Our Contribution to the Environment®

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March 16, 2016

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

Subject: **Ninth VIRP Semi-annual Progress Report**
Vopak Terminal Savannah
HSI Site No. 10464
Turner and Hart Street, Savannah, Chatham County, Georgia
Tax Parcel: 1-0618-01-003L

Dear Mr. Metzger:

On behalf of Vopak Terminal Savannah, Inc., Environmental International Corporation (EIC) is pleased to submit the attached Ninth VIRP Semi-annual Progress Report for the above referenced site.

Enclosed are the following:

1. One signed and sealed certification page for the Semi-annual Report
2. One bound paper copy of the Ninth VIRP Semi-annual Progress Report
3. Two Compact Discs each with the report in searchable PDF format

If you have any questions regarding this submittal, please contact Ms. Shamekia McGriff of Vopak at 912-964-1811, extn. 10114, or me at the above location.

Sincerely,
ENVIRONMENTAL INTERNATIONAL CORPORATION

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

Cc: Shamekia McGriff, Vopak
Chris Novack, GPA

CERTIFICATION AND SUPPORTING DOCUMENTATIONS
Ninth VIRP Semi-annual Progress Report
Vopak Terminal Savannah
HSI Site No. 10464
March 16, 2016

"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, extn. 223

3/16/16
Date

GEORGIA REGISTERED No. 23198 PROFESSIONAL ENGINEER BASAVARAJ MAHADEVAIAH

Signature and Stamp

PCE REMEDIATION, HSI SITE 10464, VOPAK TERMINAL SAVANNAH
SAVANNAH, GEORGIA

NINTH VIRP SEMI-ANNUAL PROGRESS REPORT

Wednesday, March 16, 2016

Submitted to:
GEORGIA ENVIRONMENTAL PROTECTION DIVISION
Georgia Department of Natural Resources
Environmental Protection Division
Response and Remediation Program
Suite 1054 East Tower
2 Martin Luther King Jr. Drive, S.E.
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Prepared for:
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C. Lab Analytical Results for Groundwater Samples September/October 2015

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SECTION

1

1.0 INTRODUCTION

On behalf of VOPAK Terminal Savannah, Inc. (VOPAK), Environmental International Corporation (EIC) is pleased to submit the Ninth VIRP Semi-annual Progress Report for review by the Georgia Environmental Protection Division Response and Remediation Program (EPD). This report was prepared as specified in the April 2, 2011 "Revised Voluntary Investigation and Remediation Plan (VIRP) and Application" that was approved by the EPD on August 31, 2011 under the Voluntary Remediation Program (VRP) (EIC, 2011a).

1.1 Primary Objectives

The primary objective of this report is to present a compilation of tasks completed and evaluations completed by EIC during the six-month period from September 2015 through February 2015. This report documents the following subjects:

- Follow-up responses to the July 29, 2015 EPD comment letter
- Groundwater monitoring data evaluation
- Savannah River mixing zone evaluation
- Remedial progress
- Updated schedule and remediation plan

The following sections describe each task related to these subjects.

SECTION

2

2.0 EPD COMMENT LETTERS

EIC received a copy of the July 29, 2015 EPD comment letter from VOPAK on August 4, 2015 and submitted responses on behalf of VOPAK in the Eighth VIRP Semi-annual Progress Report dated August 28, 2015. The following sections include an update on the responses provided in the previous report.

2.1 EPD Comment 1

EPD concurs that natural attenuation is occurring at the site and that data collected after enrollment in the VRP has expanded the known footprint of the plume. However, we do not agree that this is the reason that the property will not meet Type 1 through 4 RRS within the 5-year timeframe, as implied in Section 5.3 of the Report. Since enrollment, EPD has indicated that meeting these cleanup goals within the prescribed timeframe was unlikely based on data from wells such as LAW-PZ-8R, MW-29, and PAN-MW-9, all of which have been sampled consistently before and after enrollment. EPD expects the forthcoming report(s) to evaluate the VIRP timeline, consider alternatives to reach risk reduction standards (RRS), and provide a final remediation plan, such as active corrective action or certification to Type 5 RRS with Uniform Environmental Covenants (UECs) to address exposure pathways. EPD is eager to work with VOPAK in developing a path to certification.

Previous Response to EPD Comment 1:

VOPAK understands that natural attenuation alone may be insufficient in reaching the risk reduction standards (RRS) within the 5-year time frame. Referring to the April 2015 groundwater analytical data, however, it is apparent that the chlorinated volatile organic compounds (CVOC) plume has substantially reduced in size at the leading edge. Consequently, CVOCs in only MW-29 appear to be recalcitrant – but at very low parts per billion (ppbs) concentrations. VOPAK will review analytical data from the next sampling event - scheduled for October 2015 - to verify whether the areal extent of the CVOC is further reduced. Based on that finding, VOPAK will consider the need for contingency remedial measures for localized treatment and apply for Type 5 RRS standards with UECs to address exposure pathways.

Follow-up Response to EPD Comment 1:

Based on the analytical results from the October 2015 groundwater sampling event, it is apparent that the aerial extent of the plume has reduced significantly as compared to the baseline October 2011 sampling event. Since a relatively small portion of the plume remained persistent, VOPAK is petitioning for a Type 5 RRS option with environmental covenants. In a meeting held at the EPD offices, GPA and EPD consented to this approach. VOPAK will therefore prepare a Uniform Environmental Convenant (UEC)

2.2 EPD Comment 2

EPD has previously noted concern over the possibility that contaminated groundwater is discharging to the Savannah River (or the Tidal Flat) as a pathway that could create ecological risks associated with concentrations in surface water or sediment. There is no groundwater data available for the small area between two higher concentration monitoring wells (MW-32 and PAN-MW-9) and the Tidal Flat, and thus no evidence that contaminated groundwater is not discharging to the Tidal Flat. Additionally, Figure 4-6 and 4-7 indicate two discrete plumes of DCE and VC, respectively, at these wells and MW-16, though there is no evidence that these plumes are not connected. Additional monitoring well(s) or sediment sampling may be necessary to better delineate the plume and characterize ecological risks.

Previous Response to EPD Comment 2:

As discussed in the updated site conceptual model (Appendix A), it appears that the area previously presumed to be a tidal flat in previous maps is actually a narrow area that functions as a drainage channel or an inlet depending on the river tides. The retaining wall (labeled on the site figures as a concrete bulkhead) equipped with a sluice gate and the tides in the Savannah River affect the fluid flow hydrodynamics in this localized area. EIC is currently compiling additional supporting material from various sources to substantiate this finding. As stated in the aforementioned EIC's response to EPD Comment 1, the CVOC plume has also substantially reduced in size at the leading edge. Consequently, EIC is developing a detailed work plan to evaluate whether potential ecological risks are present from the contaminated groundwater that may migrate to the Savannah River. Prior to the preparation of a work plan, EIC proposes a meeting with EPD to discuss the plan objectives and scope of work.

Follow-up Response to EPD Comment 2:

Based on a subsequent review of several historical drawings of the site, EIC has confirmed that the area originally presumed to be a tidal flat is in fact a man-made drainage channel constructed in 1942 or in prior years. This finding is easily discernable from the exhibit presented in Attachment A. From the area encircled in red (on the exhibit), it is apparent that the existing man-made channel was constructed by excavating a portion of the original land mass that was previously sloping towards the Savannah River along the shoreline.

As discussed in the aforementioned response to EPD Comment 1, the CVOC plume is stable and shrinking in areal extent. In lieu of additional monitoring well(s) or sediment sampling for ecological risks, EIC conducted a mixing zone analysis from potential migration of groundwater to the Savannah River. Based on the results of the mixing zone analysis, presented in Section 4.0, it is apparent that the resulting concentrations in the Savannah River would be substantially lower than both the national and state water quality standards for the Savannah River.

2.3 EPD Comment 3

EPD anticipates reviewing VOPAK's assessment of potential preferential flow through utility trenches, such as the large stormwater conveyance pipe discharging to the Tidal Flat near MW-32, as well as the hydraulic and transport evaluation of the sheet pile wall.

Previous Response to EPD Comment 3:

As noted in the updated site conceptual model (Appendix A), EIC has provided detailed schematics of the retaining wall and other related substructures. In addition, VOPAK is evaluating the feasibility of performing a flow-net analysis to determine fluid flow pathways.

Follow-up Response to EPD Comment 3:

Based on the results of the mixing zone analysis, presented in Section 4.0, EIC determined that a flow-net analysis is no longer necessary. Consequently, any potential groundwater migration along the stormwater pipes or other pathways would have negligible effect on the water quality in the Savannah River.

2.4 EPD Comment 4

EPD anticipates reviewing the forthcoming vapor intrusion study, indicated to assess potential risks to existing and potential future structures as well as an assessment of potential risks to construction workers in areas of shallow groundwater. Risks to construction workers are associated with incidental contact and possible ingestion of contaminated groundwater during subsurface work. Any risks associated with these pathways will need to be addressed in an institutional control.

Response to EPD Comment 4:

A work plan for vapor intrusion study to evaluate the potential risks to structures and construction workers is currently under preparation. VOPAK will submit the plan to EPD for concurrence of the scope of work. Upon EPD approval, VOPAK will complete the study and submit the results in a subsequent semi-annual report.

Follow-up Response to EPD Comment 4:

Based on the comments from a meeting held at the EPD office on February 25, 2016, EIC will conduct a vapor intrusion study to address construction worker exposure risks.

SECTION

3

3.0 GROUNDWATER MONITORING

The semi-annual groundwater monitoring (sampling) event documented in this section was conducted from September 28 to October 1, 2015. This was the second semi-annual sampling event of 2015 under VIRP program.

The sampling event entailed the collection of groundwater samples, for laboratory analysis of dissolved constituents (or contaminants) of concern (COCs), from wells within the previously established area of concern. COCs that EIC monitored included dissolved chlorinated volatile organic compounds (CVOCs) and volatile organic compounds (VOCs).

During this event, all available monitoring wells and two selected former injection wells within and adjacent to the CVOC/VOC contaminant plumes were utilized for groundwater sampling. Accordingly, EIC collected groundwater samples for CVOC/VOC analysis from a total of 25 wells.

The analytical data from the September/October 2015 sampling event was compared to the first quarterly sampling event (EIC, 2011b) and all other subsequent sampling events (EIC, 2012a, 2012b, 2012c, 2012d, 2013a, 2013b, 2013c, 2014a, 2014b, 2015a, and 2015b) to track prevailing contaminant concentration trends. A statistical analysis of these trends is documented in the remedial progress section of this report.

3.1 Groundwater Monitoring Objective

The primary goal of the September/October 2015 groundwater monitoring event was to meet the groundwater monitoring objectives set forth in the VIRP. The following subsections document the sampling process and an evaluation of the analytical results from the samples collected from the site.

3.2 Groundwater Monitoring Field Program

During the September/October 2015 groundwater monitoring event, EIC conducted groundwater monitoring utilizing 22 shallow monitoring wells, two shallow injection wells, and one deep

monitoring well. The site layout is illustrated in Figure 3-1. The following sub-sections describe EIC's technical approach regarding this event.

3.2.1 Sampling Protocol

The groundwater sampling program was conducted in accordance with the current U.S. Region 4 EPA 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).

3.2.2 Site Access

Prior to EIC's site visit, EIC coordinated the sampling activities with the Georgia Ports Authority (GPA) and GAF Materials Corp. (GAF) for gaining access to collect groundwater samples from a total of seven off-site monitoring wells consisting of MW-17R, MW-28, MW-32, MW-34, MW-35, MW-36, and MW-37. Monitoring wells MW-28 and MW-37 are located on GAF property and wells MW-17R, MW-32, MW-34, MW-35, and MW-36 are located on GPA property.

