0032	<0.0032	<0.0032	0.21	0.21
L1 S3	4	8/13/2007	<0.0053	<0.0053	<0.0053	<0.0053	<0.110	BRL
L1 S4	4	8/13/2007	0.021	<0.0037	<0.0037	<0.0037	<0.075	0.021
L1 S5	4	8/13/2007	<0.0042	<0.0042	<0.0042	<0.0042	<0.085	BRL
L2 S6	6	8/14/2007	0.0044	<0.0035	<0.0035	<0.0035	<0.070	0.0044
L2 S7	6	8/14/2007	0.014	<0.0039	<0.0039	<0.0039	<0.078	0.014
L2 S8	6	8/14/2007	0.026	<0.0040	<0.0040	<0.0040	<0.079	0.026
L2 S9	6	8/14/2007	<0.0042	<0.0042	<0.0042	<0.0042	<0.084	BRL
L2 S10	6	8/14/2007	<0.0041	<0.0041	<0.0041	<0.0041	<0.082	BRL
L3 S11	8	8/14/2007	0.067	<0.0025	<0.0025	<0.0025	0.052	0.119
L3 S12	8	8/14/2007	<0.0043	< 0.0043	< 0.0043	<0.0043	<0.086	BRL
L3 S13	8	8/14/2007	<0.0042	<0.0042	<0.0042	<0.0042	<0.085	BRL
L3 S14	8	8/14/2007	<0.0047	<0.0047	< 0.0047	<0.0047	<0.095	BRL
L3 S15	8	8/14/2007	<0.0051	< 0.0051	< 0.0051	<0.0051	<0.100	BRL
L4 S16	10	8/14/2007	0.0051	<0.0045	< 0.0045	<0.0045	<0.090	0.0051
L4 S17	10	8/14/2007	<0.0036	<0.0036	< 0.0036	<0.0036	< 0.073	BRL
L4 S18	10	8/14/2007	0.14	< 0.0033	< 0.0033	<0.0033	<0.066	0.14
L4 S19	10	8/14/2007	0.0057	<0.0038	<0.0038	<0.0038	<0.076	0.0057
L4 S20	10	8/14/2007	0.048	<0.0044	<0.0044	<0.0044	<0.088	0.048
L5 S21	12	8/14/2007	1.3	0.019	0.023	<0.0041	<0.083	1.342
L5 S22	12	8/14/2007	<0.0039	<0.0039	< 0.0039	<0.0039	<0.078	BRL
L5 S23	12	8/14/2007	0.006	<0.006	<0.006	<0.006	<0.120	0.006
L5 S24	12	8/14/2007	<0.006	<0.006	<0.006	<0.006	<0.120	BRL
L5 S25	12	8/14/2007	<0.006	<0.006	<0.006	<0.006	<0.120	BRL
L6 S26	14	8/14/2007	2.06	0.028	<0.006	0.010	<0.120	2.088
L6 S27	14	8/14/2007	<0.006	<0.006	<0.006	<0.006	<0.120	BRL
L6 S28	14	8/14/2007	<0.006	<0.006	<0.006	<0.006	<0.120	BRL
L6 S32	14	8/14/2007	<0.006	<0.006	<0.006	<0.006	<0.120	BRL
L6 S33	14	8/14/2007	<0.006	<0.006	<0.006	<0.006	<0.120	BRL
L7 S29	16	8/14/2007	<0.006	<0.006	<0.006	<0.006	<0.120	BRL
L7 S30	16	8/14/2007	0.041	<0.006	<0.006	<0.006	<0.120	0.041
L7 S31	16	8/14/2007	0.011	<0.006	<0.006	<0.006	<0.120	0.011
L7 S34	16	8/14/2007	<0.006	<0.006	<0.006	<0.006	<0.120	BRL
L7 S35	16	8/14/2007	<0.006	<0.006	<0.006	<0.006	<0.120	BRL
L8 S36	16.5	8/15/2007	0.808	0.057	0.039	<0.006	<0.120	0.904
L8 S37	16.5	8/15/2007	0.244	0.051	0.012	<0.006	<0.120	0.307
W1	16	8/15/2007	0.284	0.057	0.007	<0.006	<0.120	0.348
W2	16	8/15/2007	1.17	0.017	<0.006	<0.006	<0.120	1.187
W3	16	8/15/2007	0.713	0.023	<0.006	<0.006	<0.120	0.736
W4	16	8/15/2007	0.277	<0.006	0.031	<0.006	<0.120	0.308
W5	10	8/22/2007	<0.0025	<0.0025	<0.0025	<0.0025	<0.049	BRL
W6	10	8/22/2007	0.0099	<0.0026	<0.0026	<0.0026	<0.051	0.0099
Corner 1	10	8/22/2007	<0.0018	<0.0018	<0.0018	<0.0018	<0.037	BRL

2801 Washington Road Augusta, Richmond County, Georgia HSI #10845

TABLE 2: SOIL EXCAVATION SAMPLE ANALYTICAL DATA SUMMARY

(VOCs)

Sample	Sample	Date Sampled		Concent	trations are in n	ng/kg		Total VOCs
Location	Depth	Date Sampled	PCE	TCE	cis-1,2-DCE	1,4-DCB	Acetone	Total VOCS
	Type 1 RR	S	0.50	0.50	7	7.50	400	NA
	Type 3 RRS			0.50	7	7.50	400	NA

Notes:

HSI = Hazardous Site Inventory

VOCs = volatile organic compounds

mg/kg = millgrams per kilogram

PCE = tetrachloroethene

TCE = trichloroethene

DCE = dichloroethene

DCB = dichlorobenzene

BRL = below reporting limits

NA = not applicable

RRS = Risk Reduction Standard

Bold indicates compound detected above the laboratory reporting limit

Bold and shading indicates exceedance of RRS

2801 Washington Road Augusta, Richmond County, Georgia HSI #10845

TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY

										Conce	entrations are in μg/L							
Sample Location	Date Sampled	PCE	TCE	cis- 1,2-DCE	trans- 1,2-DCE	1,1-DCE	Vinyl Chloride	Acetone	Chloroform	Toluene	Bromochloromethane**	Bromomethane**	MEK**	Chloromethane**	Methylene Chloride**	1,1,2,2- TCA**	МТВЕ	Total VOCs
	09/22/08	14	<5.0	<5.0	<5.0	<5.0	<2.0	<50	5.1	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	19.1
-	09/12/11	1,900	500	27	8.8	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	2,436
	02/21/13	820	260	18	8.5	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	1,107
	05/15/13	560	180	16	8.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	764
	08/02/13	190	78	8.3	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	276
	11/08/13	820*	290*	26	28	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	54
MW-1	11/8/13 (Dup)	890	320	29	30	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	1,269
	10/08/14	760	300	31	25	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	1,116
	09/03/15	710	330	40	31	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	1,111
	03/30/16	87.4	42.0	9.2	2.6	<1.0	3.6	218	<1.0	<1.0	1.3	8.2	12.1	51.7	7.6	1.2	<1.0	445
	10/13/16	168	71.8	13.4	4.4	<2.0	<2.0	57.4	<2.0	<2.0	<2.0	8.5	<10	3.7	<4.0	<2.0	<2.0	327
	10/13/2016 (Dup)	149	62.6	12.4	4.4	<2.0	<2.0	55.2	<2.0	<2.0	<2.0	12.1	<10	4.0	<4.0	<2.0	<2.0	300
	06/08/17	283	144	24.0	12.0	<2.5	<2.5	<62.5	<2.5	<2.5	<2.5	<5.0	<12.5	<2.5	<5.0	<2.5	<2.5	463
	09/22/08	11	<5.0	<5.0	<5.0	<5.0	<2.0	<50	15	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	26
	09/12/11	140	160	25	15	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	340
	02/21/13	170	150	27	11	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	358
	05/15/13	170	170	20	13	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	373
	08/02/13	450	300	25	16	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	791
	11/08/13	150	140	22	17	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	329
MW-2	10/08/14	250	220	23	17	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	510
	10/8/14 (Dup)	270	220	24	17	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	531
	09/03/15	240	200	25	22	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	487
	03/30/16	4.9	3.4	1.3	<1.0	<1.0	<1.0	174	<1.0	<1.0	<1.0	6.2	9.7	58.0	<2.0	<1.0	<1.0	257.5
	3/30/2016 (Dup)	5.1	3.3	1.4	<1.0	<1.0	<1.0	168	<1.0	<1.0	<1.0	6.2	9.1	56.6	<2.0	<1.0	<1.0	249.7
	10/14/16	61.5	53.4	11.6	5.6	<1.0	<1.0	75.6	<1.0	<1.0	<1.0	4.0	<5.0	19.6	<2.0	<1.0	<1.0	231.3
	06/08/17	73.5	64.3	11.6	11.7	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	2.5	<2.0	<1.0	<1.0	163.6
	09/22/08	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	09/12/11	<5.0	5.9	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	5.9
	02/21/13	<5.0	9.1	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	9.1
	05/15/13	<5.0	11	5.5	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	16.5
	08/02/13	7.8	12	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	19.8
MW-3	11/08/13	<5.0	7.6	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	7.6
	10/08/14	<5.0	20	5.4	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	25.4
	09/03/15	<5.0	26	8.4	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	34.4
	03/30/16	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	70.7	<1.0	<1.0	<1.0	2.9	<5.0	27.6	<2.0	<1.0	<1.0	103.8
	10/14/16	3.4	19.3	7.3	1.7	1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	5.0	<2.0	<1.0	<1.0	37.7
	06/08/17	4.2	16.7	5.4	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	26.3

2801 Washington Road Augusta, Richmond County, Georgia HSI #10845

TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY

										Conce	entrations are in µg/L							
Sample Location	Date Sampled	PCE	TCE	cis- 1,2-DCE	trans- 1,2-DCE	1,1-DCE	Vinyl Chloride	Acetone	Chloroform	Toluene	Bromochloromethane**	Bromomethane**	MEK**	Chloromethane**	Methylene Chloride**	1,1,2,2- TCA**	МТВЕ	Total VOCs
	09/12/11	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	02/21/13	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	05/15/13	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	08/02/13	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
MW-4	11/08/13	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
10100-4	10/07/14	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	09/02/15	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	03/30/16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	10/14/16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	06/08/17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	09/12/11	45	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	45
	02/21/13	53	9.7	5.1	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	67.8
	05/15/13	50	6.4	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	56.4
	08/02/13	13	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	13
	11/08/13	42	8.1	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	50.1
MW-5	10/08/14	110	15	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	125
	09/03/15	55	9.7	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	64.7
	9/3/2015 (Dup)	58	8.8	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	66.8
	03/30/16	40.3	9.9	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	9.7	<2.0	<1.0	<1.0	59.9
	10/13/16	51.5	10.4	<1.0	1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	3.3	<5.0	<1.0	<2.0	<1.0	<1.0	66.2
	06/08/17	48.7	9.9	1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	59.6
	09/12/11	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	02/21/13	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	05/15/13	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	08/01/13	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
MW-6	11/07/13	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
10100-0	10/07/14	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	09/02/15	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	03/29/16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	10/12/16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	06/07/17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL

2801 Washington Road Augusta, Richmond County, Georgia HSI #10845

TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY

										Conce	entrations are in µg/L							
Sample Location	Date Sampled	PCE	TCE	cis- 1,2-DCE	trans- 1,2-DCE	1,1-DCE	Vinyl Chloride	Acetone	Chloroform		Bromochloromethane**	Bromomethane**	MEK**	Chloromethane**	Methylene Chloride**	1,1,2,2- TCA**	МТВЕ	Total VOCs
	09/12/11	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	02/21/13	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	05/15/13	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	08/01/13	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
MW-7	11/08/13	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
IVIVV-/	10/07/14	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	09/02/15	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	03/29/16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	10/12/16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	06/08/17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	09/12/11	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	02/21/13	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	05/15/13	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	08/01/13	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	11/08/13	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
MW-8	10/07/14	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	09/02/15	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	03/30/16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	10/12/16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	06/07/17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	09/12/11			<u> </u>			•		•	N	lot Sampled - Dry							NA
	02/21/13									N	lot Sampled - Dry							NA
	05/15/13									N	lot Sampled - Dry							NA
	08/01/13									N	lot Sampled - Dry							NA
	11/07/13									N	lot Sampled - Dry							NA
MW-9	10/07/14									N	lot Sampled - Dry							NA
	09/02/15									N	lot Sampled - Dry							NA
	03/29/16									N	lot Sampled - Dry							NA
	10/12/16									N	lot Sampled - Dry							NA
	06/07/17									N	lot Sampled - Dry							NA

2801 Washington Road Augusta, Richmond County, Georgia HSI #10845

TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY

										Conc	entrations are in μg/L							
Sample Location	Date Sampled	PCE	TCE	cis- 1,2-DCE	trans- 1,2-DCE	1,1-DCE	Vinyl Chloride	Acetone	Chloroform	Toluene	Bromochloromethane**	Bromomethane**	MEK**	Chloromethane**	Methylene Chloride**	1,1,2,2- TCA**	МТВЕ	Total VOCs
	2/21/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	5/15/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	8/1/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	11/8/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
MW-10	10/7/2014	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	9/2/2015	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	3/29/2016	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	10/12/2016	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	6/7/2017	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	2/21/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	5/15/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	8/1/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	11/8/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
MW-11	10/7/2014	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	9/2/2015	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	3/29/2016	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	10/12/2016	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	6/8/2017	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	2/21/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	5/14/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	8/1/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	11/7/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
MW-12	10/7/2014	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	9/2/2015	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	3/29/2016	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	10/13/2016	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	6/7/2017	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	2/21/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	5/14/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	8/1/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	8.6	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	8.6
	11/7/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
MW-13	10/7/2014	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	9/2/2015	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	3/29/2016	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	10/13/2016	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	6/7/2017	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL

2801 Washington Road Augusta, Richmond County, Georgia HSI #10845

TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY

(VOCs)

Cample	Date									Conce	entrations are in μg/L							Total
Sample Location	Sampled	PCE	TCE	cis- 1,2-DCE	trans- 1,2-DCE	1,1-DCE	Vinyl Chloride	Acetone	Chloroform	Toluene	Bromochloromethane**	Bromomethane**	MEK**	Chloromethane**	Methylene Chloride**	1,1,2,2- TCA**	МТВЕ	VOCs
	2/21/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	5/14/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	8/1/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	11/7/2013	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
MW-14	10/7/2014	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
10100-14	9/2/2015	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
	3/30/2016	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	10/13/2016	4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	4.0
	2/9/2017	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<100	<2.0	<2.0	<10	<10	<100	<10	<5.0	<2.0	<10	BRL
	6/7/2017	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	9/3/2015	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<50	<5.0	<5.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<5.0	BRL
MW-15	3/29/2016	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
10100-12	10/13/2016	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
	6/7/2017	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<2.0	<1.0	<1.0	BRL
-	Type 3 RRS	5	5	70	100	7	2	4000	80	1000	NE	10	2000	3	5	0.2***	NE	NA

Notes:

HSI = Hazardous Site Inventory

VOCs = volatile organic compounds

μg/L = micrograms per liter

PCE = tetrachloroethene

TCE = trichloroethene

DCE = dichloroethene

MEK = methyl ethyl ketone (2-butanone)

TCA = tetrachloroethane

MTBE = methyl tertiary-butyl ether

BRL = below reporting limits

NA = not applicable

RRS = Risk Reduction Standard

NE = not established

(DUP) = duplicate sample

Bold indicates compound detected above the laboratory reporting limit

Bold and shading indicates exceedance of RRS

^{*} sample was "E" qualified indicating estimated value over linear calibration range

^{**} Samples collected before the 2016 sampling event are assumed to be below the March 2016 laboratory reporting limit

^{***} The health-based drinking water criterion is lower than the lowest currently achievable and available detection limit. Therefore, the detection limit or background will be the Type 1/Type 3 RRS.

TABLE 4: GROUNDWATER ELEVATIONS

Mall Namelean	Data Marana	Elevati	ion (ft)	Depth of Screen	Water Depth	CM Flore (ft)
Well Number	Date Measured	Ground	TOC	(ft)	(ft)	GW Elev. (ft)
	9/22/2008	100.00	99.70	14-35	15.62	84.08
	9/12/2011	100.00	99.70	14-35	14.92	84.78
	2/21/2013	100.00	99.70	14-35	14.92	84.78
	5/14/2013	100.00	99.70	14-35	13.49	86.21
	8/1/2013	100.00	99.70	14-35	13.43	86.27
* MW-1	11/7/2013	100.00	99.70	14-35	13.39	86.31
	10/7/2014	100.00	99.70	14-35	14.01	85.69
	9/2/2015	100.00	99.70	14-35	14.16	85.54
	3/29/2016	100.00	99.70	14-35	13.04	86.66
	10/12/2016	100.00	99.70	14-35	19.39	80.31
	6/7/2017	100.00	99.70	14-35	17.22	82.48
	9/22/2008	100.12	99.62	14-35	16.10	83.52
	9/12/2011	100.12	99.62	14-35	17.36	82.26
	2/21/2013	100.12	99.62	14-35	16.62	83.00
	5/14/2013	100.12	99.62	14-35	15.56	84.06
	8/1/2013	100.12	99.62	14-35	13.98	85.64
* MW-2	11/7/2013	100.12	99.62	14-35	15.11	84.51
	10/7/2014	100.12	99.62	14-35	15.29	84.33
	9/2/2015	100.12	99.62	14-35	15.51	84.11
	3/29/2016	100.12	99.62	14-35	13.47	86.15
	10/12/2016	100.12	99.62	14-35	19.94	79.68
	6/7/2017	100.12	99.62	14-35	18.38	81.24
	9/22/2008	99.77	99.82	14-35	18.07	81.75
	9/12/2011	99.77	99.82	14-35	17.36	82.46
	2/21/2013	99.77	99.82	14-35	16.75	83.07
	5/14/2013	99.77	99.82	14-35	15.85	83.97
	8/1/2013	99.77	99.82	14-35	14.64	85.18
* MW-3	11/7/2013	99.77	99.82	14-35	15.51	84.31
	10/7/2014	99.77	99.82	14-35	15.90	83.92
	9/2/2015	99.77	99.82	14-35	16.09	83.73
	3/29/2016	99.77	99.82	14-35	14.91	84.91
	10/12/2016	99.77	99.82	14-35	21.43	78.39
	6/7/2017	99.77	99.82	14-35	20.12	79.70

TABLE 4: GROUNDWATER ELEVATIONS

Well Number	Date Messured	Elevati	ion (ft)	Depth of Screen	Water Depth	CM Flow (ft)
well Number	Date Measured	Ground	TOC	(ft)	(ft)	GW Elev. (ft)
	9/12/2011	99.11	98.95	10-30	18.36	80.59
	2/21/2013	99.11	98.95	10-30	18.40	80.55
	5/14/2013	99.11	98.95	10-30	17.34	81.61
	8/1/2013	99.11	98.95	10-30	15.80	83.15
MW-4	11/7/2013	99.11	98.95	10-30	16.74	82.21
IVI VV -4	10/7/2014	99.11	98.95	10-30	17.18	81.77
	9/2/2015	99.11	98.95	10-30	17.26	81.69
	3/29/2016	99.11	98.95	10-30	16.51	82.44
	10/12/2016	99.11	98.95	10-30	16.48	82.47
	6/7/2017	99.11	98.95	10-30	16.02	82.93
	9/12/2011	100.40	100.21	10-30	17.85	82.36
	2/21/2013	100.40	100.21	10-30	17.69	82.52
	5/14/2013	100.40	100.21	10-30	16.06	84.15
	8/1/2013	100.40	100.21	10-30	14.15	86.06
MW-5	11/7/2013	100.40	100.21	10-30	15.99	84.22
IVIVV-5	10/7/2014	100.40	100.21	10-30	16.73	83.48
	9/2/2015	100.40	100.21	10-30	16.90	83.31
	3/29/2016	100.40	100.21	10-30	15.13	85.08
	10/12/2016	100.40	100.21	10-30	16.26	83.95
	6/7/2017	100.40	100.21	10-30	15.25	84.96
	9/12/2011	101.07	100.94	10-30	18.83	82.11
	2/21/2013	101.07	100.94	10-30	18.64	82.30
	5/14/2013	101.07	100.94	10-30	16.88	84.06
	8/1/2013	101.07	100.94	10-30	16.07	84.87
MW-6	11/7/2013	101.07	100.94	10-30	16.81	84.13
IVIVV-0	10/7/2014	101.07	100.94	10-30	17.71	83.23
	9/2/2015	101.07	100.94	10-30	17.88	83.06
	3/29/2016	101.07	100.94	10-30	15.96	84.98
	10/12/2016	101.07	100.94	10-30	17.22	83.72
	6/7/2017	101.07	100.94	10-30	16.11	84.83

TABLE 4: GROUNDWATER ELEVATIONS

Well Number	Data Magazinad	Elevati	ion (ft)	Depth of Screen	Water Depth	CM Flav. (ft)
well Number	Date Measured	Ground	тос	(ft)	(ft)	GW Elev. (ft)
	9/12/2011	101.10	100.91	10-30	18.05	82.86
	2/21/2013	101.10	100.91	10-30	18.06	82.85
	5/14/2013	101.10	100.91	10-30	16.20	84.71
	8/1/2013	101.10	100.91	10-30	13.90	87.01
MW-7	11/7/2013	101.10	100.91	10-30	16.20	84.71
IVI VV-7	10/7/2014	101.10	100.91	10-30	17.00	83.91
	9/2/2015	101.10	100.91	10-30	17.23	83.68
	3/29/2016	101.10	100.91	10-30	15.18	85.73
	10/12/2016	101.10	100.91	10-30	16.55	84.36
	6/7/2017	101.10	100.91	10-30	15.23	85.68
	9/12/2011	94.97	94.78	10-30	25.35	69.43
	9/21/2013	94.97	94.78	10-30	24.80	69.98
	5/14/2013	94.97	94.78	10-30	23.29	71.49
	8/1/2013	94.97	94.78	10-30	21.25	73.53
MW-8	11/7/2013	94.97	94.78	10-30	23.82	70.96
IVIVV-0	10/7/2014	94.97	94.78	10-30	24.77	70.01
	9/2/2015	94.97	94.78	10-30	23.72	71.06
	3/29/2016	94.97	94.78	10-30	21.96	72.82
	10/12/2016	94.97	94.78	10-30	23.12	71.66
	6/7/2017	94.97	94.78	10-30	22.31	72.47
	9/12/2011	95.73	95.65	10-30	Dry	Dry
	2/21/2013	95.73	95.65	10-30	Dry	Dry
	5/14/2013	95.73	95.65	10-30	Dry	Dry
	8/1/2013	95.73	95.65	10-30	Dry	Dry
MW-9	11/7/2013	95.73	95.65	10-30	Dry	Dry
10100-9	10/7/2014	95.73	95.65	10-30	Dry	Dry
	9/2/2015	95.73	95.65	10-30	Dry	Dry
	3/29/2016	95.73	95.65	10-30	Dry	Dry
	10/12/2016	95.73	95.65	10-30	Dry	Dry
	6/7/2017	95.73	95.65	10-30	Dry	Dry

TABLE 4: GROUNDWATER ELEVATIONS

Mall Namehan	Data Massurad	Elevati	on (ft)	Depth of Screen	Water Depth	CM Flow (ft)
Well Number	Date Measured	Ground	TOC	(ft)	(ft)	GW Elev. (ft)
	2/21/2013	98.94	98.30	10-30	19.40**	78.90
MW-10	5/14/2013	98.94	98.30	10-30	17.39	80.91
	8/1/2013	98.94	98.30	10-30	16.95	81.35
	11/7/2013	98.94	98.30	10-30	16.84	81.46
	10/7/2014	98.94	98.30	10-30	17.09	81.21
	9/2/2015	98.94	98.30	10-30	16.87	81.43
	3/29/2016	98.94	98.30	10-30	16.33	81.97
	10/12/2016	98.94	98.30	10-30	16.47	81.83
	6/7/2017	98.94	98.30	10-30	15.82	82.48
	2/21/2013	100.79	100.42	10-30	17.37**	83.05
	5/14/2013	100.79	100.42	10-30	15.63	84.79
	8/1/2013	100.79	100.42	10-30	14.43	85.99
	11/7/2013	100.79	100.42	10-30	15.55	84.87
MW-11	10/7/2014	100.79	100.42	10-30	16.25	84.17
	9/2/2015	100.79	100.42	10-30	16.48	83.94
	3/29/2016	100.79	100.42	10-30	14.64	85.78
	10/12/2016	100.79	100.42	10-30	15.88	84.54
	6/7/2017	100.79	100.42	10-30	14.80	85.62
	2/21/2013	97.66	97.09	15-50	36.48**	60.61
	5/14/2013	97.66	97.09	15-50	35.34	61.75
	8/1/2013	97.66	97.09	15-50	34.12	62.97
	11/7/2013	97.66	97.09	15-50	36.31	60.78
MW-12	10/7/2014	97.66	97.09	15-50	36.70	60.39
	9/2/2015	97.66	97.09	15-50	37.11	59.98
	3/29/2016	97.66	97.09	15-50	35.58	61.51
	10/12/2016	97.66	97.09	15-50	37.00	60.09
	6/7/2017	97.66	97.09	15-50	36.25	60.84
	2/21/2013	99.14	98.67	15-50	34.86**	63.81
	5/14/2013	99.14	98.67	15-50	32.58	66.09
	8/1/2013	99.14	98.67	15-50	28.47	70.20
MW-13	11/7/2013	99.14	98.67	15-50	31.94	66.73
	10/7/2014	99.14	98.67	15-50	32.55	66.12
	9/2/2015	99.14	98.67	15-50	35.55	63.12
	3/29/2016	99.14	98.67	15-50	32.03	66.64
	10/12/2016	99.14	98.67	15-50	33.78	64.89
	6/7/2017	99.14	98.67	15-50	33.28	65.39

2801 Washington Road Augusta, Richmond County, Georgia HSI #10845

TABLE 4: GROUNDWATER ELEVATIONS

Wall Number	Vall Number Date Measured		Elevation (ft)		Water Depth	CW Flow (ft)
Well Number	Date Measured	Ground	тос	(ft)	(ft)	GW Elev. (ft)
	2/21/2013	98.05	97.75	10-45	34.33**	63.42
	5/14/2013	98.05	97.75	10-45	21.06	76.69
	8/1/2013	98.05	97.75	10-45	19.20	78.55
	11/7/2013	98.05	97.75	10-45	21.03	76.72
MW-14	10/7/2014	98.05	97.75	10-45	22.00	75.75
	9/2/2015	98.05	97.75	10-45	22.15	75.60
	3/29/2016	98.05	97.75	10-45	19.05	78.70
	10/12/2016	98.05	97.75	10-45	21.52	76.23
	6/7/2017	98.05	97.75	10-45	19.20	78.55
	9/3/2015	95.76	95.67	10-42	36.11	59.56
MW-15	3/29/2016	95.76	95.67	10-42	34.94	60.73
	10/12/2016	95.76	95.67	10-42	34.95	60.72
	6/7/2017	95.76	95.67	10-42	35.16	60.51

Notes:

HSI = Hazardous Site Inventory

ft = feet

TOC = top of casing

GW Elev. = groundwater elevation

^{*} MW-1, MW-2, and MW-3 are directional monitoring wells and the depth to water shown in the table above is the calculated

^{**} The water table not equilibrated 1 day following well installation.

2801 Washington Road Augusta, Richmond County, Georgia HSI #10845

TABLE 5: GROUNDWATER ANALYTICAL DATA SUMMARY

(RCRA Metals)

Sample	Data Campled				Concentratio	ns are in μg/L			
Location	Date Sampled	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver	Mercury
	10/13/16	BRL	6.7	3.1	6.2	BRL	BRL	BRL	BRL
MW-1	10/13/16 (Dup)	BRL	5.7	3.1	6.9	5.9	BRL	BRL	BRL
	06/08/17	BRL	16.0	1.8	5.1	5.3	BRL	BRL	BRL
M\M-2	10/13/16	BRL	BRL	4.5	8.9	7.8	BRL	BRL	BRL
MW-2	06/08/17	BRL	8.5	2.2	11.0	9.2	BRL	BRL	BRL
MW-3	10/13/16	BRL	22.1	1.4	10.7	BRL	BRL	BRL	BRL
IVIVV 3	06/08/17	BRL	24.8	BRL	11.9	BRL	BRL	BRL	BRL
MW-4	10/13/16	BRL	110	BRL	BRL	BRL	BRL	BRL	BRL
10100-4	06/08/17	NA	NA	NA	NA	NA	NA	NA	NA
MW-5	10/13/16	BRL	17.8	BRL	BRL	BRL	BRL	BRL	BRL
10100-2	06/08/17	BRL	13.8	BRL	BRL	BRL	BRL	BRL	BRL
MW-6	10/13/16	BRL	196	BRL	BRL	BRL	BRL	BRL	BRL
10100-0	06/07/17	NA	NA	NA	NA	NA	NA	NA	NA
MW-7	10/13/16	BRL	193	BRL	BRL	BRL	BRL	BRL	BRL
10100-7	06/08/17	NA	NA	NA	NA	NA	NA	NA	NA
MW-8	10/13/16	BRL	139	BRL	BRL	BRL	BRL	BRL	BRL
IVIVV-0	06/07/17	NA	NA	NA	NA	NA	NA	NA	NA
NAVA / O	10/13/16				Not Sam	oled - Dry			
MW-9	06/07/17				Not Samp	oled - Dry			
MW-10	10/13/16	BRL	158	BRL	BRL	BRL	BRL	BRL	BRL
10100-10	06/07/17	NA	NA	NA	NA	NA	NA	NA	NA
NANA/ 11	10/13/16	BRL	54.0	BRL	BRL	BRL	BRL	BRL	BRL
MW-11	06/08/17	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
NAVA 4 2	10/13/16	13.1	1,050	BRL	162	35.9	BRL	BRL	BRL
MW-12	06/07/17	NA	NA	NA	NA	NA	NA	NA	NA
N 4) 4 / 1 2	10/13/16	BRL	197	BRL	BRL	BRL	BRL	BRL	BRL
MW-13	06/07/17	NA	NA	NA	NA	NA	NA	NA	NA
D 4) A / 1 4	10/13/16	BRL	7.4	BRL	BRL	BRL	BRL	BRL	BRL
MW-14	06/07/17	NA	NA	NA	NA	NA	NA	NA	NA
D 4) A / 4 F	10/13/16	BRL	362	BRL	BRL	BRL	BRL	BRL	BRL
MW-15	06/07/17	NA	NA	NA	NA	NA	NA	NA	NA
Тур	oe 3 RRS	10	2,000	5	100	15	50	100	2

Notes:

HSI = Hazardous Site Inventory

RCRA = Resource Conservation and Recovery Act

RRS = risk reduction standard

μg/L - micrograms per liter

(Dup) = duplicate sample

Bold indicates compound detected above the laboratory reporting limit

Bold and shading indicates exceedance of RRS

BRL - below laboratory reporting limits

NA - not analyzed

2801 Washington Road Augusta, Richmond County, Georgia HSI #10845

TABLE 6: SOIL VAPOR ANALYTICAL DATA SUMMARY

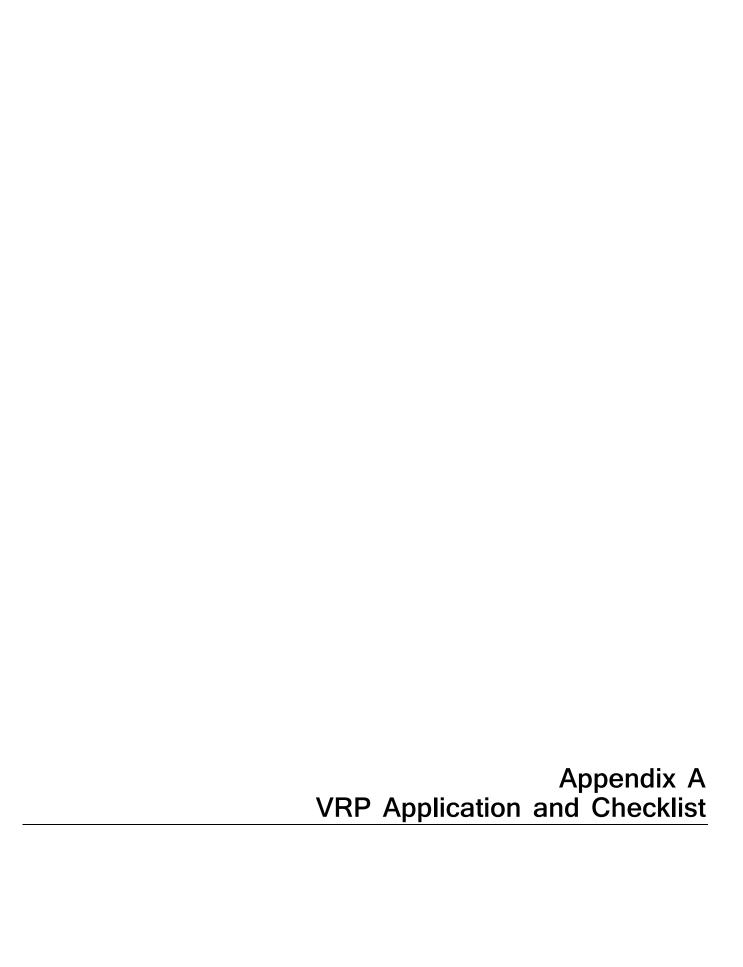
(VOCs)

Camarala.				VOCs										
Sample	Depth (ft)	Date Sampled	2-Butanone	Acetone	Carbon Disulfide	Chloroform	Freon-113	Methylene Chloride	n-Hexane	Propene	Tetrachloroethene	Tetrahydrofuran	Toluene	Trichlorofluoromethane
Location			$(\mu g/m^3)$	$(\mu g/m^3)$	(μg/m³)	(μg/m³)	$(\mu g/m^3)$	$(\mu g/m^3)$	(μg/m³)	$(\mu g/m^3)$	$(\mu g/m^3)$	(μg/m³)	$(\mu g/m^3)$	(μg/m³)
SVI-1	2	10/26/2017	8.0	48	9.0	<4.9	<7.7	<3.5	<3.5	4.5	950	9.3	<3.8	<5.6
SVI-2	2	10/26/2017	<2.9	30	<3.1	<4.9	33	170	27	<1.7	2700	<2.9	11	9.0
SVI-3	2	10/26/2017	<2.9	<12	<3.1	<4.9	18	<3.5	<3.5	<1.7	200	<2.9	<3.8	<5.6
SVI-4	2	10/26/2017	7.7	19	3.1	6.6	<7.7	<3.5	<3.5	7.2	950	<2.9	3.8	7.3
SVI-5	2	10/26/2017	6.2	36	4.7	<4.9	10.0	<3.5	7.0	100	230	<2.9	4.5	<5.6

Notes: VOC = Volatile Organic Compound

ft = feet

μg/m³ = micrograms per cubic meter



Voluntary Investigation and Remediation Plan Application Form and Checklist

	34,50	VRP A	APPLICANT INFO	RMATION				
COMPANY NAME	The Kroger Co.	The Kroger Co.						
CONTACT PERSON/TITLE	Scott Siebert	Scott Slebert						
ADDRESS	2175 Parklake Drive	2175 Parklake Drive NE, Atlanta, GA 30345						
PHONE	770-496-7489	FAX	1	E-MAIL	scott.siebe	rt@kroger.com		
GEORGIA CEI	RTIFIED PROFES	SIONAL GEO	LOGIST OR PRO	FESSIONA	L ENGINEE	R OVERSEEING CLEANUP		
NAME	Greg Rowell			GA PE/PG	GA PE/PG NUMBER 1450			
COMPANY	Contour Engineering	Contour Engineering, LLC						
ADDRESS	1955 Vaughn Road,	1955 Vaughn Road, Suite 101, Kennesaw, GA 30144						
PHONE	770-794-0266	FAX		E-MAIL	growel @co	ontoureng com		
		APPL	LICANT'S CERTIF	ICATION				
Section 9601. (B) Currently undergoin (C) A facility required to (3) Qualifying the property unidelegation or similar authoriza (4) Any lien filed under subsective director pursuant to Code	release of regulated si I National Priorities Lis g response activities re have a permit under C der this part would not ation from the United S stion (e) of Code Sectio Section 12-8-94 or Co	ubstances into the t pursuant to the equired by an ord sode Section 12-6 violate the terms tates Environmer n 12-8-96 or subs de Section 12-13	federal Comprehensiver of the regional adm 8-66. and conditions under thal Protection Agency section (b) of Code Se	inistrator of the	ne federal Envi	Compensation, and Liability Act, 42 U.S.C. ronmental Protection Agency; or and administers remedial programs by operty shall be satisfied or settled and released by		
In order to be considered a pa			4 _4 4	.				

The participant must be the property owner of the voluntary remediation property or have express permission to enter another's property to perform corrective action.
 The participant must not be in violation of any order, judgment, statute, rule, or regulation subject to the enforcement authority of the director.

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

I also certify that this property is eligible Code Section 12-8-106. Remediation Program (VRP) as defined in Code Section 12-8-105 and I am eligible as a participant as defined in

APPLICANTS SIGNATURE APPLICANT'S NAME/TITLE DATE (PRINT)

QUALIFYING P		dditional qualifying properties, please refer to the	last page of application	n form)
	HAZARDOUS S	SITE INVENTORY INFORMATION (if applicable)		
HSI Number	10845	Date HSI Site listed	10/13/2006	
HSI Facility Name	Former Lucky Cleaners	NAICS CODE		
		PROPERTY INFORMATION		
TAX PARCEL ID	013-0-013-00-0	PROPERTY SIZE (ACRES)	20.05	
PROPERTY ADDRESS	2801 Washington Road			
CITY	Augusta	COUNTY	Richmond	
STATE	GA	ZIPCODE	30909	
LATITUDE (decimal format)	33.511592°	LONGITUDE (decimal format)	-82.028989°	
,	PF	ROPERTY OWNER INFORMATION	•	
PROPERTY OWNER(S)	The Kroger Co.	PHONE #	770-496-7489	
MAILING ADDRESS	2175 Parklake Drive NE		1	
CITY	Atlanta	STATE/ZIPCODE	GA 30345	
ITEM#	DESCRIF	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (Leave Blank)	
1.	\$5,000 APPLICATION FEE IN THE GEORGIA DEPARTMENT OF NA (PLEASE LIST CHECK DATE AN "LOCATION IN VRP." PLEASE DESTRUCTION OF THE PROPERTY OF T	Check Date: 8/13/2018 Check # 744		
2.	WARRANTY DEED(S) FOR QUA	LIFYING PROPERTY.	Appendix B	
3.		INCLUDING QUALIFYING PROPERTY PERTIES, AND TAX PARCEL IDENTIFICATION	Appendix B	
4.	ONE (1) PAPER COPY AND TW	O (2) COMPACT DISC (CD) COPIES OF THE AN IN A SEARCHABLE PORTABLE DOCUMENT	Attached	
5.	The VRP participant's initial plater reasonably available current in application, a graphic three-dir (CSM) including a preliminary standards, brief supporting textotal) that illustrates the site's suspected source(s) of contain the environment, the potential complete or incomplete exposing preliminary CSM must be updated progresses and an up-to-dated status report submitted to the	Section 3 Figures 4 through 10 Tables 1 through 6 Appendix G		
	MILESTONE SCHEDULE for	investigation and remediation of the site, and nt, must update the schedule in each semi-		

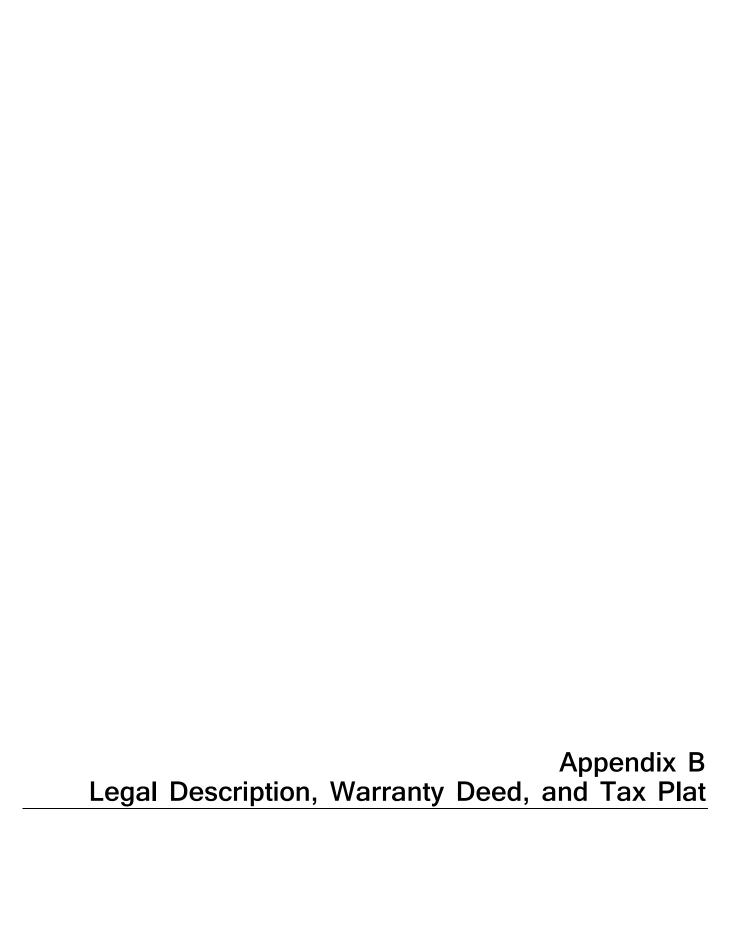
	annual status report to the director describing implementation of the plan during the preceding period. A Gantt chart format is preferred for the		·
	milestone schedule.		
	The following four (4) generic milestones are required in all initial plans with		
*	the results reported in the participant's next applicable semi-annual reports to		
	the director. The director may extend the time for or waive these or other		
	milestones in the participant's plan where the director determines, based on a		
·	showing by the participant, that a longer time period is reasonably necessary:		
	Within the first 12 months after enrollment, the participant must complete		
5.a.	horizontal delineation of the release and associated constituents of concern		
	on property where access is available at the time of enrollment;		
	Within the first 24 months after enrollment, the participant must complete		
5.b.	horizontal delineation of the release and associated constituents of concern		
	extending onto property for which access was not available at the time of enrollment;		
	Within 30 months after enrollment, the participant must update the site CSM		
_	to include vertical delineation, finalize the remediation plan and provide a		
5.c.	preliminary cost estimate for implementation of remediation and associated		
	continuing actions; and		
	Within 60 months after enrollment, the participant must submit the		
5.d.	compliance status report required under the VRP, including the requisite		
	certifications.		
	SIGNED AND SEALED PE/PG CERTIFICATION AND SUPPORTING DOCUMENTATION:		
	DOCOMENTATION.		
	"I certify under penalty of law that this report and all attachments were prepared by me or under my direct		
	supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seg.). I am a professional engineer/professional geologist who is registered with the Georgia State Board of Registration for		
	Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists and I		Mar.
	have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.	REGURY	And to
	Furthermore to decument my direct everyight of the Volunters Demodiation Disaster standard and involvers to the second standard and the second standard standard and the second standard stan	A See See See See See See See See See Se	Sec. Co.
	Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of	000	1 3 1 1
6.	services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division.	228	
		X GEORGIA	
	The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for	133 WW	3 3 8
	knowing violations."	1 2 3 M 10 110 1100	Kongasi Kanganan
	0/2/222	No. 1450	Ospidas y
	David Gregory Rowell / PG001450 Printed Name and GA PE/PG Number 8/2/2018 Date	100 000 00 00 00 00 00 00 00 00 00 00 00	White and the same of the same
	O 11 D 111	PROFES	SILV
	W. Syon Koull	4888888	The same of the sa
	Signature and Stackp (

ADDITIONAL QUALIFYING PROPERTIES (COPY THIS PAGE AS NEEDED)

PROPERTY INFORMATION							
TAX PARCEL ID	013-0-013-01-0	PROPERTY SIZE (ACRES)	0.83				
PROPERTY ADDRESS	2805 Washington Road						
CITY	Augusta	COUNTY	Richmond				
STATE	GA	ZIPCODE	30909				
LATITUDE (decimal format)	33.510460°	LONGITUDE (decimal format)	-82.028667°				
	PROPERTY OV	VNER INFORMATION					
PROPERTY OWNER(S)	NIKI Washington Road, LLC	PHONE #					
MAILING ADDRESS	11260 El Camino Real, Suite 220						
CITY	San Diego	STATE/ZIPCODE	CA 92130-2676				

PROPERTY INFORMATION							
TAX PARCEL ID	013-0-013-02-0	PROPERTY SIZE (ACRES)	0.83				
PROPERTY ADDRESS	2807 Washington Road						
CITY	Augusta	COUNTY	Richmond				
STATE	GA	ZIPCODE	30909				
LATITUDE (decimal format)	33.510756°	LONGITUDE (decimal format)	-82.030182°				
	PROPERTY OW	VNER INFORMATION					
PROPERTY OWNER(S)	NIKI Washington Road, LLC	PHONE #					
MAILING ADDRESS	11260 El Camino Real, Suite 220						
CITY	San Diego	STATE/ZIPCODE	CA 92130-2676				

PROPERTY INFORMATION						
TAX PARCEL ID	PROPERTY SIZE (ACRES)					
PROPERTY ADDRESS						
CITY	COUNTY					
STATE	ZIPCODE					
LATITUDE (decimal format)	LONGITUDE (decimal format)					
	PROPERTY OWNER INFORMATION					
PROPERTY OWNER(S)	PHONE #					
MAILING ADDRESS						
CITY	STATE/ZIPCODE					



LEGAL DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND SITUATE, LYING AND BEING IN RICHMOND COUNTY, GEORGIA AT THE INTERSECTION OF THE NORTHERN RIGHT-OF-WAY OF WASHINGTON ROAD WITH THE WESTERN RIGHT-OF-WAY OF ALEXANDER DRIVE BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: POINT OF BEGINNING AT A CONCRETE MONUMENT FOUND AT THE POINT OF INTERSECTION REFERRED TO ABOVE AND RUNNING THENCE ALONG THE NORTHERN RIGHT-OF-WAY OF WASHINGTON ROAD IN A WESTERLY DIRECTION ALONG A CURVE TO THE LEFT, THE RADIUS OF WHICH IS 2921.79 FEET, A DISTANCE OF 123.32 FEET TO A #5 REBAR FOUND (SAID CURVE SUBTENDED BY A CHORD RUNNING NORTH 79'20'50" WEST, 123.31 FEET); THENCE, TURN AND RUN NORTH 07'35'24" EAST A DISTANCE OF 135.22 FEET TO A CONCRETE MONUMENT FOUND; THENCE, TURN AND RUN NORTH 80'35'09" WEST A DISTANCE OF 149.97 FEET TO A #4 REBAR FOUND; THENCE, TURN AND RUN NORTH 07'25'57" EAST A DISTANCE OF 50.40 FEET TO A #4 REBAR FOUND; THENCE, TURN AND RUN NORTH 80'30'08" WEST A DISTANCE OF 59.77 FEET TO A 2" OPEN TOP IRON FOUND; THENCE, TURN AND RUN NORTH 80'26'03" WEST A DISTANCE OF 149.65 FEET TO A #4 REBAR FOUND: THENCE, TURN AND RUN SOUTH 07'49'09" WEST A DISTANCE OF 185.27 FEET TO A #5 REBAR FOUND ON THE NORTHERN RIGHT-OF-WAY OF WASHINGTON ROAD; THENCE, TURN AND RUN ALONG THE NORTHERN RIGHT-OF-WAY OF WASHINGTON ROAD NORTH 80'22'02" WEST A DISTANCE OF 161.88 FEET TO A #4 REBAR FOUND; THENCE, TURN AND RUN NORTH 08'10'48" EAST A DISTANCE OF 185.42 FEET TO A #5 REBAR FOUND; THENCE, TURN AND RUN NORTH 80'28'38" WEST A DISTANCE OF 109.43 FEET TO A #5 REBAR FOUND; THENCE, TURN AND RUN NORTH 07'16'42" EAST A DISTANCE OF 374.76 FEET TO A #5 REBAR FOUND; THENCE, TURN AND RUN NORTH 80'41'26" WEST A DISTANCE OF 143.72 FEET TO A 1" CRIMP TOP IRON FOUND; THENCE, TURN AND RUN NORTH 79'57'18" WEST A DISTANCE OF 242.31 FEET TO A #4 REBAR FOUND; THENCE, TURN AND RUN NORTH 88'27'35" WEST A DISTANCE OF 11.43 FEET TO A 1" OPEN TOP I RON FOUND; THENCE, TURN AND RUN NORTH 25'09'29" EAST A DISTANCE OF 184.81 FEET TO A #5 REBAR FOUND: THENCE, TURN AND RUN NORTH 25'16'48" EAST A DISTANCE OF 327.40 FEET TO A 2" OPEN TOP IRON FOUND; THENCE, TURN AND RUN SOUTH 66'09'30" EAST A DISTANCE OF 299.45 FEET TO A #4 REBAR FOUND; THENCE, TURN AND RUN SOUTH 65'57'00" EAST A DISTANCE OF 893.01 FEET TO A #5 REBAR SET ON THE WESTERN RIGHT-OF-WAY OF ALEXANDER DRIVE; THENCE, TURN AND RUN SOUTH 25'14'40" WEST ALONG THE WESTERN RIGHT-OF-WAY OF ALEXANDER DRIVE A DISTANCE OF 58.59 FEET TO A POINT ON A MANHOLE; THENCE, CONTINUE IN A SOUTHERLY DIRECTION ALONG SAID RIGHT-OF-WAY ALONG A CURVE TO THE LEFT, THE RADIUS OF WHICH IS 607.96 FEET, A DISTANCE OF 214.99 FEET, TO A #4 REBAR FOUND (SAID CURVE SUBTENDED BY A CHORD RUNNING SOUTH 14'55'42" WEST, 213.87 FEET); THENCE, CONTINUE ALONG SAID RIGHT-OF-WAY SOUTH 05'10'37" WEST A DISTANCE OF 104.36 FEET TO A CONCRETE MONUMENT FOUND; THENCE, CONTINUE IN A SOUTHERLY DIRECTION ALONG SAID RIGHT-OF-WAY ALONG A CURVE TO THE RIGHT, THE RADIUS OF WHICH IS 431.73 FEET, A DISTANCE OF 125.91 FEET TO A CONCRETE MONUMENT FOUND (SAID CURVE SUBTENDED BY A CHORD RUNNING SOUTH 13'25'55" WEST, 125.46 FEET); THENCE, TURN AND RUN SOUTH 21'42'31" WEST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 236.58 FEET TO A CONCRETE MONUMENT FOUND; THENCE TURN AND RUN SOUTH 61'14'57" WEST ALONG SAID RIGHT-OF-WAY 45.19 FEET TO THE NORTHERN RIGHT-OF-WAY OF WASHINGTON ROAD AND THE **POINT OF BEGINNING**.

WASHINGTON ROAD HILL DR. SHERWOOD DR. PINEVIEW DR. LAFAYETTE AVE. ST. SHERWOOD DR. PINEVIEW DR. SHERWOOD DR. PINEVIEW DR. SHERWOOD DR. PINEVIEW DR. SHERWOOD DR. SHERWOOD

REFERENCES:

- 1. BOUNDARY & TOPPGRAPHIC MAP FOR W. RODGER GILES BY BALDWIN & CRANSTON ASSOC., DATED APRIL 19,1985 , LAST REV. 3-2-87.
- EASEMENT TO RICHMOND COUNTY, GEORGIA RECORDED IN REALTY REEL 74, PG. 548.
 CONSENT JUDGEMENT IN ACTION OF PAUL SIMON VS. RICHMOND COUNTY, GEORGIA, et al., DATED JANUARY 27, 1977, RECORDED IN REALTY REEL 71, PG. 1349.
- 4. EASEMENT FROM PAUL S. SIMON TO RICHMOND COUNTY, GEORGIA , DATED
- MARCH 28, 1977 RECORDED IN REALTY REEL 74, PG. 549-552.

