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May 19, 2017

Mr. Jason Metzger
Georgia Department of Natural Resources
Response and Remediation Program
2 Martin Luther King, Jr. Drive, S.E.
Suite 1054 East Tower
Atlanta, Georgia 30334-9000
404-463-0530

**Subject: Sixth VIRP Semi-annual Progress Report
Former McKenzie Tank Lines Site
HSI Site No. 10406
111 Grange Road, Port Wentworth, Georgia
Tax Parcels: 1-0729-01-007 and 1-0729-01-009**

Dear Mr. Metzger:

On behalf of McKenzie Tank Lines, Inc. (MTL), Environmental International Corporation (EIC) is pleased to submit the attached Sixth VIRP Semi-annual Progress Report for the above referenced site.

Enclosed are the following:

1. One signed and sealed certification page for the report.
2. One bound paper copy of the report.
3. Two Compact Discs, each with the report in searchable PDF format.

If you have any questions regarding this submittal, please contact Mr. Thomas F. Panebianco of MTL at 1-800-828-6495 or me at the above location.

Sincerely,

ENVIRONMENTAL INTERNATIONAL CORPORATION

Raj Mahadevaiah, P.E., C.G.W.P.
President & CEO

Cc: Thomas F. Panebianco, McKenzie Tank Lines
Christopher Novack, Georgia Ports Authority

HSI SITE 10406, FORMER MCKENZIE TANK LINES SITE

SIXTH VIRP SEMI-ANNUAL PROGRESS REPORT

05/19/2017

Submitted to:

GEORGIA ENVIRONMENTAL PROTECTION DIVISION

Georgia Department of Natural Resources

Response and Remediation Program

Suite 1054 East Tower
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Prepared for:

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Submitted with the consent of:

GEORGIA PORTS AUTHORITY

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CERTIFICATION AND SUPPORTING DOCUMENTATIONS
Sixth VIRP Semi-annual Progress Report
Former McKenzie Tank Lines Site, Port Wentworth, Georgia
HSI Site No. 10406
May 19, 2017

"I certify under penalty of law that the accompanying report referenced above 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 seq.). I am a professional engineer 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 have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.

Furthermore, to document my direct oversight of the Voluntary Investigation and Remediation Plan (VIRP) development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division.

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."

Basavaraj Mahadevaiah, GA PE No. 23198
Environmental International Corporation
770-772-7100, ext. 223

5 / 19 / 17
Date

Signature and Stamp



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- Attachment 3-1: EIC Well Purging and Sampling Data Field Logs, November 2016
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Appendix A: Site Conceptual Model 2017 Update



1.0 Introduction

On behalf of McKenzie Tank Lines, Inc. (MTL), Environmental International Corporation (EIC) is pleased to submit this “Sixth VIRP Semi-annual Progress Report” to Georgia Environmental Protection Division (EPD) to chronicle project activities concerning the former MTL, Hazardous Site Inventory (HSI) site 10406, located at 111 Grange Road, Land Lot 30, Tax Parcel IDs 1-0729-01-007 and 1-0729-01-009, Port Wentworth, Georgia, (Site). This report was prepared as specified in the January 29, 2014 “Voluntary Investigation and Remediation Plan (VIRP) Application” that was approved by the EPD on May 20, 2014 under the Voluntary Remediation Program (VRP) (EIC, 2014a).

1.1 Primary Objective

The primary objective of this report is to chronicle the tasks completed by MTL during the six-month time frame during the period of from November 2016 through April 2017. This report documents the following tasks:

- Follow-up responses to the October 6, 2016 EPD Comment letter;
- The third semi-annual groundwater monitoring event;
- An ecological impact evaluation;
- An update to the Site Conceptual Model (SCM) Report

A Site map is included as Figure 1-1. The following sections describe the aforementioned tasks.

2.0 Response to EPD Comment Letter

2.1 Follow up Responses to the October 8, 2016 Comment Letter

The following are follow-up responses on behalf of MTL to selected comments from EPD's review and list of comments letter, dated October 6, 2016 (EPD, 2016).

Comments and Responses

EPD Comment 3:

EPD concurs with abandoning monitoring wells G-22 and MW-U2; however, EPD does not concur with removing these well locations from the monitoring well network. If G-22 and MW-U2 are abandoned, please replace each well as close to its original location, depth and screen interval as possible, and follow EPA Region 4 SESD guidance documents for installing and abandoning monitoring wells. EPD understands that no well construction data exists for MW-U2. If abandoned, please replace MW-U2 to a depth representative of shallow groundwater contamination conditions.

Original Response to EPD Comment 3:

Considering the MW-U2 lies within the known extents of the monitored COC plumes and additional shallow monitoring wells, MW-31 and MW-32 already exist in the vicinity it does not appear that a replacement monitoring well at the location of MW-U2 would be useful. Since MW-32 is a shallow well located within 70 feet east of MW-U2, it is EIC's position on behalf of MTL that well MW-32 adequately serves the purpose of substituting for MW-U2 within the monitoring well network. EIC agrees, however that a well of comparable depth and screened interval (although a 2-inch ID cased rather than a 1-inch ID cased, as G-22 is) should be installed within five feet of G-22 once it is abandoned.

Follow-up Response to EPD Comment 3:

EIC has proceeded with the abandonment of MW-U2 and G-22. These activities as well as the installation of a replacement monitoring well for MW-36 occurred in late April/early May 2017 and will be detailed in the next semi-annual report.

EPD Comment 4:

EPD concurs with the proposed additional soil samples to complete delineation in AOC-6.

Original Response to EPD Comment 4:

EPD's comment is noted. Additional soil sampling is proposed in Section 4.0 of this report.

Follow-up Response to EPD Comment 3:

Additional soil sampling was conducted in late April 2017. Details and analytical results of this sampling event will be reported and discussed in the next semi-annual report.



3.0 Groundwater Monitoring

The seventh VIRP groundwater monitoring event was conducted in November 2016. This monitoring event included gauging groundwater levels at all wells of the monitoring well network onsite and the collection of groundwater samples from each of these wells for laboratory analysis of COC COCs.

3.1 Groundwater Monitoring Objectives

The primary objectives of the groundwater monitoring program are to meet the following goals set forth in the VIRP:

- Establish a baseline for COC plume stability analysis,
- Track natural attenuation of COCs by monitoring the groundwater concentrations of COCs and water quality parameters within the existing COC plumes,
- Determine if the prevailing groundwater COC concentrations are meeting or trending towards meeting the established RRS, and
- Determine if the horizontal and vertical extents of the COCs have been defined.

3.2 Groundwater Monitoring Field Program

During the November 2016 monitoring event, EIC conducted groundwater monitoring activities at a total of 41 wells onsite. As documented in the VIRP, wells with screened intervals that are less than 20 feet below ground surface (bgs) were historically defined as shallow wells and those with screened intervals reaching greater than 20 feet bgs were defined as deep wells (EIC, 2014a). Since this definition was accepted by the EPD, EIC has maintained this definition with newly installed wells. Accordingly, of the 41 wells monitored during this event, 18 are so defined as shallow wells and 23 are defined as deep wells. Four of the 24 deep wells are recovery wells (RW-1, RW-4, RW-8, and RW-9). Each recovery well consists of either a 4-inch or 6-inch internal diameter (ID) PVC well casing/screen. The IDs of the solid well casings and screens of the monitoring wells range in size from 3/4-inch to 1-inch to 2-inches.

3.2.1 Monitoring Well MW-36 Damage

During the November 2016 monitoring event, EIC discovered that monitoring well MW-36 had been destroyed, likely due to fallen tree branches from a storm event. The stick-up was broken off below ground surface and surface soil had fallen into and buried the PVC casing. As such, MW-36 could not be utilized in the November 2016 monitoring event and EIC determined that it was irreparable. Accordingly, EIC has abandoned the remnant of MW-36 and installed a replacement well. These activities will be detailed in the seventh semi-annual report.

3.2.2 Sampling Protocol

The groundwater sampling program was conducted in accordance with the current U.S. EPA Region 4 groundwater sampling procedure “Field Branches Quality System and Technical Procedures” (FBQSTP) per EPD regulations. Each monitoring well was gauged, purged, and sampled following the “low-flow” purge technique established in the standard operating procedure (SOP) SESDPROC-301-R3 under the FBQSTP (EPA, 2013).

3.2.3 Site Access

Prior to the field visit, EIC coordinated with the GPA in gaining access to the Site to conduct groundwater monitoring and related tasks. All work at the Site was completed under the supervision of EIC.

3.2.4 Groundwater Gauging

Prior to sampling, EIC gauged each well with a decontaminated oil-water interface meter (or “probe”) to determine the static depth to groundwater from the top of well casing (TOC). EIC utilized TOC elevations from October 2013, July 2015, and January 2016 geographical well surveys to determine the current groundwater elevations. The gauging data for the November 2016 monitoring event is tabulated in Table 3-1.

3.2.5 Groundwater Sampling

Following the “low-flow” purge technique, noted in Section 3.2.2, EIC utilized a peristaltic pump with variable lengths of disposable 1/4-inch ID Teflon-lined tubing and a 6-inch segment of 3/16-inch ID silicon tubing at the pump head to purge each well until groundwater quality parameters reached stabilization prior to sampling. The length of Teflon-tubing necessary to place the intake at the center of the wetted screened interval of each well was determined considering water levels gauged just prior to purging during this sampling event and considering the available well construction data, as noted in EIC well purging and sampling data field logs (Attachment 3-1).



Groundwater stabilization parameters were monitored via direct pumping to a multi-parameter field water quality field meter equipped with a flow-through cell. These parameters were recorded at approximately five-minute intervals on EIC field logs (Attachment 3-1). Additionally, purge volumes and depth-to-water (DTW) measurements were recorded at the same five-minute intervals when possible. At each well, the pumping rate was decreased and/or the tubing depth increased when drawdown lowered the water level to the tubing intake level, causing air to be pumped. When purging 1-inch and 3/4-inch diameter wells, while the Teflon tubing (that has a 3/8-inch outer diameter (OD)) was inserted in the well, the oil-water interface probe (that has a 5/8-inch OD) could not be simultaneously inserted into the well to gauge the depth to water due to space limitations. At these wells, gauging could only be performed only just prior to inserting the tubing and immediately after the tubing was removed.

EIC considered that stabilization was reached when 3 consecutive groundwater quality parameter readings were within ± 0.1 standard units for pH and $\pm 5\%$ for specific conductivity during purging. Reasonable attempts were made at each well to reach 0.2 mg/L of dissolved oxygen (DO) and a turbidity reading at or below 10 Nephelometric Turbidity Units (NTUs) prior to sampling. Groundwater quality field parameters (Temperature, pH, oxygen reduction potential (ORP), conductivity, turbidity, and DO) after stabilization and prior to sample collection are summarized in Table 3-2. Additionally, well G-22 was sampled without stabilization due to poor recharge. All samples were collected using the “soda straw method” specified in the SOP SESDPROC-301-R3 under the FBQSTP (EPA, 2013).

3.2.6 Sample Custody and Laboratory Analysis

Immediately after each sample set was collected, the sample bottles were labeled, and the samples were stored with ice in double-sealed bags in insulated thermal containers (“coolers”) provided by the laboratory. The samples were maintained with sufficient ice in these coolers until they were relinquished to the laboratory. Completed chain-of-custody forms accompanied all samples. EIC delivered the samples to Analytical Environmental Services, Inc. in Atlanta, Georgia - a Georgia Department of Natural Resources (DNR) certified laboratory. The laboratory conducted analysis of volatile organic compounds according to EPA method 8260B. The laboratory report for the November 2016 event is included as Attachment 3-2. The results of the laboratory analysis are summarized in Table 3-3 and 3-4 along with historical analytical data.

3.3 Quality Assurance and Quality Control

To prevent cross-contamination, new disposable Teflon-lined tubing was utilized to collect a groundwater sample at each well. EIC’s oil/water interface meter and any other reusable field equipment that came in contact with groundwater was decontaminated prior to use and between sample locations. This was accomplished by first washing this equipment with a pressurized phosphate-free detergent solution and then rinsing with pressurized de-ionized (DI) water. Brushes and/or wipes were also utilized if necessary. After each sample was collected, the water quality parameters instrument flow-through cell was opened and decontaminated with pressurized



DI water. In the event of gross contamination, EIC used detergent solution in addition to DI water in cleaning this instrument.

For sample quality assurance and quality control, EIC maintained a trip blank set in each of the sample containers. Each trip blank was analyzed along with the groundwater samples collected at the Site.

3.4 Data Evaluation

EIC conducted an evaluation of the data compiled and tabulated from field measurements and laboratory analyses. This evaluation enabled the depiction of the groundwater potentiometric surface and flow direction, as well as the extents of the prevailing COC plumes at the time of the November 2016 monitoring event.

As established in the VIRP, EIC has continued to distinguish between unconfined shallow and deep aquifers in illustrating groundwater potentiometric surfaces and COC plumes. The following subsections describe EIC's evaluation of the potentiometric surfaces and the prevailing COC plumes at the Site.

3.4.1 Groundwater Potentiometric Surfaces

3.4.1.1 Shallow Groundwater Potentiometric Surface

The November 2016 groundwater gauging event data is summarized in Table 3-1. In addition, Table 3-5 summarizes all shallow groundwater gauging data collected at the Site following the initiation of the VIRP program. EIC compared the shallow well gauging data from the November 2016 sampling event to each of the historical events summarized in Table 3-5. Referring to Table 3-5, the shallow groundwater potentiometric surface elevations, at each well for the November 2016 event, were lower than those of the April 2016 gauging event and also lower than the historical average observed since VIRP monitoring began in July 2014.

Utilizing the data presented in Table 3-1, EIC prepared a shallow groundwater potentiometric surface map, as illustrated in Figure 3-1. Due to the historically anomalous groundwater elevation observed at well MW-2S, relative to the surrounding groundwater elevations, the data from this well was not considered for potentiometric surface contouring. The anomaly observed at this well may have resulted from this well having a relatively shallow depth of completion (which is less than 10 feet bgs) relative to other shallow wells onsite and may represent perched groundwater conditions caused by confining and/or partially confining strata.

EIC compared Figure 3-1 to previous shallow potentiometric surface maps included in all previous VIRP semi-annual progress reports (EIC 2014b, 2015a, 2015b, 2016a, 2016b). From this comparison, a prominent trough feature, which extends north-east to south-west across the Site, has become more clearly apparent since the addition of the monitoring wells during the implementation of the VIRP tasks. Based on the potentiometric surface during each of the six



gauging events under the VIRP, it is clearly evident that the groundwater generally flows from east-northeast to west-southwest across the Site and the shallow unconfined potentiometric surface remains relatively stable in elevation over time.

3.4.1.2 Deep Groundwater Potentiometric Surface

As with the shallow potentiometric surface elevations at the Site, EIC compared the deep well gauging data from the November 2016 sampling event to those of the previous five gauging events that are summarized in Table 3-6. Referring to Table 3-6, the average potentiometric surface elevations in deep wells are lower than those of the previous April 2016 event and the historical average. Referring to the data presented in Table 3-6, there is no apparent seasonal trend in the deep groundwater potentiometric surface at the Site. EIC will continue to evaluate the gauging data collected during each semi-annual groundwater gauging and sampling event to determine if any trends become apparent.

Utilizing the gauging data in Table 3-1, EIC prepared a deep groundwater potentiometric surface map, Figure 3-2. EIC then compared Figure 3-2 to previous deep potentiometric surface maps included in all previous VIRP semi-annual progress reports (EIC 2014b, 2015a, 2015b, 2016a, and 2016b). In comparing Figure 3-2 to these maps, it is apparent that a persistent trough feature, which extends through the center of the Site, is still the predominant deep potentiometric surface feature affecting the groundwater flow path at the Site. In comparing the potentiometric surface from the November 2016 event with those of previous groundwater monitoring events, it is apparent that groundwater generally flows from east-northeast to west-southwest across the Site and the deep potentiometric surface has remained relatively stable in elevation over time.

3.4.2 Horizontal Extent of COC Plumes

The COCs at the Site consist of COCs: tetrachloroethene or perchloroethene (PCE), trichloroethene (TCE), cis-1, 2 dichloroethene (DCE), and vinyl chloride (VC). Utilizing the analytical results summarized in Tables 3-3 and 3-4, EIC prepared Figures 3-3 through 3-10, which illustrate the horizontal extent of the four COC constituent plumes within both the defined shallow and deep aquifer horizons. In addition, the figures illustrate the horizontal extent of the plumes with concentrations both above RRS and above delineation criteria. The following four subsections describe the concentrations of each of the four COCs and the extents of the plumes in both the shallow and deep aquifer horizons, respectively.

3.4.2.1 PCE Plume

Utilizing the analytical results of samples collected during the November 2016 sampling event that are summarized in Tables 3-3 and 3-4, EIC prepared PCE isoconcentration maps to illustrate the horizontal extent of the PCE plume. The following subsections describe the PCE concentrations in both the shallow and deep aquifer horizons.



Shallow PCE

Figure 3-3 illustrates the horizontal extent of the shallow PCE plume defined shallow wells during the November 2016 monitoring event. Referring to Figure 3-3, the shallow plume is confirmed to be above delineation criterion only at wells MW-31, MW-32 and MW-50S. The shallow plume is also above RRS at MW-50S. PCE concentrations at all of the remaining monitoring wells were below the laboratory method detection limit (MDL). The November 2016 sampling event is the first time - since the installation of MW-50S - that PCE concentrations at this well have been above RRS. During the previous April 2016 sampling event, the PCE concentration observed at MW-50S was below MDL. EIC will continue to monitor the PCE concentration at MW-50S to determine if it persists above RRS or if this unusually high concentration was an aberration.

Deep PCE

Figure 3-4 illustrates the horizontal extent of the deep PCE plume at the defined deep wells during the November 2016 monitoring event. Referring to Figure 3-4, PCE concentrations at all wells sampled were below both the delineation criterion and RRS. This represents an overall decrease in the concentrations of and the extent of the plume, indicating that natural attenuation is occurring.

3.4.2.2 TCE Plume

Utilizing the analytical results summarized in Tables 3-3 and 3-4, EIC prepared TCE isoconcentration maps to illustrate the horizontal extent of the TCE plume. The following subsections describe the TCE concentrations in both the shallow and deep aquifer horizons.

Shallow TCE

Figure 3-5 illustrates the horizontal extent of the shallow TCE plume at the defined shallow wells during the November 2016 monitoring event. Shallow TCE concentrations that exceeded the RRS and the delineation criterion were detected at monitoring wells MW-31, MW-32, and MW-50S. It is worth noting that the concentration observed at MW-50S (1,700 µg/L) is an order-of-magnitude increase over the concentration observed at this well during the previous April 2016 monitoring event. The overall extent of the shallow TCE plume reduced slightly however since April 2016. It is also interesting to note that for the first time since the VIRP was initiated, the concentration at well MW-31 exceeded that at well MW-32.

Deep TCE

Figure 3-6 illustrates the horizontal extent of the deep TCE plume at the defined deep wells during the November 2016 monitoring event. Deep TCE concentrations that exceeded the RRS and the delineation criterion were found at monitoring wells MW-2D, MW-44D, MW-47D, and PAW-4. The overall extent and concentrations of the November 2016 deep TCE plume are similar to those which occurred during the April 2016 event, with the exception of a sharp



decrease in concentration observed at MW-49D from 560 µg/L in April 2016 to below detection limits.

Former recovery wells RW-1 and RW-4 were not considered for contouring due to the effects of excessive siltation (which EIC has determined exists in these wells), due to corroded well screens, or due other forms of screen restriction.

3.4.2.3 cis-1, 2 DCE Plume

Utilizing the analytical results summarized in Tables 3-3 and 3-4, EIC prepared DCE isoconcentration maps to illustrate the horizontal extent of the DCE plume. The following subsections describe the DCE concentrations in both the shallow and deep aquifer horizons.

Shallow DCE

Figure 3-7 illustrates the horizontal extent of the shallow DCE plume at the defined shallow wells during the November 2016 monitoring event. Shallow DCE concentrations that exceeded the RRS occurred at monitoring wells MW-4S, MW-40S, and MW-50S. The overall extent of the shallow DCE plume during the November 2016 monitoring event was similar to that occurring during the April 2016 monitoring event. It should be noted, however, that the concentrations changed significantly within the plume, as compared with those of the April 2016, as follows: the concentration increased 13-fold at MW-50S, decreased by approximately one-half at MW-4S, and decreased by one-fifth at MW-40S. Overall, the peak concentration shifted from being mid-plume to the up-gradient portion of the plume.

Deep DCE

Figure 3-8 illustrates the horizontal extent of the deep DCE plume at the defined deep wells during the November 2016 monitoring event. Deep DCE concentrations that exceeded the RRS occurred at monitoring wells MW-2D, MW-49D, PAW-4, and RW-9. The overall extent of the November 2016 deep DCE plume was similar to the DCE plume of the April 2016 sampling event, however, the distribution of the plume changed. As the concentration of DCE decreased from 120 µg/L to 19 µg/L at well MW-55D, the single plume of April 2016 with concentrations above the delineation criterion and RRS bifurcated at MW-55D into two plumes. Former recovery wells RW-1 and RW-4 were not considered for contouring due to the same reasons cited for the TCE plume.

3.4.2.4 VC Plume

Utilizing the analytical results summarized in Tables 3-3 and 3-4, EIC prepared VC isoconcentration maps to illustrate the horizontal extent of the VC plume. The following subsections describe the VC concentrations in both the shallow and deep aquifer horizons.



Shallow VC

Figure 3-9 illustrates the horizontal extent of the shallow VC plume at the defined shallow wells during the November 2016 monitoring event. Shallow VC concentrations that exceeded the RRS occurred at monitoring wells MW-2S, MW-4S, MW-33, MW-45S, MW-46S, and MW-50S. The overall extent of the shallow VC plume increased slightly since April 2016, with concentrations increasing slightly above RRS from below detection limits at wells MW-45S and MW-2S since April 2016. These increases may be due to the degradation of the parent COCs.

Deep VC

Figure 3-10 illustrates the horizontal extent of the deep VC plume at the defined deep wells during the November 2016 monitoring event. Deep VC concentrations that exceeded the RRS were found in monitoring wells MW-2D, MW-49D, MW-51D, MW-54D, MW-55D, PAW-4, and RW-9. In general, the plume extent and concentrations were relatively similar to those of the April 2016 monitoring event. Former recovery wells RW-1 and RW-4 were not considered for contouring for the same reasons they were not considered for the TCE and DCE plumes. Not considering these wells, however, changed how the northeastern portion of the plume is depicted by extending it further north and east.

3.4.3 Horizontal Delineation of COC Plumes

As EPD noted in its January 2016 comment letter, the horizontal delineation of COCs has not been completed due to observed concentrations at certain shallow and deep wells located at the eastern and southern periphery of the COC plumes. Specifically, completing the delineation of the shallow COC plumes down-gradient and south of well MW-32 and the deep COC plumes up-gradient and northeast and east of wells MW-44D and MW-47D, respectively. Nevertheless, it appears that there is a general downward trend of COC concentrations at each of these three wells over the last three sampling events - October 2015, April 2016, and November 2016. EIC has installed or attempted to install additional wells in order to complete the delineation of these plumes, accordingly. The installation of these wells will be detailed in the next semi-annual report and the next semi-annual sampling event is planned to take place during the fourth quarter of 2017.

3.4.4 Vertical Delineation of COC Plumes

Of the current monitoring well network, well MW-35 is the deepest known well within the footprint of the COC plumes. This well is also located near the downgradient extent or leading edge of the COC plumes. Based on gauging measurements that EIC has collected and historical well data provided by a previous consultant, the total depth of MW-35 is 38.02 feet bgs. MW-35 has a 10-foot screen interval at the well bottom. Under the VIRP, EIC has sampled this well since February 2014. The associated analytical data for samples collected from the well is tabulated in Table 3-4. Referring to Table 3-4, the concentrations of all monitored COCs in groundwater samples from MW-35 have consistently been below MDLs during all sampling



events since February 2014, with the exception of a concentration of 0.58 µg/L of DCE in April 2016 - which is well below the established RRS limit of 204 µg/L for DCE. EIC will continue to include well MW-35 in the monitoring program, but it appears that the vertical delineation of the plume has been completed.

3.4.5 Plume Attenuation and Stability

Based on the relatively high concentrations of PCE degradation products observed at the Site, it is clearly evident that natural attenuation of COCs dissolved in groundwater is occurring at the Site. Also, an overall comparison of the COC plume extents and concentrations between the July 2014 baseline monitoring event (following the installation of 20 new monitoring wells) and the November 2016 monitoring event indicates that the plumes are confined to a relatively small area within the Site and continue to decrease in concentration. This finding substantiates plume stability. EIC will continue to evaluate this trend and evaluate the extent of natural attenuation while implementing plans for active remediation.



4.0 Ecological Impact Evaluation

4.1 Background

The VIRP, submitted by MTL, that the EPD approved on May 20, 2014, proposed a surface water ecological impact evaluation to identify potential environmental receptors for COCs at the site. In accordance with EPD's approval comments letter (also dated May 20, 2014), the ecological impact evaluation has been expanded to include any receptors to site COCs, through groundwater and surface water pathways. As such, EIC evaluated direct and indirect COC exposure pathways for ecological receptors at the site. Direct exposure is defined as the species that may be affected from direct dermal contact or ingestion of soil or surface water contaminated with the COCs located at the areas of concern (AOCs). Indirect exposure is defined as the species ingesting plants or animals that have had direct exposure to and have the ability to assimilate COCs.

4.2 Data Compilation

EIC created Table 4-1 from the Georgia DNR rare elements list from the Port Wentworth, GA Southeast Quarter Quadrangle map. This identifies species and habitat of all rare or threatened species present in Chatham county. This compilation was then evaluated for applicability to the site and field checked during a site evaluation.

4.3 Receptor Evaluation

Each potential rare receptor was evaluated for its applicability to the site. Applicable species were noted and field checked during the field survey.

4.3.1 Mammals

4.3.1.1 Manatee

The manatee was considered not applicable to the site due to lack of potential habitat.

4.3.2 Fish

4.3.2.1 Atlantic Sturgeon

The Atlantic Sturgeon was considered not applicable to the site due to lack of potential habitat.

4.3.2.2 Shortnose Sturgeon

The Shortnose Sturgeon was considered not applicable to the site due to lack of potential habitat.

4.3.3 Reptiles

4.3.3.1 Common Rainbow Snake

According to GADNR, habitat for the Common Rainbow Snake includes rivers, streams, and associated swamps as well as springs. Since there are significant stormwater features that function like small streams and create swamp-like conditions in adjacent low lying areas, potential habitat for the Common Rainbow Snake does exist at the site. In 2017, swamp-like areas have expanded due to beavers damming the North-South Ditch in several places.

4.3.2.2 North Florida Swamp Snake

According to GADNR, habitat for the North Florida Swamp Snake includes swamps, ponds, marshes, and lakes. Due to the presence of swamp-like areas at the site, potential habitat for the North Florida Swamp Snake does exist at the site.

4.3.4 Birds

4.3.4.1 Black-necked Stilt

According to GADNR, habitat for the Black-necked Stilt includes shallow ponds, lagoons, beach, managed impoundments, and dredge spoil island/impoundments. Due to the presence of a stormwater retention pond, water-filled ditches, and swamp-like areas at the site, potential habitat for the Black-necked Stilt does exist at the site.

4.3.4.2 Least Tern

The Least Tern was considered not applicable to the site due to the lack of potential habitat.

4.3.5 Natural Communities

4.3.5.1 Tidal Hardwood Swamp Forest

Tidal Hardwood Swamp Forest was considered not applicable to the site due to lack of tidal influence on waters at the site. According to GADNR, this tidal influence is a hallmark of this community.



4.3.5.2 South Atlantic Willow Oak Flatwoods Forest

South Atlantic Willow Oak Flatwoods Forest was considered not applicable to the site due to overland flooding that occurs at the site. According to GADNR, lack of this flooding is a hallmark of this community.

4.3.5.3 Swamp Blackgum - Mixed Hardwood Small Stream Forest

According to GADNR, the Swamp Blackgum - Mixed Hardwood Small Stream Forest is primarily defined by the presence of the Swamp Blackgum tree. As such, this was a primary species of interest during the site receptor survey.

4.3.6 Vascular Plants

4.3.6.1 Coastal Bishopweed

The Coastal Bishopweed was considered not applicable to the site due to lack of potential habitat.

4.3.6.2 Eaton's Ladies-tresses

The Eaton's Ladies-tresses was considered not applicable to the site due to lack of potential habitat.

4.3.6.3 Georgia St. Johnswort

According to GADNR, habitat for the Georgia St. Johnswort includes seepage bogs and roadside ditches. Since boggy areas and various ditches are present, potential habitat for the Georgia St. Johnswort does exist at the site.

4.3.6.4 Halberd-leaf Tear-thumb

According to GADNR, habitat for the Halberd-leaf Tear-thumb includes marshes and wet thickets. Since boggy areas are present, potential habitat for the Georgia St. Johnswort may exist at the site.

4.3.6.5 Narrowleaf Obedient Plant

The Narrowleaf Obedient Plant was considered not applicable to the site due to lack of potential habitat.

4.3.6.6 Wild Yellow Cowpea

The Wild Yellow Cowpea was considered not applicable to the site due to lack of potential habitat.

4.4 Receptor Survey

On December 14, 2016, EIC conducted a reconnaissance survey of the site to determine if the species discussed in Section 4.3 were present. EIC divided the relevant sections of the site into three areas, as depicted in Figure 4-1. These areas represent the only undeveloped areas at the

site; the remainder of the site consists of variously paved open spaces. EIC performed this survey systematically; starting with a perimeter walk of each area and conducting transects into potential habitat areas. During the survey, key elements were inspected to determine if each species of concern had the possibility of being present at each area currently or in the future. This included transects which matched site observations to known habitat conditions and visually scanning for each species itself. The inspection was documented with photographs and written notes.

4.4.1 Area 1 Inspection

As shown in Figure 4-1, Area 1 consists of the wooded area on the eastern portion of the site. Notable features include a stormwater retention pond feature along the southern edge, an open gravel-paved or grassy area separated from Area 1 by a chain-link fence along the northern and western edges, and an open asphalt-paved area along the eastern edge. A stormwater swale, which is normally dry, also exists along the northern end of the western edge of this area. From the species listed in Section 4.3, the stormwater pond along the south side of Area 1 creates potential habitat for the Common Rainbow Snake, North Florida Swamp, and the Black-necked Stilt. The stormwater swale along the west side of Area 1 creates potential habitat for the Georgia St. Johnswort. However, during the survey, no signs of these species were observed.

4.4.2 Area 2 Inspection

As shown in Figure 4-1, Area 2 consists of the northern half of the wooded area on the western portion of the site. Notable features of this area include the North-South Stormwater Ditch along the eastern edge, the berm on the western edge and a portion of the northern edged, and generally wet soil from overland flooding from the North-South Stormwater Ditch throughout. From the species listed in Section 4.3, features of Area 2 create potential habitat for the Common Rainbow Snake, North Florida Swamp, Black-necked Stilt Halberd-leaf Tear-thumb, and Georgia St. Johnswort. Additionally, conditions in Area 2 make the Swamp Blackgum - Mixed Hardwood Small Stream Forest community possible. However, during the survey, no indications of these species were observed.

4.4.3 Area 3 Inspection

As shown in Figure 4-1, Area 3 consists of the southern half of the wooded area on the western portion of the site. Notable features include the North-South Stormwater Ditch along eastern edge, the berm along the western edge, the East-West Stormwater ditch along the southern side and generally wet soil from overland flooding from the stormwater ditch within the eastern portion of this area. From the species listed in Section 4.3, features of Area 3 create potential habitat for the Common Rainbow Snake, North Florida Swamp Snake, Black-necked Stilt Halberd-leaf Tear-thumb, and Georgia St. Johnswort. Additionally, conditions in Area 3 make the Swamp Blackgum - Mixed Hardwood Small Stream Forest community possible. However, during the survey, no indications of these species were observed.



4.5 Findings

Based on the data published by the Georgia DNR Wildlife Resources Division, as well as the ecological survey conducted by EIC, EIC has concluded that no rare species have the potential for direct or indirect exposure to COCs at the site. A detailed analysis of the exposure pathways is included in the SCM. EIC will continue to document any signs of rare species that may occur at the site.



5.0 SCM Update

As part of the VIRP submittal, EIC prepared an initial site conceptual model (SCM) based on historical information known at the time. Based on the incremental knowledge acquired during the implementation of the VIRP, EIC has compiled additional data collected over the last three years to further define the site characteristics and potential fluid flow hydrodynamics. An updated SCM report is included as Appendix A.

In preparing this updated SCM report, EIC made revisions to the various illustrations and descriptions of the groundwater hydrology, COC plume delineation, and the COC concentration trend analysis sections, including utilizing data gathered following the installation of new monitoring wells. Additionally, revisions were made to the sections on the delineation of soils in the AOCs resulting from further soil confirmatory sampling.

6.0 Remedial Progress and Other Tasks

6.1 Infiltration Test

EIC has been proceeding with tasks for the design of a groundwater remedial system at the site. One component of this was to conduct an infiltration test to determine the feasibility and design parameters necessary for an exfiltration gallery to receive the effluent of a groundwater treatment system. EIC performed this infiltration test in April 2017. Detailed analysis of the test results and its influence on a remedial system design will be discussed in future semi-annual reports.

6.2 Soil Delineation Sampling

EIC conducted additional soil confirmatory sampling to complete the delineation of COCs in soils and sediments within AOC-6 in April 2017. Details and analysis of this sampling will be included in the seventh semi-annual progress report.

6.3 Well Installation and Abandonment

As discussed in Section 3.2.1, monitoring well MW-36 was damaged and required abandonment and replacement. EIC completed these tasks along with additional well installation and abandonment during April and May 2017. In total, three wells were abandoned (G-22, MW-36, and MW-U2), 2 replacement wells were installed (G-22R and MW-36R), and 2 new monitoring wells (MW-57S and MW-58D) were installed. Additionally, EIC attempted to install 2 additional wells to complete up-gradient delineation of groundwater COCs on the eastern edge of the Site. EIC was not able to install these wells, however, due to “flowing sand” conditions encountered during drilling. EIC also characterized and logged the soil at each location where wells were installed or attempted for installation. Explicit details on these tasks and the resulting wells or soil borings will be included in the seventh semi-annual progress report.

7.0 Summary

After the submittal of the Fifth Semi-annual Progress Report in November 2016, EIC continued the implementation of various tasks outlined in the VIRP and as directed by the EPD. The following paragraphs describe these activities.

EIC conducted the second semi-annual groundwater monitoring event of 2016 in November 2016. This event served as the fourth round of sampling after the installation of 20 new monitoring wells. The data from this event was used for comparative analysis of the COC plumes. Based on the relatively high levels of PCE degradation products observed at the Site, it is evident that natural attenuation is occurring at the Site. Fluctuation in COC concentrations within the center of the plume has been noted and will be further evaluated. However, in general, the COC plume is stable and confined to a relatively small area within the Site and it continues to decrease overall in concentration.

EIC has updated the SCM to include additional data gathered from aquifer testing and new well installations. Further updates will be made to the SCM as new information becomes available.

EIC has abandoned 2 wells and is in the process of installing additional wells to complete horizontal delineation of the COC plume. Also, EIC has conducted further delineation soil sampling within AOC-6. These activities will be detailed in the next semi-annual report.

8.0 Monthly Summary of Hours

A monthly summary of hours invoiced for the aforementioned tasks during the period from November 2016 through April 2017 is summarized in Attachment 8-1.

9.0 References

Environmental International Corporation (EIC), 2014a. *VIRP Application, Former McKenzie Tank Lines Site, Port Wentworth Georgia*. Alpharetta, Georgia. January 29, 2014.

EIC, 2014b. *First VIRP Semi-annual Progress Report – HSI Site 10406, Former McKenzie Tank Lines Site*. Alpharetta, Georgia. November 11, 2014.

EIC, 2015a. *Second VIRP Semi-annual Progress Report – HSI Site 10406, Former McKenzie Tank Lines Site*. Alpharetta, Georgia. May 18, 2015.

EIC, 2015b. *Third VIRP Semi-annual Progress Report – HSI Site 10406, Former McKenzie Tank Lines Site*. Alpharetta, Georgia. November 18, 2015.

EIC, 2016a. *Fourth VIRP Semi-annual Progress Report – HSI Site 10406, Former McKenzie Tank Lines Site*. Alpharetta, Georgia. May 19, 2016.

EIC, 2016b. *Fifth VIRP Semi-annual Progress Report – HSI Site 10406, Former McKenzie Tank Lines Site*. Alpharetta, Georgia. November 21, 2016.

EPD, 2016. *Voluntary Remediation Program Progress Report McKenzie Tank Lines Site, HSI # 10406 Port Wentworth, Chatham County, Georgia Tax parcel ID #s 1-0729-01-007 & 1-0729-01-009*. Atlanta, Georgia. October 6, 2016.

United States Environmental Protection Agency (EPA), 2013. *Groundwater Sampling, Operating Procedure, Number SESDPROC-301-R3*. Region 4, U.S. Environmental Protection Agency, Science and Ecosystem Support Division, Athens, Georgia. March 6, 2013.

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TABLES

Table 3-1: November 2016 Well Gauging Data

Well ID # (Dia., in.)	TOC Elevation* (ft., NAVD88)	DTW BTOC (ft.)	Groundwater Surface Elevation (ft., NAVD88)	Notes
Shallow Wells**				
G-17 (1)	8.94	5.30	3.64	
G-19 (1)	9.85	6.00	3.85	
G-22 (1)	9.36	6.96	2.40	
MW-2S (2)	11.54	4.95	6.59	
MW-4S (2)	10.86	5.83	5.03	
MW-15S (1)	8.27	4.71	3.56	
MW-29 (1)	9.39	4.41	4.98	
MW-31 (1)	11.96	6.65	5.31	
MW-32 (1)	12.02	6.46	5.56	
MW-33 (1)	8.48	4.73	3.75	
MW-37S (2)	10.14	5.33	4.81	
MW-40S (2)	5.57	1.43	4.14	
MW-42S (2)	10.71	5.11	5.60	
MW-45S (2)	13.74	7.33	6.41	
MW-46S (2)	14.01	7.54	6.47	
MW-48S (2)	13.56	7.66	5.90	
MW-50S (2)	11.18	6.22	4.96	
MW-U2 (2)	10.91	N.M.	N/A	
PAW-3 (2)	11.83	5.80	6.03	
Deep Wells**				
MW-2D (2)	11.39	5.28	6.11	
MW-11D (2)	16.07	9.57	6.50	
MW-14D (2)	12.06	6.74	5.32	
MW-26 (1)	8.42	3.40	5.02	
MW-35 (0.75)	6.28	1.32	4.96	
MW-36 (0.75)	9.86	N.M.	N/A	
MW-38D (2)	10.08	5.38	4.70	
MW-39D (2)	7.25	3.25	4.00	
MW-41D (2)	9.59	4.13	5.46	
MW-43D (2)	10.77	4.99	5.78	
MW-44D (2)	13.83	7.63	6.20	
MW-47D (2)	13.63	7.58	6.05	
MW-49D (2)	11.09	5.81	5.28	
MW-51D (2)	9.87	5.20	4.67	
MW-52D (2)	8.29	3.74	4.55	
MW-53D (2)	7.62	2.71	4.91	
MW-54D (2)	10.91	5.46	5.45	
MW-55D (2)	11.78	6.58	5.20	
MW-56D (2)	10.68	5.08	5.60	
PAW-4 (2)	11.99	6.33	5.66	
RW-1 (4) ***	11.69	5.65	6.04	
RW-2 (4)	9.24	NM	N/A	
RW-3 (6)	7.58	NM	N/A	
RW-4 (6) ***	13.25	7.34	5.91	
RW-5 (6)	11.71	NM	N/A	
RW-6 (6)	10.12	NM	N/A	
RW-7 (6)	8.63	NM	N/A	
RW-8 (4)	7.43	2.78	4.65	
RW-9 (4)	11.79	6.17	5.62	

Notes:

ID = Identity
 Dia. = Diameter
 In. = Inches
 ft. = feet
 BTOC = Below Top of Casing
 DTW = Depth to Water
 N.M. = Not Measured

N/A - Not Applicable

*Top of casing (TOC)

**Wells with screen intervals reaching depths greater than 20 feet below ground surface are considered deep wells, otherwise they are considered a shallow wells

***Gauged with GW pump removed from well

Table 3-2: Chronological Groundwater Quality Field Parameters Summary

Well ID # (Well Diameter, in.)	Sample Date	Temp (Celcius)	pH (SU)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
G-17	8/13/2013	24.44	6.04	33	0.972	2.50	3.57
	7/16/2014	23.67	5.63	-16	0.265	112	0.49
	10/13/2015	25.89	5.65	-31	1.34	0.60	0.33
	4/19/2016	23.73	6.41	92	1.38	0.00	0.72
	11/2/2016	30.96	6.47	23	1.24	8.60	0.00
G-19	8/15/2013	21.92	3.81	230	0.095	34.6	1.34
	2/21/2014	17.69	4.39	41	0.296	14.0	0.71
	7/17/2014	22.39	4.17	86	0.419	0.00	0.69
	10/7/2014	23.45	4.45	-43	0.233	11.9	0.76
	4/28/2015	18.01	4.52	83	0.091	0.00	6.30
	10/14/2015	23.36	3.93	40	0.089	18.3	0.00
	4/20/2016	19.13	4.33	52	0.092	0.00	1.21
11/3/2016	26.84	4.82	103	0.093	4.80	0.00	
G-22	8/15/2013	22.29	5.72	118	0.357	0.00	1.76
	2/23/2014	16.80	5.87	25	0.722	50.1	1.12
	7/17/2014	25.75	5.77	-27	1.170	796	3.88
	10/7/2014	25.60	5.95	-129	1.670	200	3.12
	4/28/2015	17.24	5.24	56	0.881	0.00	1.67
	10/14/2015	22.70	5.36	-32	1.090	105	0.17
	4/20/2016	19.04	5.67	111	1.37	6.70	3.00
11/3/2016	NM	NM	NM	NM	NM	NM	
MW-2D	8/12/2013	22.47	6.30	-64	0.759	27.0	0.41
	2/21/2014	18.67	6.07	-91	0.555	0.00	0.48
	7/19/2014	19.97	6.13	-50	0.486	0.00	0.40
	10/9/2014	20.58	6.61	-217	0.589	0.00	0.48
	4/27/2015	18.67	6.21	-54	0.513	9.40	0.00
	10/12/2015	21.21	5.87	46	0.484	0.00	0.42
	4/18/2016	23.67	5.95	111	0.407	4.50	0.49
11/1/2016	22.69	5.17	117	0.407	1.90	0.52	
MW-2S	8/13/2013	26.37	6.58	-35	1.160	0.00	0.58
	2/21/2014	15.59	6.74	-33	0.999	0.00	1.43
	7/18/2014	23.45	6.54	-62	0.895	4.50	2.78
	10/8/2014	20.82	6.65	-164	0.772	0.00	1.27
	4/27/2015	18.80	6.87	64	0.330	12.5	1.00
	10/12/2015	22.30	6.18	38	0.810	0.00	0.72
	4/18/2016	22.47	6.45	103	0.984	8.10	0.64
10/31/2016	24.18	5.71	139	1.680	0.00	0.45	
MW-4S	8/14/2013	22.63	5.92	-45	1.870	360	0.48
	2/19/2014	18.69	6.13	-50	1.330	254	0.76
	7/18/2014	21.55	6.08	-51	1.660	0.00	0.53
	10/9/2014	22.83	6.00	0.89	1.970	0.00	0.43
	4/27/2015	18.80	6.06	-50	1.850	3.10	0.00
	10/13/2015	22.88	5.25	-61	1.640	0.50	0.00
	4/20/2016	21.49	5.49	93	1.740	0.00	0.83
11/3/2016	36.30	6.13	-50	1.220	18.6	0.00	
MW-11D	8/13/2013	24.07	6.73	-22	0.498	0.00	0.62
	2/20/2014	15.95	6.40	45	0.210	100	2.45
	7/16/2014	22.29	6.35	-85	0.332	22.1	0.53
	10/7/2014	22.13	6.18	-153	0.417	0.00	0.77
	4/27/2015	17.30	6.40	-35	0.290	6.80	0.12
	10/12/2015	22.10	6.17	81	0.342	5.60	0.62
	4/18/2016	20.51	6.15	174	0.252	7.60	0.77
10/31/2016	24.76	4.74	163	0.329	0.00	0.77	

Table 3-2: Chronological Groundwater Quality Field Parameters Summary

Well ID # (Well Diameter, in.)	Sample Date	Temp (Celcius)	pH (SU)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
MW-14D	8/14/2013	21.19	6.81	-82	0.210	0.00	0.95
	2/21/2014	18.27	6.82	-55	0.235	2.00	0.61
	7/17/2014	24.96	6.32	-66	0.237	73.5	0.41
	10/7/2014	21.45	6.83	-135	0.261	146	0.70
	4/28/2015	20.49	6.74	-81	0.189	53.3	0.00
	10/14/2015	24.48	6.05	-94	0.210	0.00	0.18
	4/20/2016	21.00	6.36	61	0.235	4.40	1.07
	11/3/2016	23.33	6.21	19	0.245	2.90	0.64
MW-15S	8/13/2014	22.67	6.60	-58	0.460	0.00	0.58
	2/19/2014	18.39	6.83	-87	0.355	22.5	0.69
	7/16/2014	21.63	6.64	-65	0.396	14.8	0.65
	10/7/2014	19.85	6.97	-116	0.473	4.90	1.27
	4/28/2015	17.62	5.98	-34	0.377	0.00	1.20
	10/13/2015	22.87	7.07	10	0.395	0.00	0.82
	4/19/2016	23.40	7.06	73	0.404	0.00	0.74
	11/2/2016	28.95	7.07	-99	0.381	0.70	0.00
MW-26	8/13/2013	21.22	7.82	-67	0.510	55.2	0.61
	2/19/2014	18.33	8.04	-157	0.407	24.7	0.69
	7/16/2014	21.75	7.87	-103	0.446	34.0	0.86
	10/7/2014	21.82	7.89	-126	0.490	9.00	1.00
	4/27/2015	18.82	8.14	-88	0.387	0.40	0.00
	10/15/2015	23.71	7.21	-78	0.387	4.90	0.00
	4/19/2016	21.82	7.61	16	0.418	0.00	0.86
	11/2/2016	30.28	7.85	2	0.377	1.70	0.77
MW-29	8/14/2013	28.30	5.94	4	0.422	50.3	0.54
	2/19/2014	17.75	5.82	27	0.319	9.90	1.53
	7/16/2014	22.03	6.30	-98	0.425	46.9	0.69
	10/6/2014	21.48	6.18	-168	0.785	23.2	0.42
	4/27/2015	25.07	5.78	-11	0.288	47.7	5.89
	10/12/2015	28.19	5.91	25	0.374	0.00	0.44
	4/19/2016	21.88	5.80	130	0.649	0.00	0.73
	11/2/2016	31.82	6.17	-5	0.950	4.00	0.00
MW-31	8/15/2013	21.00	5.62	50	0.779	0.00	1.22
	2/20/2014	18.38	5.15	147	1.060	46.2	0.79
	7/17/2014	20.58	4.86	159	1.880	21.5	0.64
	10/8/2014	25.81	5.09	157	1.070	76.7	1.14
	4/28/2015	17.46	5.07	71	1.020	0.00	0.66
	10/14/2015	21.20	5.58	89	0.970	24.4	0.77
	4/20/2016	22.80	5.36	96	0.746	4.00	0.00
	11/1/2016	28.33	6.27	-26	0.354	1.80	0.00
MW-32	8/15/2013	20.53	4.70	217	0.427	0.00	0.91
	2/20/2014	17.41	4.56	245	0.441	0.00	1.00
	7/16/2014	20.24	4.70	228	0.420	0.00	0.55
	10/8/2014	25.09	4.79	281	0.403	16.4	0.75
	4/28/2015	17.67	4.28	121	0.553	0.00	0.68
	10/14/2015	20.76	4.58	230	0.395	9.50	0.70
	4/20/2016	23.36	4.57	248	0.378	1.80	0.46
	11/1/2016	28.15	4.65	217	0.389	0.30	0.00

Table 3-2: Chronological Groundwater Quality Field Parameters Summary

Well ID # (Well Diameter, in.)	Sample Date	Temp (Celcius)	pH (SU)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
MW-33	8/13/2013	23.96	6.60	-46	1.410	4.00	3.73
	2/19/2014	17.87	6.73	-82	1.070	21.7	0.73
	7/16/2014	21.14	6.83	-70	0.937	54.5	0.41
	10/9/2014	23.49	7.02	-101	0.612	16.8	1.21
	4/28/2015	17.58	6.87	-66	0.664	31.9	0.00
	10/13/2015	23.32	7.03	-44	0.535	0.00	0.52
	4/18/2016	22.25	7.04	46	0.560	0.00	0.64
	11/2/2016	30.40	7.19	-80	0.483	2.00	0.00
MW-35**	7/18/2014	20.94	7.72	-83	0.425	80.9	0.51
	10/7/2014	21.03	7.94	-143	0.474	8.40	1.26
	4/28/2015	18.05	8.14	-102	0.377	14.7	0.00
	10/13/2015	20.93	8.07	-87	0.400	23.3	0.76
	4/19/2016	23.23	8.72	-135	0.319	3.80	4.25
	11/2/2016	24.05	7.28	-2	0.386	0.00	0.72
MW-36	8/14/2013	24.05	7.55	-98	0.415	233	1.78
	2/19/2014	20.14	7.45	-88	0.406	14.7	1.93
	7/18/2014	24.13	7.50	-140	0.453	8.10	0.54
	10/8/2014	26.11	7.55	-180	0.475	0.00	3.07
	4/27/2015	21.36	7.09	-44	0.400	0.00	1.54
	10/13/2015	21.98	6.59	-90	0.396	11.2	0.47
	4/19/2016	21.71	7.80	-101	0.346	6.10	0.39
	11/1/2016	NM	NM	NM	NM	NM	NM
MW-37S	4/28/2015	20.59	6.04	-38	0.240	0.00	0.63
	10/13/2015	26.69	5.81	-65	0.239	0.00	0.00
	4/20/2016	21.79	6.43	-86	0.241	8.70	0.00
	11/3/2016	29.35	6.47	-64	0.262	1.00	0.00
MW-38D	4/28/2015	21.50	6.71	-62	0.853	0.00	0.87
	10/13/2015	26.13	6.53	-129	0.581	2.10	0.00
	4/20/2016	22.45	7.30	-91	0.443	3.10	0.00
	11/3/2016	32.22	7.31	-120	0.443	1.40	0.00
MW-39D	4/28/2015	18.40	7.06	-62	0.372	0.00	0.53
	10/13/2015	22.91	6.86	-81	0.356	0.00	0.00
	4/19/2016	21.56	8.19	-56	0.311	0.00	0.00
	11/2/2016	24.11	7.21	127	0.363	0.00	0.00
MW-40S	4/27/2015	19.51	6.86	-76	0.274	8.40	0.00
	10/13/2015	22.77	6.05	-88	0.272	0.00	0.00
	4/19/2016	23.10	7.34	-122	0.330	0.00	1.78
	11/2/2016	24.34	6.39	37	0.285	0.00	0.49
MW-41D	4/27/2015	20.95	7.80	-93	0.335	47.1	0.00
	10/12/2015	25.31	7.51	-93	0.306	0.00	0.53
	4/19/2016	22.71	7.62	-4	0.325	0.00	0.79
	11/2/2016	29.03	7.87	-91	0.306	1.30	0.00
MW-42S	4/27/2015	25.77	11.24	-245	2.320	20.4	0.68
	10/12/2015	26.68	10.44	-237	0.711	11.3	0.46
	4/19/2016	26.28	9.07	-282	0.731	0.00	0.00
	11/1/2016	30.58	7.21	-97	1.140	1.40	0.00
MW43D	4/27/2015	23.41	8.16	-81	0.317	70.2	0.67
	10/12/2015	26.27	7.23	3	0.435	9.60	0.00
	4/19/2016	28.30	8.08	40	0.329	4.00	0.00
	11/1/2016	30.15	7.22	78	0.479	4.00	0.00

Table 3-2: Chronological Groundwater Quality Field Parameters Summary

Well ID # (Well Diameter, in.)	Sample Date	Temp (Celcius)	pH (SU)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
MW-44D	4/27/2015	24.80	5.16	58	0.662	5.30	0.86
	10/13/2015	26.06	5.56	-78	0.506	0.30	0.13
	4/18/2016	27.89	5.79	-15	0.610	7.20	0.00
	10/31/2016	34.49	5.51	20	0.508	0.00	0.00
MW-45S	4/27/2015	25.37	4.78	69	0.621	3.40	0.86
	10/12/2015	28.14	5.23	-71	0.481	0.20	0.14
	4/18/2016	27.89	5.09	-43	0.669	5.70	0.20
	10/31/2016	34.56	5.16	22	0.575	0.30	0.00
MW-46S	4/27/2015	20.68	6.07	84	0.887	22.9	0.00
	10/12/2015	25.13	5.88	87	0.722	0.00	0.57
	4/18/2016	24.12	5.04	161	0.680	0.00	0.69
	10/31/2016	27.52	4.76	215	0.651	0.00	0.84
MW-47D	4/27/2015	19.62	6.42	96	0.462	159	0.84
	10/12/2015	22.09	6.29	-14	0.339	4.40	0.00
	4/18/2016	20.93	5.26	21	0.283	156	0.00
	10/31/2016	27.99	6.75	-84	0.409	2.90	0.00
MW-48S	4/27/2015	18.12	4.09	277	0.163	21.7	5.89
	10/12/2015	22.81	4.29	348	0.135	0.00	2.11
	4/18/2016	21.64	4.03	416	0.140	6.60	2.25
	10/31/2016	29.32	4.19	391	0.151	0.00	0.29
MW-49D	4/29/2015	18.92	6.86	-78	0.574	17.5	0.00
	10/14/2015	25.49	7.12	-6	0.652	0.00	1.11
	4/21/2016	22.25	4.60	213	0.873	8.50	0.89
	11/3/2016	28.66	6.82	32	0.488	1.60	0.54
MW-50S	4/29/2015	18.98	5.01	87	0.763	22.4	0.00
	10/14/2015	27.37	4.41	63	0.763	0.00	5.51
	4/21/2016	23.58	6.41	73	0.676	0.00	1.51
	11/3/2016	30.90	4.83	125	0.762	0.00	0.41
MW-51D	4/29/2015	18.49	6.89	-59	0.450	0.00	1.01
	10/14/2015	21.29	7.69	-41	0.371	17.4	0.72
	4/20/2016	23.94	7.54	-5	0.326	2.90	0.00
	11/3/2016	32.86	7.57	-76	0.320	5.40	0.00
MW-52D	4/28/2015	19.01	7.49	-103	0.349	10.4	0.00
	10/13/2015	21.59	7.09	-25	0.359	9.00	0.68
	4/20/2016	24.15	7.21	-82	0.284	82.0	0.05
	11/2/2016	23.84	6.77	23	0.302	9.20	0.10
MW-53D	4/29/2015	18.57	7.62	-114	0.326	1.50	0.00
	10/14/2015	23.94	7.59	-36	0.330	0.00	0.55
	4/20/2016	23.47	7.89	-76	0.286	0.40	0.00
	11/3/2016	33.09	7.79	-38	0.333	0.30	0.00
MW-54D	4/29/2015	18.20	7.55	-35	0.296	35.3	0.00
	10/14/2015	25.34	6.82	-100	0.308	0.10	0.00
	4/20/2016	22.57	6.84	13	0.336	0.00	0.66
	11/1/2016	29.96	7.73	-86	0.303	0.10	0.00
MW-55D	4/29/2015	18.63	6.42	-49	0.589	0.00	0.92
	10/14/2015	26.31	6.86	-102	0.338	0.00	0.08
	4/21/2016	22.36	7.77	-121	0.308	1.40	0.39
	11/3/2016	28.46	7.86	-19	0.350	0.00	0.41
MW-56D	4/29/2015	18.34	7.42	81	0.396	17.5	1.34
	10/14/2015	22.76	7.45	-28	0.319	0.00	0.67
	4/20/2016	21.91	6.56	23	0.350	0.00	0.82
	11/3/2016	26.71	6.91	-3	0.301	0.00	0.37

Table 3-2: Chronological Groundwater Quality Field Parameters Summary

Well ID # (Well Diameter, in.)	Sample Date	Temp (Celcius)	pH (SU)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
MW-U2	4/28/2015	18.27	5.56	58	1.060	71.2	0.96
	10/14/2015	20.68	6.40	54	1.410	92.9	4.40
	4/20/2016	23.08	6.08	-20	0.804	529	153.00
	11/1/2016	NM	NM	NM	NM	NM	NM
PAW-3	8/12/2013	23.53	5.75	25	0.582	12.4	0.41
	2/21/2014	17.33	6.44	52	0.906	9.00	0.61
	7/19/2014	21.80	6.03	-38	0.683	0.00	0.41
	10/8/2014	23.73	6.43	-97	0.979	0.00	0.88
	4/21/2015	18.02	6.34	-25	0.440	5.60	0.00
	10/12/2015	21.45	5.98	38	0.503	4.10	0.98
	4/20/2016	21.71	5.95	57	0.561	0.00	0.63
	11/1/2016	29.07	6.29	-30	0.934	9.30	0.00
PAW-4	8/12/2014	18.65	6.03	-36	0.876	1.80	0.53
	2/21/2014	18.62	5.56	31	0.392	22.2	0.67
	7/19/2014	19.14	5.45	0	0.513	1.00	0.46
	10/8/2014	21.57	6.50	-66	0.490	0.00	0.83
	4/28/2015	19.34	5.41	92	0.328	150	0.00
	10/12/2015	21.32	5.21	104	0.354	9.90	0.85
	4/20/2016	21.51	5.06	119	0.348	0.00	0.93
11/1/2016	27.75	6.45	-32	0.576	3.30	0.00	
RW-1	8/13/2013	25.25	5.88	5	0.683	0.00	0.63
	2/20/2014	16.73	6.06	39	0.690	196	0.52
	7/18/2014	21.73	5.91	-19	0.736	37.0	0.42
	10/8/2014	21.40	6.04	-52	0.707	0.00	1.07
	4/27/2015	19.86	6.35	-41	0.404	59.5	0.00
	10/13/2015	20.38	6.15	38	0.664	11.3	0.77
	4/19/2016	18.96	6.07	159	0.699	1.40	0.86
11/3/2016	30.97	6.13	-20	0.638	7.40	0.00	
RW-2	8/12/2013	22.40	5.68	51	0.695	369	0.65
	2/20/2014	19.94	5.90	61	0.934	217	0.26
	7/17/2014	22.04	5.80	5	1.410	48.6	0.39
	10/9/2014	22.02	6.03	-60	0.708	664	0.35
RW-3	8/14/2013	21.43	5.79	38	0.628	377	0.33
	2/20/2014	19.05	5.78	2	1.120	91.5	0.40
	7/17/2014	24.63	6.09	-46	1.060	368	0.39
	10/9/2014	23.71	6.35	-120	1.140	281	0.29
RW-4	8/12/2013	24.07	5.41	37	0.778	40.8	0.43
	2/20/2014	18.09	6.49	-43	0.893	125	0.32
	7/18/2014	21.94	6.48	-33	0.819	62.7	0.40
	10/9/2014	20.76	6.17	-44	0.741	0.00	2.68
	4/27/2015	19.99	6.71	-74	0.725	111	0.00
	10/13/2015	21.03	6.76	-84	0.944	24.7	0.65
	4/19/2016	19.73	6.58	71	0.974	0.00	0.67
11/1/2016	23.98	5.83	52	0.959	0.10	0.55	
RW-5	8/12/2013	26.50	5.04	107	1.050	219	0.50
	2/20/2014	21.53	4.61	271	0.630	204	0.36
	7/17/2014	24.27	4.98	148	0.733	69.0	0.46
	10/9/2014	24.28	5.43	69	0.677	9.90	0.44
RW-6	8/15/2013	21.35	5.90	20	1.950	7.10	1.29
	2/19/2014	19.88	5.45	20	0.994	22.3	0.67
	7/18/2014	21.32	6.00	-6	2.780	7.50	0.44
	10/8/2014	24.08	6.14	-93	1.820	0.00	0.79

Table 3-2: Chronological Groundwater Quality Field Parameters Summary

Well ID # (Well Diameter, in.)	Sample Date	Temp (Celcius)	pH (SU)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
RW-7	8/14/2013	22.24	6.00	-12	1.180	255	0.49
	2/20/2014	18.72	6.10	-44	1.110	193	0.50
	7/18/2014	21.45	6.14	-32	1.150	47.5	0.42
	10/9/2014	21.72	6.26	-73	1.040	294	0.38
RW-8	4/21/2016	21.01	7.98	-112	0.303	2.10	0.16
	11/3/2016	34.17	7.80	-23	0.316	0.70	0.00
RW-9	4/20/2016	24.19	5.86	71	0.704	0.00	0.72
	11/3/2016	28.13	6.54	17	0.370	0.00	0.57

Notes:

Field parameters were recorded by EIC during groundwater monitoring events after stabilization had been reached and prior to sampling. Parameters were measured with a Horiba U-52 Water Quality Meter with a Flow-Through Cell.

* G-22 was not sampled on 10/7/2014 due to lack of recharge. Parameters recorded are from only reading taken.

** MW-35 was discovered during the July 2014 sampling event and the well formerly identified as MW-35 is considered to be MW-15S based on well design.