3.2.3 Groundwater Gauging

Prior to sampling, EIC gauged each well with a Solinst Model 122 interface meter ("oil/water interface probe") to determine the static depth to groundwater. The gauging data is tabulated in Table 3-1. In preparing this table, EIC utilized top-of-casing (TOC) elevations to calculate the groundwater elevation data regarding this event.

3.2.4 Groundwater Sampling Field Procedures

Prior to EIC initiating field sampling activities, EIC obtained a structurally competent 55-gallon drum from VOPAK to containerize purged groundwater. During the September/October 2015 event, the 55-gallon drum was placed on the west shoulder of Hart Street, which lies between Tank Farm #2 and Tank Farm #3, near well MW-27. EIC placed a non-hazardous waste label on the drum and marked the contents on it as investigative derived waste ("IDW") well purge water and the accumulation date with a black permanent marker. The drum was later properly disposed of by VOPAK.

At each well-head designated for sampling, EIC monitored VOC air concentrations in parts per million (ppm) with a calibrated photoionization detector. A total of three measurements were taken at each well to document VOC concentrations in the ambient air within two feet of and outside the outer well casing, the air between the inner well casing and the outer protective casing or vault, and the air within the inner well casing once the well cap was removed. The VOC concentrations

observed were recorded on the September/October 2015 EIC Well Purging and Sampling Data Field Logs (Attachment B).

EIC followed the "low-flow" purge technique, noted in Section 3.2.1, to conduct all groundwater sampling. EIC used a peristaltic pump with 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 was determined from water levels and available well construction data noted in EIC well purging and sampling data field logs (Attachment B). Purging data is summarized in Table 3-2.

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 B). 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 and tubing depth were adjusted accordingly if excessive drawdown was observed. In 1-inch and ¾-inch ID cased wells, where the installed tubing restricted the access of the interface probe, the depth to water could not be gauged during purging. In these wells, gauging was performed only just prior to inserting the tubing and immediately after the tubing was removed.

EIC considered that stabilization was reached when 3 consecutive stabilization parameter readings were within ± 0.1 for pH and ± 5% for specific conductivity. Reasonable attempts were made at each well to reach 0.2 mg/L dissolved oxygen (DO) and a turbidity reading 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 3-3. Note, however, that during the September/October 2015 sampling event, the turbidity levels at 13 wells could not be lowered below 10 NTUs and the DO levels could not be lowered below 0.2 mg/L at any of the wells sampled. All samples were collected using the "soda straw method" specified in SOP SESDPROC-301-R3.

3.2.5 Sample Custody and Laboratory Analysis

Immediately after each sample set was collected, the sample bottles were sealed and labeled in the field. Each sample set was then placed in padded sealable plastic bags to prevent breakage and stored with ice in insulated cooler containers provided by the laboratory. Complete and signed chain of custody forms accompanied all samples. EIC delivered and relinquished the samples to Test America Laboratories, a Georgia-certified laboratory located in Savannah, Georgia, prior to returning to EIC headquarters.

The laboratory conducted analysis of volatile organic compounds via EPA method 8260B. The laboratory report for the September/October 2015 event is included as Attachment C. The results

of COC analysis of samples collected during this event, along with historical COC analytical data, are summarized in Table 3-4.

3.3 Quality Assurance and Quality Control

For quality assurance and quality control purposes during the groundwater sampling process, EIC submitted one trip blank set, provided by the laboratory, with each sample container for analysis via EPA Method 8260B. The trip blanks were kept in the same thermal cooler as the collected CVOC/VOC samples until they were relinquished to the laboratory.

To prevent cross-contamination, new disposable 1/4-inch inner diameter and 3/8-inch outer diameter Teflon®-lined tubing was used to collect samples at each well, which were later properly disposed of. EIC's oil/water interface meter, 2,000 mL graduated cylinder, and Teflon® tubing cutter were field decontaminated prior to use and between sampling locations by washing with a phosphate-free detergent solution and rinsing with pressurized de-ionized (DI) water. After each sample was collected, the water quality parameters instrument was also decontaminated with DI water.

3.4 Data Evaluation

EIC conducted an evaluation of the data compiled from field and laboratory analyses of groundwater samples collected during this event to determine the groundwater potentiometric surface and to determine the horizontal and the vertical extent of the prevailing COC plumes. Data from this sampling event was compared with the data from the baseline sampling event and data from each of the subsequent sampling events to develop a strategy to reach remedial end points.

3.4.1 Groundwater Potentiometric Map

Table 3-5 tabulates the historical groundwater elevations for all gauging events at the site since groundwater monitoring was initiated under the VIRP in October 2011. From this table, it is apparent that during the September/October 2015 gauging event, the overall potentiometric surface was similar in elevation to the previous gauging event. In general, the potentiometric surface elevation at the site during the September/October 2015 event was slightly above the global average groundwater elevation. Additionally, the average groundwater elevation during the September/October 2015 gauging event was relatively high compared to those observed during previous groundwater monitoring events.

Figure 3-2 illustrates the September/October 2015 potentiometric surface map. Referring to Figure 3-2, the prevailing groundwater flow direction in the vicinity of the COC plume footprint remains from the southwest to the northeast.

3.4.2 Horizontal Extent of COC Plumes

Figure 3-3 summarizes the analytical results of the monitored dissolved COCs from the September/October 2015 sampling event for each well sampled. Figures 3-4 through 3-11 illustrate each of the eight monitored COC plumes. Table 3-4 is a compilation of available analytical data from groundwater monitoring events conducted since February 1991. The following sub-sections describe the spatial and temporal analysis of the horizontal extent of the COC plumes.

3.4.2.1 CVOC Plume

The CVOC plume consists of Tetrachloroethylene or Perchloroethylene (PCE), Trichloroethylene (TCE), Cis-1, 2 Dichloroethylene (DCE), and Vinyl Chloride (VC) COCs. Based on current analytical results, it is apparent that the overall extent and concentration of the collective CVOC plume at the site has significantly decreased since the inception of the VIRP sampling program in October 2011. However, residual CVOC concentrations are present in certain areas. The following subsections describe spatial and temporal changes of individual CVOC constituents since October 2011.

PCE Plume:

Figure 3-4 illustrates the horizontal extent of the PCE plume during the September/October 2015 sampling event. The current PCE plume is composed of two distinctly separated areas of contamination, with the peak concentration of the first area centered near IW-1R at the upgradient southwestern end of the original CVOC plume footprint, and the peak concentration of the second area centered near MW-29 near the down-gradient northeastern end of the original CVOC plume footprint.

Within the upgradient portion of the original CVOC plume footprint, the peak PCE concentration at IW-1R decreased from 310 μg/L to 230 μg/L from March/April 2015 to September/October 2015 sampling events, respectively. It is noteworthy that PCE concentrations at MW-26R, near well IW-1R, were below detection limits.

Within the down-gradient portion of the original CVOC plume footprint, the overall extent and concentration in this area has fluctuated since the first VIRP sampling event in October 2011, however, overall, there has been a decreasing concentration trend. In particular, the sharp decrease in PCE concentration, observed at MW-32 during the March/April 2015 event, was revalidated during the September/October monitoring event. Additionally, the PCE concentration slightly decreased in MW-29 from 160 μg/L to 110 μg/L.

In summary, the overall extents of the PCE plume have reduced substantially or remained stable over time and concentrations at sampled wells are decreasing and trending downward towards RRS

values. This indicates that MNA is effective in reducing the PCE mass concentrations especially at the down-gradient leading edge plume closest to the Savannah River.

TCE Plume:

Figure 3-5 illustrates the horizontal extent of the TCE plume during the September/October 2015 sampling event. Similar to the PCE footprint, the TCE plume is also composed of two distinct peaks of contamination. The upgradient area of peak concentration is located between wells IW-1R and LAW-PZ-8R, while the downgradient peak is located near well MW-29. The TCE concentration at IW-1R reduced from 150 μg/L in March/April 2015 to 100 μg/L in September/October 2015. At well MW-29, the TCE concentration increased slightly from 90 μg/L in March/April 2015 to 130 μg/L in September/October 2015. These shifts were accompanied by increases at nearby wells, particularly at MW-33. As such, the former separate plumes above the delineation criterion of 5 μg/L that were observed in March/April 2015, rejoined into a single plume. The slight increases in TCE concentrations observed may be attributed to the degradation of PCE.

In summary, the overall extent of the TCE plume has remained stable over time. Typically, TCE is produced from reductive dechlorination of PCE. The substantial transformation of PCE TCE is indicative that MNA is effective in reducing the PCE to TCE.

DCE Plume:

Figure 3-6 illustrates the horizontal extent of the DCE plume during the September/October 2015 sampling event. Consistent with the other CVOC plumes, the DCE plume is divided into two distinct peaks with concentrations above the RRS of 1,022 μg/L. The upgradient area of peak concentration is located near IW-1R, while the downgradient peak is located near MW-29. The DCE concentration at IW-1R reduced from 9,900 μg/L in March/April 2015 to 8,800 μg/L in September/October 2015. At MW-29, the TCE concentration increased from 5,900 μg/L in March/April 2015 to 9,000 μg/L in September/October 2015. The increase in concentration near MW-29 is most likely attributed to the attenuation of its parent CVOC products which produce DCE as a degradation product.

In summary, the overall extent of the DCE plume has reduced or has remained stable over time and concentrations within it are generally decreasing and trending downwards towards RRS values. Considering that DCE is a second-step transformation product from the reductive dechlorination of PCE, substantial reduction in PCE concentration and production of DCE is confirming that the MNA is effective in reducing the DCE concentrations. The relatively minor increases in DCE concentration may be attributed to degradation of PCE and TCE over time.

VC Plume:

Figure 3-7 illustrates the horizontal extent of the VC plume during the September/October 2015 sampling event. The plume area is consistent with previously plotted CVOC plumes, however, it does not exhibit separate upgradient and downgradient portions of the plume, as with other COC plumes. The peak concentration of the downgradient plume occurs near MW-29, where the concentration increased from 790 µg/L in March/April 2015 to 1,000 µg/L in September/October 2015.

In summary, the VC plume has remained stable in the short term and significantly reduced in both areal extent and in concentration relative to the original footprint. As with the other CVOC daughter product plumes, minor increases in concentration of VC may be attributed to the transformation from the parent products.

4.4.2.2 VOC Plume

The COCs monitored within the collective VOC plume consist of Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX). Since the first VIRP sampling event, conducted in October 2011, the VOC plume concentrations within the original VOC plume footprint have declined substantially. The following subsections describe spatial and temporal changes of individual VOC constituents since VIRP sampling was initiated in October 2011.

Benzene Plume:

Figure 3-8 illustrates the horizontal extent of the benzene plume during the September/October 2015 sampling event. The benzene plume is composed of two isolated areas of concentrations above RRS and the delineation criterion near the upgradient and down-gradient portions of the original VOC plume footprint. The upgradient benzene plume continues to maintain stability and increased very slightly in LAW-PZ-8R from 1,100 µg/L in March/April 2015 to 1,200 µg/L in September/October 2015. The down-gradient plume, centered near MW-29, has remained relatively stable over time as compared to the original footprint.

In summary, the Benzene plume has reduced significantly in concentration and extent as compared to the original plume footprint and continues to trend downward towards RRS values.