 5. EASEMENT TO RICHMOND COUNTY, GEORGIA, DATED JULY 6, 1961. RECORDED IN
- REALTY BOOK 28-F, PG. 519-520.

 6. GENERAL SERVICE EASEMENTS TO GEORGIA POWER CO. RECORDED AS FOLLOWS:
- BOOK 14-F, PG. 461; BOOK 33-H, PG 466.
- 7. SANITARY SEWER EASEMENTS TO THE CITY COUNCIL OF AUGUSTA OVER A 10' STRIP OF LAND ALONG THE NORTHERN RIGHT OF WAY OF WASHINGTON RD. RECORDED AS FOLLOWS: BOOK 39-L, PG. 266; BOOK 39-L, PG. 478; BOOK 39-L, PG. 236.
- QUITCLAIM DEED FOR 15' STRIP ALONG WASHINGTON RD.TO GEORGIA STATE HIGHWAY DEPT. RECORDED IN REALTY REEL 252, PG. 1232–1235.
- 9. EASEMENT AGREEMENT WITH GEORGIA POWER CO. RECORDED IN REALTY REEL 244,
- 10. EASEMENT PLAT FOR THE CITY OF AUGUSTA BY JAMES G. SWIFT & ASSOC. DATED DEC. 11, 1986, LAST REV. FEB. 25, 1987. (AGREEMENT NOT RECORDED)
- 11. EASEMENT AGREEMENT BETWEEN TOPVALCO INC. AND Mc DONALD'S CORP. RECORDED IN REALTY REEL 290, PG 93.
- 12. QUITCLAIM DEED TO RICHMOND COUNTY FOR ADDITIONAL R/W ALONG ALEXANDER DR. RECORDED IN REALTY REEL 289, PG. 1747.
- 13. AS— BUILT & BOUNDARY PLAT OF KROGER STORE #368 WASHINGTON WALK FOR TOPVALCO, INC. BY CRANSTON, ROBERTSON & WHITEHURST, P.C. DATED JULY 28,1989.
- 14. RECORD PLAT OF CASTLEBROOK VILLAGE BY H. LAWSON GRAHAM AND ASSOCIATES, INC. DATED JULY, 1997; AND RECORDED IN REALTY REEL 572, PAGES 1317–1320.

LEGAL DESCRIPTION

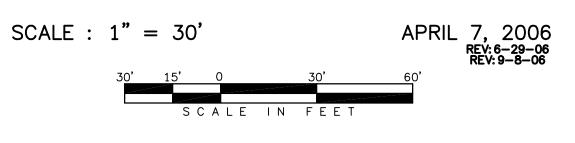
ALL THAT TRACT OR PARCEL OF LAND SITUATE, LYING AND BEING IN RICHMOND COUNTY, GEORGIA AT THE INTERSECTION OF THE NORTHERN RIGHT-OF-WAY OF WASHINGTON ROAD WITH THE WESTERN RIGHT-OF-WAY OF ALEXANDER DRIVE BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: **POINT OF BEGINNING** AT A CONCRETE MONUMENT FOUND AT THE POINT OF INTERSECTION REFERRED TO ABOVE AND RUNNING THENCE ALONG THE NORTHERN RIGHT-OF-WAY OF WASHINGTON ROAD IN A WESTERLY DIRECTION ALONG A CURVE TO THE LEFT, THE RADIUS OF WHICH IS 2921.79 FEET, A DISTANCE OF 123.32 FEET TO A #5 REBAR FOUND (SAID CURVE SUBTENDED BY A CHORD RUNNING NORTH 79°20'50" WEST, 123.31 FEET); THENCE, TURN AND RUN NORTH 07'35'24" EAST A DISTANCE OF 135.22 FEET TO A CONCRETE MONUMENT FOUND; THENCE, TURN AND RUN NORTH 80°35'09" WEST A DISTANCE OF 149.97 FEET TO A #4 REBAR FOUND; THENCE, TURN AND RUN NORTH 07°25'57" EAST A DISTANCE OF 50.40 FEET TO A #4 REBAR FOUND; THENCE, TURN AND RUN NORTH 80°30'08" WEST A DISTANCE OF 59.77 FEET TO A 2" OPEN TOP IRON FOUND; THENCE, TURN AND RUN NORTH 80°26'03" WEST A DISTANCE OF 149.65 FEET TO A #4 REBAR FOUND; THENCE, TURN AND RUN SOUTH 07°49'09" WEST A DISTANCE OF 185.27 FEET TO A #5 REBAR FOUND ON THE NORTHERN RIGHT-OF-WAY OF WASHINGTON ROAD; THENCE, TURN AND RUN ALONG THE NORTHERN RIGHT-OF-WAY OF WASHINGTON ROAD NORTH 80°22'02" WEST A DISTANCE OF 161.88 FEET TO A #4 REBAR FOUND; THENCE, TURN AND RUN NORTH 08'10'48" EAST A DISTANCE OF 185.42 FEET TO A #5 REBAR FOUND; THENCE, TURN AND RUN NORTH 80'28'38" WEST A DISTANCE OF 109.43 FEET TO A #5 REBAR FOUND; THENCE, TURN AND RUN NORTH 0716'42" EAST A DISTANCE OF 374.76 FEET TO A #5 REBAR FOUND; THENCË, TURN AND RUN NORTH 80°41'26" WEST A DISTANCE OF 143.72 FEET TO A 1" CRIMP TOP IRON FOUND; THENCE, TURN AND RUN NORTH 79'57'18" WEST A DISTANCE OF 242.31 FEET TO A #4 REBAR FOUND; THENCE, TURN AND RUN NORTH 88'27'35" WEST A DISTANCE OF 11.43 FEET TO A 1" OPEN TOP IRON FOUND; THENCE, TURN AND RUN NORTH 25'09'29" EAST A DISTANCE OF 184.81 FEET TO A #5 REBAR FOUND; THENCE, TURN AND RUN NORTH 2516'48" EAST A DISTANCE OF 327.40 FEET TO A 2" OPEN TOP IRON FOUND; THENCE, TURN AND RUN SOUTH 66'09'30" EAST A DISTANCE OF 299.45 FEET TO A #4 REBAR FOUND; THENCE, TURN AND RUN SOUTH 65°57'00" EAST A DISTANCE OF 893.01 FEET TO A #5 REBAR SET ON THE WESTERN RIGHT-OF-WAY OF ALEXANDER DRIVE; THENCE, TURN AND RUN SOUTH 2514'40" WEST ALONG THE WESTERN RIGHT-OF-WAY OF ALEXANDER DRIVE A DISTANCE OF 58.59 FEET TO A POINT ON A MANHOLE; THENCE, CONTINUE IN A SOUTHERLY DIRECTION ALONG SAID RIGHT-OF-WAY ALONG A CURVE TO THE LEFT, THE RADIUS OF WHICH IS 607.96 FEET, A DISTANCE OF 214.99 FEET, TO A #4 REBAR FOUND (SAID CURVE SUBTENDED BY A CHORD RUNNING SOUTH 14.55'42" WEST, 213.87 FEET); THENCE, CONTINUE ALONG SAID RIGHT-OF-WAY SOUTH 051037" WEST A DISTANCE OF 104.36 FEET TO A CONCRETE MONUMENT FOUND; THENCE, CONTINUE IN A SOUTHERLY DIRECTION ALONG SAID RIGHT-OF-WAY ALONG A CURVE TO THE RIGHT, THE RADIUS OF WHICH IS 431.73 FEET, A DISTANCE OF 125.91 FEET TO A CONCRETE MONUMENT FOUND (SAID CURVE SUBTENDED BY A CHORD RUNNING SOUTH 13°25'55" WEST, 125.46 FEET); THENCE, TURN AND RUN SOUTH 21°42'31" WEST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 236.58 FEET TO A CONCRETE MONUMENT FOUND; THENCE TURN AND RUN SOUTH 61"14'57" WEST ALONG SAID RIGHT-OF-WAY 45.19 FEET TO THE NORTHERN RIGHT-OF-WAY OF WASHINGTON ROAD AND THE POINT OF BEGINNING.

THE UNDERSIGNED, AS OF THIS 1st DAY OF OCTOBER, 2004 CERTIFIES TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF TO THE KROGER CO., AN OHIO CORPORATION, AND LAWYERS TITLE INSURANCE CORPORATION THAT HE IS A DULY REGISTERED SURVEYOR IN THE STATE OF GEORGIA: THIS SURVEY IS MADE IN ACCORDANCE WITH THE STANDARDS ESTABLISHED BY THE AMERICAN TITLE ASSOCIATION AND THE STATE OF GEORGIA. THE INFORMATION, COURSES AND DISTANCES SHOWN HEREIN ARE CORRECT; THIS SURVEY ACCURATELY SHOWS THE LOCATION AND DIMENSIONS OF ALL BUILDINGS, ABOVE GROUND UTILITIES AND OTHER IMPROVEMENTS SITUATED ON THE PREMISES; THE PREMISES DO NOT LIE WITH IN A DESIGNATED 100 YEAR FLOOD PLAIN IN ACCORDANCE WITH THE DOCUMENT ENTITLED "DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT INSURANCE ADMINISTRATION — SPECIAL FLOOD HAZARD AREA MAPS"; THE PREMISES ARE CONTIGUOUS WITH THE PUBLIC DEDICATED RIGHTS—OF WAY OF WASHINGTON ROAD (STATE HIGHWAY #28) AND ALEXANDER DRIVE AND THERE ARE NO EASEMENT FOR RIGHTS—OF—WAY ENCUMBERING THE PREMISES OF WHICH THE UNDERSIGNED HAS BEEN ADVISED ENCROACHMENTS OF BUILDINGS OR OTHER VISIBLE IMPROVEMENTS FROM ADJOINING PROPERTY ONTO THE PREMISES, OR ENCROACHMENTS ORBUILDINGS OR OTHER VISIBLE IMPROVEMENTS FROM THE PREMISES ONTO ADJOINING PROPERTY, OTHER THAN AS SHOWN THEREIN.

ALTA/ASCM BOUNDARY, TOPOGRAPHIC & UTILITY MAP

KROGER STORE #368

SHOWING PROPERTY KNOWN AS 2801 WASHINGTON ROAD IN THE 90th G.M.D. AUGUSTA, RICHMOND COUNTY, GEORGIA



Cranston, Robertson & Whitehurst, P.C. 452 ELLIS STREET - P.O. DRAWER 2546 - AUGUSTA, GEORGIA 30903 PLANNERS - PLANNERS - SURVEYORS

PH: (706) 722-1588 - WEBSITE: www.crwpc.com - FACSIMILE: (706) 722-8379

5

OUTFALL T=252.29 5' ROUND TOP 0.7' FROM OPENING ALL THE WAY AROUND 12"HOLE IE IN=245.09 16" WIDE WIER OPENING ALL THE WAY AROUND 16" WIDE WIER OPENING ALL THE WAY AROUND

N. T. S.

LE	GEND			
<u>––</u> LF	CENTERLINE CHAIN LINK FENCE		SLOPE EASEMENT	
MF MP	CONCRETE MONUMENT FOUND CORRUGATED METAL PIPE	LINE	DIRECTION	DISTANCE
NF	CORNER NOT FOUND CORNER NOT SET	58-59	N09°43'55"E	8.66'
NS P	CLAY PIPE CRIMP TOP IRON FOUND	59-60	S80°40'15"E	8.88'
TF WT	DOUBLE WING TRAP FIRE HYDRANT	60-61	N09*19'50"E	15.72'
T C W	HANDICAP	61-62	N47*13'00"E	31.15'
	HEAD WALL LIGHT POLE	62-63	N21*37'00"E	156.11'
TMH SHM	STROM MAN HOLE SANITARY SEWER MAN HOLE	63-64	N33*55'30"E	43.87'
HU TF P	OVER HEAD UTILITY OPEN TOP IRON FOUND	64-65	N14°30'50"E	139.86'
BF	POWER POLE REBAR FOUND	65-66	N05°00'10"E	265.00'
BS CP	REBAR SET REINFORCED CONCRETE PIPE	66-54	N77*24'05"E	32.12'
/W	RIGHT OF WAY		•	•

WV WATER VALVE
MP METAL POLE
SN SIGN
DS DOWNSPOUT

BENCHMARK:

CRW POINT #3 TOP NAIL SET ELEV=291.96 PROJECT DATA
PROJECT ACRES: 18.77
BUILDING AREA: 51,704
SHOP AREA: 11,969
ZONING DATA

COMPASS ADJUSTMENT

TECHNICAL DATA

DATE OF SURVEY - MARCH, 2006

FIELD PRECISION— 1 in 38,000 PLAT CLOSURE — 1 IN 817,467

PROPERTY ZONED B-1 & B-2

EQUIPMENT USED - THEODOLITE & E.D.M.
ANGULAR PRECISION - 5" PER ANGLE

UTILITY COMPANY CONTACT LIST

MR. BUD HAMLIN (MAINENANCE)

AUGUSTA UTILITIES DEPARTMENT 2822 CENTRAL AVENUE AUGUSTA, GEORGIA 30909 (706) 736-8497

MR. MAX HICKS (MAIN CONTACT)

AUGUSTA UTILITIES DEPARTMENT 360 BAY STREET, SUITE 180 AUGUSTA, GEORGIA 30901 (706) 312-4131

MR. TOMMY HARWELL ATLANTA GAS LIGHT CO.

1840 WYLDS ROAD AUGUSTA, GEORGIA 30909

MR. JEFF SURRENCY (OUTSIDE AUGUSTA NATIONAL)

3841 WRIGHTSBORO ROAD AUGUSTA, GEORGIA 30909 (706) 210-8237

MS. JULIE DAVIS HEAD OF DISTRIBUTION

BELLSOUTH 3841 WRIGHTSBORO ROAD AUGUSTA, GEORGIA 30909 (706) 821-7528

MR. MARK MILLS GEORGIA POWERS 2103 NORTH LEG ROAD AUGUSTA, GEORGIA 3090

2103 NORTH LEG ROAD AUGUSTA, GEORGIA 30909 (706) 667-5633 MR. ROBERT AUSTIN

AUGUSTA-RICHMOND COUNTY PLANNING COMMISSION 525 TELFAIR STREET

525 TELFAIR STREET
AUGUSTA, GEORGIA 30901
(706) 821-1796

MR. JACK THORNTON

COMCAST 739-1842 (OFFICE)

339-2578 (CELL) 855-6438 (FAX) PAT CASEY

364-1043 (OFFICE) 294-2975 (CELL)

KNOLOGY

294-2975 (CELL) 364-1001 (FAX) 364-9986 (FAX CONSTRUCTION OFFICE)

UTILITY NOTE:

THE EXISTENCE, ABSENCE, LOCATIONS, AND DEPTHS OF UTILITIES AND UNDERGROUND ITEMS HAVE BEEN DETERMINED BY ORDINARY SURVEYING METHODS FROM FIELD OBSERVATIONS AND FROM INFORMATION FURNISHED BY THE UTILITY COMPANIES, AND ARE NOT GUARANTEED.

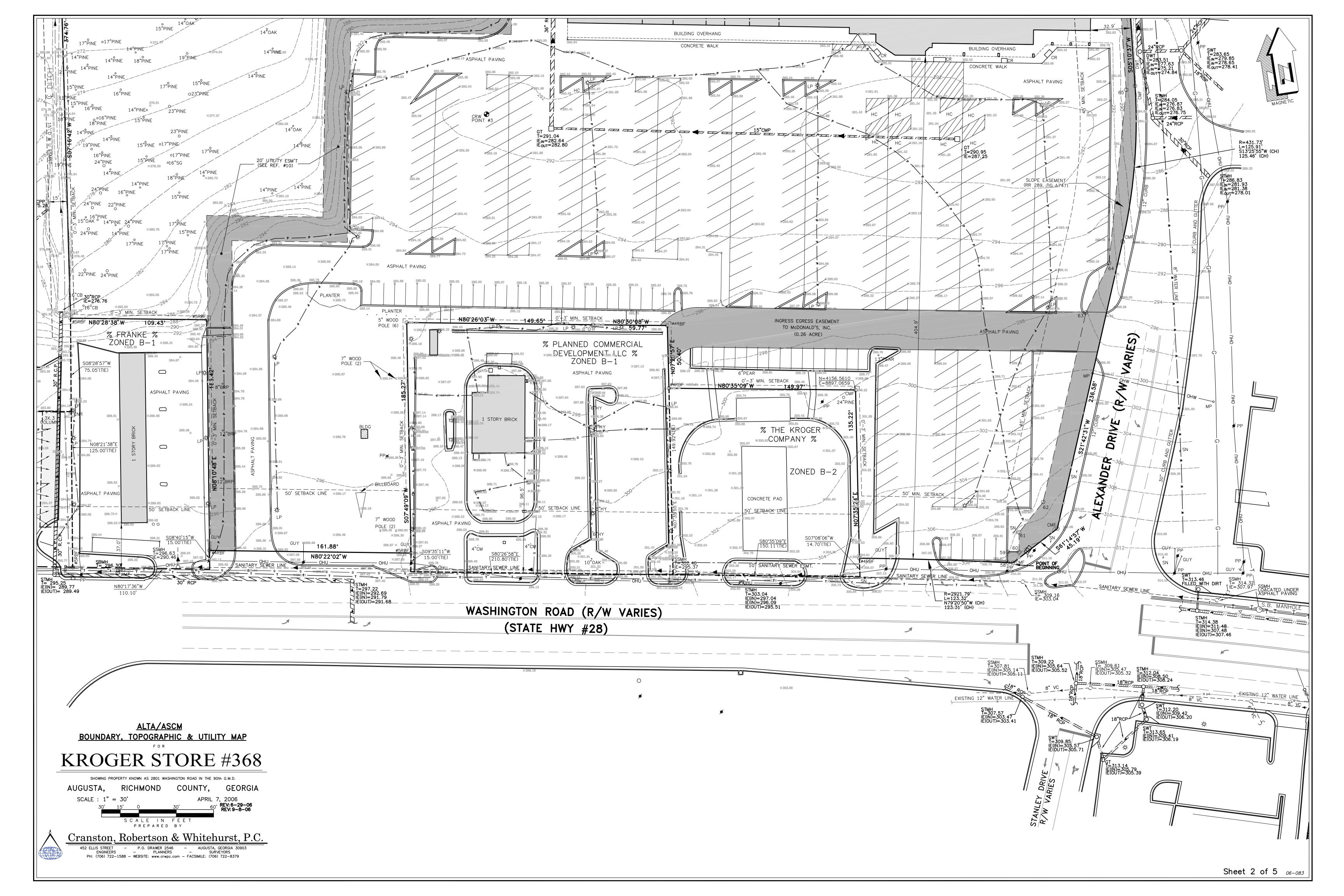
<u>NOTES</u>

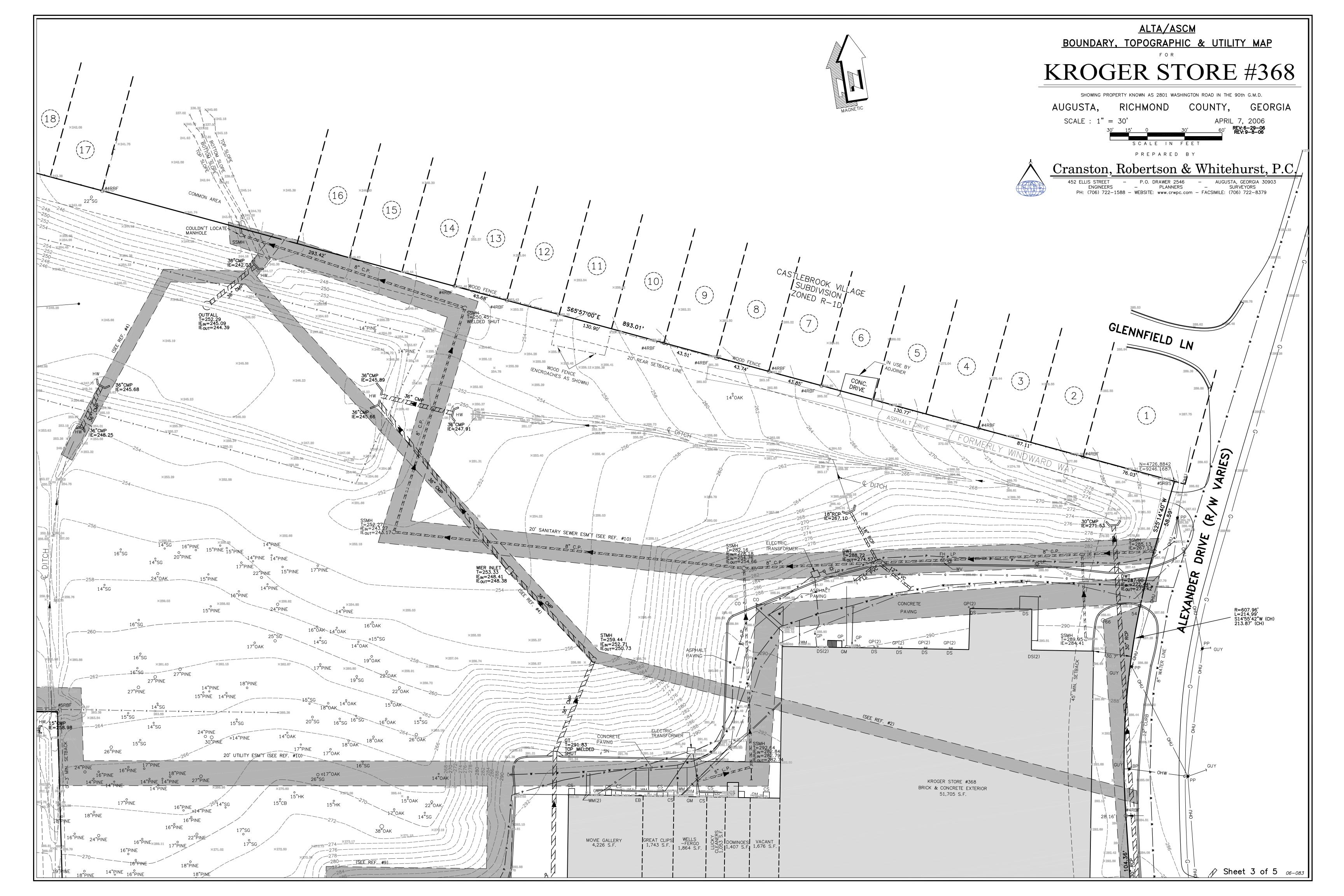
- 1. LOCATION OF UNDERGROUND POWER AND TELEPHONE CABLES WAS BASED ON MARKINGS BY UTILITY REPRESENTATIVES.
- 2. LOCATION OF UNDERGROUND GAS LINES TAKEN FORM GAS COMPANY FIELD
- BOOK.

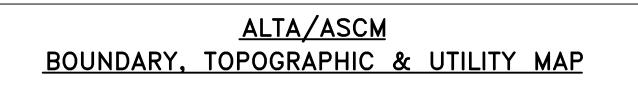
 3. SIDE SETBACK IS 0' OR 3'.
- 4. PROPERTY ADDRESS IS KNOWN AS 2801 WASHINGTON ROAD.
- 5. SQUARE FOOTAGE OF KROGER STORE DOES NOT INCLUDE ENCLOSED LOADING
- 6. REFERENCES #3 & #6 NOT LOCATEABLE.7. REFERENCE #7 NO LONGER APPLIES TO THE PROPERTY.
- 8. AREA OF ASPHALT AND CONCRETE PARKING AREA IS 195,130 Sq. Ft. AND DOES
- NOT INCLUDE WESTERN DRIVEWAY TO WASHINGTON ROAD.

 9. IMPROVEMNETS ON SUBJECT PROPERTY DOES NOT LIE WITHIN ANY CONICAL ZONE FOR
- ANY AIRPORT.

 10. SQUARE FOOTAGE OF STORES PROVIDED BY KROGER COMPANY REPRESENTATIVE.
- 11. PROPERTY HAS 352 PARKING SPACES IN WHICH 5 ARE MARKED HANDICAP.







KROGER STORE #368

SHOWING PROPERTY KNOWN AS 2801 WASHINGTON ROAD IN THE 90th G.M.D.

AUGUSTA, RICHMOND COUNTY, GEORGIA

SCALE: 1" = 30'

APRIL 7, 2006

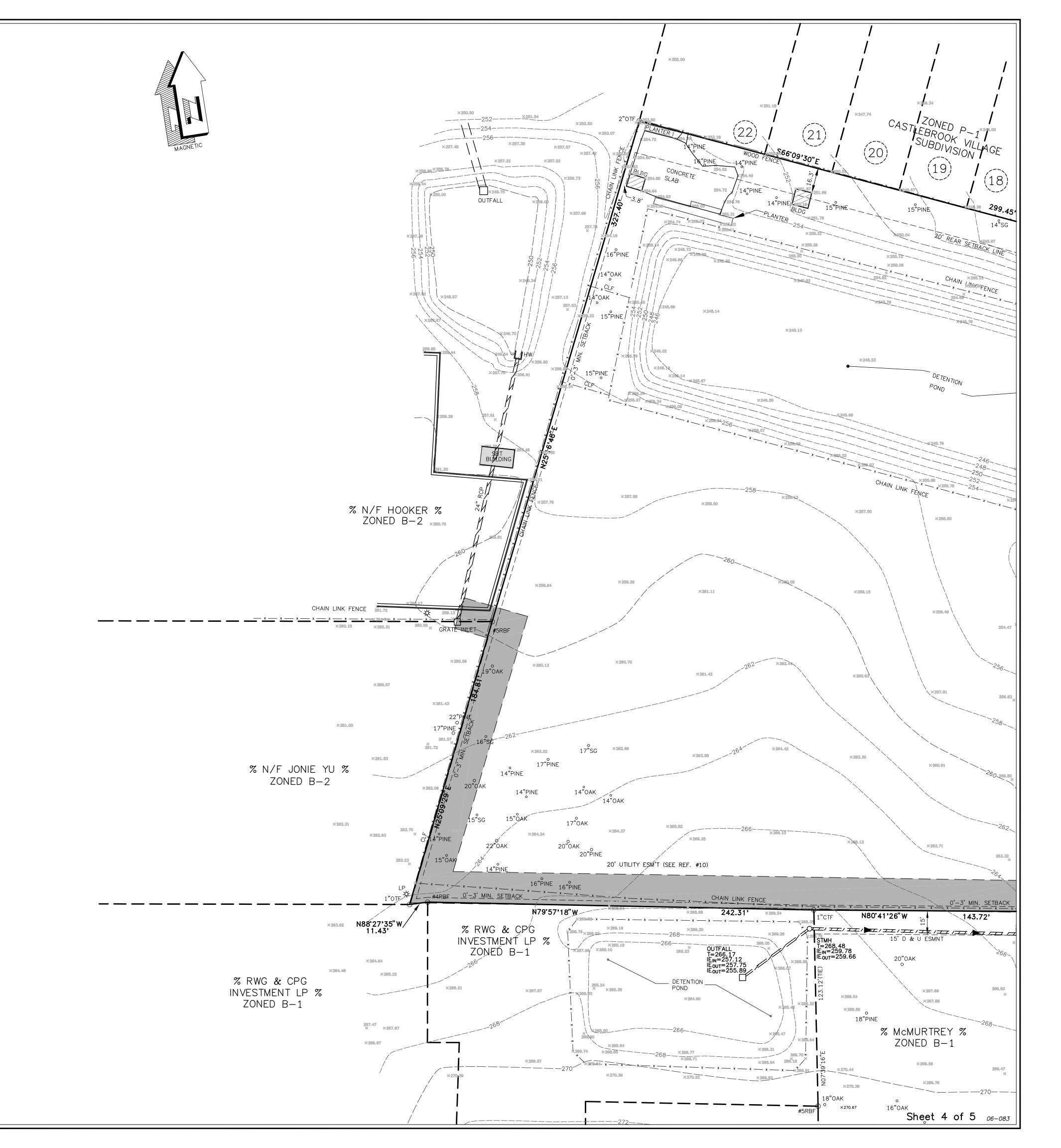
REV: 6-29-06

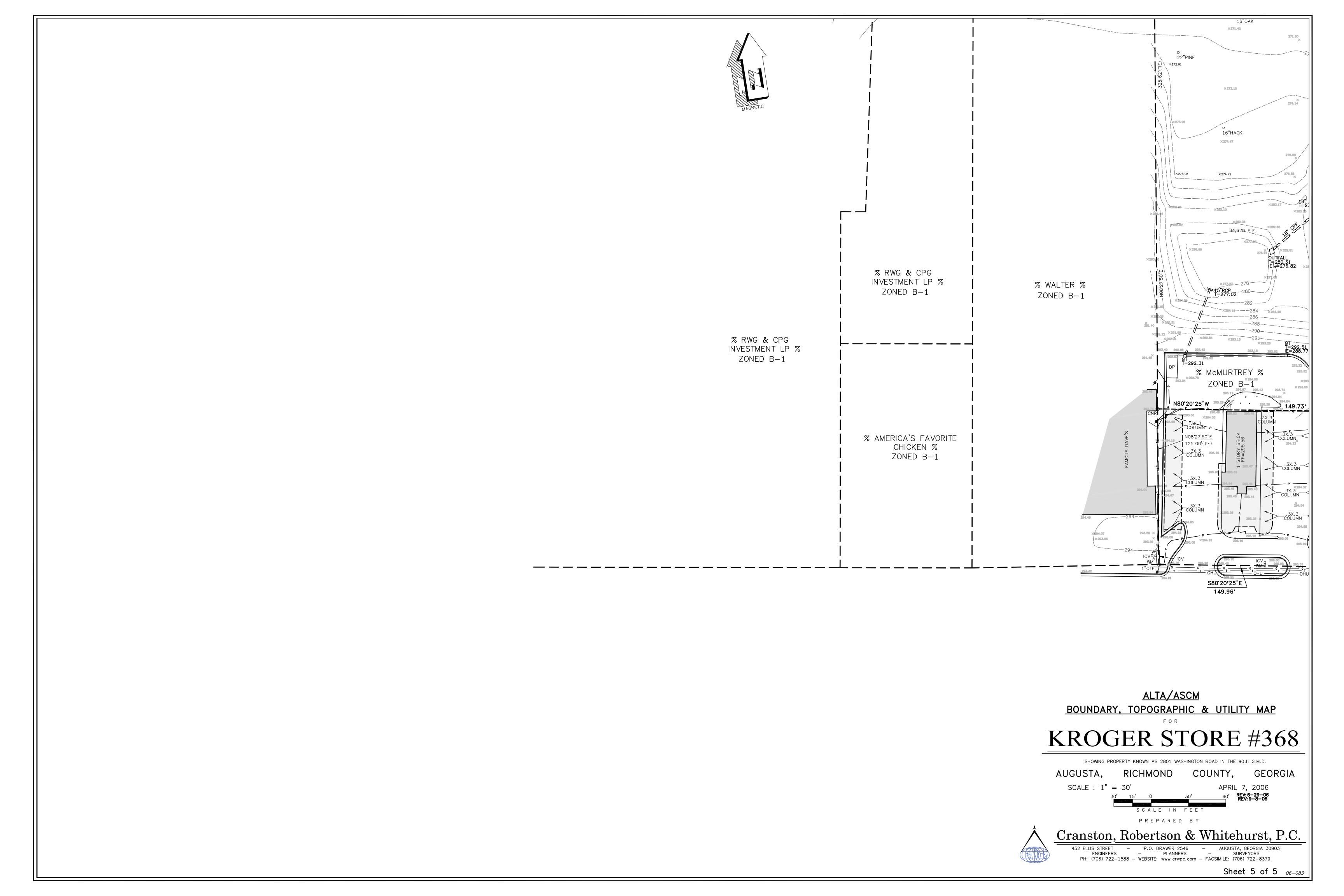
30' 15' 0 30' 60' **REV: 9-8-06**S C A L E I N F E E T

PREPARED BY

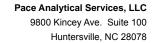
Cranston, Robertson & Whitehurst, P.C.

452 ELLIS STREET - P.O. DRAWER 2546 - AUGUSTA, GEORGIA 30903 ENGINEERS - PLANNERS - SURVEYORS PH: (706) 722-1588 - WEBSITE: www.crwpc.com - FACSIMILE: (706) 722-8379









(704)875-9092



June 19, 2017

Nathan Parker Enercon Services 500 Townpark Ln Kennesaw, GA 30144

RE: Project: LUCKY CLEANERS

Pace Project No.: 92343524

Dear Nathan Parker:

Enclosed are the analytical results for sample(s) received by the laboratory between June 08, 2017 and June 09, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

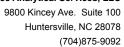
Taylor Ezell taylor.ezell@pacelabs.com (704)875-9092

Project Manager

Enclosures

cc: Chrissy Sherman, Enercon Services







CERTIFICATIONS

Project: LUCKY CLEANERS

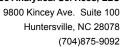
Pace Project No.: 92343524

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078 North Carolina Drinking Water Certification #: 37706 North Carolina Field Services Certification #: 5342 North Carolina Wastewater Certification #: 12 South Carolina Certification #: 99006001 Florida/NELAP Certification #: E87627 Kentucky UST Certification #: 84 Virginia/VELAP Certification #: 460221

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804 Florida/NELAP Certification #: E87648 Massachusetts Certification #: M-NC030 North Carolina Drinking Water Certification #: 37712 North Carolina Wastewater Certification #: 40 South Carolina Certification #: 99030001 Virginia/VELAP Certification #: 460222

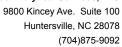




Project: LUCKY CLEANERS

Pace Project No.: 92343524

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92343524001	MW-6	RSK 175 Modified	WDV	3	PASI-C
		EPA 8260	CAH	63	PASI-C
		SM 3500-Fe B	CJH1	1	PASI-A
		SM 4500-S2D	MVC	1	PASI-A
		EPA 300.0	CDC	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-CI-E	CJH1	1	PASI-A
		SM 5310B	KDF1	1	PASI-A
2343524002	MW-8	RSK 175 Modified	WDV	3	PASI-C
		EPA 8260	CAH	63	PASI-C
		SM 3500-Fe B	CJH1	1	PASI-A
		SM 4500-S2D	MVC	1	PASI-A
		EPA 300.0	CDC	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-CI-E	CJH1	1	PASI-A
		SM 5310B	KDF1	1	PASI-A
2343524003	MW-10	RSK 175 Modified	WDV	3	PASI-C
		EPA 8260	CAH	63	PASI-C
		SM 3500-Fe B	CJH1	1	PASI-A
		SM 4500-S2D	MVC	1	PASI-A
		EPA 300.0	CDC	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-CI-E	CJH1	1	PASI-A
		SM 5310B	KDF1	1	PASI-A
2343524004	MW-12	RSK 175 Modified	WDV	3	PASI-C
		EPA 8260	CAH	63	PASI-C
		SM 3500-Fe B	CJH1	1	PASI-A
		SM 4500-S2D	MVC	1	PASI-A
		EPA 300.0	CDC	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-CI-E	CJH1	1	PASI-A
		SM 5310B	KDF1	1	PASI-A
2343524005	MW-13	RSK 175 Modified	WDV	3	PASI-C
		EPA 8260	CAH	63	PASI-C
		SM 3500-Fe B	CJH1	1	PASI-A
		SM 4500-S2D	MVC	1	PASI-A
		EPA 300.0	CDC	1	PASI-A

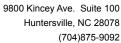




Project: LUCKY CLEANERS

Pace Project No.: 92343524

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 353.2	DMN	1	PASI-A
		SM 4500-CI-E	CJH1	1	PASI-A
		SM 5310B	KDF1	1	PASI-A
2343524006	MW-14	RSK 175 Modified	WDV	3	PASI-C
		EPA 8260	CAH	63	PASI-C
		SM 3500-Fe B	CJH1	1	PASI-A
		SM 4500-S2D	MVC	1	PASI-A
		EPA 300.0	CDC	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-CI-E	CJH1	1	PASI-A
		SM 5310B	KDF1	1	PASI-A
2343524007	MW-15	RSK 175 Modified	WDV	3	PASI-C
		EPA 8260	CAH	63	PASI-C
		SM 3500-Fe B	CJH1	1	PASI-A
		SM 4500-S2D	MVC	1	PASI-A
		EPA 300.0	CDC	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-CI-E	CJH1	1	PASI-A
		SM 5310B	KDF1	1	PASI-A
2343524008	MW-1	RSK 175 Modified	WDV	3	PASI-C
		EPA 6010	SH1	7	PASI-A
		EPA 7470	WAB	1	PASI-A
		EPA 8260	GAW	63	PASI-C
		SM 3500-Fe B	CJH1	1	PASI-A
		SM 4500-S2D	MDW	1	PASI-A
		EPA 300.0	CDC	1	PASI-A
		EPA 353.2	AES2	1	PASI-A
		SM 4500-CI-E	CJH1	1	PASI-A
		SM 5310B	KDF1	1	PASI-A
2343524009	MW-2	RSK 175 Modified	WDV	3	PASI-C
		EPA 6010	SH1	7	PASI-A
		EPA 7470	WAB	1	PASI-A
		EPA 8260	GAW	63	PASI-C
		SM 3500-Fe B	CJH1	1	PASI-A
		SM 4500-S2D	MDW	1	PASI-A
		EPA 300.0	CDC	1	PASI-A
		EPA 353.2	AES2	1	PASI-A





Project: LUCKY CLEANERS

Pace Project No.: 92343524

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 4500-CI-E	CJH1	1	PASI-A
		SM 5310B	KDF1	1	PASI-A
2343524010	MW-3	RSK 175 Modified	WDV	3	PASI-C
		EPA 6010	SH1	7	PASI-A
		EPA 7470	WAB	1	PASI-A
		EPA 8260	GAW	63	PASI-C
		SM 3500-Fe B	CJH1	1	PASI-A
		SM 4500-S2D	MDW	1	PASI-A
		EPA 300.0	CDC	1	PASI-A
		EPA 353.2	AES2	1	PASI-A
		SM 4500-CI-E	CJH1	1	PASI-A
		SM 5310B	KDF1	1	PASI-A
2343524011	MW-5	RSK 175 Modified	WDV	3	PASI-C
		EPA 6010	SH1	7	PASI-A
		EPA 7470	WAB	1	PASI-A
		EPA 8260	GAW	63	PASI-C
		SM 3500-Fe B	CJH1	1	PASI-A
		SM 4500-S2D	MDW	1	PASI-A
		EPA 300.0	CDC	1	PASI-A
		EPA 353.2	AES2	1	PASI-A
		SM 4500-CI-E	CJH1	1	PASI-A
		SM 5310B	KDF1	1	PASI-A
2343524012	MW-4	RSK 175 Modified	WDV	3	PASI-C
		EPA 8260	GAW	63	PASI-C
		SM 3500-Fe B	CJH1	1	PASI-A
		SM 4500-S2D	MDW	1	PASI-A
		EPA 300.0	CDC	1	PASI-A
		EPA 353.2	AES2	1	PASI-A
		SM 4500-CI-E	BRJ	1	PASI-A
		SM 5310B	KDF1	1	PASI-A
2343524013	MW-7	RSK 175 Modified	WDV	3	PASI-C
		EPA 8260	GAW	63	PASI-C
		SM 3500-Fe B	CJH1	1	PASI-A
		SM 4500-S2D	MDW	1	PASI-A
		EPA 300.0	CDC	1	PASI-A
		EPA 353.2	AES2	1	PASI-A
		SM 4500-CI-E	BRJ		PASI-A

REPORT OF LABORATORY ANALYSIS

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Project: LUCKY CLEANERS

Pace Project No.: 92343524

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
	_	SM 5310B	KDF1	1	PASI-A
92343524014	MW-11	RSK 175 Modified	WDV	3	PASI-C
		EPA 8260	GAW	63	PASI-C
		SM 3500-Fe B	CJH1	1	PASI-A
		SM 4500-S2D	MDW	1	PASI-A
		EPA 300.0	CDC	1	PASI-A
		EPA 353.2	AES2	1	PASI-A
		SM 4500-CI-E	BRJ	1	PASI-A
		SM 5310B	KDF1	1	PASI-A
92343524015	DRUM 1	EPA 8260	GAW	63	PASI-C



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-6	Lab ID: 923	43524001	Collected:	06/07/1	7 20:05	Received:	06/08/17 08:50	Matrix: Water	
Parameters	Results	Units	Repor	t Limit	DF	Prepared	Analyzed	CAS No.	Qua
RSK 175 Headspace	Analytical Meth	nod: RSK 1	75 Modified						
Ethane	ND	ug/L		100	10		06/13/17 16:0	4 74-84-0	
Ethene	ND	ug/L		100	10		06/13/17 16:0	4 74-85-1	
Methane	36100	ug/L		100	10		06/13/17 16:0	4 74-82-8	
8260 MSV Low Level	Analytical Meth	nod: EPA 82	260						
Acetone	ND	ug/L		25.0	1		06/10/17 08:4	9 67-64-1	
Benzene	ND	ug/L		1.0	1		06/10/17 08:4	9 71-43-2	
Bromobenzene	ND	ug/L		1.0	1		06/10/17 08:4	9 108-86-1	
Bromochloromethane	ND	ug/L		1.0	1		06/10/17 08:4	9 74-97-5	
Bromodichloromethane	ND	ug/L		1.0	1		06/10/17 08:4	9 75-27-4	
Bromoform	ND	ug/L		1.0	1		06/10/17 08:4	9 75-25-2	
Bromomethane	ND	ug/L		2.0	1		06/10/17 08:4	9 74-83-9	
2-Butanone (MEK)	ND	ug/L		5.0	1		06/10/17 08:4	9 78-93-3	
Carbon tetrachloride	ND	ug/L		1.0	1		06/10/17 08:4		
Chlorobenzene	ND	ug/L		1.0	1		06/10/17 08:4		
Chloroethane	ND	ug/L		1.0	1		06/10/17 08:4		
Chloroform	ND	ug/L		1.0	1		06/10/17 08:4		
Chloromethane	ND	ug/L		1.0	1		06/10/17 08:4		
-Chlorotoluene	ND	ug/L		1.0	1		06/10/17 08:4		
-Chlorotoluene	ND	ug/L		1.0	1		06/10/17 08:4		
,2-Dibromo-3-chloropropane	ND ND	ug/L		2.0	1		06/10/17 08:4		
Dibromochloromethane	ND	ug/L		1.0	1		06/10/17 08:4		
,2-Dibromoethane (EDB)	ND ND	ug/L		1.0	1		06/10/17 08:4		
Dibromomethane	ND ND			1.0	1		06/10/17 08:4		
		ug/L			1		06/10/17 08:4		
,2-Dichlorobenzene	ND	ug/L		1.0	1				
,3-Dichlorobenzene	ND	ug/L		1.0			06/10/17 08:4		
,4-Dichlorobenzene	ND	ug/L		1.0	1		06/10/17 08:4		
Dichlorodifluoromethane	ND	ug/L		1.0	1		06/10/17 08:4		
,1-Dichloroethane	ND	ug/L		1.0	1		06/10/17 08:4		
,2-Dichloroethane	ND	ug/L		1.0	1		06/10/17 08:4		
1,1-Dichloroethene	ND	ug/L		1.0	1		06/10/17 08:4		
sis-1,2-Dichloroethene	ND	ug/L		1.0	1		06/10/17 08:4		
rans-1,2-Dichloroethene	ND	ug/L		1.0	1		06/10/17 08:4		
,2-Dichloropropane	ND	ug/L		1.0	1		06/10/17 08:4	9 78-87-5	
,3-Dichloropropane	ND	ug/L		1.0	1		06/10/17 08:4	9 142-28-9	
2,2-Dichloropropane	ND	ug/L		1.0	1		06/10/17 08:4	9 594-20-7	
,1-Dichloropropene	ND	ug/L		1.0	1		06/10/17 08:4	9 563-58-6	
sis-1,3-Dichloropropene	ND	ug/L		1.0	1		06/10/17 08:4	9 10061-01-5	
rans-1,3-Dichloropropene	ND	ug/L		1.0	1		06/10/17 08:4	9 10061-02-6	
Diisopropyl ether	ND	ug/L		1.0	1		06/10/17 08:4	9 108-20-3	
Ethylbenzene	ND	ug/L		1.0	1		06/10/17 08:4	9 100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L		1.0	1		06/10/17 08:4	9 87-68-3	
2-Hexanone	ND	ug/L		5.0	1		06/10/17 08:4		
p-Isopropyltoluene	ND	ug/L		1.0	1		06/10/17 08:4		
Methylene Chloride	ND	ug/L		2.0	1		06/10/17 08:4		
I-Methyl-2-pentanone (MIBK)	ND	ug/L		5.0	1		06/10/17 08:4		
Methyl-tert-butyl ether	ND	ug/L		1.0	1		06/10/17 08:4		



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-6	Lab ID: 923	43524001	Collected: 06/07/1	17 20:05	Received: 0	06/08/17 08:50 M	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8260 MSV Low Level	Analytical Meti	nod: EPA 826	30					
Naphthalene	ND	ug/L	1.0	1		06/10/17 08:49	91-20-3	
Styrene	ND	ug/L	1.0	1		06/10/17 08:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/10/17 08:49		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/10/17 08:49		
Tetrachloroethene	ND	ug/L	1.0	1		06/10/17 08:49		
Toluene	ND	ug/L	1.0	1		06/10/17 08:49		
I,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/10/17 08:49		
I,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/10/17 08:49		
I,1,1-Trichloroethane	ND	ug/L	1.0	1		06/10/17 08:49		
I,1,2-Trichloroethane	ND	ug/L	1.0	1		06/10/17 08:49		
Frichland flagger and the second	ND	ug/L	1.0	1		06/10/17 08:49		
Frichlorofluoromethane	ND	ug/L	1.0	1		06/10/17 08:49		
I,2,3-Trichloropropane	ND	ug/L	1.0	1		06/10/17 08:49		
/inyl acetate	ND	ug/L	2.0	1 1		06/10/17 08:49		
/inyl chloride	ND	ug/L	1.0	1		06/10/17 08:49		
Kylene (Total) n&p-Xylene	ND ND	ug/L ug/L	1.0 2.0	1		06/10/17 08:49 06/10/17 08:49		
o-Xylene	ND ND	J	1.0	1		06/10/17 08:49		
Surrogates	ND	ug/L	1.0	'		00/10/1/ 00.49	93-47-0	
4-Bromofluorobenzene (S)	92	%	70-130	1		06/10/17 08:49	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	70-130	1		06/10/17 08:49		
Foluene-d8 (S)	101	%	70-130	1		06/10/17 08:49		
ron, Ferrous	Analytical Meth	nod: SM 350	0-Fe B					
ron, Ferrous	7.8	mg/L	2.5	5		06/10/17 04:42		H1,N2
1500S2D Sulfide Water	Analytical Meth	nod: SM 450	0-S2D					
Sulfide	0.12	mg/L	0.10	1		06/13/17 01:45	18496-25-8	
300.0 IC Anions 28 Days	Analytical Meth	nod: EPA 300	0.0					
Sulfate	ND	mg/L	1.0	1		06/10/17 15:04	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth	nod: EPA 353	3.2					
Nitrogen, Nitrate	ND	mg/L	0.020	1		06/09/17 07:47		
1500 Chloride	Analytical Meth	nod: SM 450	0-CI-E					
Chloride	20.2	mg/L	1.0	1		06/14/17 02:19	16887-00-6	
3310B TOC	Analytical Meth	nod: SM 531	0B					
Total Organic Carbon	1.3	mg/L	1.0	1		06/13/17 04:21	7440-44-0	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-8	Lab ID: 923	43524002	Collected: 06/07/1	17 18:45	Received:	06/08/17 08:50	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
RSK 175 Headspace	Analytical Meth	nod: RSK 1	75 Modified					
Ethane	ND	ug/L	10.0	1		06/13/17 16:1	9 74-84-0	
Ethene	ND	ug/L	10.0	1		06/13/17 16:1	9 74-85-1	
Methane	27.9	ug/L	10.0	1		06/13/17 16:1	9 74-82-8	
8260 MSV Low Level	Analytical Meth	nod: EPA 82	260					
Acetone	ND	ug/L	25.0	1		06/10/17 09:0	6 67-64-1	
Benzene	ND	ug/L	1.0	1		06/10/17 09:0	6 71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/10/17 09:0	6 108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/10/17 09:0	6 74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/10/17 09:0	6 75-27-4	
Bromoform	ND	ug/L	1.0	1		06/10/17 09:0	6 75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/10/17 09:0	6 74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/10/17 09:0	6 78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/10/17 09:0	6 56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/10/17 09:0		
Chloroethane	ND	ug/L	1.0	1		06/10/17 09:0		
Chloroform	ND	ug/L	1.0	1		06/10/17 09:0		
Chloromethane	ND	ug/L	1.0	1		06/10/17 09:0		
2-Chlorotoluene	ND	ug/L	1.0	1		06/10/17 09:0		
I-Chlorotoluene	ND	ug/L	1.0	1		06/10/17 09:0		
,2-Dibromo-3-chloropropane	ND ND	ug/L	2.0	1		06/10/17 09:0		
Dibromochloromethane	ND ND	ug/L	1.0	1		06/10/17 09:0		
	ND ND	_	1.0	1		06/10/17 09:0		
,2-Dibromoethane (EDB)		ug/L		1				
Dibromomethane	ND	ug/L	1.0			06/10/17 09:0		
,2-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 09:0		
I,3-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 09:0		
I,4-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 09:0		
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/10/17 09:0		
1,1-Dichloroethane	ND	ug/L	1.0	1		06/10/17 09:0		
1,2-Dichloroethane	ND	ug/L	1.0	1		06/10/17 09:0		
1,1-Dichloroethene	ND	ug/L	1.0	1		06/10/17 09:0		
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/10/17 09:0		
rans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/10/17 09:0		
,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 09:0	6 78-87-5	
,3-Dichloropropane	ND	ug/L	1.0	1		06/10/17 09:0	6 142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 09:0	6 594-20-7	
,1-Dichloropropene	ND	ug/L	1.0	1		06/10/17 09:0	6 563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/10/17 09:0	6 10061-01-5	
rans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/10/17 09:0	6 10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/10/17 09:0	6 108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/10/17 09:0	6 100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/10/17 09:0	6 87-68-3	
2-Hexanone	ND	ug/L	5.0	1		06/10/17 09:0		
o-Isopropyltoluene	ND	ug/L	1.0	1		06/10/17 09:0		
Methylene Chloride	ND	ug/L	2.0	1		06/10/17 09:0		
I-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/10/17 09:0		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/10/17 09:0		

REPORT OF LABORATORY ANALYSIS

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Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-8	Lab ID: 923	43524002	Collected: 06/07/17	7 18:45	Received: 06/08/17 08:50 Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared Analyzed CAS No.	Qua
8260 MSV Low Level	Analytical Meth	nod: EPA 82	260			
Naphthalene	ND	ug/L	1.0	1	06/10/17 09:06 91-20-3	
Styrene	ND	ug/L	1.0	1	06/10/17 09:06 100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1	06/10/17 09:06 630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1	06/10/17 09:06 79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1	06/10/17 09:06 127-18-4	
Toluene	ND	ug/L	1.0	1	06/10/17 09:06 108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1	06/10/17 09:06 87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1	06/10/17 09:06 120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1	06/10/17 09:06 71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1	06/10/17 09:06 79-00-5	
Trichloroethene	ND	ug/L	1.0 1.0	1 1	06/10/17 09:06 79-01-6	
Trichlorofluoromethane	ND ND	ug/L	1.0	1	06/10/17 09:06 75-69-4 06/10/17 09:06 96-18-4	
1,2,3-Trichloropropane √inyl acetate	ND ND	ug/L ug/L	2.0	1	06/10/17 09:06 90-16-4	
Vinyl acetate Vinyl chloride	ND	ug/L ug/L	1.0	1	06/10/17 09:06 75-01-4	
(vlene (Total)	ND	ug/L	1.0	1	06/10/17 09:06 1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1	06/10/17 09:06 179601-23-1	
o-Xylene	ND	ug/L	1.0	1	06/10/17 09:06 95-47-6	
Surrogates		~g. =		•	33.13.11.33.33	
1-Bromofluorobenzene (S)	90	%	70-130	1	06/10/17 09:06 460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	70-130	1	06/10/17 09:06 17060-07-0	
Toluene-d8 (S)	101	%	70-130	1	06/10/17 09:06 2037-26-5	
ron, Ferrous	Analytical Meth	nod: SM 35	00-Fe B			
ron, Ferrous	ND	mg/L	0.50	1	06/10/17 04:42 H1,	,N2
1500S2D Sulfide Water	Analytical Meth	nod: SM 45	00-S2D			
Sulfide	ND	mg/L	0.10	1	06/13/17 01:45 18496-25-8	
800.0 IC Anions 28 Days	Analytical Meth	nod: EPA 30	0.00			
Sulfate	18.4	mg/L	1.0	1	06/10/17 15:21 14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth	nod: EPA 35	53.2			
Nitrogen, Nitrate	ND	mg/L	0.020	1	06/09/17 07:45	
1500 Chloride	Analytical Meth	nod: SM 45	00-CI-E			
Chloride	5.6	mg/L	1.0	1	06/14/17 02:20 16887-00-6	
5310B TOC	Analytical Meth	nod: SM 53	10B			
Total Organic Carbon	ND	mg/L	1.0	1	06/13/17 04:32 7440-44-0	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-10	Lab ID: 923	43524003	Collected: 06/07/1	17 16:55	Received:	06/08/17 08:50	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
RSK 175 Headspace	Analytical Meth	nod: RSK 1	75 Modified					
Ethane	ND	ug/L	10.0	1		06/13/17 16:34	1 74-84-0	
Ethene	ND	ug/L	10.0	1		06/13/17 16:34	1 74-85-1	
Methane	72.9	ug/L	10.0	1		06/13/17 16:34	74-82-8	
8260 MSV Low Level	Analytical Meth	nod: EPA 82	260					
Acetone	ND	ug/L	25.0	1		06/10/17 09:40	67-64-1	
Benzene	ND	ug/L	1.0	1		06/10/17 09:40	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/10/17 09:40	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/10/17 09:40	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/10/17 09:40	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/10/17 09:40	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/10/17 09:40		
-Butanone (MEK)	ND	ug/L	5.0	1		06/10/17 09:40		
Carbon tetrachloride	ND	ug/L	1.0	1		06/10/17 09:40		
Chlorobenzene	ND	ug/L	1.0	1		06/10/17 09:40		
Chloroethane	ND	ug/L	1.0	1		06/10/17 09:40		
Chloroform	ND	ug/L	1.0	1		06/10/17 09:40		
hloromethane	ND	ug/L	1.0	1		06/10/17 09:40		
-Chlorotoluene	ND ND	•	1.0	1		06/10/17 09:40		
-Chlorotoluene	ND ND	ug/L	1.0	1		06/10/17 09:40		
	ND ND	ug/L	2.0	1		06/10/17 09:40		
2-Dibromo-3-chloropropane		ug/L		1				
ibromochloromethane	ND	ug/L	1.0			06/10/17 09:40		
,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/10/17 09:40		
ibromomethane	ND	ug/L	1.0	1		06/10/17 09:40		
,2-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 09:40		
,3-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 09:40		
,4-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 09:40		
ichlorodifluoromethane	ND	ug/L	1.0	1		06/10/17 09:40		
,1-Dichloroethane	ND	ug/L	1.0	1		06/10/17 09:40		
,2-Dichloroethane	ND	ug/L	1.0	1		06/10/17 09:40		
,1-Dichloroethene	ND	ug/L	1.0	1		06/10/17 09:40		
is-1,2-Dichloroethene	ND	ug/L	1.0	1		06/10/17 09:40		
ans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/10/17 09:40		
,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 09:40	78-87-5	
,3-Dichloropropane	ND	ug/L	1.0	1		06/10/17 09:40	142-28-9	
,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 09:40	594-20-7	
,1-Dichloropropene	ND	ug/L	1.0	1		06/10/17 09:40	563-58-6	
s-1,3-Dichloropropene	ND	ug/L	1.0	1		06/10/17 09:40	10061-01-5	
ans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/10/17 09:40		
iisopropyl ether	ND	ug/L	1.0	1		06/10/17 09:40		
thylbenzene	ND	ug/L	1.0	1		06/10/17 09:40	100-41-4	
lexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/10/17 09:40		
-Hexanone	ND	ug/L	5.0	1		06/10/17 09:40		
-Isopropyltoluene	ND	ug/L	1.0	1		06/10/17 09:40		
lethylene Chloride	ND	ug/L	2.0	1		06/10/17 09:40		
-Methyl-2-pentanone (MIBK)	ND ND	ug/L ug/L	5.0	1		06/10/17 09:40		
Nethyl-tert-butyl ether	ND ND	ug/L ug/L	1.0	1		06/10/17 09:40		