SU = Standard Unit

mV = Millivolts

mS/cm = Microsiemens per centimeter

NTU = Nephelometric Turbidity Unit

mg/L = Milligrams per liter

McKenzie Tank Lines, Port Wentworth, GA

Table 3-3: Shallow Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Shallow Wells																			
	G-17	G-19	G-22	MW-2S	MW-4S	MW-15S*	MW-29	MW-31	MW-32	MW-33	MW-37S	MW-40S	MW-42S	MW-45S	MW-46S	MW-48S	MW-50S	PAW-3	MW-U2	
Tetrachloroethylene (PCE)	Type 4 RRS (µg/L)				Delineation Criteria (µg/L)												5			
Mar-93	NI	NI	NI	2,390.00	1,910.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Mar-94	NI	NI	NI	U	2,900.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Feb-96	NI	NI	NI	NA	460.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Mar-96	NI	NI	NI	20.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Sep-96	NI	NI	NI	11,000.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Oct-96	NI	NI	NI	31.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Apr-97	NI	NI	NI	47.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Jul-97	NI	NI	NI	111.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Oct-97	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	U	
Feb-98	NI	NI	NI	81.90	267.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Jul-98	NI	NI	NI	U	200.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Nov-98	NI	NI	NI	NA	1,580.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Feb-99	NI	NI	NI	0.50	80.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1.4	
Oct-99	NI	NI	NI	0.42	1,490.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
May-00	NI	NI	NI	U	1,343.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	9.4	
Jan-01	NI	NI	NI	4.80	3,730.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	2.5	
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Nov-01	NI	NI	NI	NA	250.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Dec-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Jan-02	NI	NI	NI	<1	NA	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<1	
Sep-02	NI	NI	NI	NA	<25	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	13.0	
Oct-03	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<0.43	
Jan-04	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Nov-04	NI	NI	NI	NA	6,300.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	3.1	
May-05	NI	NI	NI	NA	100.00	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Jun-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Jul-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<1	
Dec-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Oct-06	NI	NI	NI	NA	146.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Apr-07	NI	NI	NI	NA	NA	<0.3	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<0.3	
Nov-07	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Jun-08	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Jun-09	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Jul-10	NI	NI	NI	NA	0.2	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	34.0	
Dec-10	NI	NI	NI	NA	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	0.3	
Mar-11	0.2	U	0.2	U	0.2	U	NA	NA	0.2	U	3.8	37.0	10.0	U	NI	NI	NI	NI	NA	
Nov-11	NA	NA	NA	NA	NA	NA	NA	0.2	U	15.0	14.0	NA	NI	NI	NI	NI	NI	NI	NA	
Jun-12	NA	NA	NA	0.21	U	0.3	U	NA	0.3	U	1.9	NA	2.5	U	NI	NI	NI	NI	NA	
Aug-12	0.2	U	0.2	U	NA	NA	NA	NA	NA	NA	41.0	NA	NI	NI	NI	NI	NI	NI	150.0	
Mar-13	NA	0.2	U	NA	1.20	U	NA	0.3	U	0.3	J	100.0	NA	NI	NI	NI	NI	NI	9.0	
Aug-13	1.9	2.3	3.1	<0.16	<0.16	1.3	3.2	1.1	1.20	NI	NI	NI	NI	NI	NI	NI	NI	NI	<0.16	
Feb-14	<0.160	U	<0.160	U	<0.160	U	1.17	1.2	<0.16	U	<0.160	U	1.5	102.0	0.70	J	NI	NI	NI	
Jul-14	<0.16	U	<0.16	U	<0.16	U	<0.16	<0.16	U	<0.16	U	<0.16	120.0	<0.16	U	NI	NI	NI	NI	
Oct-14	<0.15	U	<0.15	U	NS	<0.15	U	<3.0	U	<0.15	U	<0.15	U	1.8	53.0	<0.30	U	NI	NI	
Jan-15	<0.74	U	<0.74	U	<0.74	U	2.3	<15	U	<0.74	U	<0.74	U	1.1	97.0	<3.7	U	NI	NI	
Apr-15	<0.74	U	<0.74	U	<0.74	U	1.9	<15	U	<0.74	U	<0.74	U	2.8	51.0	<3.7	U	<0.74	U	
Oct-15	<0.74	U	<0.74	U	<0.74	U	<37	U	<0.74	U	<0.74	U	<37	U	45.0	<0.74	U	<0.74	U	
Apr-16	<0.74	U	<0.74	U	<0.74	U	<15	U	<0.74	U	<0.74	U	<0.74	U	11	31	<0.74	U	0.88	
Nov-16	<0.29	U	<0.29	U	<0.29	U	<0.29	U	<0.29	U	<0.29	U	<0.29	U	14	26	<0.29	U	<0.29	
Trichloroethylene (TCE)	Type 4 RRS (µg/L)				Delineation Criteria (µg/L)												5			
Mar-93	NI	NI	NI	460.00	125.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Mar-94	NI	NI	NI	U	680.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Feb-96	NI	NI	NI	NA	500.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Mar-96	NI	NI	NI	270.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Sep-96	NI	NI	NI	400.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Oct-96	NI	NI	NI	5,450.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Apr-97	NI	NI	NI	180.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Jul-97	NI	NI	NI	338.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Oct-97	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	U	

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Table 3-3: Shallow Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Shallow Wells																			
	G-17	G-19	G-22	MW-2S	MW-4S	MW-15S*	MW-29	MW-31	MW-32	MW-33	MW-37S	MW-40S	MW-42S	MW-45S	MW-46S	MW-48S	MW-50S	PAW-3	MW-U2	
Feb-98	NI	NI	NI	238.00	336.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Jul-98	NI	NI	NI	86.00	680.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Nov-98	NI	NI	NI	NA	1,630.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Feb-99	NI	NI	NI	1.30	79.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,370.00	NU	
Oct-99	NI	NI	NI	1.50	1,590.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
May-00	NI	NI	NI	1.50	1,807.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	826.00	NU	
Jan-01	NI	NI	NI	2.90	5,940.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	803.00	NU	
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Nov-01	NI	NI	NI	NA	430.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Dec-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Jan-02	NI	NI	NI	<1	NA	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	726.00	NU	
Sep-02	NI	NI	NI	NA	500.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	300.00	NU	
Oct-03	NI	NI	NI	NA	680.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	340.00	NU	
Jan-04	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Nov-04	NI	NI	NI	NA	750.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	450.00	NU	
May-05	NI	NI	NI	NA	50.0	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Jun-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Jul-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	640.00	NU	
Dec-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Oct-06	NI	NI	NI	NA	528.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Apr-07	NI	NI	NI	NA	NA	<0.3	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	230.00	NU	
Nov-07	NI	NI	NI	NA	NA	NL	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Jun-08	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Jun-09	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Jul-10	NI	NI	NI	NA	48.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	0.24	U	
Dec-10	NI	NI	NI	NA	48.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	30.00	NU	
Mar-11	0.24	U	0.24	U	0.24	U	NA	NA	NL	3.5	3.6	98.0	12.00	U	NI	NI	NI	NA	NU	
Nov-11	NA	NA	NA	NA	NA	NA	NA	0.24	4.4	44.0	NA	NI	NI	NI	NI	NI	NI	NA	NU	
Jun-12	NA	NA	NA	1.8	0.8	J	NL	0.17	U	1.3	NA	1.70	U	NI	NI	NI	NI	NA	NU	
Aug-12	0.24	U	0.24	U	NA	NA	NA	NA	NA	NA	140.0	NA	NI	NI	NI	NI	NI	0.29	J	
Mar-13	NA	0.24	U	NA	2.0	NA	NL	0.17	U	1.4	140.0	NA	NI	NI	NI	NI	NI	0.17	U	
Aug-13	<0.19	<0.19	0.85	J	<0.19	2,200.00	D	<0.19	1.90	3.2	150.0	<0.19	NI	NI	NI	NI	NI	<0.19	NU	
Feb-14	<0.190	<0.190	<0.190	1.87	3.1	<0.190	<0.190	3.26	99.5	<0.190	NI	NI	NI	NI	NI	NI	NI	2.11	NU	
Jul-14	<0.19	<0.19	<0.19	3.39	<0.19	<0.19	<0.19	<0.19	120.0	<0.19	NI	NI	NI	NI	NI	NI	NI	<0.19	NU	
Oct-14	<0.13	U	<0.13	U	NS	0.20	<0.13	U	0.33	J	6.00	54.0	<0.26	U	NI	NI	NI	NI	U	
Jan-15	<0.48	U	<0.48	U	<0.48	U	1.40	<9.6	U	<0.48	U	1.50	65.0	<2.4	U	NI	NI	NI	U	
Apr-15	<0.48	U	<0.48	U	<0.48	U	1.0	<9.6	U	<0.48	U	7.4	30.0	<2.4	U	0.5	J	370.0	U	
Oct-15	<0.48	U	<0.48	U	<0.48	U	2.9	<0.48	U	<0.48	U	9.2	26.0	<0.48	U	0.8	J	26.0	U	
Apr-16	<0.48	U	<0.48	U	<0.48	U	11	J	<0.48	U	<0.48	U	13	20	<0.48	U	1.1	<24	U	
Nov-16	<0.35	U	<0.35	U	<0.35	U	<0.35	U	<0.35	U	36	15	<0.35	U	<0.35	U	<0.35	U	1,700	
cis-1,2-Dichloroethylene																				
Type 4 RRS (µg/L)				204				Delineation Criteria (µg/L)				70								
Mar-93	NI	NI	NI	U	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Mar-94	NI	NI	NI	U	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Feb-96	NI	NI	NI	NA	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Mar-96	NI	NI	NI	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Sep-96	NI	NI	NI	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Oct-96	NI	NI	NI	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Apr-97	NI	NI	NI	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Jul-97	NI	NI	NI	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Oct-97	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	3,330.0	NU	
Feb-98	NI	NI	NI	8,920.0	838.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Jul-98	NI	NI	NI	U	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Nov-98	NI	NI	NI	NA	912.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Feb-99	NI	NI	NI	64.2	96.1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	2,350.0	NU	
Oct-99	NI	NI	NI	60.5	850.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
May-00	NI	NI	NI	22.8	956.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,390.0	NU	
Jan-01	NI	NI	NI	31.2	7,580.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,500.0	NU	
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Nov-01	NI	NI	NI	NA	360.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Dec-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	

McKenzie Tank Lines, Port Wentworth, GA

Table 3-3: Shallow Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Shallow Wells																												
	G-17	G-19	G-22	MW-2S	MW-4S	MW-15S*	MW-29	MW-31	MW-32	MW-33	MW-37S	MW-40S	MW-42S	MW-45S	MW-46S	MW-48S	MW-50S	PAW-3	MW-U2										
Jan-02	NI	NI	NI	37.0	NA	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,800.0	NU										
Sep-02	NI	NI	NI	NA	660.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	740.0	NU										
Oct-03	NI	NI	NI	NA	4,100.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	820.0	NU										
Jan-04	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Nov-04	NI	NI	NI	NA	4,800.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,800.0	NU										
May-05	NI	NI	NI	NA	5,700.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Jun-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Jul-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,900.0	NU										
Dec-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Oct-06	NI	NI	NI	NA	2,410.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Apr-07	NI	NI	NI	NA	NA	4.5	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,050.0	NU										
Nov-07	NI	NI	NI	NA	NA	NL	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NL	NU										
Jun-08	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Jun-09	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Jul-10	NI	NI	NI	NA	930.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	2.5	NU										
Dec-10	NI	NI	NI	NA	930.0	NL	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	200.0	NU										
Mar-11	0.22	U	0.22	U	0.22	U	NA	5.8	15.0	220.0	5,100.0	NI	NI	NI	NI	NI	NI	NA	NU										
Nov-11	NA	NA	NA	NA	NA	NA	0.22	U	4.4	110.0	NA	NI	NI	NI	NI	NI	NI	NA	NU										
Jun-12	NA	NA	NA	0.96	J	4.6	NL	0.33	U	0.9	J	NA	1,300.0	NI	NI	NI	NI	NA	NU										
Aug-12	0.22	U	0.22	U	NA	NA	NA	NA	NA	270.0	NA	NI	NI	NI	NI	NI	NI	0.29	J	NU									
Mar-13	NA	0.22	U	NA	2.4	3100.0	NL	0.33	U	2.3	540.0	NA	NI	NI	NI	NI	NI	0.23	U	NU									
Aug-13	<0.21		0.83		1.50		16.0	6,500.0	<0.21	1.5		6.9	D	1,100.0	D	NI	NI	1.0	J	NU									
Feb-14	<0.210		<0.210		<0.210		11.8	639.0	<0.21	<0.21	7.14	775.0	D	2,230.0	D	NI	NI	4.83		NU									
Jul-14	<0.21		<0.21		<0.21		3.64	608.0	D	<0.21	<0.21	1.81	626.0	D	66.7	D	NI	NI	<0.21		NU								
Oct-14	<0.15	U	<0.15	U	NS		16.00	1,900.0	<0.15	U	0.35	J	12.0	320.0	340.0	NI	NI	NI	NI	0.84	J	NU							
Jan-15	<0.41	U	<0.41	U	<0.41	U	0.56	J	1,600.0	<0.41	U	<0.41	U	3.10	350.0	650.0	NI	NI	NI	NI	<0.41	U	<0.41	U					
Apr-15	<0.41	U	<0.41	U	<0.41	U	<0.41	U	1,400	<0.41	U	<0.41	U	18.0	140	270.00	5.50	5,300	<0.41	U	3.80	12.00	<0.41	U	1,200	0.6	J	<0.41	U
Oct-15	0.59	J	<0.41	U	<0.41	U	5.6		4,700	<0.41	U	<0.41	U	22.0	110	120.00	5.90	2,400	<0.41	U	17.00	7.00	<0.41	U	2,600	<0.41	U	<0.41	U
Apr-16	<0.41	U	<0.41	U	<0.41	U	8.1		6,100	<0.41	U	<0.41	U	38	90	88	8.1	1,900	<0.41	U	3.8	9.7	<0.41	U	600	<0.41	U	<0.41	U
Nov-16	<0.27	U	<0.27	U	<0.27	U	17.0		3,700	<0.27	U	<0.27	U	48	71	81	7.7	380	<0.27	U	19.0	9.4	<0.27	U	7,800	<0.27	U	NU	
Vinyl Chloride	Type 4 RRS (µg/L) 3 Delineation Criteria (µg/L) 2																												
Mar-93	NI	NI	NI	8,830.0	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU									
Mar-94	NI	NI	NI	1,200.0	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU									
Feb-96	NI	NI	NI	78.0	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU									
Mar-96	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU									
Sep-96	NI	NI	NI	280.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU									
Oct-96	NI	NI	NI	676.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU									
Apr-97	NI	NI	NI	2,200.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU									
Jul-97	NI	NI	NI	380.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU									
Oct-97	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	U	NU									
Feb-98	NI	NI	NI	2,530.0	2.4	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU									
Jul-98	NI	NI	NI	1,800.0	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU									
Nov-98	NI	NI	NI	NA	1.8	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU									
Feb-99	NI	NI	NI	30.9	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	623.0	NU									
Oct-99	NI	NI	NI	37.1	4.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU									
May-00	NI	NI	NI	9.8	7.6	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	130.0	NU									
Jan-01	NI	NI	NI	12.4	28.7	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	240.0	NU									
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU									
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU									
Nov-01	NI	NI	NI	NA	23.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU									
Dec-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU									
Jan-02	NI	NI	NI	34.0	NA	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	160.0	NU									
Sep-02	NI	NI	NI	NA	<25	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	33.0	NU									
Oct-03	NI	NI	NI	NA	40.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	53.0	NU									
Jan-04	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU									
Nov-04	NI	NI	NI	NA	73.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	130.0	NU									
May-05	NI	NI	NI	NA	74.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU									
Jun-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU									
Jul-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	120.0	NU									
Dec-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU									
Oct-06	NI	NI	NI	NA	20.0	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU									
Apr-07	NI	NI	NI	NA	NA	<0.4	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	138.0	NU									

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Table 3-3: Shallow Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Shallow Wells																					
	G-17	G-19	G-22	MW-2S	MW-4S	MW-15S*	MW-29	MW-31	MW-32	MW-33	MW-37S	MW-40S	MW-42S	MW-45S	MW-46S	MW-48S	MW-50S	PAW-3	MW-U2			
Nov-07	NI	NI	NI	NA	NA	NL	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NL	NU			
Jun-08	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU			
Jun-09	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU			
Jul-10	NI	NI	NI	NA	28.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1.8	NU			
Dec-10	NI	NI	NI	NA	28.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	33.0	NU			
Mar-11	0.3	0.3	0.3	NA	NA	NL	0.3	0.3	2.0	190.0	NI	NA	NU									
Nov-11	NA	NA	NA	NA	NA	NA	0.3	0.3	0.4	NA	NI	NA	NU									
Jun-12	NA	NA	NA	0.33	0.1	NL	0.2	0.2	NA	230.0	NI	NA	NU									
Aug-12	0.3	0.3	NA	NA	NA	NA	NA	NA	1.4	NA	NI	0.2	NU									
Mar-13	NA	0.3	NA	0.33	44.0	NL	0.2	0.2	4.0	NA	NI	0.2	NU									
Aug-13	<0.19	<0.19	<0.19	<0.19	74.0	<0.19	<0.19	<0.19	2.9	150.0	NI	<0.19	NU									
Feb-14	<0.19	<0.19	<0.19	<0.19	29.4	<0.19	<0.19	<0.19	2.9	177.0	NI	<0.19	NU									
Jul-14	<0.19	<0.19	<0.19	<0.19	19.1	<0.19	<0.19	<0.19	2.29	104.00	NI	<0.19	NU									
Oct-14	<0.18	<0.18	NS	3.0	110.0	<0.18	<0.18	<0.18	<0.9	63.00	NI	0.84	NU									
Jan-15	<0.50	<0.50	<0.50	<0.50	64.0	<0.50	<0.50	<0.50	1.2	55.00	NI	<0.50	<0.50									
Apr-15	<0.50	<0.50	<0.50	<0.50	53.0	<0.50	<0.50	<0.50	0.79	51.00	<0.50	<25	<0.50	<0.50	28.0	<0.50	67.0	1.10	<0.50			
Oct-15	<0.50	<0.50	<0.50	<0.50	98.0	<0.50	<0.50	<0.50	0.52	36.00	<0.50	<25	<0.50	5.5	15.0	<0.50	140.0	<0.50	<0.50			
Apr-16	<0.50	<0.50	<0.50	<0.50	140	<0.50	<0.50	<0.50	0.92	36	<0.50	<25	<0.50	<0.50	19	<0.50	60	<0.50	<0.50			
Nov-16	<0.42	<0.42	<0.42	<0.42	140	<0.42	<0.42	<0.42	<0.42	35	<0.42	2.0	<0.42	5.1	12	<0.42	170	<0.42	NU			

Notes:

- 110.0 Value exceeds risk reduction standards
- 0.3 Value exceeds delineation criteria

All data prior to August 2013 reported by previous environmental consultants

U = Value is below detection limits

NA = Well not accessible

NS = Well not sampled

NI = Well not installed

NU = Well not utilized in groundwater sampling program

NL = Well not located

< = less than method detection limit (MDL)

J = this is an estimated value that is above the MDL but below the practical quantitation limit.

I* = not certain

McKenzie Tank Lines, Port Wentworth, GA

Table 3-4: Deep Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Deep Wells																																									
	MW-2D	MW-11D	MW-14D	MW-15D	MW-26	MW-35	MW-36	MW-38D	MW-39D	MW-41D	MW-43D	MW-44D	MW-47D	MW-49D	MW-51D	MW-52D	MW-53D	MW-54D	MW-55D	MW-56D	PAW-4	RW-1	RW-2	RW-3	RW-4	RW-5	RW-6	RW-7	RW-8	RW-9												
Jun-09	38	NA	NA	0.48	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	52.0	NA	100.0	170.0	89.0	0.7	J	NA	NI	NI											
Jul-10	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	33.0	NA	NA	NA	NA	NA	NA	NA	NI	NI												
Dec-10	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	33.0	NA	NA	190.0	NA	NA	NA	160.0	NI	NI												
Mar-11	130	3.1	0.33	U	0.33	U	0.3	U	0.3	U	9.0	NI	NA	47.0	430.0	NA	280.0	970	1.6	U	NA	NI	NI																			
Nov-11	NA	NA	NA	NA	0.3	U	NA	NI	NA	47.0	38.0	68.0	110.0	1,600	NA	130.0	NI	NI																								
Jun-12	70.0	NA	0.18	U	NL	NA	NA	NA	NI	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI																							
Aug-12	NA	0.5	J	NA	NA	0.2	U	0.3	U	0.3	U	NI	1.4	4.7	210	34	96	170	0.2	U	100	NI	NI																			
Mar-13	32	0.2	U	0.18	U	NL	NA	NA	0.2	U	NI	3.7	9.8	340	76	250	200	0.2	U	240	NI	NI																				
Aug-13	92	<0.19	U	<0.19	U	NL	NA	<0.19	<0.19	NI	25	3.8	370	D	160	42	650	<0.19	U	490	D	NI	NI																			
Feb-14	270	D	<0.19	U	<0.19	U	NL	NA	<0.19	<0.19	NI	3.7	5.6	206	D	162	3.4	91.9	<0.19	U	355	NI	NI																			
Jul-14	162	<0.19	U	<0.19	U	NA	<0.190	<0.19	<0.19	NI	12.2	4.14	76.2	D	236	4.04	88.5	<0.19	U	573	NI	NI																				
Oct-14	290	<0.18	U	<0.18	U	NL	<0.18	<0.18	<0.18	U	NI	37	22	280	330	43	62	4.5	J	780	NI	NI																				
Jan-15	220	<0.50	U	<0.50	U	NL	<0.50	<0.50	<0.50	U	<0.50	U	<0.50	U	NI	NI	NI	NI	NI	NI	5.0	3.0	2.1	370	2.1	220	<0.50	U	550	NI	NI											
Apr-15	270	<0.50	U	<0.50	U	NL	<0.50	<0.50	<0.50	U	<0.50	U	<0.50	U	0.5	J	<0.50	U	21	120	<0.50	U	<0.50	U	12.0	140	<0.50	U	3.1	1.1	NS	NS	0.83	J	NS	NS	NS	NI	NI			
Oct-15	380	<0.50	U	<0.50	U	NL	<0.50	<0.50	<0.50	U	11	7	>0.50	U	<0.50	U	14.0	4	<0.50	U	4.2	3.2	NS	NS	<0.50	U	NS	NS	NS	NI	NI											
Apr-16	310	<0.50	U	<0.50	U	NL	<0.50	<0.50	<0.50	U	120	18	<0.50	U	<0.50	U	17	7.2	<0.50	U	4.4	2.5	NS	NS	<0.50	U	NS	NS	NS	1.2	76											
Oct-16	550	<0.42	U	<0.42	U	NL	<0.42	<0.42	<0.42	U	NA	<0.42	U	<0.42	U	3.0	<0.42	U	44	10	<0.42	U	1.6	J	15	16.0	<0.42	U	38.0	2.4	NS	NS	NS	NS	1.3	J	NS	NS	NS	1.0	J	94

Notes:
110.0
0.3
 All data prior to August 2013 reported by previous environmental consultants
 U = Value is below detection limits
 NA = Well not accessible
 NS = Well not sampled
 NI = Well not installed
 NU = Well not utilized in groundwater sampling program
 NL = Well not located
 < = less than method detection limit (MDL)
 J = this is an estimated value that is above the MDL but below the practical quantitation limit
 I* = not certain

Table 3-5: Historical Groundwater Potentiometric Surface Elevations: Shallow Wells

Well ID # (Well Diameter, in.)	TOC Elevation (ft.)	Groundwater Potentiometric Surface Elevation (ft.)							MW Min.* (ft.)	MW Max.* (ft.)	MW Range* (ft.)	MW Avg.* (ft.)	MW Var.* (ft.)
		Jul-14	Oct-14	Jan-15	Apr-15	Oct-15	Apr-16	Nov-16					
Shallow Wells													
G-17 (1)	8.94	6.40	3.94	6.39	6.26	4.79	3.84	3.64	3.64	6.40	2.76	5.04	1.64
G-19 (1)	9.85	5.94	3.40	5.67	5.48	4.80	3.85	3.85	3.40	5.94	2.54	4.71	1.04
G-22 (1)	9.36	4.05	2.59	4.33	4.28	3.51	2.51	2.40	2.40	4.33	1.93	3.38	0.75
MW-2S (2)	11.54	8.93	7.17	9.20	10.49	8.73	7.54	6.59	6.59	10.49	3.90	8.38	1.82
MW-4S (2)	10.86	5.29	4.58	5.67	6.03	5.21	4.62	5.03	4.58	6.03	1.45	5.20	0.28
MW-15S (1)	8.27	5.47	3.72	5.59	5.51	4.53	3.76	3.56	3.56	5.59	2.03	4.59	0.86
MW-29 (1)	9.39	7.31	5.35	6.93	7.43	6.22	6.50	4.98	4.98	7.43	2.45	6.39	0.89
MW-31 (1)	11.96	6.76	5.81	5.88	7.05	6.47	5.16	5.31	5.16	7.05	1.89	6.06	0.52
MW-32 (1)	12.02	7.00	6.04	7.24	7.51	6.82	6.52	5.56	5.56	7.51	1.95	6.67	0.47
MW-33 (1)	8.48	5.61	3.70	5.63	NM	4.36	3.81	3.75	3.70	5.63	1.93	4.48	0.84
MW-37S (2)	10.14	NI	NI	NI	5.59	5.21	4.89	4.81	4.81	5.59	0.78	5.13	0.13
MW-40S (2)	5.57	NI	NI	NI	5.39	4.48	3.97	4.14	3.97	5.39	1.42	4.49	0.40
MW-42S (2)	10.71	NI	NI	NI	7.22	6.47	6.31	5.60	5.60	7.22	1.62	6.40	0.44
MW-45S (2)	13.74	NI	NI	NI	7.93	7.27	6.99	6.41	6.41	7.93	1.52	7.15	0.40
MW-46S (2)	14.01	NI	NI	NI	7.90	7.67	7.32	6.47	6.47	7.90	1.43	7.34	0.39
MW-48S (2)	13.56	NI	NI	NI	8.32	7.46	7.11	5.90	5.90	8.32	2.42	7.20	1.01
MW-50S (2)	11.18	NI	NI	NI	6.72	5.75	5.40	4.96	4.96	6.72	1.76	5.71	0.56
MW-U2 (2)	10.91	NL	NL	6.93	8.73	7.92	6.51	NM	6.51	8.73	2.22	7.52	1.00
PAW-3 (2)	11.83	7.31	6.38	7.41	7.99	7.33	6.42	6.03	6.03	7.99	1.96	6.98	0.50
Event Min.*² (ft.)		4.05	2.59	4.33	4.28	3.51	2.51	2.40	Global Min.*² (ft.)			2.40	
Event Max.*² (ft.)		8.93	7.17	9.20	10.49	8.73	7.54	6.59	Global Max.*² (ft.)			10.49	
Event Range*² (ft.)		4.88	4.58	4.87	6.21	5.22	5.03	4.19	Global Range*² (ft.)			8.09	
Event Avg.*² (ft.)		6.37	4.79	6.41	6.99	6.05	5.42	4.94	Global Avg.*² (ft.)			5.85	
Event Var.*² (ft.)		1.70	2.10	1.55	2.24	2.12	2.26	1.39	Global Var.*² (ft.)			2.40	

Notes:

Top of casing (TOC) elevations are based on surveys conducted by Brewer Land Surveying in October 2013, EMC Engineering Services in June 2015, and Mock Surveying in January 2016.

* = **Event Min, Max, Range, Avg., and Var.** - are the minimum, maximum, range, average, and total variance for each respective groundwater gauging event.

*² = **MW Min., Max., Range, Avg., and Var.** - are the minimum, maximum, range, average, and total variance for each monitoring well throughout all gauging events from July 2014 to October 2015 where available.

*³ = **Global Min., Max., Range, Avg., and Var.** - are the minimum, maximum, range, average, and total variance for all monitoring wells throughout all events from July 2014 to APR 2016

NI - Not Installed

N/A - Not Applicable

NL - Not Located

NM - Not Measured

Table 3-6: Historical Groundwater Potentiometric Surface Elevations: Deep Wells

Well ID # (Well Diameter, in.)	TOC Elevation (ft.)	Groundwater Potentiometric Surface Elevation (ft.)							MW Min.* (ft.)	MW Max.* (ft.)	MW Range* (ft.)	MW Avg.* (ft.)	MW Var.* (ft.)
		Jul-14	Oct-14	Jan-15	Apr-15	Oct-15	Apr-16	Nov-16					
Deep Wells													
MW-2D (2)	11.39	6.76	6.16	7.34	7.41	6.97	6.48	6.11	6.11	7.41	1.30	6.75	0.28
MW-11D (2)	16.07	7.87	7.04	8.15	9.08	7.92	7.43	6.50	6.50	9.08	2.58	7.71	0.69
MW-14D (2)	12.06	6.87	5.38	6.09	6.44	5.86	5.63	5.32	5.32	6.87	1.55	5.94	0.32
MW-26 (1)	8.42	5.30	5.00	5.86	NM	5.50	5.01	5.02	5.00	5.86	0.86	5.28	0.12
MW-35 (0.75)	6.28	NL	NM	NM	6.08	5.57	5.18	4.96	4.96	6.08	1.12	5.45	0.24
MW-36 (0.75)	9.86	5.49	4.94	6.05	6.16	5.78	5.09	NM	4.94	6.16	1.22	5.59	0.25
MW-38D (2)	10.08	NI	NI	NI	5.54	4.94	4.68	4.70	4.68	5.54	0.86	4.96	0.16
MW-39D (2)	7.25	NI	NI	NI	5.07	4.42	4.02	4.00	4.00	5.07	1.07	4.38	0.25
MW-41D (2)	9.59	NI	NI	NI	6.67	5.97	5.44	5.46	5.44	6.67	1.23	5.89	0.33
MW-43D (2)	10.77	NI	NI	NI	7.16	6.58	6.11	5.78	5.78	7.16	1.38	6.41	0.36
MW-44D (2)	13.83	NI	NI	NI	7.45	6.94	6.68	6.20	6.20	7.45	1.25	6.81	0.27
MW-47D (2)	13.63	NI	NI	NI	7.66	7.20	6.86	6.05	6.05	7.66	1.61	6.94	0.46
MW-49D (2)	11.09	NI	NI	NI	6.44	5.74	5.25	5.28	5.25	6.44	1.19	5.68	0.31
MW-51D (2)	9.87	NI	NI	NI	6.10	5.26	4.77	4.67	4.67	6.10	1.43	5.20	0.43
MW-52D (2)	8.29	NI	NI	NI	5.60	5.16	4.69	4.55	4.55	5.60	1.05	5.00	0.23
MW-53D (2)	7.62	NI	NI	NI	6.30	5.56	4.92	4.91	4.91	6.30	1.39	5.42	0.43
MW-54D (2)	10.91	NI	NI	NI	7.09	6.30	5.93	5.45	5.45	7.09	1.64	6.20	0.48
MW-55D (2)	11.78	NI	NI	NI	6.76	6.18	5.73	5.20	5.20	6.76	1.56	5.96	0.44
MW-56D (2)	10.68	NI	NI	NI	7.37	6.55	6.13	5.60	5.60	7.37	1.77	6.41	0.56
PAW-4 (2)	11.99	6.67	5.99	6.96	7.49	6.77	6.21	5.66	5.66	7.49	1.83	6.54	0.39
RW-1 (4)	11.69	7.18	6.34	7.63	8.58	7.26	6.81	6.04	6.04	8.58	2.54	7.12	0.71
RW-2 (4)	9.24	6.62	5.76	7.03	NM	NM	NM	NM	5.76	7.03	1.27	6.47	0.42
RW-3 (6)	7.58	5.64	4.80	5.80	NM	NM	NM	NM	4.80	5.80	1.00	5.41	0.29
RW-4 (6)	13.25	6.90	6.15	7.27	8.10	7.19	6.57	5.91	5.91	8.10	2.19	6.87	0.55
RW-5 (6)	11.71	6.76	5.94	7.06	NM	NM	NM	NM	5.94	7.06	1.12	6.59	0.34
RW-6 (6)	10.12	5.44	4.67	5.64	NM	NM	NM	NM	4.67	5.64	0.97	5.25	0.26
RW-7 (6)	8.63	5.13	4.75	5.88	NM	NM	NM	NM	4.75	5.88	1.13	5.25	0.33
RW-8 (4)	7.43	NI	NI	NI	NI	NI	4.83	4.65	4.65	4.83	0.18	4.74	0.02
RW-9 (4)	11.79	NI	NI	NI	NI	NI	6.10	5.62	5.62	6.10	0.48	5.86	0.12
Event Min.* ² (ft.)		5.13	4.67	5.64	5.07	4.42	4.02	4.00	Global Min.* ² (ft.)			4.00	
Event Max.* ² (ft.)		7.87	7.04	8.15	9.08	7.92	7.43	6.50	Global Max.* ² (ft.)			9.08	
Event Range* ² (ft.)		2.74	2.37	2.51	4.01	3.50	3.41	2.50	Global Range* ² (ft.)			5.08	
Event Avg.* ² (ft.)		6.36	5.61	6.67	6.88	6.16	5.69	5.38	Global Avg.* ² (ft.)			6.11	
Event Var.* ² (ft.)		0.73	0.55	0.68	1.02	0.78	0.75	0.39	Global Var.* ² (ft.)			0.96	

Notes:

Top of casing (TOC) elevations are based on surveys conducted by Brewer Land Surveying in October 2013, EMC Engineering Services in June 2015, and Mock Surveying in January 2016.

* = Event Min, Max, Range, Avg., and Var. - are the minimum, maximum, range, average, and total variance for each respective groundwater gauging event.

*² = MW Min., Max., Range, Avg., and Var. - are the minimum, maximum, range, average, and total variance for each monitoring well throughout all gauging events from July 2014 to October 2015 where available.

*³ = Global Min., Max., Range, Avg., and Var. - are the minimum, maximum, range, average, and total variance for all monitoring wells throughout all events from July 2014 to APR 2016

NI - Not Installed

N/A - Not Applicable

NL - Not Located

NM - Not Measured

Table 4-1: Ecological Impact Evaluation Species List

Group	Scientific Name	Common Name	Habitat	Potential Habitat Available at Site?	Species/ Indication of Species Observed at Site?
Mammals	<i>Trichechus manatus</i>	Manatee	Estuaries; tidal rivers, nearshore ocean waters	No	No
Fish	<i>Acipenser brevirostrum</i>	Shortnose Sturgeon	Estuaries; lower end of large rivers in deep pools with soft substrates	No	No
Fish	<i>Acipenser oxyrinchus oxyrinchus</i>	Atlantic Sturgeon	Estuaries; lower end of large rivers in deep pools with soft substrates; spawn as far inland as Macon, GA on the Ocmulgee	No	No
Reptiles	<i>Farancia erythrogramma erythrogramma</i>	Common Rainbow Snake	Rivers, streams, and associated swamps; springs	Yes	No
Reptiles	<i>Seminatrix pygaea pygaea</i>	Northern Florida Swamp Snake	Swamps; ponds; marshes; lakes	Yes	No
Birds	<i>Himantopus mexicanus</i>	Black-necked Stilt	Shallow ponds; lagoons, beach, managed impoundments, dredge spoil island/impoundments	Yes	No
Birds	<i>Sternula antillarum</i>	Least Tern	Sandy beaches; sandbars, dredge islands	No	No
Natural Communities	<i>Nyssa biflora</i> - (<i>Nyssa aquatica</i> , <i>Taxodium distichum</i>) Tidal Forest	Tidal Hardwood Swamp Forest	Georgia habitat information not available	No	No
Natural Communities	<i>Nyssa biflora</i> - <i>Quercus nigra</i> - <i>Quercus laurifolia</i> - <i>Pinus taeda</i> / <i>Ilex opaca</i> - <i>Carpinus caroliniana</i> Forest	Swamp Blackgum - Mixed Hardwood Small Stream Forest	Georgia habitat information not available	Yes	No
Natural Communities	<i>Quercus phellos</i> - <i>Quercus (pagoda, similis)</i> - <i>Pinus taeda</i> / <i>Chasmanthium laxum</i> Forest	South Atlantic Willow Oak Flatwoods Forest	Georgia habitat information not available	No	No

Table 4-1: Ecological Impact Evaluation Species List

Group	Scientific Name	Common Name	Habitat	Potential Habitat Available at Site?	Species/ Indication of Species Observed at Site?
Vascular Plants	<i>Hypericum erythraea</i>	Georgia St. Johnswort	Seepage bogs; roadside ditches	Yes	No
Vascular Plants	<i>Persicaria arifolia</i>	Halberd-leaf Tear-thumb	Marshes and wet thickets	No	No
Vascular Plants	<i>Physostegia leptophylla</i>	Narrowleaf Obedient Plant	Freshwater tidal marshes; disjunct in wet savannas of extreme SW Georgia	No	No
Vascular Plants	<i>Ptilimnium ahlesii</i>	Coastal Bishopweed	Tidal freshwater marshes	No	No
Vascular Plants	<i>Spiranthes eatonii</i>	Eaton's Ladies-tresses	Cemeteries, roadsides; drier pine flatwoods	No	No
Vascular Plants	<i>Vigna luteola</i>	Wild Yellow Cowpea	Open swamps; maritime beaches and tidal flats	No	No

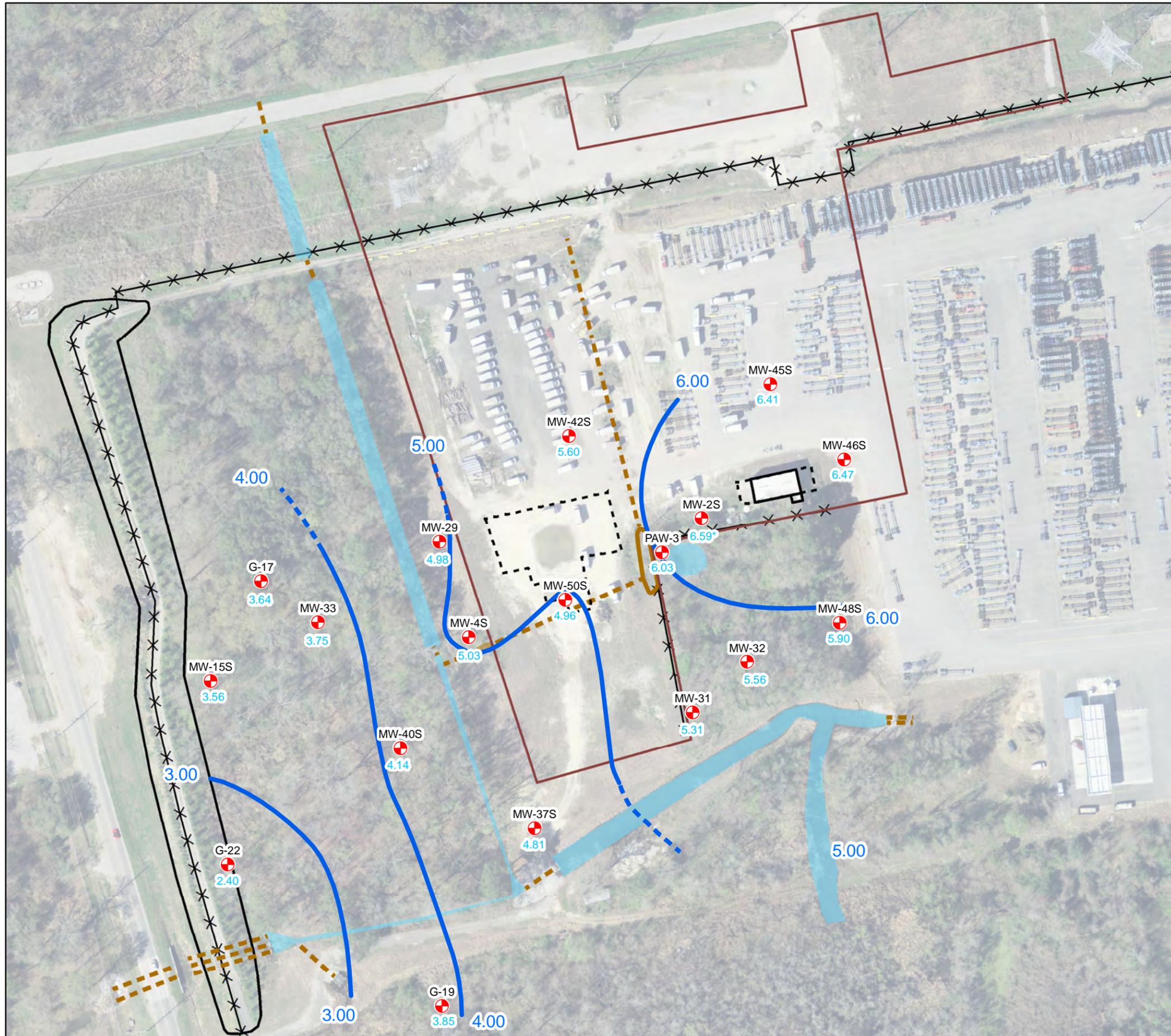
Notes:
 Species list and habitat information derived from GADNR Port Wentworth Georgia southeast quarter quadrangle rare species list

HSI SITE 10406, FORMER MCKENZIE TANK LINES SITE

SIXTH SEMI-ANNUAL PROGRESS REPORT

FIGURES





Legend

SITE FEATURES

- BERM OUTLINE
- ✕ SECURITY FENCE
- - - BELOW-GRADE STORM WATER DRAINAGE PIPES
- ▭ BUILDINGS
- - - CONCRETE APRONS
- ▭ STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- ⊕ SHALLOW WELLS

GROUNDWATER CONTOURS

- GROUNDWATER CONTOURS (1 FOOT INTERVALS)
- - - ESTIMATED GROUNDWATER CONTOURS
- 6.47 GROUNDWATER ELEVATIONS (FT., NAVD 88)
- 6.59* DATA NOT CONSIDERED FOR CONTOURS

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016. WELLS WITH SCREEN INTERVALS BETWEEN 0 AND 20 FEET BELOW GROUND SURFACE ARE CONSIDERED SHALLOW WELLS.



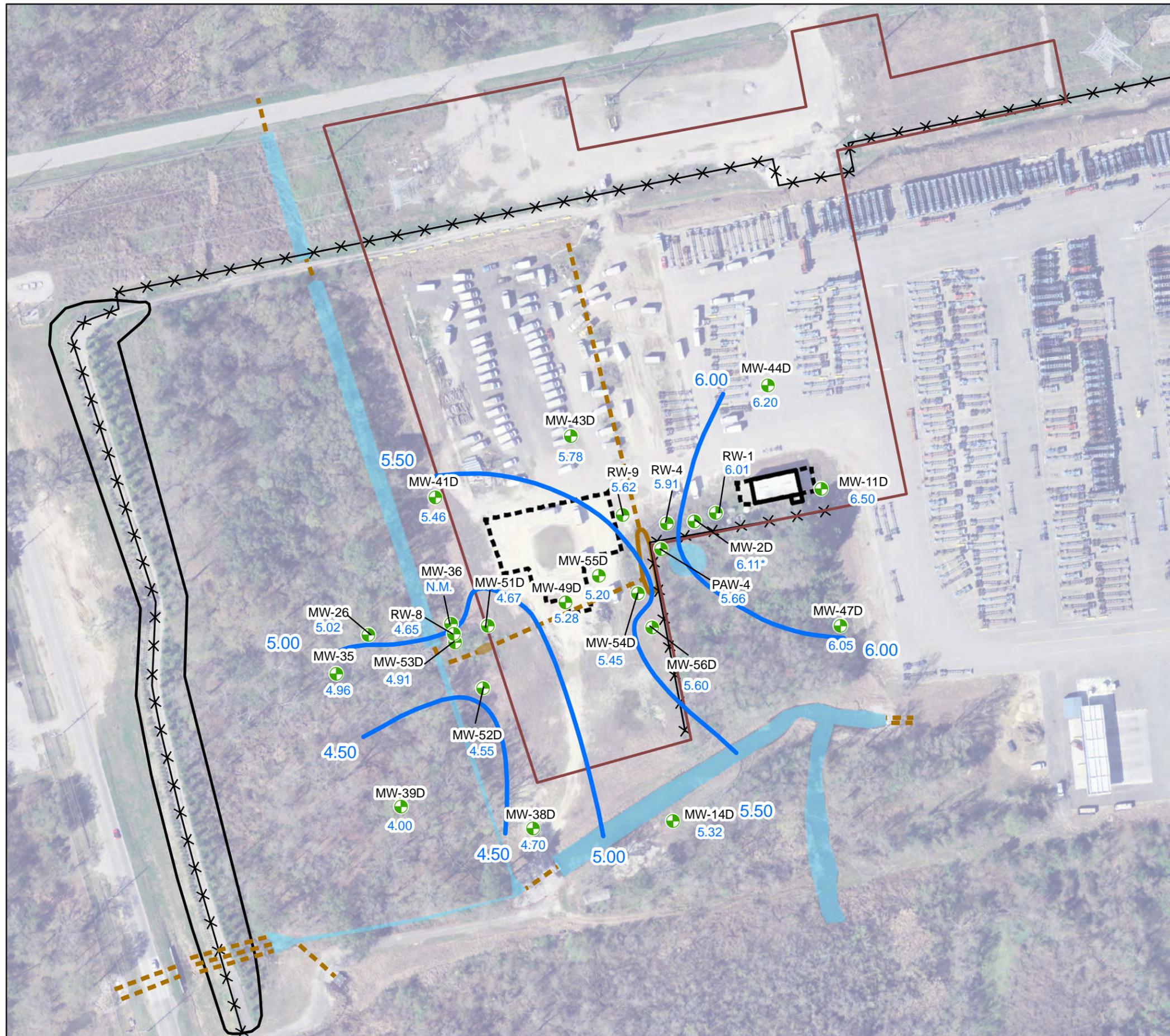
DESIGNED BY: S.F.H.	REVISIONS		DATE: 1/27/2017
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 3-1: NOVEMBER 2016 SHALLOW GROUNDWATER POTENTIOMETRIC SURFACE MAP



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD.
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- ✕ SECURITY FENCE
- - - BELOW-GRADE STORM WATER DRAINAGE PIPES
- ▭ BUILDINGS
- - - CONCRETE APRONS
- ▭ STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- ⊕ DEEP WELLS

GROUNDWATER CONTOURS

- GROUNDWATER CONTOURS (0.5 FOOT INTERVALS)
- - - ESTIMATED GROUNDWATER CONTOURS
- 6.50 GROUNDWATER ELEVATIONS (FT., NAVD 88)
- N.M. NOT MEASURED

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016. WELLS WITH SCREEN INTERVALS BELOW 20 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.



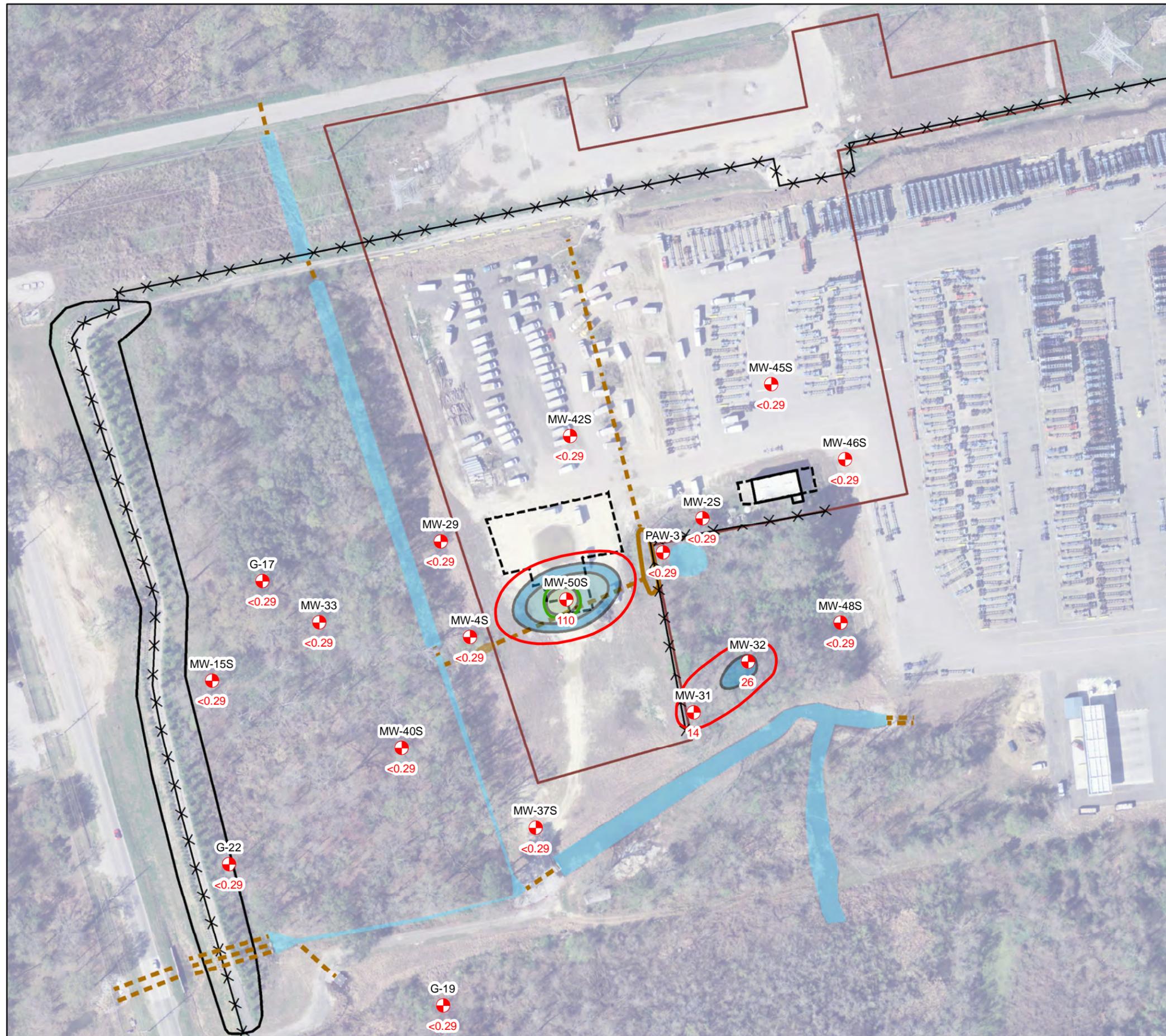
DESIGNED BY: A.G.	REVISIONS		DATE: 5/12/2017
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

**FIGURE 3-2: NOVEMBER 2016
DEEP GROUNDWATER
POTENTIOMETRIC SURFACE MAP**



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



SITE FEATURES

- BERM OUTLINE
- ✕ SECURITY FENCE
- - - BELOW-GRADE STORM WATER DRAINAGE PIPES
- ▭ BUILDINGS
- - - CONCRETE APRONS
- ▭ STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- ⊕ SHALLOW WELLS

Legend

PCE CONCENTRATIONS

CONTOURS

- DELINIATION CRITERION OF 5 µg/L
- RRS TYPE 4 OF 98 µg/L

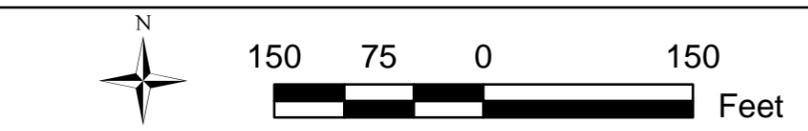
LABELS

- MW-40S WELL ID
- <0.29 CONCENTRATION IN µg/L

CONCENTRATIONS IN µg/L

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016. WELLS WITH SCREEN INTERVALS BETWEEN 0 AND 20 FEET BELOW GROUND SURFACE ARE CONSIDERED SHALLOW WELLS.



DESIGNED BY: A.G.	REVISIONS		DATE: 1/27/2017
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 3-3: NOVEMBER 2016 SHALLOW PCE ISOCONCENTRATION MAP

	MCKENZIE TANK LINES 111 GRANGE ROAD PORT WENTWORTH, GEORGIA 31407
	ENVIRONMENTAL INTERNATIONAL CORP. 161 KIMBALL BRIDGE RD ALPHARETTA, GEORGIA 30009



SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- DEEP WELLS

Legend

PCE CONCENTRATIONS

CONTOURS

- DELINIATION CRITERION OF 5 µg/L
- RRS TYPE 4 OF 98 µg/L

LABELS

- MW-53D WELL ID
- <0.29 CONCENTRATION IN µg/L
- N.S. NOT SAMPLED
- <0.29* NOT CONSIDERED

CONCENTRATION GRADIENT (µg/L)

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016. WELLS WITH SCREEN INTERVALS BELOW 20 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.



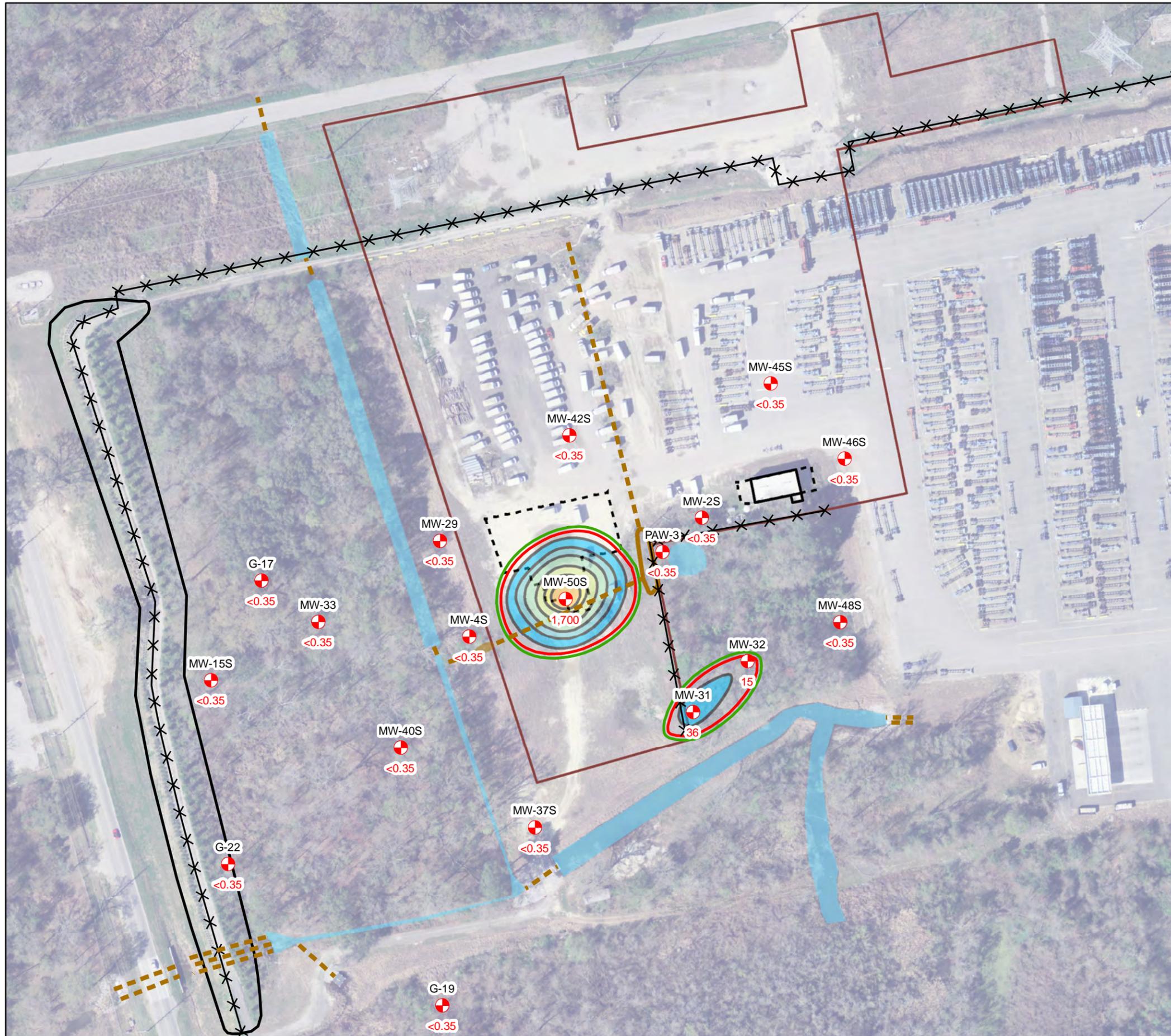
DESIGNED BY: A.G.	REVISIONS		DATE: 3/15/2017
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 3-4: NOVEMBER 2016 DEEP PCE ISOCONCENTRATION MAP



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



SITE FEATURES

- BERM OUTLINE
- ✕ SECURITY FENCE
- - - BELOW-GRADE STORM WATER DRAINAGE PIPES
- ▭ BUILDINGS
- - - CONCRETE APRONS
- ▭ STORM WATER SWALES
- WATER FEATURES
- - - FORMER MCKENZIE PROPERTY BOUNDARY
- ⊕ SHALLOW WELLS

TCE CONCENTRATIONS CONTOURS

- DELINIATION CRITERION OF 5 µg/L
- RRS TYPE 4 OF 5 µg/L

LABELS

- MW-40S WELL ID
- <0.35 CONCENTRATION IN µg/L

CONCENTRATIONS IN µg/L

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016. WELLS WITH SCREEN INTERVALS BETWEEN 0 AND 20 FEET BELOW GROUND SURFACE ARE CONSIDERED SHALLOW WELLS.



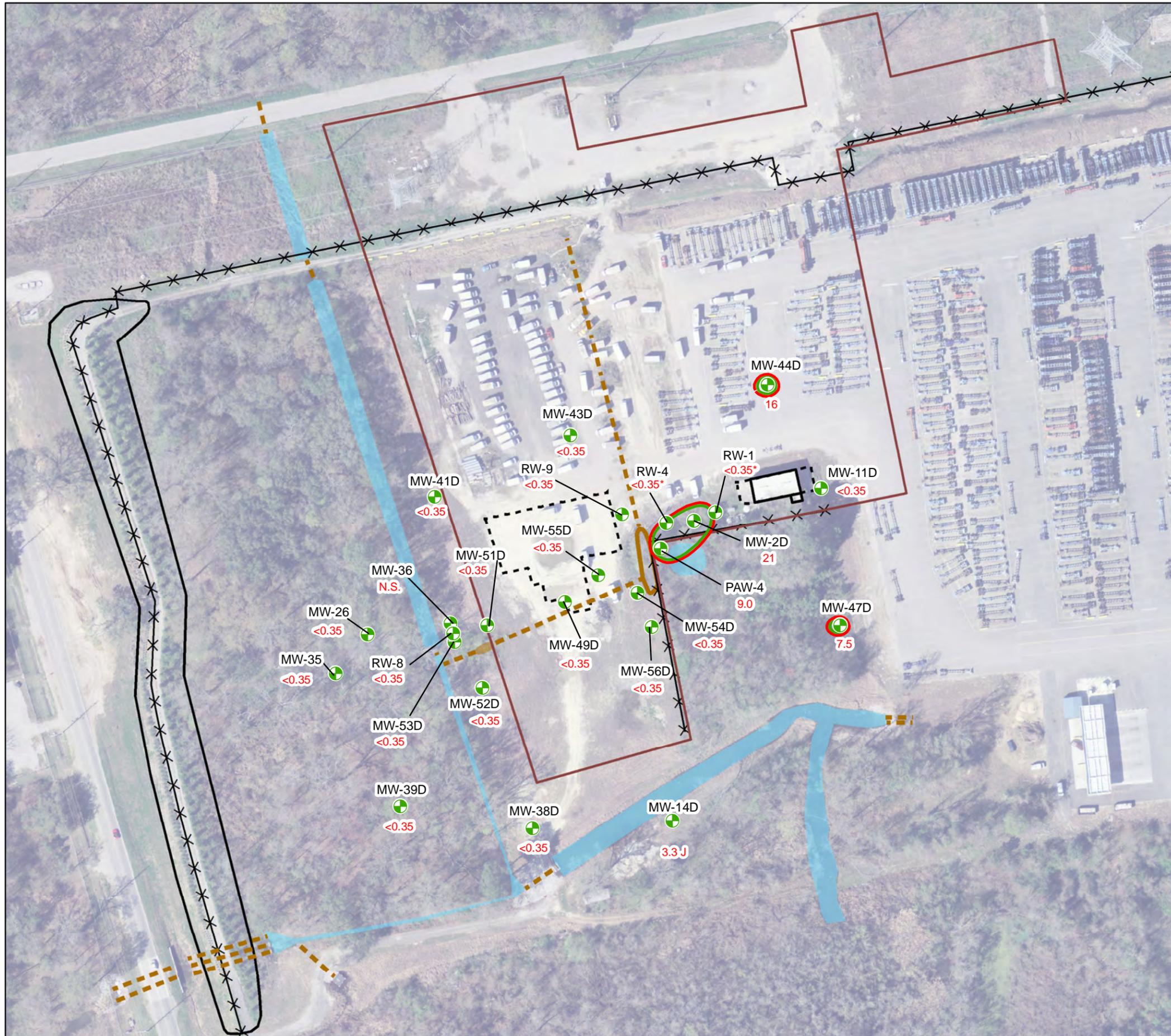
DESIGNED BY: A.G.	REVISIONS		DATE: 1/27/2017
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 3-5: NOVEMBER 2016 SHALLOW TCE ISOCONCENTRATION MAP



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- DEEP WELLS

TCE CONCENTRATIONS CONTOURS

- DELINIATION CRITERION OF 5 µg/L
- RRS TYPE 4 OF 5 µg/L

LABELS

- MW-53D WELL ID
- <0.35 CONCENTRATION IN µg/L
- N.S. NOT SAMPLED
- <0.35* NOT CONSIDERED

CONCENTRATION GRADIENT (µg/L)

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016. WELLS WITH SCREEN INTERVALS BELOW 20 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.



DESIGNED BY: A.G.	REVISIONS		DATE: 5/15/2017
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 3-6: NOVEMBER 2016 DEEP TCE ISOCONCENTRATION MAP



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- SHALLOW WELLS

DCE CONCENTRATIONS

CONTOURS

- DELINIATION CRITERION OF 70 µg/L
- RRS TYPE 4 OF 204 µg/L

LABELS

- MW-40S WELL ID
- <0.41 CONCENTRATION IN µg/L

CONCENTRATIONS IN µg/L

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016. WELLS WITH SCREEN INTERVALS BETWEEN 0 AND 20 FEET BELOW GROUND SURFACE ARE CONSIDERED SHALLOW WELLS.



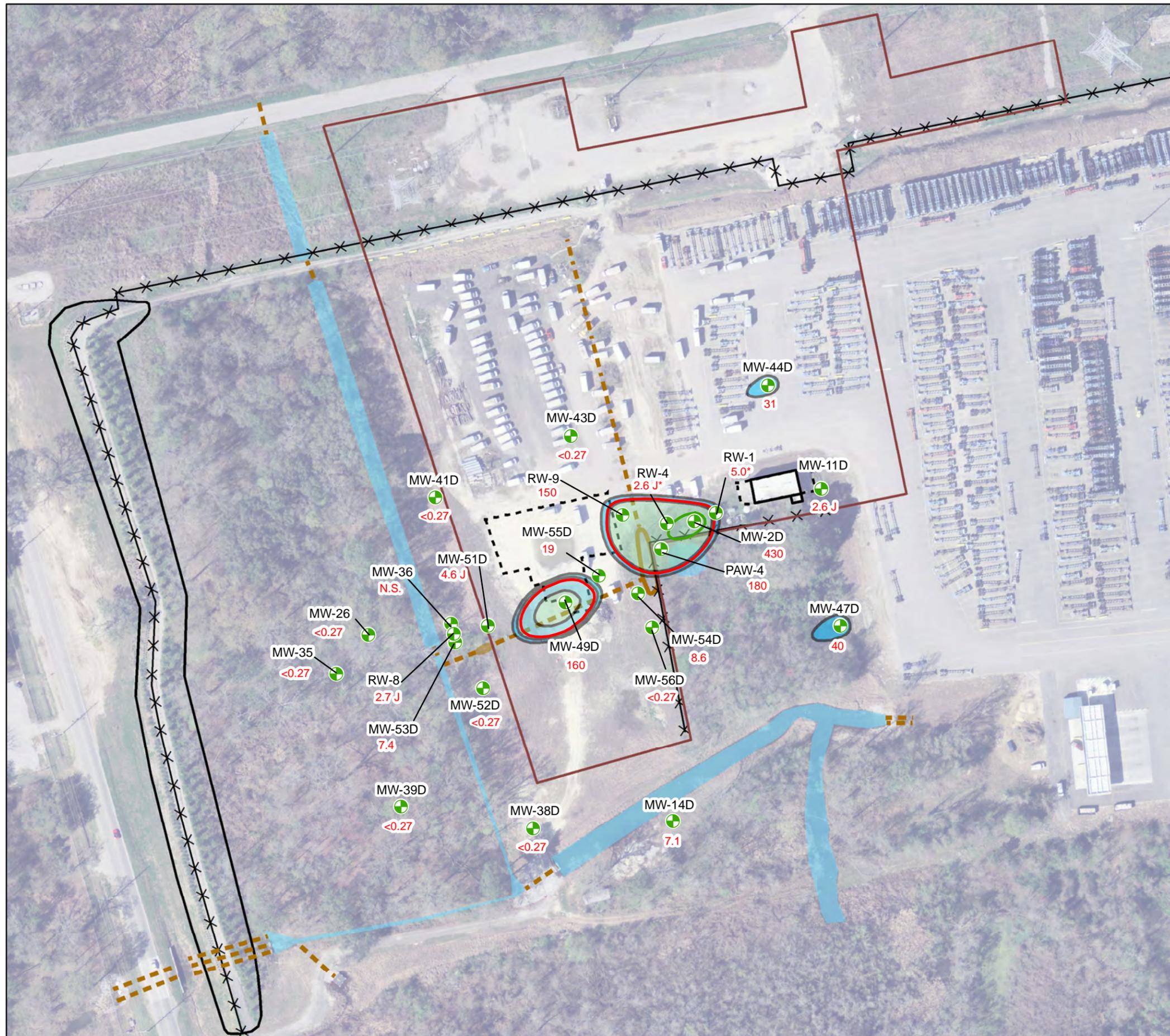
DESIGNED BY: A.G.	REVISIONS		DATE: 2/2/2017
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 3-7: NOVEMBER 2016 SHALLOW DCE ISOCONCENTRATION MAP



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- ✕ SECURITY FENCE
- - - BELOW-GRADE STORM WATER DRAINAGE PIPES
- ▭ BUILDINGS
- - - CONCRETE APRONS
- ▭ STORM WATER SWALES
- ▭ WATER FEATURES
- ▭ FORMER MCKENZIE PROPERTY BOUNDARY
- ⊕ DEEP WELLS

DCE CONCENTRATIONS CONTOURS

- DELIMITATION CRITERION OF 70 µg/L
- RRS TYPE 4 OF 204 µg/L

LABELS

- MW-53D WELL ID
- <0.27 CONCENTRATION IN µg/L
- N.S. NOT SAMPLED
- 5.0* NOT CONSIDERED

CONCENTRATION GRADIENT (µg/L)

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016. WELLS WITH SCREEN INTERVALS BELOW 20 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.



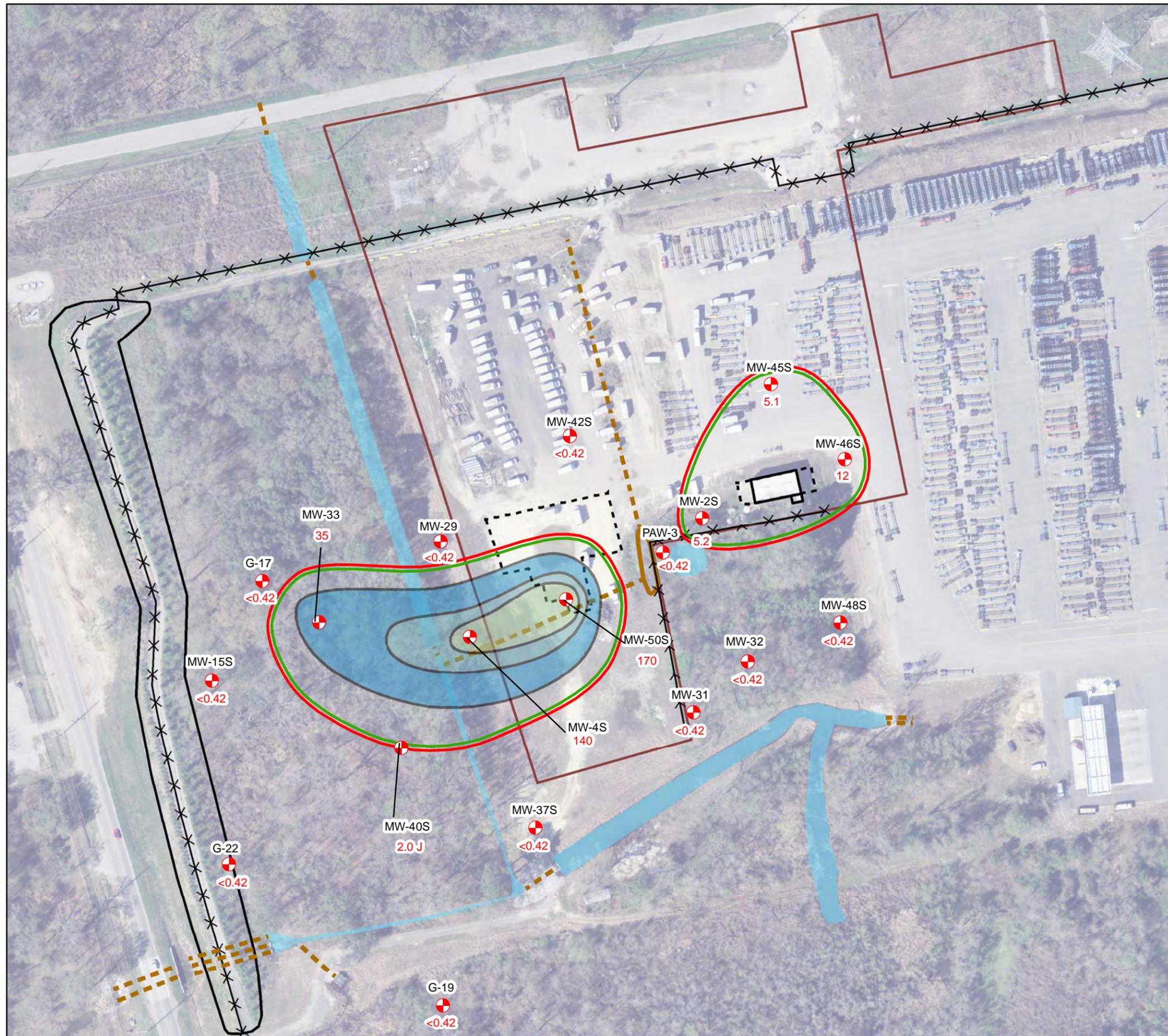
DESIGNED BY: A.G.	REVISIONS		DATE: 3/15/2017
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 3-8: NOVEMBER 2016 DEEP DCE ISOCONCENTRATION MAP



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- ✕ SECURITY FENCE
- - - BELOW-GRADE STORM WATER DRAINAGE PIPES
- ▭ BUILDINGS
- - - CONCRETE APRONS
- ▭ STORM WATER SWALES
- WATER FEATURES
- - - FORMER MCKENZIE PROPERTY BOUNDARY
- ⊕ SHALLOW WELLS

VC CONCENTRATIONS CONTOURS

- DELIMITATION CRITERION OF 2 µg/L
- RRS TYPE 4 OF 3 µg/L

LABELS

- MW-40S WELL ID
- <0.42 CONCENTRATION IN µg/L

CONCENTRATIONS IN µg/L

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016. WELLS WITH SCREEN INTERVALS BETWEEN 0 AND 20 FEET BELOW GROUND SURFACE ARE CONSIDERED SHALLOW WELLS.



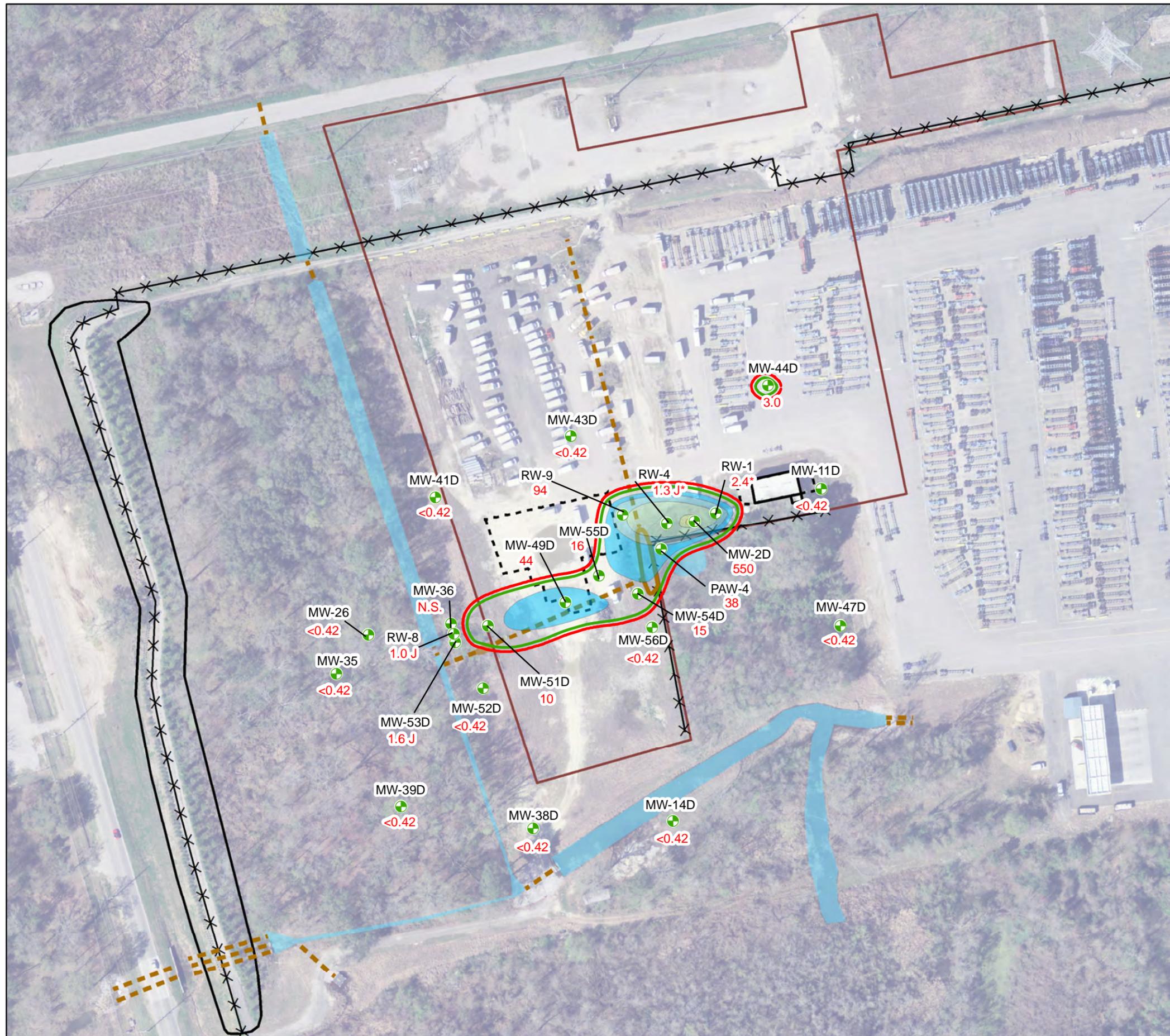
DESIGNED BY: A.G.	REVISIONS		DATE: 2/2/2017
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 3-9: NOVEMBER 2016 SHALLOW VC ISOCONCENTRATION MAP



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- ✕ SECURITY FENCE
- - - BELOW-GRADE STORM WATER DRAINAGE PIPES
- ▭ BUILDINGS
- - - CONCRETE APRONS
- ▭ STORM WATER SWALES
- WATER FEATURES
- - - FORMER MCKENZIE PROPERTY BOUNDARY
- ⊕ DEEP WELLS

VC CONCENTRATIONS CONTOURS

- DELINIATION CRITERION OF 2 µg/L
- RRS TYPE 4 OF 3 µg/L

LABELS

- MW-53D WELL ID
- <0.42 CONCENTRATION IN µg/L
- N.S. NOT SAMPLED
- 2.4* NOT CONSIDERED

CONCENTRATION GRADIENT (µg/L)

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016. WELLS WITH SCREEN INTERVALS BELOW 20 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.



DESIGNED BY: A.G.	REVISIONS		DATE: 3/15/2017
DRAWN BY: S.F.H.	NO.	DATE	SCALE: SEE BAR SCALE
CHECKED BY: A.S.			SHEET NO.: 1 OF 1
APPROVED BY: R.M.			

FIGURE 3-10: NOVEMBER 2016 DEEP VC ISOCONCENTRATION MAP



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Legend

- ECOLOGICAL SURVEY AREAS
- STORM WATER SWALES
- WATER FEATURES
- BERM OUTLINE
- SECURITY FENCE
- FORMER MCKENZIE PROPERTY BOUNDARY
- BELOW GRADE STORM WATER DRAINAGE PIPES
- FORMER WATER FEATURE
- BUILDINGS
- CONCRETE APRONS

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. OTHER FORMER SITE FEATURES WERE PLOTTED BASED UPON HISTORICAL SITE MAPS FROM MCKENZIE TANK LINES.