Toluene Plume:

Figure 3-9 illustrates the horizontal extent of the toluene plume from the September/October 2015 sampling event. The Toluene plume has been centered in the area between wells IW-1R and LAW-PZ-8R and has remained below RRS for the duration of the VIRP. At IW-1R the Toluene concentration decreased from 260 µg/L in March/April 2015 to 200 µg/L in September/October

2015. This indicates a continued downward trend in concentration and demonstrates the effectiveness of MNA in remediating Toluene.

Ethylbenzene Plume:

Figure 3-10 illustrates the horizontal extent of the ethylbenzene plume from the September/October 2015 sampling event. The ethylbenzene plume is divided into distinct upgradient and downgradient portions. The upgradient portion is centered near LAW-PZ-8R while the downgradient portion is centered near MW-29. The Ethylbenzene concentration at LAW-PZ-8R decreased from 6,900 µg/L in March/April 2015 to 6,200 µg/L in September/October 2015. The Ethylbenzene concentration at MW-29 decreased by almost one half from 3,300 µg/L in March/April 2015 to 1,700 µg/L in September/October 2015.

In summary, the Ethylbenzene plume has significantly reduced in concentration and extent in comparison to the original plume footprint and continues to trend downward towards RRS values. This indicates that MNA is effective in reducing Ethylbenzene concentrations.

Total Xylenes Plume:

Figure 3-11 illustrates the horizontal extent of the total xylenes plume from the September/October 2015 sampling event. Similar to the ethylbenzene plume, the total xylenes plume is divided into upgradient and downgradient portions centered near wells LAW-PZ-8R and MW-29, respectively. The total xylenes concentration at LAW-PZ-8R decreased from 87,000 µg/L in March/April 2015 to 78,000 µg/L in September/October 2015. The total xylenes concentration at MW-29 decreased from 7,300 µg/L in March/April 2015 to 4,700 µg/L in September/October 2015. This indicated a trend reversal of a previously increasing trend in concentrations and a slight horizontal plume extents expansion observed up until the March/April 2015 event.

In summary, the total xylenes plume has significantly reduced in concentration and extent, as compared to the original plume footprint, and remains stable in concentration and extent.

3.4.3 Vertical Extent of COC Plumes

The historical groundwater sampling results of samples from the single deep well MW-14 within the original COCs footprint through September/October 2015 are tabulated in Table 3-4. Since the redevelopment and integration of well MW-14 into the regular CVOC and VOC sampling schedule in October 2013, EIC confirmed that all monitored COC concentrations in the well have remained below delineation standards and all but one parameter were below method detection limits - MDLs. In the EPD's comment letter to VOPAK dated April 3, 2014, the EPD concurred with EIC that vertical delineation is complete.

SECTION

4

4.0 SAVANNAH RIVER MIXING MODEL

To evaluate the potential impact of shallow groundwater contamination to the Savannah River (River) at the site, EIC developed a mixing model. This model estimates the maximum downstream concentrations of COC's in the Savannah River after mixing with potential COCs in the groundwater migrating from the VOPAK site.

4.1 Model Setup

As a primary criterion, EIC established the following assumptions to evaluate the worst case scenario:

H. The entire mass of groundwater is uniformly contaminated with same concentration of COCs.

- Groundwater enters the River along the entire length of the site.
- Groundwater mixes with surface water in the River.

As such, the components of the model consist of the groundwater flow rate, the concentration of COCs in groundwater entering the River from the site, the flow rate in the River, and the resulting COC concentrations in the River upon mixing of the groundwater with the surface water in the Savannah River.

4.1.1 Groundwater Mass Flux Flow

The groundwater flux was estimated by utilizing the Dupuit equation shown below (Fetter, 2001).

$$q = \frac{1}{2}k\left(\frac{h_1^2 - h_2^2}{L}\right) = \frac{1}{2} * 0.88\frac{ft}{day} * \left(\frac{(48.71\,ft)^2 - (35.14\,ft)^2}{700\,ft}\right) = 0.71\frac{ft^2}{day} = 259.84\frac{ft^2}{year}$$

$$q = groundwater\ flow\ per\ unit\ width\ \left(\frac{ft^2}{day}\ \&\ \frac{ft^2}{year}\right)$$

$k = hydraulic\ conductivty\ \left(\frac{ft}{day}\right)$
$h_1 = hydraulic\ head\ at\ source\ (ft)$
$h_2 = hydraulic\ head\ at\ groundwater/river\ interface\ (ft)$
$L = distance\ between\ source\ and\ river\ (ft)$

As a worst case scenario, hydraulic conductivity was assumed to be the largest value in the range presented in the Site Conceptual Model (EIC, 2015b). Figure 4-1 illustrates the points selected for $h_1\ and\ h_2$with the September/October 2015 groundwater contours. Considering that the initial release originated from Tank No. 24, EIC selected that area as $h_1$for the location of the hydraulic head at the source. Since groundwater discharges to the river, EIC utilized a point along the shoreline as h_2.

The confining unit from which hydraulic head was calculated is assumed to be the Hawthorne formation described in Table 1 of the 1963 USGS report titled *Subsurface Geology of the Georgia Coastal Plain* (USGS, 1963). From this report, the depth of the Hawthorn formation below ground surface is apparently 50 feet near the Savannah, Georgia area. Using this depth, the value of h_1 was derived from the groundwater contours shown in Figure 4-1, while the value of h_2 was determined as the height of the water in the Savannah River from data collected from by a United States Geologic Survey (USGS) gauging station on the Savannah River (USGS, 2016). The distance L was computed using a trace line along the groundwater flow path between the source and the point where the channel intersects with the Savannah River.

EIC then calculated total groundwater flow to the river utilizing the following equation.

$$Q = q * L_R = 259.84\frac{ft^2}{year} * 530\ ft = 1.38 * 10^5\frac{ft^3}{year}$$
$$Q = groundwater\ flowrate\ \left(\frac{ft^3}{year}\right)$$
$$q = grounderwater\ flow\ per\ unit\ width\ \left(\frac{ft^2}{day}\ \&\ \frac{ft^2}{year}\right)$$
$$L_R = Length\ of\ site\ \ along\ the\ Savannah\ riverfront\ (ft)$$

4.1.2 Groundwater Concentration

For the purposes of this model, the selected groundwater concentrations were assumed to be consistent throughout the entire cross-section along the shoreline of the Savannah River. EIC chose three sets of concentrations, presented in Table 4-1, to compute different mixing scenarios. For the first scenario, EIC utilized the maximum concentrations measured at MW-16 from the latest sampling event, September/October 2015, to represent the current leading edge of the plume. For the second scenario, EIC utilized the maximum concentrations measured for each COC during the

September/October 2015 sampling event to represent a current worst case scenario. For the third scenario, EIC utilized the historical maximum concentrations of each constituent from Table 3-4 (that includes a compilation of VIRP and pre-VIRP groundwater analytical data), as an absolute worst case scenario.

4.1.3 Savannah River Flow

Georgia instream water quality standards are described in Georgia administrative code 391-3-6-.03 *Water Use Classifications and Water Quality Standards* (EPD, 2013). Referring to Chapter 4.e.iv, the COCs should not exceed the maximum allowable concentrations during annual average or higher stream flow conditions. As such, EIC computed a flow rate of the Savannah River, adjacent to the site, which was slightly less than the average flow rate. This computation is described in the following paragraphs.

4.1.3.1 River Velocity

To compute the average velocity of the river flow, EIC first tabulated the river height gauging data from USGS gauging station 021989773 for the period from November 2008 to November 2015 (Attachment D). To establish a worst case analysis, EIC used the tidal elevation data (Attachment E) to first derive the mean low water (MLW) elevation, referenced to the NAVD88 datum (NOAA, 2015). EIC then computed the gauge height at the MLW elevation to be -4.38 feet, NAVD88.

Once EIC established the worst case MLW elevation, EIC segregated all velocity data corresponding to the MLW elevation from the original dataset. Next, EIC further segregated the data by only considering positive values of river velocities, which represent river flow towards the mouth of the river, and that represent a subset of river velocities at mean low water elevation. The average value of this subset of data was computed to be 1.24 feet per second (fps).

4.1.3.2 Cross-sectional Area of Flow

To determine the cross-sectional area of flow, EIC researched publications that document the channel configuration in the vicinity of the VOPAK site. Based on this research, EIC found a United States Army Corps of Engineers (USACE) publication pertaining to the Savannah Harbor Expansion Project (SHEP) that includes various illustrations of the channel design for the area. An excerpt from this document that illustrates the channel design for the area that includes the VOPAK site is included as Attachment F and illustrates the channel width near the site. Referring to this illustration, it is apparent that a channel width of approximately 500 feet is maintained along the shipping channel for the navigation of container ships. The illustration also indicates that the current depth of the channel along the Savannah River within this navigable strip is 42 feet at mean low water. When the depth is extended to 47 feet under the SHEP program and the cross-sectional area flow will further increase over time. Also, the portion of the river on either side of the shipping channel adds additional areas of flow to the overall cross-sectional area of flow. For a conservative

estimate of the river discharge, however, EIC utilized a channel width of 500 ft. and the current depth of 42 feet for the mixing zone computations described in the following paragraphs.

4.1.3.3 River Discharge

Utilizing the average low stage river velocity and the cross-sectional area of the river flow, EIC computed the river discharge as shown below:

$$Q_R = v_R * A_R = v_R * (w_R * d_R) = 1.24\,\frac{ft}{s} * 500\,ft * 42\,ft = 26{,}040\,\frac{ft^3}{s} = 8.21 * 10^{11}\,\frac{ft^3}{year}$$

where,

$Q_R = river\ discharge\ \left(\frac{ft^3}{year}\right)$

$v_R = average\ low\ stage\ river\ velocity\ \left(\frac{ft}{s}\right)$

$A_R = River\ cross\ sectional\ area\ (ft^2)$

$w_R = River\ width\ (ft)$

$d_R = River\ depth\ (ft)$

4.1.4 Upstream River Concentration

To estimate the potential effect of groundwater contamination from the VOPAK site entering the Savannah River, EIC assumed the initial concentration (C_{Ru}) of zero (0) as an upstream concentration of the respective COC in the River. For the purposes of the model, the mixing zone analysis only accounts for the potential impact of groundwater discharging from the VOPAK site.

4.2 Mixing Zone Calculation

EIC utilized the following equations to compute the potential downstream River concentrations based on the variables defined in Section 4.1. This equation utilizes the principle of conservation of mass and assumes complete mixing of contaminants from groundwater to the River to calculate the downstream River concentration.

$$C_{gw}Q_{gw} + C_{Ru}Q_{Ru} = C_{Rd}Q_{Rd}$$

$C_{gw} = groundwater\ COC\ concentration\ \left(\frac{\mu g}{L}\right)$

$Q_{gw} = groundwater\ flowrate\ \left(\frac{ft^3}{year}\right)$

$C_{Ru} = upstream\ river\ concentration\ \left(\frac{\mu g}{L}\right)$

$$Q_{Ru} = Q_R = upstream\ river\ flowrate\ \left(\frac{ft^3}{year}\right)$$
$$C_{Rd} = downstream\ river\ concentration\ \left(\frac{\mu g}{L}\right)$$
$$Q_{Rd} = Q_{gw} + Q_{Ru} = downstream\ river\ flowrate$$

Since,

$$C_{Ru} = 0$$

The mixing equation can be simplified to:

$$C_{gw}Q_{gw} = C_{Rd}Q_{Rd} = C_{Rd}(Q_{gw} + Q_{Ru})$$

Thus,

$$C_{Rd} = C_{gw}\left(\frac{Q_{gw}}{Q_{gw} + Q_{Ru}}\right) = C_{gw} * DF$$

$$where\ DF\ serves\ as\ the\ Dilution\ factor$$

Based on the Groundwater Mass Flux Flow (Section 4.1.1) and the river flow (Section 4.1.3):

$$DF = \left(\frac{Q_{gw}}{Q_{gw}+Q_{Ru}}\right) = \left(\frac{1.38*10^5\frac{ft^3}{year}}{1.38*10^5\frac{ft^3}{year} + 8.21*10^{11}\frac{ft^3}{year}}\right) = 1.68 * 10^{-7}$$

EIC utilized the dilution factor to compute the downstream river concentration for each COC for all three scenarios.