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-10	Lab ID: 923	43524003	Collected: 06/07/17	7 16:55	Received: 06/08/17 08:50 Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared Analyzed CAS No.	Qua
8260 MSV Low Level	Analytical Meth	nod: EPA 82	260			
Naphthalene	ND	ug/L	1.0	1	06/10/17 09:40 91-20-3	
Styrene	ND	ug/L	1.0	1	06/10/17 09:40 100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1	06/10/17 09:40 630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1	06/10/17 09:40 79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1	06/10/17 09:40 127-18-4	
Toluene	ND	ug/L	1.0	1	06/10/17 09:40 108-88-3	
,2,3-Trichlorobenzene	ND	ug/L	1.0	1	06/10/17 09:40 87-61-6	
I,2,4-Trichlorobenzene	ND	ug/L	1.0	1	06/10/17 09:40 120-82-1	
I,1,1-Trichloroethane	ND	ug/L	1.0	1	06/10/17 09:40 71-55-6	
I,1,2-Trichloroethane	ND	ug/L	1.0	1	06/10/17 09:40 79-00-5	
Frichloroethene	ND ND	ug/L	1.0	1 1	06/10/17 09:40 79-01-6	
Frichlorofluoromethane	ND ND	ug/L	1.0 1.0	1	06/10/17 09:40 75-69-4 06/10/17 09:40 96-18-4	
I,2,3-Trichloropropane	ND ND	ug/L	2.0	1	06/10/17 09:40 98-18-4	
/inyl acetate /inyl chloride	ND ND	ug/L ug/L	1.0	1	06/10/17 09:40 108-05-4	
Vylene (Total)	ND ND	ug/L	1.0	1	06/10/17 09:40 73-01-4	
n&p-Xylene	ND	ug/L	2.0	1	06/10/17 09:40 1330-20-7	
o-Xylene	ND	ug/L	1.0	1	06/10/17 09:40 95-47-6	
Surrogates	ND	ug/L	1.0	•	00/10/17 00:40 00 47 0	
I-Bromofluorobenzene (S)	91	%	70-130	1	06/10/17 09:40 460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	70-130	1	06/10/17 09:40 17060-07-0	
Toluene-d8 (S)	104	%	70-130	1	06/10/17 09:40 2037-26-5	
ron, Ferrous	Analytical Meth	nod: SM 35	00-Fe B			
ron, Ferrous	1.2	mg/L	0.50	1	06/10/17 04:42	H1,N2
500S2D Sulfide Water	Analytical Meth	nod: SM 45	00-S2D			
Sulfide	ND	mg/L	0.10	1	06/13/17 01:45 18496-25-8	
300.0 IC Anions 28 Days	Analytical Meth	nod: EPA 30	0.00			
Sulfate	7.9	mg/L	1.0	1	06/10/17 15:37 14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth	nod: EPA 35	53.2			
Nitrogen, Nitrate	4.1	mg/L	0.020	1	06/09/17 07:34	M1
1500 Chloride	Analytical Meth	nod: SM 45	00-CI-E			
Chloride	67.2	mg/L	5.0	5	06/14/17 03:54 16887-00-6	
3310B TOC	Analytical Meth	nod: SM 53	10B			
Total Organic Carbon	ND	mg/L	1.0	1	06/13/17 04:42 7440-44-0	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-12	Lab ID: 923	43524004	Collected: 06/07/1	7 19:10	Received:	06/08/17 08:50	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
RSK 175 Headspace	Analytical Meth	nod: RSK 1	75 Modified					
Ethane	ND	ug/L	10.0	1		06/13/17 16:49	9 74-84-0	
Ethene	ND	ug/L	10.0	1		06/13/17 16:49	9 74-85-1	
Methane	10900	ug/L	10.0	1		06/13/17 16:49	74-82-8	
3260 MSV Low Level	Analytical Meth	nod: EPA 82	260					
Acetone	ND	ug/L	25.0	1		06/10/17 09:58	3 67-64-1	
Benzene	ND	ug/L	1.0	1		06/10/17 09:58	3 71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/10/17 09:58	3 108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/10/17 09:58	3 74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/10/17 09:58	3 75-27-4	
Bromoform	ND	ug/L	1.0	1		06/10/17 09:58		
Bromomethane	ND	ug/L	2.0	1		06/10/17 09:58		
2-Butanone (MEK)	ND	ug/L	5.0	1		06/10/17 09:58		
Carbon tetrachloride	ND	ug/L	1.0	1		06/10/17 09:58		
Chlorobenzene	ND	ug/L	1.0	1		06/10/17 09:58		
Chloroethane	ND	ug/L	1.0	1		06/10/17 09:58		
Chloroform	ND	ug/L	1.0	1		06/10/17 09:58		
Chloromethane	ND	ug/L	1.0	1		06/10/17 09:58		
-Chlorotoluene	ND ND	ug/L	1.0	1		06/10/17 09:58		
		•		1		06/10/17 09:58		
-Chlorotoluene	ND	ug/L	1.0	1				
,2-Dibromo-3-chloropropane	ND	ug/L	2.0			06/10/17 09:58		
Dibromochloromethane	ND	ug/L	1.0	1		06/10/17 09:58		
,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/10/17 09:58		
Dibromomethane	ND	ug/L	1.0	1		06/10/17 09:58		
,2-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 09:58		
,3-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 09:58		
,4-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 09:58		
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/10/17 09:58		
,1-Dichloroethane	ND	ug/L	1.0	1		06/10/17 09:58	3 75-34-3	
,2-Dichloroethane	ND	ug/L	1.0	1		06/10/17 09:58	3 107-06-2	
,1-Dichloroethene	ND	ug/L	1.0	1		06/10/17 09:58	3 75-35-4	
sis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/10/17 09:58	3 156-59-2	
rans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/10/17 09:58	3 156-60-5	
,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 09:58	3 78-87-5	
,3-Dichloropropane	ND	ug/L	1.0	1		06/10/17 09:58	3 142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 09:58		
,1-Dichloropropene	ND	ug/L	1.0	1		06/10/17 09:58	3 563-58-6	
is-1,3-Dichloropropene	ND	ug/L	1.0	1		06/10/17 09:58		
rans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/10/17 09:58		
Diisopropyl ether	ND	ug/L	1.0	1		06/10/17 09:58		
Ethylbenzene	ND	ug/L	1.0	1		06/10/17 09:58		
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/10/17 09:58		
2-Hexanone	ND ND	ug/L	5.0	1		06/10/17 09:58		
-Isopropyltoluene	ND ND	ug/L	1.0	1		06/10/17 09:58		
Methylene Chloride	ND ND	•	2.0	1		06/10/17 09:58		
•		ug/L						
I-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/10/17 09:58 06/10/17 09:58		



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-12	Lab ID: 923	43524004	Collected: 06/07/1	7 19:10	Received: 0	6/08/17 08:50 I	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8260 MSV Low Level	Analytical Meth	hod: EPA 82	260					
Naphthalene	ND	ug/L	1.0	1		06/10/17 09:58	91-20-3	
Styrene	ND	ug/L	1.0	1		06/10/17 09:58	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/10/17 09:58		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/10/17 09:58		
Tetrachloroethene	ND	ug/L	1.0	1		06/10/17 09:58		
Toluene	ND	ug/L	1.0	1		06/10/17 09:58		
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/10/17 09:58		
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/10/17 09:58		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/10/17 09:58		
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/10/17 09:58		
Trichloroethene	ND	ug/L	1.0	1		06/10/17 09:58		
Trichlorofluoromethane	ND	ug/L	1.0	1 1		06/10/17 09:58		
1,2,3-Trichloropropane	ND ND	ug/L	1.0 2.0	1		06/10/17 09:58		
√inyl acetate √inyl chloride		ug/L	2.0 1.0	1		06/10/17 09:58 06/10/17 09:58		
Viriyi chloride Xylene (Total)	ND ND	ug/L ug/L	1.0	1		06/10/17 09:58		
n&p-Xylene	ND ND	ug/L ug/L	2.0	1		06/10/17 09:58		
o-Xylene	ND	ug/L	1.0	1		06/10/17 09:58		
Surrogates	ND	ug/L	1.0	'		00/10/17 00:50	33-47-0	
1-Bromofluorobenzene (S)	91	%	70-130	1		06/10/17 09:58	3 460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	70-130	1		06/10/17 09:58	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		06/10/17 09:58	2037-26-5	
ron, Ferrous	Analytical Meth	hod: SM 350	00-Fe B					
ron, Ferrous	11.3	mg/L	2.5	5		06/10/17 04:42	2	H1,N2
1500S2D Sulfide Water	Analytical Meth	nod: SM 450	00-S2D					
Sulfide	ND	mg/L	0.10	1		06/13/17 01:45	18496-25-8	
300.0 IC Anions 28 Days	Analytical Meth	hod: EPA 30	0.00					
Sulfate	ND	mg/L	1.0	1		06/10/17 15:54	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth	hod: EPA 35	53.2					
Nitrogen, Nitrate	ND	mg/L	0.020	1		06/09/17 07:46	3	
500 Chloride	Analytical Meth	nod: SM 450	00-CI-E					
Chloride	22.1	mg/L	1.0	1		06/14/17 02:22	16887-00-6	
5310B TOC	Analytical Meth	hod: SM 53	10B					
Total Organic Carbon	4.7	mg/L	1.0	1		06/13/17 04:53	7440-44-0	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-13	Lab ID: 923	43524005	Collected: 06/07/1	7 17:30	Received:	06/08/17 08:50	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
RSK 175 Headspace	Analytical Meth	nod: RSK 1	75 Modified					
Ethane	ND	ug/L	10.0	1		06/13/17 17:0	5 74-84-0	
Ethene	ND	ug/L	10.0	1		06/13/17 17:0	5 74-85-1	
Methane	445	ug/L	10.0	1		06/13/17 17:0	5 74-82-8	
8260 MSV Low Level	Analytical Meth	nod: EPA 82	260					
Acetone	ND	ug/L	25.0	1		06/10/17 10:1	5 67-64-1	
Benzene	ND	ug/L	1.0	1		06/10/17 10:1	5 71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/10/17 10:1	5 108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/10/17 10:19	5 74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/10/17 10:19	5 75-27-4	
Bromoform	ND	ug/L	1.0	1		06/10/17 10:1	5 75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/10/17 10:19	5 74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/10/17 10:1	5 78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/10/17 10:1	5 56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/10/17 10:1	5 108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/10/17 10:19	5 75-00-3	
Chloroform	ND	ug/L	1.0	1		06/10/17 10:1		
Chloromethane	ND	ug/L	1.0	1		06/10/17 10:1		
-Chlorotoluene	ND	ug/L	1.0	1		06/10/17 10:19		
-Chlorotoluene	ND	ug/L	1.0	1		06/10/17 10:19		
,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/10/17 10:19		
Dibromochloromethane	ND	ug/L	1.0	1		06/10/17 10:19		
,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/10/17 10:19		
Dibromomethane	ND	ug/L	1.0	1		06/10/17 10:19		
,2-Dichlorobenzene	ND ND	ug/L	1.0	1		06/10/17 10:15		
,3-Dichlorobenzene	ND ND	ug/L ug/L	1.0	1		06/10/17 10:15		
	ND ND	•	1.0	1		06/10/17 10:15		
,4-Dichlorobenzene		ug/L		1				
Dichlorodifluoromethane	ND	ug/L	1.0			06/10/17 10:19		
,1-Dichloroethane	ND	ug/L	1.0	1		06/10/17 10:15		
,2-Dichloroethane	ND	ug/L	1.0	1		06/10/17 10:15		
,1-Dichloroethene	ND	ug/L	1.0	1		06/10/17 10:19		
is-1,2-Dichloroethene	ND	ug/L	1.0	1		06/10/17 10:15		
ans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/10/17 10:1		
,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 10:1		
,3-Dichloropropane	ND	ug/L	1.0	1		06/10/17 10:1		
2,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 10:1		
,1-Dichloropropene	ND	ug/L	1.0	1		06/10/17 10:1		
is-1,3-Dichloropropene	ND	ug/L	1.0	1		06/10/17 10:1		
ans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/10/17 10:1		
Diisopropyl ether	ND	ug/L	1.0	1		06/10/17 10:1		
Ethylbenzene	ND	ug/L	1.0	1		06/10/17 10:1		
lexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/10/17 10:1		
-Hexanone	ND	ug/L	5.0	1		06/10/17 10:1	5 591-78-6	
-Isopropyltoluene	ND	ug/L	1.0	1		06/10/17 10:1	5 99-87-6	
lethylene Chloride	ND	ug/L	2.0	1		06/10/17 10:1	5 75-09-2	
-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/10/17 10:1	5 108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/10/17 10:1	5 1634-04-4	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-13	Lab ID: 923	43524005	Collected: 06/07/1	7 17:30	Received: 06/0	8/17 08:50	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3260 MSV Low Level	Analytical Met	hod: EPA 82	260					
Naphthalene	ND	ug/L	1.0	1	0	6/10/17 10:1	5 91-20-3	
Styrene	ND	ug/L	1.0	1	0	6/10/17 10:1	5 100-42-5	
I,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		6/10/17 10:1		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		6/10/17 10:1		
etrachloroethene	ND	ug/L	1.0	1		6/10/17 10:1		
oluene	ND	ug/L	1.0	1		6/10/17 10:1		
,2,3-Trichlorobenzene	ND ND	ug/L	1.0 1.0	1 1		6/10/17 10:1! 6/10/17 10:1!		
,2,4-Trichlorobenzene		ug/L	1.0	1				
,1,1-Trichloroethane ,1,2-Trichloroethane	ND ND	ug/L	1.0	1		6/10/17 10:1! 6/10/17 10:1!		
richloroethene	ND ND	ug/L ug/L	1.0	1		6/10/17 10:13 6/10/17 10:13		
richlorofluoromethane	ND ND	ug/L ug/L	1.0	1		6/10/17 10:13 6/10/17 10:13		
,2,3-Trichloropropane	ND ND	ug/L	1.0	1		6/10/17 10:13 6/10/17 10:13		
/inyl acetate	ND	ug/L	2.0	1		6/10/17 10:19		
/inyl chloride	ND	ug/L	1.0	1		6/10/17 10:1		
(vlene (Total)	ND	ug/L	1.0	1		6/10/17 10:1		
n&p-Xylene	ND	ug/L	2.0	1	0	6/10/17 10:1	5 179601-23-1	
-Xylene	ND	ug/L	1.0	1	0	6/10/17 10:1	5 95-47-6	
Surrogates								
-Bromofluorobenzene (S)	90	%	70-130	1		6/10/17 10:1		
I,2-Dichloroethane-d4 (S)	88	%	70-130	1			5 17060-07-0	
oluene-d8 (S)	102	%	70-130	1	0	6/10/17 10:1	5 2037-26-5	
ron, Ferrous	Analytical Met	hod: SM 35	00-Fe B					
on, Ferrous	ND	mg/L	0.50	1	0	6/10/17 04:42	2	H1,N2
500S2D Sulfide Water	Analytical Met	hod: SM 45	00-S2D					
Sulfide	ND	mg/L	0.10	1	0	6/13/17 01:4	5 18496-25-8	
00.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.00					
Sulfate	ND	mg/L	1.0	1	0	6/10/17 16:10	14808-79-8	
53.2 Nitrogen, NO2/NO3 unpres	Analytical Met	hod: EPA 3	53.2					
Nitrogen, Nitrate	ND	mg/L	0.020	1	0	6/09/17 07:43	3	
500 Chloride	Analytical Met	hod: SM 45	00-CI-E					
Chloride	61.8	mg/L	5.0	5	0	6/14/17 03:5	5 16887-00-6	
310B TOC	Analytical Met	hod: SM 53	10B					
otal Organic Carbon	ND	mg/L	1.0	1	0	6/13/17 05:1	5 7440-44-0	



Project: LUCKY CLEANERS

Date: 06/19/2017 10:36 AM

Sample: MW-14	Lab ID: 923	43524006	Collected: 06/07/1	7 17:55	Received: 06/08/17 08:50	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared Analyzed	CAS No.	Qua
RSK 175 Headspace	Analytical Met	hod: RSK 1	75 Modified				
Ethane	ND	ug/L	10.0	1	06/13/17 17:2	0 74-84-0	
Ethene	ND	ug/L	10.0	1	06/13/17 17:2	0 74-85-1	
Methane	ND	ug/L	10.0	1	06/13/17 17:2	0 74-82-8	
8260 MSV Low Level	Analytical Met	hod: EPA 82	260				
Acetone	ND	ug/L	25.0	1	06/10/17 10:3	2 67-64-1	
Benzene	ND	ug/L	1.0	1	06/10/17 10:3:	2 71-43-2	
Bromobenzene	ND	ug/L	1.0	1	06/10/17 10:3	2 108-86-1	
Bromochloromethane	ND	ug/L	1.0	1	06/10/17 10:3	2 74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1	06/10/17 10:3	2 75-27-4	
Bromoform	ND	ug/L	1.0	1	06/10/17 10:3	2 75-25-2	
Bromomethane	ND	ug/L	2.0	1	06/10/17 10:3	2 74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1	06/10/17 10:3	2 78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1	06/10/17 10:3		
Chlorobenzene	ND	ug/L	1.0	1	06/10/17 10:3		
Chloroethane	ND	ug/L	1.0	1	06/10/17 10:3		
Chloroform	ND	ug/L	1.0	1	06/10/17 10:3		
Chloromethane	ND ND	-	1.0	1	06/10/17 10:3		
		ug/L					
2-Chlorotoluene	ND	ug/L	1.0	1	06/10/17 10:3		
4-Chlorotoluene	ND	ug/L	1.0	1	06/10/17 10:3		
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1	06/10/17 10:3		
Dibromochloromethane	ND	ug/L	1.0	1	06/10/17 10:3		
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1	06/10/17 10:3		
Dibromomethane	ND	ug/L	1.0	1	06/10/17 10:3	2 74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1	06/10/17 10:3	2 95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1	06/10/17 10:3	2 541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1	06/10/17 10:3:	2 106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1	06/10/17 10:3:	2 75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1	06/10/17 10:3	2 75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1	06/10/17 10:3	2 107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1	06/10/17 10:3	2 75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1	06/10/17 10:3	2 156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1	06/10/17 10:3	2 156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1	06/10/17 10:3		
1,3-Dichloropropane	ND	ug/L	1.0	1	06/10/17 10:3		
2,2-Dichloropropane	ND	ug/L	1.0	1	06/10/17 10:3		
1,1-Dichloropropene	ND	ug/L	1.0	1	06/10/17 10:3		
cis-1,3-Dichloropropene	ND ND	ug/L	1.0	1		2 10061-01-5	
rans-1,3-Dichloropropene	ND ND	-	1.0	1		2 10061-01-5	
		ug/L			06/10/17 10:3		
Diisopropyl ether	ND	ug/L	1.0	1			
Ethylbenzene	ND	ug/L	1.0	1	06/10/17 10:3		
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1	06/10/17 10:3		
2-Hexanone	ND	ug/L	5.0	1	06/10/17 10:3		
o-Isopropyltoluene	ND	ug/L	1.0	1	06/10/17 10:3		
Methylene Chloride	ND	ug/L	2.0	1	06/10/17 10:3		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1	06/10/17 10:3		
Methyl-tert-butyl ether	ND	ug/L	1.0	1	06/10/17 10:3	2 1634-04-4	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-14	Lab ID: 923	43524006	Collected: 06/07/1	7 17:55	Received: 0	6/08/17 08:50 I	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8260 MSV Low Level	Analytical Meti	nod: EPA 82	260					
Naphthalene	ND	ug/L	1.0	1		06/10/17 10:32	91-20-3	
Styrene	ND	ug/L	1.0	1		06/10/17 10:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/10/17 10:32		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/10/17 10:32		
Tetrachloroethene	ND	ug/L	1.0	1		06/10/17 10:32		
Toluene	ND	ug/L	1.0	1		06/10/17 10:32		
I,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/10/17 10:32		
I,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/10/17 10:32		
I,1,1-Trichloroethane	ND	ug/L	1.0	1		06/10/17 10:32		
I,1,2-Trichloroethane	ND	ug/L	1.0	1		06/10/17 10:32		
Frichloroethene	ND	ug/L	1.0	1		06/10/17 10:32		
Frichlorofluoromethane	ND	ug/L	1.0	1		06/10/17 10:32		
I,2,3-Trichloropropane	ND	ug/L	1.0 2.0	1 1		06/10/17 10:32		
/inyl ablarida	ND	ug/L	2.0 1.0	1		06/10/17 10:32 06/10/17 10:32		
/inyl chloride	ND ND	ug/L	1.0	1		06/10/17 10:32		
(ylene (Total) n&p-Xylene	ND ND	ug/L ug/L	2.0	1		06/10/17 10:32		
o-Xylene	ND	ug/L ug/L	1.0	1		06/10/17 10:32		
Surrogates	ND	ug/L	1.0	· ·		00/10/17 10.52	. 95-47-0	
I-Bromofluorobenzene (S)	92	%	70-130	1		06/10/17 10:32	460-00-4	
I,2-Dichloroethane-d4 (S)	90	%	70-130	1		06/10/17 10:32		
Foluene-d8 (S)	104	%	70-130	1		06/10/17 10:32	2037-26-5	
ron, Ferrous	Analytical Meth	nod: SM 350	00-Fe B					
ron, Ferrous	ND	mg/L	0.50	1		06/10/17 04:42	!	H1,N2
1500S2D Sulfide Water	Analytical Meth	nod: SM 450	00-S2D					
Sulfide	ND	mg/L	0.10	1		06/13/17 01:45	18496-25-8	
300.0 IC Anions 28 Days	Analytical Meth	nod: EPA 30	0.00					
Sulfate	14.8	mg/L	1.0	1		06/10/17 16:27	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth	nod: EPA 35	53.2					
Nitrogen, Nitrate	0.42	mg/L	0.020	1		06/09/17 07:44		
500 Chloride	Analytical Meth	nod: SM 450	00-CI-E					
Chloride	13.3	mg/L	1.0	1		06/14/17 02:26	16887-00-6	
310B TOC	Analytical Meth	nod: SM 53	10B					
Total Organic Carbon	ND	mg/L	1.0	1		06/13/17 05:25	7440-44-0	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-15	Lab ID: 9234	43524007	Collected: 06/07/1	17 20:45	Received:	06/08/17 08:50	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
RSK 175 Headspace	Analytical Meth	od: RSK 1	75 Modified					
Ethane	ND	ug/L	10.0	1		06/13/17 17:3	5 74-84-0	
Ethene	ND	ug/L	10.0	1		06/13/17 17:3	5 74-85-1	
Methane	143	ug/L	10.0	1		06/13/17 17:3	5 74-82-8	
8260 MSV Low Level	Analytical Meth	od: EPA 82	260					
Acetone	ND	ug/L	25.0	1		06/10/17 10:4	9 67-64-1	
Benzene	ND	ug/L	1.0	1		06/10/17 10:4	9 71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/10/17 10:4	9 108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/10/17 10:4	9 74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/10/17 10:4	9 75-27-4	
Bromoform	ND	ug/L	1.0	1		06/10/17 10:4	9 75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/10/17 10:4	9 74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/10/17 10:4	9 78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/10/17 10:4	9 56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/10/17 10:4		
Chloroethane	ND	ug/L	1.0	1		06/10/17 10:4		
Chloroform	ND	ug/L	1.0	1		06/10/17 10:4		
Chloromethane	ND	ug/L	1.0	1		06/10/17 10:4		
2-Chlorotoluene	ND	ug/L	1.0	1		06/10/17 10:4		
4-Chlorotoluene	ND	ug/L	1.0	1		06/10/17 10:4		
1,2-Dibromo-3-chloropropane	ND ND	ug/L	2.0	1		06/10/17 10:4		
Dibromochloromethane	ND	ug/L	1.0	1		06/10/17 10:4		
	ND ND	ug/L ug/L	1.0	1		06/10/17 10:4		
1,2-Dibromoethane (EDB)				1				
Dibromomethane	ND	ug/L	1.0			06/10/17 10:4		
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 10:4		
1,3-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 10:4		
1,4-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 10:4		
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/10/17 10:4		
1,1-Dichloroethane	ND	ug/L	1.0	1		06/10/17 10:4		
1,2-Dichloroethane	ND	ug/L	1.0	1		06/10/17 10:4		
1,1-Dichloroethene	ND	ug/L	1.0	1		06/10/17 10:4		
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/10/17 10:4		
rans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/10/17 10:4		
1,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 10:4	9 78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		06/10/17 10:4	9 142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 10:4	9 594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/10/17 10:4	9 563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/10/17 10:4	9 10061-01-5	
rans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/10/17 10:4	9 10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/10/17 10:4	9 108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/10/17 10:4	9 100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/10/17 10:4		
2-Hexanone	ND	ug/L	5.0	1		06/10/17 10:4		
o-Isopropyltoluene	ND	ug/L	1.0	1		06/10/17 10:4		
Methylene Chloride	ND	ug/L	2.0	1		06/10/17 10:4		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/10/17 10:4		
Methyl-tert-butyl ether	ND ND	ug/L	1.0	1		06/10/17 10:4		



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-15	Lab ID: 923	43524007	Collected: 06/07/1	7 20:45	Received: 0	06/08/17 08:50 I	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8260 MSV Low Level	Analytical Meth	nod: EPA 82	260					
Naphthalene	ND	ug/L	1.0	1		06/10/17 10:49	91-20-3	
Styrene	ND	ug/L	1.0	1		06/10/17 10:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/10/17 10:49		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/10/17 10:49		
Tetrachloroethene	ND	ug/L	1.0	1		06/10/17 10:49		
Toluene	ND	ug/L	1.0	1		06/10/17 10:49		
I,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/10/17 10:49		
I,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/10/17 10:49		
I,1,1-Trichloroethane	ND	ug/L	1.0	1		06/10/17 10:49		
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/10/17 10:49		
Frichloroethene	ND	ug/L	1.0	1		06/10/17 10:49		
Frichlorofluoromethane	ND	ug/L	1.0	1		06/10/17 10:49		
1,2,3-Trichloropropane	ND	ug/L	1.0 2.0	1 1		06/10/17 10:49		
/inyl ablarida	ND	ug/L	2.0 1.0	1		06/10/17 10:49 06/10/17 10:49		
/inyl chloride	ND ND	ug/L	1.0	1		06/10/17 10:49		
(ylene (Total) n&p-Xylene	ND ND	ug/L ug/L	2.0	1		06/10/17 10:49		
o-Xylene	ND	ug/L ug/L	1.0	1		06/10/17 10:49		
Surrogates	ND	ug/L	1.0	· ·		00/10/17 10.43	95-47-0	
I-Bromofluorobenzene (S)	90	%	70-130	1		06/10/17 10:49	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	70-130	1		06/10/17 10:49		
Γoluene-d8 (S)	103	%	70-130	1		06/10/17 10:49	2037-26-5	
ron, Ferrous	Analytical Meth	nod: SM 350	00-Fe B					
ron, Ferrous	ND	mg/L	0.50	1		06/10/17 04:42	!	H1,N2
1500S2D Sulfide Water	Analytical Meth	nod: SM 450	00-S2D					
Sulfide	ND	mg/L	0.10	1		06/13/17 01:00	18496-25-8	M1,R1
300.0 IC Anions 28 Days	Analytical Meth	nod: EPA 30	0.00					
Sulfate	3.2	mg/L	1.0	1		06/10/17 17:16	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth	nod: EPA 35	53.2					
Nitrogen, Nitrate	ND	mg/L	0.020	1		06/09/17 07:48	}	
500 Chloride	Analytical Meth	nod: SM 450	00-CI-E					
Chloride	35.2	mg/L	1.0	1		06/14/17 02:27	16887-00-6	
310B TOC	Analytical Meth	nod: SM 53	10B					
Total Organic Carbon	1.8	mg/L	1.0	1		06/13/17 06:01	7440-44-0	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-1	Lab ID: 923	43524008	Collected: 06/08/1	7 15:45	Received: 06	6/09/17 08:20	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
RSK 175 Headspace	Analytical Meth	nod: RSK 17	75 Modified					
Ethane	ND	ug/L	10.0	1		06/13/17 17:50	74-84-0	
Ethene	ND	ug/L	10.0	1		06/13/17 17:50	74-85-1	
Methane	706	ug/L	10.0	1		06/13/17 17:50	74-82-8	
6010 MET ICP	Analytical Meth	nod: EPA 60	010 Preparation Meth	nod: EPA	A 3010A			
Arsenic	ND	ug/L	10.0	1	06/12/17 16:20	06/13/17 11:20	7440-38-2	
Barium	16.0	ug/L	5.0	1	06/12/17 16:20	06/13/17 11:20	7440-39-3	
Cadmium	1.8	ug/L	1.0	1	06/12/17 16:20	06/13/17 11:20	7440-43-9	
Chromium	5.1	ug/L	5.0	1	06/12/17 16:20	06/13/17 11:20	7440-47-3	
_ead	5.3	ug/L	5.0	1	06/12/17 16:20	06/13/17 11:20	7439-92-1	
Selenium	ND	ug/L	10.0	1		06/13/17 11:20		
Silver	ND	ug/L	5.0	1		06/13/17 11:20		
7470 Mercury	Analytical Meth	_	170 Preparation Meth	nod: EPA	۹ 7470			
Mercury	ND	ug/L	0.20	1		06/14/17 15:4	1 7439-97-6	
3260 MSV Low Level	Analytical Meth	nod: EPA 82	260					
Acetone	ND	ug/L	62.5	2.5		06/12/17 22:19	9 67-64-1	
Benzene	ND	ug/L	2.5	2.5		06/12/17 22:19	9 71-43-2	
Bromobenzene	ND	ug/L	2.5	2.5		06/12/17 22:19		
Bromochloromethane	ND	ug/L	2.5	2.5		06/12/17 22:19		
Bromodichloromethane	ND	ug/L	2.5	2.5		06/12/17 22:19		
Bromoform	ND	ug/L	2.5	2.5		06/12/17 22:19		
Bromomethane	ND	ug/L	5.0	2.5		06/12/17 22:19		
2-Butanone (MEK)	ND	ug/L	12.5	2.5		06/12/17 22:19		
Carbon tetrachloride	ND	ug/L	2.5	2.5		06/12/17 22:19		
Chlorobenzene	ND	ug/L	2.5	2.5		06/12/17 22:19		
Chloroethane	ND	ug/L	2.5	2.5		06/12/17 22:19		
Chloroform	ND	ug/L	2.5	2.5		06/12/17 22:19		
Chloromethane	ND ND	-	2.5	2.5		06/12/17 22:19		
		ug/L				06/12/17 22:19		
2-Chlorotoluene	ND	ug/L	2.5	2.5				
I-Chlorotoluene	ND	ug/L	2.5	2.5		06/12/17 22:19		
,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5		06/12/17 22:19		
Dibromochloromethane	ND	ug/L	2.5	2.5		06/12/17 22:19		
,2-Dibromoethane (EDB)	ND	ug/L	2.5			06/12/17 22:19		
Dibromomethane	ND	ug/L	2.5	2.5		06/12/17 22:19		
,2-Dichlorobenzene	ND	ug/L	2.5	2.5		06/12/17 22:19		
,3-Dichlorobenzene	ND	ug/L	2.5	2.5		06/12/17 22:19		
,4-Dichlorobenzene	ND	ug/L	2.5	2.5		06/12/17 22:19		
Dichlorodifluoromethane	ND	ug/L	2.5	2.5		06/12/17 22:19		
,1-Dichloroethane	ND	ug/L	2.5	2.5		06/12/17 22:19		
,2-Dichloroethane	ND	ug/L	2.5	2.5		06/12/17 22:19		
,1-Dichloroethene	ND	ug/L	2.5	2.5		06/12/17 22:19		
cis-1,2-Dichloroethene	24.0	ug/L	2.5	2.5		06/12/17 22:19		
rans-1,2-Dichloroethene	12.0	ug/L	2.5	2.5		06/12/17 22:19	9 156-60-5	
1,2-Dichloropropane	ND	ug/L	2.5	2.5		06/12/17 22:19	78-87-5	

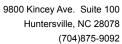


Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-1	Lab ID: 923	43524008	Collected: 06/08/1	7 15:45	Received: 06/09/17 08:20	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared Analyze	ed CAS No.	Qua
260 MSV Low Level	Analytical Met	nod: EPA 82	260				
,3-Dichloropropane	ND	ug/L	2.5	2.5	06/12/17 2	2:19 142-28-9	
2,2-Dichloropropane	ND	ug/L	2.5	2.5	06/12/17 2	2:19 594-20-7	
1,1-Dichloropropene	ND	ug/L	2.5	2.5	06/12/17 2	2:19 563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	2.5	2.5		2:19 10061-01-5	
rans-1,3-Dichloropropene	ND	ug/L	2.5	2.5		2:19 10061-02-6	
Diisopropyl ether	ND	ug/L	2.5	2.5	06/12/17 2	2:19 108-20-3	
Ethylbenzene	ND	ug/L	2.5	2.5	06/12/17 2	2:19 100-41-4	
lexachloro-1,3-butadiene	ND	ug/L	2.5	2.5		2:19 87-68-3	
-Hexanone	ND	ug/L	12.5	2.5		2:19 591-78-6	
-Isopropyltoluene	ND	ug/L	2.5	2.5		2:19 99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.5	06/12/17 2	2:19 75-09-2	
-Methyl-2-pentanone (MIBK)	ND	ug/L	12.5	2.5	06/12/17 2	2:19 108-10-1	
Methyl-tert-butyl ether	ND	ug/L	2.5	2.5	06/12/17 2	2:19 1634-04-4	
laphthalene	ND	ug/L	2.5	2.5		2:19 91-20-3	
Styrene	ND	ug/L	2.5	2.5		2:19 100-42-5	
,1,1,2-Tetrachloroethane	ND	ug/L	2.5	2.5	06/12/17 2	2:19 630-20-6	
,1,2,2-Tetrachloroethane	ND	ug/L	2.5	2.5	06/12/17 2	2:19 79-34-5	
etrachloroethene	283	ug/L	2.5	2.5		2:19 127-18-4	
oluene	ND	ug/L	2.5	2.5		2:19 108-88-3	
,2,3-Trichlorobenzene	ND	ug/L	2.5	2.5		2:19 87-61-6	
,2,4-Trichlorobenzene	ND	ug/L	2.5	2.5	06/12/17 2	2:19 120-82-1	
,1,1-Trichloroethane	ND	ug/L	2.5	2.5	06/12/17 2	2:19 71-55-6	
,1,2-Trichloroethane	ND	ug/L	2.5	2.5	06/12/17 2	2:19 79-00-5	
richloroethene	144	ug/L	2.5	2.5		2:19 79-01-6	
richlorofluoromethane	ND	ug/L	2.5	2.5	06/12/17 2	2:19 75-69-4	
,2,3-Trichloropropane	ND	ug/L	2.5	2.5	06/12/17 2	2:19 96-18-4	
inyl acetate	ND	ug/L	5.0	2.5	06/12/17 2	2:19 108-05-4	
'inyl chloride	ND	ug/L	2.5	2.5	06/12/17 2	2:19 75-01-4	
(ylene (Total)	ND	ug/L	2.5	2.5		2:19 1330-20-7	
n&p-Xylene	ND	ug/L	5.0	2.5	06/12/17 2	2:19 179601-23-1	
-Xylene	ND	ug/L	2.5	2.5	06/12/17 2	2:19 95-47-6	
Surrogates							
-Bromofluorobenzene (S)	110	%	70-130	2.5		2:19 460-00-4	
,2-Dichloroethane-d4 (S)	92	%	70-130	2.5		2:19 17060-07-0	
oluene-d8 (S)	97	%	70-130	2.5	06/12/17 2	2:19 2037-26-5	
on, Ferrous	Analytical Met	hod: SM 35	00-Fe B				
on, Ferrous	41.0	mg/L	12.5	25	06/10/17 0	4:42	H1,N2
500S2D Sulfide Water	Analytical Met	hod: SM 45	00-S2D				
ulfide	ND	mg/L	0.10	1	06/14/17 0	1:45 18496-25-8	M1
00.0 IC Anions 28 Days	Analytical Met	nod: EPA 30	0.00				
ulfate	631	mg/L	13.0	13	06/11/17 10	0:11 14808-79-8	





Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-1	Lab ID: 9234	3524008	Collected: 06/08/	17 15:45	Received: 0	6/09/17 08:20	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth	od: EPA 35	3.2					
Nitrogen, Nitrate	ND	mg/L	0.020	1		06/10/17 01:26	6	
4500 Chloride	Analytical Meth	od: SM 450	00-CI-E					
Chloride	25.3	mg/L	1.0	1		06/14/17 03:06	16887-00-6	
5310B TOC	Analytical Meth	od: SM 53	10B					
Total Organic Carbon	3.8	mg/L	1.0	1		06/14/17 13:57	7440-44-0	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-2	Lab ID: 923	43524009	Collected: 06/08/1	7 14:55	Received: 06	6/09/17 08:20 I	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
RSK 175 Headspace	Analytical Meth	nod: RSK 17	75 Modified					
Ethane	ND	ug/L	10.0	1		06/13/17 18:21	74-84-0	
Ethene	ND	ug/L	10.0	1		06/13/17 18:21	74-85-1	
Methane	684	ug/L	10.0	1		06/13/17 18:21	74-82-8	
6010 MET ICP	Analytical Meth	nod: EPA 60	10 Preparation Meth	od: EPA	A 3010A			
Arsenic	ND	ug/L	10.0	1	06/12/17 16:20	06/13/17 11:23	7440-38-2	
Barium	8.5	ug/L	5.0	1	06/12/17 16:20	06/13/17 11:23	7440-39-3	
Cadmium	2.2	ug/L	1.0	1	06/12/17 16:20	06/13/17 11:23	7440-43-9	
Chromium	11.0	ug/L	5.0	1	06/12/17 16:20	06/13/17 11:23	7440-47-3	
₋ead	9.2	ug/L	5.0	1	06/12/17 16:20	06/13/17 11:23	7439-92-1	
Selenium	ND	ug/L	10.0	1	06/12/17 16:20			
Silver	ND	ug/L	5.0	1		06/13/17 11:23		
7470 Mercury	Analytical Meth	nod: EPA 74	70 Preparation Meth	nod: EPA	A 7470			
Mercury	ND	ug/L	0.20	1	06/12/17 18:04	06/14/17 15:44	7439-97-6	
260 MSV Low Level	Analytical Meth	nod: EPA 82	60					
Acetone	ND	ug/L	25.0	1		06/10/17 12:31	67-64-1	
Benzene	ND	ug/L	1.0	1		06/10/17 12:31	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/10/17 12:31	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/10/17 12:31	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/10/17 12:31	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/10/17 12:31	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/10/17 12:31		
2-Butanone (MEK)	ND	ug/L	5.0	1		06/10/17 12:31		
Carbon tetrachloride	ND	ug/L	1.0	1		06/10/17 12:31		
Chlorobenzene	ND	ug/L	1.0	1		06/10/17 12:31		
Chloroethane	ND	ug/L	1.0	1		06/10/17 12:31		
Chloroform	ND	ug/L	1.0	1		06/10/17 12:31		
Chloromethane	2.5	ug/L	1.0	1		06/10/17 12:31		
2-Chlorotoluene	ND	ug/L	1.0	1		06/10/17 12:31		
I-Chlorotoluene	ND ND	ug/L ug/L	1.0	1		06/10/17 12:31		
,2-Dibromo-3-chloropropane	ND ND	ug/L ug/L	2.0	1		06/10/17 12:31		
Dibromochloromethane	ND ND	-	1.0	1		06/10/17 12:31		
		ug/L						
I,2-Dibromoethane (EDB)	ND ND	ug/L	1.0	1		06/10/17 12:31		
Dibromomethane	ND	ug/L	1.0	1		06/10/17 12:31		
I,2-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 12:31		
,3-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 12:31		
I,4-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 12:31		
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/10/17 12:31		
1,1-Dichloroethane	ND	ug/L	1.0	1		06/10/17 12:31		
,2-Dichloroethane	ND	ug/L	1.0	1		06/10/17 12:31		
,1-Dichloroethene	ND	ug/L	1.0	1		06/10/17 12:31		
is-1,2-Dichloroethene	11.6	ug/L	1.0	1		06/10/17 12:31		
rans-1,2-Dichloroethene	11.7	ug/L	1.0	1		06/10/17 12:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 12:31	78-87-5	

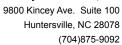


Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-2	Lab ID: 923	43524009	Collected: 06/08/1	7 14:55	Received: 06/09/17 08:20	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared Analyze	ed CAS No.	Qua
3260 MSV Low Level	Analytical Met	hod: EPA 82	260				
1,3-Dichloropropane	ND	ug/L	1.0	1	06/10/17 1	2:31 142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1	06/10/17 1	2:31 594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		2:31 563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1	06/10/17 1	2:31 10061-01-5	
rans-1,3-Dichloropropene	ND	ug/L	1.0	1	06/10/17 1	2:31 10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1	06/10/17 1	2:31 108-20-3	
Ethylbenzene	ND	ug/L	1.0	1	06/10/17 1	2:31 100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1	06/10/17 1	2:31 87-68-3	
2-Hexanone	ND	ug/L	5.0	1	06/10/17 1	2:31 591-78-6	
o-Isopropyltoluene	ND	ug/L	1.0	1	06/10/17 1	2:31 99-87-6	
Methylene Chloride	ND	ug/L	2.0	1	06/10/17 1	2:31 75-09-2	
I-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1	06/10/17 1	2:31 108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1	06/10/17 1	2:31 1634-04-4	
Naphthalene	ND	ug/L	1.0	1	06/10/17 1	2:31 91-20-3	
Styrene	ND	ug/L	1.0	1	06/10/17 1	2:31 100-42-5	
,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1	06/10/17 1	2:31 630-20-6	
,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1	06/10/17 1	2:31 79-34-5	
etrachloroethene	73.5	ug/L	1.0	1	06/10/17 1	2:31 127-18-4	
oluene	ND	ug/L	1.0	1	06/10/17 1	2:31 108-88-3	
,2,3-Trichlorobenzene	ND	ug/L	1.0	1	06/10/17 1	2:31 87-61-6	
,2,4-Trichlorobenzene	ND	ug/L	1.0	1	06/10/17 1	2:31 120-82-1	
,1,1-Trichloroethane	ND	ug/L	1.0	1	06/10/17 1	2:31 71-55-6	
,1,2-Trichloroethane	ND	ug/L	1.0	1	06/10/17 1	2:31 79-00-5	
Trichloroethene	64.3	ug/L	1.0	1	06/10/17 1	2:31 79-01-6	
richlorofluoromethane	ND	ug/L	1.0	1	06/10/17 1	2:31 75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1	06/10/17 1	2:31 96-18-4	
/inyl acetate	ND	ug/L	2.0	1	06/10/17 1	2:31 108-05-4	
/inyl chloride	ND	ug/L	1.0	1	06/10/17 1	2:31 75-01-4	
(ylene (Total)	ND	ug/L	1.0	1	06/10/17 1	2:31 1330-20-7	
n&p-Xylene	ND	ug/L	2.0	1		2:31 179601-23-1	
-Xylene	ND	ug/L	1.0	1		2:31 95-47-6	
Surrogates		-3					
I-Bromofluorobenzene (S)	107	%	70-130	1	06/10/17 1	2:31 460-00-4	
I,2-Dichloroethane-d4 (S)	113	%	70-130	1	06/10/17 1	2:31 17060-07-0	
oluene-d8 (S)	99	%	70-130	1	06/10/17 1	2:31 2037-26-5	
ron, Ferrous	Analytical Met	hod: SM 35	00-Fe B				
ron, Ferrous	ND	mg/L	0.50	1	06/10/17 0	4:42 H1	,N2
500S2D Sulfide Water	Analytical Met	hod: SM 45	00-S2D				
Sulfide	ND	mg/L	0.10	1	06/14/17 0	1:45 18496-25-8	
00.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.00				
Sulfate	460	mg/L	10.0	10	06/11/17 1	0:28 14808-79-8	





Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-2	Lab ID: 9234	3524009	Collected: 06/08/	17 14:55	Received: 06	6/09/17 08:20 N	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO2/NO3 unpres	Analytical Metho	od: EPA 35	3.2					
Nitrogen, Nitrate	0.87	mg/L	0.020	1		06/10/17 01:25		
4500 Chloride	Analytical Metho	od: SM 450	0-CI-E					
Chloride	22.5	mg/L	1.0	1		06/14/17 03:07	16887-00-6	
5310B TOC	Analytical Metho	od: SM 531	0B					
Total Organic Carbon	2.4	mg/L	1.0	1		06/14/17 14:36	7440-44-0	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-3	Lab ID: 9234	43524010	Collected: 06/08/1	7 12:40	Received: 06	6/09/17 08:20 I	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
RSK 175 Headspace	Analytical Meth	nod: RSK 17	75 Modified					
Ethane	ND	ug/L	10.0	1		06/13/17 18:51	74-84-0	
Ethene	ND	ug/L	10.0	1		06/13/17 18:51	74-85-1	
Methane	ND	ug/L	10.0	1		06/13/17 18:51	74-82-8	
6010 MET ICP	Analytical Meth	nod: EPA 60	10 Preparation Meth	nod: EPA	A 3010A			
Arsenic	ND	ug/L	10.0	1	06/12/17 16:20	06/13/17 11:27	7440-38-2	
Barium	24.8	ug/L	5.0	1	06/12/17 16:20	06/13/17 11:27	7440-39-3	
Cadmium	ND	ug/L	1.0	1	06/12/17 16:20	06/13/17 11:27	7440-43-9	
Chromium	11.9	ug/L	5.0	1	06/12/17 16:20	06/13/17 11:27	7440-47-3	
_ead	ND	ug/L	5.0	1	06/12/17 16:20			
Selenium	ND	ug/L	10.0	1	06/12/17 16:20			
Silver	ND	ug/L	5.0	1		06/13/17 11:27		
7470 Mercury	Analytical Meth	nod: EPA 74	70 Preparation Meth	nod: EPA	A 7470			
Mercury	ND	ug/L	0.20	1	06/12/17 18:04	06/14/17 15:46	7439-97-6	
3260 MSV Low Level	Analytical Meth	nod: EPA 82	60					
Acetone	ND	ug/L	25.0	1		06/10/17 13:04	67-64-1	
Benzene	ND	ug/L	1.0	1		06/10/17 13:04	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/10/17 13:04	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/10/17 13:04	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/10/17 13:04	75-27-4	
Bromoform	ND	ug/L	1.0	1		06/10/17 13:04	75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/10/17 13:04		
2-Butanone (MEK)	ND	ug/L	5.0	1		06/10/17 13:04		
Carbon tetrachloride	ND	ug/L	1.0	1		06/10/17 13:04		
Chlorobenzene	ND	ug/L	1.0	1		06/10/17 13:04		
Chloroethane	ND	ug/L	1.0	1		06/10/17 13:04		
Chloroform	ND	ug/L	1.0	1		06/10/17 13:04		
Chloromethane	ND	ug/L	1.0	1		06/10/17 13:04		
2-Chlorotoluene	ND	ug/L	1.0	1		06/10/17 13:04		
I-Chlorotoluene	ND ND	ug/L ug/L	1.0	1		06/10/17 13:04		
,2-Dibromo-3-chloropropane	ND ND	ug/L ug/L	2.0	1		06/10/17 13:04		
Dibromochloromethane	ND ND	-	1.0	1		06/10/17 13:04		
		ug/L	1.0	1		06/10/17 13:04		
I,2-Dibromoethane (EDB)	ND	ug/L		-				
Dibromomethane	ND	ug/L	1.0	1		06/10/17 13:04		
I,2-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 13:04		
I,3-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 13:04		
I,4-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 13:04		
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/10/17 13:04		
I,1-Dichloroethane	ND	ug/L	1.0	1		06/10/17 13:04		
I,2-Dichloroethane	ND	ug/L	1.0	1		06/10/17 13:04		
1,1-Dichloroethene	1.0	ug/L	1.0	1		06/10/17 13:04		
cis-1,2-Dichloroethene	5.4	ug/L	1.0	1		06/10/17 13:04		
rans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/10/17 13:04		
1,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 13:04	78-87-5	

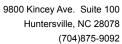


Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-3	Lab ID: 923	43524010	Collected: 06/08/1	7 12:40	Received: 0	6/09/17 08:20 M	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8260 MSV Low Level	Analytical Meth	nod: EPA 82	260					
1,3-Dichloropropane	ND	ug/L	1.0	1		06/10/17 13:04	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 13:04	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		06/10/17 13:04	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/10/17 13:04	10061-01-5	
rans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/10/17 13:04	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/10/17 13:04	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/10/17 13:04	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/10/17 13:04	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		06/10/17 13:04	591-78-6	
o-Isopropyltoluene	ND	ug/L	1.0	1		06/10/17 13:04	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/10/17 13:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/10/17 13:04	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/10/17 13:04	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		06/10/17 13:04	91-20-3	
Styrene	ND	ug/L	1.0	1		06/10/17 13:04	100-42-5	M1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/10/17 13:04	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/10/17 13:04	79-34-5	
Tetrachloroethene	4.2	ug/L	1.0	1		06/10/17 13:04	127-18-4	
Toluene	ND	ug/L	1.0	1		06/10/17 13:04	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/10/17 13:04	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/10/17 13:04	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/10/17 13:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/10/17 13:04	79-00-5	
Trichloroethene	16.7	ug/L	1.0	1		06/10/17 13:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/10/17 13:04	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/10/17 13:04	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/10/17 13:04	108-05-4	M1
Vinyl chloride	ND	ug/L	1.0	1		06/10/17 13:04	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/10/17 13:04	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/10/17 13:04	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/10/17 13:04	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	106	%	70-130	1		06/10/17 13:04		
1,2-Dichloroethane-d4 (S)	112	%	70-130	1		06/10/17 13:04		
Toluene-d8 (S)	99	%	70-130	1		06/10/17 13:04	2037-26-5	
ron, Ferrous	Analytical Meth	nod: SM 350	00-Fe B					
ron, Ferrous	ND	mg/L	0.50	1		06/10/17 04:42		H1,N2
4500S2D Sulfide Water	Analytical Meth	nod: SM 450	00-S2D					
Sulfide	ND	mg/L	0.10	1		06/14/17 01:45	18496-25-8	
300.0 IC Anions 28 Days	Analytical Meth	nod: EPA 30	0.0					
Sulfate	158	mg/L	3.0	3		06/11/17 10:45	14808-79-8	





Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-3	Lab ID: 9234	3524010	Collected: 06/08/	17 12:40	Received: 00	6/09/17 08:20 I	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth	od: EPA 35	3.2					
Nitrogen, Nitrate	0.57	mg/L	0.020	1		06/10/17 00:57	7	
4500 Chloride	Analytical Meth	od: SM 450	00-CI-E					
Chloride	18.2	mg/L	1.0	1		06/14/17 03:12	2 16887-00-6	
5310B TOC	Analytical Meth	od: SM 53	10B					
Total Organic Carbon	1.3	mg/L	1.0	1		06/14/17 14:46	7440-44-0	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-5	Lab ID: 923	43524011	Collected: 06/08/1	7 16:45	Received: 06	6/09/17 08:20	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
RSK 175 Headspace	Analytical Meth	nod: RSK 17	'5 Modified					
Ethane	ND	ug/L	10.0	1		06/13/17 19:07	7 74-84-0	
Ethene	ND	ug/L	10.0	1		06/13/17 19:07	7 74-85-1	
Methane	25.3	ug/L	10.0	1		06/13/17 19:07	7 74-82-8	
6010 MET ICP	Analytical Meth	nod: EPA 60	10 Preparation Meth	nod: EPA	A 3010A			
Arsenic	ND	ug/L	10.0	1	06/12/17 16:20	06/13/17 12:50	7440-38-2	
Barium	13.8	ug/L	5.0	1	06/12/17 16:20	06/13/17 12:50	7440-39-3	
Cadmium	ND	ug/L	1.0	1	06/12/17 16:20	06/13/17 12:50	7440-43-9	
Chromium	ND	ug/L	5.0	1	06/12/17 16:20	06/13/17 12:50	7440-47-3	
_ead	ND	ug/L	5.0	1	06/12/17 16:20	06/13/17 12:50	7439-92-1	
Selenium	ND	ug/L	10.0	1	06/12/17 16:20	06/13/17 12:50	7782-49-2	
Silver	ND	ug/L	5.0	1	06/12/17 16:20	06/13/17 12:50	7440-22-4	
7470 Mercury	Analytical Meth	nod: EPA 74	70 Preparation Meth	nod: EPA	A 7470			
Mercury	ND	ug/L	0.20	1	06/12/17 18:04	06/14/17 15:48	3 7439-97-6	
3260 MSV Low Level	Analytical Meth	nod: EPA 82	60					
Acetone	ND	ug/L	25.0	1		06/10/17 13:21	1 67-64-1	
Benzene	ND	ug/L	1.0	1		06/10/17 13:21	1 71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/10/17 13:2	1 108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/10/17 13:21	1 74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/10/17 13:21	1 75-27-4	
Bromoform	ND	ug/L	1.0	1		06/10/17 13:21	1 75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/10/17 13:21	1 74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/10/17 13:21	1 78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/10/17 13:21	1 56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/10/17 13:21	1 108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/10/17 13:2		
Chloroform	ND	ug/L	1.0	1		06/10/17 13:21		
Chloromethane	ND	ug/L	1.0	1		06/10/17 13:21		
2-Chlorotoluene	ND	ug/L	1.0	1		06/10/17 13:21		
1-Chlorotoluene	ND	ug/L	1.0	1		06/10/17 13:2		
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/10/17 13:2		
Dibromochloromethane	ND	ug/L	1.0	1		06/10/17 13:2		
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/10/17 13:2		
Dibromomethane	ND	ug/L	1.0	1		06/10/17 13:2		
1,2-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 13:2		
1,3-Dichlorobenzene	ND ND	ug/L ug/L	1.0	1		06/10/17 13:2		
1,4-Dichlorobenzene	ND ND	-	1.0	1		06/10/17 13:2		
Dichlorodifluoromethane	ND ND	ug/L	1.0	1		06/10/17 13:2		
		ug/L				06/10/17 13:2		
1,1-Dichloroethane	ND	ug/L	1.0	1				
1,2-Dichloroethane	ND	ug/L	1.0	1		06/10/17 13:2		
1,1-Dichloroethene	ND	ug/L	1.0	1		06/10/17 13:21		
cis-1,2-Dichloroethene	1.0	ug/L	1.0	1		06/10/17 13:21		
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/10/17 13:21		
1,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 13:2	1 78-87-5	

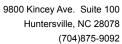


Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-5	Lab ID: 923	43524011	Collected: 06/08/1	7 16:45	Received: 06/09/17 08:20	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared Analyze	d CAS No.	Qua	
3260 MSV Low Level	Analytical Met	hod: EPA 82	260					
,3-Dichloropropane	ND	ug/L	1.0	1	06/10/17 13	3:21 142-28-9		
2,2-Dichloropropane	ND	ug/L	1.0	1	06/10/17 13	3:21 594-20-7		
1,1-Dichloropropene	ND	ug/L	1.0	1	06/10/17 13	3:21 563-58-6		
sis-1,3-Dichloropropene	ND	ug/L	1.0	1	06/10/17 13	3:21 10061-01-5		
rans-1,3-Dichloropropene	ND	ug/L	1.0	1	06/10/17 13			
Diisopropyl ether	ND	ug/L	1.0	1	06/10/17 13			
Ethylbenzene	ND	ug/L	1.0	1	06/10/17 13			
lexachloro-1,3-butadiene	ND	ug/L	1.0	1		3:21 87-68-3		
-Hexanone	ND	ug/L	5.0	1		3:21 591-78-6		
-Isopropyltoluene	ND	ug/L	1.0	1		3:21 99-87-6		
Methylene Chloride	ND	ug/L	2.0	1		3:21 75-09-2		
-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		3:21 108-10-1		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		3:21 1634-04-4		
laphthalene	1.5	ug/L	1.0	1		3:21 91-20-3		
Styrene	ND	ug/L	1.0	1		3:21 100-42-5		
,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1	06/10/17 13			
,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		3:21 79-34-5		
etrachloroethene	48.7	ug/L	1.0	1		3:21 127-18-4		
oluene	ND	ug/L	1.0	1		3:21 108-88-3		
,2,3-Trichlorobenzene	ND	ug/L	1.0	1		3:21 87-61-6		
,2,4-Trichlorobenzene	ND	ug/L	1.0	1		3:21 120-82-1		
,1,1-Trichloroethane	ND	ug/L	1.0	1		3:21 71-55-6		
,1,2-Trichloroethane	ND	ug/L	1.0	1		3:21 79-00-5		
richloroethene	9.9	ug/L	1.0	1		3:21 79-01-6		
richlorofluoromethane	ND	ug/L	1.0	1		3:21 75-69-4		
,2,3-Trichloropropane	ND	ug/L	1.0	1		3:21 96-18-4		
/inyl acetate	ND	ug/L	2.0	1		3:21 108-05-4		
'inyl chloride	ND	ug/L	1.0	1		3:21 75-01-4		
(ylene (Total)	ND	ug/L	1.0	1		3:21 1330-20-7		
n&p-Xylene	ND	ug/L	2.0	1		3:21 179601-23-1		
-Xylene	ND	ug/L	1.0	1	06/10/17 13	3:21 95-47-6		
Surrogates	407	0/	70.400		00/40/47 4/			
-Bromofluorobenzene (S)	107	%	70-130	1	06/10/17 13			
,2-Dichloroethane-d4 (S)	106	%	70-130	1	06/10/17 13			
oluene-d8 (S)	98	%	70-130	1	06/10/17 13	3:21 2037-26-5		
on, Ferrous	Analytical Met							
ron, Ferrous	ND	mg/L	0.50	1	06/10/17 04	1:42 H	11,N2	
500S2D Sulfide Water	Analytical Met	nod: SM 45	00-S2D					
ulfide	ND	mg/L	0.10	1	06/14/17 01	1:45 18496-25-8		
00.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.00					
ulfate	153	mg/L	3.0	3	06/11/17 11	:02 14808-79-8		





Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-5	Lab ID: 9234	3524011	Collected: 06/08/	17 16:45	Received: 00	6/09/17 08:20	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth	od: EPA 35	3.2					
Nitrogen, Nitrate	1.2	mg/L	0.020	1		06/10/17 01:27	7	
4500 Chloride	Analytical Meth	od: SM 450	00-CI-E					
Chloride	20.3	mg/L	1.0	1		06/14/17 03:13	3 16887-00-6	
5310B TOC	Analytical Meth	od: SM 531	0B					
Total Organic Carbon	1.3	mg/L	1.0	1		06/14/17 14:57	7440-44-0	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-4	Lab ID: 923	43524012	Collected: 06/08/1	17 11:50	Received:	06/09/17 08:20	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
RSK 175 Headspace	Analytical Met	hod: RSK 1	75 Modified					
Ethane	ND	ug/L	10.0	1		06/13/17 19:22	2 74-84-0	
Ethene	ND	ug/L	10.0	1		06/13/17 19:22	2 74-85-1	
Methane	ND	ug/L	10.0	1		06/13/17 19:22	2 74-82-8	
8260 MSV Low Level	Analytical Met	nod: EPA 82	260					
Acetone	ND	ug/L	25.0	1		06/10/17 13:38	3 67-64-1	
Benzene	ND	ug/L	1.0	1		06/10/17 13:38	3 71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/10/17 13:38	3 108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/10/17 13:38	3 74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/10/17 13:38	3 75-27-4	
Bromoform	ND	ug/L	1.0	1		06/10/17 13:38		
Bromomethane	ND	ug/L	2.0	1		06/10/17 13:38		
2-Butanone (MEK)	ND	ug/L	5.0	1		06/10/17 13:38		
Carbon tetrachloride	ND	ug/L	1.0	1		06/10/17 13:38		
Chlorobenzene	ND	-	1.0	1		06/10/17 13:38		
Chloroethane	ND ND	ug/L ug/L	1.0	1		06/10/17 13:38		
Chloroform		•		1				
	ND	ug/L	1.0			06/10/17 13:38		
Chloromethane	ND	ug/L	1.0	1		06/10/17 13:38		
-Chlorotoluene	ND	ug/L	1.0	1		06/10/17 13:38		
-Chlorotoluene	ND	ug/L	1.0	1		06/10/17 13:38		
,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/10/17 13:38		
Dibromochloromethane	ND	ug/L	1.0	1		06/10/17 13:38		
,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		06/10/17 13:38		
Dibromomethane	ND	ug/L	1.0	1		06/10/17 13:38	3 74-95-3	
,2-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 13:38	3 95-50-1	
,3-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 13:38	3 541-73-1	
,4-Dichlorobenzene	ND	ug/L	1.0	1		06/10/17 13:38	3 106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/10/17 13:38	3 75-71-8	
,1-Dichloroethane	ND	ug/L	1.0	1		06/10/17 13:38	3 75-34-3	
,2-Dichloroethane	ND	ug/L	1.0	1		06/10/17 13:38	3 107-06-2	
,1-Dichloroethene	ND	ug/L	1.0	1		06/10/17 13:38	3 75-35-4	
sis-1,2-Dichloroethene	ND	ug/L	1.0	1		06/10/17 13:38	3 156-59-2	
rans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/10/17 13:38		
,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 13:38		
,3-Dichloropropane	ND	ug/L	1.0	1		06/10/17 13:38		
,3-Dichloropropane	ND	ug/L	1.0	1		06/10/17 13:38		
·	ND ND		1.0	1		06/10/17 13:38		
,1-Dichloropropene		ug/L						
is-1,3-Dichloropropene	ND	ug/L	1.0	1		06/10/17 13:38		
rans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/10/17 13:38		
Diisopropyl ether	ND	ug/L	1.0	1		06/10/17 13:38		
Ethylbenzene	ND	ug/L	1.0	1		06/10/17 13:38		
lexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/10/17 13:38		
2-Hexanone	ND	ug/L	5.0	1		06/10/17 13:38		
o-Isopropyltoluene	ND	ug/L	1.0	1		06/10/17 13:38		
Methylene Chloride	ND	ug/L	2.0	1		06/10/17 13:38	3 75-09-2	
l-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/10/17 13:38		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/10/17 13:38	3 1634-04-4	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-4	Lab ID: 923	43524012	Collected: 06/08/1	17 11:50	Received: 0	06/09/17 08:20 N	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Meth	nod: EPA 826	00					
Naphthalene	ND	ug/L	1.0	1		06/10/17 13:38	91-20-3	
Styrene	ND	ug/L	1.0	1		06/10/17 13:38	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/10/17 13:38	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/10/17 13:38	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/10/17 13:38		
Toluene	ND	ug/L	1.0	1		06/10/17 13:38		
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/10/17 13:38		
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/10/17 13:38		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/10/17 13:38		
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/10/17 13:38		
Trichloroethene	ND	ug/L	1.0	1		06/10/17 13:38		
Trichlorofluoromethane	ND	ug/L	1.0	1		06/10/17 13:38		
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/10/17 13:38		
√inyl acetate	ND	ug/L	2.0	1		06/10/17 13:38		
/inyl chloride	ND	ug/L	1.0	1		06/10/17 13:38		
Xylene (Total)	ND	ug/L	1.0	1		06/10/17 13:38		
m&p-Xylene	ND	ug/L	2.0	1		06/10/17 13:38		
o-Xylene	ND	ug/L	1.0	1		06/10/17 13:38	95-47-6	
Surrogates 4-Bromofluorobenzene (S)	106	%	70-130	1		06/10/17 13:38	460 00 4	
1,2-Dichloroethane-d4 (S)	111	%	70-130	1		06/10/17 13:38		
Toluene-d8 (S)	102	%	70-130	1		06/10/17 13:38		
ron, Ferrous	Analytical Meth			•		00/10/17 10:50	2007-20-0	
ron, Ferrous	ND	mg/L	0.50	1		06/10/17 04:42		H1,N2
4500S2D Sulfide Water	Analytical Meth	-		•		00/10/17 04.42		111,112
Sulfide	ND	mg/L	0.10	1		06/14/17 01:45	19406 25 9	
	Analytical Meth	_		'		00/14/1/ 01.43	10490-23-0	
300.0 IC Anions 28 Days Sulfate	15.6		1.0	1		06/11/17 05:02	14000 70 0	
		mg/L		'		06/11/17 05:02	14000-79-0	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth							
Nitrogen, Nitrate	0.39	mg/L	0.020	1		06/10/17 00:55		
4500 Chloride	Analytical Meth							
Chloride	15.5	mg/L	1.0	1		06/16/17 17:28	16887-00-6	
5310B TOC	Analytical Meth	nod: SM 5310	OB .					
Total Organic Carbon	ND	mg/L	1.0	1		06/14/17 15:07	7440-44-0	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-7	Lab ID: 9234	43524013	Collected: 06/08/1	7 10:00	Received: 06/09/	/17 08:20	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
RSK 175 Headspace	Analytical Meth	nod: RSK 1	75 Modified					
Ethane	ND	ug/L	10.0	1	06	/13/17 19:37	7 74-84-0	
Ethene	ND	ug/L	10.0	1	06	/13/17 19:37	7 74-85-1	
Methane	4900	ug/L	10.0	1	06	/13/17 19:37	7 74-82-8	
8260 MSV Low Level	Analytical Meth	nod: EPA 82	260					
Acetone	ND	ug/L	25.0	1	06	/10/17 13:5	5 67-64-1	
Benzene	ND	ug/L	1.0	1	06	/10/17 13:5	5 71-43-2	
Bromobenzene	ND	ug/L	1.0	1	06	/10/17 13:5	5 108-86-1	
Bromochloromethane	ND	ug/L	1.0	1	06	/10/17 13:5	5 74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1	06	/10/17 13:5	5 75-27-4	
Bromoform	ND	ug/L	1.0	1	06	/10/17 13:5	5 75-25-2	
Bromomethane	ND	ug/L	2.0	1	06	/10/17 13:5	5 74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1	06	/10/17 13:5	5 78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1	06	/10/17 13:5	5 56-23-5	
Chlorobenzene	ND	ug/L	1.0	1	06	/10/17 13:5	5 108-90-7	
Chloroethane	ND	ug/L	1.0	1		/10/17 13:5		
Chloroform	ND	ug/L	1.0	1		/10/17 13:5		
Chloromethane	ND	ug/L	1.0	1		/10/17 13:5		
-Chlorotoluene	ND	ug/L	1.0	1		/10/17 13:5		
-Chlorotoluene	ND	ug/L	1.0	1			5 106-43-4	
,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		/10/17 13:5 ! /10/17 13:5 !		
Dibromochloromethane	ND	ug/L	1.0	1		/10/17 10:50 /10/17 13:5		
,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		/10/17 13:50 /10/17 13:50		
Dibromomethane	ND	ug/L	1.0	1		/10/17 13:50 /10/17 13:50		
,2-Dichlorobenzene	ND	ug/L	1.0	1		/10/17 13:50 /10/17 13:50		
1,3-Dichlorobenzene	ND ND	ug/L ug/L	1.0	1		/10/17 13:50 /10/17 13:50		
1,4-Dichlorobenzene	ND ND	•	1.0	1		/10/17 13:50 /10/17 13:50		
,		ug/L						
Dichlorodifluoromethane	ND	ug/L	1.0	1		/10/17 13:5!		
1,1-Dichloroethane	ND	ug/L	1.0	1		/10/17 13:5		
I,2-Dichloroethane	ND	ug/L	1.0	1			5 107-06-2	
I,1-Dichloroethene	ND	ug/L	1.0	1		/10/17 13:5!		
cis-1,2-Dichloroethene	ND	ug/L	1.0	1			5 156-59-2	
rans-1,2-Dichloroethene	ND	ug/L	1.0	1			5 156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		/10/17 13:5		
I,3-Dichloropropane	ND	ug/L	1.0	1			5 142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1			5 594-20-7	
,1-Dichloropropene	ND	ug/L	1.0	1			5 563-58-6	
sis-1,3-Dichloropropene	ND	ug/L	1.0	1	06	/10/17 13:5	5 10061-01-5	
rans-1,3-Dichloropropene	ND	ug/L	1.0	1			5 10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1			5 108-20-3	
Ethylbenzene	ND	ug/L	1.0	1			5 100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1	06	/10/17 13:5	5 87-68-3	
2-Hexanone	ND	ug/L	5.0	1	06	/10/17 13:5	5 591-78-6	
o-Isopropyltoluene	ND	ug/L	1.0	1	06	/10/17 13:5	5 99-87-6	
Methylene Chloride	ND	ug/L	2.0	1	06	/10/17 13:5	5 75-09-2	
I-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		/10/17 13:5		
Methyl-tert-butyl ether	ND	ug/L	1.0	1			5 1634-04-4	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-7	Lab ID: 923	43524013	Collected: 06/08/1	17 10:00	Received: 0	06/09/17 08:20 N	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Meth	nod: EPA 826	60					
Naphthalene	ND	ug/L	1.0	1		06/10/17 13:55	91-20-3	
Styrene	ND	ug/L	1.0	1		06/10/17 13:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/10/17 13:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/10/17 13:55	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		06/10/17 13:55		
Toluene	ND	ug/L	1.0	1		06/10/17 13:55		
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/10/17 13:55		
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/10/17 13:55		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/10/17 13:55		
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/10/17 13:55		
Trichloroethene	ND	ug/L	1.0	1		06/10/17 13:55		
Trichlorofluoromethane	ND	ug/L	1.0	1		06/10/17 13:55		
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/10/17 13:55		
Vinyl acetate	ND	ug/L	2.0	1		06/10/17 13:55		
Vinyl chloride	ND	ug/L	1.0	1		06/10/17 13:55		
Xylene (Total)	ND	ug/L	1.0	1		06/10/17 13:55		
m&p-Xylene	ND	ug/L	2.0	1		06/10/17 13:55		
o-Xylene	ND	ug/L	1.0	1		06/10/17 13:55	95-47-6	
Surrogates 4-Bromofluorobenzene (S)	106	%	70-130	1		06/10/17 13:55	460 00 4	
1,2-Dichloroethane-d4 (S)	112	%	70-130	1		06/10/17 13:55		
Toluene-d8 (S)	99	%	70-130	1		06/10/17 13:55		
ron, Ferrous	Analytical Meth					00/10/11 10:55	2007-20-0	
ron, Ferrous	2.2	mg/L	0.50	1		06/10/17 04:42		H1,N2
4500S2D Sulfide Water	Analytical Meth					00/10/11 04.42		111,112
Sulfide	ND	mg/L	0.10	1		06/14/17 01:45	18496-25-8	
300.0 IC Anions 28 Days	Analytical Meth	•		'		00/14/1/ 01.40	10430-23-0	
Sulfate	13.6		1.0	1		06/11/17 05:53	1/202 70 2	
		mg/L		'		00/11/1/ 05.55	14000-79-0	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Meth					00/40/47 00 50		
Nitrogen, Nitrate	1.8	mg/L	0.020	1		06/10/17 00:50		
4500 Chloride	Analytical Meth							
Chloride	28.7	mg/L	1.0	1		06/16/17 17:31	16887-00-6	
5310B TOC	Analytical Meth	nod: SM 531	0B					
Total Organic Carbon	1.4	mg/L	1.0	1		06/14/17 15:18	7440-44-0	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-11	Lab ID: 9234	43524014	Collected:	06/08/1	7 10:45	Received:	06/09/17 08:20	Matrix: Water	
Parameters	Results	Units	Report	Limit	DF	Prepared	Analyzed	CAS No.	Qua
RSK 175 Headspace	Analytical Meth	od: RSK 1	75 Modified						
Ethane	ND	ug/L		100	10		06/14/17 23:5	8 74-84-0	
Ethene	ND	ug/L		100	10		06/14/17 23:5	8 74-85-1	
Methane	34400	ug/L		100	10		06/14/17 23:5	8 74-82-8	
8260 MSV Low Level	Analytical Meth	od: EPA 82	260						
Acetone	ND	ug/L		25.0	1		06/10/17 14:1	1 67-64-1	
Benzene	ND	ug/L		1.0	1		06/10/17 14:1	1 71-43-2	
Bromobenzene	ND	ug/L		1.0	1		06/10/17 14:1	1 108-86-1	
Bromochloromethane	ND	ug/L		1.0	1		06/10/17 14:1	1 74-97-5	
Bromodichloromethane	ND	ug/L		1.0	1		06/10/17 14:1	1 75-27-4	
Bromoform	ND	ug/L		1.0	1		06/10/17 14:1	1 75-25-2	
Bromomethane	ND	ug/L		2.0	1		06/10/17 14:1	1 74-83-9	
2-Butanone (MEK)	ND	ug/L		5.0	1		06/10/17 14:1	1 78-93-3	
Carbon tetrachloride	ND	ug/L		1.0	1		06/10/17 14:1	1 56-23-5	
Chlorobenzene	ND	ug/L		1.0	1		06/10/17 14:1	1 108-90-7	
Chloroethane	ND	ug/L		1.0	1		06/10/17 14:1		
Chloroform	ND	ug/L		1.0	1		06/10/17 14:1		
Chloromethane	ND	ug/L		1.0	1		06/10/17 14:1	1 74-87-3	
-Chlorotoluene	ND	ug/L		1.0	1		06/10/17 14:1		
-Chlorotoluene	ND	ug/L		1.0	1		06/10/17 14:1		
,2-Dibromo-3-chloropropane	ND	ug/L		2.0	1		06/10/17 14:1		
Dibromochloromethane	ND	ug/L		1.0	1		06/10/17 14:1		
,2-Dibromoethane (EDB)	ND	ug/L		1.0	1		06/10/17 14:1		
Dibromomethane	ND	ug/L		1.0	1		06/10/17 14:1		
,2-Dichlorobenzene	ND	ug/L		1.0	1		06/10/17 14:1		
,3-Dichlorobenzene	ND	ug/L		1.0	1		06/10/17 14:1		
I,4-Dichlorobenzene	ND ND	ug/L		1.0	1		06/10/17 14:1		
Dichlorodifluoromethane	ND ND			1.0	1		06/10/17 14:1		
I,1-Dichloroethane	ND ND	ug/L		1.0	1		06/10/17 14:1		
		ug/L			1		06/10/17 14:1		
1,2-Dichloroethane 1,1-Dichloroethene	ND ND	ug/L		1.0 1.0	1		06/10/17 14:1		
		ug/L			1				
cis-1,2-Dichloroethene	ND	ug/L		1.0			06/10/17 14:1		
rans-1,2-Dichloroethene	ND	ug/L		1.0	1		06/10/17 14:1		
,2-Dichloropropane	ND	ug/L		1.0	1		06/10/17 14:1		
,3-Dichloropropane	ND	ug/L		1.0	1		06/10/17 14:1		
2,2-Dichloropropane	ND	ug/L		1.0	1		06/10/17 14:1		
,1-Dichloropropene	ND	ug/L		1.0	1		06/10/17 14:1		
sis-1,3-Dichloropropene	ND	ug/L		1.0	1			1 10061-01-5	
rans-1,3-Dichloropropene	ND	ug/L		1.0	1			1 10061-02-6	
Diisopropyl ether	ND	ug/L		1.0	1		06/10/17 14:1		
Ethylbenzene	ND	ug/L		1.0	1		06/10/17 14:1		
Hexachloro-1,3-butadiene	ND	ug/L		1.0	1		06/10/17 14:1		
2-Hexanone	ND	ug/L		5.0	1		06/10/17 14:1		
-lsopropyltoluene	ND	ug/L		1.0	1		06/10/17 14:1		
Methylene Chloride	ND	ug/L		2.0	1		06/10/17 14:1		
1-Methyl-2-pentanone (MIBK)	ND	ug/L		5.0	1		06/10/17 14:1	1 108-10-1	
Methyl-tert-butyl ether	ND	ug/L		1.0	1		06/10/17 14:1	1 1634-04-4	



ANALYTICAL RESULTS

Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: MW-11	Lab ID: 923	43524014	Collected: 06/08/1	7 10:45	Received: 06/09	/17 08:20	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8260 MSV Low Level	Analytical Meth	nod: EPA 82	260					
Naphthalene	ND	ug/L	1.0	1	06	6/10/17 14:1 ⁻	1 91-20-3	
Styrene	ND	ug/L	1.0	1	06	6/10/17 14:1 ⁻	1 100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		6/10/17 14:1 ⁻		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		5/10/17 14:1 ⁻		
Tetrachloroethene	ND	ug/L	1.0	1		6/10/17 14:1 ⁻		
Toluene	ND	ug/L	1.0	1		6/10/17 14:1 ⁻		
,2,3-Trichlorobenzene	ND	ug/L	1.0	1		6/10/17 14:1		
,2,4-Trichlorobenzene	ND	ug/L	1.0	1		6/10/17 14:1		
,1,1-Trichloroethane	ND	ug/L	1.0	1		6/10/17 14:1		
,1,2-Trichloroethane	ND	ug/L	1.0	1		6/10/17 14:1		
Frichloroethene	ND	ug/L	1.0	1		6/10/17 14:1 ⁻		
Frichlorofluoromethane	ND	ug/L	1.0	1		6/10/17 14:1 ²		
I,2,3-Trichloropropane	ND	ug/L	1.0	1		6/10/17 14:1 ²		
/inyl acetate	ND	ug/L	2.0	1		6/10/17 14:1 ²		
/inyl chloride	ND	ug/L	1.0	1		6/10/17 14:1 ²		
(ylene (Total)	ND ND	ug/L	1.0 2.0	1 1			1 1330-20-7 1 179601-23-1	
n&p-Xylene o-Xylene	ND ND	ug/L ug/L	1.0	1		6/10/17 14:1 6/10/17 14:1		
Surrogates	ND	ug/L	1.0	'	00)/10/1/ 14.1	1 95-47-0	
I-Bromofluorobenzene (S)	105	%	70-130	1	06	6/10/17 14:1 ⁻	1 460-00-4	
,2-Dichloroethane-d4 (S)	116	%	70-130	1			1 17060-07-0	
Foluene-d8 (S)	103	%	70-130	1			1 2037-26-5	
ron, Ferrous	Analytical Meth	nod: SM 350	00-Fe B					
ron, Ferrous	12.3	mg/L	2.5	5	06	6/10/17 04:4:	2	H1,N2
500S2D Sulfide Water	Analytical Meth	nod: SM 450	00-S2D					
Sulfide	ND	mg/L	0.10	1	06	6/14/17 01:4	5 18496-25-8	
300.0 IC Anions 28 Days	Analytical Meth	nod: EPA 30	0.00					
Sulfate	7.4	mg/L	1.0	1	06	6/11/17 06:4	5 14808-79-8	
53.2 Nitrogen, NO2/NO3 unpres	Analytical Meth	nod: EPA 35	53.2					
litrogen, Nitrate	ND	mg/L	0.020	1	06	6/10/17 00:54	4	
500 Chloride	Analytical Meth	nod: SM 450	00-CI-E					
Chloride	28.9	mg/L	1.0	1	06	6/16/17 17:3	2 16887-00-6	
310B TOC	Analytical Meth	nod: SM 53°	10B					
otal Organic Carbon	2.3	mg/L	1.0	1	06	6/14/17 15:30	7440-44-0	



ANALYTICAL RESULTS

Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: DRUM 1	Lab ID: 923	43524015	Collected: 06/08/1	7 18:00	Received:	06/09/17 08:20	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3260 MSV Low Level	Analytical Met	hod: EPA 82	260					
Acetone	ND	ug/L	25.0	1		06/10/17 14:28	3 67-64-1	
Benzene	ND	ug/L	1.0	1		06/10/17 14:28	3 71-43-2	
Bromobenzene	ND	ug/L	1.0	1		06/10/17 14:28	3 108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		06/10/17 14:28	3 74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		06/10/17 14:28	3 75-27-4	
Bromoform	ND	ug/L	1.0	1		06/10/17 14:28	3 75-25-2	
Bromomethane	ND	ug/L	2.0	1		06/10/17 14:28	3 74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		06/10/17 14:28	3 78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		06/10/17 14:28	3 56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		06/10/17 14:28	3 108-90-7	
Chloroethane	ND	ug/L	1.0	1		06/10/17 14:28		
Chloroform	ND	ug/L	1.0	1		06/10/17 14:28		
Chloromethane	ND	ug/L	1.0	1		06/10/17 14:28		
2-Chlorotoluene	ND	ug/L	1.0	1		06/10/17 14:28		
I-Chlorotoluene	ND	ug/L	1.0	1		06/10/17 14:28		
,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		06/10/17 14:20		
Dibromochloromethane	ND ND	ug/L	1.0	1		06/10/17 14:20		
,2-Dibromoethane (EDB)	ND ND	ug/L	1.0	1		06/10/17 14:20		
)ibromomethane	ND ND		1.0	1		06/10/17 14:20		
		ug/L		1		06/10/17 14:20		
,2-Dichlorobenzene	ND	ug/L	1.0					
,3-Dichlorobenzene	ND ND	ug/L	1.0	1 1		06/10/17 14:28		
,4-Dichlorobenzene	ND	ug/L	1.0			06/10/17 14:28		
Dichlorodifluoromethane	ND	ug/L	1.0	1		06/10/17 14:28		
,1-Dichloroethane	ND	ug/L	1.0	1		06/10/17 14:28		
I,2-Dichloroethane	ND	ug/L	1.0	1		06/10/17 14:28		
1,1-Dichloroethene	ND	ug/L	1.0	1		06/10/17 14:28		
cis-1,2-Dichloroethene	1.4	ug/L	1.0	1		06/10/17 14:28		
rans-1,2-Dichloroethene	ND	ug/L	1.0	1		06/10/17 14:28		
,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 14:28		
,3-Dichloropropane	ND	ug/L	1.0	1		06/10/17 14:28		
2,2-Dichloropropane	ND	ug/L	1.0	1		06/10/17 14:28		
,1-Dichloropropene	ND	ug/L	1.0	1		06/10/17 14:28	3 563-58-6	
sis-1,3-Dichloropropene	ND	ug/L	1.0	1		06/10/17 14:28		
rans-1,3-Dichloropropene	ND	ug/L	1.0	1		06/10/17 14:28	3 10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		06/10/17 14:28	3 108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		06/10/17 14:28	3 100-41-4	
lexachloro-1,3-butadiene	ND	ug/L	1.0	1		06/10/17 14:28	8 87-68-3	
-Hexanone	ND	ug/L	5.0	1		06/10/17 14:28	3 591-78-6	
-Isopropyltoluene	ND	ug/L	1.0	1		06/10/17 14:28	3 99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		06/10/17 14:28	3 75-09-2	
-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		06/10/17 14:28	3 108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		06/10/17 14:28		
laphthalene	ND	ug/L	1.0	1		06/10/17 14:28		
Styrene	ND	ug/L	1.0	1		06/10/17 14:28		
,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		06/10/17 14:28		
,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		06/10/17 14:28		
etrachloroethene	14.3	ug/L	1.0	1		06/10/17 14:28		



ANALYTICAL RESULTS

Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Sample: DRUM 1	Lab ID: 923	43524015	Collected: 06/08/1	7 18:00	Received: 06	6/09/17 08:20 N	/latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Meth	nod: EPA 82	60					
Toluene	8.5	ug/L	1.0	1		06/10/17 14:28	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		06/10/17 14:28	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		06/10/17 14:28	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		06/10/17 14:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		06/10/17 14:28	79-00-5	
Trichloroethene	6.2	ug/L	1.0	1		06/10/17 14:28	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		06/10/17 14:28	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		06/10/17 14:28	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		06/10/17 14:28	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		06/10/17 14:28	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		06/10/17 14:28	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		06/10/17 14:28	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		06/10/17 14:28	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	107	%	70-130	1		06/10/17 14:28		
1,2-Dichloroethane-d4 (S)	110	%	70-130	1		06/10/17 14:28	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		06/10/17 14:28	2037-26-5	



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Methane

Date: 06/19/2017 10:36 AM

QC Batch: 364653 Analysis Method: RSK 175 Modified

QC Batch Method: RSK 175 Modified Analysis Description: RSK 175 HEADSPACE

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006, 92343524007,

92343524008, 92343524009, 92343524010, 92343524011, 92343524012, 92343524013, 92343524014

METHOD BLANK: 2021650 Matrix: Water

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006, 92343524007,

92343524008, 92343524009, 92343524010, 92343524011, 92343524012, 92343524013, 92343524014

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Ethane	ug/L	ND ND	10.0	06/13/17 15:16	
Ethene	ug/L	ND	10.0	06/13/17 15:16	
Methane	ug/L	ND	10.0	06/13/17 15:16	

LABORATORY CONTROL SAMPLE:	2021651						
		Spike	LCS	LCS	% Rec		
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers	
Ethane	ug/L	658	669	102	70-130		
Ethene	ug/L	1120	1250	111	70-130		
Methane	ug/L	396	445	113	70-130		

MATRIX SPIKE SAMPLE:	2021652						
		92343524008	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Ethane	ug/L	ND	658	774	118	70-130	
Ethene	ug/L	ND	1120	1260	112	70-130	
Methane	ug/L	706	396	1150	112	70-130	

684

677

SAMPLE DUPLICATE: 2021653					
		92343524009	Dup		
Parameter	Units	Result	Result	RPD	Qualifiers
Ethane	ug/L	ND	ND		
Ethene	ug/L	ND	ND		

ug/L

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

QC Batch: 364469 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury

Associated Lab Samples: 92343524008, 92343524009, 92343524010, 92343524011

METHOD BLANK: 2020751 Matrix: Water
Associated Lab Samples: 92343524008, 92343524009, 92343524010, 92343524011

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Mercury ug/L ND 0.20 06/14/17 14:52

LABORATORY CONTROL SAMPLE: 2020752

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Mercury ug/L 2.1 85 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2020753 2020754

MS MSD 92343600001 Spike Spike MS MSD MS MSD % Rec Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** Qual ug/L <0.20 2.5 2.5 2.4 2.3 97 75-125 Mercury 93 4

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

QC Batch: 364365 Analysis Method: EPA 6010
QC Batch Method: EPA 3010A Analysis Description: 6010 MET

Associated Lab Samples: 92343524008, 92343524009, 92343524010, 92343524011

METHOD BLANK: 2020268 Matrix: Water
Associated Lab Samples: 92343524008, 92343524009, 92343524010, 92343524011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	10.0	06/13/17 10:13	
Barium	ug/L	ND	5.0	06/13/17 10:13	
Cadmium	ug/L	ND	1.0	06/13/17 10:13	
Chromium	ug/L	ND	5.0	06/13/17 10:13	

Chromium	ug/L	ND	5.0	06/13/17 10:13
Lead	ug/L	ND	5.0	06/13/17 10:13
Selenium	ug/L	ND	10.0	06/13/17 10:13
Silver	ug/L	ND	5.0	06/13/17 10:13

LABORATORY CONTROL SAMPLE:	2020269					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic	ug/L	500	478	96	80-120	
Barium	ug/L	500	485	97	80-120	
Cadmium	ug/L	500	480	96	80-120	
Chromium	ug/L	500	479	96	80-120	
Lead	ug/L	500	481	96	80-120	
Selenium	ug/L	500	500	100	80-120	
Silver	ug/L	250	247	99	80-120	

MATRIX SPIKE & MATRIX SF	PIKE DUPLICAT	E: 20202	70		2020271						
			MS	MSD							
	923	343374001	Spike	Spike	MS	MSD	MS	MSD	% Rec		
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	Qual
Arsenic	ug/L	ND	500	500	482	467	96	93	75-125	3	
Barium	ug/L	42.5	500	500	529	518	97	95	75-125	2	
Cadmium	ug/L	1.2	500	500	483	471	96	94	75-125	2	
Chromium	ug/L	ND	500	500	482	473	96	94	75-125	2	
Lead	ug/L	ND	500	500	477	468	95	93	75-125	2	
Selenium	ug/L	ND	500	500	496	487	99	97	75-125	2	
Silver	ug/L	ND	250	250	249	243	99	97	75-125	3	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

QC Batch: 364256 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006, 92343524007

METHOD BLANK: 2019874 Matrix: Water

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006, 92343524007

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Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND -	1.0	06/10/17 08:14	
1,1,1-Trichloroethane	ug/L	ND	1.0	06/10/17 08:14	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	06/10/17 08:14	
1,1,2-Trichloroethane	ug/L	ND	1.0	06/10/17 08:14	
1,1-Dichloroethane	ug/L	ND	1.0	06/10/17 08:14	
1,1-Dichloroethene	ug/L	ND	1.0	06/10/17 08:14	
1,1-Dichloropropene	ug/L	ND	1.0	06/10/17 08:14	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	06/10/17 08:14	
1,2,3-Trichloropropane	ug/L	ND	1.0	06/10/17 08:14	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	06/10/17 08:14	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	06/10/17 08:14	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	06/10/17 08:14	
1,2-Dichlorobenzene	ug/L	ND	1.0	06/10/17 08:14	
1,2-Dichloroethane	ug/L	ND	1.0	06/10/17 08:14	
1,2-Dichloropropane	ug/L	ND	1.0	06/10/17 08:14	
1,3-Dichlorobenzene	ug/L	ND	1.0	06/10/17 08:14	
1,3-Dichloropropane	ug/L	ND	1.0	06/10/17 08:14	
1,4-Dichlorobenzene	ug/L	ND	1.0	06/10/17 08:14	
2,2-Dichloropropane	ug/L	ND	1.0	06/10/17 08:14	
2-Butanone (MEK)	ug/L	ND	5.0	06/10/17 08:14	
2-Chlorotoluene	ug/L	ND	1.0	06/10/17 08:14	
2-Hexanone	ug/L	ND	5.0	06/10/17 08:14	
4-Chlorotoluene	ug/L	ND	1.0	06/10/17 08:14	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	06/10/17 08:14	
Acetone	ug/L	ND	25.0	06/10/17 08:14	
Benzene	ug/L	ND	1.0	06/10/17 08:14	
Bromobenzene	ug/L	ND	1.0	06/10/17 08:14	
Bromochloromethane	ug/L	ND	1.0	06/10/17 08:14	
Bromodichloromethane	ug/L	ND	1.0	06/10/17 08:14	
Bromoform	ug/L	ND	1.0	06/10/17 08:14	
Bromomethane	ug/L	ND	2.0	06/10/17 08:14	
Carbon tetrachloride	ug/L	ND	1.0	06/10/17 08:14	
Chlorobenzene	ug/L	ND	1.0	06/10/17 08:14	
Chloroethane	ug/L	ND	1.0	06/10/17 08:14	
Chloroform	ug/L	ND	1.0	06/10/17 08:14	
Chloromethane	ug/L	ND	1.0	06/10/17 08:14	
cis-1,2-Dichloroethene	ug/L	ND	1.0	06/10/17 08:14	
cis-1,3-Dichloropropene	ug/L	ND	1.0	06/10/17 08:14	
Dibromochloromethane	ug/L	ND	1.0	06/10/17 08:14	
Dibromomethane	ug/L	ND	1.0	06/10/17 08:14	
Dichlorodifluoromethane	ug/L	ND	1.0	06/10/17 08:14	

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Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

METHOD BLANK: 2019874 Matrix: Water

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006, 92343524007

		Blank Reporting			
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	06/10/17 08:14	
Ethylbenzene	ug/L	ND	1.0	06/10/17 08:14	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	06/10/17 08:14	
m&p-Xylene	ug/L	ND	2.0	06/10/17 08:14	
Methyl-tert-butyl ether	ug/L	ND	1.0	06/10/17 08:14	
Methylene Chloride	ug/L	ND	2.0	06/10/17 08:14	
Naphthalene	ug/L	ND	1.0	06/10/17 08:14	
o-Xylene	ug/L	ND	1.0	06/10/17 08:14	
p-Isopropyltoluene	ug/L	ND	1.0	06/10/17 08:14	
Styrene	ug/L	ND	1.0	06/10/17 08:14	
Tetrachloroethene	ug/L	ND	1.0	06/10/17 08:14	
Toluene	ug/L	ND	1.0	06/10/17 08:14	
trans-1,2-Dichloroethene	ug/L	ND	1.0	06/10/17 08:14	
trans-1,3-Dichloropropene	ug/L	ND	1.0	06/10/17 08:14	
Trichloroethene	ug/L	ND	1.0	06/10/17 08:14	
Trichlorofluoromethane	ug/L	ND	1.0	06/10/17 08:14	
Vinyl acetate	ug/L	ND	2.0	06/10/17 08:14	
Vinyl chloride	ug/L	ND	1.0	06/10/17 08:14	
Xylene (Total)	ug/L	ND	1.0	06/10/17 08:14	
1,2-Dichloroethane-d4 (S)	%	90	70-130	06/10/17 08:14	
4-Bromofluorobenzene (S)	%	92	70-130	06/10/17 08:14	
Toluene-d8 (S)	%	102	70-130	06/10/17 08:14	

LABORATORY CONTROL SAMPLE:	2019875					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	47.9	96	70-130	_
1,1,1-Trichloroethane	ug/L	50	40.9	82	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	45.7	91	70-130	
1,1,2-Trichloroethane	ug/L	50	49.6	99	70-130	
1,1-Dichloroethane	ug/L	50	42.2	84	70-130	
1,1-Dichloroethene	ug/L	50	42.2	84	70-132	
1,1-Dichloropropene	ug/L	50	42.8	86	70-130	
1,2,3-Trichlorobenzene	ug/L	50	53.3	107	70-135	
1,2,3-Trichloropropane	ug/L	50	44.5	89	70-130	
1,2,4-Trichlorobenzene	ug/L	50	49.9	100	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	48.7	97	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	48.4	97	70-130	
1,2-Dichlorobenzene	ug/L	50	46.1	92	70-130	
1,2-Dichloroethane	ug/L	50	39.0	78	70-130	
1,2-Dichloropropane	ug/L	50	47.8	96	70-130	
1,3-Dichlorobenzene	ug/L	50	45.4	91	70-130	
1,3-Dichloropropane	ug/L	50	46.9	94	70-130	
1,4-Dichlorobenzene	ug/L	50	45.1	90	70-130	

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Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

LABORATORY CONTROL SAMPLE:	2019875	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
2,2-Dichloropropane	ug/L		32.1	64	58-145	
2-Butanone (MEK)	ug/L	100	81.6	82	70-145	
2-Chlorotoluene	ug/L	50	42.8	86	70-130	
2-Hexanone	ug/L	100	82.5	82	70-144	
4-Chlorotoluene	ug/L	50	42.0	84	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	85.7	86	70-140	
Acetone	ug/L	100	81.4	81	50-175	
Benzene	ug/L	50	47.0	94	70-130	
Bromobenzene	ug/L	50	46.7	93	70-130	
Bromochloromethane	ug/L	50	49.5	99	70-130	
Bromodichloromethane	ug/L	50	45.5	91	70-130	
Bromoform	ug/L	50	42.5	85	70-130	
Bromomethane	ug/L	50	38.2	76	54-130	
Carbon tetrachloride	ug/L	50	40.8	82	70-132	
Chlorobenzene	ug/L	50	46.7	93	70-130	
Chloroethane	ug/L	50	47.7	95	64-134	
Chloroform	ug/L	50	43.7	87	70-130	
Chloromethane	ug/L	50	44.3	89	64-130	
cis-1,2-Dichloroethene	ug/L	50	42.6	85	70-131	
cis-1,3-Dichloropropene	ug/L	50	45.5	91	70-130	
Dibromochloromethane	ug/L	50	46.7	93	70-130	
Dibromomethane	ug/L	50	51.9	104	70-131	
Dichlorodifluoromethane	ug/L	50	40.1	80	56-130	
Diisopropyl ether	ug/L	50	41.5	83	70-130	
Ethylbenzene	ug/L	50	44.0	88	70-130	
Hexachloro-1,3-butadiene	ug/L	50	45.8	92	70-130	
m&p-Xylene	ug/L	100	86.8	87	70-130	
Methyl-tert-butyl ether	ug/L	50	46.7	93	70-130	
Methylene Chloride	ug/L	50	43.2	86	63-130	
Naphthalene	ug/L	50	55.2	110	70-138	
o-Xylene	ug/L	50	46.2	92	70-130	
p-Isopropyltoluene	ug/L	50	41.5	83	70-130	
Styrene	ug/L	50	46.6	93	70-130	
Tetrachloroethene	ug/L	50	42.0	84	70-130	
Toluene	ug/L	50	48.3	97	70-130	
trans-1,2-Dichloroethene	ug/L	50	41.4	83	70-130	
trans-1,3-Dichloropropene	ug/L	50	45.2	90	70-132	
Trichloroethene	ug/L	50	47.2	94	70-130	
Trichlorofluoromethane	ug/L	50	39.9	80	62-133	
Vinyl acetate	ug/L	100	86.9	87	66-157	
Vinyl chloride	ug/L	50	41.9	84	50-150	
Xylene (Total)	ug/L	150	133	89	70-130	
1,2-Dichloroethane-d4 (S)	%			88	70-130	
4-Bromofluorobenzene (S)	%			93	70-130	
Toluene-d8 (S)	%			100	70-130	

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Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

MATRIX SPIKE SAMPLE:	2019876	92343524001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND		20.2	101	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	19.4	97	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	19.5	98	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	21.1	106	70-130	
1,1-Dichloroethane	ug/L	ND	20	20.2	101	70-130	
1,1-Dichloroethene	ug/L	ND	20	20.4	102	70-166	
1,1-Dichloropropene	ug/L	ND	20	20.2	101	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	23.5	118	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	19.6	98	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	22.2	111	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20.7	103	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20.4	102	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	19.9	100	70-130	
1,2-Dichloroethane	ug/L	ND	20	17.5	88	70-130	
1,2-Dichloropropane	ug/L	ND	20	22.2	111	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	20.0	100	70-130	
1,3-Dichloropropane	ug/L	ND	20	20.3	101	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	19.7	99	70-130	
2,2-Dichloropropane	ug/L	ND	20	15.8	79	70-130	
2-Butanone (MEK)	ug/L ug/L	ND	40	37.8	94	70-130	
2-Chlorotoluene	-	ND	20	19.1	96	70-130	
2-Hexanone	ug/L	ND	40	36.1	90	70-130	
	ug/L	ND ND				70-130 70-130	
4-Chlorotoluene	ug/L	ND ND	20 40	18.6 36.6	93 92	70-130 70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND ND	40	36.6 46.2	115	70-130 70-130	
Acetone	ug/L	ND ND	20	21.6	108		
Benzene	ug/L	ND ND				70-148	
Bromobenzene	ug/L		20	20.3	101	70-130	
Bromochloromethane	ug/L	ND	20	22.3	112	70-130	
Bromodichloromethane	ug/L	ND	20	20.6	103	70-130	
Bromoform	ug/L	ND	20	17.6	88	70-130	
Bromomethane	ug/L	ND	20	17.2	86	70-130	
Carbon tetrachloride	ug/L	ND	20	19.5	98	70-130	
Chlorobenzene	ug/L	ND	20	21.3	106	70-146	
Chloroethane	ug/L	ND	20	18.3	92	70-130	
Chloroform	ug/L	ND	20	20.0	100	70-130	
Chloromethane	ug/L	ND	20	19.0	95	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	20.1	100	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	19.3	97	70-130	
Dibromochloromethane	ug/L	ND	20	19.6	98	70-130	
Dibromomethane	ug/L	ND	20	24.0	120	70-130	
Dichlorodifluoromethane	ug/L	ND	20	19.5	98	70-130	
Diisopropyl ether	ug/L	ND	20	18.3	91	70-130	
Ethylbenzene	ug/L	ND	20	20.3	102	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	22.5	112	70-130	
m&p-Xylene	ug/L	ND	40	39.7	99	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	20.4	102	70-130	
Methylene Chloride	ug/L	ND	20	16.3	82	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

MATRIX SPIKE SAMPLE:	2019876						
		92343524001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Naphthalene	 ug/L	ND ND	20	24.2	121	70-130	
o-Xylene	ug/L	ND	20	20.9	105	70-130	
p-Isopropyltoluene	ug/L	ND	20	19.0	95	70-130	
Styrene	ug/L	ND	20	20.9	105	70-130	
Tetrachloroethene	ug/L	ND	20	19.5	97	70-130	
Toluene	ug/L	ND	20	21.8	109	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	19.6	98	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	18.0	90	70-130	
Trichloroethene	ug/L	ND	20	21.9	109	69-151	
Trichlorofluoromethane	ug/L	ND	20	19.8	99	70-130	
Vinyl acetate	ug/L	ND	40	29.0	72	70-130	
Vinyl chloride	ug/L	ND	20	20.5	103	70-130	
1,2-Dichloroethane-d4 (S)	%				87	70-130	
4-Bromofluorobenzene (S)	%				93	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 2019877					
		92343524002	Dup		
Parameter	Units	Result	Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		
1,1,1-Trichloroethane	ug/L	ND	ND		
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		
1,1,2-Trichloroethane	ug/L	ND	ND		
1,1-Dichloroethane	ug/L	ND	ND		
1,1-Dichloroethene	ug/L	ND	ND		
1,1-Dichloropropene	ug/L	ND	ND		
1,2,3-Trichlorobenzene	ug/L	ND	ND		
1,2,3-Trichloropropane	ug/L	ND	ND		
1,2,4-Trichlorobenzene	ug/L	ND	ND		
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		
1,2-Dibromoethane (EDB)	ug/L	ND	ND		
1,2-Dichlorobenzene	ug/L	ND	ND		
1,2-Dichloroethane	ug/L	ND	ND		
1,2-Dichloropropane	ug/L	ND	ND		
1,3-Dichlorobenzene	ug/L	ND	ND		
1,3-Dichloropropane	ug/L	ND	ND		
1,4-Dichlorobenzene	ug/L	ND	ND		
2,2-Dichloropropane	ug/L	ND	ND		
2-Butanone (MEK)	ug/L	ND	ND		
2-Chlorotoluene	ug/L	ND	ND		
2-Hexanone	ug/L	ND	ND		
4-Chlorotoluene	ug/L	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		
Acetone	ug/L	ND	ND		
Benzene	ug/L	ND	ND		

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Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

92343524002 Dup	
Parameter Units Result Result RPD	Qualifiers
Bromobenzene ug/L ND ND	
Bromochloromethane ug/L ND ND	
Bromodichloromethane ug/L ND ND	
Bromoform ug/L ND ND	
Bromomethane ug/L ND ND	
Carbon tetrachloride ug/L ND ND	
Chlorobenzene ug/L ND ND	
Chloroethane ug/L ND ND	
Chloroform ug/L ND ND	
Chloromethane ug/L ND ND	
cis-1,2-Dichloroethene ug/L ND ND	
cis-1,3-Dichloropropene ug/L ND ND	
Dibromochloromethane ug/L ND ND	
Dibromomethane ug/L ND ND	
Dichlorodifluoromethane ug/L ND ND	
Diisopropyl ether ug/L ND ND	
Ethylbenzene ug/L ND ND	
Hexachloro-1,3-butadiene ug/L ND ND	
m&p-Xylene ug/L ND ND	
Methyl-tert-butyl ether ug/L ND ND	
Methylene Chloride ug/L ND ND	
Naphthalene ug/L ND ND	
o-Xylene ug/L ND ND	
p-Isopropyltoluene ug/L ND ND	
Styrene ug/L ND ND	
Tetrachloroethene ug/L ND ND	
Toluene ug/L ND ND	
trans-1,2-Dichloroethene ug/L ND ND	
trans-1,3-Dichloropropene ug/L ND ND	
Trichloroethene ug/L ND ND	
Trichlorofluoromethane ug/L ND ND	
Vinyl acetate ug/L ND ND	
Vinyl chloride ug/L ND ND	
Xylene (Total) ug/L ND ND	
1,2-Dichloroethane-d4 (S)	
4-Bromofluorobenzene (S) % 90 90	
Toluene-d8 (S) % 101 100 1	