DESIGNED BY: A.G.	REVISIONS		DATE: 5/17/2017
	NO.	DATE	
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

**FIGURE 4-1:
ECOLOGICAL SURVEY AREAS**



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD.
ALPHARETTA, GEORGIA 30009

HSI SITE 10406, FORMER MCKENZIE TANK LINES SITE

SIXTH SEMI-ANNUAL PROGRESS REPORT

ATTACHMENT 3-1
EIC WELL PURGING AND
SAMPLING DATA FIELD LOGS,
NOVEMBER 2016

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

DATE: <u>11/3/16</u>		PROJECT NAME: <u>McKenzie Tank Lines</u>		WELL/SAMPLE NO: <u>G-19</u>					
WEATHER CONDITIONS: <u>Overcast</u>		PROJECT NO: <u>460009</u>							
SAMPLE TYPE: <input checked="" type="checkbox"/> GROUNDWATER <input type="checkbox"/> WASTEWATER <input type="checkbox"/> SURFACE WATER <input type="checkbox"/> OTHER									
WELL DIAMETER (IN.) <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> OTHER		BGS WELL SCREEN INTERVAL: <u>5</u> FT. TO <u>10</u> FT.							
HEIGHT OF STICK-UP: <u>2.77</u> FT.		BTOC WELL SCREEN INTERVAL: <u>7.77</u> FT. TO <u>12.77</u> FT.							
TOTAL WELL DEPTH (BTOC): Reported <u>12.77</u> FT. Measured <u>12.66</u> FT.		INITIAL WATER LEVEL (BTOC): <u>6.00</u> FT.		TIME: <u>9:04</u>					
PURGING DEVICE: <u>Pegasus Alexis Peristaltic Pump</u> <input type="checkbox"/> DEDICATED <input type="checkbox"/> DISPOSABLE <input checked="" type="checkbox"/> DECONTAMINATED									
SAMPLING DEVICE: <u>1/4" Teflon lined tubing</u> <input type="checkbox"/> DEDICATED <input checked="" type="checkbox"/> DISPOSABLE <input type="checkbox"/> DECONTAMINATED									
EQUIP. DECON. <input checked="" type="checkbox"/> ALCONOX WASH <input type="checkbox"/> ISOPROPANOL <input checked="" type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> DIST/DEION FINAL RINSE <input checked="" type="checkbox"/> AIR DRY									
<input type="checkbox"/> LIQUINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> TAP WATER FINAL RINSE									
PID/FID READINGS (ppm): BACKGROUND: <u>NA</u> BENEATH OUTER CAP: <u>NA</u> BENEATH INNER CAP: <u>NA</u>									
CONTAINER PRESERVATION: <input checked="" type="checkbox"/> LAB PRESERVED <input type="checkbox"/> FIELD PRESERVED									
ANALYTICAL PARAMETERS: <u>8260 B</u>									
LABORATORY PERFORMING ANALYSIS: <u>Test America</u>			FLOW THROUGH CELL MODEL: <u>Horiba U-52</u>		SERIAL # <u>UDRU5DA9</u>				
TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
<u>9:33</u>	<u>0</u>	<u>26.25</u>	<u>5.35</u>	<u>143</u>	<u>0.100</u>	<u>10.3</u>	<u>0.71</u>	<u>NA</u>	
<u>9:38</u>	<u>360</u>	<u>26.44</u>	<u>4.88</u>	<u>125</u>	<u>0.093</u>	<u>6.3</u>	<u>0.00</u>	<u>NA</u>	
<u>9:43</u>	<u>720</u>	<u>26.50</u>	<u>4.77</u>	<u>123</u>	<u>0.093</u>	<u>4.9</u>	<u>0.00</u>	<u>NA</u>	
<u>9:48</u>	<u>980</u>	<u>26.57</u>	<u>4.73</u>	<u>121</u>	<u>0.096</u>	<u>4.7</u>	<u>0.00</u>	<u>NA</u>	
<u>9:53</u>	<u>1300</u>	<u>26.66</u>	<u>4.76</u>	<u>110</u>	<u>0.091</u>	<u>5.9</u>	<u>0.00</u>	<u>NA</u>	
<u>9:58</u>	<u>1560</u>	<u>26.74</u>	<u>4.79</u>	<u>105</u>	<u>0.093</u>	<u>4.8</u>	<u>0.00</u>	<u>NA</u>	
<u>10:03</u>	<u>1840</u>	<u>26.84</u>	<u>4.82</u>	<u>103</u>	<u>0.093</u>	<u>4.8</u>	<u>0.00</u>	<u>NA</u>	
COMMENTS:						SAMPLE COLLECTION TIME: <u>10:05</u>			
						PREPARED BY: <u>ADC</u>			

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant.
 Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>20</u>
Initial tubing depth (ft.) BTOC	<u>10.2</u>
Final tubing depth (ft.) BTOC	<u>10.2</u>
Initial pump speed	<u>low</u>
Time pump speed was initialized	<u>9:06</u>
Pump speed at flow into cylinder	<u>low</u>
Started new roll of tubing at	<u> </u>

2,000 mL volume poured into bucket	Time							
Actual Volume (ml)								

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-2D

DATE: 11/1/16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS: overcast 65°F 1/4 inch wind

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 17.50 FT. TO 27.50 FT.

HEIGHT OF STICK-UP: 0.05 FT. BTOC WELL SCREEN INTERVAL: 17.50 FT. TO 27.50 FT.

TOTAL WELL DEPTH (BTOC): Reported 27.50 FT. Measured 26.67 FT. INITIAL WATER LEVEL (BTOC): 5.28 FT. TIME: 9:30

PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. ALCONOX WASH ISOPROPANOL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY

LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America AES FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
9:36	0	22.91	6.72	132	0.084	21.5	1.38	6.13	
9:43	450	22.76	5.51	174	0.080	9.5	0.94	6.24	
9:48	800	22.78	5.17	187	0.084	13.3	0.97	6.28	
9:53	1000	22.86	5.00	190	0.238	9.6	0.77	6.31	
9:58	1300	22.81	4.91	184	0.316	2.5	0.71	6.32	
10:03	1600	22.77	5.02	156	0.352	2.2	0.67	6.32	
10:08	1900	22.75	5.10	140	0.370	1.9	0.64	6.32	
10:15	2250	22.75	5.12	130	0.389	2.0	0.60	6.32	
10:21	2650	22.70	5.14	122	0.403	2.3	0.58	6.32	
10:26	3000	22.69	5.17	117	0.407	1.9	0.52	6.32	

COMMENTS: SAMPLE COLLECTION TIME: 10:28
 PREPARED BY: Stickney

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant.
 Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>24.7</u>
Initial tubing depth (ft.) BTOC	<u>21.7</u>
Final tubing depth (ft.) BTOC	<u>21.7</u>
Initial pump speed	<u>2.48</u>
Time pump speed was initialized	<u>9:51</u>
Pump speed at flow into cylinder	<u>2.08</u>
Started new roll of tubing at	<u>—</u>

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	<u>10:07</u>							
Actual Volume (ml)	<u>2000</u>							

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

DATE: <u>10/31/15</u>					PROJECT NAME: McKenzie Tank Lines					WELL/SAMPLE NO: MW-11D				
WEATHER CONDITIONS: <u>82°F clear low wind</u>										PROJECT NO: 460009				
SAMPLE TYPE: <input checked="" type="checkbox"/> GROUNDWATER <input type="checkbox"/> WASTEWATER <input type="checkbox"/> SURFACE WATER <input type="checkbox"/> OTHER														
WELL DIAMETER (IN.) <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> OTHER					BGS WELL SCREEN INTERVAL: <u>10</u> FT. TO <u>20</u> FT.									
HEIGHT OF STICK-UP: <u>3.10</u> FT.					BTOC WELL SCREEN INTERVAL: <u>13.10</u> FT. TO <u>23.10</u> FT.									
TOTAL WELL DEPTH (BTOC): Reported <u>23.10</u> FT Measured <u>21.90</u> FT.					INITIAL WATER LEVEL (BTOC): <u>4.57</u> FT.					TIME: <u>14:22</u>				
PURGING DEVICE: Pegasus Alexis Peristaltic Pump <input type="checkbox"/> DEDICATED <input type="checkbox"/> DISPOSABLE <input checked="" type="checkbox"/> DECONTAMINATED														
SAMPLING DEVICE: 1/4" Teflon lined tubing <input type="checkbox"/> DEDICATED <input checked="" type="checkbox"/> DISPOSABLE <input type="checkbox"/> DECONTAMINATED														
EQUIP. DECON. <input checked="" type="checkbox"/> ALCONOX WASH <input type="checkbox"/> ISOPROPANOL <input checked="" type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> DIST/DEION FINAL RINSE <input checked="" type="checkbox"/> AIR DRY														
<input type="checkbox"/> LIQUINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> TAP WATER FINAL RINSE														
PID/FID READINGS (ppm): BACKGROUND: <u> </u> BENEATH OUTER CAP: <u> </u> BENEATH INNER CAP: <u> </u>														
CONTAINER PRESERVATION: <input checked="" type="checkbox"/> LAB PRESERVED <input type="checkbox"/> FIELD PRESERVED														
ANALYTICAL PARAMETERS: 8260 B														
LABORATORY PERFORMING ANALYSIS: Test America					FLOW THROUGH CELL MODEL: Horiba U-52					SERIAL # UDRU5DA9				
TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)					
15:02	0	25.51	7.12	181	0.415	0.0	1.95	0.91	[color]					
15:17	500	24.93	5.54	172	0.349	0.0	1.21	10.01						
15:12	950	24.67	6.17	173	0.334	0.0	1.00	10.08						
15:17	1400	24.78	4.93	171	0.330	0.0	0.90	10.17						
15:22	1900	24.76	4.94	169	0.328	0.0	0.83	10.21						
15:27	2400	24.86	4.79	167	0.328	0.0	0.79	10.25						
15:32	2850	24.70	4.74	163	0.329	0.0	0.77	10.25						
COMMENTS:					SAMPLE COLLECTION TIME: <u>15:35</u>									
					PREPARED BY: <u>Stewart</u>									

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>20</u>
Initial tubing depth (ft.) BTOC	<u>16.4</u>
Final tubing depth (ft.) BTOC	<u>16.4</u>
Initial pump speed	<u>2.70</u>
Time pump speed was initialized	<u>14:55</u>
Pump speed at flow into cylinder	<u>2.75</u>
Started new roll of tubing at	<u> </u>

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	<u>15:27</u>							
Actual Volume (ml)	<u>2000</u>							

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-15S

DATE: 11/2/16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS: Sunny, slight breeze

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 9.79 FT. TO 19.79 FT.

HEIGHT OF STICK-UP: 2.58 FT. BTOC WELL SCREEN INTERVAL: 12.37 FT. TO 22.37 FT.

TOTAL WELL DEPTH (BTOC): Reported 15.08 FT Measured 22.37 FT. INITIAL WATER LEVEL (BTOC): 4.71 FT. TIME: 14:44

PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. ALCONOX WASH ISOPROPNOL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY

LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: NA BENEATH OUTER CAP: NA BENEATH INNER CAP: NA

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
14:48	0	28.46	7.06	-25	0.375	5.8	1.54	NA	
14:53	680	29.04	7.04	-82	0.377	0.8	0.00	NA	
15:01	1180	28.89	7.02	-90	0.381	0.5	0.00	NA	
15:06	1440	29.08	7.05	-95	0.381	0.6	0.00	NA	
15:11	1800	28.95	7.07	-99	0.381	0.7	0.00	NA	
								5.10	

COMMENTS: SAMPLE COLLECTION TIME: 15:13
 PREPARED BY: ADC

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>20</u>
Initial tubing depth (ft.) BTOC	<u>17.4</u>
Final tubing depth (ft.) BTOC	<u>17.4</u>
Initial pump speed	<u>low</u>
Time pump speed was initialized	<u>14:45</u>
Pump speed at flow into cylinder	<u>low</u>
Started new roll of tubing at	<u>←</u>

	Time							
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-26

DATE: 11/2/16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS:

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 27.42 FT. TO 37.42 FT.

HEIGHT OF STICK-UP: 2.75 FT. BTOC WELL SCREEN INTERVAL: 30.17 FT. TO 40.17 FT.

TOTAL WELL DEPTH (BTOC): Reported 22.75 FT. Measured 40.17 FT. INITIAL WATER LEVEL (BTOC) 3.40 FT. TIME: 17:05

PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. ALCONOX WASH ISOPROPNOL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY
 LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: NA BENEATH OUTER CAP: NA BENEATH INNER CAP: NA

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
17:20	0	31.04	7.67	5	0.378	1.1	1.29	NA	
17:25	200	30.92	7.58	11	0.376	1.1	1.34	NA	
17:30	360	30.73	7.70	8	0.377	1.2	1.41	NA	increased pump speed
17:35	560	30.57	7.76	4	0.374	1.2	1.07	NA	
17:43	680	30.35	7.86	3	0.379	1.2	1.08	NA	
17:48	820	30.28	7.85	2	0.377	1.7	0.77	NA	
								5.70	

COMMENTS: SAMPLE COLLECTION TIME: 17:50
 PREPARED BY: ADG

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>38.7</u>
Initial tubing depth (ft.) BTOC	<u>35.2</u>
Final tubing depth (ft.) BTOC	<u>35.2</u>
Initial pump speed	<u>low</u>
Time pump speed was initialized	<u>17:10</u>
Pump speed at flow into cylinder	<u>low</u>
Started new roll of tubing at	<u> </u>

	Time							
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-33

DATE: 11/2/16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS:

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 10 FT. TO 20 FT.

HEIGHT OF STICK-UP: 2.38 FT. BTOC WELL SCREEN INTERVAL: 12.38 FT. TO 22.38 FT.

TOTAL WELL DEPTH (BTOC): Reported 22.38 FT. Measured 22.13 FT. INITIAL WATER LEVEL (BTOC): 4.73 FT. TIME: 16:23

PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. ALCONOX WASH ISOPROPANOL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY

LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: NA BENEATH OUTER CAP: NA BENEATH INNER CAP: NA

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
16:29	0	30.58	7.38	-64	0.403	2.0	1.01	NA	
16:35	320	30.70	7.20	-76	0.454	2.0	0.51	NA	
16:40	540	30.57	7.20	-76	0.481	1.7	0.13	NA	
16:45	760	30.48	7.20	-77	0.482	1.8	0.00	NA	
16:50	980	30.40	7.19	-80	0.483	2.0	0.00	NA	
16:51							6.43	NA	

COMMENTS: SAMPLE COLLECTION TIME: 16:52
 PREPARED BY: APC

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>20</u>
Initial tubing depth (ft.) BTOC	<u>17.1</u>
Final tubing depth (ft.) BTOC	<u>17.1</u>
Initial pump speed	<u>low</u>
Time pump speed was initialized	<u>16:52</u>
Pump speed at flow into cylinder	<u>low</u>
Started new roll of tubing at	<u> </u>

2,000 mL volume poured into bucket	Time							
Actual Volume (ml)								

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-35

DATE: <u>11/21/16</u>		PROJECT NAME: McKenzie Tank Lines			PROJECT NO: 460009				
WEATHER CONDITIONS: <u>82°F NO wind (cloudy)</u>									
SAMPLE TYPE: <input checked="" type="checkbox"/> GROUNDWATER <input type="checkbox"/> WASTEWATER <input type="checkbox"/> SURFACE WATER <input type="checkbox"/> OTHER									
WELL DIAMETER (IN.) <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> OTHER					BGS WELL SCREEN INTERVAL: <u>28.02</u> FT. TO <u>38.02</u> FT.				
HEIGHT OF STICK-UP: <u>1.18</u> FT.					BTOC WELL SCREEN INTERVAL: <u>29.20</u> FT. TO <u>39.20</u> FT.				
TOTAL WELL DEPTH (BTOC):		Reported <u>21.18</u> FT			Measured <u>39.20</u> FT.		INITIAL WATER LEVEL (BTOC): <u>1.32</u> FT.		TIME: <u>10:40</u>
PURGING DEVICE: Pegasus Alexis Peristaltic Pump <input type="checkbox"/> DEDICATED <input type="checkbox"/> DISPOSABLE <input checked="" type="checkbox"/> DECONTAMINATED									
SAMPLING DEVICE: 1/4" Teflon lined tubing <input type="checkbox"/> DEDICATED <input checked="" type="checkbox"/> DISPOSABLE <input type="checkbox"/> DECONTAMINATED									
EQUIP. DECON. <input checked="" type="checkbox"/> ALCONOX WASH <input type="checkbox"/> ISOPROPANOL <input checked="" type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> DIST/DEION FINAL RINSE <input checked="" type="checkbox"/> AIR DRY									
<input type="checkbox"/> LIQUINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> TAP WATER FINAL RINSE									
PID/FID READINGS (ppm): BACKGROUND: <u> </u> BENEATH OUTER CAP: <u> </u> BENEATH INNER CAP: <u> </u>									
CONTAINER PRESERVATION: <input checked="" type="checkbox"/> LAB PRESERVED <input type="checkbox"/> FIELD PRESERVED									
ANALYTICAL PARAMETERS: <u>8260B 8260B</u>									
LABORATORY PERFORMING ANALYSIS: <u>TestAmerica AFS</u>				FLOW THROUGH CELL MODEL: <u>Horiba U-52</u>			SERIAL # <u>UDRU5DA9</u>		
TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
<u>16:40</u>	<u>0</u>	<u>25.48</u>	<u>6.55</u>	<u>63</u>	<u>0.379</u>	<u>5.9</u>	<u>2.73</u>	<u>NA</u>	
<u>16:54</u>	<u>300</u>	<u>25.42</u>	<u>6.83</u>	<u>36</u>	<u>0.377</u>	<u>0.0</u>	<u>1.98</u>	<u>NA</u>	
<u>16:59</u>	<u>600</u>	<u>24.91</u>	<u>7.02</u>	<u>24</u>	<u>0.379</u>	<u>0.0</u>	<u>1.56</u>	<u>NA</u>	
<u>17:04</u>	<u>900</u>	<u>24.59</u>	<u>7.07</u>	<u>15</u>	<u>0.381</u>	<u>0.0</u>	<u>1.23</u>	<u>NA</u>	
<u>17:10</u>	<u>1300</u>	<u>24.40</u>	<u>7.15</u>	<u>9</u>	<u>0.382</u>	<u>0.0</u>	<u>1.02</u>	<u>NA</u>	
<u>17:15</u>	<u>1600</u>	<u>24.27</u>	<u>7.26</u>	<u>2</u>	<u>0.384</u>	<u>0.0</u>	<u>0.92</u>	<u>NA</u>	
<u>17:21</u>	<u>2000</u>	<u>24.15</u>	<u>7.29</u>	<u>0</u>	<u>0.385</u>	<u>0.0</u>	<u>0.84</u>	<u>NA</u>	
<u>17:28</u>	<u>2400</u>	<u>24.05</u>	<u>7.28</u>	<u>-2</u>	<u>0.386</u>	<u>0.0</u>	<u>0.72</u>	<u>NA</u>	
								<u>6.40</u>	
COMMENTS:					SAMPLE COLLECTION TIME: <u>17:30</u>				
					PREPARED BY: <u>Jelling APC</u>				

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant.
Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>37.2</u>
Initial tubing depth (ft.) BTOC	<u>34.2</u>
Final tubing depth (ft.) BTOC	<u>34.2</u>
Initial pump speed	<u>1.84</u>
Time pump speed was initialized	<u>16:41</u>
Pump speed at flow into cylinder	<u>low</u>
Started new roll of tubing at	<u>low</u>

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	<u>17:21</u>							
Actual Volume (ml)	<u>2000</u>							

Additional remarks: Well screen interval unknown.

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-40S

DATE: <u>11/2/16</u>		PROJECT NAME: <u>McKenzie Tank Lines</u>		PROJECT NO: <u>460009</u>					
WEATHER CONDITIONS: <u>83°F cloudy light rain</u>									
SAMPLE TYPE: <input checked="" type="checkbox"/> GROUNDWATER <input type="checkbox"/> WASTEWATER <input type="checkbox"/> SURFACE WATER <input type="checkbox"/> OTHER									
WELL DIAMETER (IN.) <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> OTHER			BGS WELL SCREEN INTERVAL: <u>10.28</u> FT. TO <u>20.28</u> FT.						
HEIGHT OF STICK-UP: <u>-0.28</u> FT.			BTOC WELL SCREEN INTERVAL: <u>10</u> FT. TO <u>20</u> FT.						
TOTAL WELL DEPTH (BTOC):		Reported <u>NA</u> FT.	Measured <u>20.12</u> FT.	INITIAL WATER LEVEL (BTOC): <u>1.43</u> FT.	TIME: <u>15:16</u>				
PURGING DEVICE: Pegasus Alexis Peristaltic Pump <input type="checkbox"/> DEDICATED <input type="checkbox"/> DISPOSABLE <input checked="" type="checkbox"/> DECONTAMINATED									
SAMPLING DEVICE: 1/4" Teflon lined tubing <input type="checkbox"/> DEDICATED <input checked="" type="checkbox"/> DISPOSABLE <input type="checkbox"/> DECONTAMINATED									
EQUIP. DECON. <input checked="" type="checkbox"/> ALCONOX WASH <input type="checkbox"/> ISOPROPANOL <input checked="" type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> DIST/DEION FINAL RINSE <input checked="" type="checkbox"/> AIR DRY									
<input type="checkbox"/> LIQUINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> TAP WATER FINAL RINSE									
PID/FID READINGS (ppm): BACKGROUND: <u> </u> BENEATH OUTER CAP: <u> </u> BENEATH INNER CAP: <u> </u>									
CONTAINER PRESERVATION: <input checked="" type="checkbox"/> LAB PRESERVED <input type="checkbox"/> FIELD PRESERVED									
ANALYTICAL PARAMETERS: <u>8260 B</u>									
LABORATORY PERFORMING ANALYSIS: <u>Test America AFS</u>			FLOW THROUGH CELL MODEL: <u>Horiba U-52</u>		SERIAL # <u>UDRU5DA9</u>				
TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
<u>15:23</u>	<u>0</u>	<u>27.06</u>	<u>6.83</u>	<u>133</u>	<u>0.280</u>	<u>0.0</u>	<u>1.09</u>	<u>1.47</u>	
<u>15:28</u>	<u>300</u>	<u>26.33</u>	<u>6.54</u>	<u>111</u>	<u>0.283</u>	<u>0.0</u>	<u>0.63</u>	<u>1.46</u>	<u>S.C. = 0.283</u>
<u>15:33</u>	<u>600</u>	<u>26.64</u>	<u>6.46</u>	<u>73</u>	<u>0.282</u>	<u>0.0</u>	<u>0.58</u>	<u>1.46</u>	
<u>15:38</u>	<u>900</u>	<u>24.76</u>	<u>6.41</u>	<u>49</u>	<u>0.284</u>	<u>0.0</u>	<u>0.52</u>	<u>1.46</u>	
<u>15:43</u>	<u>1200</u>	<u>24.74</u>	<u>6.39</u>	<u>37</u>	<u>0.285</u>	<u>0.0</u>	<u>0.44</u>	<u>1.46</u>	
COMMENTS:				SAMPLE COLLECTION TIME: <u>15:45</u>					
				PREPARED BY: <u>Stacey Ado</u>					

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>20</u>
Initial tubing depth (ft.) BTOC	<u>15</u>
Final tubing depth (ft.) BTOC	<u>15</u>
Initial pump speed	<u>2.15</u>
Time pump speed was initialized	<u>15:17</u>
Pump speed at flow into cylinder	<u>2.15</u>
Started new roll of tubing at	<u> </u>

2,000 mL volume poured into bucket	Time							
Actual Volume (ml)								

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-44D

DATE: 10/31/16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS: Sunny, slight wind

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 25.26 FT. TO 30.26 FT.

HEIGHT OF STICK-UP: -0.26 FT. BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 30.48 FT. INITIAL WATER LEVEL (BTOC): 7.63 FT. TIME: 16:18

PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. ALCONOX WASH ISOPROPNAL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY
 LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: N/A BENEATH OUTER CAP: N/A BENEATH INNER CAP: N/A

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
16:25	0	33.53	5.37	57	0.436	0.3	0.51	7.72	
16:30	480	33.56	5.44	40	0.495	0.0	0.00	7.67	
16:35	720	34.01	5.48	30	0.496	0.0	0.00	7.67	
16:40	1000	34.28	5.51	25	0.503	0.0	0.00	7.67	
16:45	1220	34.49	5.51	20 20	0.508	0.0	0.00	7.67	

COMMENTS: SAMPLE COLLECTION TIME: 16:47
 PREPARED BY: ADC

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant.
 Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>20</u>
Initial tubing depth (ft.) BTOC	<u>15</u>
Final tubing depth (ft.) BTOC	<u>15</u>
Initial pump speed	<u>low</u>
Time pump speed was initialized	<u>16:22</u>
Pump speed at flow into cylinder	<u>low</u>
Started new roll of tubing at	<u>_____</u>

	Time							
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

DATE: <u>10/31/16</u>					PROJECT NAME: <u>McKenzie Tank Lines</u>					WELL/SAMPLE NO: <u>MW-45S</u>				
WEATHER CONDITIONS: <u>Sunny, slight wind towards west.</u>										PROJECT NO: <u>460009</u>				
SAMPLE TYPE: <input checked="" type="checkbox"/> GROUNDWATER <input type="checkbox"/> WASTEWATER <input type="checkbox"/> SURFACE WATER <input type="checkbox"/> OTHER														
WELL DIAMETER (IN.) <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> OTHER					BGS WELL SCREEN INTERVAL: <u>10.38</u> FT. TO <u>20.38</u> FT.									
HEIGHT OF STICK-UP: <u>-0.38</u> FT.					BTOC WELL SCREEN INTERVAL: <u>10</u> FT. TO <u>20</u> FT.									
TOTAL WELL DEPTH (BTOC): Reported <u>NA</u> FT. Measured <u>20.21</u> FT.					INITIAL WATER LEVEL (BTOC): <u>7.33</u> FT.					TIME: <u>16:56</u>				
PURGING DEVICE: Pegasus Alexis Peristaltic Pump <input type="checkbox"/> DEDICATED <input type="checkbox"/> DISPOSABLE <input checked="" type="checkbox"/> DECONTAMINATED														
SAMPLING DEVICE: 1/4" Teflon lined tubing <input type="checkbox"/> DEDICATED <input checked="" type="checkbox"/> DISPOSABLE <input type="checkbox"/> DECONTAMINATED														
EQUIP. DECON. <input checked="" type="checkbox"/> ALCONOX WASH <input type="checkbox"/> ISOPROPNOL <input checked="" type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> DIST/DEION FINAL RINSE <input checked="" type="checkbox"/> AIR DRY														
<input type="checkbox"/> LIQUINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> TAP WATER FINAL RINSE														
PID/FID READINGS (ppm): BACKGROUND: <u>N/A</u> BENEATH OUTER CAP: <u>N/A</u> BENEATH INNER CAP: <u>N/A</u>														
CONTAINER PRESERVATION: <input checked="" type="checkbox"/> LAB PRESERVED <input type="checkbox"/> FIELD PRESERVED														
ANALYTICAL PARAMETERS: <u>8260 B</u>														
LABORATORY PERFORMING ANALYSIS: <u>Test America</u>							FLOW THROUGH CELL MODEL: <u>Horiba U-52</u>				SERIAL # <u>UDRU5DA9</u>			
TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)					
<u>17:09</u>	<u>200</u>	<u>35.11</u>	<u>5.11</u>	<u>39</u>	<u>0.596</u>	<u>0.5</u>	<u>0.00</u>	<u>7.47</u>						
<u>17:13</u>	<u>500</u>	<u>34.89</u>	<u>5.14</u>	<u>30</u>	<u>0.593</u>	<u>1.5</u>	<u>0.00</u>	<u>7.48</u>						
<u>17:18</u>	<u>860</u>	<u>34.70</u>	<u>5.15</u>	<u>25</u>	<u>0.587</u>	<u>0.3</u>	<u>0.00</u>	<u>7.49</u>						
<u>17:23</u>	<u>1200</u>	<u>34.56</u>	<u>5.16</u>	<u>22</u>	<u>0.575</u>	<u>0.3</u>	<u>0.00</u>	<u>7.49</u>						
COMMENTS:					SAMPLE COLLECTION TIME: <u>17:25</u>									
					PREPARED BY: <u>ADG</u>									

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>20</u>
Initial tubing depth (ft.) BTOC	<u>15</u>
Final tubing depth (ft.) BTOC	<u>15</u>
Initial pump speed	<u>low</u>
Time pump speed was initialized	<u>17:00</u>
Pump speed at flow into cylinder	<u>low</u>
Started new roll of tubing at	<u> </u>

2,000 mL volume poured into bucket	Time							
Actual Volume (ml)								

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-48S

DATE: 10/31/16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS: Sunny, slight wind

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 9.96 FT. TO 19.96 FT.

HEIGHT OF STICK-UP: 0.04 FT. BTOC WELL SCREEN INTERVAL: 10 FT. TO 20 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 20.05 FT. INITIAL WATER LEVEL (BTOC): 7.66 FT. TIME: 15:04

PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. ALCONOX WASH ISOPROPNOL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY

LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: N/A BENEATH OUTER CAP: N/A BENEATH INNER CAP: N/A

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL #: UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
<u>15:16</u>	<u>0</u>	<u>30.01</u>	<u>5.27</u>	<u>249</u>	<u>0.153</u>	<u>0.7</u>	<u>3.84</u>	<u>7.71</u>	
<u>15:21</u>	<u>520</u>	<u>29.19</u>	<u>4.32</u>	<u>341</u>	<u>0.152</u>	<u>0.0</u>	<u>0.65</u>	<u>7.74</u>	
<u>15:26</u>	<u>880</u>	<u>29.18</u>	<u>4.28</u>	<u>359</u>	<u>0.151</u>	<u>0.9</u>	<u>0.24</u>	<u>7.71</u>	
<u>15:31</u>	<u>1260</u>	<u>29.26</u>	<u>4.22</u>	<u>379</u>	<u>0.151</u>	<u>0.8</u>	<u>0.26</u>	<u>7.71</u>	
<u>15:36</u>	<u>1580</u>	<u>29.32</u>	<u>4.19</u>	<u>391</u>	<u>0.151</u>	<u>0.0</u>	<u>0.29</u>	<u>7.74</u>	

COMMENTS: SAMPLE COLLECTION TIME: 15:38
 PREPARED BY: ADG

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant.
 Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>20</u>
Initial tubing depth (ft.) BTOC	<u>15</u>
Final tubing depth (ft.) BTOC	<u>15</u>
Initial pump speed	<u>low</u>
Time pump speed was initialized	<u>15:10</u>
Pump speed at flow into cylinder	<u>low</u>
Started new roll of tubing at	<u> </u>

2,000 mL volume poured into bucket	Time							
Actual Volume (ml)								

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-49D

DATE: 11/3/16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS: 87°F Clear Nowm

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 25.08 FT. TO 30.08 FT.

HEIGHT OF STICK-UP: -0.08 FT. BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 30.25 FT. INITIAL WATER LEVEL (BTOC): 5.81 FT. TIME: 13:39

PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. ALCONOX WASH ISOPROPANOL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY

LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America AFS FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
13:45	0	28.84	6.75	71	0.484	1.7	1.17	6.56	
13:50	400	28.67	6.91	56	0.488	0.0	0.76	6.72	
13:55	750	28.68	6.81	45	0.488	0.0	0.63	6.79	
14:00	1100	28.66	6.82	32	0.488	1.5	0.54	6.81	

COMMENTS: SAMPLE COLLECTION TIME: 14:03
PREPARED BY: SH Penny

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SEDPROC-301-R3.

Length of tubing cut (ft.)	<u>30.5</u>
Initial tubing depth (ft.) BTOC	<u>27.5</u>
Final tubing depth (ft.) BTOC	<u>27.5</u>
Initial pump speed	<u>2.65</u>
Time pump speed was initialized	<u>15.41</u>
Pump speed at flow into cylinder	<u>2.09</u>
Started new roll of tubing at	<u>—</u>

	Time							
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MWV-50S

DATE: 11/2/16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009
 WEATHER CONDITIONS: BSF (car ramp wind)
 SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER
 WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 10.12 FT. TO 20.12 FT.
 HEIGHT OF STICK-UP: -0.12 FT. BTOC WELL SCREEN INTERVAL: 10 FT. TO 20 FT.
 TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 20.24 FT. INITIAL WATER LEVEL (BTOC): 8.22 FT. TIME: 14:20
 PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED
 SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED
 EQUIP. DECON. ALCONOX WASH ISOPROPNOL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY
 LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE
 PID/FID READINGS (ppm): BACKGROUND: _____ BENEATH OUTER CAP: _____ BENEATH INNER CAP: _____
 CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED
 ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America AFS FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
14:24	0	31.19	5.03	109	0.755	Nil	0.97	6.28	
14:34	400	30.68	4.97	120	0.771	0.0	0.58	6.28	
14:39	700	30.77	4.84	122	0.767	0.0	0.46	6.28	
14:44	1000	30.90	4.83	125	0.752	0.0	0.41	6.28	

COMMENTS: _____ SAMPLE COLLECTION TIME: 14:48
 PREPARED BY: Steeny

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant.
 Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the
 Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>20</u>
Initial tubing depth (ft.) BTOC	<u>15</u>
Final tubing depth (ft.) BTOC	<u>15</u>
Initial pump speed	<u>2.56</u>
Time pump speed was initialized	<u>14:22</u>
Pump speed at flow into cylinder	<u>2.02</u>
Started new roll of tubing at	_____

	Time								
2,000 mL volume poured into bucket									
Actual Volume (ml)									

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-51D

DATE: 11/3/16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS: Sunny

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 25.17 FT. TO 30.17 FT.

HEIGHT OF STICK-UP: -0.17 FT. BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 30.26 FT. INITIAL WATER LEVEL (BTOC): 5.20 FT. TIME: 16:08

PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. ALCONOX WASH ISOPROPNOL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY

LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: NA BENEATH OUTER CAP: NA BENEATH INNER CAP: NA

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
16:18	1000	33.67	7.44	-61	0.307	6.8	0.00	5.65	Lowered pump speed
16:23	1340	33.30	7.48	-65	0.312	8.5	0.00	5.40	
16:28	1600	33.03	7.52	-70	0.316	6.3	0.00	5.37	
16:34	1840	32.86	7.57	-76	0.320	5.4	0.00	5.35	

COMMENTS: SAMPLE COLLECTION TIME: 16:36
PREPARED BY: ADC

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant.
Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>30.5</u>
Initial tubing depth (ft.) BTOC	<u>27.5</u>
Final tubing depth (ft.) BTOC	<u>27.5</u>
Initial pump speed	<u>Low</u>
Time pump speed was initialized	<u>16:12</u>
Pump speed at flow into cylinder	<u>Low</u>
Started new roll of tubing at	<u> </u>

	Time							
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

DATE: <u>1/3/16</u>		PROJECT NAME: <u>McKenzie Tank Lines</u>		WELL/SAMPLE NO: <u>MW-52D</u>					
WEATHER CONDITIONS: <u>Q20P Clear Windy</u>		PROJECT NO: <u>460009</u>							
SAMPLE TYPE: <input checked="" type="checkbox"/> GROUNDWATER <input type="checkbox"/> WASTEWATER <input type="checkbox"/> SURFACE WATER <input type="checkbox"/> OTHER									
WELL DIAMETER (IN.) <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> OTHER		BGS WELL SCREEN INTERVAL: <u>25.39</u> FT. TO <u>30.39</u> FT.							
HEIGHT OF STICK-UP: <u>-0.39</u> FT.		BTOC WELL SCREEN INTERVAL: <u>25</u> FT. TO <u>30</u> FT.							
TOTAL WELL DEPTH (BTOC): Reported <u>NA</u> FT. Measured <u>30.07</u> FT.		INITIAL WATER LEVEL (BTOC): <u>3.74</u> FT.		TIME: <u>11:10</u>					
PURGING DEVICE: Pegasus Alexis Peristaltic Pump <input type="checkbox"/> DEDICATED <input type="checkbox"/> DISPOSABLE <input checked="" type="checkbox"/> DECONTAMINATED									
SAMPLING DEVICE: 1/4" Teflon lined tubing <input type="checkbox"/> DEDICATED <input checked="" type="checkbox"/> DISPOSABLE <input type="checkbox"/> DECONTAMINATED									
EQUIP. DECON. <input checked="" type="checkbox"/> ALCONOX WASH <input type="checkbox"/> ISOPROPNOL <input checked="" type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> DIST/DEION FINAL RINSE <input checked="" type="checkbox"/> AIR DRY									
<input type="checkbox"/> LIQUINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> TAP WATER FINAL RINSE									
PID/FID READINGS (ppm): BACKGROUND: <u> </u> BENEATH OUTER CAP: <u> </u> BENEATH INNER CAP: <u> </u>									
CONTAINER PRESERVATION: <input checked="" type="checkbox"/> LAB PRESERVED <input type="checkbox"/> FIELD PRESERVED									
ANALYTICAL PARAMETERS: <u>8260 B</u>									
LABORATORY PERFORMING ANALYSIS: <u>Test America AES</u>			FLOW THROUGH CELL MODEL: <u>Horiba U-52</u>		SERIAL # <u>UDRU5DA9</u>				
TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
<u>11:25</u>	<u>0</u>	<u>23.94</u>	<u>6.48</u>	<u>75</u>	<u>0.242</u>	<u>20.5</u>	<u>0.99</u>	<u>4.04</u>	
<u>11:30</u>	<u>500</u>	<u>23.60</u>	<u>6.60</u>	<u>55</u>	<u>0.258</u>	<u>5.9</u>	<u>0.60</u>	<u>4.04</u>	
<u>11:35</u>	<u>800</u>	<u>23.63</u>	<u>6.63</u>	<u>42</u>	<u>0.281</u>	<u>4.9</u>	<u>0.52</u>	<u>4.04</u>	
<u>11:40</u>	<u>1200</u>	<u>23.89</u>	<u>6.72</u>	<u>34</u>	<u>0.289</u>	<u>11.8</u>	<u>0.46</u>	<u>4.04</u>	
<u>11:45</u>	<u>1500</u>	<u>23.34</u>	<u>6.76</u>	<u>28</u>	<u>0.247</u>	<u>9.6</u>	<u>0.43</u>	<u>4.04</u>	
<u>11:50</u>	<u>1800</u>	<u>23.84</u>	<u>6.77</u>	<u>23</u>	<u>0.302</u>	<u>9.2</u>	<u>0.10</u>	<u>4.04</u>	
COMMENTS:					SAMPLE COLLECTION TIME: <u>11:54</u>				
					PREPARED BY: <u>Stelmey</u>				

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant.
 Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>30.5</u>
Initial tubing depth (ft.) BTOC	<u>27.5</u>
Final tubing depth (ft.) BTOC	<u>27.5</u>
Initial pump speed	<u>2.05</u>
Time pump speed was initialized	<u>11:20</u>
Pump speed at flow into cylinder	<u>2.10</u>
Started new roll of tubing at	<u> </u>

	Time							
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-53D

DATE: <u>11/3/16</u>			PROJECT NAME: McKenzie Tank Lines			PROJECT NO: 460009			
WEATHER CONDITIONS: <u>Sunny</u>									
SAMPLE TYPE: <input checked="" type="checkbox"/> GROUNDWATER <input type="checkbox"/> WASTEWATER <input type="checkbox"/> SURFACE WATER <input type="checkbox"/> OTHER									
WELL DIAMETER (IN.) <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> OTHER			BGS WELL SCREEN INTERVAL: <u>25.06</u> FT. TO <u>30.06</u> FT.						
HEIGHT OF STICK-UP: <u>-0.06</u> FT.			BTOC WELL SCREEN INTERVAL: <u>25</u> FT. TO <u>30</u> FT.						
TOTAL WELL DEPTH (BTOC): Reported <u>NA</u> FT. Measured <u> </u> FT.			INITIAL WATER LEVEL (BTOC): <u>2.71</u> FT.			TIME: <u>7:45 13:45 ADC</u>			
PURGING DEVICE: Pegasus Alexis Peristaltic Pump <input type="checkbox"/> DEDICATED <input type="checkbox"/> DISPOSABLE <input checked="" type="checkbox"/> DECONTAMINATED									
SAMPLING DEVICE: 1/4" Teflon lined tubing <input type="checkbox"/> DEDICATED <input checked="" type="checkbox"/> DISPOSABLE <input type="checkbox"/> DECONTAMINATED									
EQUIP. DECON: <input checked="" type="checkbox"/> ALCONOX WASH <input type="checkbox"/> ISOPROPANOL <input checked="" type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> DIST/DEION FINAL RINSE <input checked="" type="checkbox"/> AIR DRY									
<input type="checkbox"/> LIQUINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> TAP WATER FINAL RINSE									
PID/FID READINGS (ppm): BACKGROUND: <u>NA</u>			BENEATH OUTER CAP: <u>NA</u>			BENEATH INNER CAP: <u>NA</u>			
CONTAINER PRESERVATION: <input checked="" type="checkbox"/> LAB PRESERVED <input type="checkbox"/> FIELD PRESERVED									
ANALYTICAL PARAMETERS: 8260 B									
LABORATORY PERFORMING ANALYSIS: Test America				FLOW THROUGH CELL MODEL: Horiba U-52			SERIAL # UDRU5DA9		
TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
<u>8:53</u>	<u>0</u>	<u>34.90</u>	<u>7.55</u>	<u>57</u>	<u>0.203</u>	<u>0.8</u>	<u>3.03</u>	<u>2.83</u>	
<u>13:59</u>	<u>600</u>	<u>31.72</u>	<u>7.66</u>	<u>-1</u>	<u>0.324</u>	<u>1.0</u>	<u>0.00</u>	<u>2.95</u>	
<u>14:04</u>	<u>860</u>	<u>31.90</u>	<u>7.76</u>	<u>-23</u>	<u>0.330</u>	<u>0.2</u>	<u>0.00</u>	<u>2.89</u>	
<u>14:09</u>	<u>1020</u>	<u>32.45</u>	<u>7.84</u>	<u>-37</u>	<u>0.333</u>	<u>0.2</u>	<u>0.00</u>	<u>2.80</u>	
<u>14:14</u>	<u>1240</u>	<u>33.09</u>	<u>7.79</u>	<u>-38</u>	<u>0.333</u>	<u>0.3</u>	<u>0.00</u>	<u>2.86</u>	
COMMENTS:				SAMPLE COLLECTION TIME: <u>13:16 ADC 14:16</u>					PREPARED BY: <u>ADC</u>

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>30.5</u>
Initial tubing depth (ft.) BTOC	<u>27.5</u>
Final tubing depth (ft.) BTOC	<u>27.5</u>
Initial pump speed	<u>low</u>
Time pump speed was initialized	<u>13:47</u>
Pump speed at flow into cylinder	<u>low</u>
Started new roll of tubing at	<u> </u>

	Time							
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-54D

DATE: 11/1/16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS: Sunny slight to no wind

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 25.19 FT. TO 30.19 FT.

HEIGHT OF STICK-UP: -0.19 FT. BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 30.42 FT. INITIAL WATER LEVEL (BTOC): 5.46 FT. TIME: 11:06

PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. ALCONOX WASH ISOPROPANOL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY
 LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: NA BENEATH OUTER CAP: NA BENEATH INNER CAP: NA

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America AEG FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
13:43	0	32.14	7.30	49	0.283	0.5	0.00	5.89	
13:48	420	30.14	7.41	-22	0.294	0.5	0.00	5.46	
13:53	720	29.72	7.50	-47	0.304	0.1	0.00	6.01	
13:58	1080	29.71	7.59	-62	0.304	0.1	0.00	6.03	
14:05	1580	29.72	7.66	-75	0.301	0.0	0.00	6.07	
14:10	1940	29.66	7.70	-81	0.302	0.1	0.00	6.00	
14:15	2360	29.66	7.73	-86	0.303	0.1	0.00	6.08	

COMMENTS: SAMPLE COLLECTION TIME: 14:16
 PREPARED BY: ADD

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>30.5</u>
Initial tubing depth (ft.) BTOC	<u>27.5</u>
Final tubing depth (ft.) BTOC	<u>27.5</u>
Initial pump speed	<u>3.00</u>
Time pump speed was initialized	<u>13:35</u>
Pump speed at flow into cylinder	<u>2.33</u>
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	<u>14:10</u>							
Actual Volume (ml)	<u>2000</u>							

Additional remarks: _____

**ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG**

WELL/SAMPLE NO: MW-55D

DATE: 11/3/16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS: 85°F Clear No wind

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 25.15 FT. TO 30.15 FT.

HEIGHT OF STICK-UP: -0.15 FT. BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 30.48 FT. INITIAL WATER LEVEL (BTOC): 5.50 FT. TIME: 15:45

PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. ALCONOX WASH ISOPROPANOL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY
 LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: BENEATH OUTER CAP: BENEATH INNER CAP:

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America AEC FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
<u>15:55</u>	<u>0</u>	<u>28.83</u>	<u>6.84</u>	<u>4</u>	<u>0.331</u>	<u>0.0</u>	<u>1.02</u>	<u>6.78</u>	
<u>16:00</u>	<u>50</u>	<u>29.06</u>	<u>6.98</u>	<u>-10</u>	<u>0.345</u>	<u>0.0</u>	<u>0.55</u>	<u>6.75</u>	
<u>16:05</u>	<u>750</u>	<u>28.60</u>	<u>7.04</u>	<u>-16</u>	<u>0.348</u>	<u>0.0</u>	<u>0.46</u>	<u>6.75</u>	
<u>16:10</u>	<u>1100</u>	<u>28.46</u>	<u>7.05</u>	<u>-14</u>	<u>0.350</u>	<u>0.0</u>	<u>0.41</u>	<u>6.75</u>	

COMMENTS: SAMPLE COLLECTION TIME: 16:14
PREPARED BY: Stelma

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant.
Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>30.5</u>
Initial tubing depth (ft.) BTOC	<u>27.5</u>
Final tubing depth (ft.) BTOC	<u>27.5</u>
Initial pump speed	<u>2.52</u>
Time pump speed was initialized	<u>2.62 2.52</u> <u>5th</u> <u>19:48</u>
Pump speed at flow into cylinder	<u>2.04</u>
Started new roll of tubing at	<u> </u>

	Time							
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-56D

DATE: 1/31/16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS: Clear 84°F light w/m

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 25.32 FT. TO 30.32 FT.

HEIGHT OF STICK-UP: -0.32 FT. BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 30.19 FT. INITIAL WATER LEVEL (BTOC): 5.08 FT. TIME: 15:00

PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. ALCONOX WASH ISOPROSPANOL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY
 LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: --- BENEATH OUTER CAP: --- BENEATH INNER CAP: ---

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America ABC FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL #: UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
15:10	0	29.76	6.19	62	0.629	0.0	1.06	5.65	
15:15	400	29.07	6.67	25	0.293	0.0	0.49	5.67	
15:20	800	27.23	6.91	12	0.299	0.0	0.44	5.69	
15:25	1100	26.94	6.87	3	0.301	0.0	0.38	5.70	
15:30	1450	26.71	6.91	-3	0.301	0.0	0.37	5.70	

COMMENTS: SAMPLE COLLECTION TIME: 15:35
 PREPARED BY: SHenry ADC

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant.
 Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>30.5</u>
Initial tubing depth (ft.) BTOC	<u>27.5</u>
Final tubing depth (ft.) BTOC	<u>27.5</u>
Initial pump speed	<u>2.56</u>
Time pump speed was initialized	<u>15:03</u>
Pump speed at flow into cylinder	<u>2.11</u>
Started new roll of tubing at	<u>---</u>

	Time							
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

DATE: <u>11/1/16</u>					PROJECT NAME: <u>McKenzie Tank Lines</u>					WELL/SAMPLE NO: <u>PAW-3</u>				
PROJECT NO: <u>460009</u>										WEATHER CONDITIONS: <u>Overcast</u>				
SAMPLE TYPE: <input checked="" type="checkbox"/> GROUNDWATER <input type="checkbox"/> WASTEWATER <input type="checkbox"/> SURFACE WATER <input type="checkbox"/> OTHER														
WELL DIAMETER (IN.) <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> OTHER					BGS WELL SCREEN INTERVAL: <u>4.52</u> FT. TO <u>9.52</u> FT.									
HEIGHT OF STICK-UP: <u>1.68</u> FT.					BTOC WELL SCREEN INTERVAL: <u>6.20</u> FT. TO <u>11.20</u> FT.									
TOTAL WELL DEPTH (BTOC): <u>Reported NA FT Measured 11.2 FT.</u>					INITIAL WATER LEVEL (BTOC): <u>5.80</u> FT.					TIME: <u>16:25</u>				
PURGING DEVICE: <u>Pegasus Alexis Peristaltic Pump</u> <input type="checkbox"/> DEDICATED <input type="checkbox"/> DISPOSABLE <input checked="" type="checkbox"/> DECONTAMINATED														
SAMPLING DEVICE: <u>1/4" Teflon lined tubing</u> <input type="checkbox"/> DEDICATED <input checked="" type="checkbox"/> DISPOSABLE <input type="checkbox"/> DECONTAMINATED														
EQUIP. DECON. <input checked="" type="checkbox"/> ALCONOX WASH <input type="checkbox"/> ISOPROPANOL <input checked="" type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> DIST/DEION FINAL RINSE <input checked="" type="checkbox"/> AIR DRY														
<input type="checkbox"/> LIQUINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> TAP WATER FINAL RINSE														
PID/FID READINGS (ppm): BACKGROUND: <u>NA</u> BENEATH OUTER CAP: <u>NA</u> BENEATH INNER CAP: <u>NA</u>														
CONTAINER PRESERVATION: <input checked="" type="checkbox"/> LAB PRESERVED <input type="checkbox"/> FIELD PRESERVED														
ANALYTICAL PARAMETERS: <u>8260 B</u>														
LABORATORY PERFORMING ANALYSIS: <u>Test America</u>					FLOW THROUGH CELL MODEL: <u>Horiba U-52</u>					SERIAL #: <u>UDRU5DA9</u>				
TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)					
<u>16:31</u>	<u>0</u>	<u>29.35</u>	<u>6.23</u>	<u>-12</u>	<u>0.912</u>	<u>15.90</u>	<u>1.01</u>	<u>6.01</u>						
<u>16:36</u>	<u>480</u>	<u>29.00</u>	<u>6.28</u>	<u>-27</u>	<u>0.937</u>	<u>11.8</u>	<u>0.00</u>	<u>6.04</u>						
<u>16:41</u>	<u>740</u>	<u>29.04</u>	<u>6.29</u>	<u>-29</u>	<u>0.937</u>	<u>10.2</u>	<u>0.00</u>	<u>6.04</u>						
<u>16:46</u>	<u>1000</u>	<u>29.07</u>	<u>6.29</u>	<u>-30</u>	<u>0.934</u>	<u>9.3</u>	<u>0.00</u>	<u>6.06</u>						
COMMENTS:					SAMPLE COLLECTION TIME: <u>16:48</u>									
					PREPARED BY: <u>ADC</u>									

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>20</u>
Initial tubing depth (ft.) BTOC	<u>8.7</u>
Final tubing depth (ft.) BTOC	<u>8.7</u>
Initial pump speed	<u>low</u>
Time pump speed was initialized	<u>16:27</u>
Pump speed at flow into cylinder	<u>low</u>
Started new roll of tubing at	<u> </u>

2,000 mL volume poured into bucket	Time							
Actual Volume (ml)								

Additional remarks: Well screen interval unknown.

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: PAW-4

DATE: 11/1/16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS:

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 14.66 FT. TO 24.66 FT.

HEIGHT OF STICK-UP: 1.69 FT. BTOC WELL SCREEN INTERVAL: 16.35 FT. TO 26.35 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT Measured 26.35 FT. INITIAL WATER LEVEL (BTOC): 6.33 FT. TIME: 16:55

PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. ALCONOX WASH ISOPROPANOL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY
 LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: NA BENEATH OUTER CAP: NA BENEATH INNER CAP: NA

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
<u>17:12</u>	<u>200</u>	<u>27.72</u>	<u>6.19</u>	<u>15</u>	<u>0.535</u>	<u>11.5</u>	<u>1.77</u>	<u>6.82</u>	
<u>17:17</u>	<u>740</u>	<u>27.75</u>	<u>6.34</u>	<u>-18</u>	<u>0.573</u>	<u>2.4</u>	<u>0.00</u>	<u>6.67</u>	
<u>17:23</u>	<u>1080</u>	<u>27.82</u>	<u>6.44</u>	<u>-29</u>	<u>0.577</u>	<u>2.5</u>	<u>0.00</u>	<u>6.64</u>	
<u>17:28</u>	<u>1420</u>	<u>27.82</u>	<u>6.47</u>	<u>-31</u>	<u>0.577</u>	<u>3.9</u>	<u>0.00</u>	<u>6.64</u>	
<u>17:33</u>	<u>1700</u>	<u>27.75</u>	<u>6.45</u>	<u>-32</u>	<u>0.576</u>	<u>3.3</u>	<u>0.00</u>	<u>6.64</u>	

COMMENTS: SAMPLE COLLECTION TIME: 17:35
 PREPARED BY: ADC

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>29.4</u>
Initial tubing depth (ft.) BTOC	<u>21.4</u>
Final tubing depth (ft.) BTOC	<u>21.4</u>
Initial pump speed	<u>low</u>
Time pump speed was initialized	<u>16:59</u>
Pump speed at flow into cylinder	<u>low</u>
Started new roll of tubing at	

2,000 mL volume poured into bucket	Time							
Actual Volume (ml)								

Additional remarks: Well screen interval unknown.

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: RW-1

DATE: 11/3/16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS:

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 20.02 FT. TO 30.02 FT.

HEIGHT OF STICK-UP: 0.48 FT. BTOC WELL SCREEN INTERVAL: 20.50 FT. TO 30.50 FT.

TOTAL WELL DEPTH (BTOC): Reported 30.50 FT Measured 28.25 FT. INITIAL WATER LEVEL (BTOC): 5.65 FT. TIME: 17:00

PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. ALCONOX WASH ISOPROPNOL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY
 LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: NA BENEATH OUTER CAP: NA BENEATH INNER CAP: NA

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
<u>17:11</u>	<u>0</u>	<u>32.15</u>	<u>6.44</u>	<u>-9</u>	<u>0.625</u>	<u>7.6</u>	<u>0.95</u>	<u>5.76</u>	
<u>17:16</u>	<u>240</u>	<u>31.82</u>	<u>6.12</u>	<u>-13</u>	<u>0.626</u>	<u>7.3</u>	<u>0.00</u>	<u>5.79</u>	
<u>17:21</u>	<u>500</u>	<u>31.35</u>	<u>6.13</u>	<u>-18</u>	<u>0.633</u>	<u>7.8</u>	<u>0.00</u>	<u>5.83</u>	
<u>17:26</u>	<u>760</u>	<u>30.97</u>	<u>6.13</u>	<u>-20</u>	<u>0.638</u>	<u>7.4</u>	<u>0.00</u>	<u>5.85</u>	

COMMENTS: SAMPLE COLLECTION TIME: 17:28
 PREPARED BY: ADC

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>26.3</u>
Initial tubing depth (ft.) BTOC	<u>23.3</u>
Final tubing depth (ft.) BTOC	<u>23.3</u>
Initial pump speed	<u>low</u>
Time pump speed was initialized	<u>17:04</u>
Pump speed at flow into cylinder	<u>low</u>
Started new roll of tubing at	<u> </u>

2,000 mL volume poured into bucket	Time							
Actual Volume (ml)								

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: RW-4

DATE: 11-1-16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS: 68°F light w/m overcast

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 20 FT. TO 30 FT.

HEIGHT OF STICK-UP: 2.05 FT. BTOC WELL SCREEN INTERVAL: 22.80 FT. TO 32.80 FT.

TOTAL WELL DEPTH (BTOC): Reported 30.00 FT Measured 22.69 FT. INITIAL WATER LEVEL (BTOC): 7.34 FT. TIME: 10:58

PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. ALCONOX WASH ISOPROPANOL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY

LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: BENEATH OUTER CAP: BENEATH INNER CAP:

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America TEA FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
11:25	0	21.12	5.96	84	0.947	5.4	0.93	7.49	
11:30	500	23.05	5.85	74	0.955	1.6	0.73	7.51	
11:35	950	23.99	5.83	65	0.957	1.0	0.64	7.58	
11:40	1450	23.98	5.83	52	0.959	0.1	0.55	7.58	

COMMENTS: SAMPLE COLLECTION TIME: 11:43
PREPARED BY: Stelena

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>24</u>
Initial tubing depth (ft.) BTOC	<u>21</u>
Final tubing depth (ft.) BTOC	<u>21</u>
Initial pump speed	<u>2.50</u>
Time pump speed was initialized	<u>11:20</u>
Pump speed at flow into cylinder	<u>2.50</u>
Started new roll of tubing at	<u> </u>

S.H.
Pump joined 11:20
reset.

2,000 mL volume poured into bucket	Time							
Actual Volume (mL)								

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: RW-8
 DATE: 11/3/16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS:

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 19.97 FT. TO 29.97 FT.

HEIGHT OF STICK-UP: 0.03 FT. BTOC WELL SCREEN INTERVAL: 20.00 FT. TO 30.00 FT.

TOTAL WELL DEPTH (BTOC): Reported 35.00 FT Measured _____ FT. INITIAL WATER LEVEL (BTOC): 2.78 FT. TIME: 14:49 ADC

PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED 3

SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. ALCONOX WASH ISOPROPNOL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY
 LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: NA BENEATH OUTER CAP: NA BENEATH INNER CAP: NA

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
14:43	0	37.87	7.69	31	0.316	0.0	0.70	2.82	
14:48	280	35.97	7.76	8	0.312	0.0	0.00	2.82	
14:53	560	34.60	7.78	-13	0.316	0.0	0.00	2.82	
14:58	800	34.17	7.80	-23	0.316	0.7	0.00	2.82	

COMMENTS: SAMPLE COLLECTION TIME: 15:03
 PREPARED BY: ADC

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>23</u>
Initial tubing depth (ft.) BTOC	<u>20</u>
Final tubing depth (ft.) BTOC	<u>20</u>
Initial pump speed	<u>low</u>
Time pump speed was initialized	<u>14:40</u>
Pump speed at flow into cylinder	<u>low</u>
Started new roll of tubing at	<u> </u>

	Time							
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: RW-9

DATE: 1/2/16 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS: 70°F clear 1/2 h wind

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DIAMETER (IN.) 1 2 4 6 OTHER BGS WELL SCREEN INTERVAL: 19.71 FT. TO 29.71 FT.

HEIGHT OF STICK-UP: 0.29 FT. BTOC WELL SCREEN INTERVAL: 10.00 FT. TO 30.00 FT.

TOTAL WELL DEPTH (BTOC): Reported 35.00 FT Measured FT. INITIAL WATER LEVEL (BTOC): 6.17 FT. TIME: 16:30

PURGING DEVICE: Pegasus Alexis Peristaltic Pump DEDICATED DISPOSABLE DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. ALCONOX WASH ISOPROPANOL DIST/DEION 1 RINSE DIST/DEION FINAL RINSE AIR DRY

LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT TAP WATER WASH TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: BENEATH OUTER CAP: BENEATH INNER CAP:

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
16:36	0	20.24	6.66	23	0.372	0.0	1.03	6.22	
16:42	450	20.04	6.51	23	0.378	0.0	0.73	6.22	
16:47	850	20.36	6.51	20	0.374	0.0	0.65	6.22	
16:52	1300	20.13	6.54	17	0.378	0.0	0.57	6.22	

COMMENTS: SAMPLE COLLECTION TIME: 16:57
 PREPARED BY: GHolmby

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	<u>23</u>
Initial tubing depth (ft.) BTOC	<u>20</u>
Final tubing depth (ft.) BTOC	<u>20</u>
Initial pump speed	<u>2.54</u>
Time pump speed was initialized	<u>16:32</u>
Pump speed at flow into cylinder	<u>2.00</u>
Started new roll of tubing at	<u> </u>

	Time							
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks: _____

HSI SITE 10406, FORMER MCKENZIE TANK LINES SITE

SIXTH SEMI-ANNUAL PROGRESS REPORT

ATTACHMENT 3-2 LABORATORY ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES, NOVEMBER 2016



November 16, 2016

Amelia Grant
Environmental International Corp
161 Kimball Bridge Rd
Alpharetta GA 30009

TEL: (770) 772-7100
FAX:

RE: MTL - 460009

Dear Amelia Grant:

Order No: 1611503

Analytical Environmental Services, Inc. received 42 samples on 11/4/2016 1:05:00 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's accreditations are as follows:

- NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/16-06/30/17.
- NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/16-06/30/17.
- NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Tara Westervelt
Project Manager

Client: Environmental International Corp
Project: MTL - 460009
Lab ID: 1611503

Case Narrative

Sample Receiving Nonconformance:

Sample information on the Chain of Custody did not match that on the sample bottle labels for sample ""MW-53D". Sample time was listed on the Chain of Custody as 14:56 while sample time on the bottle label was listed as 14:16. The bottle was identified using the date and identification on the bottle and the sample was logged in using the information on the COC.