4.3 Results

Table 4-2 lists the results of the conservation of mass calculations as well as the state and national regulatory levels for each COC. The regulatory levels considered for this evaluation are the Georgia Instream Water Quality Standard (EPD, 2013) and the National Primary Drinking Water Standard (EPA, 2009).

Referring to the estimated downstream river concentrations listed in Table 4-2, it is apparent that the potential impact from groundwater discharge from the site into the Savannah River would be negligible. Also, these downstream river concentrations are several orders of magnitude lower than

the state or federal regulatory standards. Considering that this is a conservative worst-case scenario, potential COC migration to the River from this site would not result in downstream river concentrations in excess of both federal and state surface water quality standards.

SECTION

5

5.0 REMEDIAL PROGRESS

To determine the remedial progress, EIC performed a spatial and temporal analysis of the COC plumes and an evaluation of COC trends in individual wells. The following subsections discuss the remedial progress.

5.1 COC Degradation

The spatial and temporal analysis of the COC plumes, discussed in Section 3, provides a clear insight into the overall remedial progress and the plume stability. The following subsections discuss the degradation of the COCs.

5.1.1 CVOC Plume

As discussed in the previous semi-annual progress report, the prevailing PCE, TCE, DCE, and VC plumes have degraded significantly in comparison to the footprints of the original COC plumes (EIC, 2015b). Since the inception of the VIRP program and subsequent to the first sampling event in October 2011, EIC has delineated the leading edge of each CVOC plume.

Referring to the October 2015 analytical data, COC concentrations from the following monitoring wells exceed the established RRS values as of the time of the October 2015 groundwater monitoring event.

- **PCE** – IW-1R, IW-18, LAW-PZ-8R, MW-28, MW-29, MW-33, MW-37, and PAN-MW-9
- **TCE** – IW-1R, MW-29, and MW-33
- **DCE** – IW-1R, LAW-PZ-8R, MW-29, and PAN-MW-9
- **VC** – IW-1R, IW-18, LAW-PZ-8R, MW-16, MW-24R, MW-27, MW-28, MW-29, MW-33, MW-37, and PAN-MW-9

5.1.2 VOC Plume

Following a similar trend as the CVOC plume, the collective VOC plume has also reduced substantially in the center and at the leading edge of the VOC baseline footprint. This has resulted in two isolated pockets of VOC plumes, one in the trailing edge of the original VOC footprint with peak concentrations near well LAW-PZ-8R and a second pocket at the leading edge of the original VOC footprint with lower peak concentrations near well MW-29. EIC has delineated the leading edge of each COC of the VOC plume.

Referring to the October 2015 analytical data, it is apparent that concentrations of the monitored VOC COCs in groundwater at the following monitoring wells exceed the established RRS concentrations for the COCs.

- **Benzene** – IW-1R, IW-18, LAW-PZ-8R, MW-26R, and MW-29
- **Toluene** – none
- **Ethylbenzene** – IW-1R, LAW-PZ-8R, and MW-29
- **Total Xylenes** – IW-1R and LAW-PZ-8R

5.2 COC Trends in Individual Wells

Pursuant to EPD's requirements, discussed in the Seventh VIRP Semi-annual Progress Report, EIC prepared trend line graphs for each COC for select wells (EIC, 2015b). These trend line graphs are presented as Figures 5-1 through 5-14.

In general, all graphs illustrate an initial increase in PCE concentrations but then a gradual decline in PCE concentrations during subsequent sampling events. By contrast, the degradation products of PCE have increased in some areas and have remained persistent in other areas of the PCE footprint – confirming natural attenuation of PCE. A more detailed analysis of fluid flow hydrodynamics, as well as a fate and transport evaluation of CVOC and VOC concentrations is included in the revised site conceptual model submitted as Appendix A in the Eighth VIRP Semi-annual Progress Report.

5.3 Remedial Progress

As discussed in the previous Eighth Semiannual Progress Report, significant remedial progress has occurred at the site since the initiation of the VIRP and the aerial extent of the PCE plume is now confined to two small areas within the original plume footprint. The significant reduction in the leading edge of the PCE plume, discussed in the previous semiannual report, has been confirmed during two consecutive sampling events in April and October 2015 respectively. Additionally, in comparing the April and October 2015 events, concentrations of COCs remained relatively stable between the two events.

5.4 Final Remediation Plan

Based on the remedial progress discussed in Section 5.3, it is apparent that the PCE plume has reduced significantly and is only recalcitrant in isolated small areas within the site. Based on the historic trends, it appears that the isolated pockets of the TCE plume will likely degrade over time. In addition, the overall extent of the plume is stable or shrinking and remains stable within the site. As such, VOPAK will propose Type 5 RRS at the site to manage the potential exposure risks with environmental covenants.

SECTION

6

6.0 SUMMARY

Data from the recent September/October 2015 sampling event continues to support natural attenuation as the most practical solution for remediating the COCs at the site. The data also confirms the substantial reduction in COC concentrations at the leading edge of the prevailing contaminant plume. Nevertheless, it is apparent that relatively low concentrations the COCs are persistent within the pre-VIRP foot-print. At the current COC reduction trends, however, the concentrations will not be reduced to less than the Type 4 RRS within the August 31, 2016 deadline established in the VIRP program.

Clearly, the historical sampling data confirms that the plume is stable and shrinking. As an additional step in addressing potential impact to hydraulically downgradient receptors, VOPAK performed a mixing zone analysis to determine the potential impact from migration of contaminated groundwater into the Savannah River. The results of the mixing zone analysis indicate that the downstream concentrations upon mixing would be substantially lower than the state and federal water quality standards.

In summary, the plume is contained within the site and does not present a potential risk to downgradient receptors. Based on a meeting with EPD and GPA, VOPAK will prepare and utilize an EPD approved UEC to manage the prevailing groundwater contamination with institutional and engineering controls under Type 5 RRS. Explicit details of the controls and supporting material will be provided in the UEC and CSR to be submitted to EPD for review and approval.

SECTION

7

7.0 SUMMARY OF HOURS

A monthly summary of hours invoiced for the aforementioned tasks during the period from August 23, 2015 through February 2016 are summarized in Attachment G.

SECTION

8

8.0 REFERENCES

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VOPAK TERMINAL SAVANNAH, SAVANNAH, GEORGIA

NINTH SEMI-ANNUAL PROGRESS REPORT

TABLES

Table 3-1: October 2015 Well Gauging Data
VOPAK Terminal Savannah, Savannah, Georgia

Well ID # (Well Diameter, in.)	Gauging Date	TOC Elevation* (ft.)	DTP (ft.)	DTW** (ft.)	Groundwater Surface Elevation (ft.)	Notes
IW-1R (1)	10/1/2015	UNK	ND	2.77	NA	
IW-18 (1)	10/1/2015	10.07	ND	2.77	7.30	
LAW-PZ-8R (1)	10/1/2015	9.22	ND	1.65	7.57	
MW-14 (2)	9/30/2015	8.86	ND	5.61	3.25	
MW-16 (1)	9/30/2015	17.01	ND	11.71	5.30	
MW-17R (1)	9/30/2015	15.89	ND	10.79	5.10	
MW-18R (1)	9/29/2015	14.12	ND	6.05	8.07	
MW-19 (1)	9/28/2015	14.91	ND	6.89	8.02	
MW-23 (1)	9/28/2015	10.39	ND	3.94	6.45	
MW-24R (1)	10/1/2015	11.81	ND	5.09	6.72	
MW-25 (1)	9/28/2015	14.76	ND	6.74	8.02	
MW-26R (1)	10/1/2015	10.59	ND	2.72	7.87	
MW-27 (1)	9/28/2015	9.38	ND	4.21	5.17	
MW-28 (1)	9/29/2015	UNK	ND	4.79	NA	
MW-29 (0.75)	10/1/2015	11.73	ND	5.58	6.15	
MW-30 (2)	9/29/2015	11.23	ND	4.78	6.45	
MW-31 (2)	9/28/2015	9.67	ND	4.59	5.08	
MW-32 (2)	9/30/2015	11.70	ND	5.94	5.76	
MW-33 (2)	10/1/2015	8.96	ND	2.09	6.87	
MW-34 (2)	9/29/2015	10.81	ND	3.42	7.39	
MW-35 (2)	9/29/2015	10.40	ND	5.53	4.87	
MW-36 (2)	9/30/2015	10.42	ND	5.93	4.49	
MW-37 (2)	9/28/2015	11.57	ND	4.00	7.57	
PAN-MW-9 (2)	9/30/2015	12.59	ND	6.09	6.50	
PAN-MW-10 (2)	9/30/2015	13.81	ND	8.13	5.68	

Notes:
ID = Identity
TOC = Top of Casing
UNK = Unknown
NM = Not Measured
ND = Not Detected
* TOC elevations are based on well surveys conducted by EMC Engineering on June 30, 2011, January 24, 2013, and on January 20, 2014 and are of the NGVD 29 Datum convention
** DTW measurements were recorded by EIC from 9/28/2015 to 10/1/2015 prior to purging using a Solinst Oil/Water Interface Meter (probe), Model: 122

Table 3-2: October 2015 Well Purging Data
VOPAK Terminal Savannah, Savannah, Georgia

Well ID # (Well Diameter, in.)	Date of Purge	Purge Time (minutes)	Total Purge Volume (mL)	Average Purge Rate (mL/minute)	Initial Tubing Intake Depth below TOC* (ft.)	Final Tubing Intake Depth below TOC (ft.)
IW-1R (1)	10/1/2015	36	2,000	56	14.00	14.00
IW-18 (1)	10/1/2015	40	4,220	106	14.50	14.50
LAW-PZ-8R (1)	10/1/2015	55	4,200	76	6.80	6.80
MW-14 (2)	9/30/2015	40	2,430	61	44.50	44.50
MW-16 (1)	9/30/2015	25	1,200	48	12.90	13.40
MW-17R (1)	9/30/2015	32	2,000	63	17.50	17.50
MW-18R (1)	9/29/2015	46	5,030	109	11.50	11.50
MW-19 (1)	9/28/2015	50	6,820	136	12.50	12.50
MW-23 (1)	9/28/2015	45	3,950	88	8.50	8.50
MW-24R (1)	10/1/2015	35	2,400	69	13.50	13.50
MW-25 (1)	9/28/2015	36	4,440	123	14.50	14.50
MW-26R (1)	10/1/2015	60	5,200	87	10.00	10.00
MW-27 (1)	9/28/2015	54	1,740	32	12.50	12.50
MW-28 (1)	9/29/2015	32	2,100	66	9.00	9.00
MW-29 (0.75)	10/1/2015	38	2,690	71	18.50	18.50
MW-30 (2)	9/29/2015	27	3,840	142	10.00	10.00
MW-31 (2)	9/28/2015	20	2,670	134	15.00	15.00
MW-32 (2)	9/30/2015	31	2,980	96	11.00	11.00
MW-33 (2)	10/1/2015	15	2,000	133	10.00	10.00
MW-34 (2)	9/29/2015	15	1,840	123	11.00	11.00
MW-35 (2)	9/29/2015	65	6,660	102	10.00	10.00
MW-36 (2)	9/30/2015	35	3,520	101	11.00	11.00
MW-37 (2)	9/28/2015	45	7,160	159	10.00	10.00
PAN-MW-9 (2)	9/30/2015	20	980	49	10.50	10.50
PAN-MW-10 (2)	9/30/2015	20	2,920	146	12.25	12.25

Notes:

ID = Identity

mL = Milliliter

TOC = Well Top of Casing

* During well purging, the Teflon-lined tubing was lowered as needed when the water level fell to the depth of the intake, causing air to be recovered.