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Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

QC Batch: 364294 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level

Associated Lab Samples: 92343524009, 92343524010, 92343524011, 92343524012, 92343524013, 92343524014, 92343524015

METHOD BLANK: 2020027 Matrix: Water

Associated Lab Samples: 92343524009, 92343524010, 92343524011, 92343524012, 92343524013, 92343524014, 92343524015

520.0	02.000, 020.002.0.0,	Blank	Reporting		0_ 10 1 1, 0_0 100
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L		1.0	06/10/17 10:35	
1,1,1-Trichloroethane	ug/L	ND	1.0	06/10/17 10:35	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	06/10/17 10:35	
1,1,2-Trichloroethane	ug/L	ND	1.0	06/10/17 10:35	
1,1-Dichloroethane	ug/L	ND	1.0	06/10/17 10:35	
1,1-Dichloroethene	ug/L	ND	1.0	06/10/17 10:35	
1,1-Dichloropropene	ug/L	ND	1.0	06/10/17 10:35	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	06/10/17 10:35	
1,2,3-Trichloropropane	ug/L	ND	1.0	06/10/17 10:35	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	06/10/17 10:35	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	06/10/17 10:35	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	06/10/17 10:35	
1,2-Dichlorobenzene	ug/L	ND	1.0	06/10/17 10:35	
1,2-Dichloroethane	ug/L	ND	1.0	06/10/17 10:35	
1,2-Dichloropropane	ug/L	ND	1.0	06/10/17 10:35	
1,3-Dichlorobenzene	ug/L	ND	1.0	06/10/17 10:35	
1,3-Dichloropropane	ug/L	ND	1.0	06/10/17 10:35	
1,4-Dichlorobenzene	ug/L	ND	1.0	06/10/17 10:35	
2,2-Dichloropropane	ug/L	ND	1.0	06/10/17 10:35	
2-Butanone (MEK)	ug/L	ND	5.0	06/10/17 10:35	
2-Chlorotoluene	ug/L	ND	1.0	06/10/17 10:35	
2-Hexanone	ug/L	ND	5.0	06/10/17 10:35	
4-Chlorotoluene	ug/L	ND	1.0	06/10/17 10:35	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	06/10/17 10:35	
Acetone	ug/L	ND	25.0	06/10/17 10:35	
Benzene	ug/L	ND	1.0	06/10/17 10:35	
Bromobenzene	ug/L	ND	1.0	06/10/17 10:35	
Bromochloromethane	ug/L	ND	1.0	06/10/17 10:35	
Bromodichloromethane	ug/L	ND	1.0	06/10/17 10:35	
Bromoform	ug/L	ND	1.0	06/10/17 10:35	
Bromomethane	ug/L	ND	2.0	06/10/17 10:35	
Carbon tetrachloride	ug/L	ND	1.0	06/10/17 10:35	
Chlorobenzene	ug/L	ND	1.0	06/10/17 10:35	
Chloroethane	ug/L	ND	1.0	06/10/17 10:35	
Chloroform	ug/L	ND	1.0	06/10/17 10:35	
Chloromethane	ug/L	ND	1.0	06/10/17 10:35	
cis-1,2-Dichloroethene	ug/L	ND	1.0	06/10/17 10:35	
cis-1,3-Dichloropropene	ug/L	ND	1.0	06/10/17 10:35	
Dibromochloromethane	ug/L	ND	1.0	06/10/17 10:35	
Dibromomethane	ug/L	ND	1.0	06/10/17 10:35	
Dichlorodifluoromethane	ug/L	ND	1.0	06/10/17 10:35	

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Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

METHOD BLANK: 2020027 Matrix: Water

Associated Lab Samples: 92343524009, 92343524010, 92343524011, 92343524012, 92343524013, 92343524014, 92343524015

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	06/10/17 10:35	
Ethylbenzene	ug/L	ND	1.0	06/10/17 10:35	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	06/10/17 10:35	
m&p-Xylene	ug/L	ND	2.0	06/10/17 10:35	
Methyl-tert-butyl ether	ug/L	ND	1.0	06/10/17 10:35	
Methylene Chloride	ug/L	ND	2.0	06/10/17 10:35	
Naphthalene	ug/L	ND	1.0	06/10/17 10:35	
o-Xylene	ug/L	ND	1.0	06/10/17 10:35	
p-Isopropyltoluene	ug/L	ND	1.0	06/10/17 10:35	
Styrene	ug/L	ND	1.0	06/10/17 10:35	
Tetrachloroethene	ug/L	ND	1.0	06/10/17 10:35	
Toluene	ug/L	ND	1.0	06/10/17 10:35	
trans-1,2-Dichloroethene	ug/L	ND	1.0	06/10/17 10:35	
trans-1,3-Dichloropropene	ug/L	ND	1.0	06/10/17 10:35	
Trichloroethene	ug/L	ND	1.0	06/10/17 10:35	
Trichlorofluoromethane	ug/L	ND	1.0	06/10/17 10:35	
Vinyl acetate	ug/L	ND	2.0	06/10/17 10:35	
Vinyl chloride	ug/L	ND	1.0	06/10/17 10:35	
Xylene (Total)	ug/L	ND	1.0	06/10/17 10:35	
1,2-Dichloroethane-d4 (S)	%	106	70-130	06/10/17 10:35	
4-Bromofluorobenzene (S)	%	103	70-130	06/10/17 10:35	
Toluene-d8 (S)	%	102	70-130	06/10/17 10:35	

LABORATORY CONTROL SAMPLE:	2020028					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.0	96	70-130	
1,1,1-Trichloroethane	ug/L	50	44.4	89	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	47.1	94	70-130	
1,1,2-Trichloroethane	ug/L	50	45.6	91	70-130	
1,1-Dichloroethane	ug/L	50	45.1	90	70-130	
1,1-Dichloroethene	ug/L	50	49.1	98	70-132	
1,1-Dichloropropene	ug/L	50	47.3	95	70-130	
1,2,3-Trichlorobenzene	ug/L	50	48.2	96	70-135	
1,2,3-Trichloropropane	ug/L	50	46.7	93	70-130	
1,2,4-Trichlorobenzene	ug/L	50	46.7	93	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	51.3	103	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	47.3	95	70-130	
1,2-Dichlorobenzene	ug/L	50	46.2	92	70-130	
1,2-Dichloroethane	ug/L	50	42.3	85	70-130	
1,2-Dichloropropane	ug/L	50	43.6	87	70-130	
1,3-Dichlorobenzene	ug/L	50	45.3	91	70-130	
1,3-Dichloropropane	ug/L	50	46.8	94	70-130	
1,4-Dichlorobenzene	ug/L	50	46.4	93	70-130	

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Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

LABORATORY CONTROL SAMPL	E: 2020028					
Doromotor	Units	Spike Conc.	LCS Booult	LCS % Rec	% Rec Limits	Qualifiers
Parameter			Result			Qualifiers
2,2-Dichloropropane	ug/L	50	44.8	90	58-145	
2-Butanone (MEK)	ug/L	100	104	104	70-145	
2-Chlorotoluene	ug/L	50	46.5	93	70-130	
2-Hexanone	ug/L	100	99.8	100	70-144	
1-Chlorotoluene	ug/L	50	44.7	89	70-130	
I-Methyl-2-pentanone (MIBK)	ug/L	100	95.0	95	70-140	
Acetone	ug/L	100	114	114	50-175	
Benzene	ug/L	50	44.2	88	70-130	
Bromobenzene	ug/L	50	46.4	93	70-130	
Bromochloromethane	ug/L	50	45.6	91	70-130	
Bromodichloromethane	ug/L	50	44.2	88	70-130	
Bromoform	ug/L	50	42.6	85	70-130	
Bromomethane	ug/L	50	44.8	90	54-130	
Carbon tetrachloride	ug/L	50	44.5	89	70-132	
Chlorobenzene	ug/L	50	45.9	92	70-130	
Chloroethane	ug/L	50	42.3	85	64-134	
Chloroform	ug/L	50	44.1	88	70-130	
Chloromethane	ug/L	50	49.1	98	64-130	
is-1,2-Dichloroethene	ug/L	50	44.5	89	70-131	
is-1,3-Dichloropropene	ug/L	50	46.1	92	70-130	
Dibromochloromethane	ug/L	50	48.8	98	70-130	
Dibromomethane	ug/L	50	41.1	82	70-131	
Dichlorodifluoromethane	ug/L	50	46.0	92	56-130	
Diisopropyl ether	ug/L	50	50.4	101	70-130	
Ethylbenzene	ug/L	50	46.2	92	70-130	
Hexachloro-1,3-butadiene	ug/L	50	47.5	95	70-130	
n&p-Xylene	ug/L	100	89.9	90	70-130	
Methyl-tert-butyl ether	ug/L	50	47.2	94	70-130	
Methylene Chloride	ug/L	50	45.3	91	63-130	
Naphthalene	ug/L	50	49.1	98	70-138	
-Xylene	ug/L	50	44.9	90	70-130	
-Isopropyltoluene	ug/L	50	46.9	94	70-130	
Styrene	ug/L	50	46.1	92	70-130	
etrachloroethene	ug/L	50	45.3	91	70-130	
oluene	ug/L ug/L	50 50	44.8	90	70-130	
rans-1,2-Dichloroethene	ug/L ug/L	50 50	45.3	91	70-130	
rans-1,3-Dichloropropene	_	50 50	45.3 47.1	94	70-130 70-132	
	ug/L				70-132 70-130	
richloroethene	ug/L	50 50	44.4	89		
richlorofluoromethane	ug/L	50 100	46.3	93	62-133	
/inyl acetate	ug/L	100	96.6	97	66-157	
/inyl chloride	ug/L	50 450	45.7	91	50-150	
(ylene (Total)	ug/L	150	135	90	70-130	
I,2-Dichloroethane-d4 (S)	%			95	70-130	
1-Bromofluorobenzene (S)	%			98	70-130	
Гoluene-d8 (S)	%			97	70-130	

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Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

MATRIX SPIKE SAMPLE:	2020030	92343524010	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND		19.4	97	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	20.9	105	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	19.1	95	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	19.6	98	70-130	
1,1-Dichloroethane	ug/L	ND	20	20.6	103	70-130	
1,1-Dichloroethene	ug/L	1.0	20	23.0	110	70-166	
1,1-Dichloropropene	ug/L	ND	20	23.1	115	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	18.8	94	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	18.7	93	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	18.2	91	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	18.2	91	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	19.7	99	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	19.2	96	70-130	
1,2-Dichloroethane	ug/L	ND	20	19.6	98	70-130	
1,2-Dichloropropane	ug/L	ND	20	21.0	105	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	19.4	97	70-130	
1,3-Dichloropropane	ug/L	ND	20	20.5	102	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	19.2	96	70-130	
2,2-Dichloropropane	ug/L	ND	20	18.9	95	70-130	
2-Butanone (MEK)	ug/L	ND	40	40.9	102	70-130	
2-Chlorotoluene	ug/L	ND	20	19.6	98	70-130	
2-Hexanone	ug/L	ND	40	39.7	99	70-130	
4-Chlorotoluene	ug/L ug/L	ND	20	19.5	97	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L ug/L	ND	40	38.0	95	70-130	
		ND ND	40	36.0 45.4	113	70-130 70-130	
Acetone Benzene	ug/L	ND ND	20	21.3	107	70-130 70-148	
	ug/L	ND ND	20	19.4	97	70-146	
Bromobenzene Bromobleremethane	ug/L	ND ND		20.4		70-130 70-130	
Bromochloromethane	ug/L	ND ND	20		102		
Bromodichloromethane Bromoform	ug/L	ND ND	20	20.6	103	70-130 70-130	
	ug/L	ND ND	20	18.6	93		
Bromomethane	ug/L	ND ND	20	16.3	81	70-130	
Carbon tetrachloride	ug/L		20	21.7	108	70-130	
Chlorobenzene	ug/L	ND	20	20.5	102	70-146	
Chloroethane	ug/L	ND ND	20	19.9	99	70-130	
Chloroform	ug/L		20	20.8	104	70-130	
Chloromethane	ug/L	ND	20	19.3	95	70-130	
cis-1,2-Dichloroethene	ug/L	5.4	20	26.0	103	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	19.9	99	70-130	
Dibromochloromethane	ug/L	ND	20	19.9	100	70-130	
Dibromomethane	ug/L	ND	20	18.2	91	70-130	
Dichlorodifluoromethane	ug/L	ND	20	16.6	83	70-130	
Diisopropyl ether	ug/L	ND	20	21.7	109	70-130	
Ethylbenzene	ug/L	ND	20	20.2	101	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	18.7	93	70-130	
m&p-Xylene	ug/L	ND	40	38.6	96	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	20.6	103	70-130	
Methylene Chloride	ug/L	ND	20	20.0	100	70-130	

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Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

MATRIX SPIKE SAMPLE:	2020030						
		92343524010	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Naphthalene	ug/L	ND	20	18.8	94	70-130	
o-Xylene	ug/L	ND	20	19.8	99	70-130	
p-Isopropyltoluene	ug/L	ND	20	19.6	98	70-130	
Styrene	ug/L	ND	20	7.8	39	70-130 N	/11
Tetrachloroethene	ug/L	4.2	20	23.7	97	70-130	
Toluene	ug/L	ND	20	20.2	101	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	21.5	104	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	19.1	95	70-130	
Trichloroethene	ug/L	16.7	20	40.5	119	69-151	
Trichlorofluoromethane	ug/L	ND	20	20.8	104	70-130	
Vinyl acetate	ug/L	ND	40	25.3	63	70-130 N	/11
Vinyl chloride	ug/L	ND	20	19.0	95	70-130	
1,2-Dichloroethane-d4 (S)	%				103	70-130	
4-Bromofluorobenzene (S)	%				99	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 2020029		92343524009	Dup		
Parameter	Units	Result	Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		
1,1,1-Trichloroethane	ug/L	ND	ND		
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		
1,1,2-Trichloroethane	ug/L	ND	ND		
1,1-Dichloroethane	ug/L	ND	ND		
1,1-Dichloroethene	ug/L	ND	.67J		
1,1-Dichloropropene	ug/L	ND	ND		
1,2,3-Trichlorobenzene	ug/L	ND	ND		
1,2,3-Trichloropropane	ug/L	ND	ND		
1,2,4-Trichlorobenzene	ug/L	ND	ND		
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		
1,2-Dibromoethane (EDB)	ug/L	ND	ND		
1,2-Dichlorobenzene	ug/L	ND	ND		
1,2-Dichloroethane	ug/L	ND	ND		
1,2-Dichloropropane	ug/L	ND	ND		
1,3-Dichlorobenzene	ug/L	ND	ND		
1,3-Dichloropropane	ug/L	ND	ND		
1,4-Dichlorobenzene	ug/L	ND	ND		
2,2-Dichloropropane	ug/L	ND	ND		
2-Butanone (MEK)	ug/L	ND	1.6J		
2-Chlorotoluene	ug/L	ND	ND		
2-Hexanone	ug/L	ND	ND		
4-Chlorotoluene	ug/L	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		
Acetone	ug/L	ND	23.4J		
Benzene	ug/L	ND	ND		

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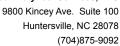
Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

SAMPLE DUPLICATE: 2020029					
		92343524009	Dup		
Parameter	Units	Result	Result	RPD	Qualifiers
Bromobenzene	ug/L	ND	ND		
Bromochloromethane	ug/L	ND	ND		
Bromodichloromethane	ug/L	ND	ND		
Bromoform	ug/L	ND	ND		
Bromomethane	ug/L	ND	1.6J		
Carbon tetrachloride	ug/L	ND	ND		
Chlorobenzene	ug/L	ND	ND		
Chloroethane	ug/L	ND	ND		
Chloroform	ug/L	ND	ND		
Chloromethane	ug/L	2.5	2.4	5	
is-1,2-Dichloroethene	ug/L	11.6	11.0	5	
is-1,3-Dichloropropene	ug/L	ND	ND		
Dibromochloromethane	ug/L	ND	ND		
Dibromomethane	ug/L	ND	ND		
Dichlorodifluoromethane	ug/L	ND	ND		
Diisopropyl ether	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
lexachloro-1,3-butadiene	ug/L	ND	ND		
n&p-Xylene	ug/L	ND	ND		
Methyl-tert-butyl ether	ug/L	ND	ND		
Methylene Chloride	ug/L	ND	ND		
laphthalene	ug/L	ND	ND		
-Xylene	ug/L	ND	ND		
-Isopropyltoluene	ug/L	ND	ND		
Styrene	ug/L	ND	ND		
etrachloroethene	ug/L	73.5	78.2	6	
oluene	ug/L	ND	ND		
rans-1,2-Dichloroethene	ug/L	11.7	11.3	4	
rans-1,3-Dichloropropene	ug/L	ND	ND		
richloroethene	ug/L	64.3	66.1	3	
richlorofluoromethane	ug/L	ND	ND		
/inyl acetate	ug/L	ND	ND		
/inyl chloride	ug/L	ND	ND		
(ylene (Total)	ug/L	ND	ND		
,2-Dichloroethane-d4 (S)	%	113	110	3	
-Bromofluorobenzene (S)	%	107	109	2	
oluene-d8 (S)	%	99	99	0	

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Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

QC Batch: 364481 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level

Associated Lab Samples: 92343524008

METHOD BLANK: 2020811 Matrix: Water

Associated Lab Samples: 92343524008

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	06/12/17 18:29	
1,1,1-Trichloroethane	ug/L	ND	1.0	06/12/17 18:29	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	06/12/17 18:29	
1,1,2-Trichloroethane	ug/L	ND	1.0	06/12/17 18:29	
1,1-Dichloroethane	ug/L	ND	1.0	06/12/17 18:29	
1,1-Dichloroethene	ug/L	ND	1.0	06/12/17 18:29	
1,1-Dichloropropene	ug/L	ND	1.0	06/12/17 18:29	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	06/12/17 18:29	
1,2,3-Trichloropropane	ug/L	ND	1.0	06/12/17 18:29	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	06/12/17 18:29	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	06/12/17 18:29	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	06/12/17 18:29	
1,2-Dichlorobenzene	ug/L	ND	1.0	06/12/17 18:29	
1,2-Dichloroethane	ug/L	ND	1.0	06/12/17 18:29	
1,2-Dichloropropane	ug/L	ND	1.0	06/12/17 18:29	
1,3-Dichlorobenzene	ug/L	ND	1.0	06/12/17 18:29	
1,3-Dichloropropane	ug/L	ND	1.0	06/12/17 18:29	
1,4-Dichlorobenzene	ug/L	ND	1.0	06/12/17 18:29	
2,2-Dichloropropane	ug/L	ND	1.0	06/12/17 18:29	
2-Butanone (MEK)	ug/L	ND	5.0	06/12/17 18:29	
2-Chlorotoluene	ug/L	ND	1.0	06/12/17 18:29	
2-Hexanone	ug/L	ND	5.0	06/12/17 18:29	
4-Chlorotoluene	ug/L	ND	1.0	06/12/17 18:29	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	06/12/17 18:29	
Acetone	ug/L	ND	25.0	06/12/17 18:29	
Benzene	ug/L	ND	1.0	06/12/17 18:29	
Bromobenzene	ug/L	ND	1.0	06/12/17 18:29	
Bromochloromethane	ug/L	ND	1.0	06/12/17 18:29	
Bromodichloromethane	ug/L	ND	1.0	06/12/17 18:29	
Bromoform	ug/L	ND	1.0	06/12/17 18:29	
Bromomethane	ug/L	ND	2.0	06/12/17 18:29	
Carbon tetrachloride	ug/L	ND	1.0	06/12/17 18:29	
Chlorobenzene	ug/L	ND	1.0	06/12/17 18:29	
Chloroethane	ug/L	ND	1.0	06/12/17 18:29	
Chloroform	ug/L	ND	1.0	06/12/17 18:29	
Chloromethane	ug/L	ND	1.0	06/12/17 18:29	
cis-1,2-Dichloroethene	ug/L	ND	1.0	06/12/17 18:29	
cis-1,3-Dichloropropene	ug/L	ND	1.0	06/12/17 18:29	
Dibromochloromethane	ug/L	ND	1.0	06/12/17 18:29	
Dibromomethane	ug/L	ND	1.0	06/12/17 18:29	
Dichlorodifluoromethane	ug/L	ND	1.0	06/12/17 18:29	

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Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

METHOD BLANK: 2020811 Matrix: Water

Associated Lab Samples: 92343524008

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND ND	1.0	06/12/17 18:29	
Ethylbenzene	ug/L	ND	1.0	06/12/17 18:29	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	06/12/17 18:29	
m&p-Xylene	ug/L	ND	2.0	06/12/17 18:29	
Methyl-tert-butyl ether	ug/L	ND	1.0	06/12/17 18:29	
Methylene Chloride	ug/L	ND	2.0	06/12/17 18:29	
Naphthalene	ug/L	ND	1.0	06/12/17 18:29	
o-Xylene	ug/L	ND	1.0	06/12/17 18:29	
p-Isopropyltoluene	ug/L	ND	1.0	06/12/17 18:29	
Styrene	ug/L	ND	1.0	06/12/17 18:29	
Tetrachloroethene	ug/L	ND	1.0	06/12/17 18:29	
Toluene	ug/L	ND	1.0	06/12/17 18:29	
trans-1,2-Dichloroethene	ug/L	ND	1.0	06/12/17 18:29	
trans-1,3-Dichloropropene	ug/L	ND	1.0	06/12/17 18:29	
Trichloroethene	ug/L	ND	1.0	06/12/17 18:29	
Trichlorofluoromethane	ug/L	ND	1.0	06/12/17 18:29	
Vinyl acetate	ug/L	ND	2.0	06/12/17 18:29	
Vinyl chloride	ug/L	ND	1.0	06/12/17 18:29	
Xylene (Total)	ug/L	ND	1.0	06/12/17 18:29	
1,2-Dichloroethane-d4 (S)	%	95	70-130	06/12/17 18:29	
4-Bromofluorobenzene (S)	%	123	70-130	06/12/17 18:29	
Toluene-d8 (S)	%	99	70-130	06/12/17 18:29	

LABORATORY CONTROL SAMPLE:	2020812					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	58.5	117	70-130	
1,1,1-Trichloroethane	ug/L	50	53.3	107	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	58.1	116	70-130	
1,1,2-Trichloroethane	ug/L	50	52.4	105	70-130	
1,1-Dichloroethane	ug/L	50	52.0	104	70-130	
1,1-Dichloroethene	ug/L	50	51.0	102	70-132	
1,1-Dichloropropene	ug/L	50	55.7	111	70-130	
1,2,3-Trichlorobenzene	ug/L	50	53.4	107	70-135	
1,2,3-Trichloropropane	ug/L	50	53.6	107	70-130	
1,2,4-Trichlorobenzene	ug/L	50	52.9	106	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	52.1	104	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	56.4	113	70-130	
1,2-Dichlorobenzene	ug/L	50	52.4	105	70-130	
1,2-Dichloroethane	ug/L	50	49.8	100	70-130	
1,2-Dichloropropane	ug/L	50	52.3	105	70-130	
1,3-Dichlorobenzene	ug/L	50	54.1	108	70-130	
1,3-Dichloropropane	ug/L	50	56.0	112	70-130	
1,4-Dichlorobenzene	ug/L	50	53.8	108	70-130	

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Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

ABORATORY CONTROL SAMPLE	2020812	_				
		Spike	LCS	LCS	% Rec	0 115
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	53.3	107	58-145	
2-Butanone (MEK)	ug/L	100	127	127	70-145	
2-Chlorotoluene	ug/L	50	54.9	110	70-130	
?-Hexanone	ug/L	100	115	115	70-144	
-Chlorotoluene	ug/L	50	52.0	104	70-130	
-Methyl-2-pentanone (MIBK)	ug/L	100	103	103	70-140	
cetone	ug/L	100	127	127	50-175	
Benzene	ug/L	50	55.3	111	70-130	
Bromobenzene	ug/L	50	51.6	103	70-130	
romochloromethane	ug/L	50	52.2	104	70-130	
Bromodichloromethane	ug/L	50	50.8	102	70-130	
Bromoform	ug/L	50	45.4	91	70-130	
Bromomethane	ug/L	50	60.5	121	54-130	
Carbon tetrachloride	ug/L	50	51.2	102	70-132	
Chlorobenzene	ug/L	50	54.1	108	70-130	
Chloroethane	ug/L	50	43.4	87	64-134	
Chloroform	ug/L	50	53.0	106	70-130	
Chloromethane	ug/L	50	59.3	119	64-130	
is-1,2-Dichloroethene	ug/L	50	51.3	103	70-131	
is-1,3-Dichloropropene	ug/L	50	60.2	120	70-130	
ibromochloromethane	ug/L	50	49.3	99	70-130	
ibromomethane	ug/L	50	48.7	97	70-131	
ichlorodifluoromethane	ug/L	50	46.1	92	56-130	
Diisopropyl ether	ug/L	50	57.1	114	70-130	
Ethylbenzene	ug/L	50	52.8	106	70-130	
lexachloro-1,3-butadiene	ug/L	50	55.2	110	70-130	
n&p-Xylene	ug/L	100	103	103	70-130	
lethyl-tert-butyl ether	ug/L	50	57.0	114	70-130	
Methylene Chloride	ug/L	50	55.6	111	63-130	
laphthalene	ug/L	50	54.6	109	70-138	
-Xylene	ug/L	50	53.3	107	70-130	
-Isopropyltoluene	ug/L	50	54.8	110	70-130	
tyrene	ug/L	50	53.0	106	70-130	
etrachloroethene	ug/L	50	55.2	110	70-130	
oluene	ug/L	50 50	50.3	101	70-130	
rans-1,2-Dichloroethene	ug/L	50	51.0	102	70-130	
rans-1,3-Dichloropropene	ug/L	50	52.7	105	70-132	
richloroethene	ug/L	50	51.8	104	70-130	
richlorofluoromethane	ug/L	50	51.4	103	62-133	
/inyl acetate	ug/L	100	102	102	66-157	
/inyl chloride	ug/L	50	51.8	104	50-150	
(ylene (Total)	ug/L	150	157	104	70-130	
,2-Dichloroethane-d4 (S)	ug/L %	150	157	104	70-130	
-Bromofluorobenzene (S)	% %			98	70-130 70-130	
oluene-d8 (S)	% %			96 96	70-130 70-130	

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Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

MATRIX SPIKE SAMPLE:	2022211	92343762008	Spike	MS	MS	% Rec
Parameter	Units	Result	Conc.	Result	% Rec	Limits Qualifie
1,1,1,2-Tetrachloroethane	ug/L	ND	100	112	112	70-130
1,1,1-Trichloroethane	ug/L	ND	100	112	112	70-130
1,1,2,2-Tetrachloroethane	ug/L	ND	100	109	109	70-130
1,1,2-Trichloroethane	ug/L	ND	100	104	104	70-130
1,1-Dichloroethane	ug/L	ND	100	107	107	70-130
1,1-Dichloroethene	ug/L	ND	100	107	107	70-166
1,1-Dichloropropene	ug/L	ND	100	119	119	70-130
1,2,3-Trichlorobenzene	ug/L	ND	100	105	105	70-130
1,2,3-Trichloropropane	ug/L	156	100	363	207	70-130 M1
1,2,4-Trichlorobenzene	ug/L	ND	100	105	105	70-130
1,2-Dibromo-3-chloropropane	ug/L	ND	100	98.3	98	70-130
1,2-Dibromoethane (EDB)	ug/L	ND	100	110	110	70-130
1,2-Dichlorobenzene	ug/L	7.0	100	115	108	70-130
1,2-Dichloroethane	ug/L	6.7	100	117	111	70-130
1,2-Dichloropropane	ug/L	ND	100	121	121	70-130
1,3-Dichlorobenzene	ug/L	ND	100	104	104	70-130
1,3-Dichloropropane	ug/L	ND	100	112	112	70-130
1,4-Dichlorobenzene	ug/L	ND	100	109	109	70-130
2,2-Dichloropropane	ug/L	ND	100	115	115	70-130
2-Butanone (MEK)	ug/L	ND	200	226	113	70-130
2-Chlorotoluene	ug/L	ND	100	117	117	70-130
2-Hexanone	ug/L	ND	200	191	95	70-130
I-Chlorotoluene	ug/L	ND	100	105	105	70-130
I-Methyl-2-pentanone (MIBK)	ug/L	36.2	200	224	94	70-130
Acetone	ug/L	ND	200	219	110	70-130
Benzene	ug/L	454	100	617	163	70-148 M1
Bromobenzene	ug/L	ND	100	106	106	70-130
Bromochloromethane	ug/L	ND	100	104	104	70-130
Bromodichloromethane	ug/L	ND	100	107	107	70-130
Bromoform	ug/L	ND	100	94.8	95	70-130
Bromomethane	ug/L	ND	100	104	104	70-130
Carbon tetrachloride	ug/L	ND	100	106	106	70-130
Chlorobenzene	ug/L	ND	100	116	116	70-130
Chloroethane	ug/L	ND	100	99.3	99	70-140
Chloroform	ug/L	ND	100	109	109	70-130
Chloromethane	ug/L	ND	100	187	187	70-130 70-130 M1
cis-1,2-Dichloroethene	ug/L	ND ND	100	108	108	70-130 WT
cis-1,3-Dichloropropene		ND	100			70-130 70-130
Dibromochloromethane	ug/L ug/L	ND ND	100	104 94.8	104 95	70-130 70-130
Dibromochioromethane Dibromomethane	ug/L ug/L	ND ND	100	94.6 109	109	70-130 70-130
Dichlorodifluoromethane		ND ND	100	48.8	49	70-130 70-130 M1
	ug/L	121	100	48.8 269		
Diisopropyl ether	ug/L				148	70-130 M1
Ethylbenzene	ug/L	241 ND	100	412	171	70-130 M1
Hexachloro-1,3-butadiene	ug/L	ND	100	109	109	70-130
m&p-Xylene	ug/L	839 ND	200	1290	228	70-130 M1
Methyl-tert-butyl ether	ug/L	ND	100	114	114	70-130
Methylene Chloride	ug/L	ND	100	115	115	70-130

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Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

MATRIX SPIKE SAMPLE:	2022211						
		92343762008	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Naphthalene	 ug/L	320	100	465	144	70-130	M1
o-Xylene	ug/L	411	100	657	246	70-130	M1
p-Isopropyltoluene	ug/L	ND	100	128	128	70-130	
Styrene	ug/L	6.4	100	117	111	70-130	
Tetrachloroethene	ug/L	ND	100	111	111	70-130	
Toluene	ug/L	358	100	499	141	70-155	
trans-1,2-Dichloroethene	ug/L	ND	100	112	112	70-130	
trans-1,3-Dichloropropene	ug/L	ND	100	100	100	70-130	
Trichloroethene	ug/L	ND	100	113	113	69-151	
Trichlorofluoromethane	ug/L	ND	100	108	108	70-130	
Vinyl acetate	ug/L	ND	200	203	101	70-130	
Vinyl chloride	ug/L	ND	100	86.6	87	70-130	
1,2-Dichloroethane-d4 (S)	%				101	70-130	
4-Bromofluorobenzene (S)	%				97	70-130	
Toluene-d8 (S)	%				87	70-130	

Parameter	Units	92343762001 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		
1,1,1-Trichloroethane	ug/L	ND	ND		
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		
1,1,2-Trichloroethane	ug/L	ND	ND		
1,1-Dichloroethane	ug/L	ND	ND		
1,1-Dichloroethene	ug/L	ND	ND		
1,1-Dichloropropene	ug/L	ND	ND		
1,2,3-Trichlorobenzene	ug/L	ND	ND		
1,2,3-Trichloropropane	ug/L	ND	ND		
1,2,4-Trichlorobenzene	ug/L	ND	ND		
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		
1,2-Dibromoethane (EDB)	ug/L	ND	ND		
1,2-Dichlorobenzene	ug/L	ND	ND		
1,2-Dichloroethane	ug/L	ND	ND		
1,2-Dichloropropane	ug/L	ND	ND		
1,3-Dichlorobenzene	ug/L	ND	ND		
1,3-Dichloropropane	ug/L	ND	ND		
1,4-Dichlorobenzene	ug/L	ND	ND		
2,2-Dichloropropane	ug/L	ND	ND		
2-Butanone (MEK)	ug/L	ND	ND		
2-Chlorotoluene	ug/L	ND	ND		
2-Hexanone	ug/L	ND	ND		
4-Chlorotoluene	ug/L	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		
Acetone	ug/L	ND	ND		
Benzene	ug/L	ND	ND		

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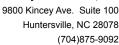
Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Parameter Units Result Result RPD Qualifiers omobenzene ug/L ND ND ND omochioromethane ug/L ND ND ND omochioromethane ug/L ND ND ND omoform ug/L ND ND ND omothane ug/L ND ND ND off	SAMPLE DUPLICATE: 2022210		0004070004	5		
Description			92343762001	Dup	555	0 115
ND	Parameter	Units	Result	Result	RPD	Qualifiers
Somodichloromethane	Bromobenzene	ug/L	ND	ND		
Somoform Ug/L ND ND ND ND ND ND ND N	Bromochloromethane	ug/L	ND	ND		
Description of the content of the	Bromodichloromethane	ug/L	ND	ND		
rbon tetrachloride	Bromoform	ug/L	ND	ND		
Identification Iden	Bromomethane	ug/L	ND	ND		
Identification	Carbon tetrachloride	ug/L	ND	ND		
Identiform	Chlorobenzene	ug/L	ND	ND		
ND	Chloroethane	ug/L	ND	ND		
-1,2-Dichloroethene	Chloroform	ug/L	ND	ND		
1,3-Dichloropropene	Chloromethane	ug/L	ND	ND		
-1,3-Dichloropropene	cis-1,2-Dichloroethene	ug/L	ND	ND		
Section Sect	cis-1,3-Dichloropropene	ug/L	ND	ND		
bromomethane ug/L ND ND chlorodifluoromethane ug/L ND ND sopropyl ether ug/L ND ND nylbenzene ug/L ND ND xachloro-1,3-butadiene ug/L ND ND xp-Xylene ug/L ND ND kthyl-tert-butyl ether ug/L ND ND ethylene Chloride ug/L ND ND phthalene Chloride ug/L ND ND phthalene ug/L ND ND kylene ug/L ND ND sopropyltoluene ug/L ND ND vrene ug/L ND ND uerne ug/L ND ND uerne ug/L ND ND uerne ug/L ND ND us-1,2-Dichloroethene ug/L ND ND ns-1,2-Dichloropropene ug/L ND ND chl	Dibromochloromethane	ug/L	ND	ND		
Sopropyl ether	Dibromomethane	ug/L	ND	ND		
ND	Dichlorodifluoromethane	ug/L	ND	ND		
hylbenzene ug/L ND ND xxachloro-1,3-butadiene ug/L ND .97J xp-Xylene ug/L ND ND xthyl-tert-butyl ether ug/L ND ND ythylene Chloride ug/L ND ND phthalene ug/L ND ND xylene ug/L ND ND sopropyltoluene ug/L ND ND yrene ug/L ND ND <	Diisopropyl ether	ug/L	ND	ND		
ND	Ethylbenzene	ug/L	ND	ND		
String S	Hexachloro-1,3-butadiene	ug/L	ND	.97J		
Sthylene Chloride	m&p-Xylene	ug/L	ND	ND		
Description	Methyl-tert-butyl ether	ug/L	ND	ND		
phthalene ug/L ND ND Kylene ug/L ND ND sopropyltoluene ug/L ND ND vrene ug/L ND ND trachloroethene ug/L ND ND uene ug/L ND ND ns-1,2-Dichloroethene ug/L ND ND ns-1,3-Dichloropropene ug/L ND ND chloroethene ug/L ND ND chlorofluoromethane ug/L ND ND nyl acetate ug/L ND ND nyl chloride ug/L ND ND 2-Dichloroethane-d4 (S) % 93 87 7 Bromofluorobenzene (S) % 93 101 9	Methylene Chloride	ug/L	ND	ND		
ND	Naphthalene		ND	ND		
v/rene ug/L ND ND trachloroethene ug/L ND ND uene ug/L ND ND ns-1,2-Dichloroethene ug/L ND ND ns-1,3-Dichloropropene ug/L ND ND chloroethene ug/L ND ND chlorofluoromethane ug/L ND ND nyl acetate ug/L ND ND nyl chloride ug/L ND ND lene (Total) ug/L ND ND 2-Dichloroethane-d4 (S) % 93 87 7 Bromofluorobenzene (S) % 93 101 9	o-Xylene	ug/L	ND	ND		
trachloroethene ug/L ND ND uene ug/L ND ND ns-1,2-Dichloroethene ug/L ND ND ns-1,3-Dichloropropene ug/L ND ND chloroethene ug/L ND ND chlorofluoromethane ug/L ND ND nyl acetate ug/L ND ND nyl chloride ug/L ND ND lene (Total) ug/L ND ND 2-Dichloroethane-d4 (S) % 93 87 7 Bromofluorobenzene (S) % 93 101 9	p-Isopropyltoluene	ug/L	ND	ND		
trachloroethene ug/L ND ND uene ug/L ND ND ns-1,2-Dichloroethene ug/L ND ND ns-1,3-Dichloropropene ug/L ND ND chloroethene ug/L ND ND chlorofluoromethane ug/L ND ND nyl acetate ug/L ND ND nyl chloride ug/L ND ND lene (Total) ug/L ND ND 2-Dichloroethane-d4 (S) % 93 87 7 Bromofluorobenzene (S) % 93 101 9	Styrene	ug/L	ND	ND		
ns-1,2-Dichloroethene ug/L ND ND ns-1,3-Dichloropropene ug/L ND ND chloroethene ug/L ND ND chlorofluoromethane ug/L ND ND nyl acetate ug/L ND ND nyl chloride ug/L ND ND lene (Total) ug/L ND ND 2-Dichloroethane-d4 (S) % 93 87 7 Bromofluorobenzene (S) % 93 101 9	Tetrachloroethene		ND	ND		
ND	Toluene	_	ND	ND		
chloroethene ug/L ND ND chlorofluoromethane ug/L ND ND nyl acetate ug/L ND ND nyl chloride ug/L ND ND lene (Total) ug/L ND ND 2-Dichloroethane-d4 (S) % 93 87 7 Bromofluorobenzene (S) % 93 101 9	trans-1,2-Dichloroethene	ug/L	ND	ND		
chloroethene ug/L ND ND chlorofluoromethane ug/L ND ND nyl acetate ug/L ND ND nyl chloride ug/L ND ND lene (Total) ug/L ND ND 2-Dichloroethane-d4 (S) % 93 87 7 Bromofluorobenzene (S) % 93 101 9	trans-1,3-Dichloropropene	ug/L	ND	ND		
nyl acetate ug/L ND ND nyl chloride ug/L ND ND lene (Total) ug/L ND ND 2-Dichloroethane-d4 (S) % 93 87 7 Bromofluorobenzene (S) % 93 101 9	Trichloroethene	-	ND	ND		
ND ND ND ND ND ND ND ND	Trichlorofluoromethane	ug/L	ND	ND		
Serial S	Vinyl acetate	ug/L	ND	ND		
P-Dichloroethane-d4 (S) % 93 87 7 Bromofluorobenzene (S) % 93 101 9	Vinyl chloride	-	ND	ND		
2-Dichloroethane-d4 (S) % 93 87 7 Bromofluorobenzene (S) % 93 101 9	Xylene (Total)	ug/L	ND	ND		
	1,2-Dichloroethane-d4 (S)		93	87		7
uene-d8 (S) % 98 103 5	4-Bromofluorobenzene (S)	%	93	101		9
	Toluene-d8 (S)	%	98	103		5

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project: LUCKY CLEANERS

Pace Project No.: 92343524

QC Batch: 364284 Analysis Method: SM 3500-Fe B
QC Batch Method: SM 3500-Fe B Analysis Description: Iron, Ferrous

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006, 92343524007,

 $92343524008, \, 92343524009, \, 92343524010, \, 92343524011, \, 92343524012, \, 92343524013, \, 92343524014$

METHOD BLANK: 2019987 Matrix: Water

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006, 92343524007,

92343524008, 92343524009, 92343524010, 92343524011, 92343524012, 92343524013, 92343524014

Blank Reporting

 Parameter
 Units
 Result
 Limit
 Analyzed
 Qualifiers

 Iron, Ferrous
 mg/L
 ND
 0.50
 06/10/17 04:42
 N2

LABORATORY CONTROL SAMPLE: 2019988

Spike LCS LCS % Rec
Parameter Units Conc. Result % Rec Limits Qualifiers

Iron, Ferrous mg/L 1.5 1.5 103 90-110 N2

SAMPLE DUPLICATE: 2019989

92343305002 Dup
Parameter Units Result Result RPD Qualifiers

Iron, Ferrous mg/L ND ND H3,N2

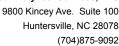
SAMPLE DUPLICATE: 2019990

Date: 06/19/2017 10:36 AM

 Parameter
 Units
 92343524007 Result
 Dup Result
 RPD
 Qualifiers

 Iron, Ferrous
 mg/L
 ND
 ND
 H1,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

QC Batch: 364495 Analysis Method: SM 4500-S2D

QC Batch Method: SM 4500-S2D Analysis Description: 4500S2D Sulfide Water

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006

METHOD BLANK: 2020869 Matrix: Water

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Sulfide mg/L ND 0.10 06/13/17 01:45

LABORATORY CONTROL SAMPLE: 2020870

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Sulfide mg/L .5 0.46 91 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2020871 2020872

MS MSD 92343417006 Spike Spike MS MSD MS MSD % Rec Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD**

 Sulfide
 mg/L
 ND
 .5
 .5
 0.45
 0.46
 87
 89
 80-120
 3

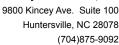
MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2020873 2020874

MS MSD MS MSD MS 92343417016 Spike Spike MSD % Rec % Rec **RPD** Parameter Units Result Conc. Conc. Result Result % Rec Limits Qual Sulfide ND .5 .5 0.44 0.46 87 92 80-120 5 mg/L

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Qual





SM 4500-S2D

Analysis Method:

Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

QC Batch: 364500

QC Batch Method: SM 4500-S2D Analysis Description: 4500S2D Sulfide Water

Associated Lab Samples: 92343524007

METHOD BLANK: 2020875 Matrix: Water

Associated Lab Samples: 92343524007

Parameter Units Result Limit Analyzed Qualifiers

Sulfide mg/L ND 0.10 06/13/17 01:00

LABORATORY CONTROL SAMPLE: 2020876

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Sulfide mg/L .5 0.46 92 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2020877 2020878

MS MSD 92343524007 Spike Spike MS MSD MS MSD % Rec Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** Qual Sulfide ND .5 .5 0.15 25 80-120 11 M1,R1 mg/L 0.17 29

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2020879 2020880

MS MSD 92343589010 MS MSD MS Spike Spike MSD % Rec % Rec Parameter **RPD** Units Result Conc. Conc. Result Result % Rec Limits Qual Sulfide ND .5 .5 0.52 0.54 102 106 80-120 4 mg/L

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

QC Batch: 364696 Analysis Method: SM 4500-S2D

QC Batch Method: SM 4500-S2D Analysis Description: 4500S2D Sulfide Water

Associated Lab Samples: 92343524008, 92343524009, 92343524010, 92343524011, 92343524012, 92343524013, 92343524014

METHOD BLANK: 2021888 Matrix: Water

Associated Lab Samples: 92343524008, 92343524009, 92343524010, 92343524011, 92343524012, 92343524013, 92343524014

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Sulfide mg/L ND 0.10 06/14/17 01:45

LABORATORY CONTROL SAMPLE: 2021889

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Sulfide mg/L .5 0.49 99 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2021890 2021891

MS MSD 92343718002 Spike Spike MS MSD MS MSD % Rec Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** Qual Sulfide ND .5 0.59 0.58 80-120 2 mg/L .5 118 116

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2021892 2021893

MS MSD MS MSD MS 92343524008 Spike Spike MSD % Rec % Rec **RPD** Parameter Units Result Conc. Conc. Result Result % Rec Limits Qual Sulfide ND .5 .5 0.24 0.24 47 48 80-120 1 M1 mg/L

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

QC Batch: 364291 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006, 92343524007

METHOD BLANK: 2020011 Matrix: Water

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006, 92343524007

Blank Reporting

 Parameter
 Units
 Result
 Limit
 Analyzed
 Qualifiers

 Sulfate
 mg/L
 ND
 1.0
 06/10/17 11:47

LABORATORY CONTROL SAMPLE: 2020012

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Sulfate mg/L 50 50.2 100 90-110

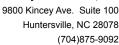
MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2020015 2020016

MS MSD 92343524006 Spike Spike MS MSD MS MSD % Rec Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** Qual 14.8 50 90-110 2 Sulfate mg/L 50 63.8 65.1 98 101

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2020039 2020040

MS MSD MS MS 92343485001 Spike Spike MSD MSD % Rec % Rec Parameter Units Result Conc. Conc. Result Result % Rec Limits **RPD** Qual 1830 Sulfate 50 50 1860 1860 59 57 90-110 0 M6 mg/L

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

QC Batch: 364314 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions

Associated Lab Samples: 92343524008, 92343524009, 92343524010, 92343524011, 92343524012, 92343524013, 92343524014

METHOD BLANK: 2020086 Matrix: Water

Associated Lab Samples: 92343524008, 92343524009, 92343524010, 92343524011, 92343524012, 92343524013, 92343524014

Blank Reporting

 Parameter
 Units
 Result
 Limit
 Analyzed
 Qualifiers

 Sulfate
 mg/L
 ND
 1.0
 06/11/17 00:44

LABORATORY CONTROL SAMPLE: 2020087

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Sulfate mg/L 50 49.0 98 90-110

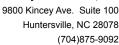
MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2020088 2020089

MS MSD 92342553006 Spike Spike MS MSD MS MSD % Rec Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** Qual 2060J 50 90-110 2 Sulfate 50 53.6 54.7 103 105 mg/L ug/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2020090 2020091

MS MSD 92343524013 Spike Spike MS MSD MS **MSD** % Rec Result % Rec RPD Parameter Units Result Conc. Conc. Result % Rec Limits Qual Sulfate 13.6 50 67.1 65.8 90-110 2 mg/L 50 107 104

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

QC Batch: 364105 Analysis Method: EPA 353.2

QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006, 92343524007

METHOD BLANK: 2018879 Matrix: Water

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006, 92343524007

Blank Reporting

ParameterUnitsResultLimitAnalyzedQualifiersNitrogen, Nitratemg/LND0.02006/09/17 07:25

LABORATORY CONTROL SAMPLE: 2018880

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Nitrogen, Nitrate mg/L 2.5 2.4 95 90-110

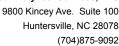
MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2018881 2018882

MS MSD 92343442001 Spike Spike MS MSD MS MSD % Rec Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** Qual Nitrogen, Nitrate 0.38 2.5 3.7 3.7 90-110 0 M1 mg/L 2.5 131 131

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2018883 2018884

MS MSD 92343524003 MS MSD MS MSD Spike Spike % Rec Parameter % Rec Units Conc. **RPD** Result Conc. Result Result % Rec Limits Qual 4.1 2.5 Nitrogen, Nitrate mg/L 2.5 6.0 6.0 77 75 90-110 1 M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

QC Batch: 364277 Analysis Method: EPA 353.2

QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.

Associated Lab Samples: 92343524008, 92343524009, 92343524010, 92343524011, 92343524012, 92343524013, 92343524014

METHOD BLANK: 2019957 Matrix: Water

Associated Lab Samples: 92343524008, 92343524009, 92343524010, 92343524011, 92343524012, 92343524013, 92343524014

Blank Reporting

ParameterUnitsResultLimitAnalyzedQualifiersNitrogen, Nitratemg/LND0.02006/10/17 00:37

LABORATORY CONTROL SAMPLE: 2019958

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Nitrogen, Nitrate mg/L 2.5 2.4 96 90-110

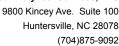
MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2019959 2019960

MS MSD 92343552001 Spike Spike MS MSD MS MSD % Rec Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** Qual Nitrogen, Nitrate 76.2 2.5 74.8 78.4 90-110 5 M6 mg/L 2.5 -53 89

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2019961 2019962

MS MSD 92343524011 MS MSD MS MSD Spike Spike % Rec % Rec Parameter Units Conc. **RPD** Result Conc. Result Result % Rec Limits Qual 1.2 2.5 3.7 Nitrogen, Nitrate mg/L 2.5 3.8 99 101 90-110 1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





LUCKY CLEANERS Project:

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

QC Batch: 364537 Analysis Method: SM 4500-CI-E QC Batch Method: SM 4500-CI-E Analysis Description: 4500 Chloride

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006, 92343524007

METHOD BLANK: 2021014 Matrix: Water

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006, 92343524007

> Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers ND

Chloride 1.0 06/14/17 02:05 mg/L

LABORATORY CONTROL SAMPLE: 2021015

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Chloride mg/L 20 20.6 103 90-110

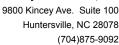
MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2021016 2021017

MS MSD 92342600008 Spike Spike MS MSD MS MSD % Rec Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** Qual 6280 17.6 90-110 0 M1 Chloride 10 10 17.5 113 113 mg/L ug/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2021018 2021019

MS MSD 92343524004 Spike Spike MS MSD MS **MSD** % Rec Result % Rec **RPD** Parameter Units Result Conc. Conc. Result % Rec Limits Qual Chloride 22.1 10 32.3 32.2 102 90-110 0 mg/L 10 101

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project: LUCKY CLEANERS

Pace Project No.: 92343524

Chloride

Date: 06/19/2017 10:36 AM

QC Batch: 364538 Analysis Method: SM 4500-CI-E
QC Batch Method: SM 4500-CI-E Analysis Description: 4500 Chloride

Associated Lab Samples: 92343524008, 92343524009, 92343524010, 92343524011

METHOD BLANK: 2021020 Matrix: Water
Associated Lab Samples: 92343524008, 92343524009, 92343524010, 92343524011

Blank Reporting

 Parameter
 Units
 Result
 Limit
 Analyzed
 Qualifiers

 mg/L
 ND
 1.0
 06/14/17 03:57

LABORATORY CONTROL SAMPLE: 2021021

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Chloride mg/L 20 20.4 102 90-110

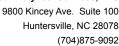
MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2021022 2021023

MS MSD 92342317019 Spike Spike MS MSD MS MSD % Rec Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** Qual 318000 10 58 M6,R1 Chloride 10 315 173 -22 -1450 90-110 mg/L ug/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2021024 2021025

MS MSD 92343251002 Spike Spike MS MSD MS **MSD** % Rec Result % Rec **RPD** Parameter Units Result Conc. Conc. Result % Rec Limits Qual Chloride 23.3 10 10 32.9 32.9 90-110 0 mg/L 96 96

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

QC Batch: 365242 Analysis Method: SM 4500-CI-E
QC Batch Method: SM 4500-CI-E Analysis Description: 4500 Chloride

Associated Lab Samples: 92343524012, 92343524013, 92343524014

METHOD BLANK: 2025179 Matrix: Water

Associated Lab Samples: 92343524012, 92343524013, 92343524014

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Chloride mg/L ND 1.0 06/16/17 17:26

LABORATORY CONTROL SAMPLE: 2025180

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Chloride mg/L 20 21.2 106 90-110

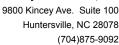
MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2025181 2025182

MS MSD 92343524012 Spike Spike MS MSD MS MSD % Rec Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** Qual 15.5 26.1 90-110 Chloride mg/L 10 10 25.8 105 103 1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2025183 2025184

MS MSD 92343965001 MS MS Spike Spike MSD MSD % Rec Parameter **RPD** Units Result Conc. Conc. Result Result % Rec % Rec Limits Qual 34400 Chloride mg/L 10 10 34400 33700 800 -6500 90-110 2 M6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

QC Batch: 364430 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B TOC

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006, 92343524007

METHOD BLANK: 2020594 Matrix: Water

Associated Lab Samples: 92343524001, 92343524002, 92343524003, 92343524004, 92343524005, 92343524006, 92343524007

Blank Reporting

ParameterUnitsResultLimitAnalyzedQualifiersTotal Organic Carbonmg/LND1.006/13/17 01:56

LABORATORY CONTROL SAMPLE: 2020595

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers **Total Organic Carbon** mg/L 25 24.5 98 90-110

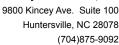
MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2020596 2020597

MS MSD 92343417015 Spike Spike MS MSD MS MSD % Rec Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** Qual **Total Organic Carbon** ND 25 25 23.6 95 90-110 0 mg/L 23.7 95

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2020598 2020599

MS MSD 92343524006 MS MSD MS MSD Spike Spike % Rec % Rec Parameter Units Conc. **RPD** Result Conc. Result Result % Rec Limits Qual ND 25 25 **Total Organic Carbon** 24.1 24.2 94 95 90-110 0 mg/L

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





QUALITY CONTROL DATA

Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

QC Batch: 364603 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B TOC

Associated Lab Samples: 92343524008, 92343524009, 92343524010, 92343524011, 92343524012, 92343524013, 92343524014

METHOD BLANK: 2021332 Matrix: Water

Associated Lab Samples: 92343524008, 92343524009, 92343524010, 92343524011, 92343524012, 92343524013, 92343524014

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Total Organic Carbon mg/L ND 1.0 06/14/17 12:17

LABORATORY CONTROL SAMPLE: 2021333

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers **Total Organic Carbon** mg/L 25 24.4 97 90-110

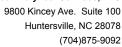
MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2021334 2021335

MS MSD 92343626017 Spike Spike MS MSD MS MSD % Rec Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** Qual **Total Organic Carbon** ND 25 25 22.7 22.6 90-110 mg/L 91 90 1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2021336 2021337

MS MSD MS MSD MS 92343774001 Spike Spike MSD % Rec % Rec Parameter Units Conc. **RPD** Result Conc. Result Result % Rec Limits Qual 11.8 25 **Total Organic Carbon** 25 36.6 36.7 99 100 90-110 0 mg/L

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





QUALIFIERS

Project: LUCKY CLEANERS

Pace Project No.: 92343524

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

Date: 06/19/2017 10:36 AM

H1 Analysis conducted outside the EPA method holding tir
--

H3 Sample was received or analysis requested beyond the recognized method holding time.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

N2 The lab does not hold NELAC/TNI accreditation for this parameter.