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: G-17
Project Name: MTL - 460009	Collection Date: 11/2/2016 4:04:00 PM
Lab ID: 1611503-001	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 12:23	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 12:23	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 12:23	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 12:23	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/09/2016 12:23	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 12:23	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 12:23	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 12:23	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 12:23	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 12:23	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 12:23	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 12:23	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 12:23	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 12:23	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 12:23	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 12:23	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 12:23	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 12:23	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 12:23	BN
cis-1,2-Dichloroethene	BRL		0.27	5.0	ug/L	232555	1	11/09/2016 12:23	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 12:23	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 12:23	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 12:23	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 12:23	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: G-17
Project Name: MTL - 460009	Collection Date: 11/2/2016 4:04:00 PM
Lab ID: 1611503-001	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 12:23	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 12:23	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 12:23	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 12:23	BN
Vinyl chloride	BRL		0.42	2.0	ug/L	232555	1	11/09/2016 12:23	BN
Surr: 4-Bromofluorobenzene	87.5		0	70.7-125	%REC	232555	1	11/09/2016 12:23	BN
Surr: Dibromofluoromethane	103		0	82.2-120	%REC	232555	1	11/09/2016 12:23	BN
Surr: Toluene-d8	94.3		0	81.8-120	%REC	232555	1	11/09/2016 12:23	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: G-19
Project Name: MTL - 460009	Collection Date: 11/3/2016 10:05:00 AM
Lab ID: 1611503-002	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 12:49	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 12:49	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 12:49	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/09/2016 12:49	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 12:49	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 12:49	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 12:49	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232555	1	11/09/2016 12:49	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 12:49	BN
Vinyl chloride	BRL		0.42	2.0	ug/L	232555	1	11/09/2016 12:49	BN
Surr: 4-Bromofluorobenzene	85		0	70.7-125	%REC	232555	1	11/09/2016 12:49	BN
Surr: Dibromofluoromethane	103		0	82.2-120	%REC	232555	1	11/09/2016 12:49	BN
Surr: Toluene-d8	98.7		0	81.8-120	%REC	232555	1	11/09/2016 12:49	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: G-22
Project Name: MTL - 460009	Collection Date: 11/3/2016 9:40:00 AM
Lab ID: 1611503-003	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 13:15	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 13:15	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 13:15	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 13:15	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/09/2016 13:15	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 13:15	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 13:15	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 13:15	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 13:15	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 13:15	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 13:15	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 13:15	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 13:15	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 13:15	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 13:15	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 13:15	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 13:15	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 13:15	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 13:15	BN
cis-1,2-Dichloroethene	BRL		0.27	5.0	ug/L	232555	1	11/09/2016 13:15	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 13:15	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 13:15	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 13:15	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 13:15	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: G-22
Project Name: MTL - 460009	Collection Date: 11/3/2016 9:40:00 AM
Lab ID: 1611503-003	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 13:15	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 13:15	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 13:15	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 13:15	BN
Vinyl chloride	BRL		0.42	2.0	ug/L	232555	1	11/09/2016 13:15	BN
Surr: 4-Bromofluorobenzene	85		0	70.7-125	%REC	232555	1	11/09/2016 13:15	BN
Surr: Dibromofluoromethane	101		0	82.2-120	%REC	232555	1	11/09/2016 13:15	BN
Surr: Toluene-d8	93.5		0	81.8-120	%REC	232555	1	11/09/2016 13:15	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp
Project Name: MTL - 460009
Lab ID: 1611503-004

Client Sample ID: MW-2D
Collection Date: 11/1/2016 10:28:00 AM
Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 22:19	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 22:19	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 22:19	BN
1,1-Dichloroethane	6.0		0.25	5.0	ug/L	232555	1	11/09/2016 22:19	BN
1,1-Dichloroethene	4.9	J	0.36	5.0	ug/L	232555	1	11/09/2016 22:19	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 22:19	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 22:19	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 22:19	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 22:19	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 22:19	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 22:19	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 22:19	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 22:19	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 22:19	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 22:19	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 22:19	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 22:19	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 22:19	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 22:19	BN
cis-1,2-Dichloroethene	430		13	250	ug/L	232555	50	11/08/2016 20:34	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 22:19	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 22:19	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 22:19	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 22:19	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-2D
Project Name: MTL - 460009	Collection Date: 11/1/2016 10:28:00 AM
Lab ID: 1611503-004	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 22:19	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 22:19	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 22:19	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Trichloroethene	21		0.35	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 22:19	BN
Vinyl chloride	550		21	100	ug/L	232555	50	11/08/2016 20:34	BN
Surr: 4-Bromofluorobenzene	80.8		0	70.7-125	%REC	232555	50	11/08/2016 20:34	BN
Surr: 4-Bromofluorobenzene	78.5		0	70.7-125	%REC	232555	1	11/09/2016 22:19	BN
Surr: Dibromofluoromethane	107		0	82.2-120	%REC	232555	50	11/08/2016 20:34	BN
Surr: Dibromofluoromethane	108		0	82.2-120	%REC	232555	1	11/09/2016 22:19	BN
Surr: Toluene-d8	94.5		0	81.8-120	%REC	232555	50	11/08/2016 20:34	BN
Surr: Toluene-d8	98.1		0	81.8-120	%REC	232555	1	11/09/2016 22:19	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-2S
Project Name: MTL - 460009	Collection Date: 10/31/2016 5:43:00 PM
Lab ID: 1611503-005	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/08/2016 22:43	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/08/2016 22:43	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/08/2016 22:43	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/08/2016 22:43	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/08/2016 22:43	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/08/2016 22:43	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/08/2016 22:43	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/08/2016 22:43	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/08/2016 22:43	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/08/2016 22:43	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/08/2016 22:43	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/08/2016 22:43	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/08/2016 22:43	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/08/2016 22:43	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/08/2016 22:43	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/08/2016 22:43	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/08/2016 22:43	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/08/2016 22:43	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/08/2016 22:43	BN
cis-1,2-Dichloroethene	17		0.27	5.0	ug/L	232555	1	11/08/2016 22:43	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/08/2016 22:43	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/08/2016 22:43	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/08/2016 22:43	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/08/2016 22:43	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-2S
Project Name: MTL - 460009	Collection Date: 10/31/2016 5:43:00 PM
Lab ID: 1611503-005	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/08/2016 22:43	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/08/2016 22:43	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/08/2016 22:43	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/08/2016 22:43	BN
Vinyl chloride	5.2		0.42	2.0	ug/L	232555	1	11/08/2016 22:43	BN
Surr: 4-Bromofluorobenzene	77.3		0	70.7-125	%REC	232555	1	11/08/2016 22:43	BN
Surr: Dibromofluoromethane	111		0	82.2-120	%REC	232555	1	11/08/2016 22:43	BN
Surr: Toluene-d8	98.5		0	81.8-120	%REC	232555	1	11/08/2016 22:43	BN

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-4S
Project Name: MTL - 460009	Collection Date: 11/3/2016 3:54:00 PM
Lab ID: 1611503-006	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/08/2016 23:09	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/08/2016 23:09	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/08/2016 23:09	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/08/2016 23:09	BN
1,1-Dichloroethene	13		0.36	5.0	ug/L	232555	1	11/08/2016 23:09	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/08/2016 23:09	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/08/2016 23:09	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/08/2016 23:09	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/08/2016 23:09	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/08/2016 23:09	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/08/2016 23:09	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/08/2016 23:09	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/08/2016 23:09	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/08/2016 23:09	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/08/2016 23:09	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/08/2016 23:09	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/08/2016 23:09	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/08/2016 23:09	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/08/2016 23:09	BN
cis-1,2-Dichloroethene	3700		27	500	ug/L	232555	100	11/09/2016 16:18	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/08/2016 23:09	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/08/2016 23:09	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/08/2016 23:09	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/08/2016 23:09	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-4S
Project Name: MTL - 460009	Collection Date: 11/3/2016 3:54:00 PM
Lab ID: 1611503-006	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/08/2016 23:09	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/08/2016 23:09	BN
trans-1,2-Dichloroethene	28		0.22	5.0	ug/L	232555	1	11/08/2016 23:09	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/08/2016 23:09	BN
Vinyl chloride	140		0.42	2.0	ug/L	232555	1	11/08/2016 23:09	BN
Surr: 4-Bromofluorobenzene	78.7		0	70.7-125	%REC	232555	1	11/08/2016 23:09	BN
Surr: 4-Bromofluorobenzene	82.9		0	70.7-125	%REC	232555	100	11/09/2016 16:18	BN
Surr: Dibromofluoromethane	98.7		0	82.2-120	%REC	232555	100	11/09/2016 16:18	BN
Surr: Dibromofluoromethane	112		0	82.2-120	%REC	232555	1	11/08/2016 23:09	BN
Surr: Toluene-d8	91.5		0	81.8-120	%REC	232555	100	11/09/2016 16:18	BN
Surr: Toluene-d8	96.9		0	81.8-120	%REC	232555	1	11/08/2016 23:09	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-11D
Project Name: MTL - 460009	Collection Date: 10/31/2016 3:35:00 PM
Lab ID: 1611503-007	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 14:33	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 14:33	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 14:33	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 14:33	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/09/2016 14:33	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 14:33	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 14:33	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 14:33	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 14:33	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 14:33	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 14:33	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 14:33	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 14:33	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 14:33	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 14:33	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 14:33	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 14:33	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 14:33	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 14:33	BN
cis-1,2-Dichloroethene	2.6	J	0.27	5.0	ug/L	232555	1	11/09/2016 14:33	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 14:33	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 14:33	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 14:33	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 14:33	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-11D
Project Name: MTL - 460009	Collection Date: 10/31/2016 3:35:00 PM
Lab ID: 1611503-007	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 14:33	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 14:33	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 14:33	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 14:33	BN
Vinyl chloride	BRL		0.42	2.0	ug/L	232555	1	11/09/2016 14:33	BN
Surr: 4-Bromofluorobenzene	82.2		0	70.7-125	%REC	232555	1	11/09/2016 14:33	BN
Surr: Dibromofluoromethane	118		0	82.2-120	%REC	232555	1	11/09/2016 14:33	BN
Surr: Toluene-d8	102		0	81.8-120	%REC	232555	1	11/09/2016 14:33	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-14D
Project Name: MTL - 460009	Collection Date: 11/3/2016 10:50:00 AM
Lab ID: 1611503-008	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 15:53	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 15:53	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 15:53	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 15:53	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/09/2016 15:53	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 15:53	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 15:53	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 15:53	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 15:53	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 15:53	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 15:53	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 15:53	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 15:53	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 15:53	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 15:53	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 15:53	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 15:53	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 15:53	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 15:53	BN
cis-1,2-Dichloroethene	7.1		0.27	5.0	ug/L	232555	1	11/09/2016 15:53	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 15:53	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 15:53	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 15:53	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 15:53	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-14D
Project Name: MTL - 460009	Collection Date: 11/3/2016 10:50:00 AM
Lab ID: 1611503-008	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 15:53	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Tetrachloroethene	2.6	J	0.29	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 15:53	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 15:53	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Trichloroethene	3.3	J	0.35	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 15:53	BN
Vinyl chloride	BRL		0.42	2.0	ug/L	232555	1	11/09/2016 15:53	BN
Surr: 4-Bromofluorobenzene	81.4		0	70.7-125	%REC	232555	1	11/09/2016 15:53	BN
Surr: Dibromofluoromethane	99.5		0	82.2-120	%REC	232555	1	11/09/2016 15:53	BN
Surr: Toluene-d8	93.8		0	81.8-120	%REC	232555	1	11/09/2016 15:53	BN

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-15S
Project Name: MTL - 460009	Collection Date: 11/2/2016 3:13:00 PM
Lab ID: 1611503-009	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 00:27	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 00:27	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 00:27	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 00:27	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/09/2016 00:27	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 00:27	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 00:27	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 00:27	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 00:27	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 00:27	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 00:27	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 00:27	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 00:27	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 00:27	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 00:27	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 00:27	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 00:27	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 00:27	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 00:27	BN
cis-1,2-Dichloroethene	BRL		0.27	5.0	ug/L	232555	1	11/09/2016 00:27	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 00:27	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 00:27	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 00:27	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 00:27	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-15S
Project Name: MTL - 460009	Collection Date: 11/2/2016 3:13:00 PM
Lab ID: 1611503-009	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 00:27	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 00:27	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 00:27	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 00:27	BN
Vinyl chloride	BRL		0.42	2.0	ug/L	232555	1	11/09/2016 00:27	BN
Surr: 4-Bromofluorobenzene	83.7		0	70.7-125	%REC	232555	1	11/09/2016 00:27	BN
Surr: Dibromofluoromethane	115		0	82.2-120	%REC	232555	1	11/09/2016 00:27	BN
Surr: Toluene-d8	104		0	81.8-120	%REC	232555	1	11/09/2016 00:27	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-26
Project Name: MTL - 460009	Collection Date: 11/2/2016 5:50:00 PM
Lab ID: 1611503-010	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 00:52	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 00:52	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 00:52	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 00:52	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/09/2016 00:52	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 00:52	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 00:52	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 00:52	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 00:52	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 00:52	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 00:52	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 00:52	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 00:52	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 00:52	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 00:52	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 00:52	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 00:52	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 00:52	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 00:52	BN
cis-1,2-Dichloroethene	BRL		0.27	5.0	ug/L	232555	1	11/09/2016 00:52	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 00:52	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 00:52	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 00:52	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 00:52	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-26
Project Name: MTL - 460009	Collection Date: 11/2/2016 5:50:00 PM
Lab ID: 1611503-010	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 00:52	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 00:52	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 00:52	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 00:52	BN
Vinyl chloride	BRL		0.42	2.0	ug/L	232555	1	11/09/2016 00:52	BN
Surr: 4-Bromofluorobenzene	84.4		0	70.7-125	%REC	232555	1	11/09/2016 00:52	BN
Surr: Dibromofluoromethane	109		0	82.2-120	%REC	232555	1	11/09/2016 00:52	BN
Surr: Toluene-d8	102		0	81.8-120	%REC	232555	1	11/09/2016 00:52	BN

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-29
Project Name: MTL - 460009	Collection Date: 11/2/2016 11:38:00 AM
Lab ID: 1611503-011	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 13:41	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 13:41	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 13:41	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 13:41	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/09/2016 13:41	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 13:41	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 13:41	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 13:41	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 13:41	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 13:41	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 13:41	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 13:41	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 13:41	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 13:41	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 13:41	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 13:41	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 13:41	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 13:41	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 13:41	BN
cis-1,2-Dichloroethene	BRL		0.27	5.0	ug/L	232555	1	11/09/2016 13:41	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 13:41	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 13:41	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 13:41	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 13:41	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-29
Project Name: MTL - 460009	Collection Date: 11/2/2016 11:38:00 AM
Lab ID: 1611503-011	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 13:41	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 13:41	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 13:41	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 13:41	BN
Vinyl chloride	BRL		0.42	2.0	ug/L	232555	1	11/09/2016 13:41	BN
Surr: 4-Bromofluorobenzene	85.3		0	70.7-125	%REC	232555	1	11/09/2016 13:41	BN
Surr: Dibromofluoromethane	106		0	82.2-120	%REC	232555	1	11/09/2016 13:41	BN
Surr: Toluene-d8	97.7		0	81.8-120	%REC	232555	1	11/09/2016 13:41	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-31
Project Name: MTL - 460009	Collection Date: 11/1/2016 3:52:00 PM
Lab ID: 1611503-012	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 14:07	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 14:07	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 14:07	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 14:07	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/09/2016 14:07	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 14:07	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 14:07	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 14:07	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 14:07	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 14:07	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 14:07	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 14:07	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 14:07	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 14:07	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 14:07	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 14:07	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 14:07	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 14:07	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 14:07	BN
cis-1,2-Dichloroethene	48		0.27	5.0	ug/L	232555	1	11/09/2016 14:07	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 14:07	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 14:07	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 14:07	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 14:07	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-31
Project Name: MTL - 460009	Collection Date: 11/1/2016 3:52:00 PM
Lab ID: 1611503-012	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 14:07	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Tetrachloroethene	14		0.29	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 14:07	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 14:07	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Trichloroethene	36		0.35	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 14:07	BN
Vinyl chloride	BRL		0.42	2.0	ug/L	232555	1	11/09/2016 14:07	BN
Surr: 4-Bromofluorobenzene	84.5		0	70.7-125	%REC	232555	1	11/09/2016 14:07	BN
Surr: Dibromofluoromethane	120		0	82.2-120	%REC	232555	1	11/09/2016 14:07	BN
Surr: Toluene-d8	105		0	81.8-120	%REC	232555	1	11/09/2016 14:07	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-32
Project Name: MTL - 460009	Collection Date: 11/1/2016 3:08:00 PM
Lab ID: 1611503-013	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 01:18	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 01:18	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 01:18	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 01:18	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/09/2016 01:18	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 01:18	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 01:18	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 01:18	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 01:18	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 01:18	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 01:18	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 01:18	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 01:18	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 01:18	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 01:18	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 01:18	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 01:18	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 01:18	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 01:18	BN
cis-1,2-Dichloroethene	71		0.27	5.0	ug/L	232555	1	11/09/2016 01:18	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 01:18	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 01:18	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 01:18	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 01:18	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-32
Project Name: MTL - 460009	Collection Date: 11/1/2016 3:08:00 PM
Lab ID: 1611503-013	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 01:18	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Tetrachloroethene	26		0.29	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 01:18	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 01:18	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Trichloroethene	15		0.35	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 01:18	BN
Vinyl chloride	BRL		0.42	2.0	ug/L	232555	1	11/09/2016 01:18	BN
Surr: 4-Bromofluorobenzene	84.4		0	70.7-125	%REC	232555	1	11/09/2016 01:18	BN
Surr: Dibromofluoromethane	103		0	82.2-120	%REC	232555	1	11/09/2016 01:18	BN
Surr: Toluene-d8	95.1		0	81.8-120	%REC	232555	1	11/09/2016 01:18	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-33
Project Name: MTL - 460009	Collection Date: 11/2/2016 4:52:00 PM
Lab ID: 1611503-014	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 01:44	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 01:44	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 01:44	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 01:44	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/09/2016 01:44	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 01:44	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 01:44	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 01:44	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 01:44	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 01:44	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 01:44	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 01:44	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 01:44	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 01:44	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 01:44	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 01:44	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 01:44	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 01:44	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 01:44	BN
cis-1,2-Dichloroethene	81		0.27	5.0	ug/L	232555	1	11/09/2016 01:44	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 01:44	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 01:44	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 01:44	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 01:44	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-33
Project Name: MTL - 460009	Collection Date: 11/2/2016 4:52:00 PM
Lab ID: 1611503-014	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 01:44	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 01:44	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 01:44	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 01:44	BN
Vinyl chloride	35		0.42	2.0	ug/L	232555	1	11/09/2016 01:44	BN
Surr: 4-Bromofluorobenzene	84.2		0	70.7-125	%REC	232555	1	11/09/2016 01:44	BN
Surr: Dibromofluoromethane	99.6		0	82.2-120	%REC	232555	1	11/09/2016 01:44	BN
Surr: Toluene-d8	92.1		0	81.8-120	%REC	232555	1	11/09/2016 01:44	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-35
Project Name: MTL - 460009	Collection Date: 11/2/2016 5:30:00 PM
Lab ID: 1611503-015	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 02:10	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 02:10	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 02:10	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 02:10	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/09/2016 02:10	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 02:10	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 02:10	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 02:10	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 02:10	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 02:10	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 02:10	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 02:10	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 02:10	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 02:10	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 02:10	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 02:10	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 02:10	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 02:10	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 02:10	BN
cis-1,2-Dichloroethene	BRL		0.27	5.0	ug/L	232555	1	11/09/2016 02:10	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 02:10	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 02:10	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 02:10	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 02:10	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-35
Project Name: MTL - 460009	Collection Date: 11/2/2016 5:30:00 PM
Lab ID: 1611503-015	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 02:10	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 02:10	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 02:10	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 02:10	BN
Vinyl chloride	BRL		0.42	2.0	ug/L	232555	1	11/09/2016 02:10	BN
Surr: 4-Bromofluorobenzene	82.4		0	70.7-125	%REC	232555	1	11/09/2016 02:10	BN
Surr: Dibromofluoromethane	107		0	82.2-120	%REC	232555	1	11/09/2016 02:10	BN
Surr: Toluene-d8	97.9		0	81.8-120	%REC	232555	1	11/09/2016 02:10	BN

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-37S
Project Name: MTL - 460009	Collection Date: 11/3/2016 11:13:00 AM
Lab ID: 1611503-016	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 02:35	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 02:35	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 02:35	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 02:35	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/09/2016 02:35	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 02:35	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 02:35	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 02:35	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 02:35	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 02:35	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 02:35	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 02:35	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 02:35	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 02:35	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 02:35	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 02:35	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 02:35	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 02:35	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 02:35	BN
cis-1,2-Dichloroethene	7.7		0.27	5.0	ug/L	232555	1	11/09/2016 02:35	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 02:35	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 02:35	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 02:35	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 02:35	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-37S
Project Name: MTL - 460009	Collection Date: 11/3/2016 11:13:00 AM
Lab ID: 1611503-016	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 02:35	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 02:35	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 02:35	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 02:35	BN
Vinyl chloride	BRL		0.42	2.0	ug/L	232555	1	11/09/2016 02:35	BN
Surr: 4-Bromofluorobenzene	84.9		0	70.7-125	%REC	232555	1	11/09/2016 02:35	BN
Surr: Dibromofluoromethane	104		0	82.2-120	%REC	232555	1	11/09/2016 02:35	BN
Surr: Toluene-d8	95.2		0	81.8-120	%REC	232555	1	11/09/2016 02:35	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-38D
Project Name: MTL - 460009	Collection Date: 11/3/2016 11:50:00 AM
Lab ID: 1611503-017	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 03:01	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 03:01	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 03:01	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 03:01	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/09/2016 03:01	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 03:01	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 03:01	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 03:01	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 03:01	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 03:01	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 03:01	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 03:01	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 03:01	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 03:01	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 03:01	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 03:01	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 03:01	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 03:01	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 03:01	BN
cis-1,2-Dichloroethene	BRL		0.27	5.0	ug/L	232555	1	11/09/2016 03:01	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 03:01	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 03:01	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 03:01	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 03:01	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-38D
Project Name: MTL - 460009	Collection Date: 11/3/2016 11:50:00 AM
Lab ID: 1611503-017	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 03:01	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 03:01	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 03:01	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 03:01	BN
Vinyl chloride	BRL		0.42	2.0	ug/L	232555	1	11/09/2016 03:01	BN
Surr: 4-Bromofluorobenzene	84		0	70.7-125	%REC	232555	1	11/09/2016 03:01	BN
Surr: Dibromofluoromethane	103		0	82.2-120	%REC	232555	1	11/09/2016 03:01	BN
Surr: Toluene-d8	94.8		0	81.8-120	%REC	232555	1	11/09/2016 03:01	BN

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-39D
Project Name: MTL - 460009	Collection Date: 11/2/2016 2:51:00 PM
Lab ID: 1611503-018	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 03:26	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 03:26	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 03:26	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 03:26	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/09/2016 03:26	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 03:26	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 03:26	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 03:26	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 03:26	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 03:26	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 03:26	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 03:26	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 03:26	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 03:26	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 03:26	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 03:26	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 03:26	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 03:26	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 03:26	BN
cis-1,2-Dichloroethene	BRL		0.27	5.0	ug/L	232555	1	11/09/2016 03:26	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 03:26	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 03:26	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 03:26	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 03:26	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-39D
Project Name: MTL - 460009	Collection Date: 11/2/2016 2:51:00 PM
Lab ID: 1611503-018	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 03:26	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 03:26	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 03:26	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 03:26	BN
Vinyl chloride	BRL		0.42	2.0	ug/L	232555	1	11/09/2016 03:26	BN
Surr: 4-Bromofluorobenzene	82.3		0	70.7-125	%REC	232555	1	11/09/2016 03:26	BN
Surr: Dibromofluoromethane	120		0	82.2-120	%REC	232555	1	11/09/2016 03:26	BN
Surr: Toluene-d8	104		0	81.8-120	%REC	232555	1	11/09/2016 03:26	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-40S
Project Name: MTL - 460009	Collection Date: 11/2/2016 3:45:00 PM
Lab ID: 1611503-019	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 03:51	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 03:51	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 03:51	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 03:51	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/09/2016 03:51	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 03:51	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 03:51	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 03:51	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 03:51	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 03:51	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 03:51	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 03:51	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 03:51	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 03:51	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 03:51	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 03:51	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 03:51	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 03:51	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 03:51	BN
cis-1,2-Dichloroethene	380		2.7	50	ug/L	232555	10	11/09/2016 18:05	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 03:51	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 03:51	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 03:51	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 03:51	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-40S
Project Name: MTL - 460009	Collection Date: 11/2/2016 3:45:00 PM
Lab ID: 1611503-019	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 03:51	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 03:51	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 03:51	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 03:51	BN
Vinyl chloride	2.0	J	0.42	2.0	ug/L	232555	1	11/09/2016 03:51	BN
Surr: 4-Bromofluorobenzene	83.2		0	67-118	%REC	232555	10	11/09/2016 18:05	BN
Surr: 4-Bromofluorobenzene	84.5		0	70.7-125	%REC	232555	1	11/09/2016 03:51	BN
Surr: Dibromofluoromethane	102		0	82.2-120	%REC	232555	1	11/09/2016 03:51	BN
Surr: Dibromofluoromethane	121		0	81.7-124	%REC	232555	10	11/09/2016 18:05	BN
Surr: Toluene-d8	106		0	82.5-122	%REC	232555	10	11/09/2016 18:05	BN
Surr: Toluene-d8	90.5		0	81.8-120	%REC	232555	1	11/09/2016 03:51	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-41D
Project Name: MTL - 460009	Collection Date: 11/2/2016 10:21:00 AM
Lab ID: 1611503-020	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 15:27	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 15:27	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232555	1	11/09/2016 15:27	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232555	1	11/09/2016 15:27	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232555	1	11/09/2016 15:27	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232555	1	11/09/2016 15:27	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232555	1	11/09/2016 15:27	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 15:27	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 15:27	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 15:27	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232555	1	11/09/2016 15:27	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 15:27	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 15:27	BN
2-Butanone	BRL		2.9	50	ug/L	232555	1	11/09/2016 15:27	BN
2-Hexanone	BRL		3.2	10	ug/L	232555	1	11/09/2016 15:27	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232555	1	11/09/2016 15:27	BN
Acetone	BRL		5.3	50	ug/L	232555	1	11/09/2016 15:27	BN
Benzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Bromoform	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Bromomethane	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Chloroethane	BRL		0.39	10	ug/L	232555	1	11/09/2016 15:27	BN
Chloroform	BRL		0.30	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Chloromethane	BRL		0.29	10	ug/L	232555	1	11/09/2016 15:27	BN
cis-1,2-Dichloroethene	BRL		0.27	5.0	ug/L	232555	1	11/09/2016 15:27	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232555	1	11/09/2016 15:27	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Freon-113	BRL		0.32	10	ug/L	232555	1	11/09/2016 15:27	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232555	1	11/09/2016 15:27	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232555	1	11/09/2016 15:27	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-41D
Project Name: MTL - 460009	Collection Date: 11/2/2016 10:21:00 AM
Lab ID: 1611503-020	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232555	1	11/09/2016 15:27	BN
o-Xylene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Styrene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Toluene	BRL		0.20	5.0	ug/L	232555	1	11/09/2016 15:27	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232555	1	11/09/2016 15:27	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232555	1	11/09/2016 15:27	BN
Vinyl chloride	BRL		0.42	2.0	ug/L	232555	1	11/09/2016 15:27	BN
Surr: 4-Bromofluorobenzene	80.4		0	70.7-125	%REC	232555	1	11/09/2016 15:27	BN
Surr: Dibromofluoromethane	118		0	82.2-120	%REC	232555	1	11/09/2016 15:27	BN
Surr: Toluene-d8	106		0	81.8-120	%REC	232555	1	11/09/2016 15:27	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-42S
Project Name: MTL - 460009	Collection Date: 11/1/2016 10:32:00 AM
Lab ID: 1611503-021	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/08/2016 22:49	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/08/2016 22:49	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/08/2016 22:49	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/08/2016 22:49	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/08/2016 22:49	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/08/2016 22:49	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/08/2016 22:49	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/08/2016 22:49	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/08/2016 22:49	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/08/2016 22:49	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/08/2016 22:49	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/08/2016 22:49	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/08/2016 22:49	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/08/2016 22:49	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/08/2016 22:49	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/08/2016 22:49	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/08/2016 22:49	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/08/2016 22:49	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/08/2016 22:49	NH
cis-1,2-Dichloroethene	BRL		0.27	5.0	ug/L	232559	1	11/08/2016 22:49	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/08/2016 22:49	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/08/2016 22:49	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/08/2016 22:49	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/08/2016 22:49	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-42S
Project Name: MTL - 460009	Collection Date: 11/1/2016 10:32:00 AM
Lab ID: 1611503-021	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS		SW8260B		(SW5030B)					
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/08/2016 22:49	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Toluene	0.41	J	0.20	5.0	ug/L	232559	1	11/08/2016 22:49	NH
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232559	1	11/08/2016 22:49	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Trichloroethene	BRL		0.35	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/08/2016 22:49	NH
Vinyl chloride	BRL		0.42	2.0	ug/L	232559	1	11/08/2016 22:49	NH
Surr: 4-Bromofluorobenzene	90.4		0	70.7-125	%REC	232559	1	11/08/2016 22:49	NH
Surr: Dibromofluoromethane	88.7		0	82.2-120	%REC	232559	1	11/08/2016 22:49	NH
Surr: Toluene-d8	92.1		0	81.8-120	%REC	232559	1	11/08/2016 22:49	NH

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-43D
Project Name: MTL - 460009	Collection Date: 11/1/2016 10:00:00 AM
Lab ID: 1611503-022	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 00:16	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 00:16	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 00:16	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 00:16	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 00:16	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 00:16	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 00:16	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 00:16	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 00:16	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 00:16	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 00:16	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 00:16	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 00:16	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 00:16	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 00:16	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 00:16	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 00:16	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 00:16	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 00:16	NH
cis-1,2-Dichloroethene	BRL		0.27	5.0	ug/L	232559	1	11/09/2016 00:16	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 00:16	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 00:16	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 00:16	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 00:16	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-43D
Project Name: MTL - 460009	Collection Date: 11/1/2016 10:00:00 AM
Lab ID: 1611503-022	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 00:16	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 00:16	NH
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 00:16	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Trichloroethene	BRL		0.35	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 00:16	NH
Vinyl chloride	BRL		0.42	2.0	ug/L	232559	1	11/09/2016 00:16	NH
Surr: 4-Bromofluorobenzene	89.2		0	70.7-125	%REC	232559	1	11/09/2016 00:16	NH
Surr: Dibromofluoromethane	87.5		0	82.2-120	%REC	232559	1	11/09/2016 00:16	NH
Surr: Toluene-d8	95.1		0	81.8-120	%REC	232559	1	11/09/2016 00:16	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-44D
Project Name: MTL - 460009	Collection Date: 10/31/2016 4:47:00 PM
Lab ID: 1611503-023	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 00:45	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 00:45	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 00:45	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 00:45	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 00:45	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 00:45	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 00:45	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 00:45	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 00:45	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 00:45	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 00:45	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 00:45	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 00:45	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 00:45	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 00:45	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 00:45	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 00:45	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 00:45	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 00:45	NH
cis-1,2-Dichloroethene	31		0.27	5.0	ug/L	232559	1	11/09/2016 00:45	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 00:45	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 00:45	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 00:45	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 00:45	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-44D
Project Name: MTL - 460009	Collection Date: 10/31/2016 4:47:00 PM
Lab ID: 1611503-023	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)									
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 00:45	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 00:45	NH
trans-1,2-Dichloroethene	1.4	J	0.22	5.0	ug/L	232559	1	11/09/2016 00:45	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Trichloroethene	16		0.35	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 00:45	NH
Vinyl chloride	3.0		0.42	2.0	ug/L	232559	1	11/09/2016 00:45	NH
Surr: 4-Bromofluorobenzene	87.9		0	70.7-125	%REC	232559	1	11/09/2016 00:45	NH
Surr: Dibromofluoromethane	87.1		0	82.2-120	%REC	232559	1	11/09/2016 00:45	NH
Surr: Toluene-d8	95.8		0	81.8-120	%REC	232559	1	11/09/2016 00:45	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-45S
Project Name: MTL - 460009	Collection Date: 10/31/2016 5:25:00 PM
Lab ID: 1611503-024	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)									
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 13:28	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 13:28	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 13:28	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 13:28	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 13:28	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 13:28	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 13:28	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 13:28	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 13:28	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 13:28	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 13:28	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 13:28	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 13:28	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 13:28	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 13:28	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 13:28	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 13:28	NH
Benzene	0.24	J	0.14	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 13:28	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 13:28	NH
cis-1,2-Dichloroethene	19		0.27	5.0	ug/L	232559	1	11/09/2016 13:28	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 13:28	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 13:28	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 13:28	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 13:28	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-45S
Project Name: MTL - 460009	Collection Date: 10/31/2016 5:25:00 PM
Lab ID: 1611503-024	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 13:28	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Toluene	0.56	J	0.20	5.0	ug/L	232559	1	11/09/2016 13:28	NH
trans-1,2-Dichloroethene	1.5	J	0.22	5.0	ug/L	232559	1	11/09/2016 13:28	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Trichloroethene	BRL		0.35	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 13:28	NH
Vinyl chloride	5.1		0.42	2.0	ug/L	232559	1	11/09/2016 13:28	NH
Surr: 4-Bromofluorobenzene	85.5		0	67-118	%REC	232559	1	11/09/2016 13:28	NH
Surr: Dibromofluoromethane	89.4		0	81.7-124	%REC	232559	1	11/09/2016 13:28	NH
Surr: Toluene-d8	90.4		0	82.5-122	%REC	232559	1	11/09/2016 13:28	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-46S
Project Name: MTL - 460009	Collection Date: 10/31/2016 4:44:00 PM
Lab ID: 1611503-025	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 13:57	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 13:57	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 13:57	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 13:57	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 13:57	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 13:57	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 13:57	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 13:57	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 13:57	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 13:57	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 13:57	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 13:57	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 13:57	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 13:57	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 13:57	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 13:57	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 13:57	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 13:57	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 13:57	NH
cis-1,2-Dichloroethene	9.4		0.27	5.0	ug/L	232559	1	11/09/2016 13:57	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 13:57	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 13:57	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 13:57	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 13:57	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-46S
Project Name: MTL - 460009	Collection Date: 10/31/2016 4:44:00 PM
Lab ID: 1611503-025	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 13:57	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 13:57	NH
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 13:57	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Trichloroethene	BRL		0.35	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 13:57	NH
Vinyl chloride	12		0.42	2.0	ug/L	232559	1	11/09/2016 13:57	NH
Surr: 4-Bromofluorobenzene	85.2		0	67-118	%REC	232559	1	11/09/2016 13:57	NH
Surr: Dibromofluoromethane	89.8		0	81.7-124	%REC	232559	1	11/09/2016 13:57	NH
Surr: Toluene-d8	90.5		0	82.5-122	%REC	232559	1	11/09/2016 13:57	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-47D
Project Name: MTL - 460009	Collection Date: 10/31/2016 2:50:00 PM
Lab ID: 1611503-026	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 14:26	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 14:26	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 14:26	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 14:26	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 14:26	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 14:26	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 14:26	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 14:26	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 14:26	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 14:26	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 14:26	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 14:26	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 14:26	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 14:26	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 14:26	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 14:26	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 14:26	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 14:26	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 14:26	NH
cis-1,2-Dichloroethene	40		0.27	5.0	ug/L	232559	1	11/09/2016 14:26	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 14:26	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 14:26	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 14:26	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 14:26	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-47D
Project Name: MTL - 460009	Collection Date: 10/31/2016 2:50:00 PM
Lab ID: 1611503-026	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 14:26	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 14:26	NH
trans-1,2-Dichloroethene	0.82	J	0.22	5.0	ug/L	232559	1	11/09/2016 14:26	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Trichloroethene	7.5		0.35	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 14:26	NH
Vinyl chloride	BRL		0.42	2.0	ug/L	232559	1	11/09/2016 14:26	NH
Surr: 4-Bromofluorobenzene	83.1		0	67-118	%REC	232559	1	11/09/2016 14:26	NH
Surr: Dibromofluoromethane	85.7		0	81.7-124	%REC	232559	1	11/09/2016 14:26	NH
Surr: Toluene-d8	94.2		0	82.5-122	%REC	232559	1	11/09/2016 14:26	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-48S
Project Name: MTL - 460009	Collection Date: 10/31/2016 3:38:00 PM
Lab ID: 1611503-027	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 14:54	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 14:54	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 14:54	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 14:54	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 14:54	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 14:54	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 14:54	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 14:54	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 14:54	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 14:54	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 14:54	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 14:54	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 14:54	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 14:54	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 14:54	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 14:54	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 14:54	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 14:54	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 14:54	NH
cis-1,2-Dichloroethene	BRL		0.27	5.0	ug/L	232559	1	11/09/2016 14:54	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 14:54	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 14:54	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 14:54	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 14:54	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-48S
Project Name: MTL - 460009	Collection Date: 10/31/2016 3:38:00 PM
Lab ID: 1611503-027	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 14:54	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 14:54	NH
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 14:54	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Trichloroethene	BRL		0.35	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 14:54	NH
Vinyl chloride	BRL		0.42	2.0	ug/L	232559	1	11/09/2016 14:54	NH
Surr: 4-Bromofluorobenzene	82.5		0	67-118	%REC	232559	1	11/09/2016 14:54	NH
Surr: Dibromofluoromethane	92.5		0	81.7-124	%REC	232559	1	11/09/2016 14:54	NH
Surr: Toluene-d8	94.8		0	82.5-122	%REC	232559	1	11/09/2016 14:54	NH

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-49D
Project Name: MTL - 460009	Collection Date: 11/3/2016 2:03:00 PM
Lab ID: 1611503-028	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)									
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 15:23	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 15:23	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 15:23	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 15:23	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 15:23	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 15:23	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 15:23	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 15:23	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 15:23	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 15:23	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 15:23	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 15:23	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 15:23	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 15:23	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 15:23	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 15:23	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 15:23	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Chloroethane	0.91	J	0.39	10	ug/L	232559	1	11/09/2016 15:23	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 15:23	NH
cis-1,2-Dichloroethene	160		0.27	5.0	ug/L	232559	1	11/09/2016 15:23	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 15:23	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 15:23	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 15:23	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 15:23	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-49D
Project Name: MTL - 460009	Collection Date: 11/3/2016 2:03:00 PM
Lab ID: 1611503-028	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 15:23	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 15:23	NH
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 15:23	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Trichloroethene	BRL		0.35	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 15:23	NH
Vinyl chloride	44		0.42	2.0	ug/L	232559	1	11/09/2016 15:23	NH
Surr: 4-Bromofluorobenzene	79.2		0	67-118	%REC	232559	1	11/09/2016 15:23	NH
Surr: Dibromofluoromethane	103		0	81.7-124	%REC	232559	1	11/09/2016 15:23	NH
Surr: Toluene-d8	98.3		0	82.5-122	%REC	232559	1	11/09/2016 15:23	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp
Project Name: MTL - 460009
Lab ID: 1611503-029

Client Sample ID: MW-50S
Collection Date: 11/3/2016 2:48:00 PM
Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)									
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 15:52	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 15:52	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 15:52	NH
1,1-Dichloroethane	5.4		0.25	5.0	ug/L	232559	1	11/09/2016 15:52	NH
1,1-Dichloroethene	12		0.36	5.0	ug/L	232559	1	11/09/2016 15:52	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 15:52	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 15:52	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 15:52	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 15:52	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 15:52	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 15:52	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 15:52	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 15:52	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 15:52	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 15:52	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 15:52	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 15:52	NH
Benzene	0.40	J	0.14	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 15:52	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 15:52	NH
cis-1,2-Dichloroethene	7800		27	500	ug/L	232559	100	11/09/2016 22:36	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 15:52	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 15:52	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 15:52	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 15:52	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-50S
Project Name: MTL - 460009	Collection Date: 11/3/2016 2:48:00 PM
Lab ID: 1611503-029	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 15:52	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Tetrachloroethene	110		0.29	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Toluene	2.3	J	0.20	5.0	ug/L	232559	1	11/09/2016 15:52	NH
trans-1,2-Dichloroethene	52		0.22	5.0	ug/L	232559	1	11/09/2016 15:52	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Trichloroethene	1700		35	500	ug/L	232559	100	11/09/2016 22:36	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 15:52	NH
Vinyl chloride	170		0.42	2.0	ug/L	232559	1	11/09/2016 15:52	NH
Surr: 4-Bromofluorobenzene	83.3		0	67-118	%REC	232559	1	11/09/2016 15:52	NH
Surr: 4-Bromofluorobenzene	85.2		0	67-118	%REC	232559	100	11/09/2016 22:36	NH
Surr: Dibromofluoromethane	94.9		0	81.7-124	%REC	232559	1	11/09/2016 15:52	NH
Surr: Dibromofluoromethane	99.4		0	81.7-124	%REC	232559	100	11/09/2016 22:36	NH
Surr: Toluene-d8	87		0	82.5-122	%REC	232559	1	11/09/2016 15:52	NH
Surr: Toluene-d8	94.6		0	82.5-122	%REC	232559	100	11/09/2016 22:36	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-51D
Project Name: MTL - 460009	Collection Date: 11/3/2016 4:36:00 PM
Lab ID: 1611503-030	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)									
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 21:39	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 21:39	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 21:39	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 21:39	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 21:39	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 21:39	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 21:39	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 21:39	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 21:39	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 21:39	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 21:39	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 21:39	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 21:39	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 21:39	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 21:39	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 21:39	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 21:39	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 21:39	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 21:39	NH
cis-1,2-Dichloroethene	4.6	J	0.27	5.0	ug/L	232559	1	11/09/2016 21:39	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 21:39	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 21:39	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 21:39	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 21:39	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-51D
Project Name: MTL - 460009	Collection Date: 11/3/2016 4:36:00 PM
Lab ID: 1611503-030	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS		SW8260B		(SW5030B)					
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 21:39	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 21:39	NH
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 21:39	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Trichloroethene	BRL		0.35	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 21:39	NH
Vinyl chloride	10		0.42	2.0	ug/L	232559	1	11/09/2016 21:39	NH
Surr: 4-Bromofluorobenzene	82.5		0	67-118	%REC	232559	1	11/09/2016 21:39	NH
Surr: Dibromofluoromethane	95		0	81.7-124	%REC	232559	1	11/09/2016 21:39	NH
Surr: Toluene-d8	88.7		0	82.5-122	%REC	232559	1	11/09/2016 21:39	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-52D
Project Name: MTL - 460009	Collection Date: 11/3/2016 11:54:00 AM
Lab ID: 1611503-031	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 16:50	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 16:50	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 16:50	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 16:50	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 16:50	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 16:50	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 16:50	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 16:50	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 16:50	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 16:50	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 16:50	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 16:50	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 16:50	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 16:50	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 16:50	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 16:50	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 16:50	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 16:50	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 16:50	NH
cis-1,2-Dichloroethene	BRL		0.27	5.0	ug/L	232559	1	11/09/2016 16:50	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 16:50	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 16:50	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 16:50	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 16:50	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-52D
Project Name: MTL - 460009	Collection Date: 11/3/2016 11:54:00 AM
Lab ID: 1611503-031	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 16:50	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 16:50	NH
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 16:50	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Trichloroethene	BRL		0.35	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 16:50	NH
Vinyl chloride	BRL		0.42	2.0	ug/L	232559	1	11/09/2016 16:50	NH
Surr: 4-Bromofluorobenzene	82.2		0	67-118	%REC	232559	1	11/09/2016 16:50	NH
Surr: Dibromofluoromethane	88.1		0	81.7-124	%REC	232559	1	11/09/2016 16:50	NH
Surr: Toluene-d8	95.1		0	82.5-122	%REC	232559	1	11/09/2016 16:50	NH

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-53D
Project Name: MTL - 460009	Collection Date: 11/3/2016 2:56:00 PM
Lab ID: 1611503-032	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 17:19	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 17:19	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 17:19	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 17:19	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 17:19	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 17:19	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 17:19	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 17:19	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 17:19	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 17:19	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 17:19	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 17:19	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 17:19	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 17:19	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 17:19	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 17:19	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 17:19	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 17:19	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 17:19	NH
cis-1,2-Dichloroethene	7.4		0.27	5.0	ug/L	232559	1	11/09/2016 17:19	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 17:19	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 17:19	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 17:19	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 17:19	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-53D
Project Name: MTL - 460009	Collection Date: 11/3/2016 2:56:00 PM
Lab ID: 1611503-032	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS		SW8260B		(SW5030B)					
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 17:19	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 17:19	NH
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 17:19	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Trichloroethene	BRL		0.35	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 17:19	NH
Vinyl chloride	1.6	J	0.42	2.0	ug/L	232559	1	11/09/2016 17:19	NH
Surr: 4-Bromofluorobenzene	85.6		0	67-118	%REC	232559	1	11/09/2016 17:19	NH
Surr: Dibromofluoromethane	92.8		0	81.7-124	%REC	232559	1	11/09/2016 17:19	NH
Surr: Toluene-d8	90.3		0	82.5-122	%REC	232559	1	11/09/2016 17:19	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-54D
Project Name: MTL - 460009	Collection Date: 11/1/2016 2:16:00 PM
Lab ID: 1611503-033	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 17:48	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 17:48	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 17:48	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 17:48	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 17:48	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 17:48	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 17:48	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 17:48	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 17:48	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 17:48	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 17:48	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 17:48	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 17:48	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 17:48	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 17:48	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 17:48	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 17:48	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 17:48	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 17:48	NH
cis-1,2-Dichloroethene	8.6		0.27	5.0	ug/L	232559	1	11/09/2016 17:48	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 17:48	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 17:48	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 17:48	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 17:48	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-54D
Project Name: MTL - 460009	Collection Date: 11/1/2016 2:16:00 PM
Lab ID: 1611503-033	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 17:48	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 17:48	NH
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 17:48	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Trichloroethene	BRL		0.35	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 17:48	NH
Vinyl chloride	15		0.42	2.0	ug/L	232559	1	11/09/2016 17:48	NH
Surr: 4-Bromofluorobenzene	81.2		0	67-118	%REC	232559	1	11/09/2016 17:48	NH
Surr: Dibromofluoromethane	89		0	81.7-124	%REC	232559	1	11/09/2016 17:48	NH
Surr: Toluene-d8	91.4		0	82.5-122	%REC	232559	1	11/09/2016 17:48	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-55D
Project Name: MTL - 460009	Collection Date: 11/3/2016 4:14:00 PM
Lab ID: 1611503-034	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 18:17	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 18:17	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 18:17	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 18:17	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 18:17	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 18:17	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 18:17	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 18:17	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 18:17	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 18:17	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 18:17	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 18:17	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 18:17	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 18:17	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 18:17	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 18:17	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 18:17	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 18:17	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 18:17	NH
cis-1,2-Dichloroethene	19		0.27	5.0	ug/L	232559	1	11/09/2016 18:17	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 18:17	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 18:17	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 18:17	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 18:17	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-55D
Project Name: MTL - 460009	Collection Date: 11/3/2016 4:14:00 PM
Lab ID: 1611503-034	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 18:17	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 18:17	NH
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 18:17	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Trichloroethene	BRL		0.35	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 18:17	NH
Vinyl chloride	16		0.42	2.0	ug/L	232559	1	11/09/2016 18:17	NH
Surr: 4-Bromofluorobenzene	82.6		0	67-118	%REC	232559	1	11/09/2016 18:17	NH
Surr: Dibromofluoromethane	93.9		0	81.7-124	%REC	232559	1	11/09/2016 18:17	NH
Surr: Toluene-d8	91.4		0	82.5-122	%REC	232559	1	11/09/2016 18:17	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: MW-56D
Project Name: MTL - 460009	Collection Date: 11/3/2016 3:35:00 PM
Lab ID: 1611503-035	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B			(SW5030B)						
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 18:46	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 18:46	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 18:46	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 18:46	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 18:46	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 18:46	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 18:46	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 18:46	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 18:46	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 18:46	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 18:46	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 18:46	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 18:46	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 18:46	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 18:46	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 18:46	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 18:46	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 18:46	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 18:46	NH
cis-1,2-Dichloroethene	BRL		0.27	5.0	ug/L	232559	1	11/09/2016 18:46	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 18:46	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 18:46	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 18:46	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 18:46	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: MW-56D
Project Name: MTL - 460009	Collection Date: 11/3/2016 3:35:00 PM
Lab ID: 1611503-035	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS		SW8260B		(SW5030B)					
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 18:46	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 18:46	NH
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 18:46	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Trichloroethene	BRL		0.35	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 18:46	NH
Vinyl chloride	BRL		0.42	2.0	ug/L	232559	1	11/09/2016 18:46	NH
Surr: 4-Bromofluorobenzene	87.3		0	67-118	%REC	232559	1	11/09/2016 18:46	NH
Surr: Dibromofluoromethane	97.5		0	81.7-124	%REC	232559	1	11/09/2016 18:46	NH
Surr: Toluene-d8	94.4		0	82.5-122	%REC	232559	1	11/09/2016 18:46	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: PAW-3
Project Name: MTL - 460009	Collection Date: 11/1/2016 4:48:00 PM
Lab ID: 1611503-036	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 19:15	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 19:15	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 19:15	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 19:15	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 19:15	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 19:15	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 19:15	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 19:15	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 19:15	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 19:15	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 19:15	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 19:15	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 19:15	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 19:15	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 19:15	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 19:15	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 19:15	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 19:15	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 19:15	NH
cis-1,2-Dichloroethene	BRL		0.27	5.0	ug/L	232559	1	11/09/2016 19:15	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 19:15	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 19:15	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 19:15	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 19:15	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: PAW-3
Project Name: MTL - 460009	Collection Date: 11/1/2016 4:48:00 PM
Lab ID: 1611503-036	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS		SW8260B		(SW5030B)					
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 19:15	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 19:15	NH
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 19:15	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Trichloroethene	BRL		0.35	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 19:15	NH
Vinyl chloride	BRL		0.42	2.0	ug/L	232559	1	11/09/2016 19:15	NH
Surr: 4-Bromofluorobenzene	82.4		0	67-118	%REC	232559	1	11/09/2016 19:15	NH
Surr: Dibromofluoromethane	91		0	81.7-124	%REC	232559	1	11/09/2016 19:15	NH
Surr: Toluene-d8	91.1		0	82.5-122	%REC	232559	1	11/09/2016 19:15	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: PAW-4
Project Name: MTL - 460009	Collection Date: 11/1/2016 5:35:00 PM
Lab ID: 1611503-037	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)									
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 19:44	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 19:44	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 19:44	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 19:44	NH
1,1-Dichloroethene	0.89	J	0.36	5.0	ug/L	232559	1	11/09/2016 19:44	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 19:44	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 19:44	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 19:44	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 19:44	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 19:44	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 19:44	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 19:44	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 19:44	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 19:44	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 19:44	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 19:44	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 19:44	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 19:44	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 19:44	NH
cis-1,2-Dichloroethene	180		0.27	5.0	ug/L	232559	1	11/09/2016 19:44	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 19:44	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 19:44	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 19:44	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 19:44	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: PAW-4
Project Name: MTL - 460009	Collection Date: 11/1/2016 5:35:00 PM
Lab ID: 1611503-037	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 19:44	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Tetrachloroethene	2.1	J	0.29	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 19:44	NH
trans-1,2-Dichloroethene	0.88	J	0.22	5.0	ug/L	232559	1	11/09/2016 19:44	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Trichloroethene	9.0		0.35	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 19:44	NH
Vinyl chloride	38		0.42	2.0	ug/L	232559	1	11/09/2016 19:44	NH
Surr: 4-Bromofluorobenzene	80.4		0	67-118	%REC	232559	1	11/09/2016 19:44	NH
Surr: Dibromofluoromethane	86.6		0	81.7-124	%REC	232559	1	11/09/2016 19:44	NH
Surr: Toluene-d8	87.6		0	82.5-122	%REC	232559	1	11/09/2016 19:44	NH

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Client: Environmental International Corp	Client Sample ID: RW-1
Project Name: MTL - 460009	Collection Date: 11/3/2016 5:28:00 PM
Lab ID: 1611503-038	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)									
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 20:13	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 20:13	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 20:13	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 20:13	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 20:13	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 20:13	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 20:13	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 20:13	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 20:13	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 20:13	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 20:13	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 20:13	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 20:13	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 20:13	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 20:13	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 20:13	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 20:13	NH
Benzene	0.30	J	0.14	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 20:13	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 20:13	NH
cis-1,2-Dichloroethene	5.0		0.27	5.0	ug/L	232559	1	11/09/2016 20:13	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 20:13	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 20:13	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 20:13	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 20:13	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: RW-1
Project Name: MTL - 460009	Collection Date: 11/3/2016 5:28:00 PM
Lab ID: 1611503-038	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 20:13	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 20:13	NH
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 20:13	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Trichloroethene	BRL		0.35	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 20:13	NH
Vinyl chloride	2.4		0.42	2.0	ug/L	232559	1	11/09/2016 20:13	NH
Surr: 4-Bromofluorobenzene	85.1		0	67-118	%REC	232559	1	11/09/2016 20:13	NH
Surr: Dibromofluoromethane	90.4		0	81.7-124	%REC	232559	1	11/09/2016 20:13	NH
Surr: Toluene-d8	91		0	82.5-122	%REC	232559	1	11/09/2016 20:13	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: RW-4
Project Name: MTL - 460009	Collection Date: 11/1/2016 11:43:00 AM
Lab ID: 1611503-039	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 20:42	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 20:42	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 20:42	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 20:42	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 20:42	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 20:42	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 20:42	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 20:42	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 20:42	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 20:42	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 20:42	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 20:42	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 20:42	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 20:42	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 20:42	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 20:42	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 20:42	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 20:42	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 20:42	NH
cis-1,2-Dichloroethene	2.6	J	0.27	5.0	ug/L	232559	1	11/09/2016 20:42	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 20:42	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 20:42	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 20:42	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 20:42	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: RW-4
Project Name: MTL - 460009	Collection Date: 11/1/2016 11:43:00 AM
Lab ID: 1611503-039	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS		SW8260B		(SW5030B)					
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 20:42	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 20:42	NH
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 20:42	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Trichloroethene	BRL		0.35	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 20:42	NH
Vinyl chloride	1.3	J	0.42	2.0	ug/L	232559	1	11/09/2016 20:42	NH
Surr: 4-Bromofluorobenzene	81.4		0	67-118	%REC	232559	1	11/09/2016 20:42	NH
Surr: Dibromofluoromethane	96.2		0	81.7-124	%REC	232559	1	11/09/2016 20:42	NH
Surr: Toluene-d8	96.3		0	82.5-122	%REC	232559	1	11/09/2016 20:42	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: RW-8
Project Name: MTL - 460009	Collection Date: 11/3/2016 3:03:00 PM
Lab ID: 1611503-040	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 21:10	NH
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 21:10	NH
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232559	1	11/09/2016 21:10	NH
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232559	1	11/09/2016 21:10	NH
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232559	1	11/09/2016 21:10	NH
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232559	1	11/09/2016 21:10	NH
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232559	1	11/09/2016 21:10	NH
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 21:10	NH
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 21:10	NH
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 21:10	NH
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232559	1	11/09/2016 21:10	NH
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 21:10	NH
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 21:10	NH
2-Butanone	BRL		2.9	50	ug/L	232559	1	11/09/2016 21:10	NH
2-Hexanone	BRL		3.2	10	ug/L	232559	1	11/09/2016 21:10	NH
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232559	1	11/09/2016 21:10	NH
Acetone	BRL		5.3	50	ug/L	232559	1	11/09/2016 21:10	NH
Benzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Bromodichloromethane	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Bromoform	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Bromomethane	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Carbon disulfide	BRL		0.46	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Chlorobenzene	BRL		0.14	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Chloroethane	BRL		0.39	10	ug/L	232559	1	11/09/2016 21:10	NH
Chloroform	BRL		0.30	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Chloromethane	BRL		0.29	10	ug/L	232559	1	11/09/2016 21:10	NH
cis-1,2-Dichloroethene	2.7	J	0.27	5.0	ug/L	232559	1	11/09/2016 21:10	NH
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Cyclohexane	BRL		1.6	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Dibromochloromethane	BRL		0.21	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232559	1	11/09/2016 21:10	NH
Ethylbenzene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Freon-113	BRL		0.32	10	ug/L	232559	1	11/09/2016 21:10	NH
Isopropylbenzene	BRL		0.16	5.0	ug/L	232559	1	11/09/2016 21:10	NH
m,p-Xylene	BRL		0.26	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Methyl acetate	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Methylcyclohexane	BRL		0.34	5.0	ug/L	232559	1	11/09/2016 21:10	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: Environmental International Corp	Client Sample ID: RW-8
Project Name: MTL - 460009	Collection Date: 11/3/2016 3:03:00 PM
Lab ID: 1611503-040	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS		SW8260B		(SW5030B)					
Methylene chloride	BRL		0.31	5.0	ug/L	232559	1	11/09/2016 21:10	NH
o-Xylene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Styrene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Tetrachloroethene	BRL		0.29	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Toluene	BRL		0.20	5.0	ug/L	232559	1	11/09/2016 21:10	NH
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232559	1	11/09/2016 21:10	NH
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Trichloroethene	BRL		0.35	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232559	1	11/09/2016 21:10	NH
Vinyl chloride	1.0	J	0.42	2.0	ug/L	232559	1	11/09/2016 21:10	NH
Surr: 4-Bromofluorobenzene	79.3		0	67-118	%REC	232559	1	11/09/2016 21:10	NH
Surr: Dibromofluoromethane	93.5		0	81.7-124	%REC	232559	1	11/09/2016 21:10	NH
Surr: Toluene-d8	92.5		0	82.5-122	%REC	232559	1	11/09/2016 21:10	NH

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Client: Environmental International Corp	Client Sample ID: RW-9
Project Name: MTL - 460009	Collection Date: 11/3/2016 4:57:00 PM
Lab ID: 1611503-041	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232652	1	11/09/2016 19:22	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232652	1	11/09/2016 19:22	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232652	1	11/09/2016 19:22	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232652	1	11/09/2016 19:22	BN
1,1-Dichloroethene	3.5	J	0.36	5.0	ug/L	232652	1	11/09/2016 19:22	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232652	1	11/09/2016 19:22	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232652	1	11/09/2016 19:22	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232652	1	11/09/2016 19:22	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232652	1	11/09/2016 19:22	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232652	1	11/09/2016 19:22	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232652	1	11/09/2016 19:22	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232652	1	11/09/2016 19:22	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232652	1	11/09/2016 19:22	BN
2-Butanone	BRL		2.9	50	ug/L	232652	1	11/09/2016 19:22	BN
2-Hexanone	BRL		3.2	10	ug/L	232652	1	11/09/2016 19:22	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232652	1	11/09/2016 19:22	BN
Acetone	BRL		5.3	50	ug/L	232652	1	11/09/2016 19:22	BN
Benzene	BRL		0.14	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Bromoform	BRL		0.26	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Bromomethane	BRL		0.46	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Chloroethane	BRL		0.39	10	ug/L	232652	1	11/09/2016 19:22	BN
Chloroform	BRL		0.30	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Chloromethane	BRL		0.29	10	ug/L	232652	1	11/09/2016 19:22	BN
cis-1,2-Dichloroethene	150		0.27	5.0	ug/L	232652	1	11/09/2016 19:22	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232652	1	11/09/2016 19:22	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Freon-113	BRL		0.32	10	ug/L	232652	1	11/09/2016 19:22	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232652	1	11/09/2016 19:22	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232652	1	11/09/2016 19:22	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: RW-9
Project Name: MTL - 460009	Collection Date: 11/3/2016 4:57:00 PM
Lab ID: 1611503-041	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232652	1	11/09/2016 19:22	BN
o-Xylene	BRL		0.13	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Styrene	BRL		0.13	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Toluene	BRL		0.20	5.0	ug/L	232652	1	11/09/2016 19:22	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232652	1	11/09/2016 19:22	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232652	1	11/09/2016 19:22	BN
Vinyl chloride	94		0.42	2.0	ug/L	232652	1	11/09/2016 19:22	BN
Surr: 4-Bromofluorobenzene	84.6		0	70.7-125	%REC	232652	1	11/09/2016 19:22	BN
Surr: Dibromofluoromethane	113		0	82.2-120	%REC	232652	1	11/09/2016 19:22	BN
Surr: Toluene-d8	99.9		0	81.8-120	%REC	232652	1	11/09/2016 19:22	BN

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Client: Environmental International Corp	Client Sample ID: TRIP BLANK
Project Name: MTL - 460009	Collection Date: 10/31/2016 10:00:00 AM
Lab ID: 1611503-042	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)					
1,1,1-Trichloroethane	BRL		0.25	5.0	ug/L	232652	1	11/09/2016 18:57	BN
1,1,2,2-Tetrachloroethane	BRL		0.24	5.0	ug/L	232652	1	11/09/2016 18:57	BN
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	232652	1	11/09/2016 18:57	BN
1,1-Dichloroethane	BRL		0.25	5.0	ug/L	232652	1	11/09/2016 18:57	BN
1,1-Dichloroethene	BRL		0.36	5.0	ug/L	232652	1	11/09/2016 18:57	BN
1,2,4-Trichlorobenzene	BRL		0.18	5.0	ug/L	232652	1	11/09/2016 18:57	BN
1,2-Dibromo-3-chloropropane	BRL		0.42	5.0	ug/L	232652	1	11/09/2016 18:57	BN
1,2-Dibromoethane	BRL		0.13	5.0	ug/L	232652	1	11/09/2016 18:57	BN
1,2-Dichlorobenzene	BRL		0.21	5.0	ug/L	232652	1	11/09/2016 18:57	BN
1,2-Dichloroethane	BRL		0.24	5.0	ug/L	232652	1	11/09/2016 18:57	BN
1,2-Dichloropropane	BRL		0.23	5.0	ug/L	232652	1	11/09/2016 18:57	BN
1,3-Dichlorobenzene	BRL		0.21	5.0	ug/L	232652	1	11/09/2016 18:57	BN
1,4-Dichlorobenzene	BRL		0.14	5.0	ug/L	232652	1	11/09/2016 18:57	BN
2-Butanone	BRL		2.9	50	ug/L	232652	1	11/09/2016 18:57	BN
2-Hexanone	BRL		3.2	10	ug/L	232652	1	11/09/2016 18:57	BN
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	232652	1	11/09/2016 18:57	BN
Acetone	BRL		5.3	50	ug/L	232652	1	11/09/2016 18:57	BN
Benzene	BRL		0.14	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Bromodichloromethane	BRL		0.20	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Bromoform	BRL		0.26	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Bromomethane	BRL		0.46	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Carbon disulfide	BRL		0.46	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Carbon tetrachloride	BRL		0.24	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Chlorobenzene	BRL		0.14	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Chloroethane	BRL		0.39	10	ug/L	232652	1	11/09/2016 18:57	BN
Chloroform	BRL		0.30	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Chloromethane	BRL		0.29	10	ug/L	232652	1	11/09/2016 18:57	BN
cis-1,2-Dichloroethene	BRL		0.27	5.0	ug/L	232652	1	11/09/2016 18:57	BN
cis-1,3-Dichloropropene	BRL		0.21	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Cyclohexane	BRL		1.6	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Dibromochloromethane	BRL		0.21	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Dichlorodifluoromethane	BRL		0.43	10	ug/L	232652	1	11/09/2016 18:57	BN
Ethylbenzene	BRL		0.20	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Freon-113	BRL		0.32	10	ug/L	232652	1	11/09/2016 18:57	BN
Isopropylbenzene	BRL		0.16	5.0	ug/L	232652	1	11/09/2016 18:57	BN
m,p-Xylene	BRL		0.26	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Methyl acetate	BRL		0.31	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Methyl tert-butyl ether	BRL		0.22	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Methylcyclohexane	BRL		0.34	5.0	ug/L	232652	1	11/09/2016 18:57	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 16-Nov-16

Client: Environmental International Corp	Client Sample ID: TRIP BLANK
Project Name: MTL - 460009	Collection Date: 10/31/2016 10:00:00 AM
Lab ID: 1611503-042	Matrix: Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B						(SW5030B)			
Methylene chloride	BRL		0.31	5.0	ug/L	232652	1	11/09/2016 18:57	BN
o-Xylene	BRL		0.13	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Styrene	BRL		0.13	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Tetrachloroethene	BRL		0.29	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Toluene	BRL		0.20	5.0	ug/L	232652	1	11/09/2016 18:57	BN
trans-1,2-Dichloroethene	BRL		0.22	5.0	ug/L	232652	1	11/09/2016 18:57	BN
trans-1,3-Dichloropropene	BRL		0.13	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Trichloroethene	BRL		0.35	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Trichlorofluoromethane	BRL		0.32	5.0	ug/L	232652	1	11/09/2016 18:57	BN
Vinyl chloride	BRL		0.42	2.0	ug/L	232652	1	11/09/2016 18:57	BN
Surr: 4-Bromofluorobenzene	84.2		0	70.7-125	%REC	232652	1	11/09/2016 18:57	BN
Surr: Dibromofluoromethane	104		0	82.2-120	%REC	232652	1	11/09/2016 18:57	BN
Surr: Toluene-d8	93.8		0	81.8-120	%REC	232652	1	11/09/2016 18:57	BN

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client ESC

Work Order Number 1011503

Checklist completed by Alma Judge 11/4/2014
Signature Date

Carrier name: FedEx UPS Courier Client US Mail Other

Shipping container/cooler in good condition? Yes No Not Present

Custody seals intact on shipping container/cooler? Yes No Not Present

Custody seals intact on sample bottles? Yes No Not Present

Container/Temp Blank temperature in compliance? ($0^{\circ} \leq 6^{\circ}C$) * Yes No

Cooler #1 A-2C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes No

Chain of custody signed when relinquished and received? Yes No

Chain of custody agrees with sample labels? Yes No

Samples in proper container/bottle? Yes No

Sample containers intact? Yes No

Sufficient sample volume for indicated test? Yes No

All samples received within holding time? Yes No

Was TAT marked on the COC? Yes No

Proceed with Standard TAT as per project history? Yes No Not Applicable

Water - VOA vials have zero headspace? No VOA vials submitted Yes No

Water - pH acceptable upon receipt? Yes No Not Applicable

Sample Condition: Good Adjusted? _____ Other(Explain) _____
Checked by _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes No

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: Environmental International Corp
Project Name: MTL - 460009
Workorder: 1611503

ANALYTICAL QC SUMMARY REPORT

BatchID: 232555

Sample ID: MB-232555	Client ID:	Units: ug/L	Prep Date: 11/08/2016	Run No: 329387							
Sample Type: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232555	Analysis Date: 11/08/2016	Seq No: 7154252							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental International Corp
Project Name: MTL - 460009
Workorder: 1611503

ANALYTICAL QC SUMMARY REPORT

BatchID: 232555

Sample ID: MB-232555	Client ID:	Units: ug/L	Prep Date: 11/08/2016	Run No: 329387							
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232555	Analysis Date: 11/08/2016	Seq No: 7154252							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	3.100	5.0									J
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	43.52	0	50.00		87.0	70.7	125				
Surr: Dibromofluoromethane	55.34	0	50.00		111	82.2	120				
Surr: Toluene-d8	50.93	0	50.00		102	81.8	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental International Corp
Project Name: MTL - 460009
Workorder: 1611503

ANALYTICAL QC SUMMARY REPORT

BatchID: 232555

Sample ID: LCS-232555	Client ID:	Units: ug/L	Prep Date: 11/08/2016	Run No: 329387							
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232555	Analysis Date: 11/08/2016	Seq No: 7154253							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	41.88	5.0	50.00		83.8	65.3	137				
Benzene	43.92	5.0	50.00		87.8	74.9	123				
Chlorobenzene	43.43	5.0	50.00		86.9	73.9	124				
Toluene	45.62	5.0	50.00		91.2	75	124				
Trichloroethene	42.42	5.0	50.00		84.8	73.1	128				
Surr: 4-Bromofluorobenzene	42.17	0	50.00		84.3	70.7	125				
Surr: Dibromofluoromethane	51.52	0	50.00		103	82.2	120				
Surr: Toluene-d8	48.39	0	50.00		96.8	81.8	120				

Sample ID: 1611503-012AMS	Client ID: MW-31	Units: ug/L	Prep Date: 11/08/2016	Run No: 329387							
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232555	Analysis Date: 11/08/2016	Seq No: 7154264							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	2599	250	2500		104	60	150				
Benzene	2430	250	2500		97.2	70.1	132				
Chlorobenzene	2437	250	2500		97.5	70.9	131				
Toluene	2614	250	2500		105	70.1	133				
Trichloroethene	2488	250	2500		99.5	70	136				
Surr: 4-Bromofluorobenzene	2092	0	2500		83.7	70.7	125				
Surr: Dibromofluoromethane	2496	0	2500		99.8	82.2	120				
Surr: Toluene-d8	2256	0	2500		90.2	81.8	120				

Sample ID: 1611503-012AMSD	Client ID: MW-31	Units: ug/L	Prep Date: 11/08/2016	Run No: 329387							
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232555	Analysis Date: 11/08/2016	Seq No: 7154265							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	2207	250	2500		88.3	60	150	2599	16.3	17.7	
Benzene	2347	250	2500		93.9	70.1	132	2430	3.47	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental International Corp
Project Name: MTL - 460009
Workorder: 1611503

ANALYTICAL QC SUMMARY REPORT

BatchID: 232555

Sample ID: 1611503-012AMSD	Client ID: MW-31	Units: ug/L	Prep Date: 11/08/2016	Run No: 329387
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232555	Analysis Date: 11/08/2016	Seq No: 7154265

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	2419	250	2500		96.8	70.9	131	2437	0.741	20	
Toluene	2416	250	2500		96.6	70.1	133	2614	7.89	20	
Trichloroethene	2300	250	2500		92.0	70	136	2488	7.85	20	
Surr: 4-Bromofluorobenzene	2148	0	2500		85.9	70.7	125	2092	0	0	
Surr: Dibromofluoromethane	2321	0	2500		92.8	82.2	120	2496	0	0	
Surr: Toluene-d8	2198	0	2500		87.9	81.8	120	2256	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental International Corp
Project Name: MTL - 460009
Workorder: 1611503

ANALYTICAL QC SUMMARY REPORT

BatchID: 232559

Sample ID: MB-232559	Client ID:	Units: ug/L	Prep Date: 11/08/2016	Run No: 329400							
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232559	Analysis Date: 11/08/2016	Seq No: 7154505							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental International Corp
Project Name: MTL - 460009
Workorder: 1611503

ANALYTICAL QC SUMMARY REPORT

BatchID: 232559

Sample ID: MB-232559	Client ID:	Units: ug/L	Prep Date: 11/08/2016	Run No: 329400							
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232559	Analysis Date: 11/08/2016	Seq No: 7154505							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	44.36	0	50.00		88.7	70.7	125				
Surr: Dibromofluoromethane	43.42	0	50.00		86.8	82.2	120				
Surr: Toluene-d8	46.28	0	50.00		92.6	81.8	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental International Corp
Project Name: MTL - 460009
Workorder: 1611503

ANALYTICAL QC SUMMARY REPORT

BatchID: 232559

Sample ID: LCS-232559	Client ID:	Units: ug/L	Prep Date: 11/08/2016	Run No: 329400							
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232559	Analysis Date: 11/08/2016	Seq No: 7154504							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	44.30	5.0	50.00		88.6	65.3	137				
Benzene	49.46	5.0	50.00		98.9	74.9	123				
Chlorobenzene	46.82	5.0	50.00		93.6	73.9	124				
Toluene	49.70	5.0	50.00		99.4	75	124				
Trichloroethene	46.64	5.0	50.00		93.3	73.1	128				
Surr: 4-Bromofluorobenzene	46.81	0	50.00		93.6	70.7	125				
Surr: Dibromofluoromethane	41.98	0	50.00		84.0	82.2	120				
Surr: Toluene-d8	45.92	0	50.00		91.8	81.8	120				

Sample ID: 1611503-021AMS	Client ID: MW-42S	Units: ug/L	Prep Date: 11/08/2016	Run No: 329400							
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232559	Analysis Date: 11/08/2016	Seq No: 7154507							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	48.92	5.0	50.00		97.8	60	150				
Benzene	49.68	5.0	50.00		99.4	70.1	132				
Chlorobenzene	46.46	5.0	50.00		92.9	70.9	131				
Toluene	49.53	5.0	50.00	0.4100	98.2	70.1	133				
Trichloroethene	47.15	5.0	50.00		94.3	70	136				
Surr: 4-Bromofluorobenzene	46.53	0	50.00		93.1	70.7	125				
Surr: Dibromofluoromethane	43.99	0	50.00		88.0	82.2	120				
Surr: Toluene-d8	45.10	0	50.00		90.2	81.8	120				

Sample ID: 1611503-021AMSD	Client ID: MW-42S	Units: ug/L	Prep Date: 11/08/2016	Run No: 329400							
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232559	Analysis Date: 11/08/2016	Seq No: 7154508							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	45.76	5.0	50.00		91.5	60	150	48.92	6.68	17.7	
Benzene	49.28	5.0	50.00		98.6	70.1	132	49.68	0.808	20	

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: Environmental International Corp
Project Name: MTL - 460009
Workorder: 1611503

ANALYTICAL QC SUMMARY REPORT

BatchID: 232559

Sample ID: 1611503-021AMSD	Client ID: MW-42S	Units: ug/L	Prep Date: 11/08/2016	Run No: 329400
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232559	Analysis Date: 11/08/2016	Seq No: 7154508

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	45.02	5.0	50.00		90.0	70.9	131	46.46	3.15	20	
Toluene	47.49	5.0	50.00	0.4100	94.2	70.1	133	49.53	4.21	20	
Trichloroethene	46.56	5.0	50.00		93.1	70	136	47.15	1.26	20	
Surr: 4-Bromofluorobenzene	45.06	0	50.00		90.1	70.7	125	46.53	0	0	
Surr: Dibromofluoromethane	42.71	0	50.00		85.4	82.2	120	43.99	0	0	
Surr: Toluene-d8	46.10	0	50.00		92.2	81.8	120	45.10	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental International Corp
Project Name: MTL - 460009
Workorder: 1611503

ANALYTICAL QC SUMMARY REPORT

BatchID: 232652

Sample ID: MB-232652	Client ID:	Units: ug/L	Prep Date: 11/09/2016	Run No: 329411							
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232652	Analysis Date: 11/09/2016	Seq No: 7154673							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental International Corp
Project Name: MTL - 460009
Workorder: 1611503

ANALYTICAL QC SUMMARY REPORT

BatchID: 232652

Sample ID: MB-232652	Client ID:	Units: ug/L	Prep Date: 11/09/2016	Run No: 329411							
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232652	Analysis Date: 11/09/2016	Seq No: 7154673							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	43.83	0	50.00		87.7	70.7	125				
Surr: Dibromofluoromethane	52.93	0	50.00		106	82.2	120				
Surr: Toluene-d8	48.81	0	50.00		97.6	81.8	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental International Corp
Project Name: MTL - 460009
Workorder: 1611503

ANALYTICAL QC SUMMARY REPORT

BatchID: 232652

Sample ID: LCS-232652	Client ID:	Units: ug/L	Prep Date: 11/09/2016	Run No: 329411							
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232652	Analysis Date: 11/09/2016	Seq No: 7154672							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	42.72	5.0	50.00		85.4	65.3	137				
Benzene	48.12	5.0	50.00		96.2	74.9	123				
Chlorobenzene	50.63	5.0	50.00		101	73.9	124				
Toluene	50.32	5.0	50.00		101	75	124				
Trichloroethene	48.36	5.0	50.00		96.7	73.1	128				
Surr: 4-Bromofluorobenzene	43.24	0	50.00		86.5	70.7	125				
Surr: Dibromofluoromethane	46.54	0	50.00		93.1	82.2	120				
Surr: Toluene-d8	43.48	0	50.00		87.0	81.8	120				

Sample ID: 1611832-002AMS	Client ID:	Units: ug/L	Prep Date: 11/09/2016	Run No: 329411							
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232652	Analysis Date: 11/09/2016	Seq No: 7157092							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	27080	2500	25000		108	60	150				
Benzene	24450	2500	25000		97.8	70.1	132				
Chlorobenzene	24590	2500	25000		98.4	70.9	131				
Toluene	27200	2500	25000		109	70.1	133				
Trichloroethene	25660	2500	25000		103	70	136				
Surr: 4-Bromofluorobenzene	21450	0	25000		85.8	70.7	125				
Surr: Dibromofluoromethane	26260	0	25000		105	82.2	120				
Surr: Toluene-d8	23220	0	25000		92.9	81.8	120				

Sample ID: 1611832-002AMSD	Client ID:	Units: ug/L	Prep Date: 11/09/2016	Run No: 329411							
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232652	Analysis Date: 11/09/2016	Seq No: 7157093							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	23200	2500	25000		92.8	60	150	27080	15.5	17.7	
Benzene	24120	2500	25000		96.5	70.1	132	24450	1.36	20	

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: Environmental International Corp
Project Name: MTL - 460009
Workorder: 1611503

ANALYTICAL QC SUMMARY REPORT

BatchID: 232652

Sample ID: 1611832-002AMSD	Client ID:	Units: ug/L	Prep Date: 11/09/2016	Run No: 329411
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 232652	Analysis Date: 11/09/2016	Seq No: 7157093

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	23580	2500	25000		94.3	70.9	131	24590	4.19	20	
Toluene	26850	2500	25000		107	70.1	133	27200	1.30	20	
Trichloroethene	24460	2500	25000		97.8	70	136	25660	4.79	20	
Surr: 4-Bromofluorobenzene	21520	0	25000		86.1	70.7	125	21450	0	0	
Surr: Dibromofluoromethane	27200	0	25000		109	82.2	120	26260	0	0	
Surr: Toluene-d8	24720	0	25000		98.9	81.8	120	23220	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

HSI SITE 10406, FORMER MCKENZIE TANK LINES SITE

SIXTH SEMI-ANNUAL PROGRESS REPORT

ATTACHMENT 8-1
MONTHLY SUMMARY OF HOURS
INVOICED (NOVEMBER 2016 –
APRIL 2017)

Environmental International Corporation
McKenzie Tank Lines VIRP Summary of Hours
November 2016 through April 2017

TASKS	Nov 16	Dec 16	Jan 17	Feb 17	Mar 17	Apr 17	TOTAL
Semi-Annual Report	166.10	0.00	0.00	0.00	0.00	0.00	166
GW Sampling	131.08	11.25	24.50	4.25	0.00	126.50	298
Soil Boring/Sediment	2.00	0.75	2.50	13.25	23.25	151.75	194
Ecological Impact Evaluation	0.00	64.00	5.23	0.00	0.00	0.00	69
Remedial Design	0.00	6.75	0.25	33.75	71.50	11.50	124
TOTAL	299	83	32	51	95	290	850

HSI SITE 10406, FORMER MCKENZIE TANK LINES SITE

SIXTH SEMI-ANNUAL PROGRESS REPORT

APPENDIX A

FORMER MCKENZIE TANK LINES SITE, PORT WENTWORTH, GEORGIA

SITE CONCEPTUAL MODEL 2017 UPDATE

May 19, 2017

Submitted to:

GEORGIA ENVIRONMENTAL PROTECTION DIVISION

Hazardous Sites Response Program, Land Protection Branch

Suite 1054 East Tower
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Atlanta, Georgia 30334

Prepared for:

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Attachment A: Regional Geology

1.0 INTRODUCTION

A site conceptual model (SCM), also known as a conceptual site model, is a summary of site conditions as they pertain to a contaminant release. Typically, the model defines release sources, the extent of the constituents of concern (COCs) in soil, sediments and in groundwater media, likely fate and transport mechanisms, potential exposure pathways, and potential receptors that could be impacted by the COCs. This information serves as an important tool in developing site remedies.