Table 3-3: Groundwater Natural Attenuation Parameters
VOPAK Terminal Savannah, Savannah, Georgia

Well ID # (Well Diameter, in.)	Groundwater Quality Field Parameters					
	Temp (Celcius)	pH (SU)	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
IW-1R (1)	26.17	4.22	146	0.484	31.0	0.43
IW-18 (1)	26.29	4.84	83	0.962	132.0	0.33
LAW-PZ-8R (1)	26.20	5.52	9	0.773	232.0	0.34
MW-14 (2)	26.44	7.36	-20	0.463	19.7	0.64
MW-16 (1)	29.06	5.76	59	0.409	175.0	0.51
MW-17R (1)	27.63	5.94	2	0.367	39.5	0.53
MW-18R (1)	26.48	4.34	182	0.261	17.5	0.48
MW-19 (1)	29.39	6.21	50	0.827	0.0	0.66
MW-23 (1)	28.95	6.58	77	0.750	0.0	0.58
MW-24R (1)	23.65	4.60	111	0.451	23.4	0.46
MW-25 (1)	28.31	5.46	-25	0.830	58.2	0.34
MW-26R (1)	26.76	5.59	72	0.275	30.4	0.39
MW-27 (1)	25.94	6.17	127	0.437	4.4	0.60
MW-28 (1)	27.17	6.01	81	0.306	8.6	0.75
MW-29 (0.75)	22.77	4.64	91	1.29	55.4	0.45
MW-30 (2)	26.68	4.45	134	0.281	0.5	0.46
MW-31 (2)	25.34	6.51	98	0.846	0.0	0.53
MW-32 (2)	30.45	6.78	-10	0.973	0.0	1.47
MW-33 (2)	24.01	5.30	66	0.416	25.3	0.36
MW-34 (2)	27.12	4.36	192	0.144	0.0	0.52
MW-35 (2)	26.41	6.72	-96	0.743	0.0	0.33
MW-36 (2)	26.46	6.40	-66	1.24	4.2	0.53
MW-37 (2)	24.57	5.18	125	0.294	0.0	0.45
PAN-MW-9 (2)	26.60	5.32	49	0.432	78.7	0.59
PAN-MW-10 (2)	28.18	6.14	129	0.565	6.8	1.83

Notes:
Field parameters were recorded by EIC from 09/28/2015 to 10/01/2015 after parameters had stabilized and prior to sample collection.

Parameters were measured with a Horiba U-52 Water Quality Meter with a Flow-Through Cell.
ID= Identity
SU= Standard Unit
mV= Millivolts
mS/cm= Microsiemens per centimeter
NTU= Nephelometric Turbidity Unit
mg/L= Milligrams per liter

Table 3-4: Concentrations of CVOCs and VOCs in Groundwater
VOPAK Terminal Savannah, Savannah, Georgia

EPA Test Method: 8260B		PCE		TCE		DCE		VC		Benzene		Toluene		Ethylbenzene		Xylenes	
Unit		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Site-Specific Type 4 RRS Values (ug/L)		5		38		1022		3		9		5241		700		10000	
Well ID	Sample Date	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
IW-1R	Apr-14	310		210		13,000		640		130		300		2,900		25,000	
	Oct-14	170		190		11,000		450		130	J	320		2,200		19,000	
	Apr-15	310		150	J	9,900		440		110	J	260		2,300		17,000	
	Oct-15	230		100	J	8,800		330		180	J	200		2,200		19,000	
IW-18	Oct-11	55		58		4,400		220		36		7.3	J	38		93	
	Jan-12	48	J	43	J	4,800		230		29	J	<50		33	J	86	
	Apr-12	44	J	46	J	4,500		210		25	J	<50		24	J	55	J
	Jul-12	31	J	33	J	4,500		160		21	J	<50		29	J	92	J
	Oct-12	36	J	37	J	5,200		320		24	J	<50		31	J	110	
	Jan-13	43	J	44	J	6,000		310		25	J	<50		40	J	170	
	Apr-13	42		37		6,000		410		26		13		49		270	
	Jul-13	27		31		5,900		770		30		21		110		1,000	
	Oct-13	29		26		6,400		670		26		12		56		510	
	Jan-14	19		28		5,300		1,900		60		24		100		810	
	Apr-14	39		34		7,400		1,100		73		35		220		1,900	
	Oct-14	11	J	12	J	2,900		1,500		170		28	J	130		1,100	
	Apr-15	<7.4		8.4	J	920		830		350		14		180		1,300	
	Oct-15	39		25		2,400		710		200		35		300		3,000	
LAW-PZ-8 / LAW-PZ-8R	Sep-97	50/500		NR		NR		350/<500		NS		NS		NS		NS	
	Dec-98	<1000		NR		NR		<1,000		<1000		<1000		4,300		5,600	
	Nov-99	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-99	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-00	<250		<250		1,800		890		<250		<250		5,100		59,000	
	Jun-01	<1200		<1200		3,900		670		69	J	220	J	5,700		64,000	
	Nov-01	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-02	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-03	70	J	18	J	350		120		42	J	<100		3,700		42,000	
	Mar-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Jul-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-04	NS		NS		NS		NS		NS		NS		NS		NS	
	May-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Jun-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-06	300		<100		31,000		1,700		190		1,200		6,100		84,000	
	Dec-06	240		72		12,000		630		47		410		3,000		41,000	
	Mar-07	<250		<250		16,000		1,200		<500		760		5,000		70,000	
	Sep-07	240		<100		18,000		1,200		310		720		4,400		54,000	
	May-08	380		34		6,900		660		450		330		6,500		94,000	
	Dec-08	570		52		4,600		360		290		290		4,900		55,000	
	Apr-09	510		<250		<250		560		320		280		3,800		48,000	
	Sep-09	99		34		4,500		470		390		260		4,100		47,000	
	Apr-10	240		49		5,100		480		NS		NS		NS		NS	
	Oct-11	150		28	J	22,000		1,500		1,600		1,100		8,000		73,000	
	Jan-12	130	J	<500		17,000		1,600		1,700		930		7,500		88,000	
	Apr-12	99	J	<500		17,000		1,800		2,300		1,100		7,500		110,000	
	Jul-12	110	J	<500		16,000		1,200		2,000		820		7,100		91,000	
	Oct-12	83		<500		8,000		870		1,300		530		7,300		100,000	
	Jan-13	99		<500		13,000		1,100		2,000		800		7,500		100,000	
	Apr-13	71		12		9,100		960		1,400		570		7,200		110,000	
	Jul-13	30		5.6	J	11,000		990		1,900		650		7,600		110,000	
	Oct-13	44		8.5	J	8,500		830		1,500		510		6,800		110,000	
	Jan-14	38		<1.9		7,200		980		1,200		370		4,000		88,000	
	Apr-14	22		8.6	J	7,400		840		1,200		400		4,900		58,000	
	Oct-14	<150		<130		15,000		1,900		3,400		1,100		13,000		180,000	
	Apr-15	<740		<480		4,100		<500		1,100		<480		6,900		87,000	
	Oct-15	<740		<480		5,500		<500		1,200		<480		6,200		78,000	

Table 3-4: Concentrations of CVOCs and VOCs in Groundwater
VOPAK Terminal Savannah, Savannah, Georgia

EPA Test Method: 8260B		PCE		TCE		DCE		VC		Benzene		Toluene		Ethylbenzene		Xylenes	
Unit		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Site-Specific Type 4 RRS Values (ug/L)		5		38		1022		3		9		5241		700		10000	
Well ID	Sample Date	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
MW-14	Feb-91	NS		NS		NS		NS		NS		NS		NS		NS	
	Jul-91	NS		NS		NS		NS		NS		NS		NS		NS	
	Jun-96	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-97	33		NR		NR		<5		NS		NS		NS		NS	
	Dec-98	<1		NR		NR		<1		<1		<1		2.9		1.4	
	Nov-99	<5		<5		<2		<2		NS		NS		NS		NS	
	Dec-99	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-00	<1		<1		<1		<1		<1		<1		<1		<2	
	Jun-01	<5		<5		<5		<2		<5		<5		<5		<10	
	Nov-01	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-02	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-03	<5		<5		<5		<2		<5		<5		<5		<10	
	Oct-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Jul-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-04	NS		NS		NS		NS		NS		NS		NS		NS	
	May-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Jun-06	<5		<5		<5		<2		<10		<5		<5		<5	
	Oct-06	<2		<2		<2		<2		<2		<2		<2		<5	
	Dec-06	<2		<2		<2		<2		<2		<2		<2		<5	
	Mar-07	<5		<5		<5		<2		<10		<5		<5		<5	
	Sep-07	<2		<2		<2		<2		<2		<2		<2		<5	
	May-08	<2		<2		<2		<2		NS		<2		<2		<5	
	Dec-08	<5		<5		<5		<2		<5		<5		<5		<5	
	Apr-09	<5		<5		<5		<2		<5		<5		<5		<5	
	Sep-09	<2		<2		<2		<2		<2		<2		<2		<2	
	Apr-10	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-11	NL		NL		NL		NL		NL		NL		NL		NL	
	Jan-12	NL		NL		NL		NL		NL		NL		NL		NL	
	Apr-12	NL		NL		NL		NL		NL		NL		NL		NL	
	Jul-12	NL		NL		NL		NL		NL		NL		NL		NL	
	Oct-12	NL		NL		NL		NL		NL		NL		NL		NL	
	Jan-13	NL		NL		NL		NL		NL		NL		NL		NL	
	Apr-13	NS		NS		NS		NS		NS		NS		NS		NS	
	Jul-13	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-13	<0.16		<0.19		<0.21		<0.19		<0.16		3.5		<0.19		<0.20	
	Jan-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Apr-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Oct-14	<0.15		<0.13		<0.15		<0.18		<0.25		<0.11		<0.33		<0.20	
	Apr-15	<0.74		<0.48		<0.41		<0.50		<0.43		<0.48		<0.33		<0.23	
	Oct-15	<0.74		<0.48		0.46	J	<0.50		<0.43		<0.48		<0.33		<0.23	
MW-15*	Feb-91	NS		NS		NS		NS		NS		NS		NS		NS	
	Jul-91	NS		NS		NS		NS		NS		NS		NS		NS	
	Jun-96	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-97	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-98	NS		NS		NS		NS		NS		NS		NS		NS	
	Nov-99	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-99	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-00	NS		NS		NS		NS		NS		NS		NS		NS	
	Jun-01	<5		<5		<5		<2		<5		<5		<5		<10	
	Nov-01	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-02	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-03	5.3		14		<5		NS		<5		<5		<5		<10	
	Oct-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Jul-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-04	NS		NS		NS		NS		NS		NS		NS		NS	
	May-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Jul-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-04	NS		NS		NS		NS		NS		NS		NS		NS	
	May-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Jun-06	<5		<5		<5		<2		<10		<5		<5		<5	
	Oct-06	<2		<2		<2		<2		<2		<2		<2		<5	
	Dec-06	12		12		4		<2		<2		<2		<2		<5	
	Mar-07	<5		<5		<5		<2		<10		<5		<5		<5	
	Sep-07	<3		4		3		<2		<2		<2		<2		<5	
	May-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-09	<5		<5		<5		<2		<5		<5		<5		<5	
	Sep-09	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-10	<5		<5		<5		17		NS		NS		NS		NS	
	Apr-11	69		39		2,200		150		34		8.3	J	26		86	
	Oct-15	NS		NS		NS		NS		NS		NS		NS		NS	