R1 RPD value was outside control limits.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

_ab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytic Batch
92343524001	MW-6	RSK 175 Modified	364653	_	
2343524002	MW-8	RSK 175 Modified	364653		
2343524003	MW-10	RSK 175 Modified	364653		
2343524004	MW-12	RSK 175 Modified	364653		
2343524005	MW-13	RSK 175 Modified	364653		
2343524006	MW-14	RSK 175 Modified	364653		
2343524007	MW-15	RSK 175 Modified	364653		
2343524008	MW-1	RSK 175 Modified	364653		
2343524009	MW-2	RSK 175 Modified	364653		
2343524010	MW-3	RSK 175 Modified	364653		
2343524011	MW-5	RSK 175 Modified	364653		
2343524012	MW-4	RSK 175 Modified	364653		
2343524013	MW-7	RSK 175 Modified	364653		
2343524014	MW-11	RSK 175 Modified	364653		
2343524008	MW-1	EPA 3010A	364365	EPA 6010	364544
2343524009	MW-2	EPA 3010A	364365	EPA 6010	364544
2343524010	MW-3	EPA 3010A	364365	EPA 6010	364544
2343524011	MW-5	EPA 3010A	364365	EPA 6010	364544
2343524008	MW-1	EPA 7470	364469	EPA 7470	364541
2343524009	MW-2	EPA 7470	364469	EPA 7470	364541
2343524010	MW-3	EPA 7470	364469	EPA 7470	364541
2343524011	MW-5	EPA 7470	364469	EPA 7470	364541
2343524001	MW-6	EPA 8260	364256		
2343524002	MW-8	EPA 8260	364256		
2343524003	MW-10	EPA 8260	364256		
2343524004	MW-12	EPA 8260	364256		
2343524005	MW-13	EPA 8260	364256		
2343524006	MW-14	EPA 8260	364256		
2343524007	MW-15	EPA 8260	364256		
2343524008	MW-1	EPA 8260	364481		
2343524009	MW-2	EPA 8260	364294		
2343524010	MW-3	EPA 8260	364294		
2343524011	MW-5	EPA 8260	364294		
2343524012	MW-4	EPA 8260	364294		
2343524013	MW-7	EPA 8260	364294		
2343524014	MW-11	EPA 8260	364294		
2343524015	DRUM 1	EPA 8260	364294		
2343524001	MW-6	SM 3500-Fe B	364284		
2343524002	MW-8	SM 3500-Fe B	364284		
2343524003	MW-10	SM 3500-Fe B	364284		
2343524004	MW-12	SM 3500-Fe B	364284		
2343524005	MW-13	SM 3500-Fe B	364284		
2343524006	MW-14	SM 3500-Fe B	364284		
2343524007	MW-15	SM 3500-Fe B	364284		
2343524008	MW-1	SM 3500-Fe B	364284		
2343524009	MW-2	SM 3500-Fe B	364284		



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

ab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica Batch
2343524010	MW-3	SM 3500-Fe B	364284		
2343524011	MW-5	SM 3500-Fe B	364284		
2343524012	MW-4	SM 3500-Fe B	364284		
2343524013	MW-7	SM 3500-Fe B	364284		
2343524014	MW-11	SM 3500-Fe B	364284		
2343524001	MW-6	SM 4500-S2D	364495		
2343524002	MW-8	SM 4500-S2D	364495		
2343524003	MW-10	SM 4500-S2D	364495		
2343524004	MW-12	SM 4500-S2D	364495		
2343524005	MW-13	SM 4500-S2D	364495		
2343524006	MW-14	SM 4500-S2D	364495		
2343524007	MW-15	SM 4500-S2D	364500		
2343524008	MW-1	SM 4500-S2D	364696		
2343524009	MW-2	SM 4500-S2D	364696		
2343524010	MW-3	SM 4500-S2D	364696		
2343524011	MW-5	SM 4500-S2D	364696		
2343524012	MW-4	SM 4500-S2D	364696		
2343524013	MW-7	SM 4500-S2D	364696		
2343524014	MW-11	SM 4500-S2D	364696		
2343524001	MW-6	EPA 300.0	364291		
2343524002	MW-8	EPA 300.0	364291		
343524003	MW-10	EPA 300.0	364291		
2343524004	MW-12	EPA 300.0	364291		
2343524005	MW-13	EPA 300.0	364291		
2343524006	MW-14	EPA 300.0	364291		
2343524007	MW-15	EPA 300.0	364291		
2343524008	MW-1	EPA 300.0	364314		
2343524009	MW-2	EPA 300.0	364314		
2343524010	MW-3	EPA 300.0	364314		
2343524011	MW-5	EPA 300.0	364314		
2343524012	MW-4	EPA 300.0	364314		
2343524013	MW-7	EPA 300.0	364314		
2343524014	MW-11	EPA 300.0	364314		
2343524001	MW-6	EPA 353.2	364105		
2343524002	MW-8	EPA 353.2	364105		
2343524003	MW-10	EPA 353.2	364105		
2343524004	MW-12	EPA 353.2	364105		
2343524005	MW-13	EPA 353.2	364105		
2343524006	MW-14	EPA 353.2	364105		
2343524007	MW-15	EPA 353.2	364105		
2343524008	MW-1	EPA 353.2	364277		
2343524009	MW-2	EPA 353.2	364277		
2343524010	MW-3	EPA 353.2	364277		
2343524011	MW-5	EPA 353.2	364277		
2343524012	MW-4	EPA 353.2	364277		



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LUCKY CLEANERS

Pace Project No.: 92343524

Date: 06/19/2017 10:36 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92343524013	MW-7	EPA 353.2	364277		
92343524014	MW-11	EPA 353.2	364277		
92343524001	MW-6	SM 4500-CI-E	364537		
92343524002	MW-8	SM 4500-CI-E	364537		
92343524003	MW-10	SM 4500-CI-E	364537		
92343524004	MW-12	SM 4500-CI-E	364537		
92343524005	MW-13	SM 4500-CI-E	364537		
92343524006	MW-14	SM 4500-CI-E	364537		
92343524007	MW-15	SM 4500-CI-E	364537		
92343524008	MW-1	SM 4500-CI-E	364538		
92343524009	MW-2	SM 4500-CI-E	364538		
92343524010	MW-3	SM 4500-CI-E	364538		
92343524011	MW-5	SM 4500-CI-E	364538		
92343524012	MW-4	SM 4500-CI-E	365242		
92343524013	MW-7	SM 4500-CI-E	365242		
92343524014	MW-11	SM 4500-CI-E	365242		
92343524001	MW-6	SM 5310B	364430		
92343524002	MW-8	SM 5310B	364430		
92343524003	MW-10	SM 5310B	364430		
92343524004	MW-12	SM 5310B	364430		
92343524005	MW-13	SM 5310B	364430		
92343524006	MW-14	SM 5310B	364430		
92343524007	MW-15	SM 5310B	364430		
92343524008	MW-1	SM 5310B	364603		
92343524009	MW-2	SM 5310B	364603		
92343524010	MW-3	SM 5310B	364603		
92343524011	MW-5	SM 5310B	364603		
92343524012	MW-4	SM 5310B	364603		
92343524013	MW-7	SM 5310B	364603		
92343524014	MW-11	SM 5310B	364603		

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memoni	IR Gun ID:		Type o	f Içe:	Wet	Blue	□No	ne	☐ Sample	s on ice, coo	oling process has	begun
Correction		Cooler Temp Correct	ted (°C):	3.5		_	Biologi	cal Tissue	Frozen?	□Yes	□No -	ĪΑ
	ld be above free	zing to 6°C N/A, water sample)										
Did samples	originate in a qu	v/A, water sample) Jarantine zone within the	United States: CA	. NY. ar S	C (check	mansl?	Dld sa	males origi	nate from a	foreign sour	rce (international	lv
□Yes □	No		- omica otateor er		e (encen	шарзуг			and Puerto f			· Y,
	· · · · ·			· · · · · ·				Com	nents/Discr	epancy:		
	tody Present?	 	Yes	□No	□N/A	1.						
Samples Arri	ved within Hold	Time?	Yes	□No	□N/A	2.						
Short Hold T	ime Analysis (<7	2 hr.)?	□Yes	No	□N/A	3.						
Rush Turn A	round Time Requ	uested?	Yes	No	□n/a	4.						
Sufficient Vo	lume?		. Yes	□No	□N/A	5.						
Correct Cont	ainers Used?		Yes	□No	□N/A	6.	•					•
-Pace Con	tainers Used?		Yes	□No	□N/A							
Containers In	ntact?		Yes	□No	□N/A	7.						
Samples Field	d Filtered?		☐Yes	No	□N/A	8. No	ote If sed	iment Is vi	sible in the	dissolved c	ontainer	
Sample Labe	ls Match COC?	CA	/ Yes	□No	□N/A	9.						
-Includes	Date/Time/ID/Ar	nalysis Matrix: 6	<u>/V</u>			****		*. =	140	es se		
Headspace in	VOA Vials (>5-6	mm)?	□Yes	No	□N/A	19.	101	1-1-				
Trip Blank Pro			∏Yes	No	N/A	ANUL	714	l /				
Trip Blank Cu	stody Seals Pres	ent?	☐Yes	No	□N/A							
ϵ	CLIENT NO	TIFICATION/RESOLUTION	ı						Fleld Dat	a Required	7 □Yes □No	
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Project	Manager SCUR	RF Review:	(9)				D	ate:	/17			
Project	Manager SRF F	Review:	TO				D	ate:	9/17	/		

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)



Document Name: Sample Condition Upon Receipt(SCUR) Document No.: F-CAR-CS-033-Rev.01

Document Revised: Sept. 21, 2016 Page 2 of 2 Issuing Authority:

Pace Quality Office

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Project #

**Bottom half of box is to list number of bottles

	1					Γ	T_						T	Т		Т	Т	\vdash			_	_	_		-			
Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP3S- 250 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP3Z-250 mL Plastic ZN Acetate & NaOH (>9)	BP3C-250 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (CI-)	AG15-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCI (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	Cubitainer	VSGU-20 mL Scintillation vials (N/A)	GN	Compression and the compression of the compression
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		pH Ac	ljustment Log for Pres	erved Samples		
Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot#

Pace Analytical " www.paclabs.com

CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Fax: COMMENTS COMMENTS COMMENTS COMMENTS COMMENTS COMMENTS COMMENTS	Section A Required Client Information:	Section B Required Project Information:	Sec	Section C			Page:	Jo J	1
SAMPLE ID SINGLE COLOR IN THE COLOR OF THE C	Company: French		Atter	ntion: () > March C		Γ		2002	
	do son		Com	pany Name:	MC/COM CO.			10001	
SAMPLE ID Section District Comments Note: 12		Ô	< <		00	REGULATORY A	GENCY		
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Document Name: Sample Condition Upon Receipt(SCUR)

Document Revised: Sept. 21, 2016 Page 2 of 2

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*Check mark top half of box if pH and/or dechlorination	Project #		
is verified and within the acceptance range for	•	Company and the company of the compa	
preservation samples.			
**Bottom half of box is to list number of bottles			

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Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP35-250 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP3Z-250 mL Plastic ZN Acetate & NaOH (>9)	BP3C-250 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (CI-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCI (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	Cubitainer	VSGU-20 mL Scintillation vials (N/A)	GN	
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Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot#



CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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Pace Analytical®	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: Sept. 21, 2016 Page 2 of 2
/ ACE Analytical	Document No.:	Issuing Authority:
	F-CAR-CS-033-Rev.01	Pace Quality Office

*Check mark top half of box if pH and/or dechlorination
s verified and within the acceptance range for
preservation samples.

**Bottom half of box is to list number of bottles

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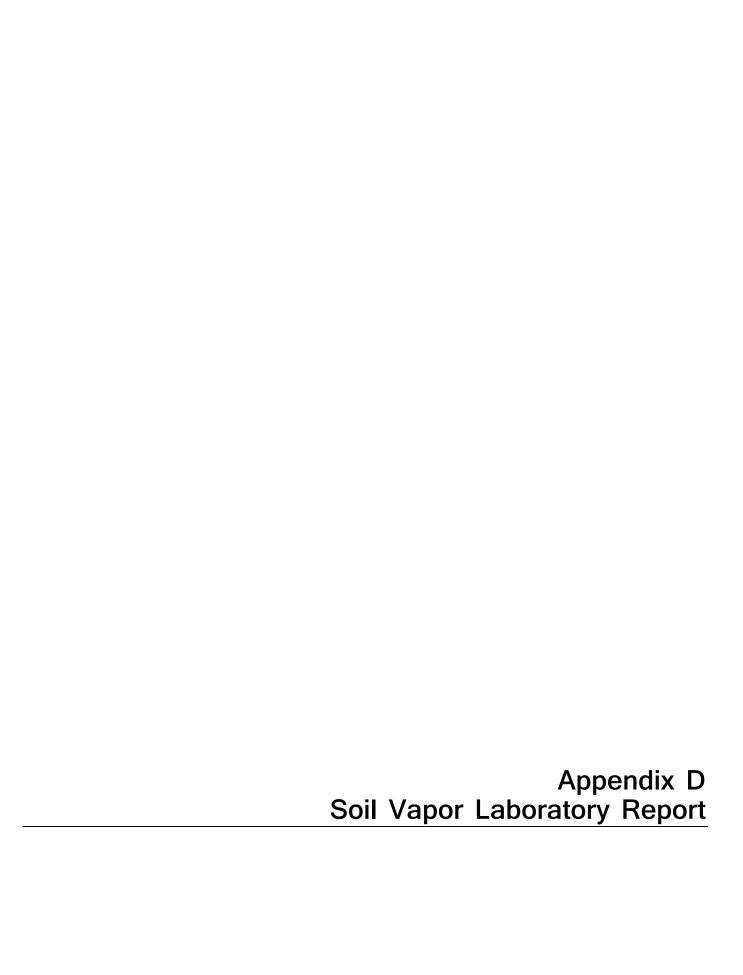
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Pace Analytical " "www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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November 06, 2017

Greg Rowell

Contour Engineering, LLC

1955 Vaugh Rd.

Kennesaw

GA 30144

RE:

Kroger #676 Soil Vapor

Dear Greg Rowell:

Order No:

1710S69

Analytical Environmental Services, Inc. received

5 samples on

10/30/2017 2:32:00 PM

for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

-NELAC/Florida Certification number E87582 for analysis of Air & Emissions for Volatile Organics effective 07/01/17-06/30/18.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Jessica Shilling

Jessian Shilling

Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC.



APPENDIX

Compound	CAS#	Alternate Name	ТО-	ТО-	SOP
			14A	15	**
Acetone	67-64-1				X
Allyl chloride	107-05-1	3-Chloropropene		X	
Benzene	71-43-2		X	X	
Benzyl chloride	100-44-7		X	X	
Bromodichloromethane	75-27-4	Dichlorobromomethane			X
Bromoform	75-25-2	Tribromomethane		X	
Bromomethane	74-83-9	Methyl bromide	X	X	
1,3-Butadiene	106-99-0			X	
Carbon disulfide	75-15-0			X	
Carbon tetrachloride	56-23-5		X	X	
Chlorobenzene	108-90-7		X	X	
Chloroethane	75-00-3	Ethyl chloride	X	X	
Chloroform	67-66-3	·	X	X	
Chloromethane	74-87-3	Methyl chloride	X	X	
Cyclohexane	110-82-7				X
Dibromochloromethane	124-48-1	Chlorodibromomethane			X
1,2-Dibromoethane	106-93-4	EDB/Ethylene dibromide	X	X	
1,2-Dichlorobenzene	95-50-1	o-Dichlorobenzene	X	X	
1,3-Dichlorobenzene	541-73-1	<i>m</i> -Dichlorobenzene	X	X	
1,4-Dichlorobenzene	106-46-7	p-Dichlorobenzene	X	X	
Dichlorodifluoromethane	75-71-8	Freon-12	X		
1,1-Dichloroethane	75-34-3		X	X	
1,2-Dichloroethane	107-06-2		X	X	
1,1-Dichloroethene	75-35-4	1,1-Dichloroethylene	X	X	
cis-1,2-Dichloroethene	156-59-2	cis-1,2-Dichloroethylene	X	X	
trans-1,2-Dichloroethene	156-60-5	<i>trans</i> -1,2-Dichloroethylene		X	
1,2-Dichloropropane	78-87-5		X	X	
cis-1,3-Dichloropropene	10061-01-5		X	X	
trans-1,3-	10061-02-6		X	X	
Dichloropropene					
1,2-Dichloro-1,1,2,2-	76-14-2	Freon-114	X		
tetrafluoroethane					
1,4-Dioxane	123-91-1	1,4-Diethylene oxide		X	
Ethyl acetate	141-78-6	Acetic acid, ethyl ester			X
Ethylbenzene	100-41-4		X	X	
4-Ethyltoluene	622-96-8				X
n-Heptane	142-82-5	Heptane			X
Hexachlorobutadiene	87-68-3	Hexachloro-1,3-butadiene	X	X	





n-Hexane	110-54-3	Hexane		X	
Compound	CAS#	Alternate Name	TO-	ТО-	SOP
			14A	15	
2-Hexanone	591-78-6	Methyl butyl ketone			X
Methylene chloride	75-09-2	Dichloromethane	X	X	
Methyl tert-butyl ether	1634-04-4	MTBE		X	
Methyl ethyl ketone	78-93-3	MEK/2-Butanone		X	
Methyl isobutyl ketone	108-10-1	4-Methyl-2-pentanone		X	
2-Propanol	67-63-0	Isopropanol/Isopropyl alcohol			X
Propene	115-07-1	Propylene			X
Styrene	100-42-5			X	
1,1,2,2-Tetrachloroethane	79-34-5		X	X	
Tetrachloroethene	127-18-4	Tetrachloroethylene	X	X	
Tetrahydrofuran	109-99-9				X
Toluene	108-88-3			X	
1,2,4-Trichlorobenzene	120-82-1			X	
1,1,1-Trichloroethane	74-55-6			X	
1,1,2-Trichloroethane	79-00-5			X	
Trichloroethene	79-01-6	Trichloroethylene		X	
Trichlorofluoromethane	75-69-4	Freon-11	X		
1,1,2-Trichloro-1,2,2-	76-13-1	Freon-113	X		
Trifluoroethane					
1,2,4-Trimethylbenzene	95-63-6		X	X	
1,3,5-Trimethylbenzene	108-67-8		X	X	
2,2,4-Trimethylpentane	540-84-1	Isooctane		X	
Vinyl acetate	108-05-04			X	
Vinyl bromide	593-60-2	Bromoethene		X	
Vinyl chloride	75-01-4	Chloroethene	X	X	
Xylenes, Total	1330-20-7		X	X	
m/p-Xylene	179601-23-1		X	X	
o-Xylene	95-47-6		X	X	

	Work Order #:	17105/09
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3080 Presidential Drive, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

Page of (

Company:		Address:				Bottle O	rder#:			Turnaroui	nd Ti	me (Ci	rcle O	ne):		Stan	dard	3 Day Rush
Campan	ENGINEERING	195	5 Vau	aun is	3)	•
COMO		(<	INNES	w w	€											2 Da	y Rush	Other
Phone:		Fax:	<i>k</i>	1/1					Caniatan	Canister	A	NAL	YSIS I	REQU	UEST	ED		
Sampled by: /	1.	Signature	- An	1//				Flow	Canister Pressure	Pressure								
<u> </u>	Moders		<u> </u>	Vlor		Sample Matrix*	Canister Serial #	Controller	In Field	In Field	15							Remarks
#	Sample ID	Samp	e Start	Sample	Finish Time	Iviauix.	Serial #	ID	("Hg)	("Hg)	TO-15							
#	Sample ID	Date	Time (24hr)	Date	(24 hr)				Start	Stop	,		-					
1	5v[-1	(3/26/15	2118	lolulin	2/26	55	3403	01108	28	0	X							
	-		2140	1		1	1 .		638	Õ	X							
ll I	5VI-Z		2170		214		415	01097			 							——————————————————————————————————————
3	5VI-3	-	2157		2206		3997	01122	28	2	X				_		·	
4	5 V J - 4	1	2214	<u>\</u>	w	V	3955	2	X						***************************************	/A		
	SVI-5	10/26/17	2230	10/26/19	2239	55 3964 0118 26					X							
6								, -						-				
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9							**************************************											
10			1															
	CTIONS/COMMENTS:	RELINGUIS	HED BY:	DAT	Е/ГІМЕ:	RECEIVED	BY:	DATI	Е/ТІМЕ:	PROJECT INFORMATION								
If specialized list is r	required, list analytes here:	1:	lows	0940 1	olalin	1:	oct-Jo	17 1	1:48An	PROJECT NA PROJECT #: SITE ADDRE	AME: GLA	- H	676	S	عاد	VAPE	R	
		2: 1	oct-3	٠	1-77	2:	4.	10/	30/17-	PROJECT#:	E	5176	No:	23				
			OCT	10-11	2000	aug	Den 1		232	SITE ADDRE	ESS:	larce			0		l de	î A
		3:				3:				SEND REPOR	RT TO:	400	1269	U 6	000	100-11	GUS14	1000
					SHIPME	I ENT METHOI	D			2001 WASHINGTON RO AUGUSTA GA SENDREPORT TO: GROWELL & CONTOUN ENG. COM INVOICE TO:								
			OUT	/ /		VIA:				(IF DIFFERE	NT FRO	ом аво	VE)					
			IN	/ /	m P 10	VIA:	CODRIED			PO#:								
						UPS MAIL ID OTHER				STATE PROC	GRAM ((if any):				nail? Y/N		Y/N
CANDA EG DECES	CUED A EVER ADM OD CAMUL	DAY ARE C	OMCIDEDED					NO TO A TO BOOK	DVED ON CO		r nn o	OEED 4	0.000170	DARE S		I A PACK	AGE: I	II III IV
1	IVED AFTER 3PM OR SATUE						NESS DAY; IF	NO IAI IŞ MA	KKED ON CO	UC, AES WIL	L PKU	CEED A	3 3 I ANI	DAKD	IAI.			

ANALYTICAL ENVIRONMENTAL SERVICES, INC

VAPOR/AIR FIELD TEST DATA SHEET

Work Order #: () U \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Work Order #:	1710869
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3080 Presidential Drive, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

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Page	ĺ	of	1

Comp	pany:	Address:			Project Na	oject Name: Kaogen # 676 Soir VAPon					Project	Project Number: EITKRO: 23				
Can	TOUR ENGINEERING		Muguen INESTW		Site Addre	.00.	801 W					GA	<u> </u>			
Phone	2:	Fax:	16 1 1		<u> </u>						NFORM		N			
Samp	led by: A MORZIS	Signature	: A1//	sias			Sampl	e Start					Sample	Stop		
	17 14 016-17		Flow				Canister	Flow	Temp	erature		m.	Canister	Flow	Temp	erature
#	Sample ID	Canister Serial #	Controller ID#	Canister Cert. ID#	Date	Time (24hr)	1	Control Readout (mL/min)	Interior (°F)	Ambient (°F)	Date	Time (24hr)	Pressure in Field ("Hg)	Control Readout (mL/min)	Interior (°F)	Ambient (°F)
1	SVI-1	3903	61108	249089	10/24/11	2118	28				10/20/,	2/26	O			
2	SVI-2	4015	01697	1	(3/24/12	2140	26				10/26/1-	7 21th	O			
3	5vI - 3	3997	01122	z49089	10/20/17	2157	28				10/20/1	2206	2			
4	SVI-4	3959	01078	249089	10/21/17	2214	ટહ				10/24/17	2222	Z			
5	5VI-5	3964			10/21/11	,	76				10/26/1	2239	0			
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10 Date	Shipped Out From Lab:	cf-30-1	7 Ui	48.	Field Not	es:	ved by:	Links	b	10/	30/12 2	:32 (Couner)			
Date	Received Back To Lab:	-oct-3	017 2	32			•			<i>I</i>	***					
Amb	ther Conditions ient Temp Avg:						311									
	nient Temp High/Low: or Air Temp Avg:	- H														
Baro	metric Pressure:								·		· · · · · · · · · · · · · · · · · · ·					
Win Othe	d Speed/Direction:				1										-	

Client: Contour Engineering, LLC

Project: Kroger #676 Soil Vapor

Lab ID: 1710S69

Case Narrative

Date:

6-Nov-17

Sample Receiving Nonconformance:

Sample -005A's canister was not labeled, only the canister serial number was present. Due to all other cansiters being labeled and accounted for, lab proceed with analysis of -005A.

Volatiles Organic Compounds Analysis by Method TO-14/15:

Percent recovery for the internal standard compounds Bromochloromethane & 1,4 Difluorobenzene on sample 1710S69-002 A was outside control limits biased low due to suspected matrix interference. All other internal standard recoveries were within control limits.

1710S69-001

Project Name: Kroger #676 Soil Vapor

Contour Engineering, LLC

Client:

Lab ID:

TO-15 Report

Client Sample ID:

Collection Date: 10/26/2017 9:26:00 PM

Matrix:

Air

SVI-1

Date:

6-Nov-17

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analys
Toxic Organic Compounds in Air by GCMS	TO-15			(TC) -15)			
1,1,1-Trichloroethane	BRL	5.5		ug/m3	250788	2	10/31/2017 20:15	MD
1,1,2,2-Tetrachloroethane	BRL	6.9		ug/m3	250788	2	10/31/2017 20:15	MD
1,1,2-Trichloroethane	BRL	5.5		ug/m3	250788	2	10/31/2017 20:15	MD
1,1-Dichloroethane	BRL	4.0		ug/m3	250788	2	10/31/2017 20:15	MD
1,1-Dichloroethene	BRL	4.0		ug/m3	250788	2	10/31/2017 20:15	MD
1,2,4-Trichlorobenzene	BRL	7.4		ug/m3	250788	2	10/31/2017 20:15	MD
1,2,4-Trimethylbenzene	BRL	4.9		ug/m3	250788	2	10/31/2017 20:15	MD
1,2-Dibromoethane	BRL	7.7		ug/m3	250788	2	10/31/2017 20:15	MD
1,2-Dichlorobenzene	BRL	6.0		ug/m3	250788	2	10/31/2017 20:15	MD
1,2-Dichloroethane	BRL	4.0		ug/m3	250788	2	10/31/2017 20:15	MD
1,2-Dichloropropane	BRL	4.6		ug/m3	250788	2	10/31/2017 20:15	MD
1,3,5-Trimethylbenzene	BRL	4.9		ug/m3	250788	2	10/31/2017 20:15	MD
1,3-Butadiene	BRL	2.2		ug/m3	250788	2	10/31/2017 20:15	MD
1,3-Dichlorobenzene	BRL	6.0		ug/m3	250788	2	10/31/2017 20:15	MD
1,4-Dichlorobenzene	BRL	6.0		ug/m3	250788	2	10/31/2017 20:15	MD
1,4-Dioxane	BRL	3.6		ug/m3	250788	2	10/31/2017 20:15	MD
2,2,4-Trimethylpentane	BRL	4.7		ug/m3	250788	2	10/31/2017 20:15	MD
2-Butanone	8.0	2.9		ug/m3	250788	2	10/31/2017 20:15	MD
2-Hexanone	BRL	4.1		ug/m3	250788	2	10/31/2017 20:15	MD
4-Ethyltoluene	BRL	4.9		ug/m3	250788	2	10/31/2017 20:15	MD
4-Methyl-2-pentanone	BRL	4.1		ug/m3	250788	2	10/31/2017 20:15	MD
Acetone	48	12		ug/m3	250788	2	10/31/2017 20:15	MD
Allyl chloride	BRL	3.1		ug/m3	250788	2	10/31/2017 20:15	MD
Benzene	BRL	3.2		ug/m3	250788	2	10/31/2017 20:15	MD
Benzyl chloride	BRL	5.2		ug/m3	250788	2	10/31/2017 20:15	MD
Bromodichloromethane	BRL	6.7		ug/m3	250788	2	10/31/2017 20:15	MD
Bromoform	BRL	10		ug/m3	250788	2	10/31/2017 20:15	MD
Bromomethane	BRL	3.9		ug/m3	250788	2	10/31/2017 20:15	MD
Carbon disulfide	9.0	3.1		ug/m3	250788	2	10/31/2017 20:15	MD
Carbon tetrachloride	BRL	6.3		ug/m3	250788	2	10/31/2017 20:15	MD
Chlorobenzene	BRL	4.6		ug/m3	250788	2	10/31/2017 20:15	MD
Chloroethane	BRL	2.6		ug/m3	250788	2	10/31/2017 20:15	MD
Chloroform	BRL	4.9		ug/m3	250788	2	10/31/2017 20:15	MD
Chloromethane	BRL	2.1		ug/m3	250788	2	10/31/2017 20:15	MD
cis-1,2-Dichloroethene	BRL	4.0		ug/m3	250788	2	10/31/2017 20:15	MD
cis-1,3-Dichloropropene	BRL	4.5		ug/m3	250788	2	10/31/2017 20:15	MD
Cyclohexane	BRL	3.4		ug/m3	250788	2	10/31/2017 20:15	MD
Dibromochloromethane	BRL	8.5		ug/m3	250788	2	10/31/2017 20:15	MD
Dichlorodifluoromethane	BRL	4.9		ug/m3	250788	2	10/31/2017 20:15	MD
Ethyl acetate	BRL	3.6		ug/m3	250788	2	10/31/2017 20:15	MD
Ethylbenzene	BRL	4.3		ug/m3	250788	2	10/31/2017 20:15	MD

Qualifiers:

Narr See case narrative

^{*} Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Contour Engineering, LLC

TO-15 Report

Client Sample ID:

SVI-1

Date:

Project Name: Kroger #676 Soil Vapor **Lab ID:** 1710S69-001

Client:

Collection Date:

10/26/2017 9:26:00 PM

6-Nov-17

Matrix:

Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS	TO-15			(TO)-15)			
Freon-113	BRL	7.7		ug/m3	250788	2	10/31/2017 20:15	MD
Freon-114	BRL	7.0		ug/m3	250788	2	10/31/2017 20:15	MD
Hexachlorobutadiene	BRL	11		ug/m3	250788	2	10/31/2017 20:15	MD
Isopropyl alcohol	BRL	18		ug/m3	250788	2	10/31/2017 20:15	MD
m,p-Xylene	BRL	8.7		ug/m3	250788	2	10/31/2017 20:15	MD
Methyl tert-butyl ether	BRL	3.6		ug/m3	250788	2	10/31/2017 20:15	MD
Methylene chloride	BRL	3.5		ug/m3	250788	2	10/31/2017 20:15	MD
n-Heptane	BRL	4.1		ug/m3	250788	2	10/31/2017 20:15	MD
n-Hexane	BRL	3.5		ug/m3	250788	2	10/31/2017 20:15	MD
o-Xylene	BRL	4.3		ug/m3	250788	2	10/31/2017 20:15	MD
Propene	4.5	1.7		ug/m3	250788	2	10/31/2017 20:15	MD
Styrene	BRL	4.3		ug/m3	250788	2	10/31/2017 20:15	MD
Tetrachloroethene	950	680		ug/m3	250788	2	10/31/2017 16:17	MD
Tetrahydrofuran	9.3	2.9		ug/m3	250788	2	10/31/2017 20:15	MD
Toluene	BRL	3.8		ug/m3	250788	2	10/31/2017 20:15	MD
trans-1,2-Dichloroethene	BRL	4.0		ug/m3	250788	2	10/31/2017 20:15	MD
trans-1,3-Dichloropropene	BRL	4.5		ug/m3	250788	2	10/31/2017 20:15	MD
Trichloroethene	BRL	5.4		ug/m3	250788	2	10/31/2017 20:15	MD
Trichlorofluoromethane	BRL	5.6		ug/m3	250788	2	10/31/2017 20:15	MD
Vinyl acetate	BRL	3.5		ug/m3	250788	2	10/31/2017 20:15	MD
Vinyl bromide	BRL	4.4		ug/m3	250788	2	10/31/2017 20:15	MD
Vinyl chloride	BRL	2.6		ug/m3	250788	2	10/31/2017 20:15	MD
Xylenes, Total	BRL	13		ug/m3	250788	2	10/31/2017 20:15	MD
Surr: 4-Bromofluorobenzene	79.5	70-130		%REC	250788	2	10/31/2017 16:17	MD
Surr: 4-Bromofluorobenzene	81	70-130		%REC	250788	2	10/31/2017 20:15	MD

Qualifiers:

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

^{*} Value exceeds maximum contaminant level

1710S69-002

Project Name: Kroger #676 Soil Vapor

Client:

Lab ID:

Contour Engineering, LLC

TO-15 Report

Client Sample ID:

Collection Date: 10/26/2017 9:47:00 PM

Date:

SVI-2

6-Nov-17

Matrix: Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS	TO-15			(TO) -15)			
1,1,1-Trichloroethane	BRL	5.5		ug/m3	250788	2	10/31/2017 21:03	MD
1,1,2,2-Tetrachloroethane	BRL	6.9		ug/m3	250788	2	10/31/2017 21:03	MD
1,1,2-Trichloroethane	BRL	5.5		ug/m3	250788	2	10/31/2017 21:03	MD
1,1-Dichloroethane	BRL	4.0		ug/m3	250788	2	10/31/2017 21:03	MD
1,1-Dichloroethene	BRL	4.0		ug/m3	250788	2	10/31/2017 21:03	MD
1,2,4-Trichlorobenzene	BRL	7.4		ug/m3	250788	2	10/31/2017 21:03	MD
1,2,4-Trimethylbenzene	BRL	4.9		ug/m3	250788	2	10/31/2017 21:03	MD
1,2-Dibromoethane	BRL	7.7		ug/m3	250788	2	10/31/2017 21:03	MD
1,2-Dichlorobenzene	BRL	6.0		ug/m3	250788	2	10/31/2017 21:03	MD
1,2-Dichloroethane	BRL	4.0		ug/m3	250788	2	10/31/2017 21:03	MD
1,2-Dichloropropane	BRL	4.6		ug/m3	250788	2	10/31/2017 21:03	MD
1,3,5-Trimethylbenzene	BRL	4.9		ug/m3	250788	2	10/31/2017 21:03	MD
1,3-Butadiene	BRL	2.2		ug/m3	250788	2	10/31/2017 21:03	MD
1,3-Dichlorobenzene	BRL	6.0		ug/m3	250788	2	10/31/2017 21:03	MD
1,4-Dichlorobenzene	BRL	6.0		ug/m3	250788	2	10/31/2017 21:03	MD
1,4-Dioxane	BRL	3.6		ug/m3	250788	2	10/31/2017 21:03	MD
2,2,4-Trimethylpentane	BRL	4.7		ug/m3	250788	2	10/31/2017 21:03	MD
2-Butanone	BRL	2.9		ug/m3	250788	2	10/31/2017 21:03	MD
2-Hexanone	BRL	4.1		ug/m3	250788	2	10/31/2017 21:03	MD
4-Ethyltoluene	BRL	4.9		ug/m3	250788	2	10/31/2017 21:03	MD
4-Methyl-2-pentanone	BRL	4.1		ug/m3	250788	2	10/31/2017 21:03	MD
Acetone	30	12		ug/m3	250788	2	10/31/2017 21:03	MD
Allyl chloride	BRL	3.1		ug/m3	250788	2	10/31/2017 21:03	MD
Benzene	BRL	3.2		ug/m3	250788	2	10/31/2017 21:03	MD
Benzyl chloride	BRL	5.2		ug/m3	250788	2	10/31/2017 21:03	MD
Bromodichloromethane	BRL	6.7		ug/m3	250788	2	10/31/2017 21:03	MD
Bromoform	BRL	10		ug/m3	250788	2	10/31/2017 21:03	MD
Bromomethane	BRL	3.9		ug/m3	250788	2	10/31/2017 21:03	MD
Carbon disulfide	BRL	3.1		ug/m3	250788	2	10/31/2017 21:03	MD
Carbon tetrachloride	BRL	6.3		ug/m3	250788	2	10/31/2017 21:03	MD
Chlorobenzene	BRL	4.6		ug/m3	250788	2	10/31/2017 21:03	MD
Chloroethane	BRL	2.6		ug/m3	250788	2	10/31/2017 21:03	MD
Chloroform	BRL	4.9		ug/m3	250788	2	10/31/2017 21:03	MD
Chloromethane	BRL	2.1		ug/m3	250788	2	10/31/2017 21:03	MD
cis-1,2-Dichloroethene	BRL	4.0		ug/m3	250788	2	10/31/2017 21:03	MD
cis-1,3-Dichloropropene	BRL	4.5		ug/m3	250788	2	10/31/2017 21:03	MD
Cyclohexane	BRL	3.4		ug/m3	250788	2	10/31/2017 21:03	MD
Dibromochloromethane	BRL	8.5		ug/m3	250788	2	10/31/2017 21:03	MD
Dichlorodifluoromethane	BRL	4.9		ug/m3	250788	2	10/31/2017 21:03	MD
Ethyl acetate	BRL	3.6		ug/m3	250788	2	10/31/2017 21:03	MD
Ethylbenzene	BRL	4.3		ug/m3	250788	2	10/31/2017 21:03	MD

Qualifiers:

- Value exceeds maximum contaminant level
- BRL Below reporting limit
- Н Holding times for preparation or analysis exceeded
- Analyte not NELAC certified
- Analyte detected in the associated method blank
- Greater than Result value

- E Estimated (value above quantitation range)
- Spike Recovery outside limits due to matrix

See case narrative

- Not confirmed
- Less than Result value
- Estimated value detected below Reporting Limit

1710S69-002

Project Name: Kroger #676 Soil Vapor

Client:

Lab ID:

Contour Engineering, LLC

TO-15 Report

Client Sample ID:

Collection Date: 10/26/2017 9:47:00 PM

Date:

SVI-2

6-Nov-17

Matrix: Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS	TO-15			(TO)-15)			
Freon-113	33	7.7		ug/m3	250788	2	10/31/2017 21:03	MD
Freon-114	BRL	7.0		ug/m3	250788	2	10/31/2017 21:03	MD
Hexachlorobutadiene	BRL	11		ug/m3	250788	2	10/31/2017 21:03	MD
Isopropyl alcohol	BRL	18		ug/m3	250788	2	10/31/2017 21:03	MD
m,p-Xylene	BRL	8.7		ug/m3	250788	2	10/31/2017 21:03	MD
Methyl tert-butyl ether	BRL	3.6		ug/m3	250788	2	10/31/2017 21:03	MD
Methylene chloride	170	3.5		ug/m3	250788	2	10/31/2017 21:03	MD
n-Heptane	BRL	4.1		ug/m3	250788	2	10/31/2017 21:03	MD
n-Hexane	27	3.5		ug/m3	250788	2	10/31/2017 21:03	MD
o-Xylene	BRL	4.3		ug/m3	250788	2	10/31/2017 21:03	MD
Propene	BRL	1.7		ug/m3	250788	2	10/31/2017 21:03	MD
Styrene	BRL	4.3		ug/m3	250788	2	10/31/2017 21:03	MD
Tetrachloroethene	2700	680		ug/m3	250788	2	10/31/2017 17:05	MD
Tetrahydrofuran	BRL	2.9		ug/m3	250788	2	10/31/2017 21:03	MD
Toluene	11	3.8		ug/m3	250788	2	10/31/2017 21:03	MD
trans-1,2-Dichloroethene	BRL	4.0		ug/m3	250788	2	10/31/2017 21:03	MD
trans-1,3-Dichloropropene	BRL	4.5		ug/m3	250788	2	10/31/2017 21:03	MD
Trichloroethene	BRL	5.4		ug/m3	250788	2	10/31/2017 21:03	MD
Trichlorofluoromethane	9.0	5.6		ug/m3	250788	2	10/31/2017 21:03	MD
Vinyl acetate	BRL	3.5		ug/m3	250788	2	10/31/2017 21:03	MD
Vinyl bromide	BRL	4.4		ug/m3	250788	2	10/31/2017 21:03	MD
Vinyl chloride	BRL	2.6		ug/m3	250788	2	10/31/2017 21:03	MD
Xylenes, Total	BRL	13		ug/m3	250788	2	10/31/2017 21:03	MD
Surr: 4-Bromofluorobenzene	80.2	70-130		%REC	250788	2	10/31/2017 17:05	MD
Surr: 4-Bromofluorobenzene	88	70-130		%REC	250788	2	10/31/2017 21:03	MD

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

1710S69-003

Project Name: Kroger #676 Soil Vapor

Client:

Lab ID:

Contour Engineering, LLC

TO-15 Report

Client Sample ID: SVI-3

Collection Date: 10/26/2017 10:06:00 PM

Date:

6-Nov-17

Matrix: Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS	TO-15			(TO)-15)			
1,1,1-Trichloroethane	BRL	5.5		ug/m3	250788	2	10/31/2017 21:52	MD
1,1,2,2-Tetrachloroethane	BRL	6.9		ug/m3	250788	2	10/31/2017 21:52	MD
1,1,2-Trichloroethane	BRL	5.5		ug/m3	250788	2	10/31/2017 21:52	MD
1,1-Dichloroethane	BRL	4.0		ug/m3	250788	2	10/31/2017 21:52	MD
1,1-Dichloroethene	BRL	4.0		ug/m3	250788	2	10/31/2017 21:52	MD
1,2,4-Trichlorobenzene	BRL	7.4		ug/m3	250788	2	10/31/2017 21:52	MD
1,2,4-Trimethylbenzene	BRL	4.9		ug/m3	250788	2	10/31/2017 21:52	MD
1,2-Dibromoethane	BRL	7.7		ug/m3	250788	2	10/31/2017 21:52	MD
1,2-Dichlorobenzene	BRL	6.0		ug/m3	250788	2	10/31/2017 21:52	MD
1,2-Dichloroethane	BRL	4.0		ug/m3	250788	2	10/31/2017 21:52	MD
1,2-Dichloropropane	BRL	4.6		ug/m3	250788	2	10/31/2017 21:52	MD
1,3,5-Trimethylbenzene	BRL	4.9		ug/m3	250788	2	10/31/2017 21:52	MD
1,3-Butadiene	BRL	2.2		ug/m3	250788	2	10/31/2017 21:52	MD
1,3-Dichlorobenzene	BRL	6.0		ug/m3	250788	2	10/31/2017 21:52	MD
1,4-Dichlorobenzene	BRL	6.0		ug/m3	250788	2	10/31/2017 21:52	MD
1,4-Dioxane	BRL	3.6		ug/m3	250788	2	10/31/2017 21:52	MD
2,2,4-Trimethylpentane	BRL	4.7		ug/m3	250788	2	10/31/2017 21:52	MD
2-Butanone	BRL	2.9		ug/m3	250788	2	10/31/2017 21:52	MD
2-Hexanone	BRL	4.1		ug/m3	250788	2	10/31/2017 21:52	MD
4-Ethyltoluene	BRL	4.9		ug/m3	250788	2	10/31/2017 21:52	MD
4-Methyl-2-pentanone	BRL	4.1		ug/m3	250788	2	10/31/2017 21:52	MD
Acetone	BRL	12		ug/m3	250788	2	10/31/2017 21:52	MD
Allyl chloride	BRL	3.1		ug/m3	250788	2	10/31/2017 21:52	MD
Benzene	BRL	3.2		ug/m3	250788	2	10/31/2017 21:52	MD
Benzyl chloride	BRL	5.2		ug/m3	250788	2	10/31/2017 21:52	MD
Bromodichloromethane	BRL	6.7		ug/m3	250788	2	10/31/2017 21:52	MD
Bromoform	BRL	10		ug/m3	250788	2	10/31/2017 21:52	MD
Bromomethane	BRL	3.9		ug/m3	250788	2	10/31/2017 21:52	MD
Carbon disulfide	BRL	3.1		ug/m3	250788	2	10/31/2017 21:52	MD
Carbon tetrachloride	BRL	6.3		ug/m3	250788	2	10/31/2017 21:52	MD
Chlorobenzene	BRL	4.6		ug/m3	250788	2	10/31/2017 21:52	MD
Chloroethane	BRL	2.6		ug/m3	250788	2	10/31/2017 21:52	MD
Chloroform	BRL	4.9		ug/m3	250788	2	10/31/2017 21:52	MD
Chloromethane	BRL	2.1		ug/m3	250788	2	10/31/2017 21:52	MD
cis-1,2-Dichloroethene	BRL	4.0		ug/m3	250788		10/31/2017 21:52	MD
cis-1,3-Dichloropropene	BRL	4.5		ug/m3	250788		10/31/2017 21:52	MD
Cyclohexane	BRL	3.4		ug/m3	250788		10/31/2017 21:52	MD
Dibromochloromethane	BRL	8.5		ug/m3	250788		10/31/2017 21:52	MD
Dichlorodifluoromethane	BRL	4.9		ug/m3	250788		10/31/2017 21:52	MD
Ethyl acetate	BRL	3.6		ug/m3	250788		10/31/2017 21:52	MD
Ethylbenzene	BRL	4.3		ug/m3	250788		10/31/2017 21:52	MD

Qualifiers:

Narr See case narrative

^{*} Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

1710S69-003

Project Name: Kroger #676 Soil Vapor

Client:

Lab ID:

Contour Engineering, LLC

TO-15 Report

Client Sample ID:

Collection Date:

SVI-3 10/26/2017 10:06:00 PM

6-Nov-17

Date:

Matrix:

Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analys
Toxic Organic Compounds in Air by GCMS	TO-15			(TO)-15)			
Freon-113	18	7.7		ug/m3	250788	2	10/31/2017 21:52	MD
Freon-114	BRL	7.0		ug/m3	250788	2	10/31/2017 21:52	MD
Hexachlorobutadiene	BRL	11		ug/m3	250788	2	10/31/2017 21:52	MD
Isopropyl alcohol	BRL	18		ug/m3	250788	2	10/31/2017 21:52	MD
m,p-Xylene	BRL	8.7		ug/m3	250788	2	10/31/2017 21:52	MD
Methyl tert-butyl ether	BRL	3.6		ug/m3	250788	2	10/31/2017 21:52	MD
Methylene chloride	BRL	3.5		ug/m3	250788	2	10/31/2017 21:52	MD
n-Heptane	BRL	4.1		ug/m3	250788	2	10/31/2017 21:52	MD
n-Hexane	BRL	3.5		ug/m3	250788	2	10/31/2017 21:52	MD
o-Xylene	BRL	4.3		ug/m3	250788	2	10/31/2017 21:52	MD
Propene	BRL	1.7		ug/m3	250788	2	10/31/2017 21:52	MD
Styrene	BRL	4.3		ug/m3	250788	2	10/31/2017 21:52	MD
Tetrachloroethene	200	6.8		ug/m3	250788	2	10/31/2017 21:52	MD
Tetrahydrofuran	BRL	2.9		ug/m3	250788	2	10/31/2017 21:52	MD
Toluene	BRL	3.8		ug/m3	250788	2	10/31/2017 21:52	MD
trans-1,2-Dichloroethene	BRL	4.0		ug/m3	250788	2	10/31/2017 21:52	MD
trans-1,3-Dichloropropene	BRL	4.5		ug/m3	250788	2	10/31/2017 21:52	MD
Trichloroethene	BRL	5.4		ug/m3	250788	2	10/31/2017 21:52	MD
Trichlorofluoromethane	BRL	5.6		ug/m3	250788	2	10/31/2017 21:52	MD
Vinyl acetate	BRL	3.5		ug/m3	250788	2	10/31/2017 21:52	MD
Vinyl bromide	BRL	4.4		ug/m3	250788	2	10/31/2017 21:52	MD
Vinyl chloride	BRL	2.6		ug/m3	250788	2	10/31/2017 21:52	MD
Xylenes, Total	BRL	13		ug/m3	250788	2	10/31/2017 21:52	MD
Surr: 4-Bromofluorobenzene	82.2	70-130		%REC	250788	2	10/31/2017 21:52	MD

Qualifiers:

Value exceeds maximum contaminant level

BRL Below reporting limit

Н Holding times for preparation or analysis exceeded

Analyte not NELAC certified

Analyte detected in the associated method blank

Greater than Result value

E Estimated (value above quantitation range)

Spike Recovery outside limits due to matrix

See case narrative

Not confirmed

Less than Result value

Estimated value detected below Reporting Limit

1710S69-004

Project Name: Kroger #676 Soil Vapor

Client:

Lab ID:

Contour Engineering, LLC

TO-15 Report

Client Sample ID: SVI-4

Collection Date: 10/26/2017 10:22:00 PM

Date:

6-Nov-17

Matrix: Air

Lab 1D. 1/10309-004	Matrix. All								
Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analys	
Toxic Organic Compounds in Air by GCMS	TO-15			(TO)-15)				
1,1,1-Trichloroethane	BRL	5.5		ug/m3	250788	2	10/31/2017 22:40	MD	
1,1,2,2-Tetrachloroethane	BRL	6.9		ug/m3	250788	2	10/31/2017 22:40	ME	
1,1,2-Trichloroethane	BRL	5.5		ug/m3	250788	2	10/31/2017 22:40	ME	
1,1-Dichloroethane	BRL	4.0		ug/m3	250788	2	10/31/2017 22:40	MD	
1,1-Dichloroethene	BRL	4.0		ug/m3	250788	2	10/31/2017 22:40	MD	
1,2,4-Trichlorobenzene	BRL	7.4		ug/m3	250788	2	10/31/2017 22:40	MD	
1,2,4-Trimethylbenzene	BRL	4.9		ug/m3	250788	2	10/31/2017 22:40	MD	
1,2-Dibromoethane	BRL	7.7		ug/m3	250788	2	10/31/2017 22:40	ME	
1,2-Dichlorobenzene	BRL	6.0		ug/m3	250788	2	10/31/2017 22:40	MD	
1,2-Dichloroethane	BRL	4.0		ug/m3	250788	2	10/31/2017 22:40	MD	
1,2-Dichloropropane	BRL	4.6		ug/m3	250788	2	10/31/2017 22:40	MD	
1,3,5-Trimethylbenzene	BRL	4.9		ug/m3	250788	2	10/31/2017 22:40	MD	
1,3-Butadiene	BRL	2.2		ug/m3	250788	2	10/31/2017 22:40	MD	
1,3-Dichlorobenzene	BRL	6.0		ug/m3	250788	2	10/31/2017 22:40	ME	
1,4-Dichlorobenzene	BRL	6.0		ug/m3	250788	2	10/31/2017 22:40	MD	
1,4-Dioxane	BRL	3.6		ug/m3	250788	2	10/31/2017 22:40	MD	
2,2,4-Trimethylpentane	BRL	4.7		ug/m3	250788	2	10/31/2017 22:40	MD	
2-Butanone	7.7	2.9		ug/m3	250788	2	10/31/2017 22:40	MD	
2-Hexanone	BRL	4.1		ug/m3	250788	2	10/31/2017 22:40	MD	
4-Ethyltoluene	BRL	4.9		ug/m3	250788	2	10/31/2017 22:40	MD	
4-Methyl-2-pentanone	BRL	4.1		ug/m3	250788	2	10/31/2017 22:40	MD	
Acetone	19	12		ug/m3	250788	2	10/31/2017 22:40	ME	
Allyl chloride	BRL	3.1		ug/m3	250788	2	10/31/2017 22:40	MD	
Benzene	BRL	3.2		ug/m3	250788		10/31/2017 22:40	MD	
Benzyl chloride	BRL	5.2		ug/m3	250788		10/31/2017 22:40	MD	
Bromodichloromethane	BRL	6.7		ug/m3	250788		10/31/2017 22:40	MD	
Bromoform	BRL	10		ug/m3	250788		10/31/2017 22:40	MD	
Bromomethane	BRL	3.9		ug/m3	250788		10/31/2017 22:40	MD	
Carbon disulfide	3.1	3.1		ug/m3	250788		10/31/2017 22:40	MD	
Carbon tetrachloride	BRL	6.3		ug/m3	250788		10/31/2017 22:40	MD	
Chlorobenzene	BRL	4.6		ug/m3	250788	2	10/31/2017 22:40	MD	
Chloroethane	BRL	2.6		ug/m3	250788	2	10/31/2017 22:40	MD	
Chloroform	6.6	4.9		ug/m3	250788	2	10/31/2017 22:40	ME	
Chloromethane	BRL	2.1		ug/m3	250788	2	10/31/2017 22:40	MI	
cis-1,2-Dichloroethene	BRL	4.0		ug/m3	250788	2	10/31/2017 22:40	ME	
cis-1,3-Dichloropropene	BRL	4.5		ug/m3	250788		10/31/2017 22:40	ME	
Cyclohexane	BRL	3.4		ug/m3	250788		10/31/2017 22:40	ME	
Dibromochloromethane	BRL	8.5		ug/m3	250788		10/31/2017 22:40	ME	
Dichlorodifluoromethane	BRL	8.5 4.9		ug/m3				ME	
				ug/m3	250788		10/31/2017 22:40		
Ethyl acetate	BRL	3.6		_	250788		10/31/2017 22:40	ME	
Ethylbenzene	BRL	4.3		ug/m3	250788	2	10/31/2017 22:40	MD	