A preliminary SCM was submitted with the Voluntary Investigation Remediation Plan (VIRP), that EIC submitted to the Georgia Environmental Protection Division (EPD) on behalf of McKenzie Tank Lines (MTL), on January 29, 2014. The VIRP and SCM addressed legacy environmental issues at the former MTL property located in Port Wentworth, GA (Site).

Following the approval of the VIRP, EIC has completed several related tasks that are consistent with the approved VIRP. These tasks have provided additional material in defining the Site conditions. Consequently, EIC has prepared the following updates to the preliminary SCM:

- Updated site-specific geology description and a hydrogeological cross-section
- Updated groundwater monitoring well network
- Further delineation of COCs in soil and sediment
- Surface water quality sampling
- Updated delineation of COC plumes in groundwater

1.1 Site Location

The Site is located at 111 Grange Road, Port Wentworth, Georgia. The facility was originally developed in 1983 on a 5.18-acre lot comprised of two former parcels with tax identification numbers 0021-01-010 and 0022-02-006. These parcels and other surrounding parcels were purchased by the Georgia Ports Authority (GPA) and assembled in 2011 into larger parcels with tax ID numbers 1-0729-01-007 and 1-0729-01-009. As such, the Site, as was defined in the VIRP, consists of parcels with tax ID numbers 1-0729-01-007 and 1-0729-01-009 (EIC, 2014a).

1.2 Site Layout

Figure 1-1 is a site layout map that illustrates the former layout of the facility. The Site was formerly comprised of an office building, a 10,000-gallon diesel above-ground storage tank (AST) with a pump dispenser, a Tire Shop, and a Truck Wash Rack.

1.3 Site Background

MTL had historically utilized the facility for truck maintenance. Prior to 1989, the Former Tire Shop was utilized by MTL as a truck wash rack. In 1989, MTL built the wash rack located to the west of the Tire Shop and transferred the truck washing operations to that location. The AST was formerly located in a concrete retaining wall. Diesel for refueling trucks was conveyed to the pump dispensers, located to the west of the AST.

Much of the surface runoff from the facility was conveyed into two drainage grates located at the center of the Site that were above and connected to a below-grade stormwater corrugated steel drainage pipe. The runoff flowed southward through this pipe to an open drainage swale, continued flowing west-southwestward from this swale through a second corrugated steel drainage pipe to a second smaller swale, and continued flowing from this swale west-southwestward through reinforced concrete piping, reaching an outfall at southward-flowing City of Port Wentworth north-south oriented stormwater drainage ditch. This ditch is hereafter referred to in this report as the North-South Ditch. This ditch is located parallel to the western border of the former MTL property. These stormwater features and the original MTL property boundary are depicted in Figure 1-1.

After GPA acquired the Site in the year 2000, a number of superstructures were demolished and portions of the Site regraded and paved with either aggregate or asphalt. Currently, the only structure that remains onsite is the Tire Shop. GPA currently utilizes the Site for parking vehicles, storing truck flatbed trailers, storing shipping containers, and storing related equipment.

1.4 Geology

1.4.1 Regional Geology

Chatham County borders the Atlantic coast and the Savannah River. The regional geology is fairly well known due to historical oil and gas exploration, and more recent studies by the United States Geological Survey and the Georgia Geological Survey. The region is typified at the surface by post-Miocene (Epoch of the Neogene Period)-aged sediments that are undifferentiated. They are undifferentiated due to the highly dynamic depositional environments that resulted in material that was excessively reworked through sequential sea regressions and transgressions and fluvial stream erosion and deposits. The undifferentiated post-Miocene sediments in the region commonly consist of phosphatic, micaceous, and clayey sand of Pliocene age; arkosic sand and gravel containing discontinuous clay beds of Pleistocene age; and mud, sand, and gravel of Holocene age (Miller, 1986). Miller (1986) suggests that post-Miocene sediments can generally be divided into a basal sequence of marginal to shallow marine beds overlain by a series of sandy, marine terrace deposits that are, in turn, unconformably capped by a thin layer of fluvial sand. These post-Miocene sediments range in thickness from approximately 30 feet to about 200 feet in coastal Georgia.



Underlying the post-Miocene sediments - in most of the region - are Miocene-aged sediments that have been mapped as three similar sequences that are each bounded above and below by an unconformity¹ (Clarke et. al, 1990). The repeating sequence consists of a basal carbonate layer, a middle clay layer, and an upper sand layer. The uppermost sequence of the Miocene-aged sediments ranges in thickness from about 20 feet near Savannah, Georgia to about 90 feet in Brunswick, Georgia to the south. Several investigators, Counts and Donsky 1963, Miller 1986, and Huddelston 1988, identify this uppermost sequence as part of the Hawthorn Formation, which is fossiliferous.

1.4.2 Site-specific Geology

At the Site, both the surficial post-Miocene material and the underlying Miocene-aged sediments are significant in affecting the characteristics of the shallow aquifer, as described in Section 1.5. Based on soil boring lithological logging data obtained by EIC from 15 soil borings, it is apparent that the sediments above a depth of approximately 27 to 30 feet are post-Miocene in age. This is corroborated by a lack of marine shell fossils; laminations in silt with a 45-degree orientation; the presence of mica in silt, and the presence of consolidated (hard to stiff) silt occurring in sediments above a depth ranging from approximately 27 to 30 feet below-ground-surface (bgs). The lithological data from the 15 soil boring logs are presented in 20 monitoring well logs that are included in the Second VIRP Semi-annual Progress Report (EIC, 2015a).

The lithological data that EIC documented in these well logs also indicates that the sediments lying above the Miocene-aged sediments were observed to be unconsolidated (soft or loose) and have a higher water content – often wet relative to the typically moist Miocene-aged silt. The sharp contrast in the lithological characteristics of sediments above and below the contact between the apparent Miocene-aged silt and the overlying apparent post-Miocene-aged sediments indicates the presence of an unconformity¹ at the contact of the Miocene-aged silt with the overlying post-Miocene-aged sediments. The lower water content in the Miocene-aged silt also indicates that this stratum acts as a confining layer for groundwater.

Figure 1-2 illustrates the well log for well MW-51D, which is one of 20 well logs previously cited as a reference in describing the lithologic characteristics. The lithological log for well MW-51D that represents the upper 30 feet of sediments at the Site, illustrates both the Miocene and post-Miocene-aged sediments. The apparent unconformity is at a depth of 29.5 feet at this location. Referring to Figure 1-2, it should be noted that the silt stratum below 29.5 feet should be considered to be a less permeable and a more competent confining unit than the Miocene-aged silt due to the cohesive properties of the silt.

Figure 1-3 is a cross-section trace map illustrating a plan view of a west-to-east cross-section (A to A') that is illustrated in Figure 1-4. The cross-section was generated utilizing the lithological data from 6 of the aforementioned 20 well logs. These six wells are oriented west-to-east across the central portion of the Site where the highest concentrations of dissolved COCs have historically been detected. Water level gauging and groundwater analytical results data from the April 2016

¹ Unconformity - a break or gap in the geological time record of relatively long duration due to erosion and subsequent deposition



sampling event were utilized in depicting both the groundwater potentiometric surface and the concentrations of monitored COCs at the sample depths on the cross-section, respectively.

Referring to the cross-section of Figure 1-4, the post-Miocene sediments are relatively discontinuous from west-to-east and from down-gradient to up-gradient, with the exception of a silt-with-sand stratum overlying the apparent Miocene-aged silt and a silt stratum overlying this silt-with-sand stratum. Within the post-Miocene sediments, highly permeable sand strata within saturated soils only occur near MW-46S and slightly less permeable sand-with-silt strata occur as discontinuous lenses. Interbedding is indicated by discontinuous lenses with limited horizontal extent of various other lithologies.

The discontinuity of the many types of lithological strata across the Site appears to indicate a fluctuating fluvial depositional environment that was likely caused by lateral movements of the Savannah River channel, tributaries of this channel, and tidal creeks. In this depositional environment, sands would have been likely deposited at sand point bars within the relatively high-energy areas of the river channel and silts and clays deposited in low-energy areas away from the river/stream channels such as in swamps, marshes, and in abandoned stream channels.

In summary, the site-specific geology indicates that vertical migration of COCs is limited below a lower deep confining unit – the Miocene-aged silt. The horizontal migration of COCs - down-gradient along preferential pathways - is within shallower post-Miocene-aged strata. The post-Miocene-aged strata consist of highly-permeable sand and moderately permeable silt-with-sand/sand-with-silt that overlies the lower confining unit. Additionally, post-Miocene-aged upper partially confining units consisting of horizontally discontinuous clay and silt strata are interbedded with the highly to moderately permeable post-Miocene-aged strata. These relatively shallow partially confining units have apparently caused semi-confining conditions to exist in some areas of the Site.

It should also be noted that the upper silt and clay units apparently causes perched groundwater conditions (anomalously high groundwater surface elevations based on water level gauging data) that EIC has observed in wells with screen depths less than 10 feet bgs. This condition apparently often exists at well MW-2S in particular.

1.5 Hydrogeology

1.5.1 Regional Hydrogeology

The regional hydrogeology in the area of Chatham County is complex due to the proximity to the Atlantic Ocean and to the Savannah River, which functions as a regional drain for groundwater, and the relatively thick sedimentary rocks that constitute a regional aquifer system (Faye and Mayer, 1997). In addition, the region receives, on average, approximately 45 inches of rainfall per year (NOAA, 2016). The surface topography of the region is also relatively flat, which, in addition to high rates of groundwater pumping for drinking water, creates dynamic and physically complex groundwater conditions. Throughout most of the region, the hydrologic unit at the surface is known as the Surficial Aquifer, which overlies the Floridan Aquifer system (Miller, 1986).

Referring to Attachment A, the surficial water-bearing aquifer is reportedly within the upper 50 feet below ground surface. The confining unit only has some water in sandy interbeds. The Floridan



Aquifer, located beneath the confining unit at depths and ranging from 200 feet to 870 feet, is the primary water-bearing resource for public and private drinking water supplies.

1.5.2 Site-specific Hydrogeology

1.5.2.1 Aquifer Characteristics

Based on historical and current groundwater gauging data, the groundwater surface at the Site occurs at a depth ranging from approximately <1 to 7 feet bgs. Based on the geological literature cited in Section 1.4 and on EIC's review of site lithological logs that EIC prepared, an unconfined to semi-confined surficial aquifer occurs at the Site. This aquifer lies above the confining Miocene-aged silt stratum. Based on site well lithological logs from wells installed by EIC and others, this aquifer has a thickness of approximately 30 feet at the Site.

Based on the characteristics of the post-Miocene-aged strata, previous investigators of the Site have historically differentiated the aquifer into arbitrary shallow and deep horizons and installed "shallow" wells with a screened interval reaching 20 feet or less below grade and installed "deep" wells with a screened interval reaching 30 feet bgs or deeper. As described in the VIRP, EIC has continued this convention for continuity in presenting both the potentiometric groundwater surface and COC plume maps.

Referring to the Fourth VIRP Semi-annual Progress Report, EIC conducted slug tests within two newly installed recovery wells at the Site in January 2016. Based on the results and subsequent analyses of these tests, EIC computed that the average hydraulic conductivity within the surficial aquifer is 6.91E-04 cm/second. This indicates that the fluvial deposits described in Section 1.4.2, significantly reduce the flow of groundwater at the Site and, therefore, slow the spread of the dissolved phase COCs within groundwater at the Site.

1.5.2.2 Potentiometric Surface Evaluation

Utilizing recent water level gauging data that EIC collected during both the April 2015 and April 2016 groundwater monitoring events, EIC prepared potentiometric surface maps considering both the shallow and deep wells for each event. EIC considers the gauging data from the April 2015 event as a baseline event, since this represents the first gauging event following the establishment of the current monitoring well network that incorporates the set of 20 new wells that were installed at the Site in January 2015. Figures 1-5 and 1-6 illustrate both the shallow and deep potentiometric surface, respectively, that occurred during the April 2015 event. Figures 1-7 and 1-8 illustrate both the shallow and deep potentiometric surface, respectively, that occurred during the April 2016 event. Cumulative groundwater data and statistics including both of these events are tabulated in Table 1-1.

Shallow Potentiometric Surface

From Figures 1-5 and 1-7, it is apparent that shallow groundwater flow is generally towards the west and southwest during both the baseline and the latest monitoring events. Based on these gauging events and other historical gauging events, EIC has computed that the average hydraulic gradient of the shallow surficial aquifer at the Site is 3.57E-3 ft./ft.



Deep Potentiometric Surface

From Figures 1-6 and 1-8, it is apparent that deep groundwater flow is also generally towards the west and southwest during the same two events. Based on these gauging events and other historical gauging events, EIC has computed that the average hydraulic gradient of the deep surficial aquifer at the Site is $4.17E-3$ ft./ft.

1.5.2.3 Groundwater Fate and Transport

There are several geologic features at the Site which significantly affect the flow of groundwater and, therefore, the fate and transport of COCs in groundwater at the Site. In particular, referring to Figure 1-4, there is a relatively shallow impermeable clay stratum that extends from the area near MW-40S to the east of MW-51D – before grading into a silt in the vicinity of MW-49D. This apparently competent clay aquitard may create semi-confining aquifer conditions, as the majority of this unit lies below the water table. It may also potentially cause artesian conditions west of this layer if it pinches out west of the area of well MW-40 or pinches out in any areas within this unit.

Evidence that this may be occurring is apparent now, since EIC has completed several groundwater gauging events with the newly installed and/or located monitoring wells. EIC has noted during several groundwater gauging events that the groundwater levels near deep well MW-35 and shallow well MW-40S have been above or near ground surface within the well casing. As necessary, EIC may conduct a further evaluation of the potential effect this aquitard may have on groundwater conditions and on the distribution of COCs within groundwater.



2.0 RELEASE SOURCES AND COCS

Historical data indicates that both potential on-site and off-site sources have contributed to COCs occurring in soil and groundwater at the Site. The following excerpts about COCs in soil and groundwater were derived from various historical reports and material from the VIRP.

2.1 On-site Sources

There are several on-site release sources that have been documented in previous reports, as follows. In 1992, diesel fuel and a “black liquor” were accidentally released through the stormwater drainage system into an adjacent stormwater ditch (Farley-Jones, 1993). However, the referenced report neither included a description of the ditch nor its location.

Subsequently, additional source areas with COCs were discovered at various locations throughout the Site. MTL was unable to find any documentation or testimonials on the actual locations of the sources that contributed to the existence of COCs onsite (Geovac, 2002). In preparing the VIRP, EIC utilized historical data and other related material to establish ten (10) possible areas-of-concern (AOCs) at the Site related to possible on-site release sources. Table 2-1 presents a list of the possible on-site release sources in the ten AOCs. The table also lists the corresponding COCs and potentially affected media. Figure 2-1 illustrates the location of each AOC.

In January 2015, EIC initiated extensive post-excavation confirmatory and exploratory soil sampling within each of the ten AOCs. Based on the July 2016 sampling event, EIC has determined that, the COCs in soil within seven AOCs did not exceed the established delineation criteria. Of the remaining three AOCs (AOC-3, -4, & -6), COCs in soil and sediment within two of these AOCs (AOC-3 and AOC-4) have been delineated. AOC-6, that includes the North-South Ditch, is currently under additional delineation. AOC-6 is the only AOC of the ten AOCs where EIC has included sediment samples from the ditch for delineation. Explicit details of COC delineation is included in Section 4.

2.2 Off-site Sources

During pre-VIRP site investigations, MTL identified chromium and arsenic in groundwater at various locations within the MTL property. Considering that MTL did not use chromium, the source of the chromium is unclear. A review of the sites surrounding and/or up-gradient of the MTL property revealed that the owner of an off-site property, HSI site No. 10018, located to the north-northeast of the MTL property has reported the presence of chromium and arsenic among

other contaminants (EPD, 2016).

2.3 Third-Party Sources

After GPA's acquisition of the property, a minor release of gasoline was reported at the Site. This release apparently originated from a portable lighting system and reportedly occurred in a parking lot. Following the initiation of the VIRP, EIC contacted the GPA to determine the location of the gasoline spill. However, GPA stated that it had no records regarding the spill. As such, the location of the minor release of gasoline is still unknown.

Following GPA's acquisition of the Site, heavy metals were reportedly present in samples taken from a holding pond identified as Holding Pond No. 2 in Figure 1-1 (Site map). This holding pond was later backfilled.

Arsenic was reportedly found in groundwater at slightly over the maximum contaminant level (MCL) that was collected from well MW-8S and very near MCL levels of groundwater collected from well MW-13S. EPD considered the arsenic delineation in groundwater complete except for a requirement that MW-13S be resampled to reconfirm the concentrations that were near MCL levels (EPD, 2005). According to EIC's well search and inventory conducted shortly after the acceptance of the VIRP, MW-13S could not be found and is apparently destroyed. Consequently, collecting a confirmatory sample from MW-13S is not possible. Nevertheless, further investigation is necessary to determine whether any off-site or third-party sources may have caused arsenic to occur in groundwater at the Site.

2.4 Constituents of Concern

The releases discussed in the aforementioned sections of Section 2 resulted in the presence of COCs in multimedia consisting of soil, soil vapor, groundwater, sediment, and surface water media. Based on historical and current groundwater sampling data, chlorinated volatile organic compounds (CVOCs) are the primary constituents of concern (COCs) at the Site. These CVOCs include tetrachloroethylene (also known as perchloroethylene (PCE)) and PCE degradation products trichloroethylene (TCE), cis - 1, 2 dichloroethylene (DCE), and vinyl chloride (VC). Additionally, from the VIRP, arsenic was detected above delineation criteria in soil samples from the former holding pond, east of the Former Tire Shop.



3.0 REMEDIAL ACTIONS

As discussed in Section 2, on-site, off-site, and third party release sources have contributed to COCs at the Site in multimedia consisting of soil, soil vapor, groundwater, sediment, and surface water media. The following subsections describe the remedial actions that have been performed for each media.

3.1 Soil Remediation

Upon discovering COCs in soil in various AOCs, MTL performed excavation, treatment, and disposal of contaminated soils and sediments in several AOCs. Table 3-1 lists the excavation locations and approximate volumes of material removed. Most of the excavated soil was transferred off-site to the Pecan Road Landfill in Valdosta, Georgia for disposal and an unknown quantity of the material was land-farmed within the Tire Shop.

It is important to note that MTL removed most of the concrete floor from the Former Tire Shop in February 2001 during the aforementioned excavation activities (Geovac, 2001). The removed concrete floor previously occupied an area of approximately 1,000 square feet. The soil beneath this floor was not excavated but, rather, an in-situ soil venting program was conducted within the Former Tire Shop, as is further discussed in Section 3.2. Additionally, as discussed in Section 4.1, confirmatory and subsequent delineation sampling by EIC indicated that soils within the Former Tire Shop contained COC concentrations above risk reduction standards (RRS).

3.2 Soil Vapor Remediation

After discovering residual COCs concentrations in the vadose zone beneath the Former Tire Shop, MTL initiated a soil VOCs vapor remediation program. This encompassed the excavation of approximately 1,000 cubic yards of contaminated soil, the land farming of soil, and heat-induced soil venting. MTL built a shed with a fiberglass roof where excavated soils were stored prior to being introduced to the soil venting process. The soil gas from the venting process was pumped through activated carbon filter canisters prior to atmospheric discharge. Post treatment sampling of soils collected at 0.5, 2, 3, and 5 feet below-grade at the Tire Shop indicated that COC concentrations were below laboratory reporting limits (Geovac, 2002). However, as discussed in Section 4.1, confirmatory and subsequent delineation sampling by EIC indicated that soils within the Former Tire Shop still contained COC concentrations above RRS. As such, soil vapors may still be of concern as a potential exposure pathway within the Former Tire Shop.

3.3 Groundwater Remediation

In 1998, MTL initiated a long-term groundwater pump-and-treat (PAT) program (Geovac, 2002). Initially, the PAT operation entailed the extraction and treatment of groundwater from three recovery wells (RW-1 through RW-3) with submersible pumps. The treatment entailed the conveyance of extracted water through settling tanks, a water aerator tank, an air-stripping tower, and ultimately through dual-carbon canisters – before discharging the treated water into a percolation pond located east of the Former Tire Shop.

The PAT system was later expanded to include three additional recovery wells, namely RW-4, RW-5, and RW-7 (RW-6 was installed but was never used as a recovery well). Subsequently, the former percolation pond was decommissioned and backfilled at the request of GPA. Consequently, MTL relocated the PAT effluent discharge point to a new percolation pond that was installed southwest of the Former Tire Shop. Since the original PAT system had reached its end of useful life, MTL ceased operation of the PAT system in October 2014 and removed the groundwater pumps from the aforementioned six recovery wells. Other components of the PAT system and the percolation pond, however, remain on-site.

During the VIRP implementation, EIC observed that nearly all recovery wells were silted up to the extent that either the well screens were completely silted or a very small upper section of the well screens were left un-silted and were still partially hydraulically connected to the groundwater in the formation. Since EIC was unable to collect representative groundwater samples from wells with screens entirely or partially blocked by silt, EIC recommended the abandonment and replacement of four of the recovery wells with properly designed wells. In a letter dated January 8, 2016, EPD concurred with EIC's recommendation. In July 2016, EIC abandoned four of the six original recovery wells utilized for the PAT system and abandoned a fifth recovery well (RW-6) that was never utilized for the PAT system. Recovery wells RW-1 and RW-4 were not abandoned, however, as they had less significant silt accumulations. A new set of recovery wells (RW-8 and RW-9) were installed as replacements. MTL is currently in the process of redesigning the groundwater remediation program consistent with the approach outlined in the VIRP.

3.4 Sediment Remediation

According to Farley-Jones (1993), approximately 60 cubic yards of sediments were removed from a “stormwater ditch” – now known as the North-South Ditch - during the remedial actions performed in response to a surface diesel release in 1992. The sediments were initially treated on-site by land farming and then transferred to the Pecan Road Landfill in Valdosta, Georgia. As further discussed in Section 4.4, EIC has conducted confirmatory and subsequent delineation sediment sampling within the North-South Ditch within AOC-6.

3.5 Surface Water Remediation

During the response initiated to address the diesel fuel and black liquor release in 1992, MTL impounded the discharged material in the “stormwater ditch”, recovered approximately 40,000 gallons of oily water from the ditch, and transferred the recovered liquid waste to the City of Pritchard, Alabama waste disposal facility (Geovac, 2002).

4.0 COC DELINEATION

Based on historical and recent sampling events, PCE and its degradation or daughter products (TCE, DCE, and VC) are the primary COCs identified at the Site. Additionally, Arsenic was detected in groundwater and sediments. The following sections describe the horizontal and vertical extents of each COC in a multimedia environmental setting (i.e.: soil, groundwater, and sediment).

4.1 Soil Delineation

Referring to the preliminary SCM, submitted with the VIRP application, several soil and sediment samples were previously collected for post-excavation assessment within certain AOCs to verify whether the previous excavations, discussed in Section 3.1, meet soil remediation goals. The results of the post excavation samples indicated the presence of contaminants above delineation standards in 25 of the 83 samples obtained. No, post-excavation samples were collected in the remainder of the AOCs where excavations were performed.

To complete the post-excavation verification and delineation of soils within the remainder of the AOCs, EIC collected certain soil and sediment samples. The analytical results of these soil samples are tabulated in Table 4-1. Figures 4-1 through 4-10 illustrate the soil and sediment sample locations and depths at each AOC and their corresponding results. Referring to Table 4-1, it is apparent that, of the 10 original AOCs established in the VIRP for the Site, only soils/sediments within AOC-6 are not fully delineated. As noted in Section 2.1, AOC-6 is currently undergoing additional delineation. From Figure 4-6, it is apparent that soils/sediments in AOC-6 are delineated to the north, east, and south but not to the west.

Additionally, in a January 2016 comments letter, the EPD requested that surface soil samples be collected in the vicinity of two possible areas of pipe failure along a subgrade deteriorating corrugated metal stormwater pipe, as well as near the former office and shop. In response, EIC conducted 18 new soil borings to characterize the soil at the two possible areas of pipe failure along the north-south stormwater pipe and near the former office and shop. Details of this sampling event and the analytical results are presented in the Fifth VIRP Semi-annual Progress Report (EIC, 2016b). Figure 4-11 illustrates the boring locations for these areas and the laboratory results are tabulated in Table 4-2. Referring to Table 4-2 and Figure 4-11, all soil samples collected from the possible areas of pipe failure and former office and shop locations were below detection limits for each COC. Based on the aforementioned findings, no further characterization or delineation should be required in these areas.

4.2 Soil Vapor

According to Farley-Jones (1993), a total of 121 soil vapor samples were collected from a wide area within the Site. Vapor samples were collected in a modified 50-foot grid area throughout the Site with a hand auger at 2-foot depth intervals extending to 2, 4, and 6 feet bgs. The samples were field screened for total organic vapors (TOV). Based on the results, Farley-Jones concluded that the areas around the wash rack, Former Tire Shop, and the diesel dispensers indicated elevated organic vapor concentrations.

Subsequently, EIC collected surface soil samples to further identify possible areas of soil with COCs near the former office and shop. The laboratory results for these borings are tabulated in Table 4-2 and sample locations are illustrated in Figure 4-11. From Table 4-2 and Figure 4-11, it is apparent that COCs are below detection limits for all soil samples collected. As such, soil vapor is not a concern in this area of the Site. However, due to the high concentrations of COCs detected in soils within the Former Tire Shop (AOC-4), soil vapors may be of possible concern within and near the Former Tire Shop.

4.3 Groundwater Delineation

Prior to the initiation of the VIRP, a total of 74 wells had been installed at the Site. Of these wells, 19 wells were reportedly destroyed or abandoned and the status of 31 wells was unknown. In October 2014, EIC attempted to locate the 31 missing/unknown wells utilizing historical reports and maps. None of the 31 wells were located, however. As such, in the first quarter of 2015 and as documented in the 2nd VIRP Semi-annual Progress Report (EIC, 2015a), EIC installed 20 new observation wells for groundwater monitoring and for delineation purposes.

Based on Site background data, it is apparent that the analytical data was historically reviewed from samples taken in wells completed in two depth intervals defined as shallow and deep. To enable comparative evaluation of new analytical data relative to historical data, EIC has continued to distinguish between the shallow and deep intervals. For this purpose, in general, observation wells with screened intervals extending 20 feet or less bgs are considered shallow wells and wells with screened intervals extending greater than 20 feet bgs are considered deep monitoring wells.

The latest groundwater sampling results for both shallow and deep intervals are tabulated in Table 4-3 and Table 4-4, for shallow and deep wells, respectively. The analytical results are illustrated in Figures 4-12 through 4-19. Following are brief descriptions of the current horizontal and vertical groundwater extents of all COCs in the shallow and deep groundwater intervals. A more in-depth analysis and discussion of each of the VIRP groundwater sampling events is presented in the First through the Fifth VIRP Semiannual Progress Reports (EIC, 2014b, 2015a, 2015b, 2016a, and 2016b).

4.3.1 Horizontal Delineation

From Figures 4-12 through 4-15, it is apparent that the shallow PCE, TCE, DCE, and VC groundwater plumes are horizontally delineated, with exception of the area east and up-gradient of MW-46S. From Figures 4-16 through 4-19, it is apparent that the deep PCE, TCE, DCE and VC groundwater plumes are horizontally delineated, with exception of the area east and south



MW-47D and the area north and east of MW-44D. Currently, EIC is in the process of installing additional wells to complete the delineation of both the shallow and deep extents of these plumes.

4.3.2 Vertical Delineation

Of the current monitoring well network, well MW-35 is the deepest known well within the footprint of the COC plumes. This well is also located near the down-gradient extent or leading edge of the COC plumes. Based on EIC's gauging data and historical well data provided by a previous consultant, the total depth of the well is 38.02 feet below ground surface (bgs). MW-35 has been sampled by EIC since February 2014 under the VIRP, as documented in Table 4-4. Referring to Table 4-4, the concentrations of all monitored COCs in groundwater samples from MW-35 have been below detection limits during all sampling events since February 2014. In one instance, the DCE concentration from the April 2016 sampling event reached 0.58 µg/L. However, as this concentration is well below the established RRS limit of 204 µg/L for DCE, the vertical delineation is complete.

4.4 Sediment

As defined in the VIRP, AOC-6 encompasses a section of the North-South Ditch located at the Site. Referring to the VIRP, it is apparent that approximately 60 cubic yards of contaminated sediments were excavated from this ditch as an emergency spill response measure. The location of the excavation is, however, unknown. Additionally, no confirmatory sediment samples were collected to ensure that all of the COCs above the delineation criteria had been properly removed. Consequently, EIC collected confirmatory sediment samples from the stream in March and April 2016. The laboratory analytical results from this sampling event indicated that sediments with COC concentrations above RRS were detected in one of four sediment samples collected within AOC-6.

Subsequently, EIC has continued to delineate COCs in sediment and in the surrounding soils from the drainage channel and banks of the ditch. As of the soil/sediment delineation sampling event in July 2016, sediment and soil within AOC-6 has been delineated to the north, east, and south, but remained undefined to the west. Sampling is currently underway to complete the delineation in this area. Referring to the EPD letter dated March 18, 2008, the EPD has concluded that no additional samples are necessary to evaluate arsenic concentrations in sediments (EPD, 2008).

4.5 Surface Water

There are three significant surface water bodies at the Site, the East-West Ditch, the North-South Ditch, and a percolation pond installed for the previous PAT system. A stormwater retention pond with a drainage control structure has been installed along the eastern portion of the East-West Ditch. All three surface water bodies are illustrated in Figure 1-1. As discussed in Section 3.5, the North-South Ditch stormwater conveyance feature (within AOC-6) at the Site was subject to a diesel fuel and black liquor release in 1992. As discussed in Section 4.4, sediment sampling within AOC-6 indicated that a limited area of the ditch still contained sediments with COCs above delineation criteria.



To define the potential impact of residual COCs in sediments on surface water leaving the site, EIC has collected one delineation surface water sample. The sample was collected from the East-West Ditch west of the confluence point between the North-South Ditch and the East-West Ditch and near the southwest corner of the site and just before stormwater passes under an earthen berm through a box culvert and then exits the site through stormwater pipes under Highway 25/South Coastal Highway.

The laboratory results for this sample indicated that concentrations of COCs were above detection limits (EIC, 2015a). Considering that the residual COCs in sediments in and soil of the banks of the North-South Ditch are a possible source for the COCs detected in the surface water sample, and since the sediments and soils have yet to be remediated, no further surface water sampling has been conducted. Once soil and sediment has been delineated and subsequently remediated within AOC-6, additional EIC may collect and analyze surface water samples at various locations within the ditches.

As stated in the VIRP, surface water samples were routinely collected from the percolation pond during groundwater sampling events. According to Geovac (2012), sample analyses indicated that the VOCs and CVOCs in surface water have consistently been reported as below laboratory reporting limits. EIC collected an independent sample from the outfall of the former PAT system as well as from the percolation pond in July 2014 and in January 2015, respectively. The laboratory analytical results of these samples indicated that the COCs in the prevailing water within the holding pond were below detection limits.



5.0 FATE & TRANSPORT

As discussed in Section 2, COCs within multimedia at the Site could have originated from on-site sources, off-site sources, or third-party sources. The main purpose of a fate and transport evaluation is to assess the migration potential of the released COCs in a multimedia setting. Based on such an assessment, it is possible to establish potential exposure levels, critical in establishing risk-based screening and cleanup goals.

Typically, the COCs identified at the Site are subject to the following mechanisms:

- Physical separation of released product into other states of matter due to sorption, solubility and other equilibrium reactions
- Dispersion involving horizontal and vertical spreading of partitioned or leached constituents
- Diffusion consisting of spreading along concentration gradients
- Biodegradation by native microorganisms along the migration pathway
- Other attenuation processes that reduce the concentrations with time (temporally) and with distance (spatially)

As discussed in Section 3, the primary sources of COCs have been removed and discontinued, respectively, from the Site and a relatively large quantity of potentially impacted soil and sediment media has been excavated and disposed of off-site. With the exception of the residual COC concentrations above the delineation criteria in soil and sediment remaining from previous excavation activities, no other on-site sources of COCs have been reported or are known of. Consequently, it appears that the predominant media requiring remediation of COCs is groundwater with minor extents of COCs above the delineation criteria in soil and sediment requiring remediation.

5.1 MIGRATION PATHWAYS

Based on the discussion in Section 2.4, it is apparent that CVOCs are the primary COCs that have a potential to migrate at Site. The following subsections describe various pathways through which these COCs can migrate at the Site. Figure 5-1 illustrates these pathways.

5.1.1 COCs in Soil

COCs in Soil can potentially migrate in surface runoff or migrate vertically as a leachate that can impact groundwater. From Section 4.1, it is apparent that COCs in soil within AOC-3, AOC-4, and AOC-6 exceed RRS. Consequently, there is a potential that the COCs in soil may contribute to the COCs found in groundwater at the Site. The total volume of impacted soil above RRS, defined in both AOC-3 and AOC-4, is approximately 11,250 cubic feet. The total volume of impacted soil within AOC-6, however, has not been defined, as horizontal delineation is not complete.

5.1.2 Soil Vapor Migration Potential

Soil vapor can migrate within the vadose zone or into surface or subsurface structures. As discussed in Section 4.2, soil vapor may be of concern within the Former Tire Shop located within AOC-4. However, the concentrations of COCs in soil within the Former Tire Shop are localized and have been delineated within the Former Tire Shop building footprint. Additionally, this structure is no longer suitable for human occupation nor as a working area, as most of the concrete floor within it has been removed and the building walls and garage doors are damaged as a result of previous soil remedial activities.

5.1.3 Groundwater Migration Potential

The dissolved COCs discussed in this SCM typically migrate horizontally with the groundwater flow. Based on historical sampling data, however, it is apparent that the COC plume is stable and shrinking.

5.1.3.1 Shallow Groundwater Migration Potential

In comparing the analytical results presented in Figures 5-2 through 5-5 to Figures 4-12 through 4-15 (the shallow dissolved CVOC groundwater concentrations during the April 2015 and April 2016 sampling events, respectively), it is apparent that the dissolved COCs have remained stable and have not migrated in the direction of groundwater flow both within the shallow and deep aquifer horizons. As such, there appears to be no immediate down-gradient receptors of contaminated groundwater adjacent to the Site.

5.1.3.2 Deep Groundwater Migration Potential

In comparing the analytical results presented in Figures 5-6 through 5-9 to Figures 4-16 through 4-19 (the deep dissolved CVOC groundwater concentrations during the April 2015 and April 2016 sampling events, respectively), it is apparent that the dissolved CVOCs have remained stable and have not migrated in the direction of groundwater flow both within the deep aquifer horizon. As such, there appears to be no immediate down-gradient receptors of contaminated groundwater adjacent to the Site.



5.1.4 Sediment Migration Potential

Sediments can present a chronic source of contaminant migration to surface waters. However, the extent of the impacted soils/sediments within AOC-6 has not yet been fully delineated to the west. Therefore, MTL will continue to delineate the soils/sediments within AOC-6 to determine the best remediation strategy to reduce the impact of residual COCs concentrations in the soils/sediments on groundwater and surface water.

5.1.5 Surface Water Migration Potential

COCs can accumulate in surface water such as ponds or other surface impoundments or migrate to creeks and rivers from sediments. Based on analytical results, it is apparent that surface water within the percolation pond is below detection limits and that surface water exiting the Site from the western outfall of the East-West Ditch is above Georgia Surface Water Quality Standards (GSWQS) for PCE and VC. However, as discussed in Section 5.1.4, surface water may be impacted due to residual COCs in sediment and soil in AOC-6. As such, MTL is exploring options to minimize the potential impact of COCs contained in the sediments and soil on surface water.



6.0 POTENTIAL RECEPTORS

6.1 Human Health Receptors

6.1.1 Soil/Sediment Exposure

As discussed in Section 4.1, the analytical results for the soil samples collected at the Site indicate that COCs are above RRS in three of the ten AOCs established in the VIRP – AOC-3, AOC-4, and AOC-6. Consequently, soil/sediment contamination within these AOCs presents a potential for human exposure.

6.1.2 Soil Vapor Exposure

As discussed in Section 4.2, due to the relatively high concentrations of the COCs in soil within AOC-4, soil vapors may also be of concern within the Former Tire Shop building located within the boundaries of AOC-4. However, the concentrations of COCs in soil within the Former Tire Shop are localized and have been delineated within the Former Tire Shop building footprint. Additionally, this structure is no longer suitable for human occupation or as a working area, as the concrete floor within it has been removed and the building walls and garage doors are damaged as a result of previous soil remedial activities, allowing any vapors to easily vent from the building. Upon removal of the limited area of soil contamination, the potential for vapor exposure would be minimized. Any future remediation work planned for this area will consider the possibility of soil vapor exposure and be mitigated as much as possible.

6.1.3 Groundwater Exposure

In addition to the COCs found in soil at the site, COCs in groundwater may also present a potential for human exposure at the Site. Considering that the Site and surrounding area are served by a municipal water supply system, however, groundwater from the surficial aquifer is not being utilized for human consumption. Furthermore, the COC plume appears to be stable and shrinking.

6.2 Planned Site Development Activities

GPA has indicated that the Site will be utilized for a certain project development, possibly involving the construction of an impermeable paved area over a significant portion of the Site. Consequently, long-term human contact with groundwater with COCs above delineation criteria is an unlikely exposure pathway. During this construction, however, there may be short-term exposure potential if construction-related soil excavations expose previously undiscovered contaminated soil and

groundwater at the Site. MTL will perform hot-spot removal of any such undiscovered soil with COCs above delineation criteria.

After GPA finalizes this development, MTL will update the human health receptor evaluation with potential direct and indirect exposure potential from prevailing site conditions. This will also include an evaluation of the potential impact any structures that may be built that will be utilized for continuous human occupancy. MTL will also evaluate the potential exposure risk to COCs in excess of acceptable concentrations during site work by short-term site workers and maintenance personnel.

6.3 Ecological Receptors

MTL is currently not aware of any ecological receptors that would be affected by the residual multimedia concentrations of COCs above the delineation criteria at the Site. Considering that GPA plans to redevelop the Site, the prevailing multimedia COCs are not likely to affect ecological receptors such as rare or endangered plants or animals after the completion of the project. Nonetheless, MTL performed an ecological impact evaluation (EIE) to determine potential impact to ecological receptors based on current site conditions. The results of this evaluation will be incorporated into a subsequent SCM update.

6.4 Other Exposure Pathways

As discussed in Section 2.4, groundwater and soil are the primary exposure pathways for COCs at this Site. Any other exposure pathway(s) of COCs, however, will be continually evaluated over the course of the remaining 5-year VIRP program. MTL will, in particular, evaluate the potential for dermal contact with COCs to minimize exposure for personnel, contractors, and visitors who are potentially at risk during construction of the GPA project.



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HSI SITE 10406, FORMER MCKENZIE TANK LINES SITE

2017 SCM REPORT UPDATE

TABLES



Table 1-1: Historical Groundwater Potentiometric Surface Elevations: Shallow Wells

Well ID # (Well Diameter, in.)	TOC Elevation (ft.)	Groundwater Potentiometric Surface Elevation (ft.)						MW Min.* (ft.)	MW Max.* (ft.)	MW Range* (ft.)	MW Avg.* (ft.)	MW Var.* (ft.)
		Jul-14	Oct-14	Jan-15	Apr-15	Oct-15	Apr-16					
Shallow Wells												
G-17 (1)	8.94	6.40	3.94	6.39	6.26	4.79	3.84	3.84	6.40	2.56	5.27	1.51
G-19 (1)	9.85	5.94	3.40	5.67	5.48	4.80	3.85	3.40	5.94	2.54	4.86	1.07
G-22 (1)	9.36	4.05	2.59	4.33	4.28	3.51	2.51	2.51	4.33	1.82	3.55	0.68
MW-2S (2)	11.54	8.93	7.17	9.20	10.49	8.73	7.54	7.17	10.49	3.32	8.68	1.44
MW-4S (2)	10.86	5.29	4.58	5.67	6.03	5.21	4.62	4.58	6.03	1.45	5.23	0.33
MW-15S (1)	8.27	5.47	3.72	5.59	5.51	4.53	3.76	3.72	5.59	1.87	4.76	0.78
MW-29 (1)	9.39	7.31	5.35	6.93	7.43	6.22	6.50	5.35	7.43	2.08	6.62	0.60
MW-31 (1)	11.96	6.76	5.81	5.88	7.05	6.47	5.16	5.16	7.05	1.89	6.19	0.49
MW-32 (1)	12.02	7.00	6.04	7.24	7.51	6.82	6.52	6.04	7.51	1.47	6.86	0.28
MW-33 (1)	8.48	5.61	3.70	5.63	NM	4.36	3.81	3.70	5.63	1.93	4.62	0.89
MW-37S (2)	10.14	NI	NI	NI	5.59	5.21	4.89	4.89	5.59	0.70	5.23	0.12
MW-40S (2)	5.57	NI	NI	NI	5.39	4.48	3.97	3.97	5.39	1.42	4.61	0.52
MW-42S (2)	10.71	NI	NI	NI	7.22	6.47	6.31	6.31	7.22	0.91	6.66	0.24
MW-45S (2)	13.74	NI	NI	NI	7.93	7.27	6.99	6.99	7.93	0.94	7.40	0.23
MW-46S (2)	14.01	NI	NI	NI	7.90	7.67	7.32	7.32	7.90	0.58	7.63	0.09
MW-48S (2)	13.56	NI	NI	NI	8.32	7.46	7.11	7.11	8.32	1.21	7.63	0.39
MW-50S (2)	11.18	NI	NI	NI	6.72	5.75	5.40	5.40	6.72	1.32	5.96	0.47
PAW-3 (2)	11.83	7.31	6.38	7.41	7.99	7.33	6.42	6.38	7.99	1.61	7.14	0.39
MW-U2 (2)	10.91	NL	NL	6.93	8.73	7.92	6.51	6.51	8.73	2.22	7.52	1.00
Event Min.*² (ft.)		4.05	2.59	4.33	4.28	3.51	2.51	Global Min.*² (ft.)		2.51		
Event Max.*² (ft.)		8.93	7.17	9.20	10.49	8.73	7.54	Global Max.*² (ft.)		10.49		
Event Range*² (ft.)		4.88	4.58	4.87	6.21	5.22	5.03	Global Range*² (ft.)		7.98		
Event Avg.*² (ft.)		6.37	4.79	6.41	6.99	6.05	5.42	Global Avg.*² (ft.)		6.01		
Event Var.*² (ft.)		1.70	2.10	1.55	2.24	2.12	2.26	Global Var.*² (ft.)		2.42		

Notes:

Top of casing (TOC) elevations are based on surveys conducted by Brewer Land Surveying in October 2013, EMC Engineering Services in June 2015, and Mock Surveying in January 2016.

* = **Event Min, Max, Range, Avg., and Var.** - are the minimum, maximum, range, average, and total variance for each respective groundwater gauging event.

*² = **MW Min., Max., Range, Avg., and Var.** - are the minimum, maximum, range, average, and total variance for each monitoring well throughout all gauging events from July 2014 to October 2015 where available.

*³ = **Global Min., Max., Range, Avg., and Var.** - are the minimum, maximum, range, average, and total variance for all monitoring wells throughout all events from July 2014 to APR 2016

NI - Not Installed

N/A - Not Applicable

NL - Not Located

NM - Not Measured

Table 1-2: Historical Groundwater Potentiometric Surface Elevations: Deep Wells

Well ID # (Well Diameter, in.)	TOC Elevation (ft.)	Groundwater Potentiometric Surface Elevation (ft.)						MW Min.* (ft.)	MW Max.* (ft.)	MW Range* (ft.)	MW Avg.* (ft.)	MW Var.* (ft.)
		Jul-14	Oct-14	Jan-15	Apr-15	Oct-15	Apr-16					
Deep Wells												
MW-2D (2)	11.39	6.76	6.16	7.34	7.41	6.97	6.48	6.16	7.41	1.25	6.85	0.24
MW-11D (2)	16.07	7.87	7.04	8.15	9.08	7.92	7.43	7.04	9.08	2.04	7.92	0.48
MW-14D (2)	12.06	6.87	5.38	6.09	6.44	5.86	5.63	5.38	6.87	1.49	6.05	0.30
MW-26 (1)	8.42	5.30	5.00	5.86	NM	5.50	5.01	5.00	5.86	0.86	5.33	0.13
MW-35 (0.75)	6.28	NL	NM	NM	6.08	5.57	5.18	5.18	6.08	0.90	5.61	0.20
MW-36 (0.75)	9.86	5.49	4.94	6.05	6.16	5.78	5.09	4.94	6.16	1.22	5.59	0.25
MW-38D (2)	10.08	NI	NI	NI	5.54	4.94	4.68	4.68	5.54	0.86	5.05	0.19
MW-39D (2)	7.25	NI	NI	NI	5.07	4.42	4.02	4.02	5.07	1.05	4.50	0.28
MW-41D (2)	9.59	NI	NI	NI	6.67	5.97	5.44	5.44	6.67	1.23	6.03	0.38
MW-43D (2)	10.77	NI	NI	NI	7.16	6.58	6.11	6.11	7.16	1.05	6.62	0.28
MW-44D (2)	13.83	NI	NI	NI	7.45	6.94	6.68	6.68	7.45	0.77	7.02	0.15
MW-47D (2)	13.63	NI	NI	NI	7.66	7.20	6.86	6.86	7.66	0.80	7.24	0.16
MW-49D (2)	11.09	NI	NI	NI	6.44	5.74	5.25	5.25	6.44	1.19	5.81	0.36
MW-51D (2)	9.87	NI	NI	NI	6.10	5.26	4.77	4.77	6.10	1.33	5.38	0.45
MW-52D (2)	8.29	NI	NI	NI	5.60	5.16	4.69	4.69	5.60	0.91	5.15	0.21
MW-53D (2)	7.62	NI	NI	NI	6.30	5.56	4.92	4.92	6.30	1.38	5.59	0.48
MW-54D (2)	10.91	NI	NI	NI	7.09	6.30	5.93	5.93	7.09	1.16	6.44	0.35
MW-55D (2)	11.78	NI	NI	NI	6.76	6.18	5.73	5.73	6.76	1.03	6.22	0.27
MW-56D (2)	10.68	NI	NI	NI	7.37	6.55	6.13	6.13	7.37	1.24	6.68	0.40
PAW-4 (2)	11.99	6.67	5.99	6.96	7.49	6.77	6.21	5.99	7.49	1.50	6.68	0.29
RW-1 (4)	11.69	7.18	6.34	7.63	8.58	7.26	6.81	6.34	8.58	2.24	7.30	0.59
RW-2 (4)	9.24	6.62	5.76	7.03	NM	NM	NM	5.76	7.03	1.27	6.47	0.42
RW-3 (6)	7.58	5.64	4.80	5.80	NM	NM	NM	4.80	5.80	1.00	5.41	0.29
RW-4 (6)	13.25	6.90	6.15	7.27	8.10	7.19	6.57	6.15	8.10	1.95	7.03	0.45
RW-5 (6)	11.71	6.76	5.94	7.06	NM	NM	NM	5.94	7.06	1.12	6.59	0.34
RW-6 (6)	10.12	5.44	4.67	5.64	NM	NM	NM	4.67	5.64	0.97	5.25	0.26
RW-7 (6)	8.63	5.13	4.75	5.88	NM	NM	NM	4.75	5.88	1.13	5.25	0.33
RW-8 (4)	7.43	NI	NI	NI	NI	NI	4.83	4.83	4.83	0.00	4.83	N/A
RW-9 (4)	11.79	NI	NI	NI	NI	NI	6.10	6.10	6.10	0.00	6.10	N/A
Event Min.* ² (ft.)		5.13	4.67	5.64	5.07	4.42	4.02	Global Min.* ² (ft.)		4.02		
Event Max.* ² (ft.)		7.87	7.04	8.15	9.08	7.92	7.43	Global Max.* ² (ft.)		9.08		
Event Range* ² (ft.)		2.74	2.37	2.51	4.01	3.50	3.41	Global Range* ² (ft.)		5.06		
Event Avg.* ² (ft.)		6.36	5.61	6.67	6.88	6.16	5.69	Global Avg.* ² (ft.)		6.23		
Event Var.* ² (ft.)		0.73	0.55	0.68	1.02	0.78	0.75	Global Var.* ² (ft.)		0.96		

Notes:

Top of casing (TOC) elevations are based on surveys conducted by Brewer Land Surveying in October 2013, EMC Engineering Services in June 2015, and Mock Surveying in January 2016.

* = Event Min, Max, Range, Avg., and Var. - are the minimum, maximum, range, average, and total variance for each respective groundwater gauging event.

*² = MW Min., Max., Range, Avg., and Var. - are the minimum, maximum, range, average, and total variance for each monitoring well throughout all gauging events from July 2014 to October 2015 where available.

*³ = Global Min., Max., Range, Avg., and Var. - are the minimum, maximum, range, average, and total variance for all monitoring wells throughout all events from July 2014 to APR 2016

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Table 2-1: Potential Release Sources

Areas of Concern (AOC)	Description	Constituents of Concern (COC)	Potential Release Sources	Reference ID	Correspondance Date
1	Suspected Area of Disposal #1	Black Liquor	Buried waste black liquor drums	2	8/10/1992
2	Suspected Area of Disposal #2	Black Liquor	Buried waste black liquor drums	2	8/10/1992
3	Suspected Area of Disposal #3	Black Liquor	Buried waste black liquor drums	2	8/10/1992
4	Tire Shop Area (former Wash Rack)	Halogenated Organic compounds, Volatile Organic Aromatic compounds, Diesel	Release of PCE/TCE combined with Detrex Vapor Generator at Tire Shop (former Wash Rack); Spill around a portable lighting system, southwest of Tire Shop; Discharge of an unknown liquid from holding tank, formerly located at the Tire Shop	2, 34, 56	8/10/1992, 12/20/2001, 6/3/2008
5	Current Wash Rack Area	Chlorinated Volatile Organic compounds	PCE/TCE release from AOC 4; Break in underground piping for the groundwater extraction system, east and west of Current Wash Rack	97	5/4/2011
6	City of Port Wentworth Stormwater Ditch (west of McKenzie property)	Diesel, Metals, Halogenated Organic compounds, Volatile Organic Aromatic compounds, Polynuclear Aromatic Hydrocarbon compounds	Diesel and Black Liquor spill from unknown source; PCE/TCE release from AOC 4	2	8/10/1992
7	McKenzie Stormwater Culvert (west from RW-3)	Chlorinated Volatile Organic compounds, Volatile Organic Aromatic compounds, Metals	PCE/TCE release from AOC 4	2	8/10/1992
8	McKenzie Underground Pipe (east of RW-2)	Chlorinated Volatile Organic compounds	PCE/TCE release from AOC 4	2	8/10/1992
9	Percolation Pond	Chlorinated Volatile Organic compounds	Effluent from groundwater treatment system	112	8/2/2012
10	Former Holding Pond	Chlorinated Volatile Organic compounds, Metals	Effluent from groundwater treatment system	80E	11/9/2009

References:

2 - GB Robbins, 1992
 34 - Geovac, 2001
 56 - Geovac, 2008

80E - CH2MHILL, 2009
 97 - Geovac, 2011b
 112 - GADNR, 2012

Table 3-1: Site Soil and Sediment Excavations

Soil Excavations

Areas of Concern (AOC)	Location of Excavation	Quantity Removed During Excavation	Remarks	Reference ID	Correspondance Date
2	Suspected Area of Disposal #2	Undefined	Investigated for presence of waste black liquor drums and excavated using shovels and backhoe.	2	8/10/1992
3	Suspected Area of Disposal #3	Undefined	Investigated for presence of waste black liquor drums and excavated using shovels and backhoe.	2	8/10/1992
4A	Southwest of Tire Shop	Excavated approximately 1,000 cubic yards of soil.	Soils excavated on the southwestern side of the Tire Shop during a soil venting pilot study.	7	4/6/1994
4A	Southwest of Tire Shop	Excavated 855 tons of soil.	Excavated soils disposed of at off-site facility.	9	4/26/1998
4B	Southeast of Tire Shop	Excavated approximately 1,100 cubic yards of soil.		9	4/26/1998
5A	Eastern side of the current wash rack	5 to 10 cubic yards	Excavated on November 29, 2010 (?).	92A	1/12/2011
5B	Western side of the current wash rack	5 to 10 cubic yards	Excavated on December 7, 2010.	92A	1/12/2011

Sediment Excavations

Areas of Concern (AOC)	Location of Excavation	Quantity Removed During Excavation	Remarks	Reference ID	Correspondance Date
6	City of Port Wentworth Stormwater Ditch (west of McKenzie property)	Approximately 60 cubic yards (ref: #5) of contaminated soils excavated.	Emergency reponse from April 15 - 20, 1992. Sediments excavated from City of Port Wentworth stormwater ditch after a temporary dam was constructed.	3 (and # 5 where applicable)	5/13/1993 (and 12/8/1993 where applicable)

References:

- 2 - GB Robbins, 1992
- 3 - GB Robbins, 1993
- 5 - Farley Jones, 1993
- 7 - Farley Jones, 1994
- 9 - Handex, 1998
- 92A - Geovac, 2011

Table 4-1: McKenzie Tank Lines, Port Wentworth, GA
Post-Excavation Confirmatory Soil and Sediment Sampling Analytical Results

Sample ID (Sample Depth, ft.)	Sample Date/Time	Tetrachloroethene (PCE)		Trichloroethene (TCE)		Cis-1,2-Dichloroethene (DCE)		Vinyl Chloride (VC)		Benzene		Toluene		Ethylbenzene		Total Xylenes	
		Delineation Criteria 180 (µg/kg)		Delineation Criteria 130 (µg/kg)		Delineation Criteria 530 (µg/kg)		Delineation Criteria 40 (µg/kg)		Delineation Criteria 20 (µg/kg)		Delineation Criteria 14,000 (µg/kg)		Delineation Criteria 20,000 (µg/kg)		Delineation Criteria 20,000 (µg/kg)	
		Type III RRS 500 (µg/kg)		Type III RRS 500 (µg/kg)		Type III RRS 7,000 (µg/kg)		Type III RRS 200 (µg/kg)		Type III RRS 500 (µg/kg)		Type III RRS 100,000 (µg/kg)		Type III RRS 70,000 (µg/kg)		Type III RRS 1,000,000 (µg/kg)	
		Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag
AOC1-SB-C(2.0-2.5)	3/31/2015 13:53	<1.8		<1.2		<1.3		<1.4		<0.67		<0.77		<1.2		<1.0	
AOC1-SB-C(2.5-3.0)	3/31/2015 13:59	<1.8		<1.2		<1.3		<1.4		<0.69		<0.79		<1.2		<1.0	
AOC1-SB-E(2.5-3.0)	3/31/2015 14:17	<1.7		<1.2		<1.3		<1.4		<0.66		<0.76		<1.2		<1.0	
AOC1-SB-E(3.5-4.0)	3/31/2015 14:19	<1.8		<1.2		<1.3		<1.4		<0.68		<0.78		<1.2		<1.0	
AOC1-SB-N(2.5-3.0)	3/31/2015 14:44	<1.1		<0.76		<0.82		<0.88		<0.43		<0.49		<0.76		<0.64	
AOC1-SB-N(3.5-4.0)	3/31/2015 14:48	<1.5		<1.0		<1.1		<1.2		<0.57		<0.65		<1.0		<0.86	
AOC1-SB-S(2.5-3.0)	3/31/2015 14:27	<1.3		<0.88		<0.95		<1.0		<0.50		<0.57		<0.88		<0.75	
AOC1-SB-S(3.5-4.0)	3/31/2015 14:33	<1.6		<1.1		<1.2		<1.3		<0.63		<0.72		<1.1		<0.94	
AOC1-SB-W(2.0-2.5)	3/31/2015 14:02	<1.1		<0.76		<0.82		<0.88		<0.43		<0.49		<0.76		<0.65	
AOC1-SB-W(2.5-3.0)	3/31/2015 14:06	<1.9		<1.3		<1.4		<1.5		<0.72		<0.82		<1.3		<1.1	
AOC2-SB-C(2.0-2.5)	3/31/2015 12:16	<1.7		<1.1		<1.2		<1.3		<0.64		<0.73		<1.1		<0.96	
AOC2-SB-C(3.5-4.0)	3/31/2015 12:19	<2.7		<1.9		<2.0		<2.2		<1.0		<1.2		<1.9		<1.6	
AOC2-SB-E(2.0-2.5)	3/31/2015 12:02	<1.4		<0.98		<1.1		<1.1		<0.55		<0.63		2.7	J	19	
AOC2-SB-E(3.5-4.0)	3/31/2015 12:07	<1.9		<1.3		<1.4		<1.5		<0.72		3.0	J	<1.3		3.6	J
AOC2-SB-N(2.0-2.5)	3/31/2015 12:27	<1.1		<0.78		<0.84		<0.90		<0.44		<0.51		<0.78		<0.66	
AOC2-SB-N(3.5-4.0)	3/31/2015 12:30	<1.5		<1.0		<1.1		<1.2		<0.58		<0.67		<1.0		<0.88	
AOC2-SB-S(2.0-2.5)	3/31/2015 12:39	<1.6		<1.1		<1.2		<1.3		<0.62		<0.71		<1.1		<0.93	
AOC2-SB-S(3.5-4.0)	3/31/2015 12:41	<1.4		<0.94		<1.0		<1.1		<0.53		<0.61		<0.94		<0.79	
AOC2-SB-W(2.0-2.5)	3/31/2015 12:50	<1.2		<0.83		<0.89		<0.96		<0.47		<0.54		<0.83		<0.70	
AOC2-SB-W(3.5-4.0)	3/31/2015 12:56	<1.9		<1.3		<1.4		<1.5		<0.73		<0.83		<1.3		<1.1	
AOC3-SB-C(2.0-2.5)	3/31/2015 10:38	<1.4		<0.98		<1.1		<1.1		<0.55		<0.63		<0.98		0.84	J
AOC3-SB-C(3.5-4.0)	3/31/2015 10:43	<1.5		<1.1		<1.1		<1.2		<0.59		<0.68		<1.1		<0.89	
AOC3-SB-E(2.5-3.0)	3/31/2015 10:22	10		1.6	J	<0.97		<1.0		<0.51		<0.58		<0.90		<0.76	
AOC3-SB-E(3.5-4.0)	3/31/2015 10:25	1,200		590		280	J*	<120		<60		<110		<90		<90	
AOC3-SB-E-5E(3.0-3.5)	10/20/2015 9:15	<1.9		<1.3		<1.4		<1.5		<0.74		<0.85		<1.3		<1.1	
AOC3-SB-E-5E(4.5-5.0)*	10/20/2015 9:24	<1.6		<1.1		<1.2		<1.3		<0.62		<0.72		<1.1		<0.94	
AOC3-SB-E-5N(3.5-4.0)	10/20/2015 10:20	<1.7		<1.2		<1.2		<1.3		<0.65		<0.74		<1.2		<0.98	
AOC3-SB-E-5S(3.0-3.5)	10/20/2015 10:45	<2.0		<1.4		<1.5		<1.6		<0.78		<0.89		<1.4		<1.2	
AOC3-SB-N(2.0-2.5)	1/20/2015 10:50	<0.85		<0.58		<0.62		<0.67		<0.33		<0.37		<0.58		<0.49	
AOC3-SB-N(3.5-4.0)	1/20/2015 10:50	<0.85		<0.58		<0.62		<0.67		<0.32		<0.37		<0.58		<0.49	
AOC3-SB-S(2.5-3.0)	3/31/2015 10:58	<1.9		<1.3		<1.4		<1.5		<0.74		<0.85		<1.3		<1.1	
AOC3-SB-S(3.5-4.0)	3/31/2015 11:03	<1.4		<0.99		<1.1		<1.1		<0.56		<0.64		<0.99		<0.84	
AOC3-SB-W(2.0-2.5)	3/31/2015 10:47	<1.9		<1.3		<1.4		<1.5		<0.74		<0.85		<1.3		1.2	J
AOC3-SB-W(3.5-4.0)	3/31/2015 10:51	<1.1		<0.77		<0.83		<0.88		<0.43		<0.50		<0.77		<0.65	
AOC4-SB-BLD-NE(1.5-2.0)	4/1/2015 10:27	<1.3		<0.88		<0.95		<1.0		<0.49		<0.57		<0.88		<0.75	
AOC4-SB-BLD-NW(2.0-2.5)	4/1/2015 10:20	<410		<280		20,000		690	J	<160		220	J	<280		<240	
AOC4-SB-BLD-NW(2.5-3.0)	4/1/2015 10:23	<250		<170		14,000		800		<97		220	J	<170		<150	
AOC4-SB-BLD-NW-5E(3.0-3.5)	10/20/2015 15:00	<400		<280		33,000		<320		<150		<180		<280		<230	
AOC4-SB-BLD-NW-5E(4.5-5.0)	10/20/2015 15:32	11,000,000		150,000	J	470,000	J	<150,000		<73,000		130,000	J	<130,000		<110,000	
AOC4-SB-BLD-NW-15E(3.0-3.5)	10/21/2015 12:12	<2.0		<1.4		3.7	J	<1.6		<0.76		<0.88		<1.4		<1.1	
AOC4-SB-BLD-NW-15E(4.5-5.0)	10/21/2015 12:39	<2.1		<1.4		64		33		<0.81		<0.93		<1.4		<1.2	
AOC4-SB-BLD-NW-15N(4.5-5.0)	1/21/2016 15:20	<1.1		<0.76		11		2.1	J	<0.43		<0.49		<0.76		<0.64	
AOC4-SB-BLD-SF(2.0-2.5)	4/1/2015 10:33	4.0		<0.57		2.4		<0.66		<0.32		<0.37		<0.57		<0.48	
AOC4-SB-BLD-SW(2.0-2.5)	4/1/2015 10:10	2.2	J	<0.94		<1.0		<1.1		<0.53		<0.61		<0.94		<0.80	
AOC4-SB-BLD-SW(3.0-3.5)	4/1/2015 10:15	<0.83		0.68	J	0.87	J	<0.65		<0.32		<0.37		<0.57		<0.48	
AOC4-SB-C(2.5-3.0)	3/30/2015 15:13	<1.1		<0.77		22		2.2	J	<0.43		<0.50		<0.77		<0.65	
AOC4-SB-C(4.0-4.5)	3/30/2015 15:17	<300		<200		18,000		1,800		<110		<130		<200		<170	
AOC4-SB-C-5N(3.0-4.0)	10/20/2015 12:00	<2.4		<1.6		16.0		2.5	J	<0.90		<1.0		<1.6		<1.4	
AOC4-SB-C-5S(4.5-5.0)	10/20/2015 13:55	<2.0		<1.3		9.0		<1.5		<0.75		<0.87		<1.3		<1.1	
AOC4-SB-C-5W(4.5-5.0)	10/20/2015 14:22	<1.7		<1.2		2.0	J	<1.3		<0.66		<0.76		<1.2		<0.99	
AOC4-SB-C-NW-10E(4.5-5.0)	1/21/2016 15:20	<1.0		<0.69		5.7		5.7		<0.38		<0.44		<0.69		<0.58	
AOC4-SB-E(3.5-4.0)	3/30/2015 14:27	<1.3		<0.91		110		16		<0.51		<0.59		<0.91		2.4	J
AOC4-SB-E(4.0-4.5)	3/30/2015 14:29	<77		<53		460		<61		<29		<34		<53		<44	
AOC4-SB-N(2.5-3.0)	3/30/2015 14:44	<0.91		<0.62		<0.67		<0.72		<0.35		<0.40		<0.62		<0.53	
AOC4-SB-N(4.0-4.5)	3/30/2015 14:48	<0.81		<0.55		1.0	J	<0.64		<0.31		<0.36		<0.55		<0.47	
AOC4-SB-S(2.5-3.0)	3/30/2015 15:30	2.2	J	<0.75		<0.81		<0.87		<0.42		<0.49		<0.75		<0.64	
AOC4-SB-S(4.0-4.5)	3/30/2015 15:33	1.7	J	3.1		8.4		<0.88		<0.43		<0.49		<0.76		0.81	J
AOC4-SB-W(2.5-3.0)	3/30/2015 14:51	<0.74		<0.51		1.3	J	<0.58		<0.28		0.78	J	<0.51		1.9	J
AOC4-SB-W(4.0-4.5)	3/30/2015 15:02	<1.3		<0.86		36		<0.99		<0.48		<0.55		<0.86		<0.72	
AOC5-SB-C(2.0-2.5)	3/30/2015 16:18	<0.88		<0.60		<0.64		<0.69		<0.34		<0.39		<0.60		<0.51	

Table 4-1: McKenzie Tank Lines, Port Wentworth, GA
Post-Excavation Confirmatory Soil and Sediment Sampling Analytical Results