Table 3-4: Concentrations of CVOCs and VOCs in Groundwater
VOPAK Terminal Savannah, Savannah, Georgia

EPA Test Method: 8260B		PCE		TCE		DCE		VC		Benzene		Toluene		Ethylbenzene		Xylenes	
Unit		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Site-Specific Type 4 RRS Values (ug/L)		5		38		1022		3		9		5241		700		10000	
Well ID	Sample Date	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
MW-16	Oct-00	NS		<1		110		2.2		<1		<1		<1		<2	
	Jun-01	<5		<5		41		<2		<5		<5		<5		<10	
	Nov-01	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-02	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-03	<5		<5		33		<2		<5		<5		<5		<10	
	Oct-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Jul-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-04	NS		NS		NS		NS		NS		NS		NS		NS	
	May-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Jun-06	<5		<5		36		<2		<10		<5		<5		<5	
	Oct-06	<2		12		120		4		<2		<2		<2		7	
	Dec-06	<2		24		120		8		<2		<2		<2		<5	
	Mar-07	9		71		320		25		<10		<5		<5		<5	
	Sep-07	<2		<2		260		63		<2		<2		<2		<5	
	May-08	<2		<2		61		53		<2		<2		6		<5	
	Dec-08	<5		<5		60		49		<5		<5		<5		<5	
	Apr-09	<5		<5		78		82		<5		<5		<5		<5	
	Sep-09	<2		4.1		78		69		<2		<2		<2		<5	
	Apr-10	<5		<5		89		83		NS		NS		NS		NS	
	Oct-11	0.57	J	0.66	J	160		77		0.52	J	<1		0.3	J	1.9	J
	Jan-12	0.67	J	0.94	J	130		85		0.44	J	0.42	J	0.12	J	1.3	J
	Apr-12	<1		0.94	J	140		200		0.74	J	0.33	J	1.7		21	
	Jul-12	0.28	J	0.63	J	87		48		0.41	J	<1		0.23	J	1.1	J
	Oct-12	<2		0.37	J	200		94		<2		<2		0.52	J	1.7	J
	Jan-13	<1		<1		120		78		0.27	J	<1		0.49	J	1.4	J
	Apr-13	<0.22		0.6	J	140		85		0.42	J	0.24	J	2.1		8	
	Jul-13	<0.16		<0.19		320		100		<0.16		<0.14		<0.19		<0.20	
	Oct-13	0.58	J	1.1		110		86		0.83		<0.14		1.2		5.6	
	Jan-14	<0.16		<0.19		170		180		1.5		<0.14		<0.19		<0.20	
	Apr-14	<0.16		1.1		310		160		2		<0.14		8.3		4.1	
	Oct-14	<0.15		0.34	J	130		81		1.3		<0.33		<0.11		<0.20	
	Apr-15	<1.5		6		210		120		2.7		<0.96		3.4		1.3	J
	Oct-15	<1.5	*	<0.96		150		75		1.7	J	<0.96		<0.66		<0.46	
MW-17/ MW-17R	Oct-00	NS		<1		<1		<1		<1		<1		<1		<2	
	Jun-01	<5		<5		<5		<2		<5		<5		<5		<10	
	Nov-01	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-02	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-03	<5		<5		<5		<2		<5		<5		<5		<10	
	Oct-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-04	<5		<5		<5		<2		<10		<5		<5		<5	
	Jul-04	<5		<5		<5		<2		<10		<5		<5		<5	
	Sep-04	<5		<5		<5		<2		<10		5		<5		<5	
	May-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Jun-06	<5		<5		<5		<2		<10		<5		<5		<5	
	Oct-06	<5		<5		<5		<2		<10		8		<5		<5	
	Dec-06	<2		<2		<2		<2		<2		<2		7		<5	
	Mar-07	<5		<5		<5		<2		<10		<5		<5		<5	
	Sep-07	<2		<2		<2		<2		<2		<2		<2		<5	
	May-08	<2		<2		<2		<2		<2		<2		4		27	
	Dec-08	<5		<5		<5		<2		<5		<5		<5		<5	
	Apr-09	<5		<5		<5		<2		<5		<5		<5		<5	
	Sep-09	<2		<2		<2		<2		<2		<2		<2		<5	
	Apr-10	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-11	<1		<1		0.2	J	<1		0.39	J	<1		0.55	J	<2	
	Jan-12	<1		<1		<1		<1		0.44	J	0.35	J	1.5		0.65	J
	Apr-12	<1		0.13	J	2.8		0.19	J	0.48	J	<1		0.7	J	0.22	J
	Jul-12	1.3		1.2		9.2		<1		0.29	J	<1		0.62	J	0.28	J
	Oct-12	16		5.2		13		<1		<1		<1		1.4		0.5	J
	Jan-13	<1		<1		<1		<1		<1		<1		0.84	J	<2	
	Apr-13	4.1		1.3		1.6		<0.30		0.18	J	<0.15		1.2		0.33	J
	Jul-13	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		1.5		<0.20	
	Oct-13	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		0.83	J	<0.20	
	Jan-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Apr-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		0.95	J	<0.20	
	Oct-14	<0.15		<0.13		<0.15		<0.18		<0.25		<0.33		0.66	J	<0.20	
	Apr-15	<0.74		<0.48		<0.41		<0.50		<0.43		<0.48		0.79	J	<0.23	
	Oct-15	<0.74		<0.48		<0.41		<0.50		<0.43		<0.48		0.59	J	0.23	J

Table 3-4: Concentrations of CVOCs and VOCs in Groundwater
VOPAK Terminal Savannah, Savannah, Georgia

EPA Test Method: 8260B		PCE		TCE		DCE		VC		Benzene		Toluene		Ethylbenzene		Xylenes	
Unit		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Site-Specific Type 4 RRS Values (ug/L)		5		38		1022		3		9		5241		700		10000	
Well ID	Sample Date	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
MW-18/ MW18R	Jun-01	<5		<5		<5		<2		<5		<5		<5		<10	
	Nov-01	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-02	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-03	<1		<1		<1		<1		<1		<1		**2**		**22**	
	Mar-04	<5		<5		<5		<2		<10		<5		<5		<5	
	Jul-04	<5		<5		<5		<2		<10		<5		<5		<5	
	Sep-04	<5		<5		<5		<2		<10		<5		<5		<5	
	May-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Jun-06	<5		<5		<5		<2		<10		<5		<5		<5	
	Oct-06	<5		<5		<5		<2		<10		<5		<5		<5	
	Dec-06	<2		<2		<2		<2		<2		<2		<2		<5	
	Mar-07	<5		<5		<5		<2		<10		<5		<5		<5	
	Sep-07	<2		<2		<2		<2		<2		<2		<2		<5	
	May-08	<2		<2		<2		<2		<2		<2		**2**		**16**	
	Dec-08	<5		<5		<5		<2		<5		<5		<5		<5	
	Apr-09	<5		<5		<5		<2		<5		<5		<5		<5	
	Sep-09	<2		<2		<2		<2		<2		<2		<2		<5	
	Apr-10	<5		<5		<5		<2		NS		NS		NS		NS	
	Oct-11	<1		<1		<1		<1		<1		<1		<1		<2	
	Jan-12	<1		<1		<1		<1		<1		<1		<1		<2	
	Apr-12	<1		<1		<1		<1		<1		<1		<1		<2	
	Jul-12	<1		<1		<1		<1		<1		<1		<1		<2	
	Oct-12	<1		<1		<1		<1		<1		<1		<1		<2	
	Jan-13	<1		<1		<1		<1		<1		<1		<1		<2	
	Apr-13	<0.22		<0.20		<0.13		<0.30		<0.18		<0.15		<0.097		<0.31	
	Jul-13	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Oct-13	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Jan-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Apr-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Oct-14	<0.15		<0.13		<0.15		<0.18		<0.25		<0.33		<0.11		<0.20	
	Apr-15	<0.74		<0.48		<0.41		<0.50		<0.43		<0.48		<0.33		<0.23	
	Oct-15	<0.74		<0.48		<0.41		<0.50		<0.43		<0.48		<0.33		<0.23	
MW-19	Jun-01	<5		<5		<5		<2		<5		<5		<5		<10	
	Nov-01	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-02	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-03	<5		<5		<5		<2		NS		NS		NS		NS	
	Aug-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Jul-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-04	NS		NS		NS		NS		NS		NS		NS		NS	
	May-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Jun-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-07	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-07	<2		<2		<2		<2		<2		<2		<2		<5	
	May-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-09	<5		<5		<5		<2		<5		<5		<5		<5	
	Sep-09	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-10	<5		<5		<5		<2		NS		NS		NS		NS	
	Oct-11	<1		<1		<1		<1		<1		<1		<1		<2	
	Jan-12	<1		<1		<1		<1		<1		<1		<1		<2	
	Apr-12	<1		<1		**0.22**	**J**	<1		<1		<1		**1.7**		**12**	
	Jul-12	<1		<1		<1		<1		<1		<1		<1		<2	
	Oct-12	<1		<1		<1		<1		<1		<1		<1		<2	
	Jan-13	<1		<1		<1		<1		<1		<1		<1		<2	
	Apr-13	<0.22		<0.20		**0.14**	**J**	<0.30		<0.18		<0.15		**0.21**	**J**	**0.41**	**J**
	Jul-13	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Oct-13	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Jan-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Apr-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Oct-14	<0.15		<0.13		<0.15		<0.18		<0.25		<0.33		<0.11		<0.20	
	Apr-15	<0.74		<0.48		<0.41		<0.50		<0.43		<0.48		<0.33		<0.23	
	Oct-15	<0.74		<0.48		<0.41		<0.50		<0.43		<0.48		<0.33		<0.23	

Table 3-4: Concentrations of CVOCs and VOCs in Groundwater
VOPAK Terminal Savannah, Savannah, Georgia