Qualifiers:

Narr See case narrative

^{*} Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

1710S69-004

Project Name: Kroger #676 Soil Vapor

Client:

Lab ID:

Contour Engineering, LLC

TO-15 Report

Client Sample ID: SVI-4

Collection Date:

10/26/2017 10:22:00 PM

6-Nov-17

Date:

Matrix: Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS	TO-15			(TO)-15)			
Freon-113	BRL	7.7		ug/m3	250788	2	10/31/2017 22:40	MD
Freon-114	BRL	7.0		ug/m3	250788	2	10/31/2017 22:40	MD
Hexachlorobutadiene	BRL	11		ug/m3	250788	2	10/31/2017 22:40	MD
Isopropyl alcohol	BRL	18		ug/m3	250788	2	10/31/2017 22:40	MD
m,p-Xylene	BRL	8.7		ug/m3	250788	2	10/31/2017 22:40	MD
Methyl tert-butyl ether	BRL	3.6		ug/m3	250788	2	10/31/2017 22:40	MD
Methylene chloride	BRL	3.5		ug/m3	250788	2	10/31/2017 22:40	MD
n-Heptane	BRL	4.1		ug/m3	250788	2	10/31/2017 22:40	MD
n-Hexane	BRL	3.5		ug/m3	250788	2	10/31/2017 22:40	MD
o-Xylene	BRL	4.3		ug/m3	250788	2	10/31/2017 22:40	MD
Propene	7.2	1.7		ug/m3	250788	2	10/31/2017 22:40	MD
Styrene	BRL	4.3		ug/m3	250788	2	10/31/2017 22:40	MD
Tetrachloroethene	950	6.8		ug/m3	250788	2	10/31/2017 22:40	MD
Tetrahydrofuran	BRL	2.9		ug/m3	250788	2	10/31/2017 22:40	MD
Toluene	3.8	3.8		ug/m3	250788	2	10/31/2017 22:40	MD
trans-1,2-Dichloroethene	BRL	4.0		ug/m3	250788	2	10/31/2017 22:40	MD
trans-1,3-Dichloropropene	BRL	4.5		ug/m3	250788	2	10/31/2017 22:40	MD
Trichloroethene	BRL	5.4		ug/m3	250788	2	10/31/2017 22:40	MD
Trichlorofluoromethane	7.3	5.6		ug/m3	250788	2	10/31/2017 22:40	MD
Vinyl acetate	BRL	3.5		ug/m3	250788	2	10/31/2017 22:40	MD
Vinyl bromide	BRL	4.4		ug/m3	250788	2	10/31/2017 22:40	MD
Vinyl chloride	BRL	2.6		ug/m3	250788	2	10/31/2017 22:40	MD
Xylenes, Total	BRL	13		ug/m3	250788	2	10/31/2017 22:40	MD
Surr: 4-Bromofluorobenzene	81.2	70-130		%REC	250788	2	10/31/2017 22:40	MD

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Project Name: Kroger #676 Soil Vapor

Client:

Contour Engineering, LLC

TO-15 Report

SVI-5 **Client Sample ID:**

> **Collection Date:** 10/26/2017 10:39:00 PM

Date:

6-Nov-17

Air

Lab ID: 1710S69-005 Matrix:

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS	TO-15			(TO)-15)			
1,1,1-Trichloroethane	BRL	5.5		ug/m3	250788	2	10/31/2017 23:28	MD
1,1,2,2-Tetrachloroethane	BRL	6.9		ug/m3	250788	2	10/31/2017 23:28	MD
1,1,2-Trichloroethane	BRL	5.5		ug/m3	250788	2	10/31/2017 23:28	MD
1,1-Dichloroethane	BRL	4.0		ug/m3	250788	2	10/31/2017 23:28	MD
1,1-Dichloroethene	BRL	4.0		ug/m3	250788	2	10/31/2017 23:28	MD
1,2,4-Trichlorobenzene	BRL	7.4		ug/m3	250788	2	10/31/2017 23:28	MD
1,2,4-Trimethylbenzene	BRL	4.9		ug/m3	250788	2	10/31/2017 23:28	MD
1,2-Dibromoethane	BRL	7.7		ug/m3	250788	2	10/31/2017 23:28	MD
1,2-Dichlorobenzene	BRL	6.0		ug/m3	250788	2	10/31/2017 23:28	MD
1,2-Dichloroethane	BRL	4.0		ug/m3	250788	2	10/31/2017 23:28	MD
1,2-Dichloropropane	BRL	4.6		ug/m3	250788	2	10/31/2017 23:28	MD
1,3,5-Trimethylbenzene	BRL	4.9		ug/m3	250788	2	10/31/2017 23:28	MD
1,3-Butadiene	BRL	2.2		ug/m3	250788	2	10/31/2017 23:28	MD
1,3-Dichlorobenzene	BRL	6.0		ug/m3	250788	2	10/31/2017 23:28	MD
1,4-Dichlorobenzene	BRL	6.0		ug/m3	250788	2	10/31/2017 23:28	MD
1,4-Dioxane	BRL	3.6		ug/m3	250788	2	10/31/2017 23:28	MD
2,2,4-Trimethylpentane	BRL	4.7		ug/m3	250788	2	10/31/2017 23:28	MD
2-Butanone	6.2	2.9		ug/m3	250788	2	10/31/2017 23:28	MD
2-Hexanone	BRL	4.1		ug/m3	250788	2	10/31/2017 23:28	MD
4-Ethyltoluene	BRL	4.9		ug/m3	250788	2	10/31/2017 23:28	MD
4-Methyl-2-pentanone	BRL	4.1		ug/m3	250788	2	10/31/2017 23:28	MD
Acetone	36	12		ug/m3	250788	2	10/31/2017 23:28	MD
Allyl chloride	BRL	3.1		ug/m3	250788	2	10/31/2017 23:28	MD
Benzene	BRL	3.2		ug/m3	250788	2	10/31/2017 23:28	MD
Benzyl chloride	BRL	5.2		ug/m3	250788	2	10/31/2017 23:28	MD
Bromodichloromethane	BRL	6.7		ug/m3	250788	2	10/31/2017 23:28	MD
Bromoform	BRL	10		ug/m3	250788	2	10/31/2017 23:28	MD
Bromomethane	BRL	3.9		ug/m3	250788	2	10/31/2017 23:28	MD
Carbon disulfide	4.7	3.1		ug/m3	250788	2	10/31/2017 23:28	MD
Carbon tetrachloride	BRL	6.3		ug/m3	250788	2	10/31/2017 23:28	MD
Chlorobenzene	BRL	4.6		ug/m3	250788	2	10/31/2017 23:28	MD
Chloroethane	BRL	2.6		ug/m3	250788	2	10/31/2017 23:28	MD
Chloroform	BRL	4.9		ug/m3	250788	2	10/31/2017 23:28	MD
Chloromethane	BRL	2.1		ug/m3	250788	2	10/31/2017 23:28	MD
cis-1,2-Dichloroethene	BRL	4.0		ug/m3	250788	2	10/31/2017 23:28	MD
cis-1,3-Dichloropropene	BRL	4.5		ug/m3	250788	2	10/31/2017 23:28	MD
Cyclohexane	BRL	3.4		ug/m3	250788	2	10/31/2017 23:28	MD
Dibromochloromethane	BRL	8.5		ug/m3	250788	2	10/31/2017 23:28	MD
Dichlorodifluoromethane	BRL	4.9		ug/m3	250788	2	10/31/2017 23:28	MD
Ethyl acetate	BRL	3.6		ug/m3	250788	2	10/31/2017 23:28	MD
Ethylbenzene	BRL	4.3		ug/m3	250788	2	10/31/2017 23:28	MD

Qualifiers:

See case narrative

Value exceeds maximum contaminant level

BRL Below reporting limit

Н Holding times for preparation or analysis exceeded

Analyte not NELAC certified

Analyte detected in the associated method blank

Greater than Result value

E Estimated (value above quantitation range)

Spike Recovery outside limits due to matrix

Not confirmed

Less than Result value

Estimated value detected below Reporting Limit

TO-15 Report

SVI-5 **Client Sample ID:**

Date:

6-Nov-17

Contour Engineering, LLC **Client:** Project Name: Kroger #676 Soil Vapor **Collection Date:**

10/26/2017 10:39:00 PM Lab ID: 1710S69-005 Matrix: Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS	TO-15			(TO)-15)			
Freon-113	10.0	7.7		ug/m3	250788	2	10/31/2017 23:28	MD
Freon-114	BRL	7.0		ug/m3	250788	2	10/31/2017 23:28	MD
Hexachlorobutadiene	BRL	11		ug/m3	250788	2	10/31/2017 23:28	MD
Isopropyl alcohol	BRL	18		ug/m3	250788	2	10/31/2017 23:28	MD
m,p-Xylene	BRL	8.7		ug/m3	250788	2	10/31/2017 23:28	MD
Methyl tert-butyl ether	BRL	3.6		ug/m3	250788	2	10/31/2017 23:28	MD
Methylene chloride	BRL	3.5		ug/m3	250788	2	10/31/2017 23:28	MD
n-Heptane	BRL	4.1		ug/m3	250788	2	10/31/2017 23:28	MD
n-Hexane	7.0	3.5		ug/m3	250788	2	10/31/2017 23:28	MD
o-Xylene	BRL	4.3		ug/m3	250788	2	10/31/2017 23:28	MD
Propene	100	1.7		ug/m3	250788	2	10/31/2017 23:28	MD
Styrene	BRL	4.3		ug/m3	250788	2	10/31/2017 23:28	MD
Tetrachloroethene	230	6.8		ug/m3	250788	2	10/31/2017 23:28	MD
Tetrahydrofuran	BRL	2.9		ug/m3	250788	2	10/31/2017 23:28	MD
Toluene	4.5	3.8		ug/m3	250788	2	10/31/2017 23:28	MD
trans-1,2-Dichloroethene	BRL	4.0		ug/m3	250788	2	10/31/2017 23:28	MD
trans-1,3-Dichloropropene	BRL	4.5		ug/m3	250788	2	10/31/2017 23:28	MD
Trichloroethene	BRL	5.4		ug/m3	250788	2	10/31/2017 23:28	MD
Trichlorofluoromethane	BRL	5.6		ug/m3	250788	2	10/31/2017 23:28	MD
Vinyl acetate	BRL	3.5		ug/m3	250788	2	10/31/2017 23:28	MD
Vinyl bromide	BRL	4.4		ug/m3	250788	2	10/31/2017 23:28	MD
Vinyl chloride	BRL	2.6		ug/m3	250788	2	10/31/2017 23:28	MD
Xylenes, Total	BRL	13		ug/m3	250788	2	10/31/2017 23:28	MD
Surr: 4-Bromofluorobenzene	85	70-130		%REC	250788	2	10/31/2017 23:28	MD

Qualifiers:

BRL Below reporting limit

Н Holding times for preparation or analysis exceeded

Analyte not NELAC certified

Analyte detected in the associated method blank

Greater than Result value

E Estimated (value above quantitation range)

Spike Recovery outside limits due to matrix

See case narrative

Not confirmed

Less than Result value

Estimated value detected below Reporting Limit

Value exceeds maximum contaminant level

Sample Receipt Checklist for Air Canisters

Client Contour Engineering W	Vork Order Number
Checklist completed by Artican John Signature	gon Ochres 30,201
Carrier name: FedExUPSCourier_X Client	
Shipping container in good condition?	YesNo Not Present
Custody seals intact on shipping container?	YesNo Not Present
Chain of custody present?	YesNo
Chain of custody signed when relinquished and received?	YesNo
Chain of custody agrees with sample labels?	YesNo
Field data sheets present?	Yes <u>/</u> No
Sample containers intact?	Yes_V_No
If no, explain:	
All samples received within holding time?	Yes No
Was TAT marked on the COC?	YesNo
Proceed with Standard TAT as per project history?	Yes No Not Applicable
All canisters received per Bottle Order issued?	Yes_\(\sqrt{No}

See Case Narrative for resolution of the Non-Conformance.

Vapor_Checklist_7.26.2016_rev1

Client: Contour Engineering, LLC

Rpt Lim Reporting Limit

Project Name: Kroger #676 Soil Vapor

Workorder: 1710S69

ANALYTICAL QC SUMMARY REPORT

Date:

6-Nov-17

BatchID: 250788

Sample ID: MB-250788 SampleType: MBLK	Client ID: TestCode: To:	xic Organic Compoun	ds in Air by GCM	IS TO-15	Un Ba	its: ppbv tchID: 250788	-	Date: 1	0/31/2017 0/31/2017	Run No: 3559 7 Seq No: 7839 3	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC		High Limit	RPD Ref V			
1,1,1-Trichloroethane	BRL	0.20	5111 / 4144	51111tt /WI	, , , ,	20 11 211111	111811 2111111		, , , , , ,	- Tu B 2	
1,1,2,2-Tetrachloroethane	BRL	0.20									
1,1,2-Trichloroethane	BRL	0.20									
1,1-Dichloroethane	BRL	0.20									
1,1-Dichloroethene	BRL	0.20									
1,2,4-Trichlorobenzene	BRL	0.20									
1,2,4-Trimethylbenzene	BRL	0.20									
1,2-Dibromoethane	BRL	0.20									
1,2-Dichlorobenzene	BRL	0.20									
1,2-Dichloroethane	BRL	0.20									
,2-Dichloropropane	BRL	0.20									
,3,5-Trimethylbenzene	BRL	0.20									
,3-Butadiene	BRL	0.20									
,3-Dichlorobenzene	BRL	0.20									
,4-Dichlorobenzene	BRL	0.20									
,,4-Dioxane	BRL	0.20									
2,2,4-Trimethylpentane	BRL	0.20									
2-Butanone	BRL	0.20									
2-Hexanone	BRL	0.20									
l-Ethyltoluene	BRL	0.20									
l-Methyl-2-pentanone	BRL	0.20									
Acetone	BRL	1.0									
Allyl chloride	BRL	0.20									
Benzene	BRL	0.20									
Benzyl chloride	BRL	0.20									
Bromodichloromethane	BRL	0.20									
Bromoform	BRL	0.20									
Qualifiers: > Greater than Resu	ılt value		< Less	than Result value			В.	Analyte detected in t	the associated method	blank	
BRL Below reporting li	mit		E Estim	ated (value above quantita	ation range)		Н	Holding times for pr	reparation or analysis	exceeded	
J Estimated value of	detected below Reporting Lim	nit	N Analy	te not NELAC certified			R	RPD outside limits	due to matrix		

S Spike Recovery outside limits due to matrix

Client: Contour Engineering, LLC **Project Name:**

Kroger #676 Soil Vapor

Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

1710S69 Workorder:

ANALYTICAL QC SUMMARY REPORT

Date:

6-Nov-17

BatchID: 250788

Sample ID: MB-250788 SampleType: MBLK	Client ID: TestCode: To	oxic Organic Compound	ds in Air by GCM	IS TO-15	Uni Bat	its: ppbv chID: 250788		Date: 1		Run No: 355979 Seq No: 783935	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref V	al %RPD	RPD Limit	Qual
Bromomethane	BRL	0.20									
Carbon disulfide	BRL	0.20									
Carbon tetrachloride	BRL	0.20									
Chlorobenzene	BRL	0.20									
Chloroethane	BRL	0.20									
Chloroform	BRL	0.20									
Chloromethane	BRL	0.20									
cis-1,2-Dichloroethene	BRL	0.20									
cis-1,3-Dichloropropene	BRL	0.20									
Cyclohexane	BRL	0.20									
Dibromochloromethane	BRL	0.20									
Dichlorodifluoromethane	BRL	0.20									
Ethyl acetate	BRL	0.20									
Ethylbenzene	BRL	0.20									
Freon-113	BRL	0.20									
Freon-114	BRL	0.20									
Hexachlorobutadiene	BRL	0.20									
Isopropyl alcohol	BRL	1.5									
m,p-Xylene	BRL	0.40									
Methyl tert-butyl ether	BRL	0.20									
Methylene chloride	BRL	0.20									
n-Heptane	BRL	0.20									
n-Hexane	BRL	0.20									
o-Xylene	BRL	0.20									
Propene	BRL	0.20									
Styrene	BRL	0.20									
Tetrachloroethene	BRL	0.20									
Qualifiers: > Greater than Resu	lt value		< Less	than Result value			В	Analyte detected in the	he associated method	blank	
BRL Below reporting li	mit		E Estim	ated (value above quantit	ation range)		Н	Holding times for pro	eparation or analysis	exceeded	

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

Date: 6-Nov-17

Contour Engineering, LLC Client: Kroger #676 Soil Vapor **Project Name:**

ANALYTICAL QC SUMMARY REPORT

Workorder: 1710S69 BatchID: 250788

Sample ID: MB-250788 SampleType: MBLK	Client ID: TestCode: Tox	cic Organic Compoun	ds in Air by GCM	IS TO-15	Un: Bat	its: ppbv chID: 250788	_	Date: 10/3 lysis Date: 10/3	1/2017 1/2017	Run No: 355979 Seq No: 7839350
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPI	O RPD Limit Qual
Tetrahydrofuran	BRL	0.20								
Toluene	BRL	0.20								
trans-1,2-Dichloroethene	BRL	0.20								
rans-1,3-Dichloropropene	BRL	0.20								
Trichloroethene	BRL	0.20								
Trichlorofluoromethane	BRL	0.20								
Vinyl acetate	BRL	0.20								
Vinyl bromide	BRL	0.20								
Vinyl chloride	BRL	0.20								
Xylenes, Total	BRL	0.60								
Surr: 4-Bromofluorobenzene	3.330	0	4.000		83.2	70	130			
Sample ID: LCS-250788	Client ID:				Un	its: ppbv	Prep	Date: 10/3	1/2017	Run No: 355979
SampleType: LCS	TestCode: Tox	tic Organic Compoun	ds in Air by GCM	IS TO-15	Bat	chID: 250788	Ana	lysis Date: 10/3	1/2017	Seq No: 7839351
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPI	RPD Limit Qual
1,1,1-Trichloroethane	1.930	0.20	2.000		96.5	70	130			
1,1,2,2-Tetrachloroethane	2.150	0.20	2.000		108	70	130			
,1,2-Trichloroethane	1.940	0.20	2.000		97.0	70	130			
,1-Dichloroethane	1.910	0.20	2.000		95.5	70	130			
,1-Dichloroethene	1.780	0.20	2.000		89.0	70	130			
,2,4-Trichlorobenzene	1.940	0.20	2.000		97.0	70	130			
,2,4-Trimethylbenzene	2.060	0.20	2.000		103	70	130			
,2-Dibromoethane	2.110	0.20	2.000		106	70	130			
,2-Dichlorobenzene	2.100	0.20	2.000		105	70	130			
,2-Dichloroethane	2.040	0.20	2.000		102	70	130			
,2-Dichloropropane	1.920	0.20	2.000		96.0	70	130			
1,3,5-Trimethylbenzene	2.170	0.20	2.000		108	70	130			
Qualifiers: > Greater than Result va	alue		< Less	than Result value			В	Analyte detected in the as	ssociated method	d blank
BRL Below reporting limit			E Estim	ated (value above quantit	ation range)		Н	Holding times for prepara	ation or analysis	exceeded
	cted below Reporting Limi	it	•	rte not NELAC certified			R	RPD outside limits due to	o matrix	
Rpt Lim Reporting Limit			S Spike	Recovery outside limits of	due to matrix					20 of 25

Client: Contour Engineering, LLC **Project Name:**

Kroger #676 Soil Vapor

Workorder: 1710S69

ANALYTICAL QC SUMMARY REPORT

Date:

6-Nov-17

BatchID: 250788

Sample ID: LCS-250788 Sample Type: LCS	Client ID: TestCode:	Toxic Organic Compound	ds in Air by GCM	S TO-15	Uni Bat	ts: ppbv chID: 250788	-	Date: 10/31 lysis Date: 10/31		Run No: 355979 Seq No: 7839351	l
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit (Qual
1,3-Butadiene	1.890	0.20	2.000		94.5	70	130				
1,3-Dichlorobenzene	2.120	0.20	2.000		106	70	130				
1,4-Dichlorobenzene	2.170	0.20	2.000		108	70	130				
1,4-Dioxane	1.980	0.20	2.000		99.0	70	130				
2,2,4-Trimethylpentane	1.950	0.20	2.000		97.5	70	130				
2-Butanone	1.810	0.20	2.000		90.5	70	130				
2-Hexanone	2.310	0.20	2.000		116	70	130				
4-Ethyltoluene	2.040	0.20	2.000		102	70	130				
4-Methyl-2-pentanone	1.990	0.20	2.000		99.5	70	130				
Acetone	1.830	1.0	2.000		91.5	70	130				
Allyl chloride	1.850	0.20	2.000		92.5	70	130				
Benzene	1.950	0.20	2.000		97.5	70	130				
Benzyl chloride	2.110	0.20	2.000		106	70	130				
Bromodichloromethane	1.970	0.20	2.000		98.5	70	130				
Bromoform	2.130	0.20	2.000		106	70	130				
Bromomethane	1.870	0.20	2.000		93.5	70	130				
Carbon disulfide	1.840	0.20	2.000		92.0	70	130				
Carbon tetrachloride	1.970	0.20	2.000		98.5	70	130				
Chlorobenzene	2.130	0.20	2.000		106	70	130				
Chloroethane	1.830	0.20	2.000		91.5	70	130				
Chloroform	1.920	0.20	2.000		96.0	70	130				
Chloromethane	1.840	0.20	2.000		92.0	70	130				
cis-1,2-Dichloroethene	1.830	0.20	2.000		91.5	70	130				
cis-1,3-Dichloropropene	1.950	0.20	2.000		97.5	70	130				
Cyclohexane	1.870	0.20	2.000		93.5	70	130				
Dibromochloromethane	2.150	0.20	2.000		108	70	130				
Dichlorodifluoromethane	1.850	0.20	2.000		92.5	70	130				

Qualifiers:

Greater than Result value

BRL Below reporting limit

Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Client: Contour Engineering, LLC **Project Name:**

Kroger #676 Soil Vapor

Workorder: 1710S69

ANALYTICAL QC SUMMARY REPORT

Date:

6-Nov-17

BatchID: 250788

Sample ID: LCS-250788 SampleType: LCS	Client ID: TestCode: Toxic Organic Compounds in Air by GCMS TO-15							Date: 10/31 lysis Date: 10/31		Run No: 355979 Seq No: 7839351		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qua		
Ethyl acetate	1.880	0.20	2.000		94.0	70	130					
Ethylbenzene	2.090	0.20	2.000		104	70	130					
Freon-113	1.890	0.20	2.000		94.5	70	130					
Freon-114	1.850	0.20	2.000		92.5	70	130					
Hexachlorobutadiene	2.070	0.20	2.000		104	70	130					
Isopropyl alcohol	1.930	1.5	2.000		96.5	70	130					
m,p-Xylene	4.350	0.40	4.000		109	70	130					
Methyl tert-butyl ether	1.830	0.20	2.000		91.5	70	130					
Methylene chloride	1.780	0.20	2.000		89.0	70	130					
n-Heptane	1.930	0.20	2.000		96.5	70	130					
n-Hexane	1.840	0.20	2.000		92.0	70	130					
o-Xylene	2.160	0.20	2.000		108	70	130					
Propene	1.680	0.20	2.000		84.0	70	130					
Styrene	2.060	0.20	2.000		103	70	130					
Tetrachloroethene	2.150	0.20	2.000		108	70	130					
Tetrahydrofuran	1.840	0.20	2.000		92.0	70	130					
Toluene	1.910	0.20	2.000		95.5	70	130					
trans-1,2-Dichloroethene	1.860	0.20	2.000		93.0	70	130					
trans-1,3-Dichloropropene	1.920	0.20	2.000		96.0	70	130					
Trichloroethene	1.950	0.20	2.000		97.5	70	130					
Trichlorofluoromethane	1.900	0.20	2.000		95.0	70	130					
Vinyl acetate	1.780	0.20	2.000		89.0	70	130					
Vinyl bromide	1.860	0.20	2.000		93.0	70	130					
Vinyl chloride	1.860	0.20	2.000		93.0	70	130					
Xylenes, Total	6.510	0.60	6.000		108	70	130					
Surr: 4-Bromofluorobenzene	3.520	0	4.000		88.0	70	130					

Qualifiers:

Greater than Result value

BRL Below reporting limit

Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

ANALYTICAL QC SUMMARY REPORT

Date:

6-Nov-17

Contour Engineering, LLC Kroger #676 Soil Vapor **Project Name:**

BatchID: 250788

Workorder: 1710S69

Client:

Sample ID: 1710S77-002ADUP SampleType: DUP	Client ID: TestCode:	Toxic Organic Compounds i	in Air by GCM	IS TO-15	Uni Bat	ts: ppbv chID: 250788	_	Date: 1 lysis Date: 1	0/31/2017 1/01/2017	Run No: 355979 Seq No: 7839362
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref V	⁄al %RPD	RPD Limit Qual
1,1,1-Trichloroethane	BRL	0.20						0	0	25
1,1,2,2-Tetrachloroethane	BRL	0.20						0	0	25
1,1,2-Trichloroethane	BRL	0.20						0	0	25
1,1-Dichloroethane	BRL	0.20						0	0	25
1,1-Dichloroethene	BRL	0.20						0	0	25
1,2,4-Trichlorobenzene	BRL	0.20						0	0	25
1,2,4-Trimethylbenzene	0.3100	0.20						0.3100	0	25
1,2-Dibromoethane	BRL	0.20						0	0	25
1,2-Dichlorobenzene	BRL	0.20						0	0	25
1,2-Dichloroethane	BRL	0.20						0	0	25
1,2-Dichloropropane	BRL	0.20						0	0	25
1,3,5-Trimethylbenzene	BRL	0.20						0.07000	0	25
1,3-Butadiene	BRL	0.20						0	0	25
1,3-Dichlorobenzene	BRL	0.20						0	0	25
1,4-Dichlorobenzene	BRL	0.20						0	0	25
1,4-Dioxane	BRL	0.20						0	0	25
2,2,4-Trimethylpentane	BRL	0.20						0.08000	0	25
2-Butanone	BRL	0.20						0	0	25
2-Hexanone	BRL	0.20						0	0	25
4-Ethyltoluene	BRL	0.20						0	0	25
4-Methyl-2-pentanone	BRL	0.20						0	0	25
Acetone	1.430	1.0						1.480	3.44	25
Allyl chloride	BRL	0.20						0	0	25
Benzene	BRL	0.20						0.1300	0	25
Benzyl chloride	BRL	0.20						0	0	25
Bromodichloromethane	BRL	0.20						0	0	25
Bromoform	BRL	0.20						0	0	25

Qualifiers:

Greater than Result value

BRL Below reporting limit

Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Contour Engineering, LLC

Client:

Qualifiers:

BRL

Greater than Result value

Estimated value detected below Reporting Limit

Below reporting limit

Rpt Lim Reporting Limit

Project Name: Workorder:

ANALYTICAL QC SUMMARY REPORT

Date:

6-Nov-17

Kroger #676 Soil Vapor 1710S69 BatchID: 250788

Sample ID: 1710S77-002ADUP SampleType: DUP	Client ID: TestCode:	Toxic Organic Compounds in A	ir by GCN	MS TO-15	Uni Bat	its: ppbv rchID: 250788		Date: 10/31 lysis Date: 11/01		Run No: 355979 Seq No: 7839362
Analyte	Result	RPT Limit SPI	K value	SPK Ref Val	%REC	Low Limit H	igh Limit	RPD Ref Val	%RPD	RPD Limit Qual
Bromomethane	BRL	0.20						0	0	25
Carbon disulfide	BRL	0.20						0.06000	0	25
Carbon tetrachloride	BRL	0.20						0.09000	0	25
Chlorobenzene	BRL	0.20						0	0	25
Chloroethane	BRL	0.20						0	0	25
Chloroform	BRL	0.20						0.09000	0	25
Chloromethane	0.3300	0.20						0.3700	11.4	25
cis-1,2-Dichloroethene	BRL	0.20						0	0	25
cis-1,3-Dichloropropene	BRL	0.20						0	0	25
Cyclohexane	BRL	0.20						0	0	25
Dibromochloromethane	BRL	0.20						0	0	25
Dichlorodifluoromethane	BRL	0.20						0	0	25
Ethyl acetate	BRL	0.20						0	0	25
Ethylbenzene	BRL	0.20						0.06000	0	25
Freon-113	BRL	0.20						0.09000	0	25
Freon-114	BRL	0.20						0	0	25
Hexachlorobutadiene	BRL	0.20						0	0	25
Isopropyl alcohol	BRL	1.5						0	0	25
m,p-Xylene	BRL	0.40						0.1500	0	25
Methyl tert-butyl ether	BRL	0.20						0	0	25
Methylene chloride	BRL	0.20						0.1700	0	25
n-Heptane	BRL	0.20						0	0	25
n-Hexane	0.2200	0.20						0.2300	4.44	25
o-Xylene	BRL	0.20						0.06000	0	25
Propene	BRL	0.20						0	0	25
Styrene	BRL	0.20						0	0	25
Tetrachloroethene	2.240	0.20						2.280	1.77	25

Less than Result value

N Analyte not NELAC certified

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

R RPD outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

Analytical Environmental Services, Inc

Client: Contour Engineering, LLC

Project Name: Kroger #676 Soil Vapor

Workorder: 1710S69

ANALYTICAL QC SUMMARY REPORT

BatchID: 250788

Date:

6-Nov-17

Sample ID: 1710S77-002ADUP SampleType: DUP	Client ID: TestCode:	Toxic Organic Compound	ls in Air by GCM	IS TO-15	Uni Bate	ts: ppbv chID: 250788		Date: 10/31 lysis Date: 11/01		Run No: 355979 Seq No: 7839362
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Tetrahydrofuran	BRL	0.20						0	0	25
Toluene	0.2100	0.20						0.2100	0	25
trans-1,2-Dichloroethene	BRL	0.20						0	0	25
trans-1,3-Dichloropropene	BRL	0.20						0	0	25
Trichloroethene	BRL	0.20						0	0	25
Trichlorofluoromethane	0.2300	0.20						0.2300	0	25
Vinyl acetate	BRL	0.20						0	0	25
Vinyl bromide	BRL	0.20						0	0	25
Vinyl chloride	BRL	0.20						0	0	25
Xylenes, Total	BRL	0.60						0.2100	0	25
Surr: 4-Bromofluorobenzene	3.360	0	4.000		84.0	70	130	3.280	0	0

Qualifiers: > Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

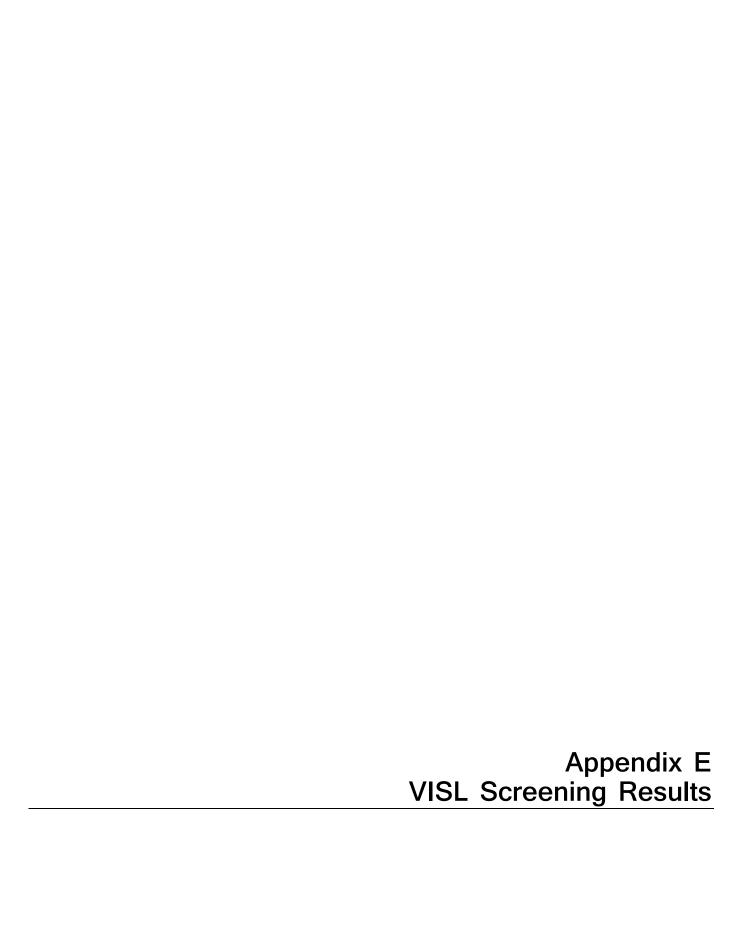
N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

R RPD outside limits due to matrix



SVI-1

OSWER VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5 June 2017 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

		Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard	
		Csg	Cia	CR	HQ	
CAS	Chemical Name	(ug/m ³)	(ug/m³)	CR	пų	
67-64-1	Acetone	4.8E+01	1.44E+00	No IUR	1.1E-05	
75-15-0	Carbon Disulfide	9.0E+00	2.70E-01	No IUR	8.8E-05	
78-93-3	Methyl Ethyl Ketone (2-Butanone)	8.0E+00	2.40E-01	No IUR	1.1E-05	
127-18-4	Tetrachloroethylene	9.5E+02	2.85E+01	6.0E-07	1.6E-01	
109-99-9	Tetrahydrofuran	9.3E+00	2.79E-01	No IUR	3.2E-05	
		Cumulative	3.07E+01	6.04E-07	1.63E-01	

	Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
ı	IUR	Source	RfC	Source	
	(ug/m ³) ⁻¹		(mg/m ³)		
I			3.10E+01	Α	
I			7.00E-01	_	
I			5.00E+00	_	
I	2.60E-07	Ī	4.00E-02		
			2.00E+00	I	

Notes:

(1)	Inhalation Pathway Exposure Parameters (RME):	Units	Residential		Commercial			(based on ario)
	Exposure Scenario		Symbol	Value	Symbol	Value	Symbol	Value
	Averaging time for carcinogens	(yrs)	ATc_R_SG	70	ATc_C_SG	70	ATc_SG	70
	Averaging time for non-carcinogens	(yrs)	ATnc_R_SG	26	ATnc_C_SG	25	ATnc_SG	25
	Exposure duration	(yrs)	ED_R_SG	26	ED_C_SG	25	ED_SG	25
	Exposure frequency	(days/yr)	EF_R_SG	350	EF_C_SG	250	EF_SG	250
	Exposure time	(hr/day)	ET_R_SG	24	ET_C_SG	8	ET_SG	8

(2)	Generic Attenuation Factors:		Reside	ntial	Commercial			Selected (based on scenario)	
	Source Medium of Vapors		Symbol	Value	Symbol	Value	Symbol	Value	
	Groundwater	(-)	AFgw_R_SG	0.001	AFgw_C_SG	0.001	AFgw_SG	0.001	
	Sub-Slab and Exterior Soil Gas	(-)	AFss R SG	0.03	AFss C SG	0.03	AFss SG	0.03	

(3) Formulas

Cia, target = MIN(Cia,c; Cia,nc)

Cia,c (ug/m3) = TCR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)

Cia,nc (ug/m3) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RfC x (1000 ug/mg) / (ED x EF x ET)

Selected (based on Residential (4) Special Case Chemicals Commercial scenario) Trichloroethylene Symbol Value Symbol Value Symbol Value nlURTCE_C_SG 0.00E+00 mIURTCE_R_SG 1.00E-06 mIURTCE_SG 0.00E+00 IURTCE_R_SG 3.10E-06 IURTCE_C_SG 4.10E-06 IURTCE_SG 4.10E-06

Mutagenic Chemicals

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

Note: This section applies to trichloroethylene and other	Age Cohort	Exposure Duration	Age-dependent adjustment factor
mutagenic chemicals, but not to vinyl chloride.	0 - 2 years	2	10
	2 - 6 years	4	3
	6 - 16 years	10	3
	16 - 26 years	10	1

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

Vinyl Chloride

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

Notation:

I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at:

http://www.epa.gov/iris/subst/index.html

P = PPRTV. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at:

http://hhpprtv.ornl.gov/pprtv.shtml http://www.atsdr.cdc.gov/mrls/index.html

A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at:

http://www.oehha.ca.gov/risk/ChemicalDB/index.asp

CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at:

VISL Version 3.5 Updated October 2017 Current Toxicity Values from June 2017 RSL Update

OSWER VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5 June 2017 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

		Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg	Cia	CD	110
CAS	Chemical Name	(ug/m³)	(ug/m³)	CR	HQ

		Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC	Mutagenic Indicator	
		IUR	Source*	RfC	Source*		
		(ug/m ³) ⁻¹		(mg/m ³)		i	
h	http://epa-heast.ornl.gov/heast.shtml						

H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at:

S = See RSL User Guide, Section 5

X = PPRTV Appendix

Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).

VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).

TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).

Yellow highlighting indicates site-specific parameters that may be edited by the user.

Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.

Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

SVI-2

OSWER VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5 June 2017 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

		Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard	
		Csg	Cia	0.0	110	
CAS	Chemical Name	(ug/m ³)	(ug/m³)	CR	HQ	
67-64-1	Acetone	3.0E+01	9.00E-01	No IUR	6.6E-06	
110-54-3	Hexane, N-	2.7E+01	8.10E-01	No IUR	2.6E-04	
75-09-2	Methylene Chloride	1.7E+02	5.10E+00	4.2E-09	1.9E-03	
127-18-4	Tetrachloroethylene	2.7E+03	8.10E+01	1.7E-06	4.6E-01	
108-88-3	Toluene	1.1E+01	3.30E-01	No IUR	1.5E-05	
76-13-1	Trichloro-1,2,2-trifluoroethane, 1,1,2-	3.3E+01	9.90E-01	No IUR	4.5E-05	
		Cumulative	8.91E+01	1.72E-06	4.65E-01	

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
(ug/m ³) ⁻¹		(mg/m ³)		i
		3.10E+01	Α	
		7.00E-01		
1.00E-08		6.00E-01		Mut
2.60E-07		4.00E-02		
		5.00E+00	_	
		5.00E+00	Р	

Notes:

(1)	Inhalation Pathway Exposure Parameters (RME):	Units	Residential		Residential Commercial			(based on nario)	
	Exposure Scenario		Symbol	Value	Symbol	Value	Symbol	Value	
	Averaging time for carcinogens	(yrs)	ATc_R_SG	70	ATc_C_SG	70	ATc_SG	70	
	Averaging time for non-carcinogens	(yrs)	ATnc_R_SG	26	ATnc_C_SG	25	ATnc_SG	25	
	Exposure duration	(yrs)	ED_R_SG	26	ED_C_SG	25	ED_SG	25	
	Exposure frequency	(days/yr)	EF_R_SG	350	EF_C_SG	250	EF_SG	250	
	Exposure time	(hr/day)	ET_R_SG	24	ET_C_SG	8	ET_SG	8	

(2)	(2) <u>Generic Attenuation Factors:</u>		Residential		Commercial			Selected (based on scenario)	
	Source Medium of Vapors		Symbol	Value	Symbol	Value	Symbol	Value	
	Groundwater	(-)	AFgw_R_SG	0.001	AFgw_C_SG	0.001	AFgw_SG	0.001	
	Sub-Slab and Exterior Soil Gas	(-)	AFss R SG	0.03	AFss C SG	0.03	AFss SG	0.03	

(3) Formulas

Cia, target = MIN(Cia,c; Cia,nc) Cia.c (ug/m3) = TCR x ATc x (365 days/yr) x (24

Cia,c (ug/m3) = TCR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)

Cia,nc (ug/m3) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RfC x (1000 ug/mg) / (ED x EF x ET)

Selected (based on (4) Special Case Chemicals Residential Commercial scenario) Trichloroethylene Symbol Value Symbol Value Symbol Value mIURTCE_R_SG 1.00E-06 nIURTCE_C_SG 0.00E+00 mIURTCE_SG 0.00E+00 IURTCE_SG 4.10E-06 IURTCE_R_SG 3.10E-06 IURTCE_C_SG 4.10E-06

Mutagenic Chemicals

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

Note: This section applies to trichloroethylene and other	Age Cohort	Exposure Duration	Age-dependent adjustment factor
mutagenic chemicals, but not to vinyl chloride.	0 - 2 years	2	10
	2 - 6 years	4	3
	6 - 16 years	10	3
	16 - 26 years	10	1

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

Vinyl Chloride

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

Notation:

I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at:

http://www.epa.gov/iris/subst/index.html

P = PPRTV. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at:

http://hhpprtv.ornl.gov/pprtv.shtml

http://www.atsdr.cdc.gov/mrls/index.html

A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at:

VISL Version 3.5 Updated October 2017 Current Toxicity Values from June 2017 RSL Update

OSWER VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5 June 2017 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

		Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg	Cia	CD	5
CAS	Chemical Name	(ug/m³)	(ug/m³)	CR	HQ

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator		
IUR	Source.	RfC	Source			
(ug/m ³) ⁻¹		(mg/m ³)		i		
http://www.oehha.ca.gov/risk/ChemicalDB/index.asp						

http://epa-heast.ornl.gov/heast.shtml

CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at:

H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at:

S = See RSL User Guide, Section 5

X = PPRTV Appendix

Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).

VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).

TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).

Yellow highlighting indicates site-specific parameters that may be edited by the user.

Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.

Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

SVI-3

OSWER VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5 June 2017 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

		Site Sub-slab or	Calculated	VI	
		Exterior Soil Gas	Indoor Air	Carcinogenic	VI Hazard
		Concentration	Concentration	Risk	
		Csg	Cia	0.0	
CAS	Chemical Name	(ug/m ³)	(ug/m³)	CR	HQ
127-18-4	Tetrachloroethylene	2.0E+02	6.00E+00	1.3E-07	3.4E-02
76-13-1	Trichloro-1,2,2-trifluoroethane, 1,1,2-	1.8E+01	5.40E-01	No IUR	2.5E-05
		Cumulative	6.54E+00	1.27E-07	3.43E-02

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR	Source"	RfC	Source	
(ug/m ³) ⁻¹		(mg/m ³)		i
2.60E-07		4.00E-02	_	
		5.00E+00	Р	

Notes:

(1)	Inhalation Pathway Exposure Parameters (RME):	Units	Residential		Residential Commercial		Selected (scena	
	Exposure Scenario		Symbol	Value	Symbol	Value	Symbol	Value
	Averaging time for carcinogens	(yrs)	ATc_R_SG	70	ATc_C_SG	70	ATc_SG	70
	Averaging time for non-carcinogens	(yrs)	ATnc_R_SG	26	ATnc_C_SG	25	ATnc_SG	25
	Exposure duration	(yrs)	ED_R_SG	26	ED_C_SG	25	ED_SG	25
	Exposure frequency	(days/yr)	EF_R_SG	350	EF_C_SG	250	EF_SG	250
	Exposure time	(hr/day)	ET R SG	24	ET C SG	8	ET SG	8

(2)	Generic Attenuation Factors:		Residential		Commercial			Selected (based on scenario)	
	Source Medium of Vapors		Symbol	Value	Symbol	Value	Symbol	Value	
	Groundwater	(-)	AFgw_R_SG	0.001	AFgw_C_SG	0.001	AFgw_SG	0.001	
	Sub-Slab and Exterior Soil Gas	(-)	AFss R SG	0.03	AFss C SG	0.03	AFss SG	0.03	

(3) Formulas

Cia, target = MIN(Cia,c; Cia,nc)

Cia,c (ug/m3) = TCR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)

Cia,nc (ug/m3) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RfC x (1000 ug/mg) / (ED x EF x ET)

(4)	Special Case Chemicals	Reside	ntial	Commercia	al	Selected (based on scenario)
	Trichloroethylene	Symbol	Value	Symbol	Value	Symbol Value
		mIURTCE_R_SG	1.00E-06	nIURTCE_C_SG 0	.00E+00	mIURTCE_SG 0.00E+00
		IURTCE_R_SG	3.10E-06	IURTCE_C_SG 4	.10E-06	IURTCE_SG 4.10E-06

Mutagenic Chemicals

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

Note: This section applies to trichloroethylene and other	Age Cohort	Exposure Duration	Age-dependent adjustment factor
mutagenic chemicals, but not to vinyl chloride.	0 - 2 years	2	10
	2 - 6 years	4	3
	6 - 16 years	10	3
	16 - 26 years	10	1

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

Vinyl Chloride

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

Notation:

I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at:

http://www.epa.gov/iris/subst/index.html

P = PPRTV. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at:

o://hnpprtv.orni.gov/pprtv.sntmi

A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at:
CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at:

http://www.atsdr.cdc.gov/mrls/index.html http://www.oehha.ca.gov/risk/ChemicalDB/index.asp

H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at:

http://epa-heast.ornl.gov/heast.shtml

S = See RSL User Guide, Section 5

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X = PPRTV Appendix

VISL Version 3.5 Updated October 2017 Current Toxicity Values from June 2017 RSL Update

OSWER VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5 June 2017 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

		Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg	Cia	0	HQ
CAS	Chemical Name	(ug/m³)	(ug/m³)	CR	пų

Inhalation Unit Risk	IUR	Reference Concentration	RFC	Mutagenic Indicator
IUR	Source*	RfC	Source*	
(ug/m ³) ⁻¹		(mg/m ³)		i

Yellow highlighting indicates site-specific parameters that may be edited by the user.

Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed. Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).

VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).

TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).

SVI-4

OSWER VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5 June 2017 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

		Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg	Cia	CR	-19
CAS	Chemical Name	(ug/m ³)	(ug/m³)	CR	HQ
67-64-1	Acetone	1.9E+01	5.70E-01	No IUR	4.2E-06
75-15-0	Carbon Disulfide	3.1E+00	9.30E-02	No IUR	3.0E-05
67-66-3	Chloroform	6.6E+00	1.98E-01	3.7E-07	4.6E-04
78-93-3	Methyl Ethyl Ketone (2-Butanone)	7.7E+00	2.31E-01	No IUR	1.1E-05
127-18-4	Tetrachloroethylene	9.5E+02	2.85E+01	6.0E-07	1.6E-01
108-88-3	Toluene	3.8E+00	1.14E-01	No IUR	5.2E-06
	•	Cumulative	2.97E+01	9.76E-07	1.63E-01

In	halation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
	IUR	Source	RfC	Source	
	(ug/m ³) ⁻¹		(mg/m ³)		-
			3.10E+01	Α	
			7.00E-01		
	2.30E-05		9.80E-02	Α	
			5.00E+00		
	2.60E-07		4.00E-02		
			5.00E+00		

Notes:

(1)	Inhalation Pathway Exposure Parameters (RME):	Units	Reside	ntial	Commer	cial		(based on nario)	
	Exposure Scenario		Symbol	Value	Symbol	Value	Symbol	Value	
	Averaging time for carcinogens	(yrs)	ATc_R_SG	70	ATc_C_SG	70	ATc_SG	70	
	Averaging time for non-carcinogens	(yrs)	ATnc_R_SG	26	ATnc_C_SG	25	ATnc_SG	25	
	Exposure duration	(yrs)	ED_R_SG	26	ED_C_SG	25	ED_SG	25	
	Exposure frequency	(days/yr)	EF_R_SG	350	EF_C_SG	250	EF_SG	250	
	Exposure time	(hr/day)	ET_R_SG	24	ET_C_SG	8	ET_SG	8	

(2)	(2) <u>Generic Attenuation Factors:</u>		Residential Commercial		Selected (based on scenario)			
	Source Medium of Vapors		Symbol	Value	Symbol	Value	Symbol	Value
	Groundwater	(-)	AFgw_R_SG	0.001	AFgw_C_SG	0.001	AFgw_SG	0.001
	Sub-Slab and Exterior Soil Gas	(-)	AFss_R_SG	0.03	AFss_C_SG	0.03	AFss_SG	0.03

(3) Formulas

Cia, target = MIN(Cia,c; Cia,nc)

Cia,c (ug/m3) = TCR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)

Cia,nc (ug/m3) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RfC x (1000 ug/mg) / (ED x EF x ET)

Selected (based on (4) Special Case Chemicals Residential Commercial scenario) Trichloroethylene Symbol Value Symbol Value Symbol Value mIURTCE_R_SG 1.00E-06 nIURTCE_C_SG 0.00E+00 mIURTCE_SG 0.00E+00 IURTCE_SG 4.10E-06 IURTCE_R_SG 3.10E-06 IURTCE_C_SG 4.10E-06

Mutagenic Chemicals

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

Note: This section applies to trichloroethylene and other	Age Cohort	Exposure Duration	Age-dependent adjustment factor
mutagenic chemicals, but not to vinyl chloride.	0 - 2 years	2	10
	2 - 6 years	4	3
	6 - 16 years	10	3
	16 - 26 years	10	1

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

Vinyl Chloride

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

Notation:

I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at:

http://www.epa.gov/iris/subst/index.html

P = PPRTV. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at:

http://hhpprtv.ornl.gov/pprtv.shtml

A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at:

http://www.atsdr.cdc.gov/mrls/index.html

VISL Version 3.5 Updated October 2017 Current Toxicity Values from June 2017 RSL Update

OSWER VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5 June 2017 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

		Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg	Cia	CD	5
CAS	Chemical Name	(ug/m³)	(ug/m³)	CR	HQ

Inhalation Unit Risk	IUR Source*	Reference Concentration	centration RFC			
IUR	Source.	RfC	Source			
(ug/m ³) ⁻¹		(mg/m ³)		i		
http://www.oehha.ca.gov/risk/ChemicalDB/index.asp						

http://epa-heast.ornl.gov/heast.shtml

CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at:

H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at:

S = See RSL User Guide, Section 5

X = PPRTV Appendix

Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).

VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).

TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).

Yellow highlighting indicates site-specific parameters that may be edited by the user.

Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.

Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

SVI-5

OSWER VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5 June 2017 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

		Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard	
		Csg	Cia	3	-19	
CAS	Chemical Name	(ug/m³)	(ug/m³)	CR	HQ	
67-64-1	Acetone	3.6E+01	1.08E+00	No IUR	8.0E-06	
75-15-0	Carbon Disulfide	4.7E+00	1.41E-01	No IUR	4.6E-05	
110-54-3	Hexane, N-	7.0E+00	2.10E-01	No IUR	6.8E-05	
78-93-3	Methyl Ethyl Ketone (2-Butanone)	6.2E+00	1.86E-01	No IUR	8.5E-06	
127-18-4	Tetrachloroethylene	2.3E+02	6.90E+00	1.5E-07	3.9E-02	
108-88-3	Toluene	4.5E+00	1.35E-01	No IUR	6.2E-06	
76-13-1	Trichloro-1,2,2-trifluoroethane, 1,1,2-	1.0E+01	3.00E-01	No IUR	1.4E-05	
		Cumulative	8.95E+00	1.46E-07	3.95E-02	

Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator
IUR	Source	RfC	Source	
(ug/m ³) ⁻¹		(mg/m ³)		i
		3.10E+01	Α	
		7.00E-01		
		7.00E-01		
		5.00E+00		
2.60E-07		4.00E-02		
		5.00E+00		
		5.00E+00	Р	

Notes:

(1)	Inhalation Pathway Exposure Parameters (RME): Units Re		Reside	lential Commercial				(based on ario)
	Exposure Scenario		Symbol	Value	Symbol	Value	Symbol	Value
	Averaging time for carcinogens	(yrs)	ATc_R_SG	70	ATc_C_SG	70	ATc_SG	70
	Averaging time for non-carcinogens	(yrs)	ATnc_R_SG	26	ATnc_C_SG	25	ATnc_SG	25
	Exposure duration	(yrs)	ED_R_SG	26	ED_C_SG	25	ED_SG	25
	Exposure frequency	(days/yr)	EF_R_SG	350	EF_C_SG	250	EF_SG	250
	Exposure time	(hr/day)	ET_R_SG	24	ET_C_SG	8	ET_SG	8

(2)	Generic Attenuation Factors:		Residential C			ial	,	Selected (based on scenario)	
	Source Medium of Vapors		Symbol	Value	Symbol	Value	Symbol	Value	
	Groundwater	(-)	AFgw_R_SG	0.001	AFgw_C_SG	0.001	AFgw_SG	0.001	
	Sub-Slab and Exterior Soil Gas	(-)	AFss_R_SG	0.03	AFss_C_SG	0.03	AFss_SG	0.03	

(3) Formulas

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

Selected (based on (4) **Special Case Chemicals** Residential Commercial scenario) Trichloroethylene Value Symbol Value Symbol Value Symbol nIURTCE_C_SG 0.00E+00 mIURTCE_SG 0.00E+00 mIURTCE_R_SG 1.00E-06 IURTCE_R_SG 3.10E-06 IURTCE_C_SG 4.10E-06 IURTCE_SG 4.10E-06

Mutagenic Chemicals

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

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

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

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

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

Notation:

I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at:

http://www.epa.gov/iris/subst/index.html

P = PPRTV. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at:

http://hhpprtv.ornl.gov/pprtv.shtml

VISL Version 3.5 Updated October 2017 Current Toxicity Values from June 2017 RSL Update

OSWER VAPOR INTRUSION ASSESSMENT

Sub-slab or Exterior Soil Gas Concentration to Indoor Air Concentration (SGC-IAC) Calculator Version 3.5 June 2017 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR_SG	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ_SG	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)

		Site Sub-slab or Exterior Soil Gas Concentration	Calculated Indoor Air Concentration	VI Carcinogenic Risk	VI Hazard
		Csg	Cia	CD	110
CAS	Chemical Name	(ug/m³)	(ug/m³)	CR	HQ

| Inhalation Unit | Risk | Source* | Reference | Concentration | RFC | Source* | IUR | Cong/m³) | IUR
http://www.oehha.ca.gov/risk/ChemicalDB/index.asp

http://www.atsdr.cdc.gov/mrls/index.html

A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at:

CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at:

H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at:

S = See RSL User Guide, Section 5

X = PPRTV Appendix

Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).

VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).

TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).

Yellow highlighting indicates site-specific parameters that may be edited by the user.

Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.

Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).



SOIL BORING LOG

BORING NO.

MW-1

Drilling Method:

HSA

Page 1 of 1

Project No.

The Kroger Company

ENMISC1326

Sampling Method: **ENERCON Manager:** Drill Cuttings C. McCoy

Client: Location:

Former Lucky Cleaners

Augusta, Georgia

Driller:

LandProbe

GROUNDWATER

Depth Below:

Surface

Ref Point

Start Date:

09.17.08

At Time of Boring: After One Week:

~19'

Ground Top of Casing 09.17.08

15.621

Comp Date:

Surface Conditions: Dirt

Weather:

overcast, 75 degrees F

	MPLE		Inch	Inch	%	Blows/	FID	LISC	DESCRIPTION:
No.	Type		Drvn	Rcvd	Rcvd	6"	ppm	030	DESCRIPTION.
1		0 -						1	
		-					İ		
0-3.5'			0	0	n/a	n/a	6.3	ML	Brown and Tan, Sandy SILT, Slightly Moist, No Odor
		-	Ĭ				0.5		Storm and Tan, Sandy S.S., Srightly 12000, 110 Such
		5 -							
	i	-							
3.5-7'		-	0	0	n/a	n/a	49.9	ML	Brown, Sandy SILT, moist, No Odor
		-							9
		10 -							
7-10.5'		-	0	0	n/a	n/a	23.6	ML	Brown, Sandy SILT, Moist, No Odor
		-	j						
		-	ļ						
10.5-14'		, -	0	0	n/a	n/a	64.4	ML	Brown, Sandy SILT, Very Moist, No Odor
		15 -							
]							
14-17.5'		-	0	0	n/a	n/a	126.9	ML	Brown, Sandy SILT, Very Moist to Saturated, No Odor
		-							Groundwater Encountered @ ~19' bgs
l		20 -							
17.5-21']	-	0	0	n/a	n/a	36.8	ML	Brown, Sandy SILT with Some Clay, Saturated, No Odor
]							
		-							
21-24.5'		25 -	0	0	n/a	n/a	15.5	ML	Brown, Sandy SILT with Some Clay, Saturated, No Odor
		-							
24.5.201]	-				/-			
24.5-28'	- 1		0	0	n/a	n/a	n/a	CL	Gray, Fat CLAY Layer Between 28 and 30' bgs
1		30 -						CL	Gray, Fat CEAT Layer Between 20 and 30 bgs
		-	- 1	ŀ				ML	Brown, Sandy SILT, Saturated, No Odor
28-31.5'		-	0	0	n/a	n/a	n/a		
		-							
31.5-35'		35 -	0	0	n/a	n/a	n/a		
31.3-33		33 -	١	١	IVa	IVa	II/a		
		-			ŀ				Boring Terminated @ ~35' bgs (50' drilled at 45 degree angle)
		-	ŀ		ł				Groundwater Encountered @~19' bgs
		-							**FID had background reading of 5.0ppm prior to reading collection**

SAMPLER TYPE:

GP - Geoprobe

HSA - Hollow Stem Auger

SS - Driven Split Spoon

SH - Pressured Shelby Tube

MC - Macro Core Sampler

OST - Osterberg Piston Sampler

DEN - Denison Core Barrel Sampler

SPT - Standard Penetration Test (ASTM D 1586-84)

Surface Elevation:

100.00'

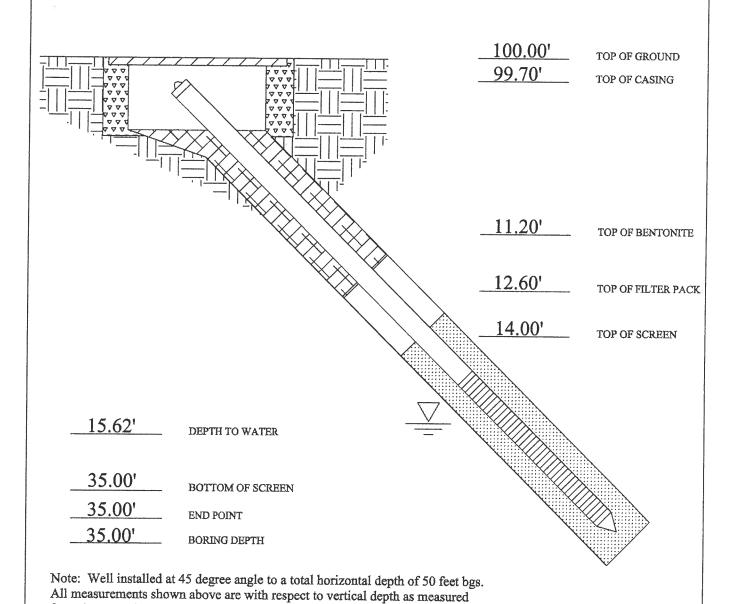
Casing Below Surface:

99.70'

Reference Elevation: Reference Description: MW-1 Top of Casing

100.00'

PROJECT	Former Lucky Cleaners	BOREHOLE SIZE	4.25 inches
PROJECT #	ENMISC1326	RISOR PIPE TYPE	2.0-inch, schedule 40 PVC
WELL#	MW-1	GROUT TYPE/LBS	Portland Type I
ENERCON REPRESENTATIVE	Carrie McCoy	BENTONITE TYPE/LBS	Pure Gold Bentonite Chips
METHOD/DATE DEVELOPED	09.22.08/Bailer	FILTER PACK TYPE/LBS	20/30 Rollo Washed Sand
DRILLER	LandProbe	SLOTTED SCREEN TYPE	0.01" slotted 2" sch40 PVC
TYPE OF WELL	Type II Monitoring Well	WATER ENCOUNTERED	~19'



from the ground surface.

SOIL BORING LOG

BORING NO.

MW-2

Drilling Method:

HSA

Page 1 of 1

Project No.

ENMISC1326

Sampling Method: **ENERCON Manager:** Drill Cuttings

Client: Location: The Kroger Company Former Lucky Cleaners C. McCoy

Augusta, Georgia

LandProbe

GROUNDWATER

Depth Below:

Surface

Ref Point

Start Date:

Driller:

09.17.08

At Time of Boring:

~19'

Ground Top of Casing Comp Date:

09.18.08

After One Week:

16.10'

Weather:

clear, 85 degrees F

Surface Conditions:

Dirt

SA	MPLE		Inch	Inch	%	Blows/	FID	TISC	DESCRIPTION:
No.	Туре		Drvn	Rcvd	Rcvd	6"	ppm	050	DESCRIPTION,
		0 -							
		-							
0-3.5'		_	0	0	n/a	n/a	14.6	MI	Brown and Tan, Clayey SILT, Slightly Moist, No Odor
0-5.5		_		"	11/4	11/4	14.0	I WILL	Brown and Tan, Clayey Old I, Brightly Moist, No Odor
		5 -							
		-					ļ		
3.5-7'		-	0	0	n/a	n/a	50.0	ML	Brown and Tan, Clayey SILT, Moist, No Odor
		-							
		-							
7-10.5		10 -	0	0	n/a	n/a	38.2	ML	Brown, Clayey SILT, Moist, No Odor
7-10.3			'	0	11/a	IVa	36.2	IVIL	Brown, Clayey StE1, Moist, No Odol
		_							
10.5-14'		_	0	0	n/a	n/a	64.8	ML	Brown, Clayey SILT with Trace Fine to Medium Gravel, Very Moist,
		15 -							No Odor
		-							
		-							Reddish Brown, Clayey SILT with Moderate Sand and Gravel, Very Moist
14-17.5'			0	0	n/a	n/a	71.4	ML	to Saturated, No Odor
		20 -							Groundwater Encountered @ ~19' bgs
17.5-21'		20 -	0	0	n/a	n/a	112.0	ML	Reddish Brown, Sandy, Clayey SILT, Saturated, No Odor
17.5 21		-	Ĭ						,
1		-							
		-							
21-24.5'		25 -	0	0	n/a	n/a	95.5	ML	Brown, Sandy SILT with Some Clay, Saturated, No Odor
		-		i					
24.5-28'		-	0	0		- /-	n/a		
24.3-28		-	١	'	n/a	n/a	IVA		
		30 -							
		-							
28-31.5'		-	0	0	n/a	n/a	n/a		
		-							
		-							
31.5-35'		35 -	0	0	n/a	n/a	n/a		
		-							Paring Terminated @ 35! has (50! drilled at 45 degree angle)
		-	l						Boring Terminated @ ~35' bgs (50' drilled at 45 degree angle) Groundwater Encountered @ ~19' bgs
]							**FID had background reading of 6.5-7.2 ppm prior to reading collection*
									1 122 mas strong, varieties of o.5 7.2 ppm prior to reduting contection

SAMPLER TYPE:

GP - Geoprobe

HSA - Hollow Stem Auger

SS - Driven Split Spoon

SH - Pressured Shelby Tube

MC - Macro Core Sampler

OST - Osterberg Piston Sampler

DEN - Denison Core Barrel Sampler

SPT - Standard Penetration Test (ASTM D 1586-84)

Surface Elevation:

100.12

Casing Below Surface:

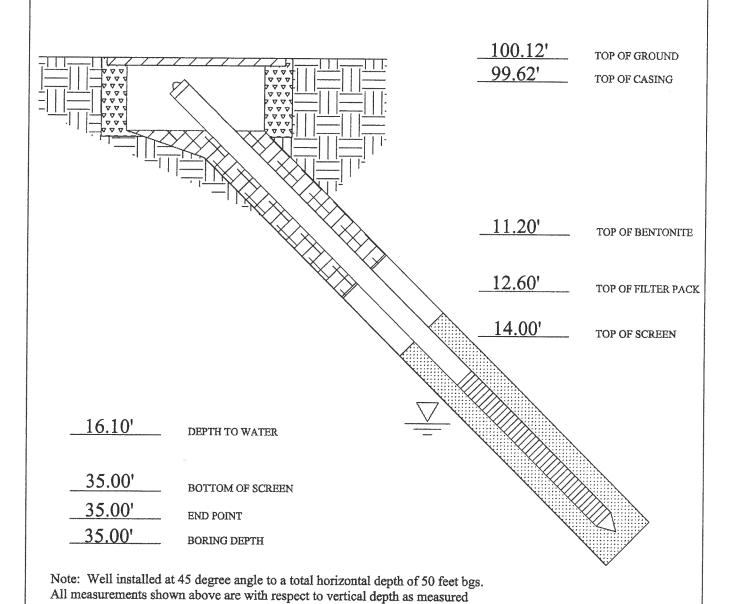
99.62'

Reference Elevation:

100.00'

Reference Description: MW-1 Top of Casing

PROJECT	Former Lucky Cleaners	BOREHOLE SIZE	4.25 inches
PROJECT #	ENMISC1326	RISOR PIPE TYPE	2.0-inch, schedule 40 PVC
WELL#	MW-2	GROUT TYPE/LBS	Portland Type I
ENERCON REPRESENTATIVE	Carrie McCoy	BENTONITE TYPE/LBS	Pure Gold Bentonite Chips
METHOD/DATE DEVELOPED	09.22.08/Bailer	FILTER PACK TYPE/LBS	20/30 Rollo Washed Sand
DRILLER	LandProbe	SLOTTED SCREEN TYPE	0.01" slotted 2" sch40 PVC
TYPE OF WELL	Type II Monitoring Well	WATER ENCOUNTERED	~19'



from the ground surface.

ENERCON Services, Inc.

SOIL BORING LOG

BORING NO.

MW-3

Drilling Method:

HSA

Page 1 of 1

Project No.

ENMISC1326

Sampling Method: **ENERCON Manager:** Drill Cuttings C. McCoy

Client: Location: The Kroger Company Former Lucky Cleaners

Augusta, Georgia

Driller:

LandProbe

GROUNDWATER

Depth Below:

Surface ~20'

Ref Point

Start Date:

09.18.08

At Time of Boring:

Ground

Comp Date:

09.18.08

After One Week: Surface Conditions: 18.07 Dirt

Top of Casing Weather: clear, 85 degrees F

SA	MPLE		Inch	Inch	ľ
No.	Type	Doth	Drvn	Rcvd	l

SA	MPLE		Inch	Inch	%	Blows/	FID	TIEC	DESCRIPTION;
No.	Туре	Dpth	Drvn	Rcvd	Rcvd	6"	ppm	USC	DESCRIPTION:
		0 -							
1		-							
		-							
0-3.5'		-	0	0	n/a	n/a	5.2	ML	Reddish Brown and Brown, Clayey SILT, Slightly Moist, No Odor
1		- 5 -					İ		
		- د							
3.5-7'		_	0	0	n/a	n/a	25.8	мт	Brown, Clayey SILT with Trace Gravel, Moist, No Odor
3.5-7		_	"		11/4	11/4	25.0	****	Brown, Clayby SIET with Trace Graver, Moist, No Guoi
		-							
		10 -							
7-10.5'		-	0	0	n/a	n/a	345.7	ML	Brown, Clayey SILT, Moist, No Odor
		-							
1		-							
10.5-14'		-	0	0	n/a	n/a	77.1	ML	Brown, Clayey SILT with Trace Fine to Medium Gravel, Very Moist,
		15 -							No Odor
		-							
14 17 51		-			/-	/-	57.5	M	Brown, Clayey SILT with Trace Fine to Medium Gravel, Very Moist
14-17.5'		-	0	0	n/a	n/a	37.3	ML	to Saturated, No Odor
		20 -					ŀ		Groundwater Encountered @ ~20' bgs
17.5-21'		20 -	0	0	n/a	n/a	31.9	ML	Brown, Clayey SILT with Medium Gravel, Saturated, No Odor
	-	-		ľ]		
		_							
		-							Lens of Very Solid PWR/Rock @ ~23.8-24.5' bgs
21-24.5'		25 -	0	0	n/a	n/a	n/a	ML	Brown, Clayey SILT with Medium Gravel, Saturated, No Odor
1		-							
1		-							
24.5-28'		-	0	0	n/a	n/a	n/a		
	- 1	20							
		30 -							
28-31.5'		-	0	0	n/a	n/a	n/a	ML	Gray and Tan, Clayey SILT with Medium Gravel and Moderate Organics
20-31.3	İ	_	١	۱ ۲	ша	11/4	11/4	IVIL	@ ~31.5-33.6' bgs
	ļ							ML	Brown and Tan, Clayey SILT, Saturated, No Odor
31.5-35		35 -	0	0	n/a	n/a	n/a		
		_							
		-	l						Boring Terminated @ ~35' bgs (50' drilled at 45 degree angle)
		-			}				Groundwater Encountered @ ~20' bgs
		-]							-

SAMPLER TYPE:

GP - Geoprobe

HSA - Hollow Stem Auger

SS - Driven Split Spoon

SH - Pressured Shelby Tube

MC - Macro Core Sampler

OST - Osterberg Piston Sampler DEN - Denison Core Barrel Sampler

SPT - Standard Penetration Test (ASTM D 1586-84)

Surface Elevation:

99.77'

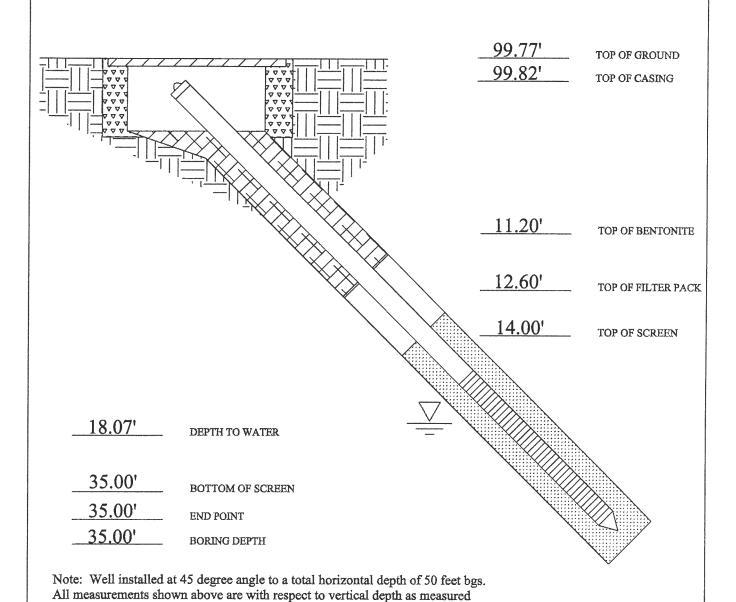
Casing Below Surface:

99.82' 100,001

Reference Elevation: Reference Description:

MW-1 Top of Casing

PROJECT	Former Lucky Cleaners	BOREHOLE SIZE	4.25 inches
PROJECT#	ENMISC1326	RISOR PIPE TYPE	2.0-inch, schedule 40 PVC
WELL#	MW-3	GROUT TYPE/LBS	Portland Type I
ENERCON REPRESENTATIVE	Carrie McCoy	BENTONITE TYPE/LBS	Pure Gold Bentonite Chips
METHOD/DATE DEVELOPED	09.22.08/Bailer	FILTER PACK TYPE/LBS	20/30 Rollo Washed Sand
DRILLER	LandProbe	SLOTTED SCREEN TYPE	0.01" slotted 2" sch40 PVC
TYPE OF WELL	Type II Monitoring Well	WATER ENCOUNTERED	~20'



from the ground surface.



BORING LOG

Client: Kroger Company
Project Name: Former Lucky Cleaners

Project Location: <u>Augusta, GA</u> Project Number: <u>KROGER110</u>

Boring ID: MW-4

Drilling and Samp	oling Information			Boring I	Location: East of building, just north of MW-3
TOC Elevation (ft.)	98.95	Total Depth (ft.)	30		
Start Date:	8/25/2011	Finish Date	8/25/2011		
Drilling Company:	GeoLab			Notes:	Collected soil sample from 15'
Drilled By:	Don Phillips				Screened well from 10 to 30 feet
Logged By:	C. Sherman				
Drilling Method:	Auger				
Borehole Diameter:	8.25 inches				
Sampling Method:	Split Spoon			7	Shirt Control of the
Water Level(s):	~18.4				

^{*}Highlighted areas indicate soil samples that were submitted for analysis.

DEPTH IN FEET	DESCRIPTION	Sample No.	NSCS	INCHES DRIVEN	INCHES RECOVERED	SAMPLE TYPE	BLOW	PID (ppm)
0	Vegetation at surface							
2	Tan, orange, no odor, fill, Silty Sand	1	SM	-	-	НА	-	0.0
4-6	Tan, orange, pieces of gravel, no odor, fill, Silty Sand	2	SM	24	24	SS	5-8-5-8	0.0
9-11	Same As Above (S.A.A.)	3	SM	24	24	SS	5-4-4-8	0.0
14-16	Tan, orange, moist, no odor, Silty Sand with some Clay	4	SM	24	18	SS	7-2-2-3	0.0
19-21	Tan, orange, moist, no odor, slighty micaceous, Silty Sand with pieces of rock	5	SM	24	24	SS	5-8-11-10	0.0
24-26	Tan, orange, wet, no odor, Silty Sand	6	SM	24	24	ss	3-4-5-8	0.0
30	Boring terminated.							

PROJECT Former Lucky Cleaners	BOREHOLE SIZE 4.25-inch diameter					
PROJECT# KROGER110	RISOR PIPE TYPE 2.0-inch, schedule 40 PVC					
WELL# MW-4	GROUT TYPE/LBS Portland Type I					
ENERCON REPRESENTATIVE Chrissy Shern						
METHOD/DATE DEVELOPED Bailer 8/25/11	FILTER PACK TYPE/LBS 20/30 Rollo Washed Sand					
DRILLER GeoLab	SLOTTED SCREEN TYPE 0.01" slotted 2" schedule 40 PV					
TYPE OF WELL Type-II Monitoring Well	WATER ENCOUNTERED 18.36'					
Grout	99.11' 98.95' TOP OF GROUND TOP OF CASING					
Bentonite						
	8' TOP OF FILTER PACK					
Sand (Filter Pack)	10' TOP OF SCREEN					
	18.36' DEPTH TO WATER					
	30' BOTTOM OF SCREEN 30' END POINT BORING DEPTH					

Enercon Services, Inc.



BORING LOG

Client: Kroger Company

Project Name: Former Lucky Cleaners

Project Location: <u>Augusta, GA</u> Project Number: <u>KROGER110</u>

Boring ID: MW-5

Drilling and Samp	oling Information		***************************************	Boring i	Location: East of building, just south of MW-1
TOC Elevation (ft.)	100.21	Total Depth (ft.)	30		
Start Date:	8/25/2011	Finish Date	8/25/2011		
Orilling Company:	GeoLab			Notes:	Collected soil sample from 15'
Orilled By:	Don Phillips				Screened well from 10 to 30 feet
ogged By:	C. Sherman			-	
Orilling Method:	Auger			The state of	
Borehole Diameter:	8.25 inches			7.7	
Sampling Method:	Split Spoon				
Water Level(s):	~18.6			AN TOTAL	

^{*}Highlighted areas indicate soil samples that were submitted for analysis.

DEPTH IN FEET	DESCRIPTION	Sample No.	nscs	INCHES DRIVEN	INCHES RECOVERED	SAMPLE TYPE	BLOW	PID (ppm)
0	Vegetation at surface							
2	Tan, orange, no odor, fill, Silty Sand	1	SM	-	•	НА	. -	0.0
4-6	Same As Above (S.A.A.)	2	SM	24	24	SS	3-4-5-5	0.0
9-11	S.A.A.	3	SM	24	24	SS	5-3-3-6	0.0
14-16	Tan, orange, rose, moist, no odor, Silty Sand with Clay with pieces of rock	4	SM	24	24	SS	3-3-5-7	0.0
19-21	S.A.A.	5	SM	24	24	ss	5-3-5-7	0.0
24-26	Tan, orange, wet, no odor, Silty Sand	6	SM	24	18	SS	3-4-6-7	0.0
30	Boring terminated.							

PROJECT Former Lucky Cleaners	BOREHOLE SIZE 4.25-inch diameter
PROJECT # KROGER110	RISOR PIPE TYPE 2.0-inch, schedule 40 PVC
WELL# MW-5	GROUT TYPE/LBS Portland Type I
ENERCON REPRESENTATIVE Chrissy Sherman	BENTONITE TYPE/LBS Pure Gold Bentonite Chips
METHOD/DATE DEVELOPED Bailer 8/25/11	FILTER PACK TYPE/LBS 20/30 Rollo Washed Sand
DRILLER GeoLab	SLOTTED SCREEN TYPE 0.01" slotted 2" schedule 40 PVC
TYPE OF WELL Type-II Monitoring Well	WATER ENCOUNTERED 17.85'
Grout	100.40' TOP OF GROUND TOP OF CASING
Bentonite	6' TOP OF BENTONITE
	TOP OF FILTER PACK
Sand (Filter Pack)	10' TOP OF SCREEN
	17.85' DEPTH TO WATER
	30' BOTTOM OF SCREEN 30' END POINT BORING DEPTH

Enercon Services, Inc.



BORING LOG

Client: Kroger Company

Project Name: Former Lucky Cleaners

Project Location: <u>Augusta, GA</u> Project Number: <u>KROGER110</u> Boring ID: MW-6

Drilling and Samp	ling Information	TO SEE SEE		Boring I	Location: South of building in concrete walkway
TOC Elevation (ft.)	100.94 8/25/2011	Total Depth (ft.)	30 8/25/2011		
Start Date: Drilling Company:	GeoLab	_ Finish Date	0/20/2011	Notes:	Collected soil sample from 15'
Drilled By:	Don Phillips				Screened well from 10 to 30 feet
Logged By:	C. Sherman				
Drilling Method:	Auger				
Borehole Diameter:	8.25 inches			100	
Sampling Method:	Split Spoon				
Water Level(s):	~18.2	14 J. H.			

^{*}Highlighted areas indicate soil samples that were submitted for analysis.

DEPTH IN FEET	DESCRIPTION	Sample No.	nscs	INCHES DRIVEN	INCHES RECOVERED	SAMPLE TYPE	BLOW	PID (ppm)
0	Concrete at surface			*			,	
2	Reddish orange, no odor, Silty Sand	. 1	SM	-	-	НА	-	0.0
4-6	Same As Above (S.A.A.)	2	SM	24	24	ss	3-1-2-4	0.0
9-11	Orange, tan, gray, black banding, micaceous, no odor, Sility Sand with pieces of rock	3	SM	24	24	ss	2-3-2-5	0.2
14-16	Brown, tan, gray,white, moderately micaceous, moist, no odor, Silty Sand with pieces of rock	4	SM	24	24	ss	3-4-4-3	0.8
19-21	Same As Above (S.A.A.)	5	SM	24	24	ss	3-4-5-7	5.0
24-26	Brown, tan, orange, saturated, no odor, Silty Sand	6	SM	24	24	ss	4-2-2-3	1,172
30	Boring terminated.							

PROJECT Former Lucky Cleaners	BOREHOLE SIZE 4.25-inch diameter
PROJECT# KROGER110	RISOR PIPE TYPE 2.0-inch, schedule 40 PVC
WELL# MW-6	GROUT TYPE/LBS Portland Type I
ENERCON REPRESENTATIVE Chrissy Sherman	BENTONITE TYPE/LBS Pure Gold Bentonite Chips
METHOD/DATE DEVELOPED Bailer 8/25/11	FILTER PACK TYPE/LBS 20/30 Rollo Washed Sand
DRILLER GeoLab	SLOTTED SCREEN TYPE 0.01" slotted 2" schedule 40 PVC
TYPE OF WELL Type-II Monitoring Well	WATER ENCOUNTERED 18.83'
Grout	101.07' TOP OF GROUND TOP OF CASING 6' TOP OF BENTONITE
Bentomte	8' TOP OF FILTER PACK
Sand (Filter Pack)	
	30' BOTTOM OF SCREEN 30' END POINT BORING DEPTH

Enercon Services, Inc.

BORING LOG

Sheet 1 of 1

Client: Kroger Company
Project Name: Former Lucky Cleaners

Project Location: Augusta, GA Project Number: KROGER110

Boring ID: MW-7

Drilling and Samp	oling Information	Note that I have		Boring	Location: Southeast of building in landscaped area				
TOC Elevation (ft.)	100.91	Total Depth (ft.)	30		-coatileast of building in landscaped area				
Start Date:	8/26/2011	Finish Date	8/26/2011						
Orilling Company:	GeoLab			Notes:	Collected soil sample from 15'				
rilled By:	Don Phillips			110100.					
ogged By:	C. Sherman				Screened well from 10 to 30 feet				
rilling Method:	Auger								
orehole Diameter:	8.25 inches								
ampling Method:	Split Spoon								
Vater Level(s):	~17.6								

^{*}Highlighted areas indicate soil samples that were submitted for analysis.

DEPTH IN FEET	DESCRIPTION	Sample No.	nscs	INCHES DRIVEN	INCHES RECOVERED	SAMPLE TYPE	BLOW	PID (ppm)
0	Vegetation at surface					U)	шо	<u> </u>
2	Tan, orange, no odor, fill, Silty Sand	1	SM		-	НА	-	0.0
4-6	Tan, orange, pieces of gravel, no odor, fill, Silty Sand	2	SM	24	24	SS	10-8-12-16	0.0
9-11	Same As Above (S.A.A.)	3	SM	24	24	ss	10-8-6-5	0.2
14-16	Tan, orange, gray, white, moist, no odor, Silty Sand	4	SM	24	24	SS	4-3-6-6	7.4
19-21	Orange, gray, moist, no odor, micaceous, Silty Sand with pieces of rock	5	SM	24	24	SS	8-6-7-6	17.8
24-26	Tan, orange, wet, no odor, Silty Sand with Clay	6	SM	24	24	ss	4-3-1-5	2.8
30	Boring terminated.						-	

PROJECT Former Lucky Cleaners	BOREHOLE SIZE 4.25-inch diameter
PROJECT # KROGER110	RISOR PIPE TYPE 2.0-inch, schedule 40 PVC
WELL# MW-7	GROUT TYPE/LBS Portland Type I
ENERCON REPRESENTATIVE Chrissy Sherman	BENTONITE TYPE/LBS Pure Gold Bentonite Chips
METHOD/DATE DEVELOPED Bailer 8/26/11	FILTER PACK TYPE/LBS 20/30 Rollo Washed Sand
DRILLER GeoLab	SLOTTED SCREEN TYPE 0.01" slotted 2" schedule 40 PVC
TYPE OF WELL Type-II Monitoring Well	WATER ENCOUNTERED 18.05'
Grout	101.10' TOP OF GROUND TOP OF CASING
Bentonite - -	TOP OF BENTONITE
	TOP OF FILTER PACK
Sand (Filter Pack)	10' TOP OF SCREEN
	30' BOTTOM OF SCREEN END POINT BORING DEPTH

Enercon Services, Inc.



BORING LOG

Client: <u>Kroger Company</u>
Project Name: <u>Former Lucky Cleaners</u>

Project Location: Augusta, GA Project Number: KROGER110

Boring ID: MW-8

Drilling and Samp	ling Information		Boring	Location: Northeast of building
TOC Elevation (ft.)	94.78	Total Depth (ft.) 3	0	
Start Date:	8/26/2011	Finish Date 8/26/	2011	
Orilling Company:	GeoLab		Notes:	Collected soil sample from 5'
Orilled By:	Don Phillips			Screened well from 10 to 30 feet
ogged By:	C. Sherman			
rilling Method:	Auger			
lorehole Diameter:	8.25 inches			
Sampling Method:	Split Spoon			
Vater Level(s):	Dry			

^{*}Highlighted areas indicate soil samples that were submitted for analysis.

DEPTH IN FEET	DESCRIPTION	Sample No.	nscs	INCHES DRIVEN	INCHES RECOVERED	SAMPLE TYPE	BLOW	PID (ppm)
0	Concrete at surface							
2	Orange, no odor, Silty Sand	1,	SM	-	-	НА	<u> </u>	0.0
4-6	Brown, orange, gray, no odor, fill, organic material (tree roots), Silty Sand	2	SM	24	24	SS	4-3-2-3	165.2
9-11	Same As Above (S.A.A.)	3	SM	24	24	SS	3-3-5-6	0.0
14-16	Brown, orange, gray, moist, no odor, Silty Sand with pieces of rock	4	SM	24	24	SS	2-2-2-2	11.5
19-21	Orange, tan, no odor, moist, Clayey Silty Sand with pieces of rock	5	SM	24	24	SS	2-2-1-2	11.0
24-26	Orange, tan, gray, no odor, wet, Clayey Silty Sand	6	SM	24	24	SS	1-2-2-2	200.5
30	Boring terminated.							

PROJECT Former Lucky Cleaners	BOREHOLE SIZE 4.25-inch diameter
PROJECT # KROGER110	RISOR PIPE TYPE 2.0-inch, schedule 40 PVC
WELL# MW-8	GROUT TYPE/LBS Portland Type I
ENERCON REPRESENTATIVE Chrissy Sherman	BENTONITE TYPE/LBS Pure Gold Bentonite Chips
METHOD/DATE DEVELOPED Bailer 8/26/11	FILTER PACK TYPE/LBS 20/30 Rollo Washed Sand
DRILLER GeoLab	SLOTTED SCREEN TYPE 0.01" slotted 2" schedule 40 PVC
TYPE OF WELL Type-II Monitoring Well	WATER ENCOUNTERED 25.35'
Grout	94.97' 94.78' TOP OF GROUND TOP OF CASING
Bentonite	
	8' TOP OF FILTER PACK
Sand (Filter Pack)	10' TOP OF SCREEN
	30' BOTTOM OF SCREEN END POINT BORING DEPTH

Enercon Services, Inc.

BORING LOG

Sheet 1 of 1

Client: Kroger Company
Project Name: Former Lucky Cleaners

Project Location: <u>Augusta, GA</u> Project Number: <u>KROGER110</u>

Boring ID: MW-9

Drilling and Samp	oling Information	3- 8-1-8		Boring	Location: North of building
TOC Elevation (ft.)	95.65	Total Depth (ft.)	30	3	Total or ballang
Start Date:	8/26/2011	Finish Date	8/26/2011		
Prilling Company:	GeoLab	STOL K		Notes:	Collected soil sample from 10'
Prilled By:	Don Phillips			110.00.	Screened well from 10 to 30 feet
ogged By:	C. Sherman			-	coreding well from 10 to 30 feet
Prilling Method:	Auger				
Borehole Diameter:	8.25 inches			-	
Sampling Method:	Split Spoon				
Water Level(s):	Dry				

^{*}Highlighted areas indicate soil samples that were submitted for analysis.

DEPTH IN FEET	DESCRIPTION	Sample No.	USCS	INCHES DRIVEN	INCHES RECOVERED	SAMPLE TYPE	BLOW	PID (ppm)
0	Vegetation at surface	- 52				U) -	шО	
2	Orange, tan, no odor, Silty Sand	1	SM	-	-	НА		0.0
4-6	Same As Above (S.A.A.)	2	SM	24	24	SS	2-3-4-3	0.2
9-11	S.A.A.	3	SM	24	24	SS	2-2-4-2	0.0
14-16	Orange, tan, no odor, moist, Clayey Silty Sand with pieces of rock	4	SM	24	24	SS	1-2-3-4	11.9
19-21	S.A.A.	5	SM	24	24	ss	2-1-2-4	0.6
24-26	Orange, tan, organics (pieces of tree roots), wet, Clayey Silty Sand	6	SM	24	24	ss	2-1-2-3	8.3
30	Boring terminated.							

PROJECT Former Lucky Cleaners	BOREHOLE SIZE 4.25-inch diameter
PROJECT # KROGER110	RISOR PIPE TYPE 2.0-inch, schedule 40 PVC
WELL# MW-9	GROUT TYPE/LBS Portland Type I
ENERCON REPRESENTATIVE Chrissy Sherman	BENTONITE TYPE/LBS Pure Gold Bentonite Chips
METHOD/DATE DEVELOPED Not Applicable	FILTER PACK TYPE/LBS 20/30 Rollo Washed Sand
DRILLER GeoLab	SLOTTED SCREEN TYPE 0.01" slotted 2" schedule 40 P
TYPE OF WELL Type-II Monitoring Well	WATER ENCOUNTERED Dry - Not encountered
Grout	95.73' TOP OF GROUND TOP OF CASING
Bentonite	
	8' TOP OF FILTER PACK
Sand (Filter Pack)	10' TOP OF SCREEN
	DRY
	30' BOTTOM OF SCREEN 30' END POINT BORING DEPTH

Enercon Services, Inc.

ENERCON 500 Town Park Lane Kennesaw Ga 30144

CLIEN	NT The	e Kroger Company						HSI #10845
		JMBER KROGER198 FED 2/19/13 COMPLETED 2/19/13	PROJECT LOGGED					
		ONTRACTOR GeoLab ETHOD Hollow Stem Auger 8.25"	BORING SIZE (in) GROUND ELEVATI	ON _			A	GROUND WATER LEVELS: T TIME OF DRILLING T END OF DRILLING
IOTE	s		LONGITUDE W					FTER DRILLING 19.40 ft
O DEPIH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	٧	TOTAL DRIVEN (in)	RECOVERY (in)	PID READING	SAMPLE TYPE NUMBER	WELL DIAGRAM Casing Type: PVC
		Asphalt followed by graded aggregate base	(GAB)					
- - 5		2.0				0		Grout PVC Riser
-	7	Light brown, sandy Clay, fill, dry, no odor				0	SS 1	Bentonite Seal
10 - -		Light brown, sandy Clay, fill, dry, no odor			-	0	SS 2	
- 15 -		Light brown, sandy Clay, fill, dry, no odor				0	SS 3	
20		☑ Greenish brown grey, slightly sandy Clay, fil	I, moist, no odor			0	SS 4	Sand Pack PVC Screen
- 25 -		Brown, sandy Clay, fill, very moist, no odor				0	SS 5	
30		Mottled orange and yellowish grey, Clay, so	ft, moist, no odor			0	SS 6	

ENERCON 500 Town Park Lane BORING NUMBER MW-11 PAGE 1 OF 1

PROJ DATE DRILL DRILL	ECT N STAR ING C ING M	UMBEF TED _2 ONTRA	er Company R _KROGER198 2/19/13	PROJECT	BY _N 8.25 ON	TION _	2801 W	Vashington F CHECK A	Rd, Augusta, GA
DEPTH (ft)	GRAPHIC LOG		MATERIAL DESCRIPTIO	N	TOTAL DRIVEN (in)	RECOVERY (in)	PID READING	SAMPLE TYPE NUMBER	WELL DIAGRAM Casing Type: PVC
0 0	7 6 - 7 17 - 74 17	2.0	Grass followed by topsoil Light brown, sandy Clay, fill, dry, no odor		-		0	SS 1	Grout PVC Riser
10		12.0	Light brown, sandy Clay, fill, dry, no odor		-		0	SS 2	■ Bentonite Seal
15		17.0	Light brown, sandy Clay, fill, dry, no odor		-		0	SS 3	
20		22.0	Dark grey, clayey Sand, very moist, no odor		_		0	SS 4	Sand Pack PVC Screen
25		27.0	Red, sandy Clay, wet, no odor		_		0	SS 5	
30		32.0	Yellowish brown to grey, clayey Sand, wet,				0	SS 6	

BORING NUMBER MW-12

PAGE 1 OF 1

					_	_		
1		e Kroger Company						
		UMBER KROGER198 TED 2/20/13 COMPLETED 2/20/13					_	-
		RC	LOGGED I ORING SIZE (in) _{					GROUND WATER LEVELS:
DRILL	ING C	ONTRACTOR GeoLab	ROUND ELEVATION					T TIME OF DRILLING
DRILL	ING M	ETHOD Hollow Stem Auger 8.25"	TITUDE N					T END OF DRILLING
NOTE	s		NGITUDE W					FTER DRILLING 36.48 ft
							III	
DEPTH O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		TOTAL DRIVEN (in)	RECOVERY (in)	PID READING	SAMPLE TYPE NUMBER	WELL DIAGRAM Casing Type: PVC
		Red, clayey Sand with organics, dry, no odor 2.0						
		Red, clayey Sand, fill, damp, no odor			-	0	MC 1	Grout PVC Riser
10		Red, clayey Sand, fill, damp, no odor			-	0	MC	
<u> </u>		12.0					2	■ Bentonite Seal
		Red, clayey Sand, fill, damp, no odor			-	0	MC 3	
20		Reddish brown, clayey Sand, damp, no odor			-	0	MC 4	
5		Reddish brown, sandy Clay, damp, no odor			-	0	MC 5	
30		Reddish brown, clayey Sand, damp, no odor				0	MC 6	Sand Pack PVC Screen
' I	• • • • • • • • • • • • • • • • • • • •	Brown, fine Sand, moist, no odor			-	0	MC 7	
40		Dark brown and black, Clay, damp, no odor			-	0	MC 8	
40		Mottled greenish grey and light brown, Clay, dar	mp, no odor			0	MC 9	
50		Light brown, Clay, damp, no odor			-	0	MC 10	
ـــــا نـ		Bottom of borehole at 52.0 feet.						

BORING NUMBER MW-13

PAGE 1 OF 1

_								
1		e Kroger Company						HSI #10845
1		UMBER KROGER198 TED 2/20/42 COMPLETED 2/20/42					_	-
DAIE	SIAK	TED <u>2/20/13</u>	ORING SIZE (in) _{					ED BY GROUND WATER LEVELS:
DRILL	ING C	ONTRACTOR GeoLab	ROUND ELEVATION					T TIME OF DRILLING
DRILI	ING N	ETHOD Hollow Stem Auger 8.25"	ATITUDE N					T END OF DRILLING
NOTE	s		ONGITUDE W					FTER DRILLING 34.86 ft
							T	
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		TOTAL DRIVEN (in)	RECOVERY (in)	PID READING	SAMPLE TYPE NUMBER	WELL DIAGRAM Casing Type: PVC
		Red, clayey Sand with organics, dry, no odor						
		Red, clayey Sand, fill, damp, no odor			-	0	MC 1	◄ Grout PVC Riser
10		Red, clayey Sand, fill, damp, no odor				0	MC	
10		12.0			}		2	≺Bentonite Seal
		Red, clayey Sand, fill, damp, no odor			-	0	MC 3	
20		Red, clayey Sand, fill, damp, no odor			-	0	MC 4	
		Brown, clayey Sand, damp, no odor			-	0	MC 5	
30		Mottled red and greenish grey, sandy Clay, stif	f, damp, no odor		-	0	MC 6	Sand Pack PVC Screen
		Light brown to greenish grey, silty Clay, damp,	no odor		-	0	MC 7	
40		Light brown to greenish grey, silty Clay, damp,	no odor		-	0	MC 8	
		Pale yellowish brown, Clay, soft, dry, no odor			_	0	MC 9	
50		Pale yellowish brown, Clay, soft, dry, no odor 52.0 Bottom of borehole at 52.0 feet			_	0	MC 10	

BORING NUMBER MW-14

PAGE 1 OF 1

CLIE	NT Th	e Kroger Company	PROJECT	NAME	Form	er Luck	ky Cleaners	HSI #10845
			PROJECT					
		TED 2/19/13 COMPLETED 2/20/13	LOGGED BORING SIZE (in)					ED BY GROUND WATER LEVELS:
		ONTRACTOR GeoLab	GROUND ELEVAT					T TIME OF DRILLING
DRIL	LING W	ETHOD Hollow Stem Auger 8.25"	LATITUDE N					T END OF DRILLING
NOTE	ES		LONGITUDE W	1 1			<u> </u>	FTER DRILLING 34.33 ft
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	1	TOTAL DRIVEN (in)	RECOVERY (in)	PID READING	SAMPLE TYPE NUMBER	WELL DIAGRAM Casing Type: PVC
PER PER PER PER PER PER PER PER PER PER	1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1	Grass followed by topsoil						
0 - CLEANATE		Light brown to greenish brown, sandy Clay,	fill, damp, no odor		_	0	SS 1	Grout → PVC Riser → Bentonite Seal
10 - 10 		Light brown, sandy Clay, fill, soft, damp, no	odor		-	0	SS 2	
15		Light brown, sandy Clay, fill, soft, damp, no	odor			0	SS 3	
20		Light brown, sandy Clay, fill, soft, damp, no	odor			0	SS 4	
25		Light brown, sandy Clay, fill, soft, damp, no	odor			0	SS 5	Sand Pack PVC Screen
30		Saprolite, light brown to yellowish brown ver breaks to fine sand, moist, no odor	tially banded,			0	SS 6	
35	•••••	Saprolite, light brown to yellowish brown verbreaks to fine sand, moist, no odor	tially banded,			0	SS 7	
40	• • • • • • • • • • • • • • • • • • • •	Saprolite, light brown to yellowish brown verbreaks to fine sand, moist, no odor	tially banded,			0	SS 8	
45		Saprolite, light brown to yellowish brown verbreaks to fine sand, moist, no odor Bottom of borehole at 47.0 f				0	SS 9	





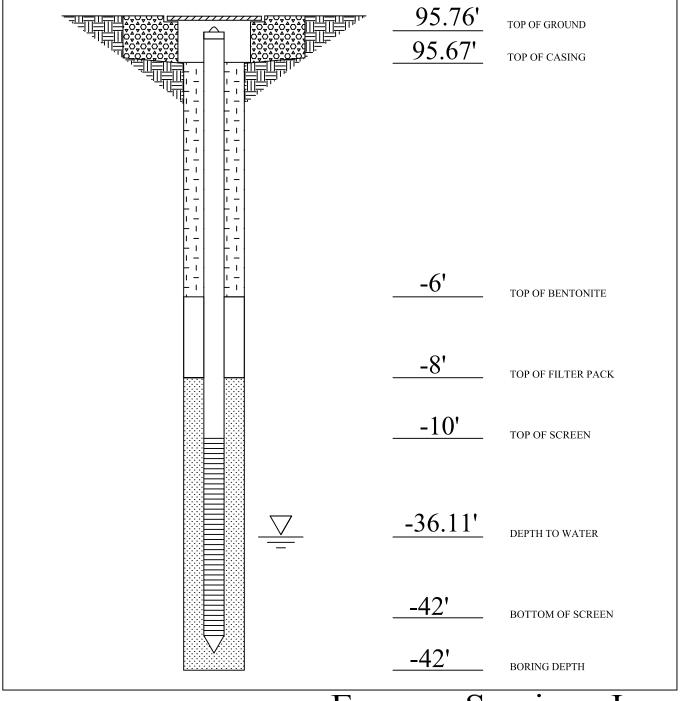
BORING LOG

Client: Kroger Project Name: Former Lucky Cleaners Project Location: Washington Rd, Augusta Boring ID: MW-15
Project Number: KROGER340 Use: Monitoring Well

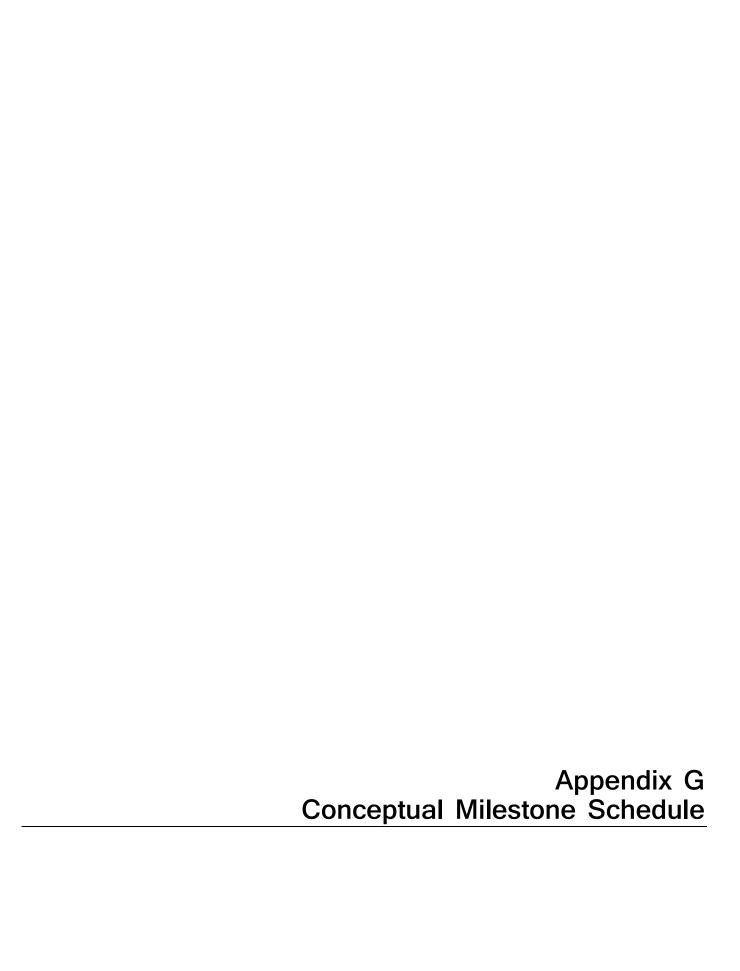
Drilling and Samplin	g Information		Вог	ring Location:	Near MW-9 at loading dock.
Surface Elevation (ft.)	95.76	Total Depth (ft.)	42		
Start Date:	9/1/2015	Finish Date	9/1/2015		
Drilled By:	GeoLab			notes:	Replacement well for MW-9
Logged By:	N. Parker				2" PVC well. Riser from 0-10' and screen from 10-42'
Drill Rig Type:	CME 55				Sand pack 8-42', bentonite seal 6-8', & grout seal 0-6'
Drilling Method:	Auger				
	0.05"				
Borehole Diameter:	8.25"				
Sampling Method:	Split Spoon				
Water Level(s):	36.11 feet bgs				

DEPTH IN FEET	DESCRIPTION	nscs	INCHES DRIVEN	INCHES RECOVERED	SAMPLE TYPE	SAMPLE NO.	COUNT	PID
0-2	Concrete to 8" with GAB to 12" followed by Red, clay (fill), dense, dry, no odor.	СН	NA	NA	НА	1	NA	0
3-5	Red, slightly sandy clay (fill), dense, dry, no odor.	SC	NA	NA	HA	2	NA	0
5-7	Red, sandy clay (fill), dry, no odor.	SC	24	24	SS	3	4-7-7-5	0
10-12	Red, sandy clay (fill), dry, no odor.	SC	24	24	SS	4	3-4-3-1	0
15-17	Brown, clay with rock fragments (fill), damp, no odor.	CL	24	23	SS	5	2-1-3-4	0
20-22	Brown, clay with rock fragments (fill), damp, no odor.	CL	24	24	SS	6	6-4-2-4	0
25-27	Brown, clay with rock fragments (fill), moist, no odor.	CL	24	24	SS	7	2-4-4-6	0
30-32	Dark grey, clay with rock fragments, very moist, no odor.	CL	24	24	SS	8	1-1-2-4	0
35-37	Bluish grey, silty clay, wet, no odor.	ML	24	24	SS	9	2-3-6-9	0
40-42	Grey and brown, clay, dense, wet, no odor.	СН	24	24	SS	10	3-4-9-12	0
		-	-	-	-			-

PROJECT	Former Lucky Cleaners	BOREHOLE SIZE	8.25" Outside Diameter
PROJECT #	KROGER340	RISOR PIPE TYPE	2" schedule 40 PVC
WELL#	MW-15	GROUT TYPE	Portland Type I
ENERCON REPRESENTATIVE	Nathan Parker	BENTONITE TYPE	3/4" Bentonite Chips
METHOD/DATE DEVELOPED	Submersible pump 9/2/15	FILTER PACK TYPE	#2 Filter Sand
DRILLER	GeoLab	SLOTTED SCREEN TYPE	0.01" slotted 2" schedule 40 PVC
TYPE OF WELL	Type II	WATER ENCOUNTERED	36.11' Below Ground Surface



Enercon Services, Inc.



Former Lucky Cleaners 2801 Washington Road Augusta, Richmond County, Georgia HSI #10845 Conceptual Milestone Schedule

)	0	Task Mode	Task Name	Duration	Start	Finish	Aug 12, '18 Sep 2, '18 Sep 23, '18 Oct 14, '18 Nov 4, '18 Nov 25, '18 Dec 16, '18 Jan 6, '19 Jan 27, '19 Feb 17, '19 Mar 10, '19 Mar 15 S S M T W T F S S M T W T T T T T T T T
1		-5	Notice of VIRP Approval	1 day	Fri 10/19/18	Fri 10/19/18	♦ 10/19
2		-5	Deep Well Installation	5 days	Mon 11/12/18	Fri 11/16/18	
3		-5	Utility Clearance	3 days	Mon 11/12/18	Wed 11/14/18	
4		-5	Deep Well Installation	2 days	Thu 11/15/18	Fri 11/16/18	
5		-5	Sitewide Groundwater Monitoring Event	9 days	Mon 12/3/18	Thu 12/13/18	
6		-5	Water Level Measurement	1 day	Mon 12/3/18	Mon 12/3/18	i i
7		-5	Groundwater Sampling	2 days	Tue 12/4/18	Wed 12/5/18	
8		-5	Laboratory Analysis	6 days	Thu 12/6/18	Thu 12/13/18	
9		-5	Fate and Transport Model	29 days	Wed 12/19/18	Mon 1/28/19	
10		-5	BIOCHLOR Modeling	9 days	Wed 12/19/18	Mon 12/31/18	
11		-5	Fate & Transport Report	19 days	Wed 1/2/19	Mon 1/28/19	
12		-5	Semi-Annual Status Report	5 days	Tue 4/2/19	Mon 4/8/19	
13		-5	Progress Report #1	5 days	Tue 4/2/19	Mon 4/8/19	
14		_5	Compliance Status Report	60 days	Fri 2/1/19	Thu 4/25/19	