Sample ID (Sample Depth, ft.)	Sample Date/Time	Tetrachloroethene (PCE)		Trichloroethene (TCE)		Cis-1,2-Dichloroethene (DCE)		Vinyl Chloride (VC)		Benzene		Toluene		Ethylbenzene		Total Xylenes	
		Delineation Criteria 180 (µg/kg)		Delineation Criteria 130 (µg/kg)		Delineation Criteria 530 (µg/kg)		Delineation Criteria 40 (µg/kg)		Delineation Criteria 20 (µg/kg)		Delineation Criteria 14,000 (µg/kg)		Delineation Criteria 20,000 (µg/kg)		Delineation Criteria 20,000 (µg/kg)	
		Type III RRS 500 (µg/kg)		Type III RRS 500 (µg/kg)		Type III RRS 7,000 (µg/kg)		Type III RRS 200 (µg/kg)		Type III RRS 500 (µg/kg)		Type III RRS 100,000 (µg/kg)		Type III RRS 70,000 (µg/kg)		Type III RRS 1,000,000 (µg/kg)	
		Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag
AOC5-SB-C(4.0-4.5)	3/30/2015 16:23	<2.0		<1.3		<1.4		<1.5		<0.75		<0.86		<1.3		<1.1	
AOC5-SB-E(2.5-3.0)	3/30/2015 15:54	<1.4		<0.95		<1.0		<1.1		<0.53		<0.61		<0.95		0.99	J
AOC5-SB-E(4.0-4.5)	3/30/2015 16:03	<1.0		<0.71		<0.77		<0.82		<0.40		<0.46		<0.71		<0.60	
AOC5-SB-N(2.0-2.5)	3/31/2015 9:37	<1.1		<0.74		<0.80		<0.85		0.42	J	<0.48		<0.74		1.6	J
AOC5-SB-N(4.0-4.5)	3/31/2015 9:41	<1.4		<0.96		<1.0		<1.1		<0.54		<0.62		<0.96		<0.82	
AOC5-SB-S(2.0-2.5)	1/20/2015 9:17	<1.8		<1.2		4.8		<1.4		<0.69		<0.79		<1.2		<1.0	
AOC5-SB-S(3.0-3.5)	1/20/2015 9:17	<1.6		<1.1		<1.2		<1.2		<0.60		<0.70		<1.1		<0.91	
AOC5-SB-W(2.5-3.0)	3/30/2015 16:29	<1.3		<0.90		<0.97		<1.0		<0.51		<0.58		<0.90		<0.76	
AOC5-SB-W(4.0-4.5)	3/30/2015 16:34	<1.3		<0.92		<0.99		<1.1		<0.52		<0.59		<0.92		<0.78	
AOC6-SD-1(1.0-2.0)	4/1/2015 14:52	<1.8		<1.3		<1.4		<1.5		<0.71		<0.81		<1.3		<1.1	
AOC6-SD-2(1.0-2.0)	4/1/2015 15:14	<0.83		<0.57		0.79	J	<0.65		<0.32		<0.37		<0.57		<0.48	
AOC6-SD-3(1.0-2.0)	4/1/2015 15:25	3,400		220	J	540		<100		<49		<57		<88		<74	
AOC6-SD-3-5E(1.0-2.0)	11/9/2015 15:37	<0.72		<0.49		<0.53		<0.57		<0.28		<0.32		<0.49		<0.42	
AOC6-SD-3-5W(1.0-2.0)	11/9/2015 16:16	5,000		1,400		4,100		<77		<37		100	JB	<67		<56	
AOC6-SD-3-10N(1.0-2.0)	11/9/2015 15:44	<100		130	J	6,300		400		<39		110	JB	150	J	450	J
AOC6-SD-3-10N-E-Bank(2.5-3.0)	1/21/2016 15:20	<1.1		<0.73		<0.79		<0.84		<0.41		<0.47		<0.73		<0.62	
AOC6-SD-3-10N-W-Bank(1.5-2.0)	1/21/2016 15:24	30,000		8,200		7,800		<600		<290		<340		<520		<440	
AOC6-SD-3-10N-10W(1.0-2.0)	7/20/2016 13:49	8,100		2,300		2,300		<12		<5.9		<5.9		<5.9		<5.9	
AOC6-SD-3-10S(1.0-2.0)	11/9/2015 16:00	<35		<24		<25		<13		<13		20	JB	47	J	48	J
AOC6-SD-3-10S-10W(2.0-2.5)	7/20/2016 13:37	<5.2		<5.2		<5.2		<10		<5.2		<5.2		<5.2		<5.2	
AOC6-SD-3-20W(2.0-2.5)	1/21/2016 15:32	65		20		27		<0.75		<0.36		<0.42		<0.65		<0.55	
AOC6-SD-3-25N(1.0-2.0)	1/21/2016 15:32	240,000		1,600		1,000		<3100		<1500		<1700		<2700		<2300	
AOC6-SD-3-25N-E-Bank(2.0-2.5)	1/21/2016 15:22	<1.4		<0.94		3.8		<1.1		<0.53		<0.61		<0.94		<0.79	
AOC6-SD-3-25N-W-Bank(2.0-2.5)	1/21/2016 15:24	11,000		1,300		2,900		<140		<68		<78		<100		<100	
AOC6-SD-3-25N-10W(2.0-2.5)	7/20/2016 14:02	<3.7		<3.7		<3.7		<7.5		<3.7		<3.7		<3.7		<3.7	
AOC6-SD-3-35N(1.0-2.0)	7/20/2016 14:10	27,000		2,200		9,500		26		<2.8		240		20		<2.8	
AOC6-SD-3-35N-E-Bank(1.0-2.0)	7/20/2016 14:15	73		11		5.1		<5.8		<2.9		<2.9		<2.9		<2.9	
AOC6-SD-3-35N-W-Bank(1.0-2.0)	7/20/2016 14:05	22		<3.8		11		<7.7		<3.8		<3.8		<3.8		<3.8	
AOC6-SD-3-35N-10W(2.0-2.5)	7/20/2016 13:57	630		220		130		<7.7		<3.9		<3.9		<3.9		<3.9	
AOC6-SD-3-55N(1.0-2.0)	1/21/2016 15:22	<40		<27		270		<32		<15		<18		<27		<23	
AOC6-SD-3-55N-E-Bank(1.0-2.0)	1/21/2016 15:37	<1.7		<1.2		<1.3		<1.4		<0.66		<0.76		<1.2		<1.0	
AOC6-SD-3-55N-W-Bank(1.0-2.0)	1/21/2016 15:40	3.4		<0.56		58		<0.65		<0.32		<0.36		<0.56		<0.48	
AOC6-SD-4(1.0-2.0)	4/1/2015 15:58	<0.67		<0.46		0.51	J	<0.53		<0.26		<0.29		<0.46		<0.39	
AOC7-SB-C(2.5-3.0)	3/31/2015 13:08	8.9		<0.66		<0.71		<0.76		<0.37		<0.43		<0.66		<0.56	
AOC7-SB-C(4.0-4.5)	3/31/2015 13:12	13		14		28		<1.5		<0.71		<0.81		<1.1		<1.1	
AOC7-SB-E(2.5-3.0)	3/31/2015 13:37	<1.1		<0.77		<0.83		<0.88		<0.43		<0.50		<0.77		<0.65	
AOC7-SB-E(4.0-4.5)	3/31/2015 13:41	<1.7		<1.2		3.3	J	2.3	J	<0.66		1.3	J	<1.2		2.0	J
AOC7-SB-N(2.0-2.5)	1/20/2015 12:15	<0.90		<0.62		<0.66		<0.71		<0.35		<0.40		<0.62		<0.52	
AOC7-SB-N(3.0-3.5)	1/20/2015 12:15	<1.0		<0.71		<0.77		<0.82		<0.40		<0.46		<0.71		<0.60	
AOC7-SB-W(1.0-1.5)	1/20/2015 14:45	<2.9		<2.0		<2.1		<2.3		<1.1		<1.3		<2.0		<1.7	
AOC7-SB-W(3.5-4.0)	1/20/2015 14:45	<1.8		<1.3		<1.4		<1.5		<0.71		<0.81		<1.3		<1.1	
AOC7-SB-S(2.5-3.0)	3/31/2015 13:22	<1.7		<1.2		<1.3		<1.4		<0.67		<0.77		<1.2		<1.0	
AOC7-SB-S(4.0-4.5)	3/31/2015 13:27	<1.4		<0.97		<1.0		<1.1		<0.54		<0.63		<0.97		<0.82	
AOC8-SB-C(1.5-2.0)	4/1/2015 9:15	<2.3		<1.5		<1.7		<1.8		<0.87		<1.0		<1.5		<1.3	
AOC8-SB-E(2.0-2.5)	4/1/2015 9:07	<0.64		<0.44		<0.47		<0.50		<0.25		<0.28		<0.44		<0.37	
AOC8-SB-N(2.5-3.0)	3/31/2015 11:11	<1.1		<0.76		<0.81		<0.87		<0.42		<0.49		0.84	J	8.4	J
AOC8-SB-N(4.0-4.5)	3/31/2015 11:16	<1.5		<1.0		9.7		<1.2		<0.56		<0.65		<1.0		<0.85	
AOC8-SB-S(2.5-3.0)	3/31/2015 10:10	<1.4		<0.99		<1.1		<1.1		<0.55		<0.64		1.9	J	14	J
AOC8-SB-S(3.5-4.0)	3/31/2015 10:13	<0.76		<0.52		<0.56		<0.60		<0.29		<0.34		1.2	J	7.6	J
AOC8-SB-W(2.5-3.0)	3/31/2015 9:58	<1.2		<0.83		<0.90		<0.96		<0.47		<0.54		<0.83		<0.71	
AOC8-SB-W(4.0-4.5)	3/31/2015 10:04	<1.1		<0.72		0.83	J	<0.83		<0.41		<0.47		<0.72		<0.61	
AOC9-SB-E(2.0-2.5)	3/31/2015 16:48	<0.81		<0.55		<0.60		<0.64		<0.31		<0.36		<0.55		<0.47	
AOC9-SB-N(1.5-2.0)	3/31/2015 16:38	<0.98		<0.67		<0.72		<0.77		<0.38		<0.43		<0.67		2.5	J
AOC9-SB-S(2.0-2.5)	4/1/2015 8:55	<1.3		<0.92		<0.99		<1.1		<0.52		<0.59		<0.92		<0.78	
AOC9-SB-S(3.0-3.5)	4/1/2015 9:00	<0.81		<0.55		<0.60		<0.64		<0.31		<0.36		<0.55		<0.47	
AOC9-SB-W(2.0-2.5)	3/31/2015 16:18	<1.7		<1.1		<1.2		<1.3		<0.64		<0.74		<1.1		<0.97	
AOC10-SB-C(2.0-2.5)	3/30/2015 14:00	<0.96		<0.66		<0.71		<0.76		<0.37		<0.43		<0.66		<0.56	
AOC10-SB-C(4.0-4.5)	3/30/2015 14:05	<0.89		<0.61		<0.66		<0.70		<0.34		<0.39		<0.61		<0.52	
AOC10-SB-E(2.0-2.5)	3/30/2015 14:07	<0.96		<0.66		1.2	J	<0.76		<0.37		<0.42		<0.66		<0.56	
AOC10-SB-E(4.0-4.5)	3/30/2015 14:11	<1.3		<0.88		4.1		<1.0		<0.50		<0.57		<0.88		2.7	J

**Table 4-1: McKenzie Tank Lines, Port Wentworth, GA
Post-Excavation Confirmatory Soil and Sediment Sampling Analytical Results**

Sample ID (Sample Depth, ft.)	Sample Date/Time	Tetrachloroethene (PCE)		Trichloroethene (TCE)		Cis-1,2-Dichloroethene (DCE)		Vinyl Chloride (VC)		Benzene		Toluene		Ethylbenzene		Total Xylenes	
		Delineation Criteria 180 (µg/kg)		Delineation Criteria 130 (µg/kg)		Delineation Criteria 530 (µg/kg)		Delineation Criteria 40 (µg/kg)		Delineation Criteria 20 (µg/kg)		Delineation Criteria 14,000 (µg/kg)		Delineation Criteria 20,000 (µg/kg)		Delineation Criteria 20,000 (µg/kg)	
		Type III RRS 500 (µg/kg)		Type III RRS 500 (µg/kg)		Type III RRS 7,000 (µg/kg)		Type III RRS 200 (µg/kg)		Type III RRS 500 (µg/kg)		Type III RRS 100,000 (µg/kg)		Type III RRS 70,000 (µg/kg)		Type III RRS 1,000,000 (µg/kg)	
		Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag	Result (µg/kg)	Flag
AOC10-SB-N(1.5-2.0)	1/19/2015 17:01	<1.3		<0.91		<0.98		<1.0		<0.51		<0.59		<0.91		<0.77	
AOC10-SB-N(5.5-6.0)	1/19/2015 17:01	<0.98		<0.67		1.0	J	<0.77		<0.38		<0.43		<0.67		<0.57	
AOC10-SB-S(2.5-3.0)	3/30/2015 13:40	<1.1		<0.74		<0.79		<0.85		<0.41		<0.48		0.94	J	5.1	J
AOC10-SB-S(3.5-4.0)	3/30/2015 13:47	<1.3		<0.91		<0.98		<1.0		<0.51		<0.59		<0.91		<0.77	
AOC10-SB-W(2.5-3.0)	3/30/2015 13:15	<1.1		<0.75		5.9		<0.87		<0.42		<0.49		<0.75		2.7	J
AOC10-SB-(3.5-4.0)	3/30/2015 13:20	<1.3		<0.87		6.9		<1.0		<0.49		<0.56		<0.87		3.4	J

20,000 = Concentration is greater than delineation criteria

5 = Concentration is above method detection limits but below delineation criteria

<1.3 = Concentration is below method detection limits

J = Concentration is less than the recovery limit but greater than or equal to the method detection limit and therefore the concentration is an approximate value

**Table 4-2: McKenzie Tank Lines, Port Wentworth, GA
Former Office and Shop and Other Soil Analytical Results**

Sample ID (Sample Depth, ft.)	Sample Date/Time	Tetrachloroethene		Trichloroethene		Cis-1,2-		Vinyl Chloride		Benzene		Toluene		Ethylbenzene		Total Xylenes	
		Delineation Criteria		Delineation Criteria		Delineation Criteria		Delineation Criteria		Delineation Criteria		Delineation Criteria		Delineation Criteria		Delineation Criteria	
		180		130		530		40		20		14,400		20,000		20,000	
		Result (µg/kg)	Flag														
SB-1 (2-3 ft)	7/20/2016 10:12	<4.1		<4.1		<4.1		<8.2		<4.1		<4.1		<4.1		<3.4	
SB-1 (3-4 ft)	7/20/2016 10:12	<5.0		<5.0		<5.0		<10		<5.0		<5.0		<5.0		<5.0	
SB-2 (2-3 ft)	7/20/2016 10:17	<7.9		<7.9		<7.9		<16		<7.9		<7.9		<7.9		<7.9	
SB-2 (3-4 ft)*	7/20/2016 10:17	<7.0		<7.0		<7.0		<14		<7.0		<7.0		<7.0		<7.0	
SB-3 (2-3 ft)	7/20/2016 9:57	<3.2		<3.2		<3.2		<6.4		<3.2		<3.2		<3.2		<3.2	
SB-3 (3-4 ft)	7/20/2016 9:57	<4.5		<4.5		<4.5		<9.0		<4.5		<4.5		<4.5		<4.5	
SB-4 (2-3 ft)	7/20/2016 10:19	<3.9		<3.9		<3.9		<7.7		<3.9		<3.9		<3.9		<3.9	
SB-4 (3-4 ft)	7/20/2016 10:19	<210		<210		<210		<420		<210		<210		<210		<210	
SB-5 (2-3 ft)	7/20/2016 10:22	<5.8		<5.8		<5.8		<12		<5.8		<5.8		<5.8		<5.8	
SB-5 (3-4 ft)	7/20/2016 10:22	<200		<200		<200		<410		<200		<200		<200		<200	
SB-6 (2-3 ft)	7/20/2016 10:28	<4.8		<4.8		<4.8		<9.7		<4.8		<4.8		<4.8		<4.8	
SB-6 (3-4 ft)	7/20/2016 10:28	<4.7		<4.7		<4.7		<9.4		<4.7		<4.7		<4.7		<4.7	
SB-7 (2.5-3.0)	7/20/2016 9:33	<3.9		<3.9		<3.9		<7.9		<3.9		<3.9		<3.9		<3.9	
SB-7 (3-4 ft)	7/20/2016 9:33	<4.2		<4.2		<4.2		<8.3		<4.2		<4.2		<4.2		<4.2	
SB-8 (2-3 ft)	7/20/2016 9:25	<5.0		<5.0		<5.0		<10		<5.0		<5.0		<5.0		<5.0	
SB-8 (3-4 ft)	7/20/2016 9:25	<4.9		<4.9		<4.9		<9.7		<4.9		<4.9		<4.9		<4.9	
SB-9 (2.5-3.0 ft)	7/20/2016 9:16	<4.4		<4.4		<4.4		<8.8		<4.4		<4.4		<4.4		<4.4	
SB-9 (3-4.5 ft)	7/20/2016 9:16	<5.0		<5.0		<5.0		<10		<5.0		<5.0		<5.0		<5.0	
SB-10 (2-3 ft)	7/20/2016 9:10	<6.5		<6.5		<6.5		<13		<6.5		<6.5		<6.5		<6.5	
SB-10 (3-4.5 ft)	7/20/2016 9:10	<6.2		<6.2		<6.2		<12		<6.2		<6.2		<6.2		<6.2	
SB-11 (2-3.5 ft)	7/20/2016 9:05	<5.7		<5.7		<5.7		<11		<5.7		<5.7		<5.7		<5.7	
SB-11 (4-5 ft)	7/20/2016 9:05	<4.9		<4.9		<4.9		<9.8		<4.9		<4.9		<4.9		<4.9	
SB-12 (2.5-3.0 ft)	7/20/2016 9:00	<5.5		<5.5		<5.5		<11		<5.5		<5.5		<5.5		<5.5	
SB-12 (4-4.5 ft)	7/20/2016 9:00	<9.1		<9.1		<9.1		<18		<9.1		<9.1		<9.1		<9.1	
SB-13 (2-3 ft)*	7/20/2016 11:00	<7.0		<7.0		<7.0		<14		<7.0		<7.0		<7.0		<7.0	
SB-13 (3-4 ft)	7/20/2016 11:00	<4.9		<4.9		<4.9		<9.7		<4.9		<4.9		<4.9		<4.9	
SB-14 (2-3 ft)	7/20/2016 11:16	<3.3		<3.3		<3.3		<6.7		<3.3		<3.3		<3.3		<3.3	
SB-14 (3-4 ft)	7/20/2016 11:16	<5.3		<5.3		<5.3		<11		<5.3		<5.3		<5.3		<5.3	
SB-15 (2-3 ft)	7/20/2016 11:11	<3.6		<3.6		<3.6		<7.2		<3.6		<3.6		<3.6		<3.6	
SB-15 (3-4 ft)	7/20/2016 11:11	<4.5		<4.5		<4.5		<8.9		<4.5		<4.5		<4.5		<4.5	
SB-16 (2-3 ft)	7/20/2016 11:22	<3.6		<3.6		<3.6		<7.2		<3.6		<3.6		<3.6		<3.6	
SB-16 (3-4 ft)	7/20/2016 11:22	<4.0		<4.0		<4.0		<8.0		<4.0		<4.0		<4.0		<4.0	
SB-17 (2-3 ft)	7/20/2016 11:50	<4.1		<4.1		<4.1		<8.3		<4.1		<4.1		<4.1		<4.1	
SB-17 (3-4 ft)	7/20/2016 11:50	4.7		<2.6		<2.6		<5.2		<2.6		<2.6		<2.6		<2.6	
SB-18 (2-3 ft)	7/20/2016 11:43	<3.5		<3.5		<3.5		<6.9		<3.5		<3.5		<3.5		<3.5	
SB-18 (3-4 ft)	7/20/2016 11:43	<3.5		<3.5		<3.5		<6.9		<3.5		<3.5		<3.5		<3.5	

Notes:

20,000 = Concentration is greater than delineation criteria

5 = Concentration is above method detection limits but below delineation criteria

<1.3 = Concentration is below method detection limits

J = Concentration is less than the recovery limit but greater than or equal to the method detection limit and therefore the concentration is an approximate value

B = Compound was found in method blank and sample

* = Due to labeling error, samples could not be distinguished from one another. Since analytical results for all analytes in both samples were below detection limits, the higher of the two limits is shown.

McKenzie Tank Lines, Port Wentworth, GA

Table 4-3: Shallow Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Shallow Wells																			
	G-17	G-19	G-22	MW-2S	MW-4S	MW-15S*	MW-29	MW-31	MW-32	MW-33	MW-37S	MW-40S	MW-42S	MW-45S	MW-46S	MW-48S	MW-50S	PAW-3	MW-U2	
Tetrachloroethylene (PCE)	Type 4 RRS (µg/L)				Delineation Criteria (µg/L)												5			
Mar-93	NI	NI	NI	2,390.00	1,910.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Mar-94	NI	NI	NI	U	2,900.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Feb-96	NI	NI	NI	NA	460.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Mar-96	NI	NI	NI	20.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Sep-96	NI	NI	NI	11,000.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Oct-96	NI	NI	NI	31.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Apr-97	NI	NI	NI	47.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Jul-97	NI	NI	NI	111.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Oct-97	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	U	
Feb-98	NI	NI	NI	81.90	267.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Jul-98	NI	NI	NI	U	200.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Nov-98	NI	NI	NI	NA	1,580.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Feb-99	NI	NI	NI	0.50	80.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1.4	
Oct-99	NI	NI	NI	0.42	1,490.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
May-00	NI	NI	NI	U	1,343.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	9.4	
Jan-01	NI	NI	NI	4.80	3,730.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	2.5	
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Nov-01	NI	NI	NI	NA	250.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Dec-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Jan-02	NI	NI	NI	<1	NA	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<1	
Sep-02	NI	NI	NI	NA	<25	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	13.0	
Oct-03	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<0.43	
Jan-04	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Nov-04	NI	NI	NI	NA	6,300.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	3.1	
May-05	NI	NI	NI	NA	100.00	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Jun-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Jul-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<1	
Dec-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Oct-06	NI	NI	NI	NA	146.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Apr-07	NI	NI	NI	NA	NA	<0.3	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<0.3	
Nov-07	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Jun-08	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Jun-09	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	
Jul-10	NI	NI	NI	NA	0.2	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	34.0	
Dec-10	NI	NI	NI	NA	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	0.3	
Mar-11	0.2	U	0.2	U	0.2	U	NA	NA	0.2	U	3.8	37.0	10.0	U	NI	NI	NI	NI	NA	
Nov-11	NA	NA	NA	NA	NA	NA	NA	0.2	U	15.0	14.0	NA	NI	NI	NI	NI	NI	NI	NA	
Jun-12	NA	NA	NA	0.21	U	0.3	U	NA	0.3	U	1.9	NA	2.5	U	NI	NI	NI	NI	NA	
Aug-12	0.2	U	0.2	U	NA	NA	NA	NA	NA	NA	41.0	NA	NI	NI	NI	NI	NI	NI	150.0	
Mar-13	NA	0.2	U	NA	1.20	U	NA	0.3	U	0.3	J	100.0	NA	NI	NI	NI	NI	NI	9.0	
Aug-13	1.9	2.3	3.1	<0.16	<0.16	1.3	3.2	1.1	1.20	NI	NI	NI	NI	NI	NI	NI	NI	NI	<0.16	
Feb-14	<0.160	U	<0.160	U	<0.160	U	1.17	1.2	<0.16	U	<0.160	U	1.5	102.0	0.70	J	NI	NI	NI	
Jul-14	<0.16	U	<0.16	U	<0.16	U	<0.16	<0.16	U	<0.16	U	<0.16	120.0	<0.16	U	NI	NI	NI	NI	
Oct-14	<0.15	U	<0.15	U	NS	<0.15	U	<3.0	U	<0.15	U	<0.15	U	1.8	53.0	<0.30	U	NI	NI	
Jan-15	<0.74	U	<0.74	U	<0.74	U	2.3	<15	U	<0.74	U	<0.74	U	1.1	97.0	<3.7	U	NI	NI	
Apr-15	<0.74	U	<0.74	U	<0.74	U	1.9	<15	U	<0.74	U	<0.74	U	2.8	51.0	<3.7	U	<0.74	U	
Oct-15	<0.74	U	<0.74	U	<0.74	U	<37	U	<0.74	U	<0.74	U	<37	U	<0.74	U	<0.74	U	<0.74	
Apr-16	<0.74	U	<0.74	U	<0.74	U	<15	U	<0.74	U	<0.74	U	11	31	<0.74	U	0.88	J	<37	
Trichloroethylene (TCE)	Type 4 RRS (µg/L)				Delineation Criteria (µg/L)												5			
Mar-93	NI	NI	NI	460.00	125.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Mar-94	NI	NI	NI	U	680.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Feb-96	NI	NI	NI	NA	500.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Mar-96	NI	NI	NI	270.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Sep-96	NI	NI	NI	400.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Oct-96	NI	NI	NI	5,450.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Apr-97	NI	NI	NI	180.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Jul-97	NI	NI	NI	338.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Oct-97	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	U	
Feb-98	NI	NI	NI	238.00	336.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	

McKenzie Tank Lines, Port Wentworth, GA

Table 4-3: Shallow Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Shallow Wells																			
	G-17	G-19	G-22	MW-2S	MW-4S	MW-15S*	MW-29	MW-31	MW-32	MW-33	MW-37S	MW-40S	MW-42S	MW-45S	MW-46S	MW-48S	MW-50S	PAW-3	MW-U2	
Jul-98	NI	NI	NI	86.00	680.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Nov-98	NI	NI	NI	NA	1,630.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Feb-99	NI	NI	NI	1.30	79.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,370.00	NU	
Oct-99	NI	NI	NI	1.50	1,590.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
May-00	NI	NI	NI	1.50	1,807.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	826.00	NU	
Jan-01	NI	NI	NI	2.90	5,940.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	803.00	NU	
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Nov-01	NI	NI	NI	NA	430.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Dec-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Jan-02	NI	NI	NI	<1	NA	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	726.00	NU	
Sep-02	NI	NI	NI	NA	500.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	300.00	NU	
Oct-03	NI	NI	NI	NA	680.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	340.00	NU	
Jan-04	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Nov-04	NI	NI	NI	NA	750.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	450.00	NU	
May-05	NI	NI	NI	NA	50.0	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Jun-05	NI	NI	NI	NA	NA		NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Jul-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	640.00	NU	
Dec-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Oct-06	NI	NI	NI	NA	528.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Apr-07	NI	NI	NI	NA	NA	<0.3	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	230.00	NU	
Nov-07	NI	NI	NI	NA	NA	NL	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Jun-08	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Jun-09	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Jul-10	NI	NI	NI	NA	48.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	0.24	U	
Dec-10	NI	NI	NI	NA	48.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	30.00	NU	
Mar-11	0.24	U	0.24	U	0.24	U	NA	NA	NL	3.5	3.6	98.0	12.00	U	NI	NI	NI	NA	NU	
Nov-11	NA	NA	NA	NA	NA	NA	NA	0.24	4.4	4.4	4.4	44.0	NA	NI	NI	NI	NI	NA	NU	
Jun-12	NA	NA	NA	1.8	0.8	J	NL	0.17	U	1.3	1.3	NA	1.70	U	NI	NI	NI	NA	NU	
Aug-12	0.24	U	0.24	U	NA	NA	NA	NA	NA	NA	NA	140.0	NA	NI	NI	NI	NI	0.29	J	
Mar-13	NA	0.24	U	NA	2.0	NA	NL	0.17	U	1.4	1.4	140.0	NA	NI	NI	NI	NI	0.17	U	
Aug-13	<0.19	<0.19	0.85	J	<0.19	2,200.00	D	<0.19	1.90	3.2	3.2	150.0	<0.19	NI	NI	NI	NI	<0.19	NU	
Feb-14	<0.190	<0.190	<0.190		1.87	3.1	<0.190	<0.190	3.26	3.26	3.26	99.5	<0.190	NI	NI	NI	NI	2.11	NU	
Jul-14	<0.19	<0.19	<0.19		3.39	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	120.0	<0.19	NI	NI	NI	NI	<0.19	NU	
Oct-14	<0.13	U	<0.13	U	NS	0.20		<0.13	U	0.33	J	6.00	54.0	<0.26	U	NI	NI	<0.15	U	
Jan-15	<0.48	U	<0.48	U	<0.48	U	1.40	<9.6	U	<0.48	U	<0.48	U	1.50	65.0	<2.4	U	NI	<0.48	U
Apr-15	<0.48	U	<0.48	U	<0.48	U	1.0	<9.6	U	<0.48	U	<0.48	U	7.4	30.0	<2.4	U	0.5	J	370.0
Oct-15	<0.48	U	<0.48	U	<0.48	U	2.9	92.0		<0.48	U	<0.48	U	9.2	26.0	<0.48	U	0.8	J	26.0
Apr-16	<0.48	U	<0.48	U	<0.48	U	11		J	<0.48	U	<0.48	U	13	20	<0.48	U	1.1	J	<24
cis-1,2-Dichloroethylene	Type 4 RRS (µg/L)				204				Delineation Criteria (µg/L)				70							
Mar-93	NI	NI	NI	U	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Mar-94	NI	NI	NI	U	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Feb-96	NI	NI	NI	NA	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Mar-96	NI	NI	NI	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Sep-96	NI	NI	NI	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Oct-96	NI	NI	NI	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Apr-97	NI	NI	NI	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Jul-97	NI	NI	NI	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Oct-97	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU	
Feb-98	NI	NI	NI	8,920.0	838.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Jul-98	NI	NI	NI	U	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Nov-98	NI	NI	NI	NA	912.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Feb-99	NI	NI	NI	64.2	96.1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	2,350.0	NU	
Oct-99	NI	NI	NI	60.5	850.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
May-00	NI	NI	NI	22.8	956.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,390.0	NU	
Jan-01	NI	NI	NI	31.2	7,580.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,500.0	NU	
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Nov-01	NI	NI	NI	NA	360.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Dec-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU	
Jan-02	NI	NI	NI	37.0	NA	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,800.0	NU	
Sep-02	NI	NI	NI	NA	660.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	740.0	NU	

McKenzie Tank Lines, Port Wentworth, GA

Table 4-3: Shallow Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Shallow Wells																												
	G-17	G-19	G-22	MW-2S	MW-4S	MW-15S*	MW-29	MW-31	MW-32	MW-33	MW-37S	MW-40S	MW-42S	MW-45S	MW-46S	MW-48S	MW-50S	PAW-3	MW-U2										
Oct-03	NI	NI	NI	NA	4,100.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	820.0	NU										
Jan-04	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Nov-04	NI	NI	NI	NA	4,800.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,800.0	NU										
May-05	NI	NI	NI	NA	5,700.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Jun-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Jul-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,900.0	NU										
Dec-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Oct-06	NI	NI	NI	NA	2,410.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Apr-07	NI	NI	NI	NA	NA	4.5	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,050.0	NU										
Nov-07	NI	NI	NI	NA	NA	NL	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NL	NU										
Jun-08	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Jun-09	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Jul-10	NI	NI	NI	NA	930.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	2.5	NU										
Dec-10	NI	NI	NI	NA	930.0	NL	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	200.0	NU										
Mar-11	0.22	U	0.22	U	0.22	U	NA	NA	5.8	15.0	220.0	5,100.0	NI	NI	NI	NI	NI	NA	NU										
Nov-11	NA	NA	NA	NA	NA	NA	0.22	U	4.4	110.0	NA	NA	NI	NI	NI	NI	NI	NA	NU										
Jun-12	NA	NA	NA	NA	0.96	J	4.6	NA	0.33	U	0.9	J	NA	1,300.0	NI	NI	NI	NA	NU										
Aug-12	0.22	U	0.22	U	NA	NA	NA	NA	NA	NA	270.0	NA	NI	NI	NI	NI	NI	0.29	J	NU									
Mar-13	NA	0.22	U	NA	2.4	3100.0	NL	0.33	U	2.3	540.0	NA	NI	NI	NI	NI	NI	0.23	U	NU									
Aug-13	<0.21	0.83	1.50	16.0	6,500.0	<0.21	1.5	6.9	720.0	D	1,100.0	D	NI	NI	NI	NI	NI	1.0	J	NU									
Feb-14	<0.210	<0.210	<0.210	11.8	639.0	<0.21	<0.21	7.14	775.0	D	2,230.0	D	NI	NI	NI	NI	NI	4.83	NU										
Jul-14	<0.21	<0.21	<0.21	3.64	608.0	D	<0.21	<0.21	1.81	626.0	D	66.7	D	NI	NI	NI	NI	<0.21	NU										
Oct-14	<0.15	U	<0.15	U	NS	16.00	1,900.0	<0.15	U	0.35	J	12.0	320.0	340.0	NI	NI	NI	NI	0.84	J	NU								
Jan-15	<0.41	U	<0.41	U	<0.41	U	0.56	J	1,600.0	<0.41	U	<0.41	U	3.10	350.0	650.0	NI	NI	NI	NI	<0.41	U	<0.41	U					
Apr-15	<0.41	U	<0.41	U	<0.41	U	<0.41	U	1,400	<0.41	U	<0.41	U	18.0	140	270.00	5.50	5,300	<0.41	U	3.80	12.00	<0.41	U	1,200	0.6	J	<0.41	U
Oct-15	0.59	J	<0.41	U	<0.41	U	5.6	4,700	<0.41	U	<0.41	U	22.0	110	120.00	5.90	2,400	<0.41	U	17.00	7.00	<0.41	U	2,600	<0.41	U	<0.41	U	
Apr-16	<0.41	U	<0.41	U	<0.41	U	8.1	6,100	<0.41	U	<0.41	U	38	90	88	8.1	1,900	<0.41	U	3.8	9.7	<0.41	U	600	<0.41	U	<0.41	U	
Vinyl Chloride	Type 4 RRS (µg/L) 3 Delineation Criteria (µg/L) 2																												
Mar-93	NI	NI	NI	8,830.0	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU									
Mar-94	NI	NI	NI	1,200.0	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU									
Feb-96	NI	NI	NI	78.0	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU									
Mar-96	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU									
Sep-96	NI	NI	NI	280.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU									
Oct-96	NI	NI	NI	676.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU									
Apr-97	NI	NI	NI	2,200.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU									
Jul-97	NI	NI	NI	380.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU									
Oct-97	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	U	NU										
Feb-98	NI	NI	NI	2,530.0	2.4	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Jul-98	NI	NI	NI	1,800.0	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Nov-98	NI	NI	NI	NA	1.8	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Feb-99	NI	NI	NI	30.9	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	623.0	NU										
Oct-99	NI	NI	NI	37.1	4.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
May-00	NI	NI	NI	9.8	7.6	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	130.0	NU										
Jan-01	NI	NI	NI	12.4	28.7	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	240.0	NU										
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Nov-01	NI	NI	NI	NA	23.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Dec-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Jan-02	NI	NI	NI	34.0	NA	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	160.0	NU										
Sep-02	NI	NI	NI	NA	<25	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	33.0	NU										
Oct-03	NI	NI	NI	NA	40.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	53.0	NU										
Jan-04	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Nov-04	NI	NI	NI	NA	73.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	130.0	NU										
May-05	NI	NI	NI	NA	74.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Jun-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Jul-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	120.0	NU										
Dec-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Oct-06	NI	NI	NI	NA	20.0	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Apr-07	NI	NI	NI	NA	NA	<0.4	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	138.0	NU										
Nov-07	NI	NI	NI	NA	NA	NL	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NL	NU										
Jun-08	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										
Jun-09	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU										

McKenzie Tank Lines, Port Wentworth, GA

Table 4-3: Shallow Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Shallow Wells																			
	G-17	G-19	G-22	MW-2S	MW-4S	MW-15S*	MW-29	MW-31	MW-32	MW-33	MW-37S	MW-40S	MW-42S	MW-45S	MW-46S	MW-48S	MW-50S	PAW-3	MW-U2	
Jul-10	NI	NI	NI	NA	28.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1.8	NU	
Dec-10	NI	NI	NI	NA	28.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	33.0	NU	
Mar-11	0.3	0.3	0.3	NA	NA	NL	0.3	0.3	2.0	190.0	NI	NA	NU							
Nov-11	NA	NA	NA	NA	NA	NA	0.3	0.3	0.4	NA	NI	NA	NU							
Jun-12	NA	NA	NA	0.33	0.1	NL	0.2	0.2	NA	230.0	NI	NA	NU							
Aug-12	0.3	0.3	NA	NA	NA	NA	NA	NA	1.4	NA	NI	0.2	NU							
Mar-13	NA	0.3	NA	0.33	44.0	NL	0.2	0.2	4.0	NA	NI	0.2	NU							
Aug-13	<0.19	<0.19	<0.19	<0.19	74.0	<0.19	<0.19	<0.19	2.9	150.0	NI	<0.19	NU							
Feb-14	<0.19	<0.19	<0.19	<0.19	29.4	<0.19	<0.19	<0.19	2.9	177.0	NI	<0.19	NU							
Jul-14	<0.19	<0.19	<0.19	<0.19	19.1	<0.19	<0.19	<0.19	2.29	104.00	NI	<0.19	NU							
Oct-14	<0.18	<0.18	NS	3.0	110.0	<0.18	<0.18	<0.18	<0.9	63.00	NI	0.84	NU							
Jan-15	<0.50	<0.50	<0.50	<0.50	64.0	<0.50	<0.50	<0.50	1.2	55.00	NI	<0.50	<0.50							
Apr-15	<0.50	<0.50	<0.50	<0.50	53.0	<0.50	<0.50	<0.50	0.79	51.00	<0.50	<25	<0.50	<0.50	28.0	<0.50	<0.50	67.0	1.10	
Oct-15	<0.50	<0.50	<0.50	<0.50	98.0	<0.50	<0.50	<0.50	0.52	36.00	<0.50	<25	<0.50	5.5	15.0	<0.50	<0.50	140.0	<0.50	
Apr-16	<0.50	<0.50	<0.50	<0.50	140	<0.50	<0.50	<0.50	0.92	36	<0.50	<25	<0.50	<0.50	19	<0.50	<0.50	60	<0.50	

Notes:

110.0 Value exceeds risk reduction standards
 0.3 Value exceeds delineation criteria

All data prior to August 2013 reported by previous environmental consultants

U = Value is below detection limits

NA = Well not accessible

NS = Well not sampled

NI = Well not installed

NU = Well not utilized in groundwater sampling program

NL = Well not located

< = less than method detection limit (MDL)

J = this is an estimated value that is above the MDL but below the practical quantitation limit.

I* = not certain

McKenzie Tank Lines, Port Wentworth, GA
Table 4-4: Deep Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Deep Wells																																				
	Date	MW-2D	MW-11D	MW-14D	MW-15D	MW-26	MW-35	MW-36	MW-38D	MW-39D	MW-41D	MW-43D	MW-44D	MW-47D	MW-49D	MW-51D	MW-52D	MW-53D	MW-54D	MW-55D	MW-56D	PAW-4	RW-1	RW-2	RW-3	RW-4	RW-5	RW-6	RW-7	RW-8	RW-9						
Feb-14	715	<0.160	1.2	NL	<0.160	NA	<0.190	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	15.3	9.18	1,180	D	595	13	1,440	D	5.3	4,010	D	NI	NI			
Jul-14	1000	<0.19	2.26	NA	<0.19	<0.19	<0.19	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<0.19	<0.19	198	D	3,870	D	67.1	1,550	D	<0.19	38,200	D	NI	NI		
Oct-14	370	<0.13	1.2	NL	<0.13	<0.13	<0.13	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	2.6	37	3.3	J	7,400	D	660	1,000	J	0.37	11,000	D	NI	NI		
Jan-15	1100	<0.48	2.2	NL	<0.48	<0.48	<0.48	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	37	1.8	2.0	J	34	J	29	1,700	J	<0.48	740	J	NI	NI		
Apr-15	1200	<0.48	2.0	NL	<0.48	<0.48	<0.48	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	29	4.3	NS	NS	NS	NS	0.94	NS	NS	NS	NS	NS	NS	NI	NI	
Oct-15	920	<0.48	2.1	NL	<0.48	<0.48	<0.48	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	25	<0.48	NS	NS	NS	NS	0.65	NS	NS	NS	NS	NS	NS	NI	NI	
Apr-16	610	<0.48	2.3	NL	<0.48	<0.48	<0.48	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	26	<0.48	NS	NS	NS	NS	<0.48	NS	NS	NS	NS	NS	NS	<0.48	<0.48	
cis-1,2-Dichloroethylene	Type 4 RRS (µg/L) 204 Delineation Criteria (µg/L) 70																																				
Mar-93	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		
Mar-94	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Feb-96	<.21	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Mar-96	<0.21	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Sep-96	<0.21	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Oct-96	<0.21	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Apr-97	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Jul-97	<.21	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Oct-97	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	3,990.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Feb-98	3,450.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Jul-98	<0.21	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Nov-98	11,200.0	766.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Feb-99	7,680.0	42.9	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,250.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-99	14,000.0	95.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
May-00	9,470.0	422.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	131.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Jan-01	2,280.0	<1	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	79.7	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Aug-01	5,400.0	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Aug-01	5,200.0	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Nov-01	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Dec-01	NA	NA	1.6	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Jan-02	NA	3.9	<1	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	61.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Sep-02	NA	NA	<1	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	17.0	NI	630.0	NI	NI	1,500.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Oct-03	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	9.8	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI		
Jan-04	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	2,300.0	2,300.0	1,500.0	4,200.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		
Nov-04	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	4.4	2,800.0	7,000.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
May-05	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Jun-05	NA	10.0	<1	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	4.0	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Jul-05	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	1,700.0	7,600.0	<20	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		
Dec-05	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	2,000	120	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Oct-06	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	804.0	1,990.0	3,110.0	4,220	2,090	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Apr-07	NA	NA	NA	NA	4.8	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	4.3	NA	NA	NA	2,100	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Nov-07	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NL	1,100.0	NA	6,300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI	
Jun-08	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI	
Jan-09	360	NA	NA	3.2	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	200.0	NA	4,100.0	2,200	9,300	37.0	NA	NA	NA	NA	NA	NI	NI		
Jul-10	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	200.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI	
Dec-10	NA																																				

McKenzie Tank Lines, Port Wentworth, GA

Table 4-4: Deep Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Deep Wells																																				
	MW-2D	MW-11D	MW-14D	MW-15D	MW-26	MW-35	MW-36	MW-38D	MW-39D	MW-41D	MW-43D	MW-44D	MW-47D	MW-49D	MW-51D	MW-52D	MW-53D	MW-54D	MW-55D	MW-56D	PAW-4	RW-1	RW-2	RW-3	RW-4	RW-5	RW-6	RW-7	RW-8	RW-9							
Mar-11	130	3.1	0.33	U	0.33	U	0.3	U	0.3	U	9.0	NI	NI	NI	NI	NA	47.0	430.0	NA	280.0	970	1.6	U	NA	NI	NI											
Nov-11	NA	NA	NA	U	NA	U	0.3	U	0.3	U	NA	NI	NI	NI	NA	47.0	38.0	68.0	110.0	1,600	NA	130.0	NI	NI													
Jun-12	70.0	NA	0.18	U	NL	U	NA	U	NA	U	NA	NI	NI	NI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI												
Aug-12	NA	0.5	J	NA	U	0.2	U	0.3	U	0.3	U	NI	NI	1.4	4.7	210	34	96	170	0.2	U	100	NI	NI													
Mar-13	32	0.2	U	0.18	U	NL	U	NA	U	NA	U	0.2	U	NI	NI	3.7	9.8	340	76	250	200	0.2	U	240	NI	NI											
Aug-13	92	<0.19	U	<0.19	U	NL	U	NA	U	<0.19	U	<0.19	U	NI	NI	25	3.8	370	D	160	42	650	<0.19	U	490	D	NI	NI									
Feb-14	270	D	<0.19	U	<0.19	U	NL	U	NA	U	<0.19	U	<0.19	U	NI	NI	NI	NI	NI	NI	NI	3.7	5.6	206	D	162	3.4	91.9	<0.19	U	355	NI	NI				
Jul-14	162	<0.19	U	<0.19	U	NA	U	<0.190	U	<0.19	U	<0.19	U	NI	NI	12.2	4.14	76.2	D	236	D	4.04	88.5	<0.19	U	573	NI	NI									
Oct-14	290	<0.18	U	<0.18	U	NL	U	<0.18	U	<0.18	U	<0.18	U	NI	NI	37	22	280	330	43	62	4.5	780	NI	NI	NI	NI										
Jan-15	220	<0.50	U	<0.50	U	NL	U	<0.50	U	<0.50	U	<0.50	U	NI	5.0	3.0	2.1	370	2.1	220	<0.50	U	550	NI	NI	NI	NI										
Apr-15	270	<0.50	U	<0.50	U	NL	U	<0.50	U	<0.50	U	<0.50	U	0.5	J	<0.50	U	21	120	<0.50	U	<0.50	U	12.0	140	<0.50	U	3.1	1.1	NS	NS	0.83	J	NS	NS	NI	NI
Oct-15	380	<0.50	U	<0.50	U	NL	U	<0.50	U	<0.50	U	<0.50	U	<0.50	U	<0.50	U	11	7	>0.50	U	<0.50	U	14.0	4	<0.50	U	4.2	3.2	NS	NS	<0.50	U	NS	NS	NI	NI
Apr-16	310	<0.50	U	<0.50	U	NL	U	<0.50	U	<0.50	U	<0.50	U	<0.50	U	<0.50	U	120	18	<0.50	U	<0.50	U	17	7.2	<0.50	U	4.4	2.5	NS	NS	<0.50	U	NS	NS	1.2	76

Notes:

110.0
0.3

All data prior to August 2013 reported by previous environmental consultants

U = Value is below detection limits

NA = Well not accessible

NS = Well not sampled

NI = Well not installed

NU = Well not utilized in groundwater sampling program

NL = Well not located

< = less than method detection limit (MDL)

J = this is an estimated value that is above the MDL but below the practical quantitation limit

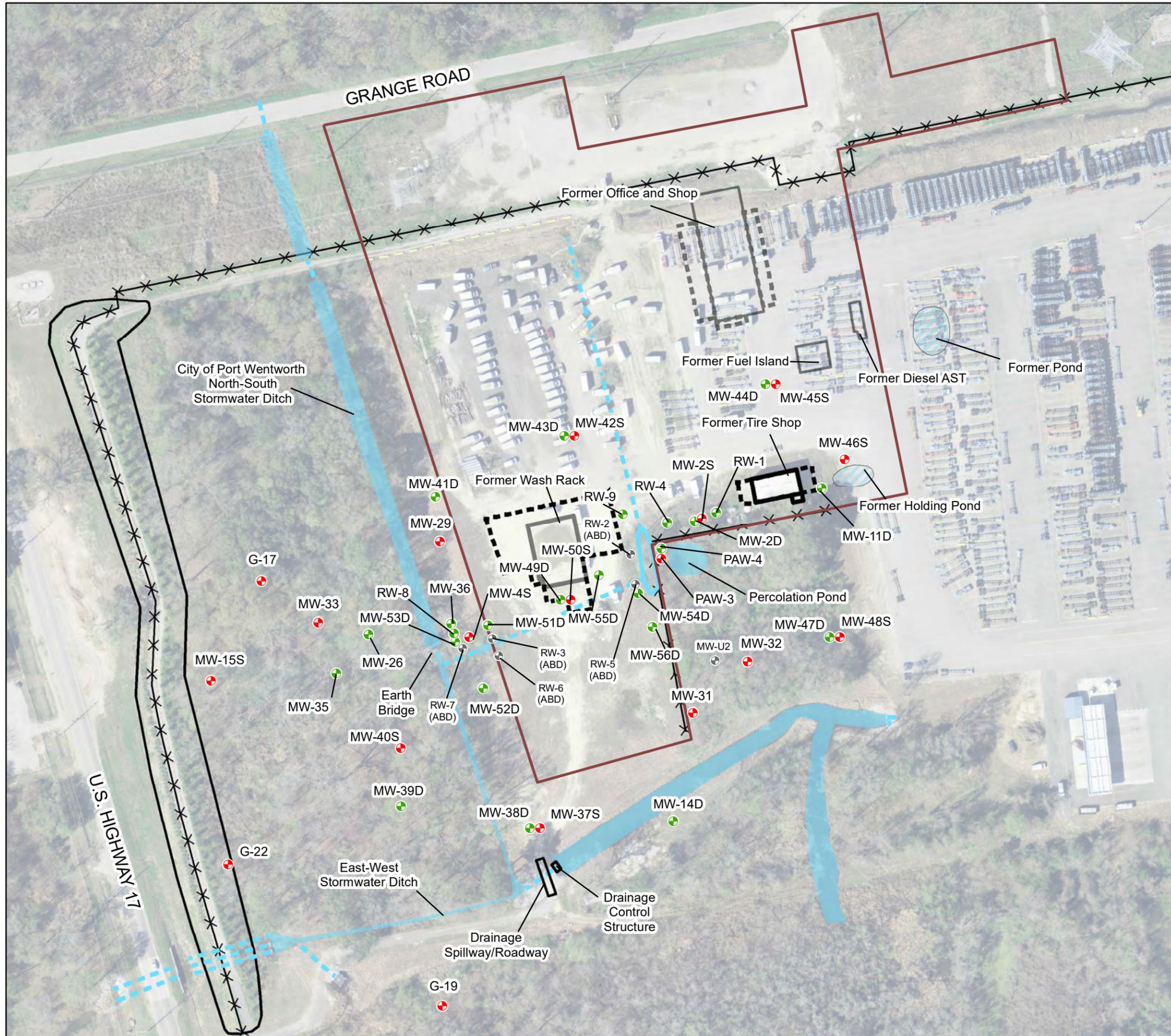
I* = not certain

HSI SITE 10406, FORMER MCKENZIE TANK LINES SITE

2017 SCM REPORT UPDATE

FIGURES





Legend

- SHALLOW WELLS
- DEEP WELLS
- ABANDONED/NOT UTILIZED WELLS
- BERM OUTLINE
- SECURITY FENCE
- BELOW GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- FORMER WATER FEATURE
- (ABD) ABANDONED

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. OTHER FORMER SITE FEATURES WERE PLOTTED BASED UPON HISTORICAL SITE MAPS FROM MCKENZIE TANK LINES. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 10 AND 20 FEET BELOW GROUND SURFACE ARE CONSIDERED SHALLOW WELLS. WELLS SCREENED AT INTERVALS APPROXIMATELY 20 FEET OR GREATER BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.



DESIGNED BY: A.G.	REVISIONS		DATE: 11/10/2016
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 1-1: SITE LAYOUT MAP



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

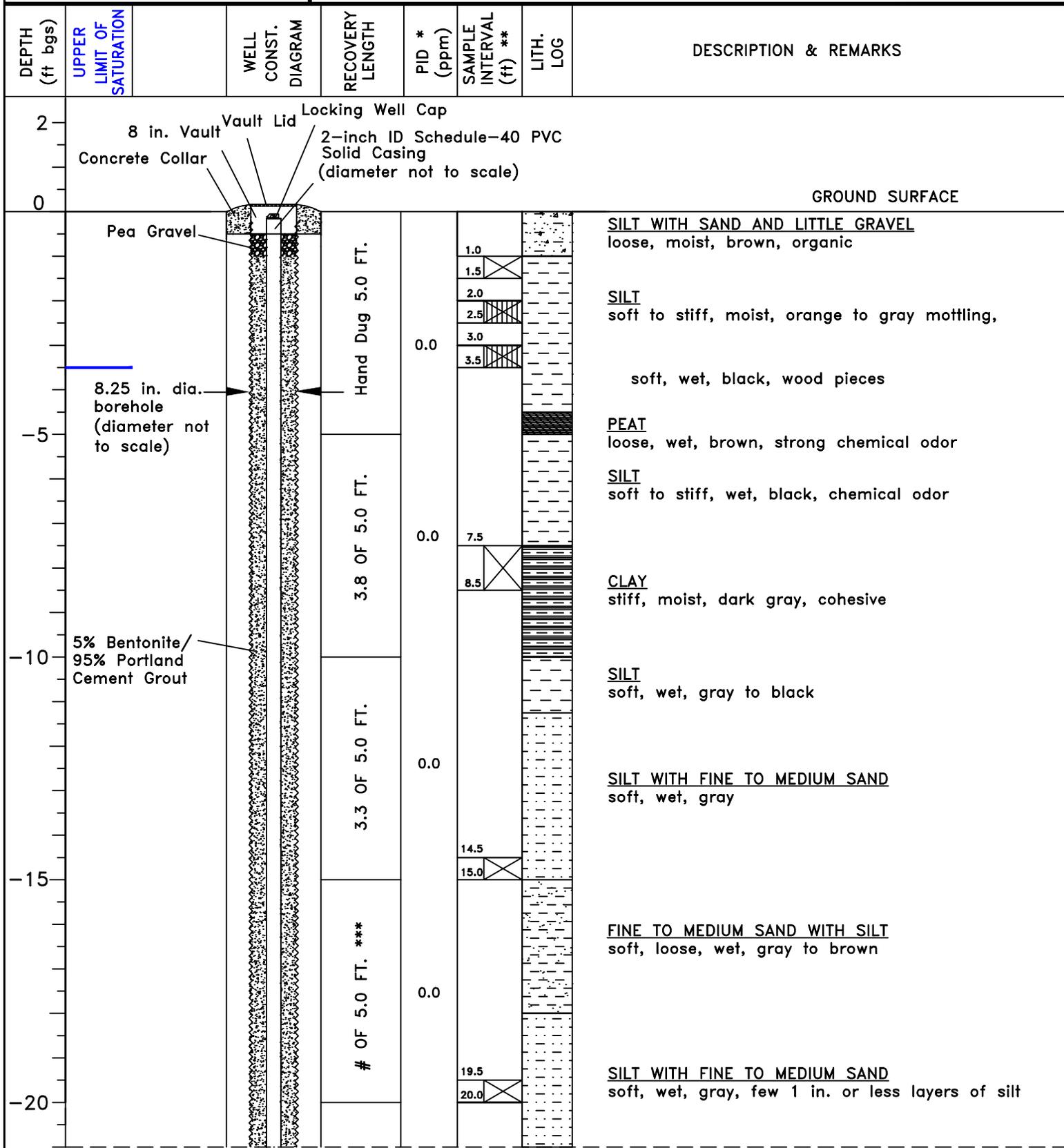
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ENVIRONMENTAL INT'L CORP.
 161 KIMBALL BRIDGE ROAD
 ALPHARETTA, GEORGIA, 30009 USA
 PHONE: 770-772-7100
 FAX: 770-772-0555
 http://www.eicusa.com

FIGURE 1-2: MONITORING WELL MW-51D

MONITOR WELL MW-51D DRILLING COMPANY PREFERRED DRILLING SOLUTION
 PROJECT MTL-SAVANNAH DATE DRILLED 02/16/2015
 LOCATION PORT WENTWORTH SURFACE ELEVATION UNKNOWN
 JOB NUMBER 460003 TOTAL DEPTH OF WELL 30 FT. BGS
 GEOLOGIST ALAN SANDERS TOP OF BEDROCK N/A
 DRILL METHOD 7822DT GEOPROBE WITH HSA UPPER LIMIT OF SATURATION 3.5 FT. BGS

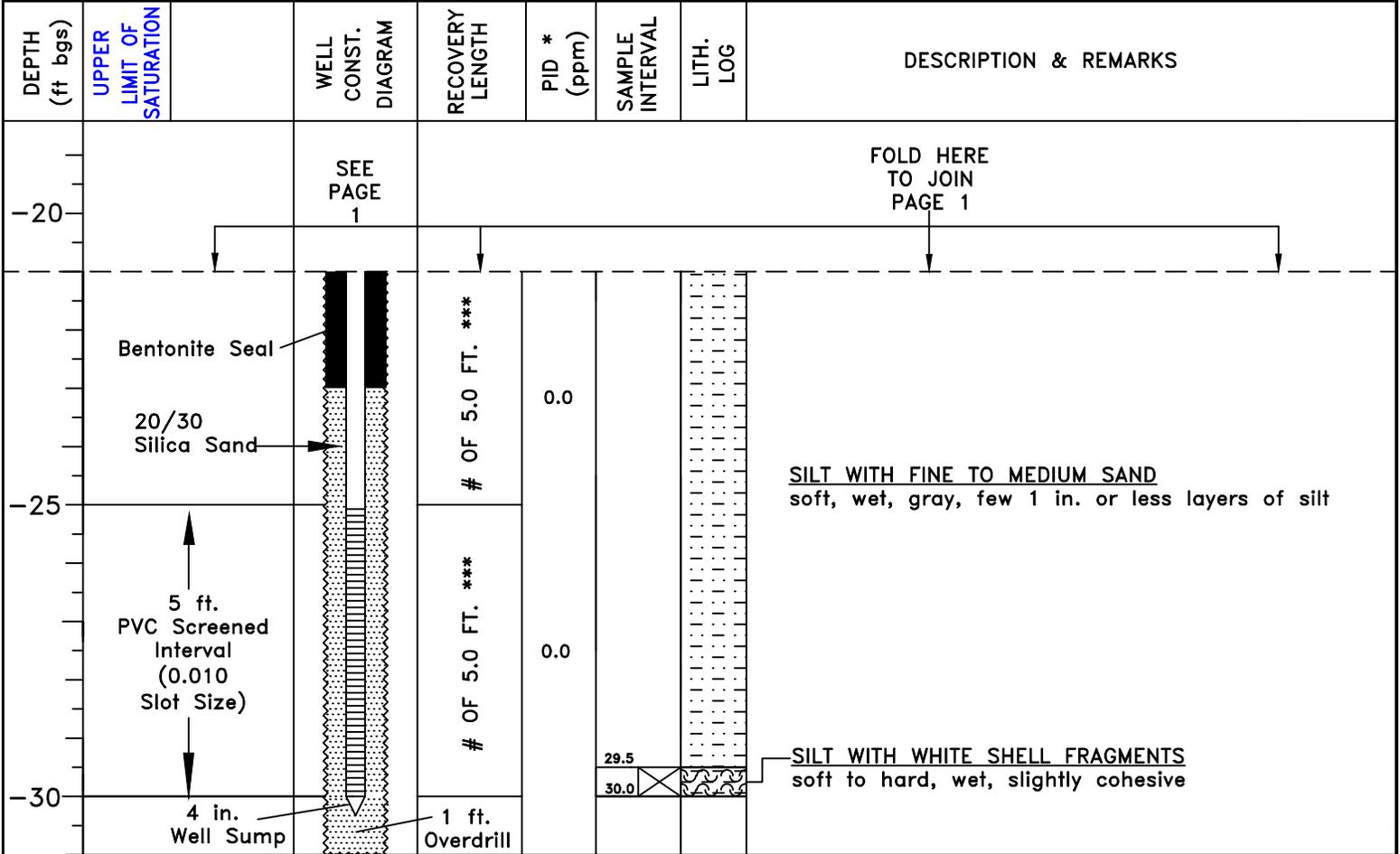




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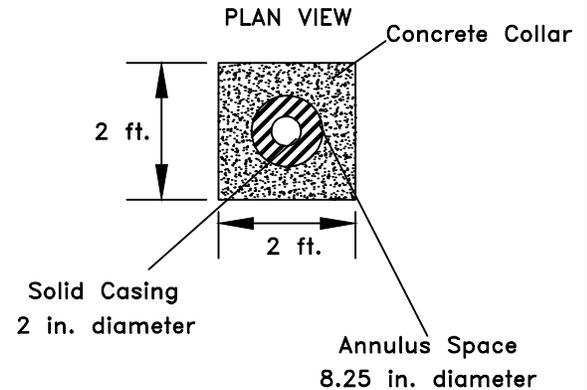
FIGURE 1-2: MONITORING WELL MW-51D

MONITOR WELL <u>MW-51D</u>	DRILLING COMPANY <u>PREFERRED DRILLING SOLUTIONS</u>
PROJECT <u>MTL-SAVANNAH</u>	DATE DRILLED <u>02/16/2015</u>
LOCATION <u>PORT WENTWORTH</u>	SURFACE ELEVATION <u>UNKNOWN</u>
JOB NUMBER <u>460003</u>	TOTAL DEPTH OF WELL <u>30 FT. BGS</u>
GEOLOGIST <u>ALAN SANDERS</u>	TOP OF BEDROCK <u>N/A</u>
DRILL METHOD <u>7822DT GEOPROBE WITH HSA</u>	UPPER LIMIT OF SATURATION <u>3.5 FT. BGS</u>



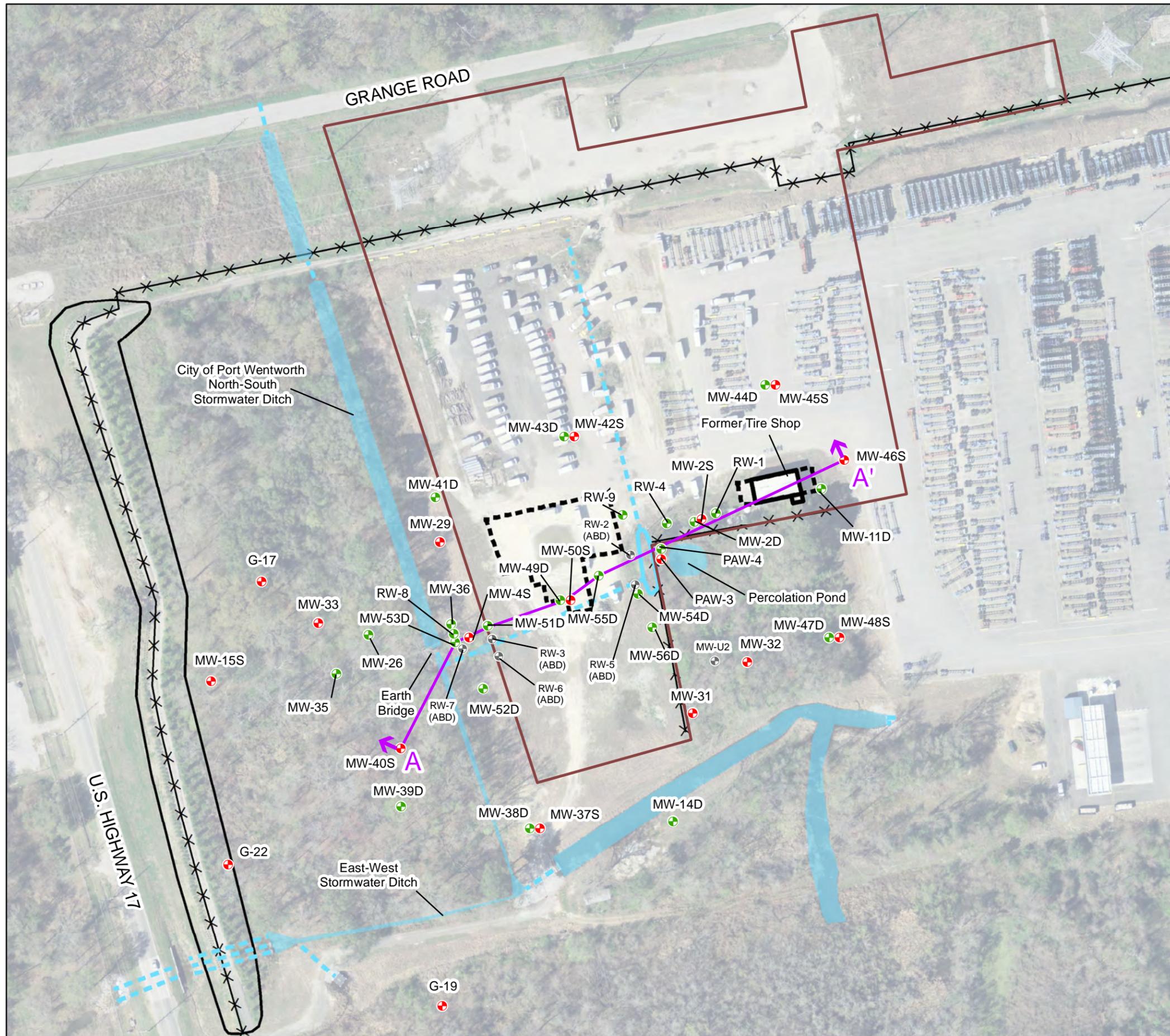
Notes:

- * = PID values were recorded as soil samples were removed from sampling tube and hand auger bucket.
- ** = Vertical lines signify interval of soil taken for VOC analysis. Crossed lines signify interval of soil taken for physical characterization
- *** = Data Unavailable



-35

-40



Legend

- SHALLOW WELLS
- DEEP WELLS
- ABANDONED/NOT UTILIZED WELLS
- BERM OUTLINE
- SECURITY FENCE
- BELOW GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- (ABD) ABANDONED
- CROSS-SECTION TRACE LINE

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. OTHER FORMER SITE FEATURES WERE PLOTTED BASED UPON HISTORICAL SITE MAPS FROM MCKENZIE TANK LINES. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 10 AND 20 FEET BELOW GROUND SURFACE ARE CONSIDERED SHALLOW WELLS. WELLS SCREENED AT INTERVALS APPROXIMATELY 20 FEET OR GREATER BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.



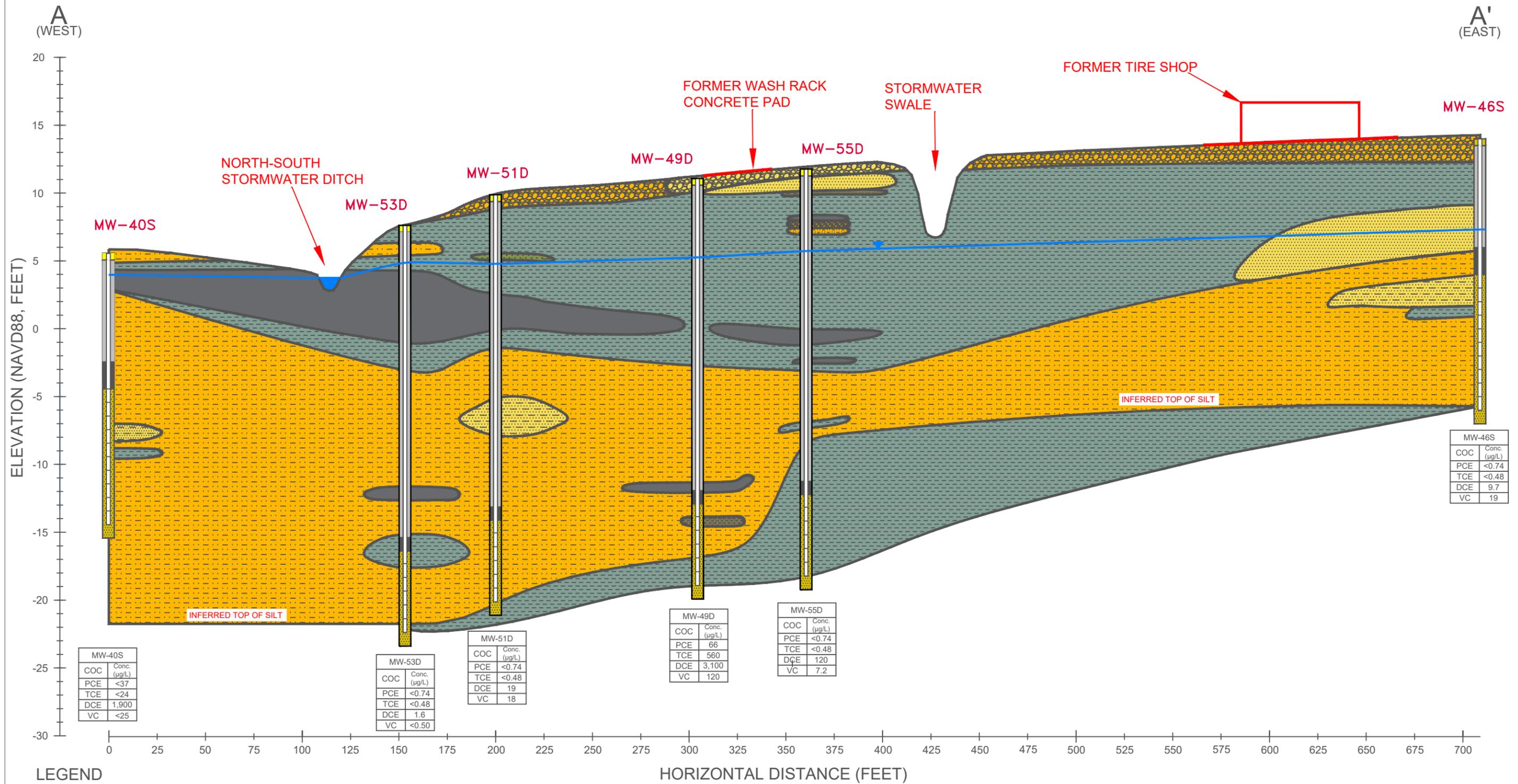
DESIGNED BY: A.G.	REVISIONS		DATE: 11/16/2016
DRAWN BY: S.F.H.	NO.	DATE	SCALE: SEE BAR SCALE
CHECKED BY: A.S.			SHEET NO.: 1 OF 1
APPROVED BY: R.M.			

FIGURE 1-3: SITE MAP WITH A-A' CROSS-SECTION TRACE LINE



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

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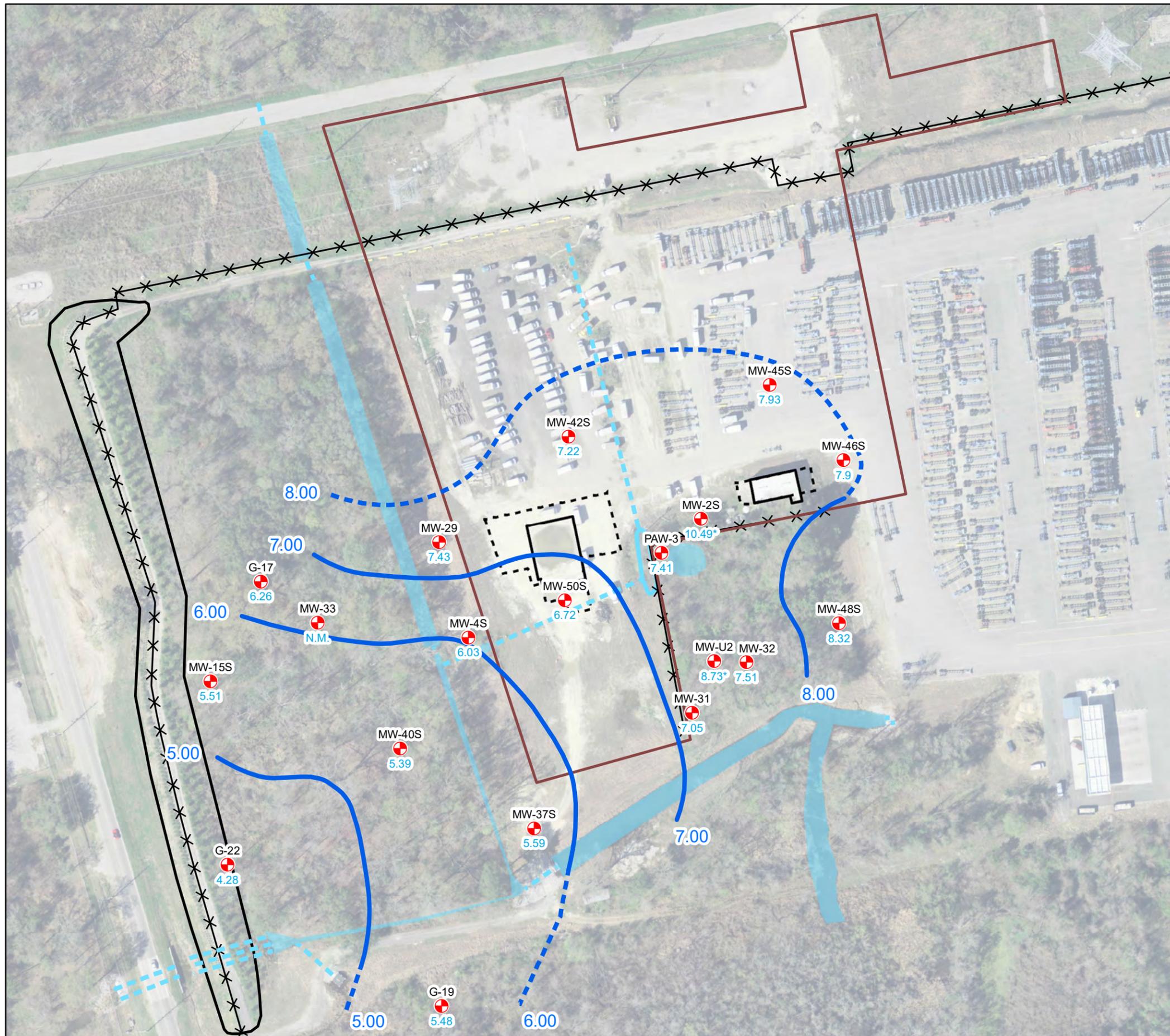


HORIZONTAL DISTANCE (FEET)

FIGURE 1-4:
A-A' (WEST TO EAST) HYDROGEOLOGICAL CROSS SECTION
MCKENZIE TANK LINES
PORT WENTWORTH, GA

NOTES: WELL DIAGRAMS ARE NOT HORIZONTALLY TO SCALE. WATER TABLE ELEVATIONS AND CONTAMINATION CONCENTRATIONS ARE BASED ON APRIL 2016 GROUNDWATER GAUGING AND SAMPLING EVENT. BUILDINGS ARE NOT VERTICALLY TO SCALE. LITHOLOGY IS BASED ON CORRELATIONS BETWEEN WELL LOGS RECORDED BY EIC DURING THE INSTALLATION OF EACH RESPECTIVE WELL. WELL CONSTRUCTION IS BASED ON EIC'S FIELD RECORDS DURING INSTALLATION FOR EACH RESPECTIVE MONITORING WELL. GROUND SURFACE IS BASED ON WELL AND OTHER SITE FEATURES SURVEYED IN OCTOBER 2013 AND JUNE 2015. SURFACE WATER LEVEL IS ESTIMATED BASED ON FIELD OBSERVATIONS.

DESIGNED BY: B.F.	DRAWN BY: A.G.	REVISIONS: NO. DATE:	MCKENZIE TANK LINES 111 GRANGE ROAD PORT WENTWORTH, GEORGIA 31047
CHECKED BY: A.S.	APPROVED BY: A.S.		
SEAL:			ENVIRONMENTAL INTERNATIONAL CORP. 161 KIMBALL BRIDGE ROAD, SUITE 100 ALPHARETTA, GEORGIA 30009
SCALE: SEE VERTICAL SCALE			
			DATE: 06/29/2015



Legend

- SHALLOW WELLS
- SITE FEATURES**
 - BERM OUTLINE
 - SECURITY FENCE
 - DRAINAGE PIPES
 - BUILDINGS
 - CONCRETE APRONS
 - SWALES
 - WATER FEATURES
 - FORMER MCKENZIE PROPERTY BOUNDARY
- GROUNDWATER CONTOURS**
 - GROUNDWATER CONTOURS (1 FOOT INTERVALS)
 - ESTIMATED GROUNDWATER CONTOURS
 - 8.93 GROUNDWATER ELEVATIONS (FT., NAVD 88)
 - 10.49* GROUNDWATER ELEVATION NOT CONSIDERED AS SCREENED INTERVAL IS BETWEEN 0 TO 10 FEET BGS

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEY CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 10 AND 20 FEET ARE CONSIDERED SHALLOW WELLS.