EPA Test Method: 8260B		PCE		TCE		DCE		VC		Benzene		Toluene		Ethylbenzene		Xylenes	
Unit		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Site-Specific Type 4 RRS Values (ug/L)		5		38		1022		3		9		5241		700		10000	
Well ID	Sample Date	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
MW-20	Jun-01	<5		<5		<5		<2		<5		<5		<5		<10	
	Nov-01	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-02	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-03	<5		<5		<5		<2		<5		<5		<5		<10	
	Oct-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Jul-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-04	NS		NS		NS		NS		NS		NS		NS		NS	
	May-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Jun-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-07	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-07	NS		NS		NS		NS		NS		NS		NS		NS	
	May-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-09	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-09	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-10	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-11	NL		NL		NL		NL		NL		NL		NL		NL	
	Jan-12	NL		NL		NL		NL		NL		NL		NL		NL	
	Apr-12	NL		NL		NL		NL		NL		NL		NL		NL	
	Jul-12	NL		NL		NL		NL		NL		NL		NL		NL	
	Oct-12	NL		NL		NL		NL		NL		NL		NL		NL	
	Jan-13	NL		NL		NL		NL		NL		NL		NL		NL	
	Apr-13	NL		NL		NL		NL		NL		NL		NL		NL	
	Jul-13	NL		NL		NL		NL		NL		NL		NL		NL	
	Oct-13	NL		NL		NL		NL		NL		NL		NL		NL	
	Jan-14	NL		NL		NL		NL		NL		NL		NL		NL	
	Apr-14	NL		NL		NL		NL		NL		NL		NL		NL	
	Oct-14	NL		NL		NL		NL		NL		NL		NL		NL	
	Apr-15	NL		NL		NL		NL		NL		NL		NL		NL	
	Oct-15	NS		NS		NS		NS		NS		NS		NS		NS	
MW-21	Jun-01	<5		<5		<5		<2		<5		<5		<5		<10	
	Nov-01	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-02	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-03	120		**1.8**		<1		<1		<1		<1		**4.2**		**38**	
	Mar-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Jul-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-04	NS		NS		NS		NS		NS		NS		NS		NS	
	May-05	<2		<2		<2		<2		<2		<2		<2		<5	
	Aug-05	<5		<5		<5		<2		<5		<5		<5		<5	
	Jun-06	12		<5		<5		<2		<10		<5		<5		<5	
	Oct-06	<2		<5		<2		<2		<2		<2		<2		<5	
	Dec-06	<2		<2		<2		<2		<2		<2		<2		<5	
	Mar-07	<5		<5		<5		<2		<10		<5		<5		<5	
	Sep-07	<2		<2		<2		<2		<2		<2		<2		<5	
	May-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-09	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-09	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-10	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-11	NL		NL		NL		NL		NL		NL		NL		NL	
	Jan-12	NL		NL		NL		NL		NL		NL		NL		NL	
	Apr-12	NL		NL		NL		NL		NL		NL		NL		NL	
	Jul-12	NL		NL		NL		NL		NL		NL		NL		NL	
	Oct-12	NL		NL		NL		NL		NL		NL		NL		NL	
	Jan-13	NL		NL		NL		NL		NL		NL		NL		NL	
	Apr-13	NL		NL		NL		NL		NL		NL		NL		NL	
	Jul-13	NL		NL		NL		NL		NL		NL		NL		NL	
	Oct-13	NL		NL		NL		NL		NL		NL		NL		NL	
	Jan-14	NL		NL		NL		NL		NL		NL		NL		NL	
	Apr-14	NL		NL		NL		NL		NL		NL		NL		NL	
	Oct-14	NL		NL		NL		NL		NL		NL		NL		NL	
	Apr-15	NL		NL		NL		NL		NL		NL		NL		NL	
	Oct-15	NL		NL		NL		NL		NL		NL		NL		NL	

Table 3-4: Concentrations of CVOCs and VOCs in Groundwater
VOPAK Terminal Savannah, Savannah, Georgia

EPA Test Method: 8260B		PCE		TCE		DCE		VC		Benzene		Toluene		Ethylbenzene		Xylenes	
Unit		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Site-Specific Type 4 RRS Values (ug/L)		5		38		1022		3		9		5241		700		10000	
Well ID	Sample Date	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
MW-22/ MW-22R	Jun-01	8,700		900		3,100		380		<500		<500		600		83	J
	Nov-01	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-02	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-03	1,000		480		930		<100		<250		<250		<250		<500	
	Oct-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-04	7,600		700		2,300		210		<10		<5		2,300		<50	
	Jul-04	7,000		71		310		36		<10		<5		14		<22	
	Sep-04	7,200		<250		610		<100		<500		<250		<250		<250	
	May-05	5,700		220		840		<100		<100		<100		<100		<250	
	Aug-05	2,400		47		240		37		<5		<5		<5		10	
	Jun-06	680		71		3,300		140		<250		<130		150		<130	
	Oct-06	2,600		<130		490		89		<250		<130		<130		<130	
	Dec-06	3,200		60		480		100		<2		<2		20		18	
	Mar-07	3,400		<130		730		100		<250		<130		<130		<130	
	Sep-07	NS		NS		NS		NS		NS		NS		NS		NS	
	May-08	6,900		89		930		270		2		<2		10		26	
	Dec-08	4,400		100		2,100		300		<5		<5		7		12	
	Apr-09	1,900		88		1,700		280		<5		<5		11		22	
	Sep-09	3,000		88		1,000		220		4.1		<2		9.2		12	
	Apr-10	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-11	NU		NU		NU		NU		NU		NU		NU		NU	
	Jan-12	NU		NU		NU		NU		NU		NU		NU		NU	
	Apr-12	NU		NU		NU		NU		NU		NU		NU		NU	
	Jul-12	NU		NU		NU		NU		NU		NU		NU		NU	
	Oct-12	NU		NU		NU		NU		NU		NU		NU		NU	
	Jan-13	NU		NU		NU		NU		NU		NU		NU		NU	
	Apr-13	NU		NU		NU		NU		NU		NU		NU		NU	
	Jul-13	NU		NU		NU		NU		NU		NU		NU		NU	
	Oct-13	NU		NU		NU		NU		NU		NU		NU		NU	
	Jan-14	NU		NU		NU		NU		NU		NU		NU		NU	
	Apr-14	NU		NU		NU		NU		NU		NU		NU		NU	
	Oct-14	NU		NU		NU		NU		NU		NU		NU		NU	
	Apr-15	NU		NU		NU		NU		NU		NU		NU		NU	
	Oct-15	NU		NU		NU		NU		NU		NU		NU		NU	
MW-23	Jun-01	<5		<5		<5		<2		<5		<5		<5		<10	
	Nov-01	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-02	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-03	<5		<5		<5		<2		<5		<5		<5		<10	
	Oct-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-04	760		2,300		NS		NS		NS		NS		NS		NS	
	Jul-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-04	NS		NS		NS		NS		NS		NS		NS		NS	
	May-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Jun-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-07	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-07	<2		<2		<2		<2		<2		<2		<2		<5	
	May-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-09	<2		<2		<5		<2		<5		<5		<5		<5	
	Sep-09	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-10	<5		<5		<5		<2		NS		NS		NS		NS	
	Oct-11	<1		<1		<1		<1		<1		<1		<1		<2	
	Jan-12	<1		<1		<1		<1		<1		<1		<1		<2	
	Apr-12	<1		<1		<1		<1		<1		<1		<1		<2	
	Jul-12	<1		<1		<1		<1		<1		<1		<1		<2	
	Oct-12	<1		<1		<1		<1		<1		<1		<1		<2	
	Jan-13	<1		<1		<1		<1		<1		<1		<1		<2	
	Apr-13	<0.22		<0.20		<0.13		<0.30		<0.18		<0.15		0.23	J	0.42	J
	Jul-13	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Oct-13	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Jan-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Apr-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Oct-14	<0.15		<0.13		<0.15		<0.18		<0.25		<0.33		<0.11		<0.20	
	Apr-15	<0.74		<0.48		<0.41		<0.50		<0.43		<0.48		<0.33		<0.23	
	Oct-15	<0.74		<0.48		<0.40		<0.50		<0.43		<0.48		<0.33		<0.23	

Table 3-4: Concentrations of CVOCs and VOCs in Groundwater
VOPAK Terminal Savannah, Savannah, Georgia

EPA Test Method: 8260B		PCE		TCE		DCE		VC		Benzene		Toluene		Ethylbenzene		Xylenes	
Unit		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Site-Specific Type 4 RRS Values (ug/L)		5		38		1022		3		9		5241		700		10000	
Well ID	Sample Date	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
MW-24/ MW-24R	Nov-01	400		95		240		50		<12		<12		<12		<25	
	Oct-02	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-03	97		51		100		22		52		<10		<10		<20	
	Oct-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Jul-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-04	NS		NS		NS		NS		NS		NS		NS		NS	
	May-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Jun-06	1,300		180		500		49		11		<5		5		28	
	Oct-06	580		150		590		33		<20		<20		<20		<50	
	Dec-06	1,110		680		990		68		13		<2		10		35	
	Mar-07	130		200		770		17		14		<5		<5		12	
	Sep-07	62		37		820		20		12		<2		2		7	
	May-08	130		24		82		9		16		<2		<2		11	
	Dec-08	110		25		340		12		15		<5		<5		<5	
	Apr-09	93		22		240		18		12		<5		<5		<5	
	Sep-09	57		20		120		47		10		<2		<2		<5	
	Apr-10	35		10		150		<2		NS		NS		NS		NS	
	Oct-11	12		5.8		180		25		10		<5		1.4	J	4.2	J
	Jan-12	7.5		3.9		160		16		8.2		0.4	J	0.98	J	11	
	Apr-12	6.8		4.7		230		7.4		11		1.8	J	16		230	
	Jul-12	6.7		3.6		220		9.2		7.6		<2		<2		<4	
	Oct-12	6		3.4	J	320		54		8.1		<5		3.4	J	20	
	Jan-13	3	J	2.1	J	410		71		6.9		<5		4	J	22	
	Apr-13	3.5		2.8		540		64		6.2		0.71	J	4.4		26	
	Jul-13	5.3		5.4		800		140		8.2		1.2		11		58	
	Oct-13	3.3		2.2		450		43		6		0.41	J	0.79	J	6.3	
	Jan-14	2.6		4.4		570		<0.19		6.1		<0.14		<0.19		2.7	
	Apr-14	2		1.8		500		<0.19		5.8		0.48	J	0.45	J	2	
	Oct-14	1.7	J	<0.65		360		38		5.6		<1.7		1.3	J	<1.0	
	Apr-15	<3.7		<2.4		300		16		3.9	J	<2.4		<1.7		<1.2	
	Oct-15	<3.7		<2.4		360		24		4.4	J	<2.4		<1.7		<1.2	
MW-25	Nov-01	<5		<5		<5		<10		<5		<5		<5		<10	
	Oct-02	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Jul-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-04	NS		NS		NS		NS		NS		NS		NS		NS	
	May-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Jun-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-07	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-07	<2		<2		<2		<2		<2		<2		<2		<5	
	May-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-09	<5		<2		<5		<5		<5		<5		<5		<5	
	Sep-09	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-10	<5		<5		<5		<2		NS		NS		NS		NS	
	Oct-11	<1		<1		<1		<1		<1		<1		0.72	J	8.7	
	Jan-12	<1		<1		0.21	J	<1		<1		<1		<1		<2	
	Apr-12	0.27	J	<1		0.57	J	<1		<1		<1		3.2		20	
	Jul-12	<1		<1		<1		<1		<1		<1		<1		<2	
	Oct-12	<1		<1		<1		<1		<1		<1		<1		<2	
	Jan-13	<1		<1		<1		<1		<1		<1		<1		<2	
	Apr-13	<0.22		<0.20		<0.13		<0.30		<0.18		<0.15		<0.097		<0.31	
	Jul-13	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Oct-13	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Jan-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Apr-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Oct-14	<0.15		<0.13		<0.15		<0.18		<0.25		<0.33		<0.11		<0.20	
	Apr-15	<0.74		<0.48		<0.41		<0.50		<0.43		<0.48		<0.33		<0.23	
	Oct-15	<0.74		<0.48		<0.41		<0..50		<0.43		<0.48		<0.33		<0.23	