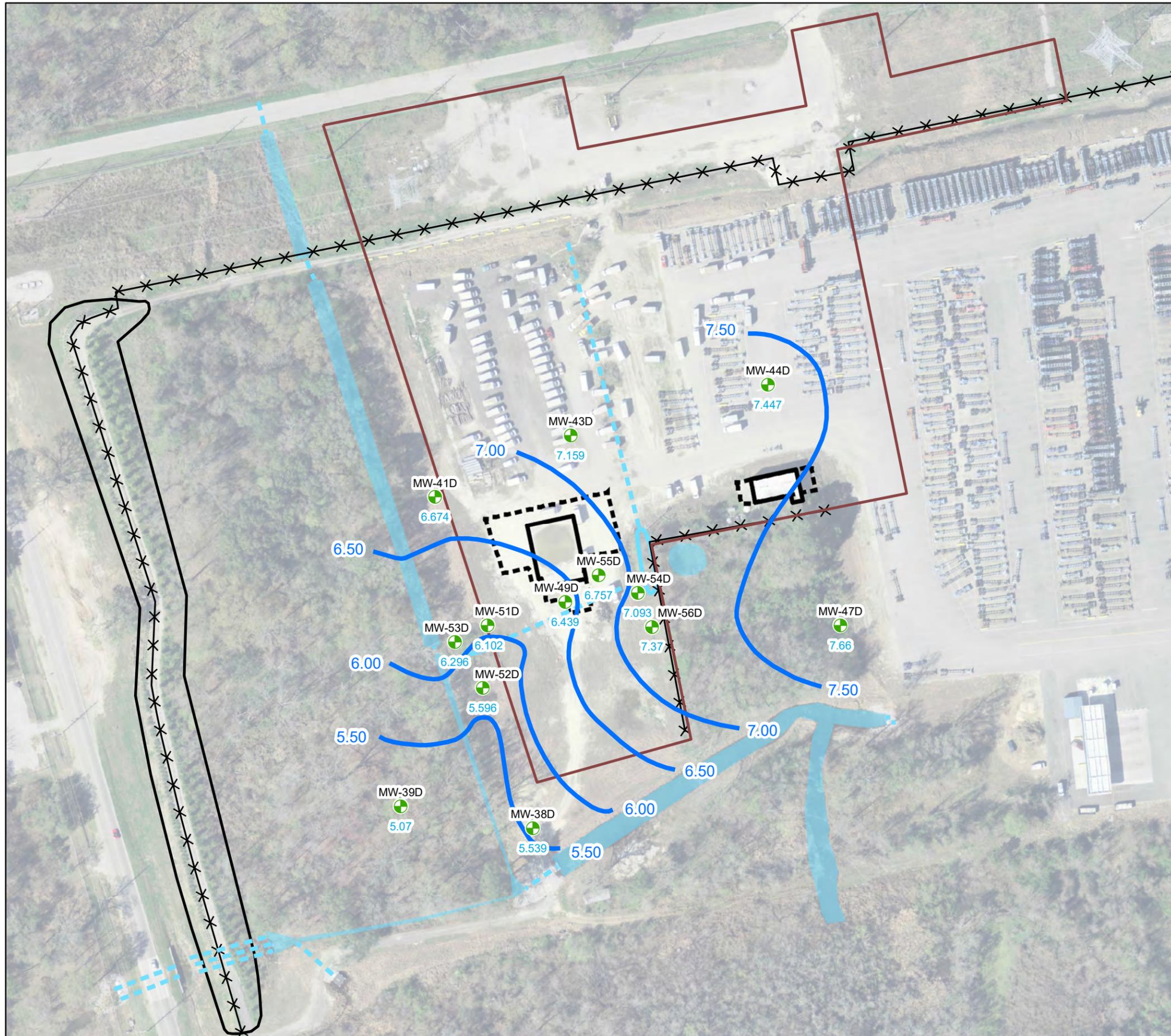
DESIGNED BY: S.F.H.	REVISIONS		DATE: 7/9/2015
DRAWN BY: S.F.H.	NO.	DATE	SCALE: SEE BAR SCALE
CHECKED BY: A.S.			SHEET NO.: 1 OF 1
APPROVED BY: R.M.			

**FIGURE 1-5: APRIL 2015
SHALLOW GROUNDWATER
POTENTIOMETRIC SURFACE MAP**



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

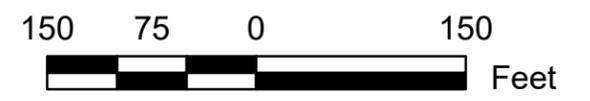
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Legend

- DEEP WELLS
- SITE FEATURES**
 - BERM OUTLINE
 - SECURITY FENCE
 - DRAINAGE PIPES
 - BUILDINGS
 - CONCRETE APRONS
 - SWALES
 - WATER FEATURES
 - FORMER MCKENZIE PROPERTY BOUNDARY
- GROUNDWATER CONTOURS**
 - GROUNDWATER CONTOURS (0.50 FOOT INTERVALS)
 - ESTIMATED GROUNDWATER CONTOURS
 - 7.04** GROUNDWATER ELEVATIONS (FT., NAVD 88)

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEY CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013. WELLS SCREENED AT INTERVALS APPROXIMATELY 20 FEET OR GREATER BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.



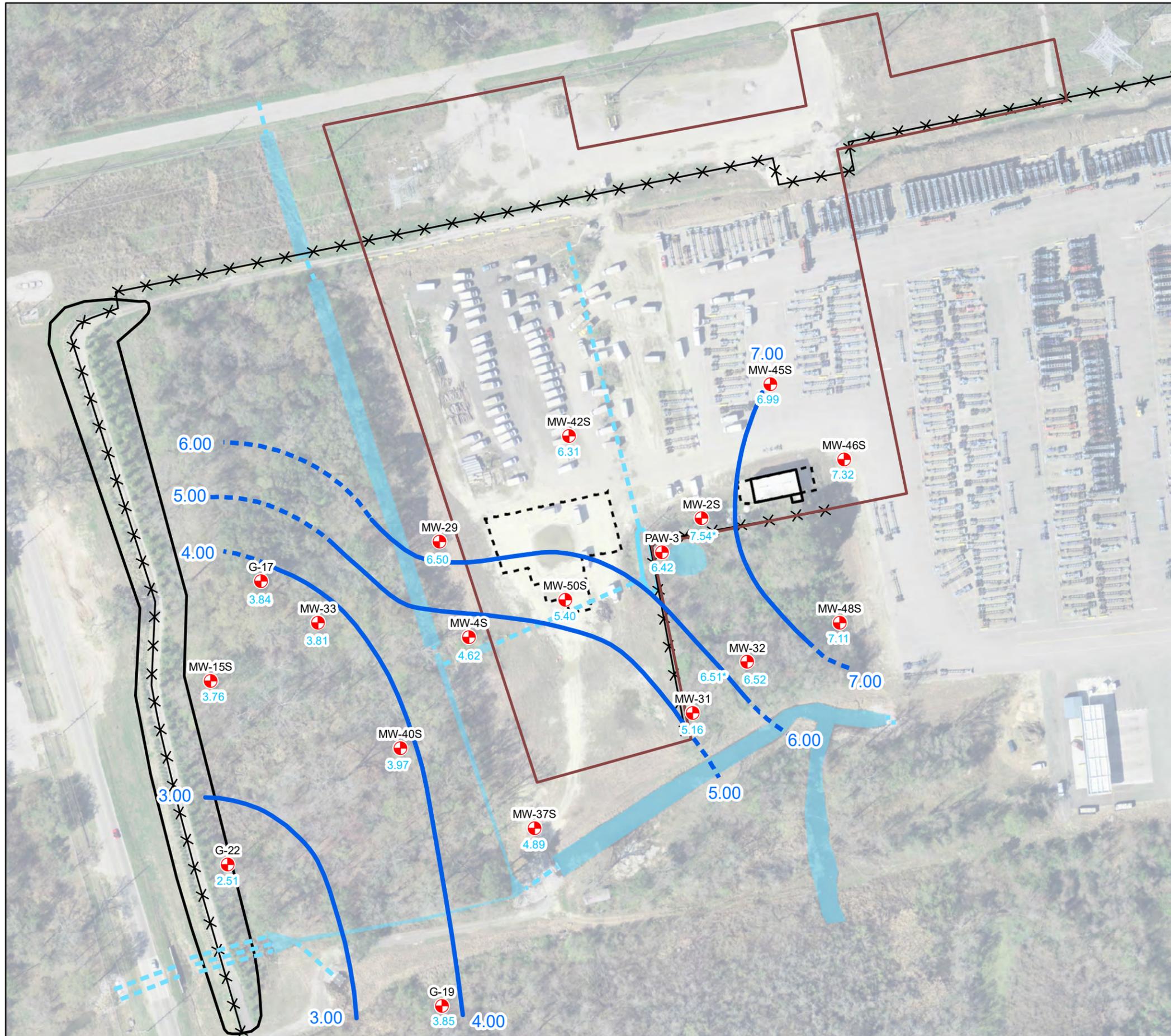
DESIGNED BY: W.G.	REVISIONS		DATE: 7/14/2015
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: W.G.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

**FIGURE 1-6: APRIL 2015
DEEP GROUNDWATER
POTENTIOMETRIC SURFACE MAP**



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



SITE FEATURES

- BERM OUTLINE
- ✕ SECURITY FENCE
- - - BELOW-GRADE STORM WATER DRAINAGE PIPES
- ▭ BUILDINGS
- - - CONCRETE APRONS
- ▭ STORM WATER SWALES
- ▭ WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- ⊕ SHALLOW WELLS

Legend

GROUNDWATER CONTOURS

- GROUNDWATER CONTOURS (1 FOOT INTERVALS)
- - - ESTIMATED GROUNDWATER CONTOURS
- 7.67 GROUNDWATER ELEVATIONS (FT., NAVD 88)
- 8.73* DATA NOT CONSIDERED FOR CONTOURS

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEY CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 10 AND 20 FEET ARE CONSIDERED SHALLOW WELLS.



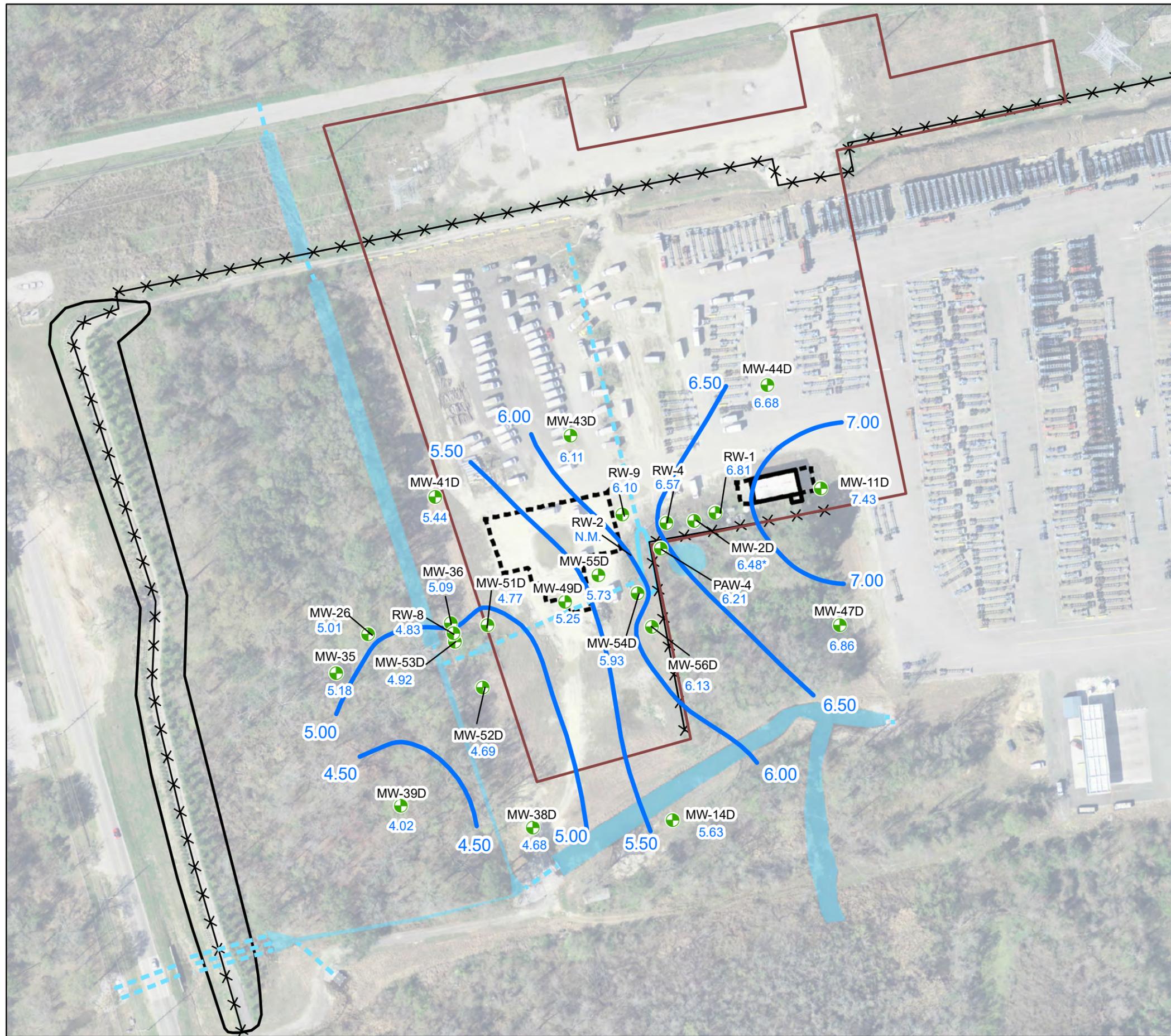
DESIGNED BY: S.F.H.	REVISIONS		DATE: 11/10/2016
DRAWN BY: S.F.H.	NO.	DATE	SCALE: SEE BAR SCALE
CHECKED BY: A.S.			SHEET NO.: 1 OF 1
APPROVED BY: R.M.			

**FIGURE 1-7: APRIL 2016
SHALLOW GROUNDWATER
POTENTIOMETRIC SURFACE MAP**



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD.
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- ✕ SECURITY FENCE
- - - BELOW-GRADE STORM WATER DRAINAGE PIPES
- ▭ BUILDINGS
- - - CONCRETE APRONS
- ▭ STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- ⊕ DEEP WELLS

GROUNDWATER CONTOURS

- GROUNDWATER CONTOURS (0.5 FOOT INTERVALS)
- - - ESTIMATED GROUNDWATER CONTOURS
- 7.92 GROUNDWATER ELEVATIONS (FT., NAVD 88)
- 6.97* DATA NOT CONSIDERED FOR CONTOURS

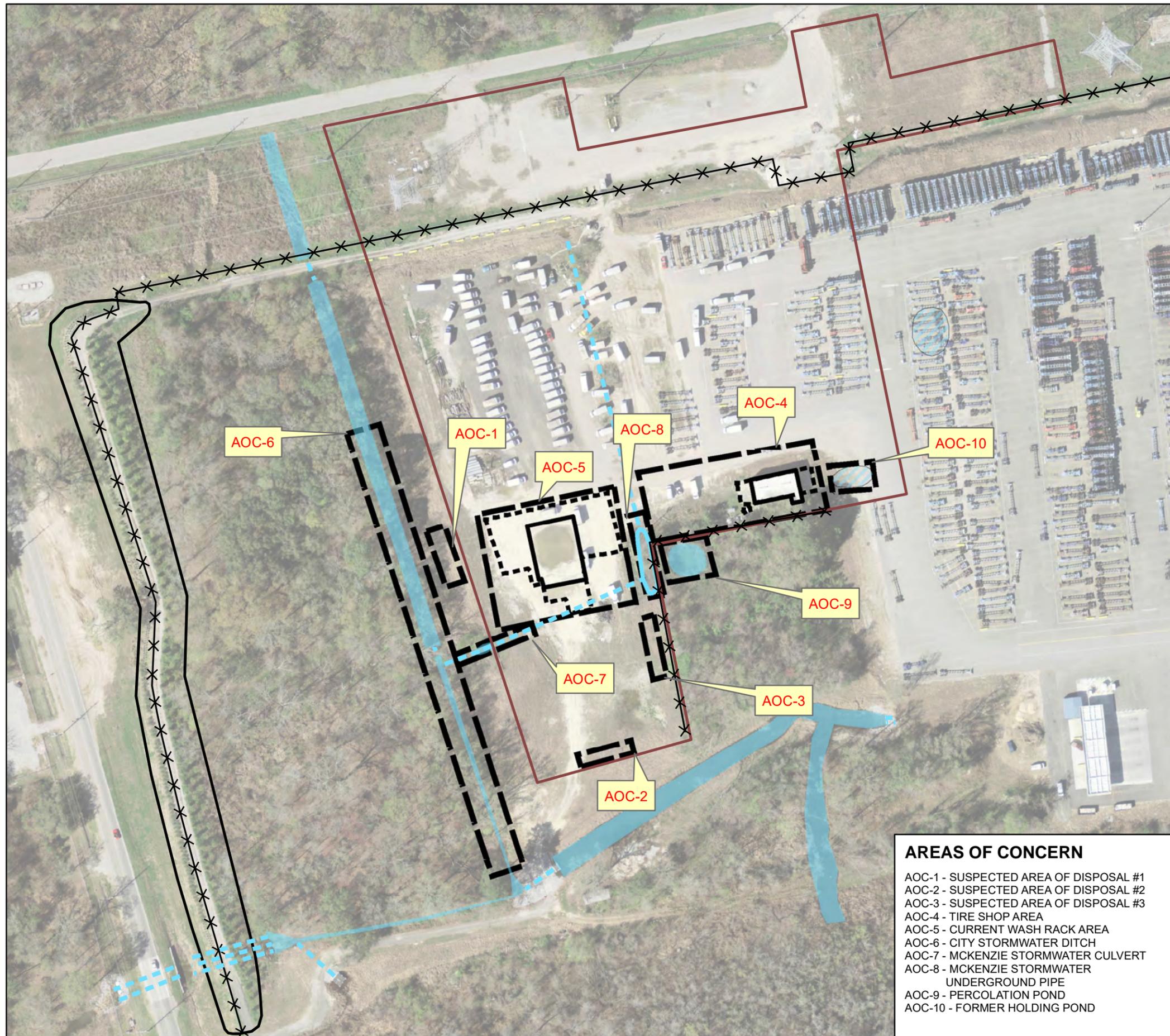
NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEY CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013. WELLS SCREENED AT INTERVALS APPROXIMATELY 20 FEET OR GREATER BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.



DESIGNED BY: A.G.	REVISIONS		DATE: 10/20/2016
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 1-8: APRIL 2016 DEEP GROUNDWATER POTENTIOMETRIC SURFACE MAP

	<p>MCKENZIE TANK LINES 111 GRANGE ROAD PORT WENTWORTH, GEORGIA 31407</p>
	<p>ENVIRONMENTAL INTERNATIONAL CORP. 161 KIMBALL BRIDGE RD. ALPHARETTA, GEORGIA 30009</p>



Legend

AOC-10

AREA OF CONCERN

AREA OF CONCERN EXTENTS

FORMER WATER FEATURE

SITE FEATURES

BERM OUTLINE

SECURITY FENCE

DRAINAGE PIPES

BUILDINGS

CONCRETE APRONS

SWALES

WATER FEATURES

FORMER MCKENZIE PROPERTY BOUNDARY

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEY CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013.



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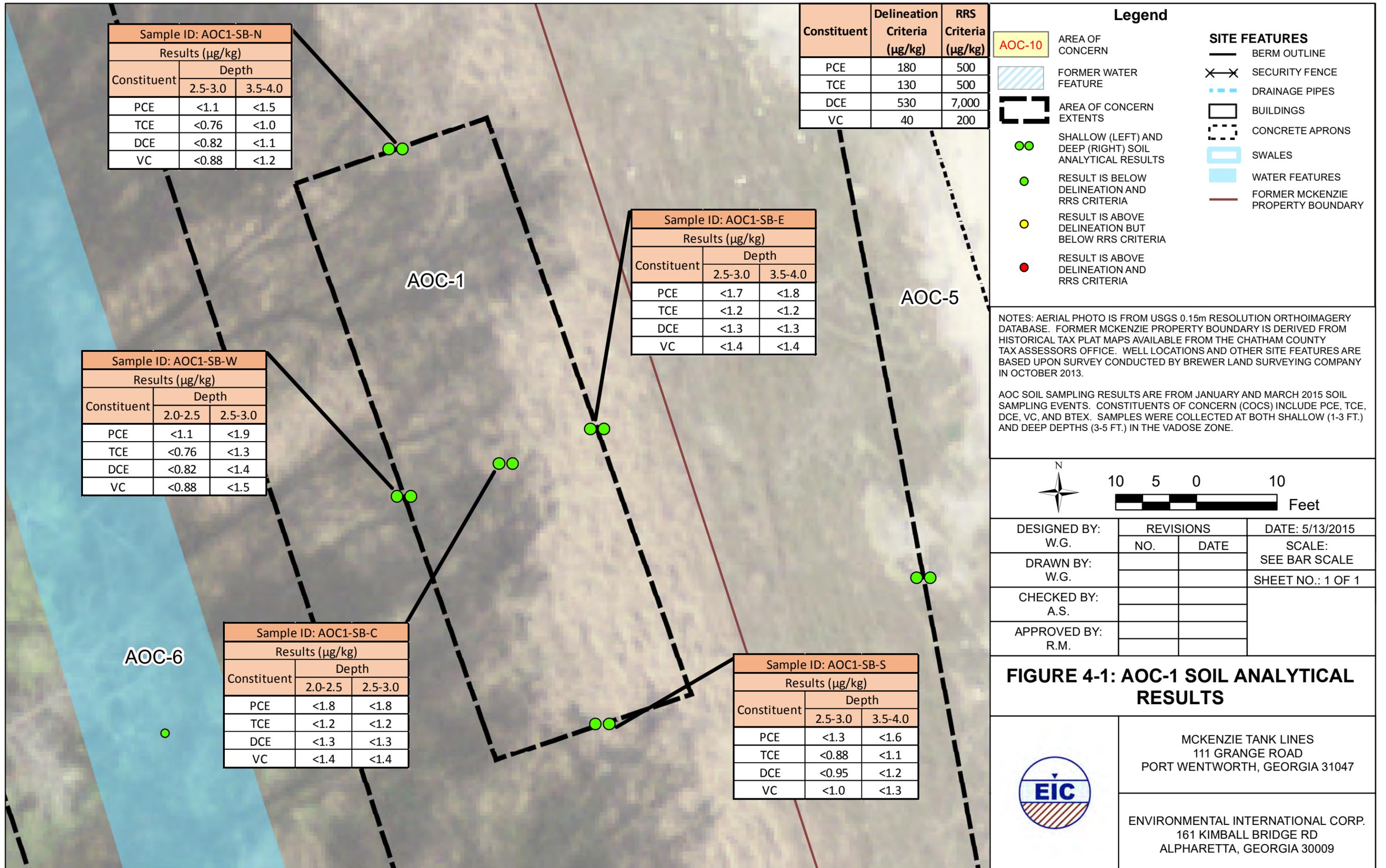
FIGURE 2-1: AREAS OF CONCERN

- AREAS OF CONCERN**
- AOC-1 - SUSPECTED AREA OF DISPOSAL #1
 - AOC-2 - SUSPECTED AREA OF DISPOSAL #2
 - AOC-3 - SUSPECTED AREA OF DISPOSAL #3
 - AOC-4 - TIRE SHOP AREA
 - AOC-5 - CURRENT WASH RACK AREA
 - AOC-6 - CITY STORMWATER DITCH
 - AOC-7 - MCKENZIE STORMWATER CULVERT
 - AOC-8 - MCKENZIE STORMWATER UNDERGROUND PIPE
 - AOC-9 - PERCOLATION POND
 - AOC-10 - FORMER HOLDING POND



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Constituent	Delineation Criteria (µg/kg)	RRS Criteria (µg/kg)
PCE	180	500
TCE	130	500
DCE	530	7,000
VC	40	200

Legend

- AOC-10 AREA OF CONCERN
 - FORMER WATER FEATURE
 - AREA OF CONCERN EXTENTS
 - SHALLOW (LEFT) AND DEEP (RIGHT) SOIL ANALYTICAL RESULTS
 - RESULT IS BELOW DELINEATION AND RRS CRITERIA
 - RESULT IS ABOVE DELINEATION BUT BELOW RRS CRITERIA
 - RESULT IS ABOVE DELINEATION AND RRS CRITERIA
- SITE FEATURES**
- BERM OUTLINE
 - SECURITY FENCE
 - DRAINAGE PIPES
 - BUILDINGS
 - CONCRETE APRONS
 - SWALES
 - WATER FEATURES
 - FORMER MCKENZIE PROPERTY BOUNDARY

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FIGURE 4-2: AOC-2 SOIL ANALYTICAL RESULTS



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111 GRANGE ROAD
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ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009

Sample ID: AOC2-SB-N		
Results (µg/kg)		
Constituent	Depth	
	2.0-2.5	3.5-4.0
PCE	<1.1	<1.5
TCE	<0.78	<1.0
DCE	<0.84	<1.1
VC	<0.90	<1.2

Sample ID: AOC2-SB-C		
Results (µg/kg)		
Constituent	Depth	
	2.0-2.5	3.5-4.0
PCE	<1.7	<2.7
TCE	<1.1	<1.9
DCE	<1.2	<2.0
VC	<1.3	<2.2

Sample ID: AOC2-SB-E		
Results (µg/kg)		
Constituent	Depth	
	2.0-2.5	3.5-4.0
PCE	<1.4	<1.9
TCE	<0.98	<1.3
DCE	<1.1	<1.4
VC	<1.1	<1.5

Sample ID: AOC2-SB-S		
Results (µg/kg)		
Constituent	Depth	
	2.0-2.5	3.5-4.0
PCE	<1.6	<1.4
TCE	<1.1	<0.94
DCE	<1.2	<1.0
VC	<1.3	<1.1

Sample ID: AOC2-SB-W		
Results (µg/kg)		
Constituent	Depth	
	2.0-2.5	3.5-4.0
PCE	<1.2	<1.9
TCE	<0.83	<1.3
DCE	<0.89	<1.4
VC	<0.96	<1.5

AOC-2

Sample ID: AOC3-SB-N		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.0-2.5	3.5-4.0
PCE	<0.85	<0.85
TCE	<0.58	<0.58
DCE	<0.62	<0.62
VC	<0.67	<0.67

Sample ID: AOC3-SB-E-5N		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	3.5-4.0	
PCE	<1.7	
TCE	<1.2	
DCE	<1.2	
VC	<1.3	

Sample ID: AOC3-SB-E-5E		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	4.5-5.0	
PCE	<1.6	
TCE	<1.1	
DCE	<1.2	
VC	<1.3	

Sample ID: AOC3-SB-E		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.5-3.0	3.5-4.0
PCE	10	1200
TCE	1.6 J	590
DCE	<0.97	280 J
VC	<1.0	<120

Sample ID: AOC3-SB-C		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.0-2.5	3.5-4.0
PCE	<1.4	<1.5
TCE	<0.98	<1.1
DCE	<1.1	<1.1
VC	<1.1	<1.2

Sample ID: AOC3-SB-W		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.0-2.5	3.5-4.0
PCE	<1.9	<1.1
TCE	<1.3	<0.77
DCE	<1.4	<0.83
VC	<1.5	<0.88

Sample ID: AOC3-SB-E-5S		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	3.0-3.5	
PCE	<2.0	
TCE	<1.4	
DCE	<1.5	
VC	<1.6	

Sample ID: AOC3-SB-S		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.5-3.0	3.5-4.0
PCE	<1.9	<1.4
TCE	<1.3	<0.99
DCE	<1.4	<1.1
VC	<1.5	<1.1

Constituent	Delineation Criteria (µg/kg)	RRS Criteria (µg/kg)
PCE	180	500
TCE	130	500
DCE	530	7,000
VC	40	200

Legend

AOC-10 AREA OF CONCERN

FORMER WATER FEATURE

AREA OF CONCERN EXTENTS

SHALLOW (LEFT) AND DEEP (RIGHT) SOIL ANALYTICAL RESULTS

RESULT IS BELOW DELINEATION AND RRS CRITERIA

RESULT IS ABOVE DELINEATION BUT BELOW RRS CRITERIA

RESULT IS ABOVE DELINEATION AND RRS CRITERIA

SITE FEATURES

BERM OUTLINE

SECURITY FENCE

DRAINAGE PIPES

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CONCRETE PADS

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WATER FEATURES

FORMER MCKENZIE PROPERTY BOUNDARY

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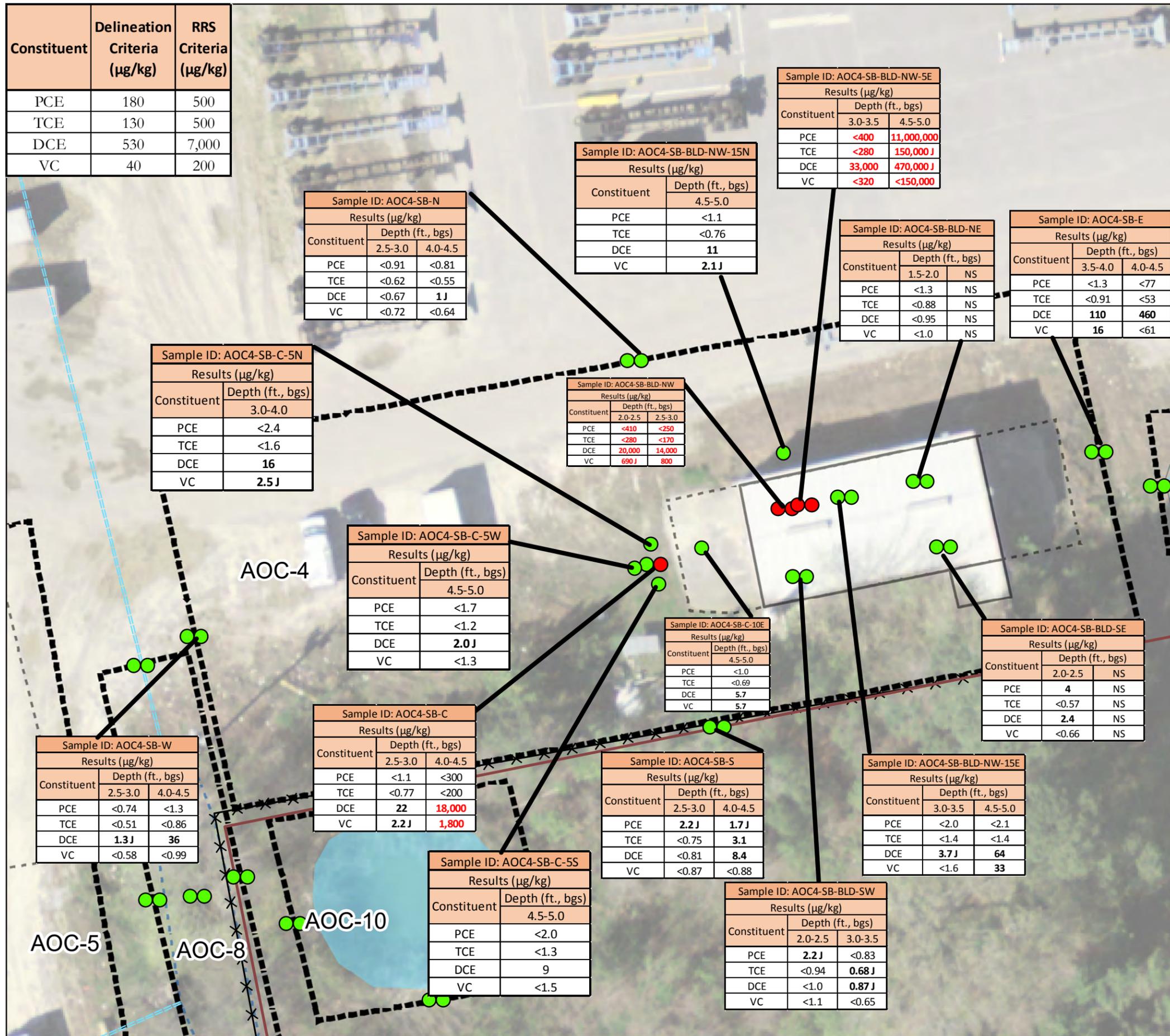
FIGURE 4-3: AOC-3 SOIL ANALYTICAL RESULTS



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111 GRANGE ROAD
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ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009

Constituent	Delineation Criteria (µg/kg)	RRS Criteria (µg/kg)
PCE	180	500
TCE	130	500
DCE	530	7,000
VC	40	200



Legend

AOC-4

- AREA OF CONCERN
- FORMER WATER FEATURE
- AREA OF CONCERN EXTENTS
- SHALLOW (LEFT) AND DEEP (RIGHT) SOIL ANALYTICAL RESULTS
- RESULT IS BELOW DELINEATION AND RRS CRITERIA
- RESULT IS ABOVE DELINEATION BUT BELOW RRS CRITERIA
- RESULT IS ABOVE DELINEATION AND RRS CRITERIA

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- DRAINAGE PIPES
- BUILDINGS
- CONCRETE PADS
- DITCHES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY

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AOC SOIL SAMPLING RESULTS ARE FROM JANUARY, MARCH, OCTOBER, AND NOVEMBER 2015 SOIL SAMPLING EVENTS. CONSTITUENTS OF CONCERN (COCS) INCLUDE PCE, TCE, DCE, VC. SOIL SAMPLES WERE COLLECTED AT BOTH SHALLOW (1-3 FT.) AND DEEP DEPTHS (3-5 FT.) IN THE VADOSE ZONE.



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FIGURE 4-4: AOC-4 SOIL ANALYTICAL RESULTS

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111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009

Sample ID: AOC4-SB-N

Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.5-3.0	4.0-4.5
PCE	<0.91	<0.81
TCE	<0.62	<0.55
DCE	<0.67	1J
VC	<0.72	<0.64

Sample ID: AOC4-SB-BLD-NW-15N

Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	4.5-5.0	
PCE	<1.1	
TCE	<0.76	
DCE	11	
VC	2.1J	

Sample ID: AOC4-SB-BLD-NW-5E

Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	3.0-3.5	4.5-5.0
PCE	<400	11,000,000
TCE	<280	150,000J
DCE	33,000	470,000J
VC	<320	<150,000

Sample ID: AOC4-SB-BLD-NE

Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	1.5-2.0	NS
PCE	<1.3	NS
TCE	<0.88	NS
DCE	<0.95	NS
VC	<1.0	NS

Sample ID: AOC4-SB-E

Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	3.5-4.0	4.0-4.5
PCE	<1.3	<77
TCE	<0.91	<53
DCE	110	460
VC	16	<61

Sample ID: AOC4-SB-C-5N

Results (µg/kg)	
Constituent	Depth (ft., bgs)
	3.0-4.0
PCE	<2.4
TCE	<1.6
DCE	16
VC	2.5J

Sample ID: AOC4-SB-BLD-NW

Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.0-2.5	2.5-3.0
PCE	<410	<250
TCE	<280	<170
DCE	20,000	14,000
VC	690J	800

Sample ID: AOC4-SB-C-5W

Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	4.5-5.0	
PCE	<1.7	
TCE	<1.2	
DCE	2.0J	
VC	<1.3	

Sample ID: AOC4-SB-C-10E

Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	4.5-5.0	
PCE	<1.0	
TCE	<0.69	
DCE	5.7	
VC	5.7	

Sample ID: AOC4-SB-BLD-SE

Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.0-2.5	NS
PCE	4	NS
TCE	<0.57	NS
DCE	2.4	NS
VC	<0.66	NS

Sample ID: AOC4-SB-W

Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.5-3.0	4.0-4.5
PCE	<0.74	<1.3
TCE	<0.51	<0.86
DCE	1.3J	36
VC	<0.58	<0.99

Sample ID: AOC4-SB-C

Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.5-3.0	4.0-4.5
PCE	<1.1	<300
TCE	<0.77	<200
DCE	22	18,000
VC	2.2J	1,800

Sample ID: AOC4-SB-S

Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.5-3.0	4.0-4.5
PCE	2.2J	1.7J
TCE	<0.75	3.1
DCE	<0.81	8.4
VC	<0.87	<0.88

Sample ID: AOC4-SB-BLD-NW-15E

Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	3.0-3.5	4.5-5.0
PCE	<2.0	<2.1
TCE	<1.4	<1.4
DCE	3.7J	64
VC	<1.6	33

Sample ID: AOC4-SB-C-5S

Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	4.5-5.0	
PCE	<2.0	
TCE	<1.3	
DCE	9	
VC	<1.5	

Sample ID: AOC4-SB-BLD-SW

Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.0-2.5	3.0-3.5
PCE	2.2J	<0.83
TCE	<0.94	0.68J
DCE	<1.0	0.87J
VC	<1.1	<0.65

Sample ID: AOC5-SB-N		
Results (µg/kg)		
Constituent	Depth	
	2.0-2.5	4.0-4.5
PCE	<1.1	<1.4
TCE	<0.74	<0.96
DCE	<0.80	<1.0
VC	<0.85	<1.1

Sample ID: AOC5-SB-C		
Results (µg/kg)		
Constituent	Depth	
	2.0-2.5	4.0-4.5
PCE	<0.88	<2.0
TCE	<0.60	<0.13
DCE	<0.64	<1.4
VC	<0.69	<1.5

Sample ID: AOC5-SB-E		
Results (µg/kg)		
Constituent	Depth	
	2.5-3.0	4.0-4.5
PCE	<1.4	<1.0
TCE	<0.95	<0.71
DCE	<1.0	<0.77
VC	<1.1	<0.82

Sample ID: AOC5-SB-W		
Results (µg/kg)		
Constituent	Depth	
	2.5-3.0	4.0-4.5
PCE	<1.3	<1.3
TCE	<0.90	<0.92
DCE	<0.97	<0.99
VC	<1.0	<1.1

Sample ID: AOC5-SB-S		
Results (µg/kg)		
Constituent	Depth	
	2.0-2.5	3.0-3.5
PCE	<1.8	<1.6
TCE	<1.2	<1.1
DCE	4.8	<1.2
VC	<1.4	<1.2

Constituent	Delineation Criteria (µg/kg)	RRS Criteria (µg/kg)
PCE	180	500
TCE	130	500
DCE	530	7,000
VC	40	200

Legend

AOC-10 AREA OF CONCERN

FORMER WATER FEATURE

AREA OF CONCERN EXTENTS

SHALLOW (LEFT) AND DEEP (RIGHT) SOIL ANALYTICAL RESULTS

RESULT IS BELOW DELINEATION AND RRS CRITERIA

RESULT IS ABOVE DELINEATION BUT BELOW RRS CRITERIA

RESULT IS ABOVE DELINEATION AND RRS CRITERIA

SITE FEATURES

BERM OUTLINE

SECURITY FENCE

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WATER FEATURES

FORMER MCKENZIE PROPERTY BOUNDARY

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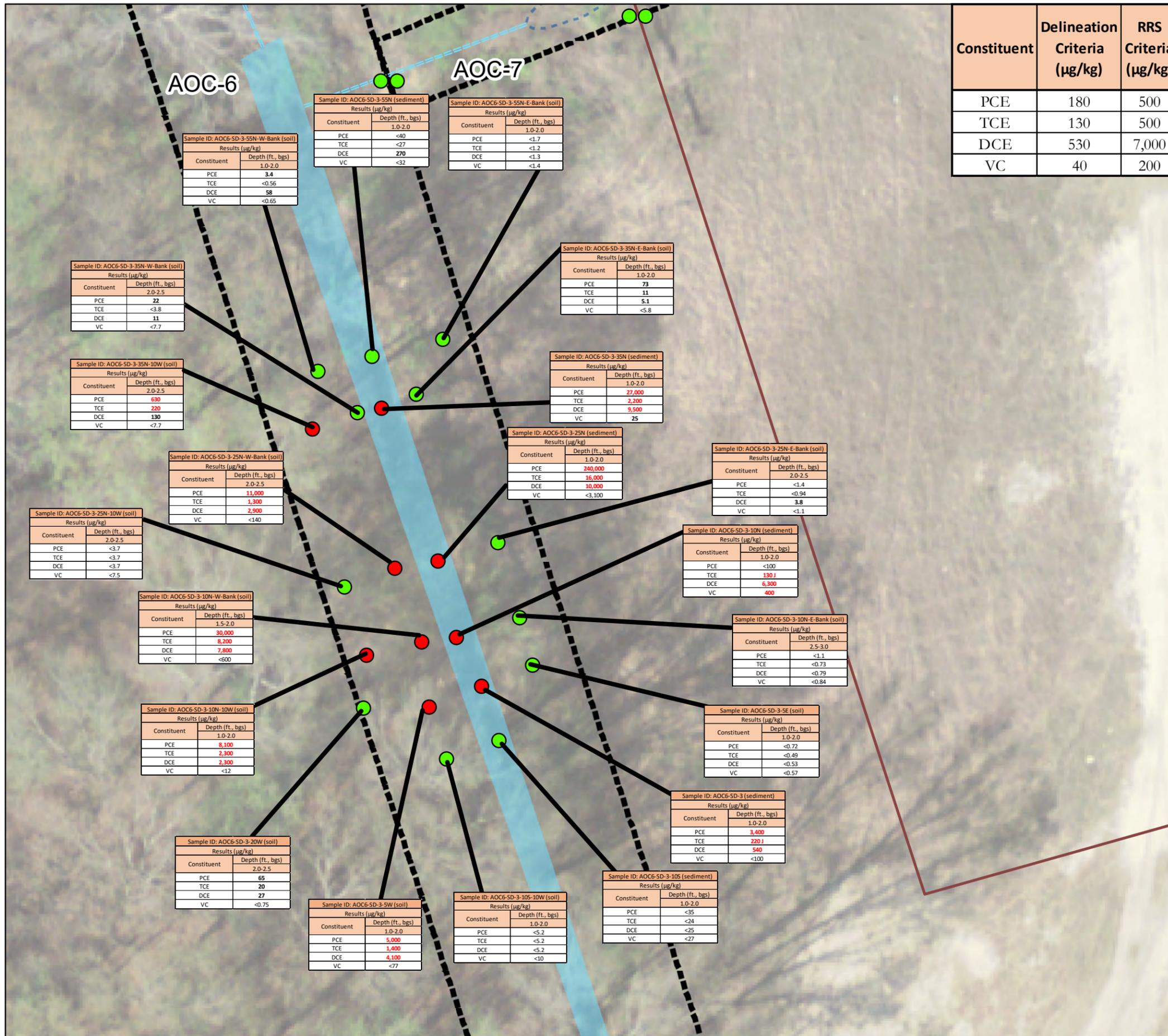
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FIGURE 4-5: AOC-5 SOIL ANALYTICAL RESULTS



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ALPHARETTA, GEORGIA 30009



Constituent	Delineation Criteria (µg/kg)	RRS Criteria (µg/kg)
PCE	180	500
TCE	130	500
DCE	530	7,000
VC	40	200

Legend

AOC-6 AREA OF CONCERN

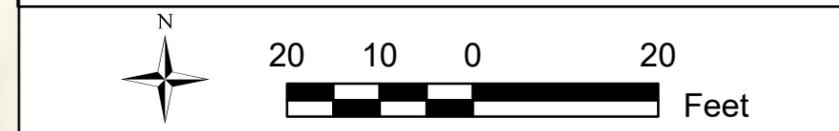
- FORMER WATER FEATURE
- AREA OF CONCERN EXTENTS
- SHALLOW (LEFT) AND DEEP (RIGHT) SOIL ANALYTICAL RESULTS
- RESULT IS BELOW DELINEATION AND RRS CRITERIA
- RESULT IS ABOVE DELINEATION BUT BELOW RRS CRITERIA
- RESULT IS ABOVE DELINEATION AND RRS CRITERIA

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- DRAINAGE PIPES
- BUILDINGS
- CONCRETE PADS
- DITCHES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY

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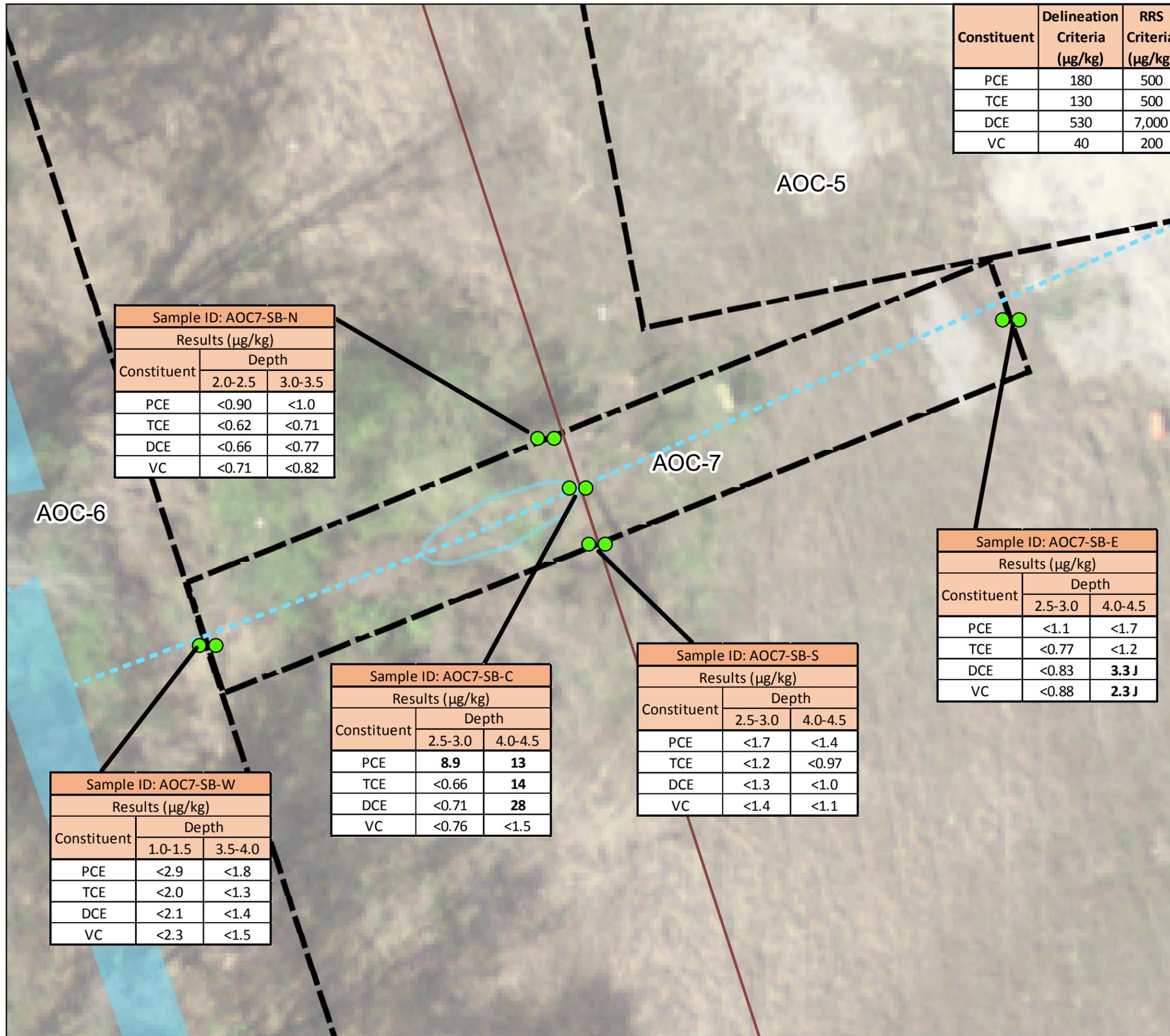
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APPROVED BY: R.M.			

FIGURE 4-6: AOC-6 SOIL AND SEDIMENT ANALYTICAL RESULTS



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ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Constituent	Delineation Criteria (µg/kg)	RRS Criteria (µg/kg)
PCE	180	500
TCE	130	500
DCE	530	7,000
VC	40	200

Legend

AOC-10 AREA OF CONCERN

FORMER WATER FEATURE

AREA OF CONCERN EXTENTS

SHALLOW (LEFT) AND DEEP (RIGHT) SOIL ANALYTICAL RESULTS

RESULT IS BELOW DELINEATION AND RRS CRITERIA

RESULT IS ABOVE DELINEATION BUT BELOW RRS CRITERIA

RESULT IS ABOVE DELINEATION AND RRS CRITERIA

SITE FEATURES

BERM OUTLINE

SECURITY FENCE

DRAINAGE PIPES

BUILDINGS

CONCRETE APRONS

SWALES

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FORMER MCKENZIE PROPERTY BOUNDARY

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APPROVED BY: R.M.			

FIGURE 4-7: AOC-7 SOIL ANALYTICAL RESULTS

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111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009

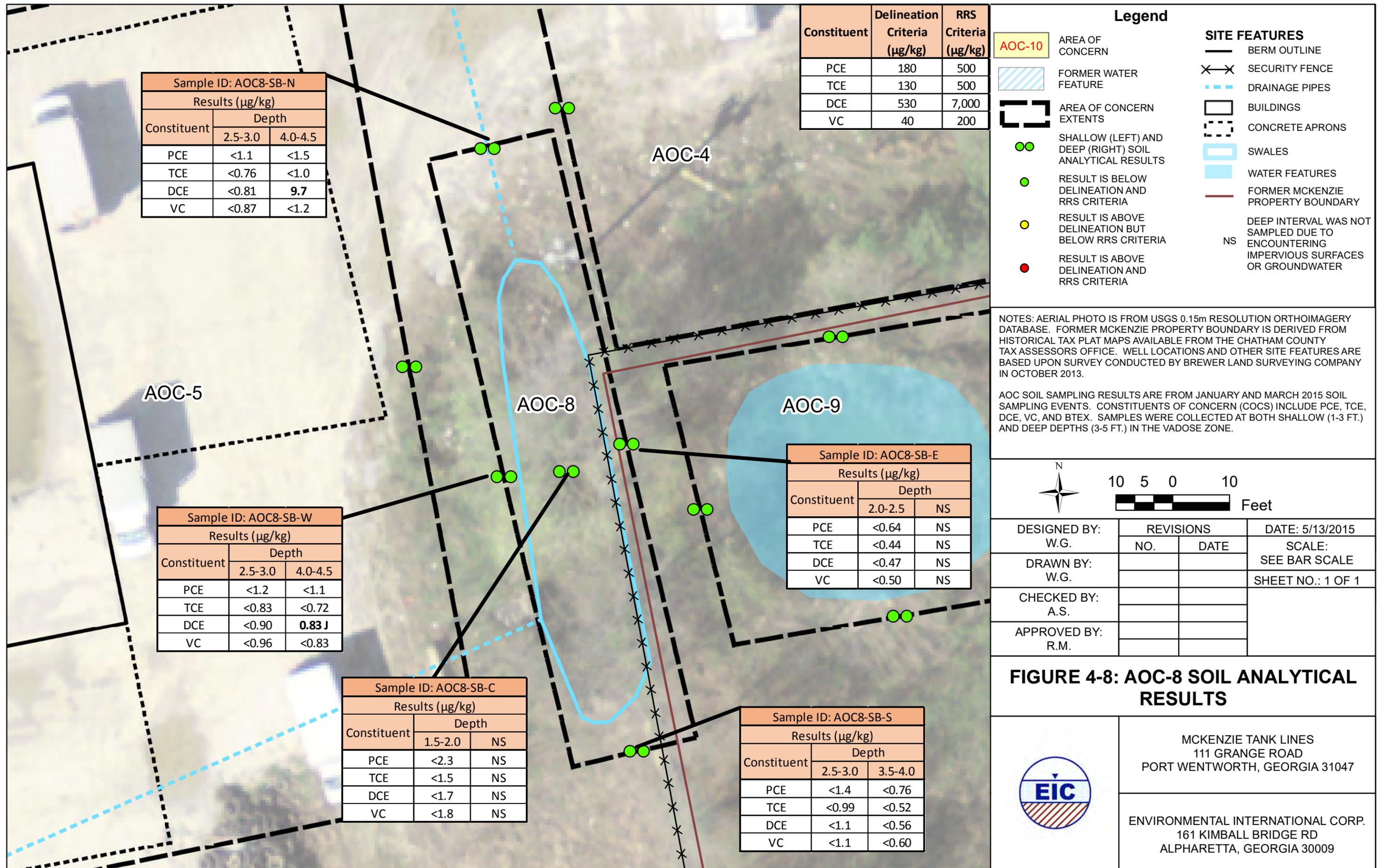
Sample ID: AOC7-SB-N		
Results (µg/kg)		
Constituent	Depth	
	2.0-2.5	3.0-3.5
PCE	<0.90	<1.0
TCE	<0.62	<0.71
DCE	<0.66	<0.77
VC	<0.71	<0.82

Sample ID: AOC7-SB-E		
Results (µg/kg)		
Constituent	Depth	
	2.5-3.0	4.0-4.5
PCE	<1.1	<1.7
TCE	<0.77	<1.2
DCE	<0.83	3.3 J
VC	<0.88	2.3 J

Sample ID: AOC7-SB-S		
Results (µg/kg)		
Constituent	Depth	
	2.5-3.0	4.0-4.5
PCE	<1.7	<1.4
TCE	<1.2	<0.97
DCE	<1.3	<1.0
VC	<1.4	<1.1

Sample ID: AOC7-SB-C		
Results (µg/kg)		
Constituent	Depth	
	2.5-3.0	4.0-4.5
PCE	8.9	13
TCE	<0.66	14
DCE	<0.71	28
VC	<0.76	<1.5

Sample ID: AOC7-SB-W		
Results (µg/kg)		
Constituent	Depth	
	1.0-1.5	3.5-4.0
PCE	<2.9	<1.8
TCE	<2.0	<1.3
DCE	<2.1	<1.4
VC	<2.3	<1.5



Constituent	Delineation Criteria (µg/kg)	RRS Criteria (µg/kg)
PCE	180	500
TCE	130	500
DCE	530	7,000
VC	40	200

Legend

AOC-10 AREA OF CONCERN

FORMER WATER FEATURE

AREA OF CONCERN EXTENTS

SHALLOW (LEFT) AND DEEP (RIGHT) SOIL ANALYTICAL RESULTS

RESULT IS BELOW DELINEATION AND RRS CRITERIA

RESULT IS ABOVE DELINEATION BUT BELOW RRS CRITERIA

RESULT IS ABOVE DELINEATION AND RRS CRITERIA

SITE FEATURES

BERM OUTLINE

SECURITY FENCE

DRAINAGE PIPES

BUILDINGS

CONCRETE APRONS

SWALES

WATER FEATURES

FORMER MCKENZIE PROPERTY BOUNDARY

DEEP INTERVAL WAS NOT SAMPLED DUE TO ENCOUNTERING IMPERVIOUS SURFACES OR GROUNDWATER

NS

Sample ID: AOC8-SB-N		
Results (µg/kg)		
Constituent	Depth	
	2.5-3.0	4.0-4.5
PCE	<1.1	<1.5
TCE	<0.76	<1.0
DCE	<0.81	9.7
VC	<0.87	<1.2

Sample ID: AOC8-SB-E		
Results (µg/kg)		
Constituent	Depth	
	2.0-2.5	NS
PCE	<0.64	NS
TCE	<0.44	NS
DCE	<0.47	NS
VC	<0.50	NS

Sample ID: AOC8-SB-W		
Results (µg/kg)		
Constituent	Depth	
	2.5-3.0	4.0-4.5
PCE	<1.2	<1.1
TCE	<0.83	<0.72
DCE	<0.90	0.83 J
VC	<0.96	<0.83

Sample ID: AOC8-SB-C		
Results (µg/kg)		
Constituent	Depth	
	1.5-2.0	NS
PCE	<2.3	NS
TCE	<1.5	NS
DCE	<1.7	NS
VC	<1.8	NS

Sample ID: AOC8-SB-S		
Results (µg/kg)		
Constituent	Depth	
	2.5-3.0	3.5-4.0
PCE	<1.4	<0.76
TCE	<0.99	<0.52
DCE	<1.1	<0.56
VC	<1.1	<0.60

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEY CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013.

AOC SOIL SAMPLING RESULTS ARE FROM JANUARY AND MARCH 2015 SOIL SAMPLING EVENTS. CONSTITUENTS OF CONCERN (COCS) INCLUDE PCE, TCE, DCE, VC, AND BTEX. SAMPLES WERE COLLECTED AT BOTH SHALLOW (1-3 FT.) AND DEEP DEPTHS (3-5 FT.) IN THE VADOSE ZONE.

N

10 5 0 10 Feet

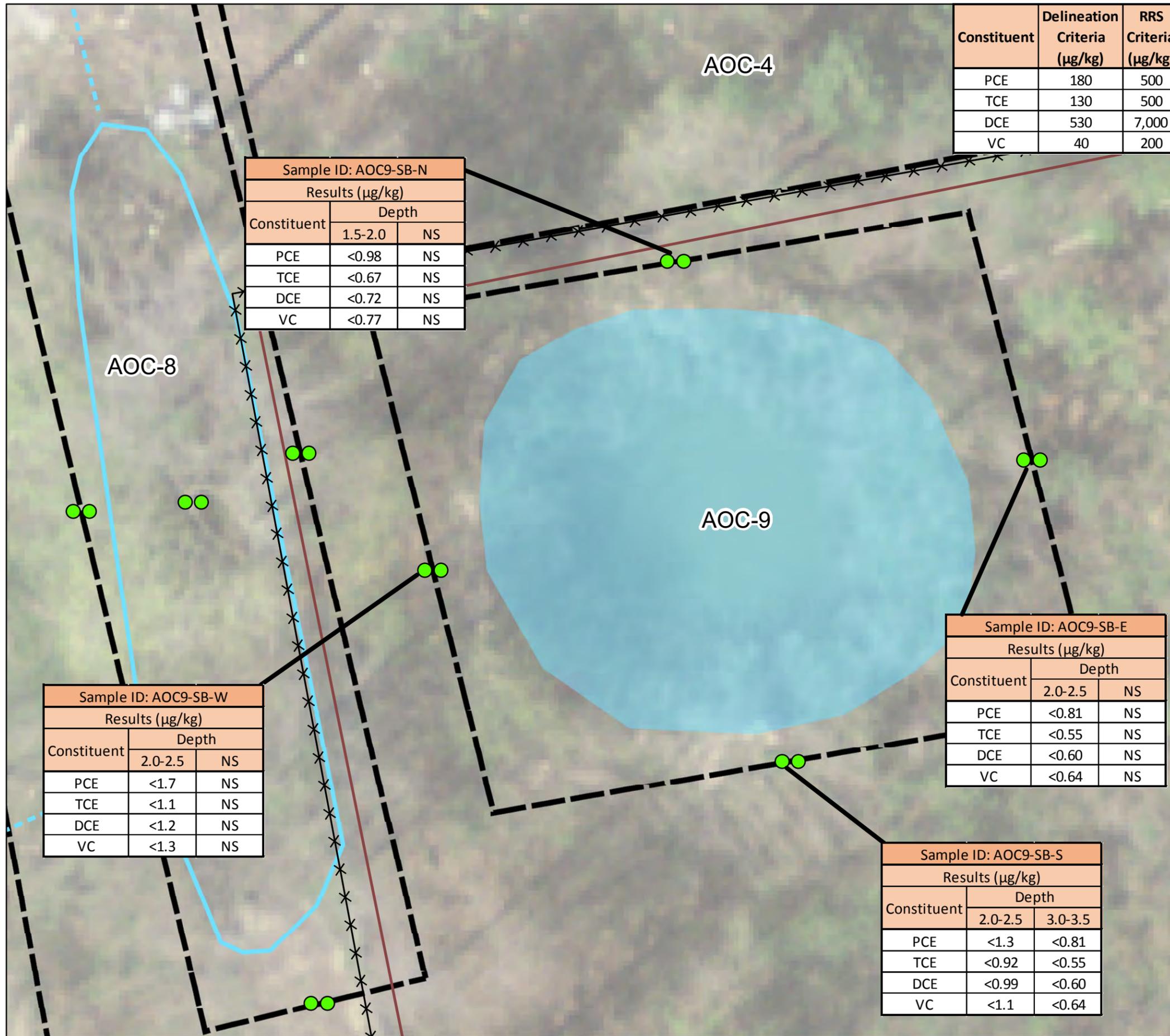
DESIGNED BY: W.G.	REVISIONS		DATE: 5/13/2015
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: W.G.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 4-8: AOC-8 SOIL ANALYTICAL RESULTS



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Legend

AOC-10 AREA OF CONCERN

FORMER WATER FEATURE

AREA OF CONCERN EXTENTS

SHALLOW (LEFT) AND DEEP (RIGHT) SOIL ANALYTICAL RESULTS

RESULT IS BELOW DELINEATION AND RRS CRITERIA

RESULT IS ABOVE DELINEATION BUT BELOW RRS CRITERIA

RESULT IS ABOVE DELINEATION AND RRS CRITERIA

SITE FEATURES

BERM OUTLINE

SECURITY FENCE

DRAINAGE PIPES

BUILDINGS

CONCRETE APRONS

SWALES

WATER FEATURES

FORMER MCKENZIE PROPERTY BOUNDARY

DEEP INTERVAL WAS NOT SAMPLED DUE TO ENCOUNTERING IMPERVIOUS SURFACES OR GROUNDWATER

NS

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEY CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013.

AOC SOIL SAMPLING RESULTS ARE FROM JANUARY AND MARCH 2015 SOIL SAMPLING EVENTS. CONSTITUENTS OF CONCERN (COCS) INCLUDE PCE, TCE, DCE, VC, AND BTEX. SAMPLES WERE COLLECTED AT BOTH SHALLOW (1-3 FT.) AND DEEP DEPTHS (3-5 FT.) IN THE VADOSE ZONE.

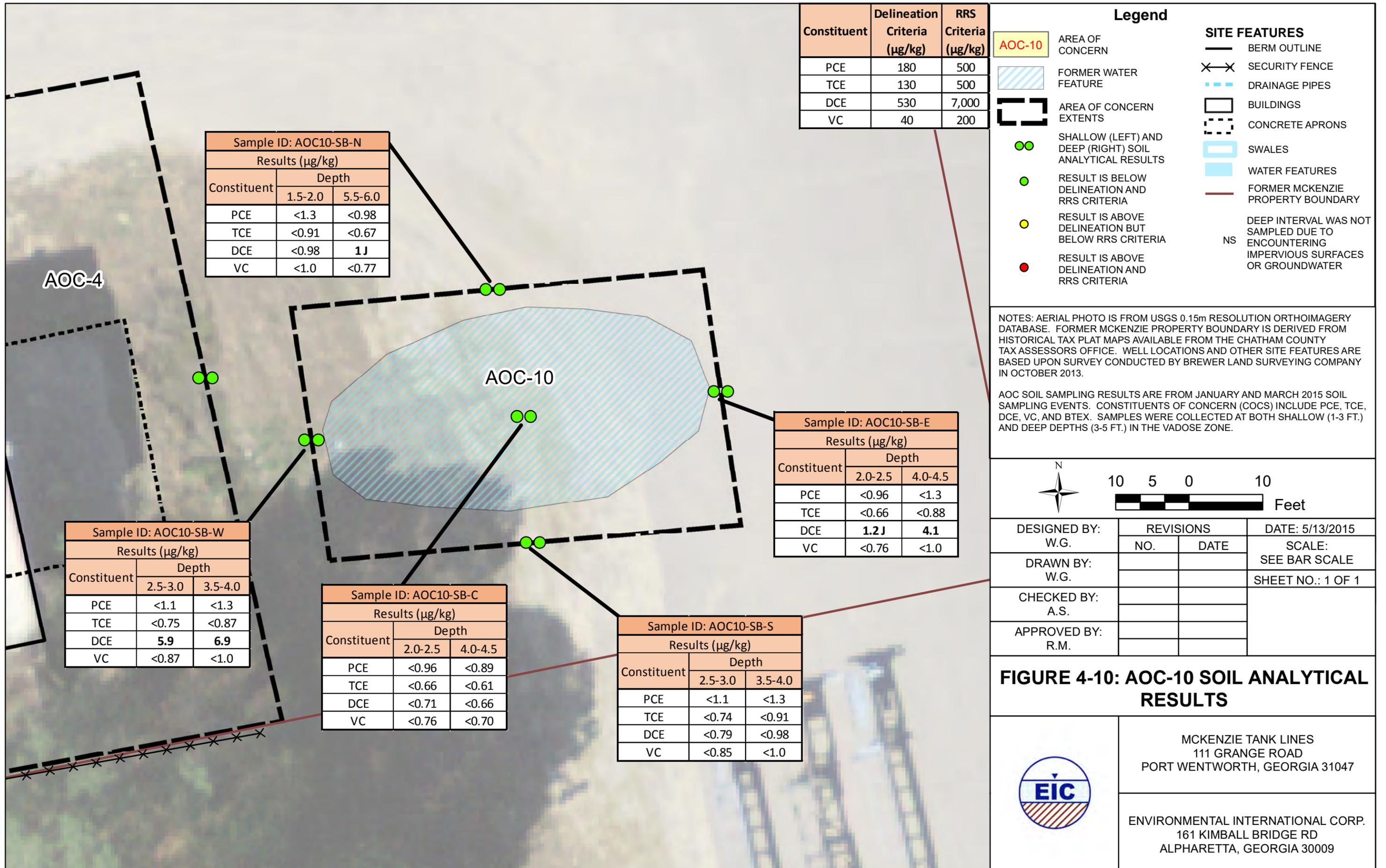
10 5 0 10 Feet

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	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: W.G.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 4-9: AOC-9 SOIL ANALYTICAL RESULTS

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Constituent	Delineation Criteria (µg/kg)	RRS Criteria (µg/kg)
PCE	180	500
TCE	130	500
DCE	530	7,000
VC	40	200

Legend

AOC-10 AREA OF CONCERN

FORMER WATER FEATURE

AREA OF CONCERN EXTENTS

SHALLOW (LEFT) AND DEEP (RIGHT) SOIL ANALYTICAL RESULTS

RESULT IS BELOW DELINEATION AND RRS CRITERIA

RESULT IS ABOVE DELINEATION BUT BELOW RRS CRITERIA

RESULT IS ABOVE DELINEATION AND RRS CRITERIA

SITE FEATURES

BERM OUTLINE

SECURITY FENCE

DRAINAGE PIPES

BUILDINGS

CONCRETE APRONS

SWALES

WATER FEATURES

FORMER MCKENZIE PROPERTY BOUNDARY

DEEP INTERVAL WAS NOT SAMPLED DUE TO ENCOUNTERING IMPERVIOUS SURFACES OR GROUNDWATER

NS

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEY CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013.

AOC SOIL SAMPLING RESULTS ARE FROM JANUARY AND MARCH 2015 SOIL SAMPLING EVENTS. CONSTITUENTS OF CONCERN (COCS) INCLUDE PCE, TCE, DCE, VC, AND BTEX. SAMPLES WERE COLLECTED AT BOTH SHALLOW (1-3 FT.) AND DEEP DEPTHS (3-5 FT.) IN THE VADOSE ZONE.

N

10 5 0 10

Feet

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	NO.	DATE	SCALE: SEE BAR SCALE
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CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 4-10: AOC-10 SOIL ANALYTICAL RESULTS



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009

Sample ID: AOC10-SB-N

Constituent	Results (µg/kg)	
	Depth 1.5-2.0	Depth 5.5-6.0
PCE	<1.3	<0.98
TCE	<0.91	<0.67
DCE	<0.98	1J
VC	<1.0	<0.77

Sample ID: AOC10-SB-E

Constituent	Results (µg/kg)	
	Depth 2.0-2.5	Depth 4.0-4.5
PCE	<0.96	<1.3
TCE	<0.66	<0.88
DCE	1.2J	4.1
VC	<0.76	<1.0

Sample ID: AOC10-SB-W

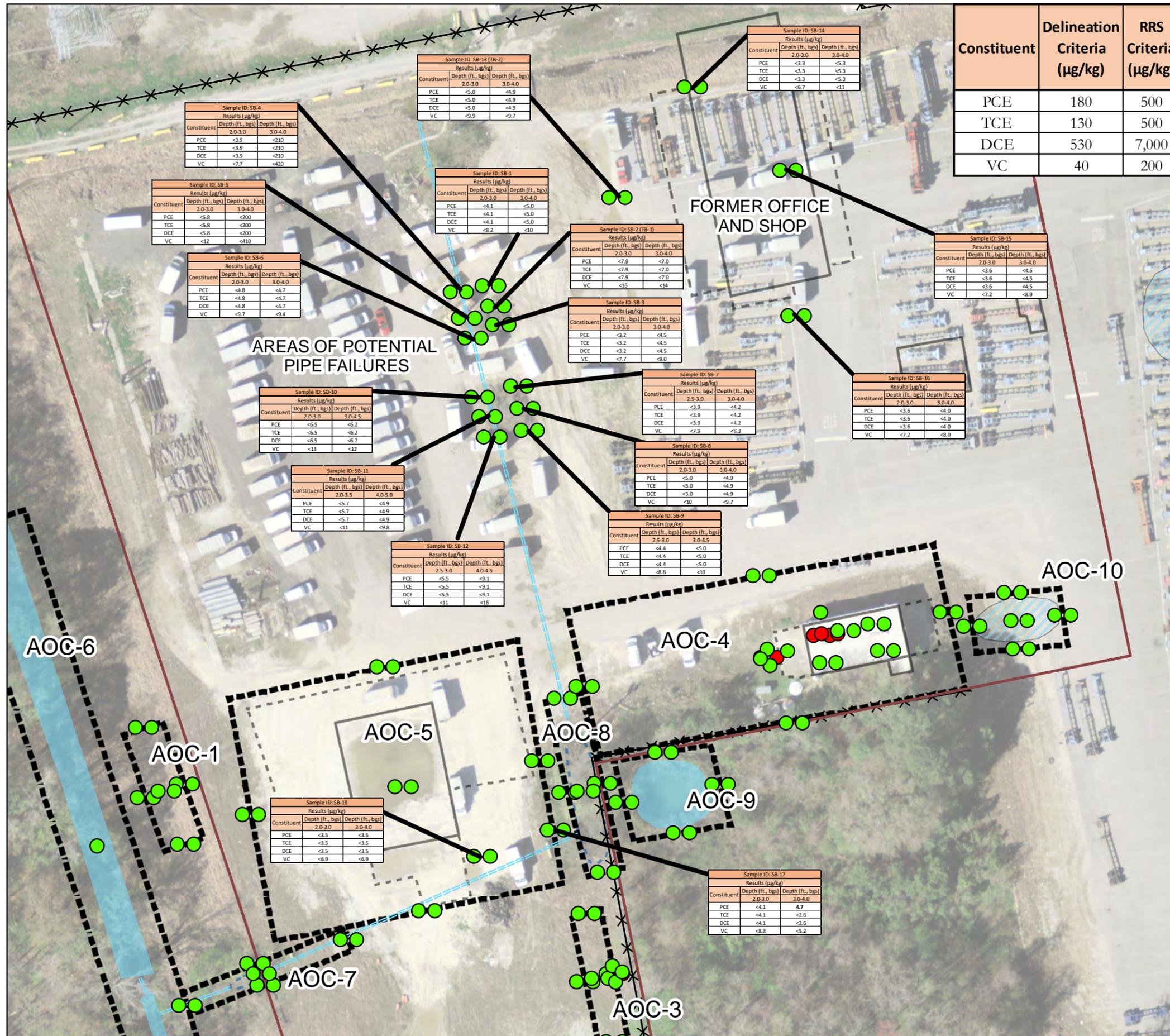
Constituent	Results (µg/kg)	
	Depth 2.5-3.0	Depth 3.5-4.0
PCE	<1.1	<1.3
TCE	<0.75	<0.87
DCE	5.9	6.9
VC	<0.87	<1.0

Sample ID: AOC10-SB-C

Constituent	Results (µg/kg)	
	Depth 2.0-2.5	Depth 4.0-4.5
PCE	<0.96	<0.89
TCE	<0.66	<0.61
DCE	<0.71	<0.66
VC	<0.76	<0.70

Sample ID: AOC10-SB-S

Constituent	Results (µg/kg)	
	Depth 2.5-3.0	Depth 3.5-4.0
PCE	<1.1	<1.3
TCE	<0.74	<0.91
DCE	<0.79	<0.98
VC	<0.85	<1.0



Constituent	Delineation Criteria (µg/kg)	RRS Criteria (µg/kg)
PCE	180	500
TCE	130	500
DCE	530	7,000
VC	40	200

Legend

AOC-6 AREA OF CONCERN

FORMER WATER FEATURE

AREA OF CONCERN EXTENTS

SHALLOW (LEFT) AND DEEP (RIGHT) SOIL ANALYTICAL RESULTS

RESULT IS BELOW DELINEATION AND RRS CRITERIA

RESULT IS ABOVE DELINEATION BUT BELOW RRS CRITERIA

RESULT IS ABOVE DELINEATION AND RRS CRITERIA

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- DRAINAGE PIPES
- BUILDINGS
- CONCRETE PADS
- DITCHES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. SITE FEATURES ARE BASED UPON SURVEY CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013.

AOC SOIL SAMPLING RESULTS ARE FROM JANUARY, MARCH, OCTOBER, AND NOVEMBER 2015 SOIL SAMPLING EVENTS. CONSTITUENTS OF CONCERN (COCS) INCLUDE PCE, TCE, DCE, VC.



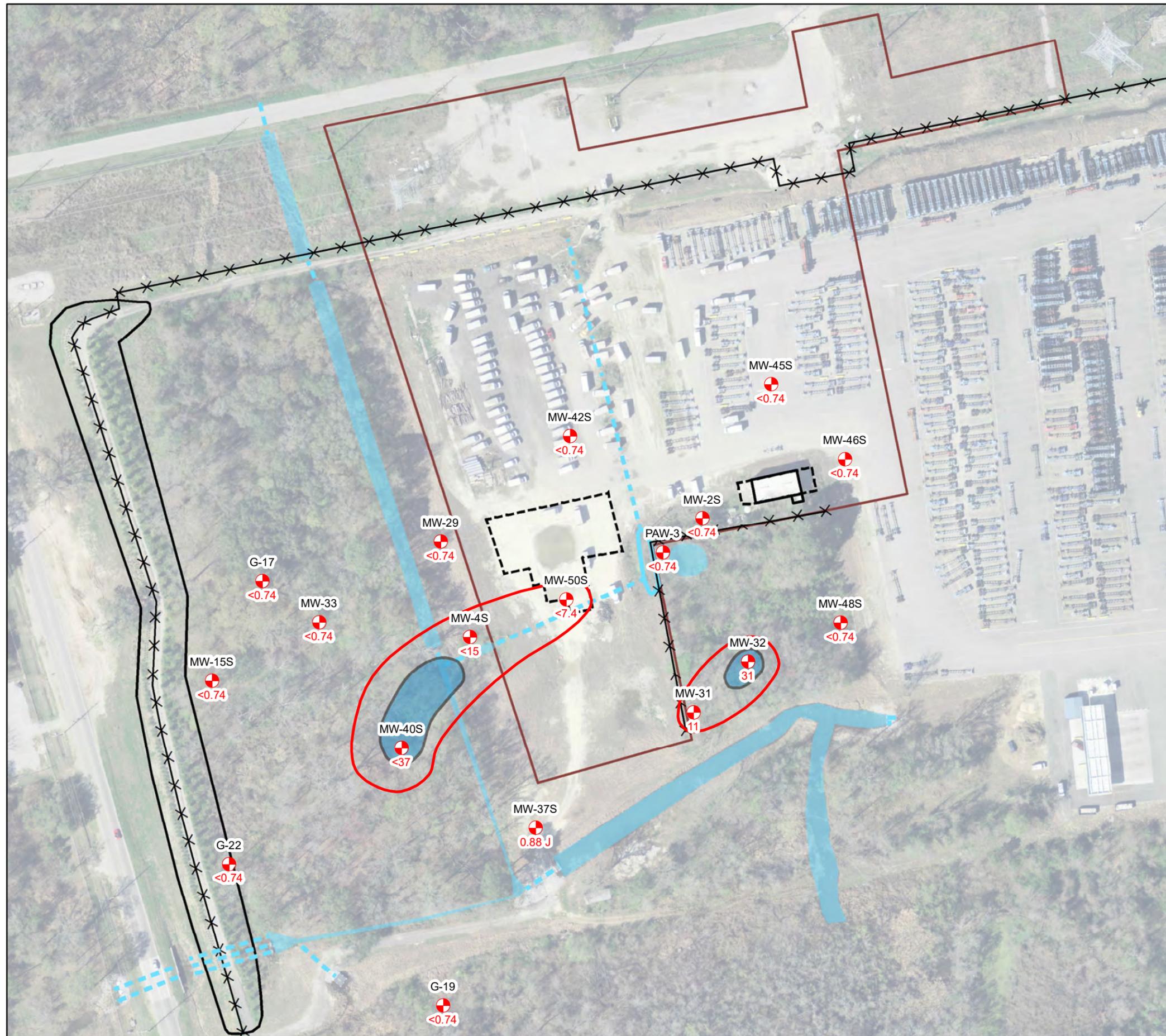
DESIGNED BY: A.G.	REVISIONS		DATE: 5/17/2017
DRAWN BY: A.G.	NO.	DATE	SCALE: SEE BAR SCALE
CHECKED BY: A.S.			SHEET NO.: 1 OF 1
APPROVED BY: R.M.			

FIGURE 4-11: FORMER OFFICE AND SHOP AND OTHER SOIL ANALYTICAL RESULTS



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD.
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- ✕ SECURITY FENCE
- - - BELOW-GRADE STORM WATER DRAINAGE PIPES
- ▭ BUILDINGS
- - - CONCRETE APRONS
- ▭ STORM WATER SWALES
- ▭ WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- ⊕ SHALLOW WELLS

PCE CONCENTRATIONS CONTOURS

- DELINIATION CRITERION OF 5 µg/L
- RRS TYPE 4 OF 98 µg/L

LABELS

- MW-40S WELL ID
- <0.74 CONCENTRATION IN µg/L
- <0.74* DATA NOT CONSIDERED FOR CONTOURS

CONCENTRATIONS IN µg/L

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

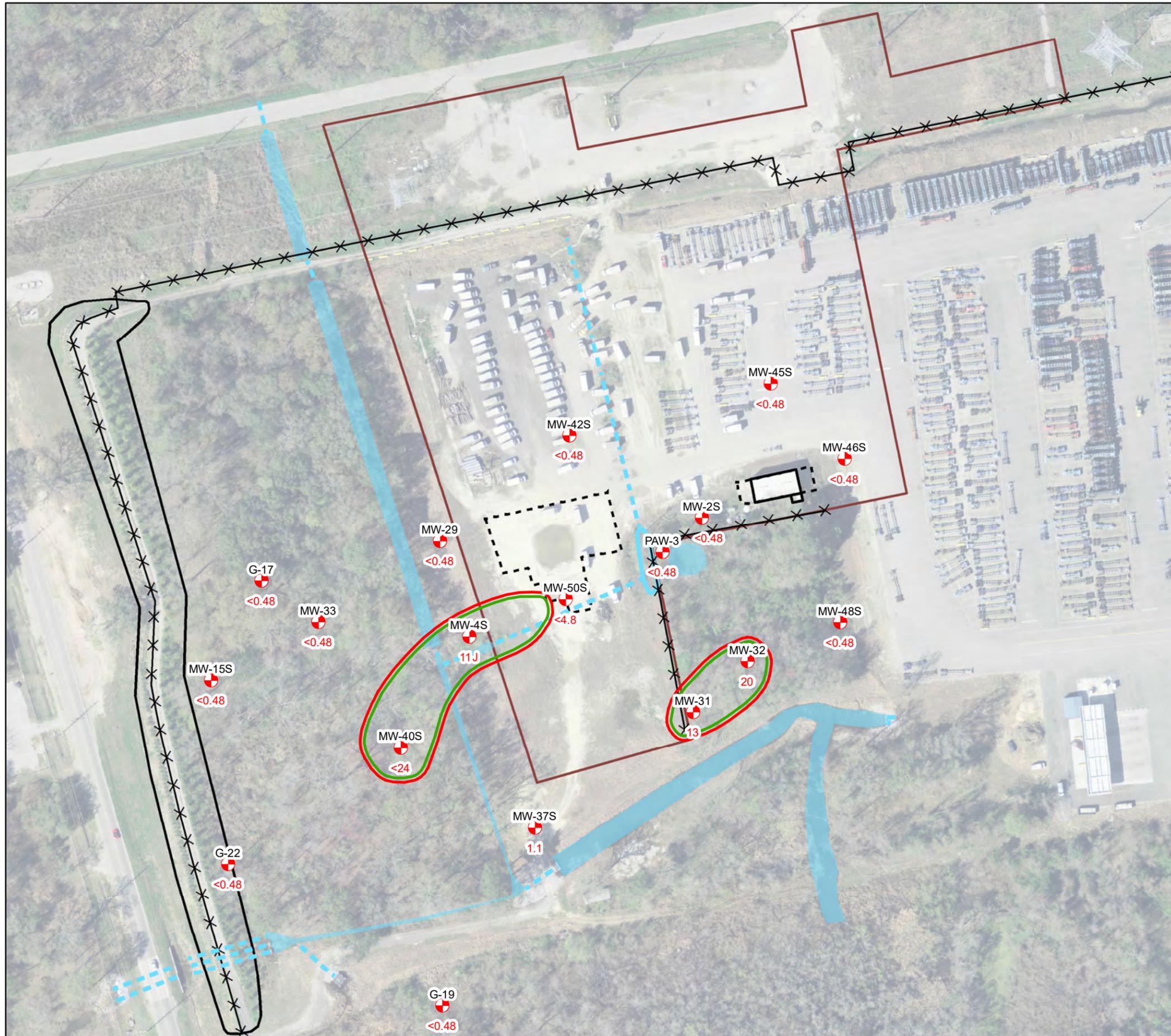
NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 10 AND 20 FEET ARE CONSIDERED SHALLOW WELLS.



DESIGNED BY: A.G.	REVISIONS		DATE: 10/20/2016
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 4-12: APRIL 2016 SHALLOW PCE ISOCONCENTRATION MAP

	MCKENZIE TANK LINES 111 GRANGE ROAD PORT WENTWORTH, GEORGIA 31407
	ENVIRONMENTAL INTERNATIONAL CORP. 161 KIMBALL BRIDGE RD. ALPHARETTA, GEORGIA 30009



SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- SHALLOW WELLS

TCE CONCENTRATIONS CONTOURS

- DELINIATION CRITERION OF $5 \mu\text{g/L}$
- RRS TYPE 4 OF $5 \mu\text{g/L}$

LABELS

MW-40S WELL ID

<math><0.48</math> CONCENTRATION IN $\mu\text{g/L}$

<math><0.48^*</math> DATA NOT CONSIDERED FOR CONTOURS

CONCENTRATIONS IN $\mu\text{g/L}$

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 10 AND 20 FEET ARE CONSIDERED SHALLOW WELLS.



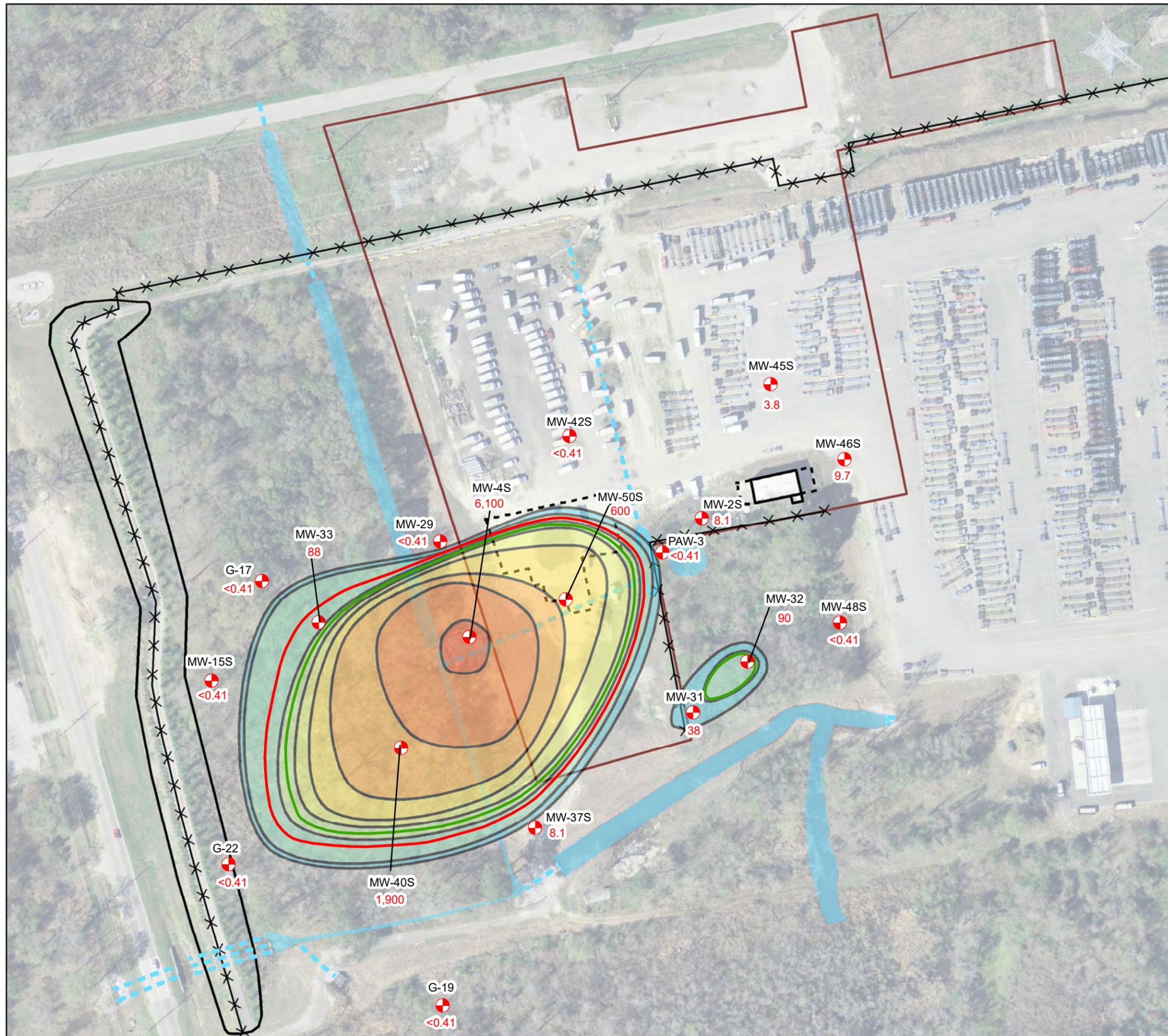
DESIGNED BY: A.G.	REVISIONS		DATE: 10/20/2016
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 4-13: APRIL 2016 SHALLOW TCE ISOCONCENTRATION MAP



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD.
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- ✕ SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- ▭ BUILDINGS
- - - CONCRETE APRONS
- ▭ STORM WATER SWALES
- ▭ WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- ⊕ SHALLOW WELLS

DCE CONCENTRATIONS CONTOURS

- DELINIATION CRITERION OF 70 µg/L
- RRS TYPE 4 OF 204 µg/L

LABELS

MW-40S WELL ID
 <0.41 CONCENTRATION IN µg/L
 <0.41* DATA NOT CONSIDERED FOR CONTOURS

CONCENTRATIONS IN µg/L

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

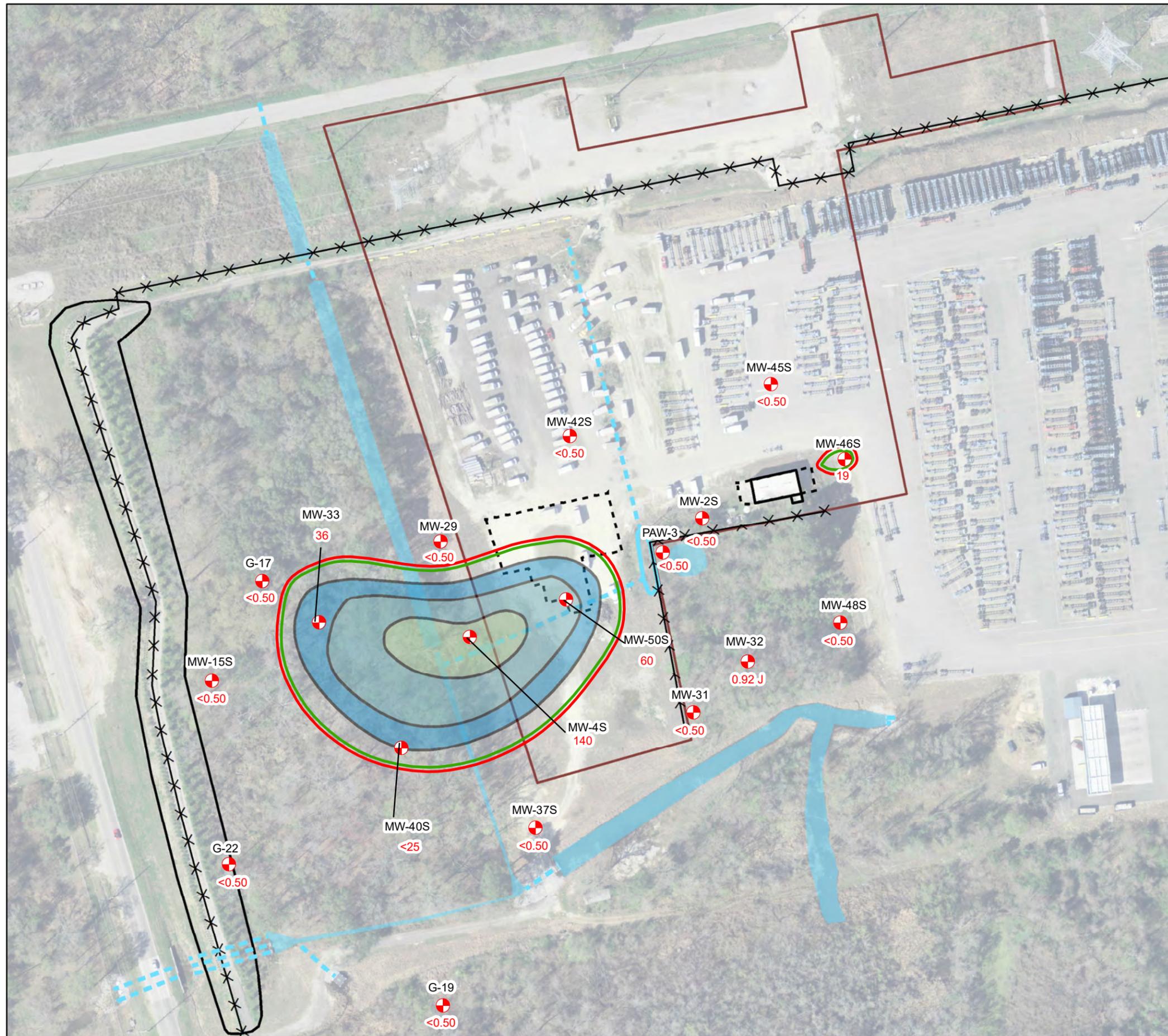
NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 10 AND 20 FEET ARE CONSIDERED SHALLOW WELLS.



DESIGNED BY: A.G.	REVISIONS		DATE: 10/19/2016
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 4-14: APRIL 2016 SHALLOW DCE ISOCONCENTRATION MAP

	MCKENZIE TANK LINES 111 GRANGE ROAD PORT WENTWORTH, GEORGIA 31407
	ENVIRONMENTAL INTERNATIONAL CORP. 161 KIMBALL BRIDGE RD. ALPHARETTA, GEORGIA 30009



SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- SHALLOW WELLS

Legend

VC CONCENTRATIONS CONTOURS

- DELINIATION CRITERION OF 2 µg/L
- RRS TYPE 4 OF 3 µg/L

LABELS

- MW-40S WELL ID
- <0.41 CONCENTRATION IN µg/L
- <0.41* DATA NOT CONSIDERED FOR CONTOURS

CONCENTRATIONS IN µg/L

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 10 AND 20 FEET ARE CONSIDERED SHALLOW WELLS.



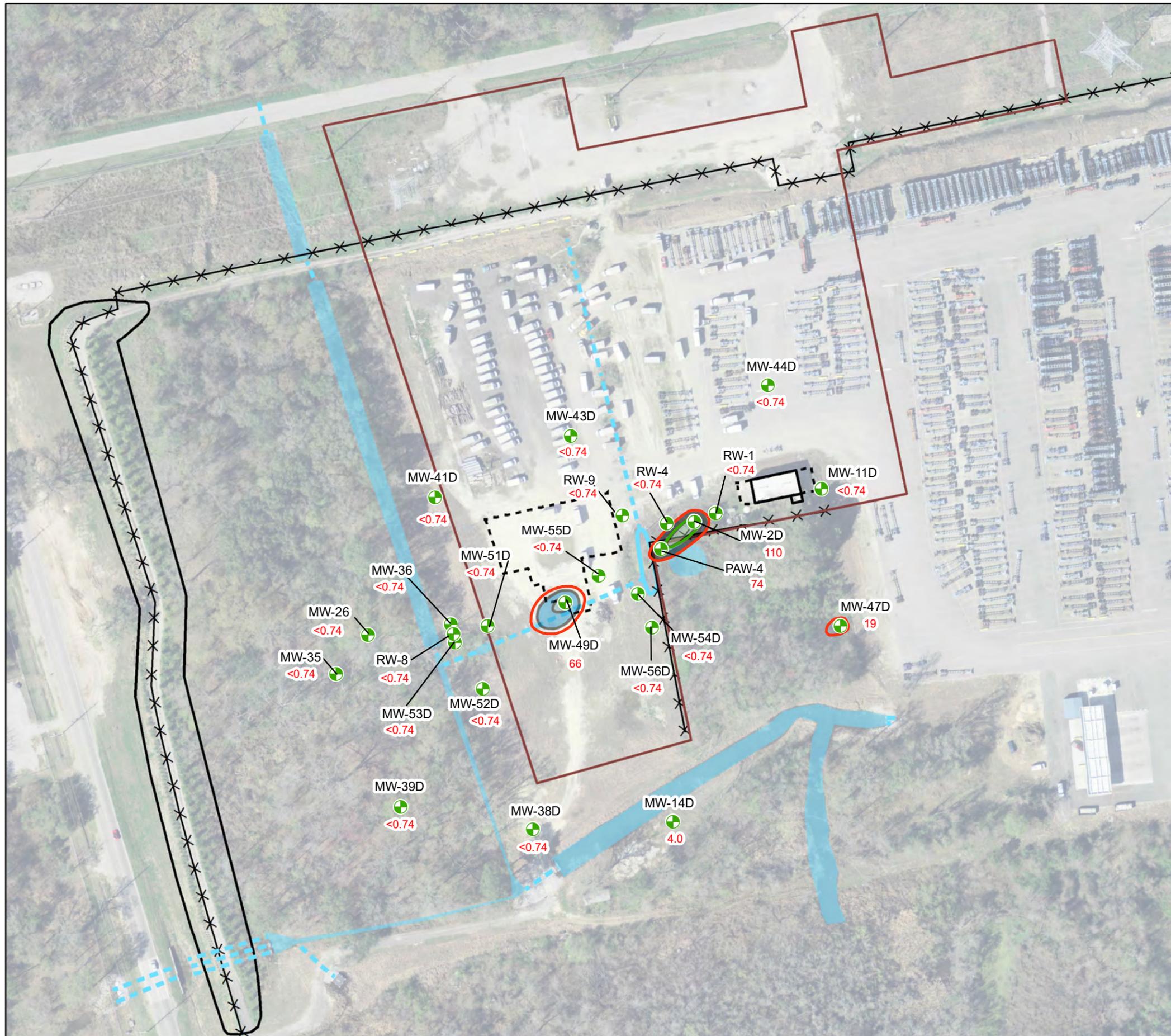
DESIGNED BY: A.G.	REVISIONS		DATE: 10/19/2016
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 4-15: APRIL 2016 SHALLOW VC ISOCONCENTRATION MAP



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD.
ALPHARETTA, GEORGIA 30009



SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- DEEP WELLS

Legend

PCE CONCENTRATIONS

CONTOURS

- DELINIATION CRITERION OF 5 µg/L
- RRS TYPE 4 OF 98 µg/L

LABELS

- MW-53D WELL ID
- <0.150 CONCENTRATION IN µg/L
- N.S. NOT SAMPLED

CONCENTRATION GRADIENT (µg/L)

- 25 - 50
- 50 - 100
- 100 - 250
- 250 - 500
- 500 - 1,000
- 1,000 - 2,500
- 2,500 - 5,000
- 5,000 - 10,000
- 10,000+

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 20 AND 30 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.



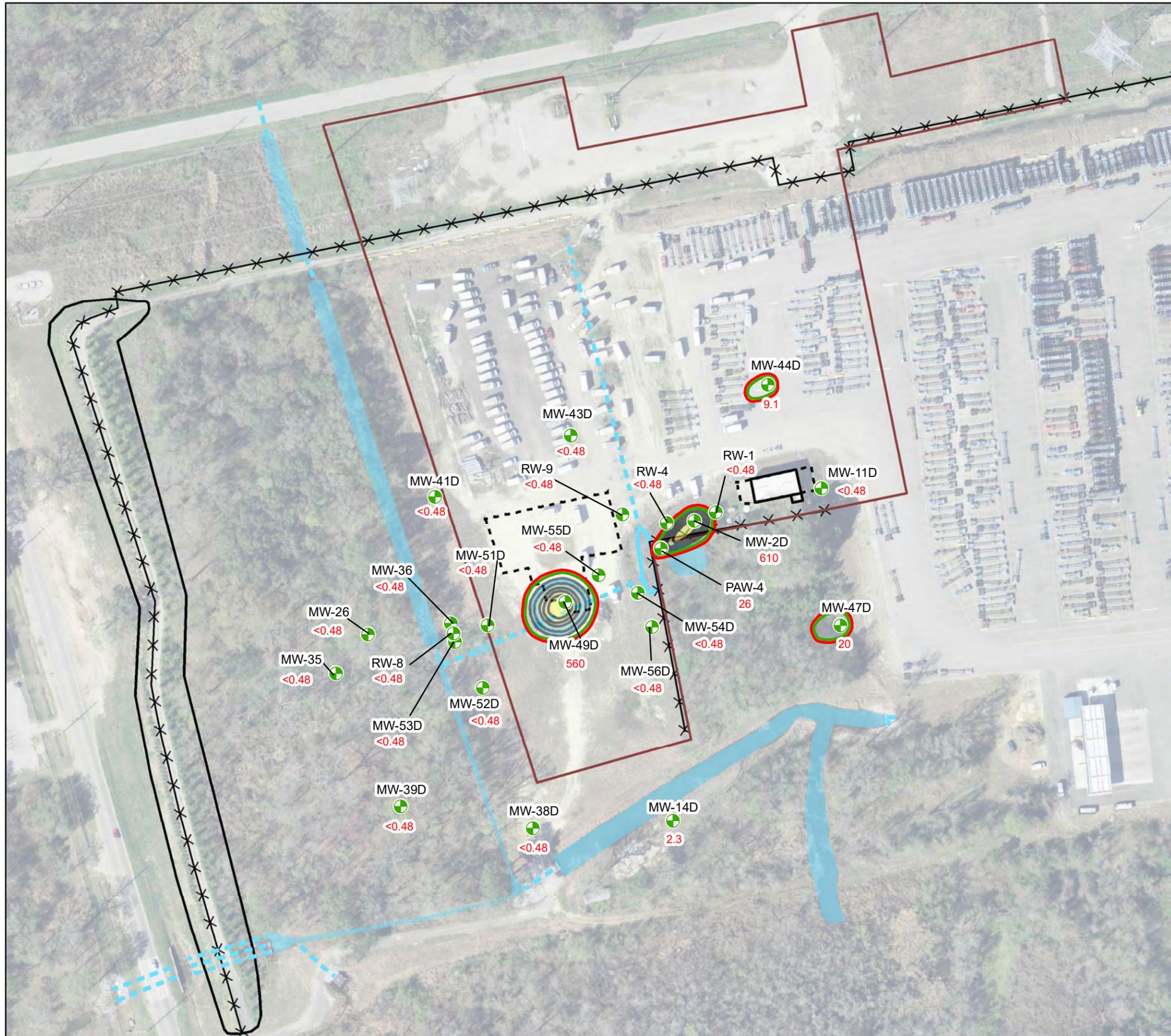
DESIGNED BY: A.G.	REVISIONS		DATE: 10/20/2016
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 4-16: APRIL 2016 DEEP PCE ISOCONCENTRATION MAP



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD.
ALPHARETTA, GEORGIA 30009



SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- DEEP WELLS

Legend

TCE CONCENTRATIONS

CONTOURS

- DELINIATION CRITERION OF 5 µg/L
- RRS TYPE 4 OF 5 µg/L

LABELS

- MW-53D WELL ID
- <0.48 CONCENTRATION IN µg/L
- N.S. NOT SAMPLED

CONCENTRATION GRADIENT (µg/L)

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 20 AND 30 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.



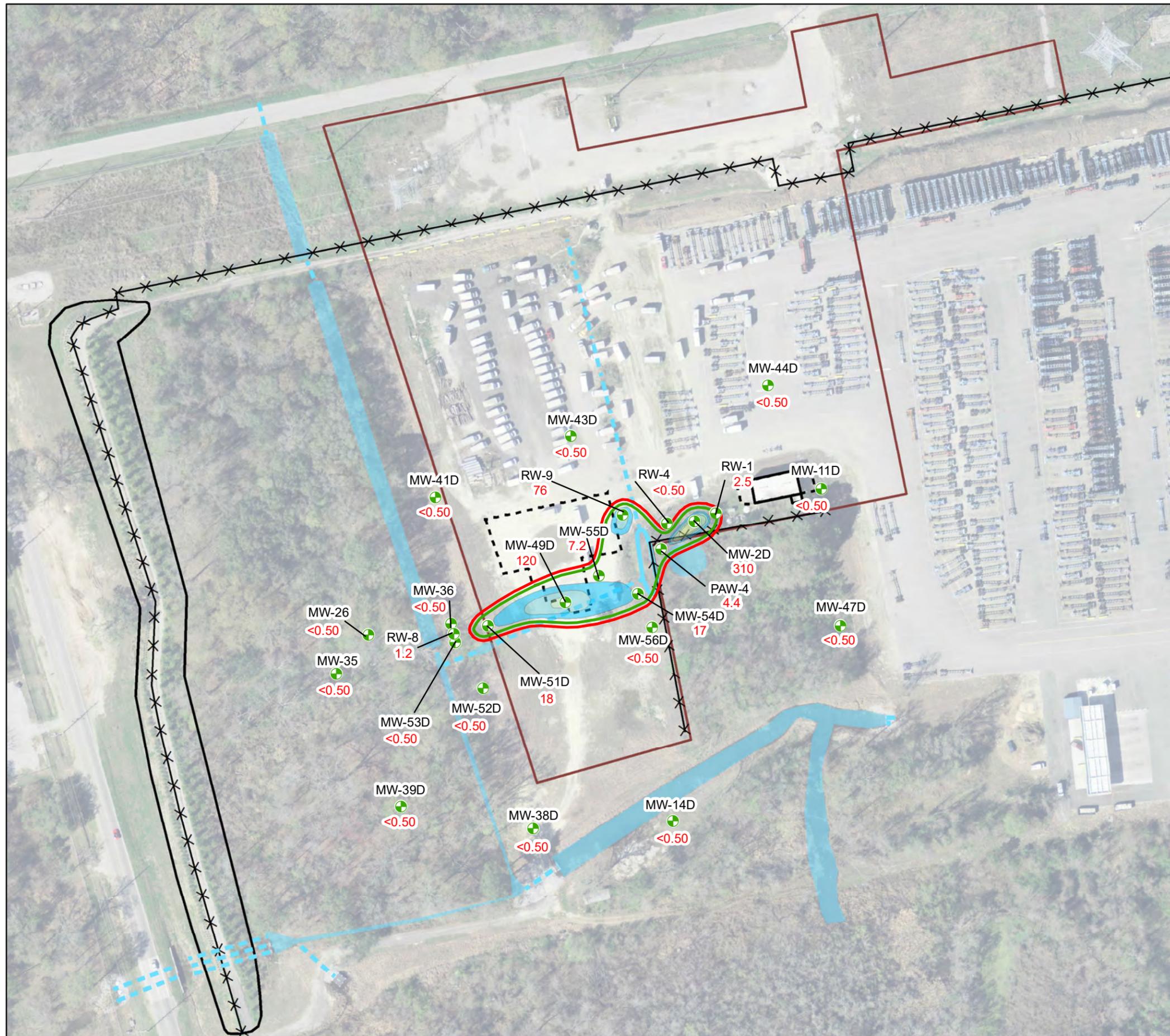
DESIGNED BY: A.G.	REVISIONS		DATE: 10/20/2016
DRAWN BY: S.F.H.	NO.	DATE	SCALE: SEE BAR SCALE
CHECKED BY: A.S.			SHEET NO.: 1 OF 1
APPROVED BY: R.M.			

FIGURE 4-17: APRIL 2016 DEEP TCE ISOCONCENTRATION MAP



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD.
ALPHARETTA, GEORGIA 30009



SITE FEATURES

- BERM OUTLINE
- ✕ SECURITY FENCE
- - - BELOW-GRADE STORM WATER DRAINAGE PIPES
- ▭ BUILDINGS
- - - CONCRETE APRONS
- ▭ STORM WATER SWALES
- ▭ WATER FEATURES
- ▭ FORMER MCKENZIE PROPERTY BOUNDARY
- ⊕ DEEP WELLS

Legend
VC CONCENTRATIONS

- CONTOURS**
- DELIMITATION CRITERION OF 2 µg/L
 - RRS TYPE 4 OF 3 µg/L
- LABELS**
- MW-53D WELL ID
 - <0.50 CONCENTRATION IN µg/L
 - N.S. NOT SAMPLED
- CONCENTRATION GRADIENT (µg/L)**
- 25 - 50
 - 50 - 100
 - 100 - 250
 - 250 - 500
 - 500 - 1,000
 - 1,000 - 2,500
 - 2,500 - 5,000
 - 5,000 - 10,000
 - 10,000+

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 20 AND 30 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.



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	NO.	DATE	SCALE: SEE BAR SCALE
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CHECKED BY: A.S.			
APPROVED BY: R.M.			

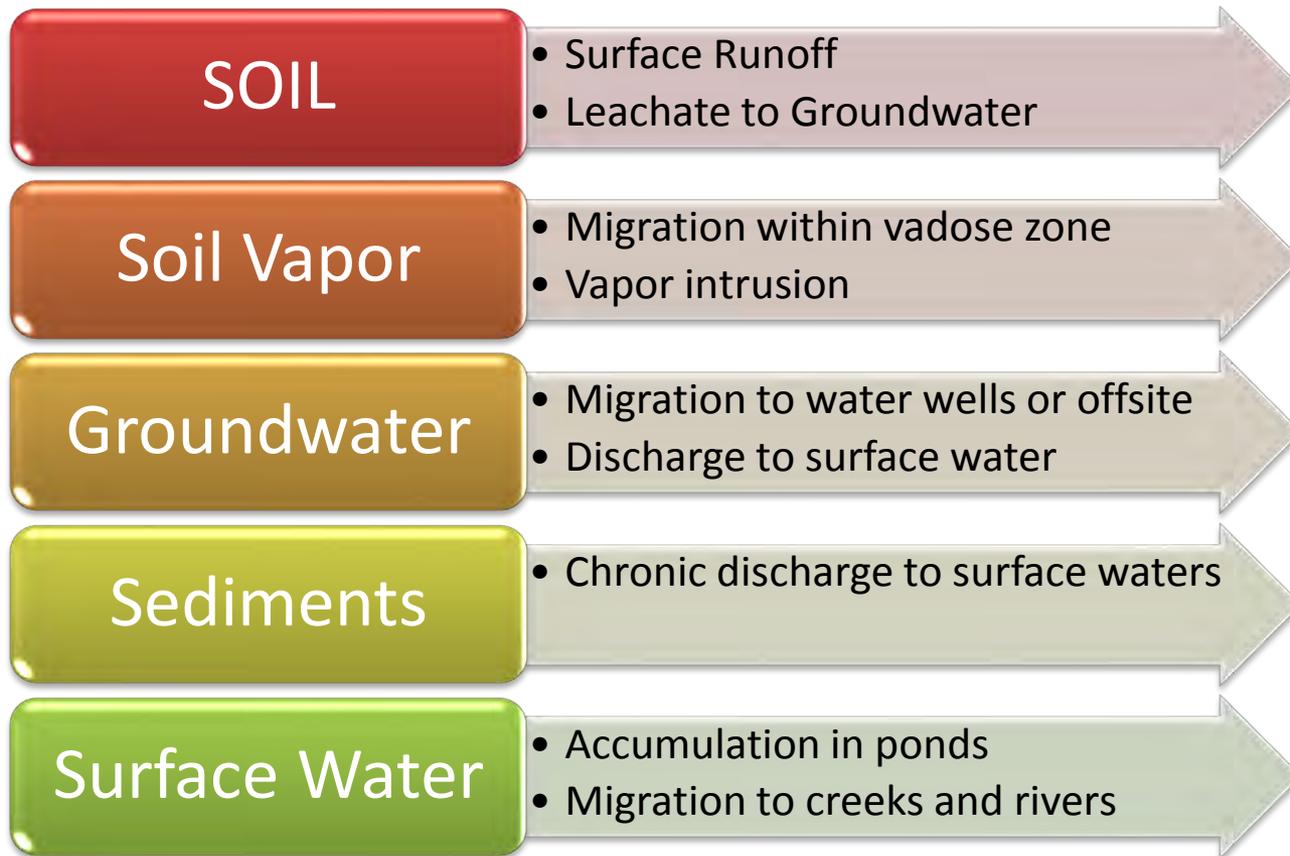
FIGURE 4-19: APRIL 2016 DEEP VC ISOCONCENTRATION MAP

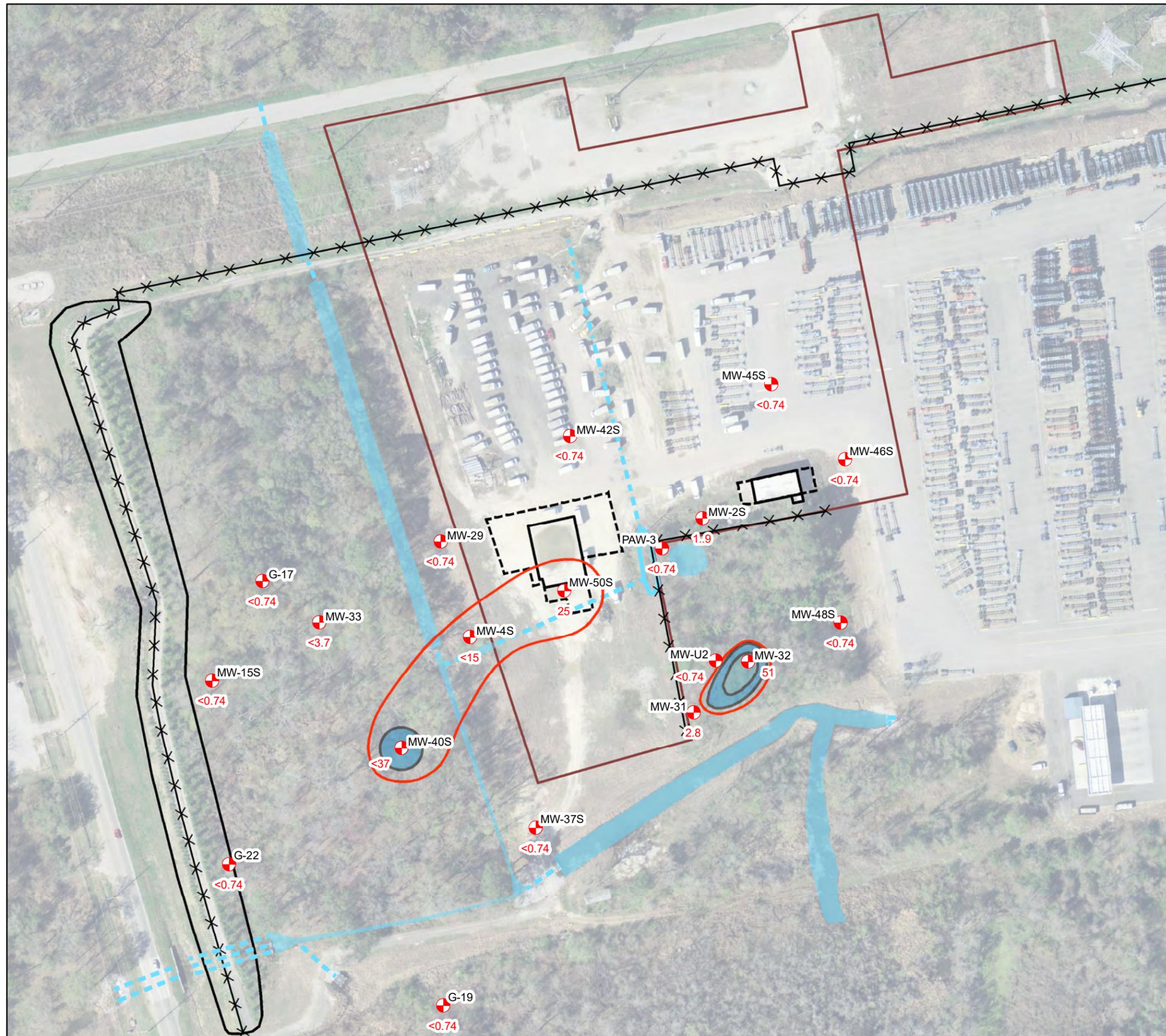


MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD.
ALPHARETTA, GEORGIA 30009

Figure 5-1: Potential COC Migration Pathways





Legend

SITE FEATURES

- BERM OUTLINE
- ✕ SECURITY FENCE
- - - DRAINAGE PIPES
- ▭ BUILDINGS
- - - CONCRETE APRONS
- ▭ SWALES
- ▭ WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- ⊕ SHALLOW WELLS

PCE CONCENTRATIONS CONTOURS

- DELINIATION CRITERION OF 5 µg/L
- RRS TYPE 4 OF 98 µg/L

LABELS

MW-40S WELL ID
 <0.74 CONCENTRATION IN µg/L

CONCENTRATIONS IN µg/L

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

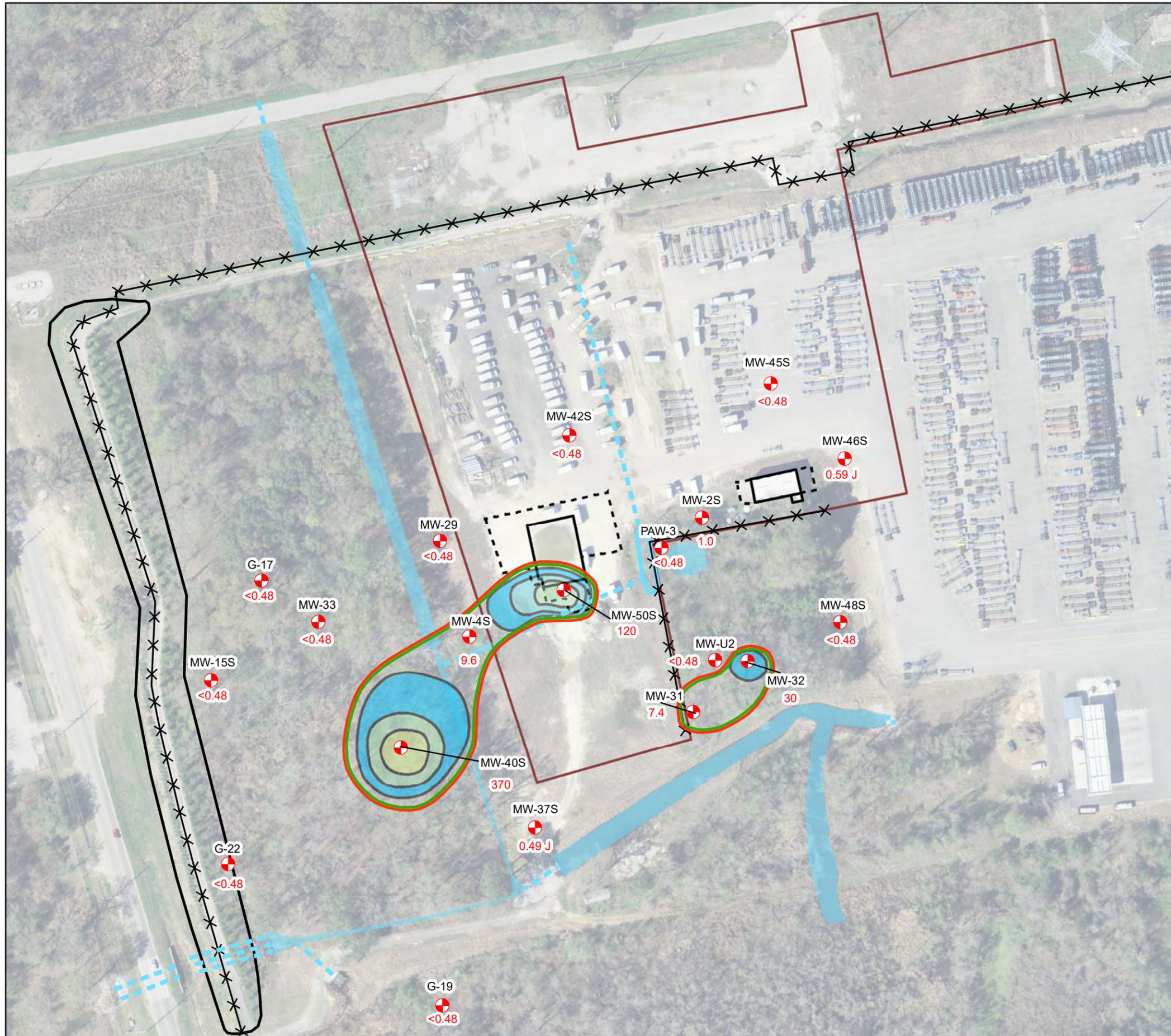
NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 10 AND 20 FEET ARE CONSIDERED SHALLOW WELLS.



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CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE) !& APRIL 2015 SHALLOW PCE ISOCONCENTRATION MAP

	MCKENZIE TANK LINES 111 GRANGE ROAD PORT WENTWORTH, GEORGIA 31407
	ENVIRONMENTAL INTERNATIONAL CORP. 161 KIMBALL BRIDGE RD ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- ✕ SECURITY FENCE
- - - DRAINAGE PIPES
- ▭ BUILDINGS
- - - CONCRETE APRONS
- ▭ SWALES
- ▭ WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- ⊕ SHALLOW WELLS

TCE CONCENTRATIONS CONTOURS

- DELINIATION CRITERION OF 5 µg/L
- RRS TYPE 4 OF 5 µg/L

LABELS

MW-40S WELL ID
 <0.48 CONCENTRATION IN µg/L

CONCENTRATIONS IN µg/L

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 10 AND 20 FEET ARE CONSIDERED SHALLOW WELLS.



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CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 5-3: APRIL 2015 SHALLOW TCE ISOCONCENTRATION MAP



MCKENZIE TANK LINES
 111 GRANGE ROAD
 PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
 161 KIMBALL BRIDGE RD
 ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- ✕ SECURITY FENCE
- - - DRAINAGE PIPES
- ▭ BUILDINGS
- - - CONCRETE APRONS
- ▭ SWALES
- Water Features
- FORMER MCKENZIE PROPERTY BOUNDARY
- ⊕ SHALLOW WELLS

DCE CONCENTRATIONS CONTOURS

- DELINIATION CRITERION OF 70 $\mu\text{g/L}$
- RRS TYPE 4 OF 204 $\mu\text{g/L}$

LABELS

MW-40S WELL ID
 <math>< 0.41</math> CONCENTRATION IN $\mu\text{g/L}$

CONCENTRATIONS IN $\mu\text{g/L}$

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 10 AND 20 FEET ARE CONSIDERED SHALLOW WELLS.



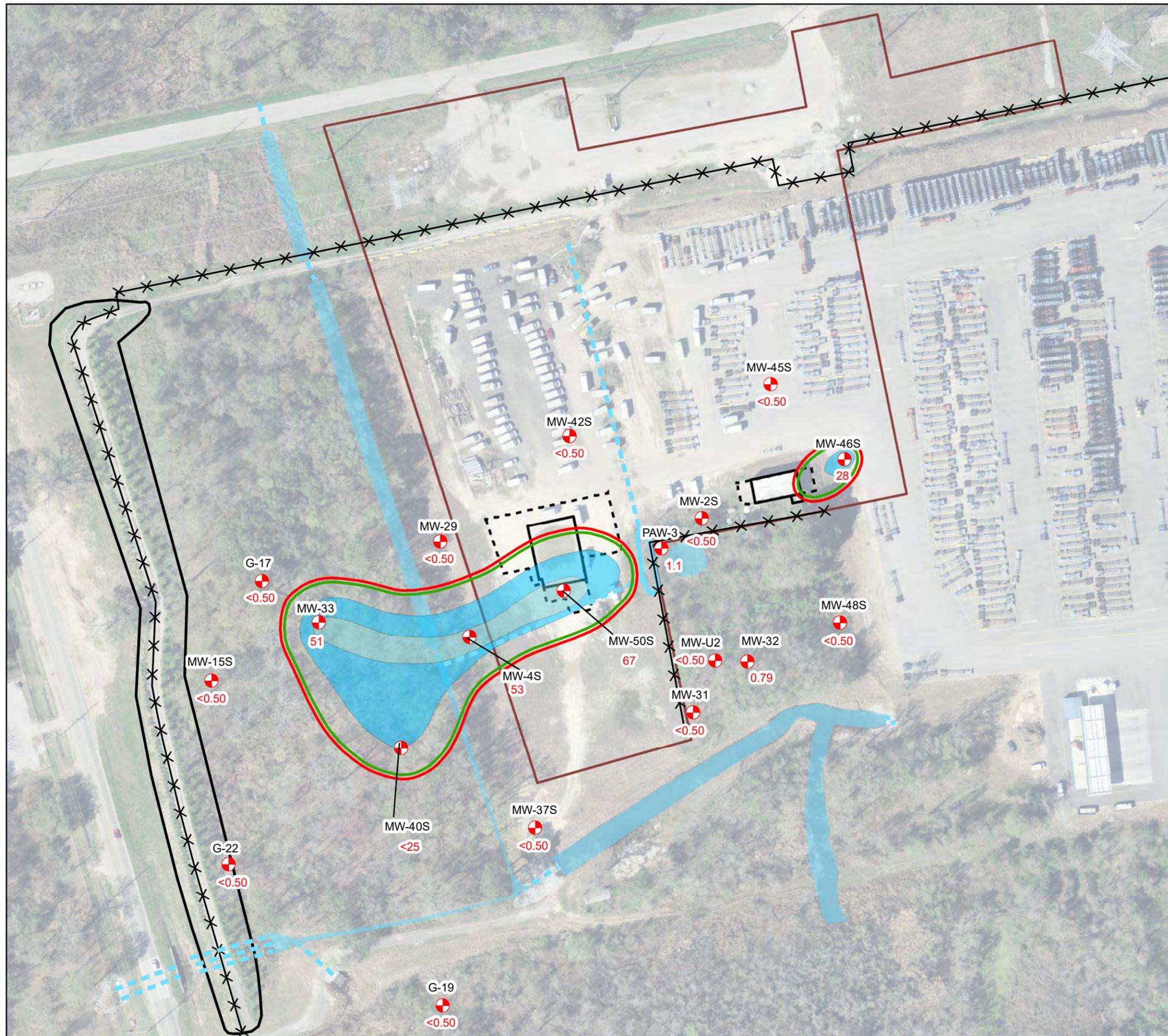
DESIGNED BY: A.G.	REVISIONS		DATE: 11/17/2015
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: A.G.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 5-4: APRIL 2015 SHALLOW DCE ISOCONCENTRATION MAP



MCKENZIE TANK LINES
 111 GRANGE ROAD
 PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
 161 KIMBALL BRIDGE RD
 ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- ✕ SECURITY FENCE
- - - DRAINAGE PIPES
- ▭ BUILDINGS
- - - CONCRETE APRONS
- ▭ SWALES
- ▭ WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- ⊕ SHALLOW WELLS

VC CONCENTRATIONS CONTOURS

- DELINIATION CRITERION OF 2 µg/L
- RRS TYPE 4 OF 3 µg/L

LABELS

MW-40S WELL ID
 <0.41 CONCENTRATION IN µg/L

CONCENTRATIONS IN µg/L

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 10 AND 20 FEET ARE CONSIDERED SHALLOW WELLS.



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DRAWN BY: A.G.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 5-5: APRIL 2015 SHALLOW VC ISOCONCENTRATION MAP



MCKENZIE TANK LINES
 111 GRANGE ROAD
 PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
 161 KIMBALL BRIDGE RD
 ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- DEEP WELLS

PCE CONCENTRATIONS

CONTOURS

- DELINATION CRITERION OF 5 µg/L
- RRS TYPE 4 OF 98 µg/L

LABELS

- MW-53D WELL ID
- <0.150 CONCENTRATION IN µg/L
- N.S. NOT SAMPLED

CONCENTRATION GRADIENT (µg/L)

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 20 AND 30 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.



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	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: A.G.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

**FIGURE 5-6: APRIL 2015
DEEP PCE
ISOCONCENTRATION MAP**

	MCKENZIE TANK LINES 111 GRANGE ROAD PORT WENTWORTH, GEORGIA 31407
	ENVIRONMENTAL INTERNATIONAL CORP. 161 KIMBALL BRIDGE RD ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- DEEP WELLS

TCE CONCENTRATIONS

CONTOURS

- DELINATION CRITERION OF 5 µg/L
- RRS TYPE 4 OF 5 µg/L

LABELS

- MW-53D WELL ID
- <0.48 CONCENTRATION IN µg/L
- N.S. NOT SAMPLED

CONCENTRATION (µg/L)

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 20 AND 30 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.



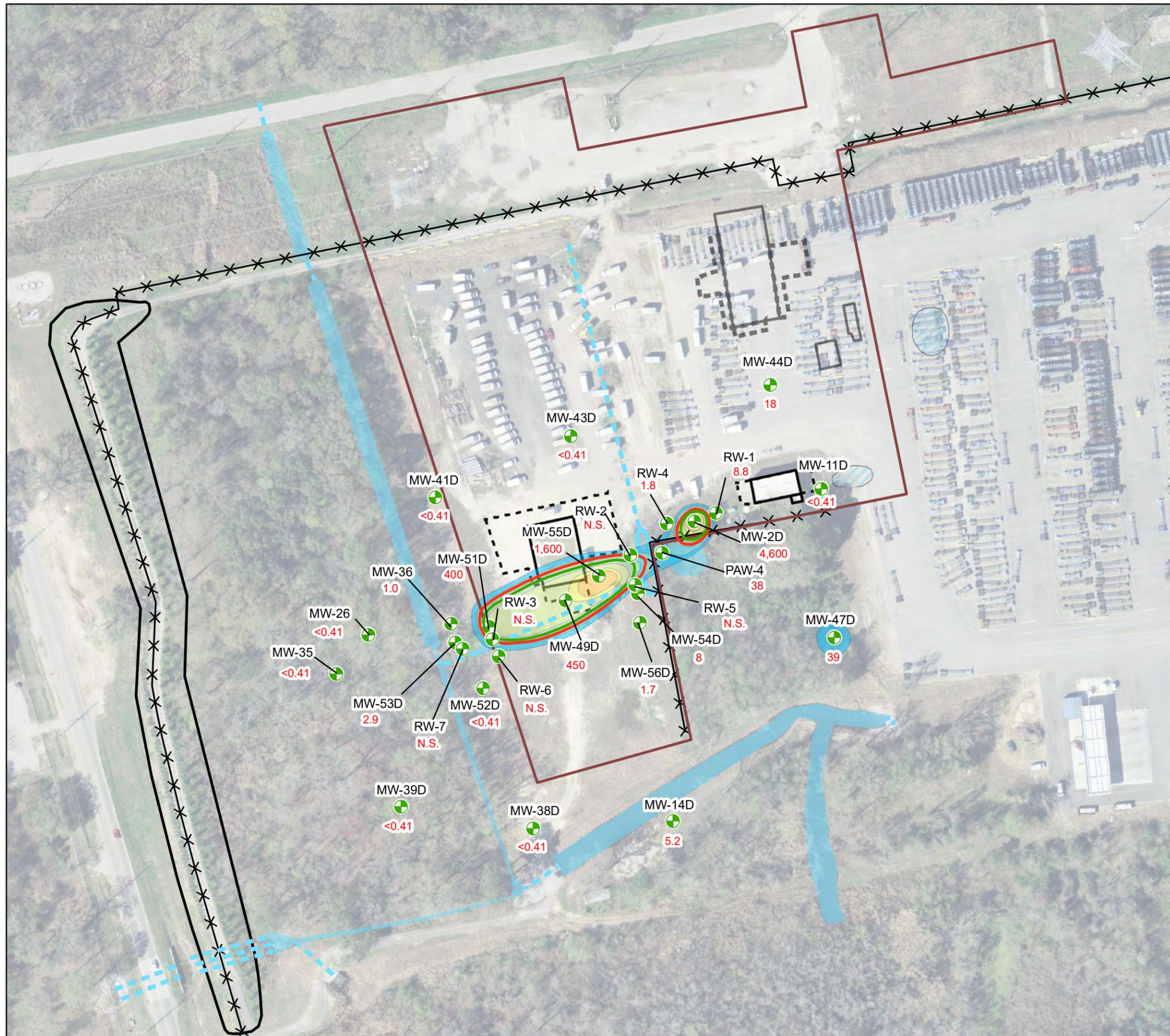
DESIGNED BY: A.G.	REVISIONS		DATE: 11/17/2015
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: A.G.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

**FIGURE 5-7: APRIL 2015
DEEP TCE
ISOCONCENTRATION MAP**



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- DEEP WELLS

DCE CONCENTRATIONS

CONTOURS

- DELIMITATION CRITERION OF 70 µg/L
- RRS TYPE 4 OF 204 µg/L

LABELS

- MW-53D WELL ID
- <0.48 CONCENTRATION IN µg/L
- N.S. NOT SAMPLED

CONCENTRATION (µg/L)

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 20 AND 30 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.



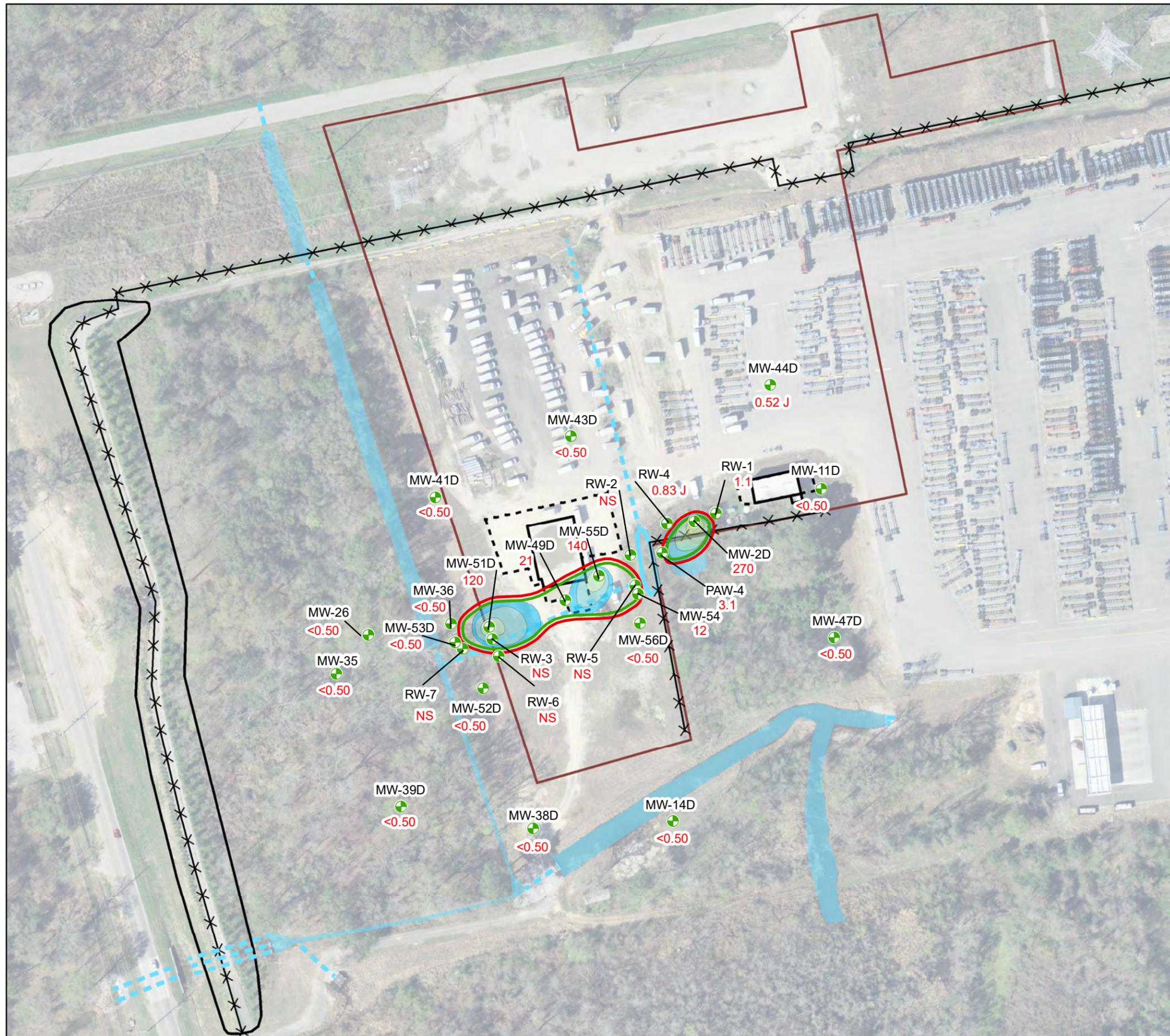
DESIGNED BY: A.G.	REVISIONS		DATE: 11/17/2015
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: A.G.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

**FIGURE 5-8: APRIL 2015
DEEP DCE
ISOCONCENTRATION MAP**



MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- DEEP WELLS

VC CONCENTRATIONS

CONTOURS

- DELINATION CRITERION OF 2 µg/L
- RRS TYPE 4 OF 3 µg/L

LABELS

- MW-53D WELL ID
- <0.50 CONCENTRATION IN µg/L
- N.S. NOT SAMPLED

CONCENTRATION (µg/L)

25 - 50	1,000 - 2,500
50 - 100	2,500 - 5,000
100 - 250	5,000 - 10,000
250 - 500	10,000+
500 - 1,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013 AND EMC ENGINEERING SERVICES IN JUNE 2015. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 20 AND 30 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.



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	NO.	DATE	SCALE: SEE BAR SCALE
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CHECKED BY: A.S.			
APPROVED BY: R.M.			

**FIGURE 5-9: APRIL 2015
DEEP VC
ISOCONCENTRATION MAP**



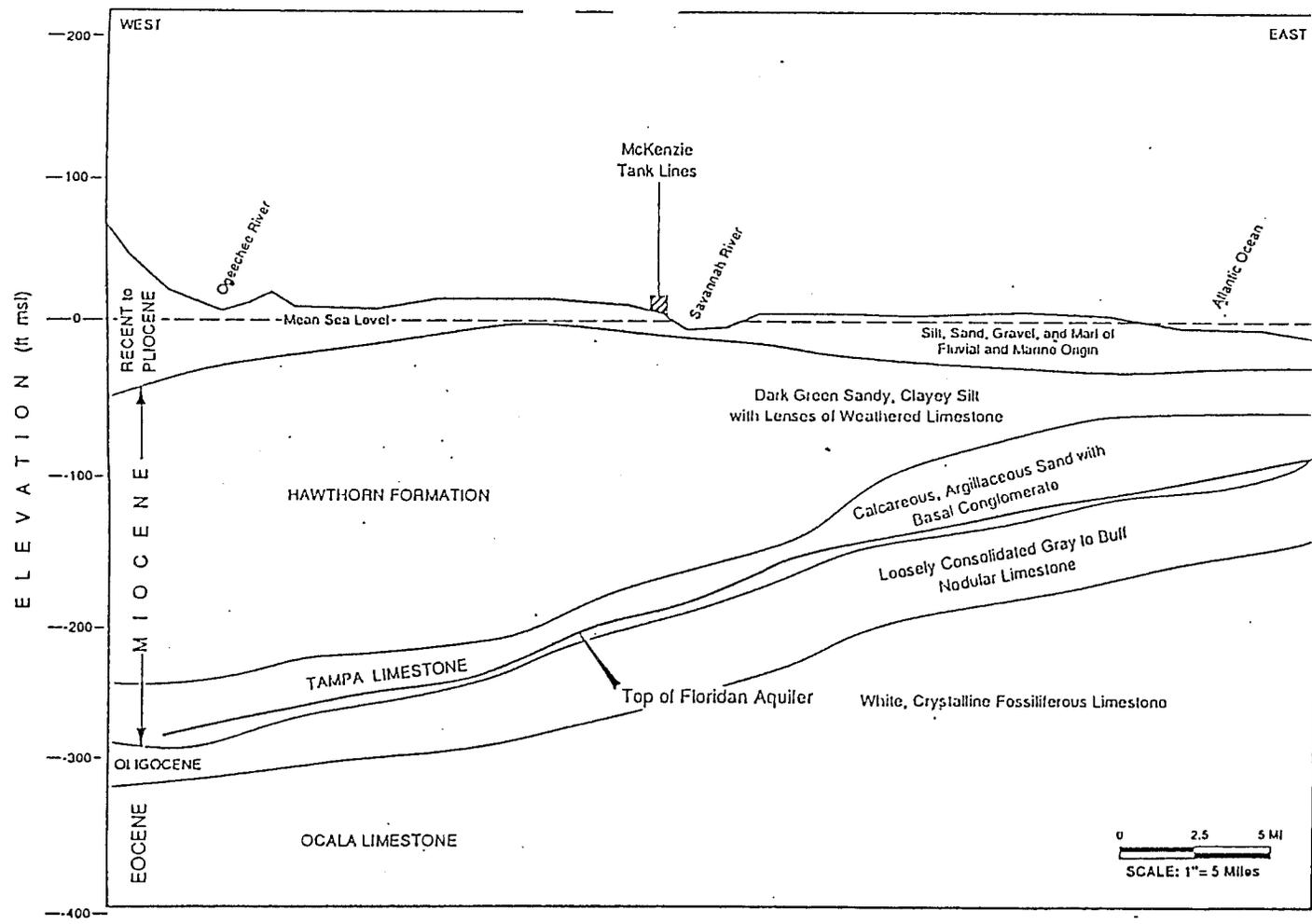
MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009

HSI SITE 10406, FORMER MCKENZIE TANK LINES SITE

2017 SCM REPORT UPDATE

ATTACHMENT A REGIONAL GEOLOGY



FARLEY-JONES & ASSOCIATES
 DAN FARLEY, P.G.

Source: Farley-Jones, 1993

McKENZIE TANK LINES, INC. - SAVANNAH, GA

FIGURE 5

REGIONAL GEOLOGIC CROSS-SECTION