Table 3-4: Concentrations of CVOCs and VOCs in Groundwater
VOPAK Terminal Savannah, Savannah, Georgia

EPA Test Method: 8260B		PCE		TCE		DCE		VC		Benzene		Toluene		Ethylbenzene		Xylenes	
Unit		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Site-Specific Type 4 RRS Values (ug/L)		5		38		1022		3		9		5241		700		10000	
Well ID	Sample Date	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
MW-26/ MW-26R	Nov-01	2,400		100		1,100		210		<100		<100		<100		<200	
	Oct-02	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-03	300		14		180		38		NS		NS		NS		NS	
	Oct-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Jul-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-04	NS		NS		NS		NS		NS		NS		NS		NS	
	May-05	120		8		120		28		17		<2		<2		<5	
	Aug-05	420		22		210		47		35		<5		<5		6	
	Jun-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-06	<2		2		2,800		330		16		45		380		2,700	
	Dec-06	6		4		5,100		560		20		83		1,500		13,000	
	Mar-07	<5		<5		2,600		580		17		45		1,100		6,900	
	Sep-07	<2		<2		240		240		9		4		71		250	
	May-08	5		<2		410		83		12		10		260		1,300	
	Dec-08	<5		<5		14		19		<5		5		23		120	
	Apr-09	<5		<5		200		76		14		21		310		2,700	
	Sep-09	<2.		<2		150		62		4.4		3.8		63		380	
	Apr-10	<5		<5		93		48		NS		NS		NS		NS	
	Oct-11	<1		0.89	J	43		34		7.2		1.4		35		110	
	Jan-12	<25		5	J	390		130		29		59		650		6,100	
	Apr-12	<25		5.5	J	350		140		22	J	54		610		7,200	
	Jul-12	<5		<5		43		40		21		15		270		2,000	
	Oct-12	<50		<50		210		63		35	J	37	J	390		4,200	
	Jan-13	27	J	21	J	1,500		220		64		140		2,000		2,400	
	Apr-13	5	J	3.2	J	340		94		56		40		650		8,300	
	Jul-13	<1.6		<1.9		19		12		75		18		450		5,500	
	Oct-13	<1.6		<1.9		150		53		33		10	J	160		2,300	
	Jan-14	<1.6		<1.9		68		<1.9		110		11		200		7,200	
	Apr-14	44		<1.9		16		11		110		<1.4		64		5,600	
	Oct-14	<0.75		4.1	J	7.2		7.3		19		<1.1		25		400	
	Apr-15	<74		<48		<41		<50		180		63	J	760		11,000	
	Oct-15	<3.7		<2.4		2.4	J	<2.5		37		<2.4		18		350	
MW-27	Nov-01	<5		<5		<5		<2		<5		<5		<5		<10	
	Oct-02	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-03	<5		<5		<5		<2		<5		<5		<5		<10	
	Oct-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Jul-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-04	NS		NS		NS		NS		NS		NS		NS		NS	
	May-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Jun-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-07	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-07	3		2		350		5		<2		<2		<2		<5	
	May-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-09	<5		<5		40		22		<5		<5		<5		<5	
	Sep-09	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-10	<5		<5		<5		92		NS		NS		NS		NS	
	Oct-11	0.86	J	1.6	J	8.3		200		0.63	J	<2		0.29	J	3.4	J
	Jan-12	0.17	J	0.42	J	1.8		19		<1		<1		<1		<2	
	Apr-12	0.26	J	0.4	J	1.7		15		<1		<1		<1		<2	
	Jul-12	<1		0.26	J	1.4		21		<1		<1		<1		<2	
	Oct-12	<1		0.33	J	1.1		16		<1		<1		<1		<2	
	Jan-13	0.36	J	0.88	J	2.1		20		<1		<1		<1		<2	
	Apr-13	<0.22		0.33	J	1	J	6.5		<0.18		<0.15		0.35	J	3.9	
	Jul-13	<0.16		0.8	J	2.6		18		<0.16		<0.14		<0.19		<0.20	
	Oct-13	<0.16		<0.19		<0.21		2.9		<0.16		<0.14		<0.19		<0.20	
	Jan-14	<0.16		<0.19		2.1		13		<0.16		<0.14		<0.19		<0.20	
	Apr-14	<0.16		<0.19		1.9		9.7		<0.16		<0.14		<0.19		<0.20	
	Oct-14	<0.15		<0.13		2.2		12		<0.25		<0.33		<0.11		<0.20	
	Apr-15	<0.74		<0.48		0.79	J	4.7		<0.43		<0.48		<0.33		<0.23	
	Oct-15	<0.74		0.62	J	10		30		<0.43		<0.48		<0.33		<0.23	

Table 3-4: Concentrations of CVOCs and VOCs in Groundwater
VOPAK Terminal Savannah, Savannah, Georgia

EPA Test Method: 8260B		PCE		TCE		DCE		VC		Benzene		Toluene		Ethylbenzene		Xylenes	
Unit		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Site-Specific Type 4 RRS Values (ug/L)		5		38		1022		3		9		5241		700		10000	
Well ID	Sample Date	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
MW-28	Oct-02	<5		<5		<5		<2		<5		<5		<5		<10	
	Aug-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Jul-04	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-04	NS		NS		NS		NS		NS		NS		NS		NS	
	May-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Aug-05	NS		NS		NS		NS		NS		NS		NS		NS	
	Jun-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-07	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-07	NS		NS		NS		NS		NS		NS		NS		NS	
	May-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-09	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-09	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-10	NS		NS		NS		NS		NS		NS		NS		NS	
	Oct-11	NL		NL		NL		NL		NL		NL		NL		NL	
	Jan-12	NL		NL		NL		NL		NL		NL		NL		NL	
	Apr-12	NL		NL		NL		NL		NL		NL		NL		NL	
	Jul-12	NL		NL		NL		NL		NL		NL		NL		NL	
	Oct-12	NL		NL		NL		NL		NL		NL		NL		NL	
	Jan-13	NL		NL		NL		NL		NL		NL		NL		NL	
	Apr-13	NL		NL		NL		NL		NL		NL		NL		NL	
	Jul-13	NL		NL		NL		NL		NL		NL		NL		NL	
	Oct-13	NL		NL		NL		NL		NL		NL		NL		NL	
	Jan-14	NL		NL		NL		NL		NL		NL		NL		NL	
	Apr-14	NL		NL		NL		NL		NL		NL		NL		NL	
	Oct-14	2.3		0.44	J	14		3.4		0.82	J	<0.33		0.27	J	2.2	
	Apr-15	5.8		1.1		33		8.1		1.6		<0.48		<0.33		<0.23	
	Oct-15	32		6.9		220		80		10		<0.96		<0.66		1.6	J
MW-29	Oct-06	1,500		340		1,500		24		2		<2		67		51	
	Dec-06	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-07	NS		NS		NS		NS		NS		NS		NS		NS	
	Sep-07	2,300		320		1,700		64		3		<2		63		57	
	May-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Dec-08	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-09	1,100		320		2,100		74		<5		<5		35		98	
	Sep-09	NS		NS		NS		NS		NS		NS		NS		NS	
	Apr-10	500		300		3,200		150		NS		NS		NS		NS	
	Oct-11	180		72		2,300		220		<20		<20		1,300		2,800	
	Jan-12	200		77		2,500		280		<20		<20		1,100		2,500	
	Apr-12	100		62		1,900		200		6.3	J	7.6	J	950		2,100	
	Jul-12	110		54		1,900		230		6.8	J	<20		510		1,000	
	Oct-12	71		44		1,600		110		<20		<20		200		370	
	Jan-13	110		41		1,300		140		6	J	6.7	J	1,300		2,900	
	Apr-13	130		76		2,500		490		11		4.1		750		1,500	
	Jul-13	120		69		2,800		460		15		5.4	J	800		1,700	
	Oct-13	140		66		6,100		760		20		10	J	1,200		2,500	
	Jan-14	330		110		5,900		790		23		20		3,100		6,600	
	Apr-14	200		150		8,400		880		25		21		1,900		4,000	
	Oct-14	74		55		4,300		660		<13		21	J	1,800		4,300	
	Apr-15	160		90		5,900		790		<22		25	J	3,300		7,300	
	Oct-15	110		130		9,000		1,000		<43		<48		1,700		4,700	
MW-30	Oct-11	0.51	J	0.55	J	13		2.9		0.55	J	<1		<1		<2	
	Jan-12	0.18	J	0.46	J	13		3.1		0.47	J	<1		<1		0.58	J
	Apr-12	0.19	J	0.43	J	9.4		2.6		0.44	J	<1		<1		<2	
	Jul-12	0.45	J	0.45	J	7.7		2.4		0.43	J	<1		<1		<2	
	Oct-12	<1		0.4	J	11		3.6		0.54	J	<1		<1		<2	
	Jan-13	0.2	J	0.38	J	9.4		3.1		0.54	J	<1		<1		<2	
	Apr-13	0.32	J	0.32	J	7.8		4.5		0.85	J	<0.15		<0.097		<0.31	
	Jul-13	<0.16		<0.19		11		<0.19		1.8		<0.14		<0.19		2.6	
	Oct-13	<0.16		<0.19		6.2		2.5		<0.16		<0.14		<0.19		<0.20	
	Jan-14	<0.16		<0.19		5.6		<0.19		<0.16		<0.14		<0.19		<0.20	
	Apr-14	0.4	J	0.4	J	5		<0.19		0.48	J	<0.14		1	J	2.2	
	Oct-14	0.39	J	<0.13		2.3		1.2		0.35	J	<0.33		<0.11		<0.20	
	Apr-15	<0.74		<0.48		1.7		0.88	J	<0.43		<0.48		<0.33		1.3	
	Oct-15	<0.74		<0.48		1.7		2.0		0.43	J	<0.48		<0.33		<0.23	

Table 3-4: Concentrations of CVOCs and VOCs in Groundwater
VOPAK Terminal Savannah, Savannah, Georgia

EPA Test Method: 8260B		PCE		TCE		DCE		VC		Benzene		Toluene		Ethylbenzene		Xylenes	
Unit		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Site-Specific Type 4 RRS Values (ug/L)		5		38		1022		3		9		5241		700		10000	
Well ID	Sample Date	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
MW-31	Oct-11	<1		<1		<1		<1		<1		<1		<1		0.24	J
	Jan-12	<1		<1		<1		<1		<1		<1		<1		0.21	J
	Apr-12	<1		<1		<1		<1		<1		<1		0.33	J	2.4	
	Jul-12	<1		<1		<1		<1		<1		<1		<1		<2	
	Oct-12	<1		<1		<1		<1		<1		<1		<1		<2	
	Jan-13	<1		<1		<1		<1		<1		<1		<1		<2	
	Apr-13	<0.22		<0.20		<0.13		<0.30		<0.18		<0.15		<0.097		<0.31	
	Jul-13	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Oct-13	NA		NA		NA		NA		NA		NA		NA		NA	
	Jan-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Apr-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Oct-14	<0.15		<0.13		0.43	J	<0.18		<0.25		<0.33		0.33	J	<0.20	
	Apr-15	<0.74		<0.48		<0.41		<0.50		<0.43		<0.48		<0.33		<0.23	
	Oct-15	<0.74		<0.48		<0.41		<0.50		<0.43		<0.48		<0.33		<0.23	
MW-32	Oct-11	7.2	J	11		1,500		35		<10		<10		31		35	
	Jan-12	130		61		2,100		53		<20		<20		45		56	
	Apr-12	210		100		2,000		54		<20		<20		28		22	J
	Jul-12	200		140		1,100		40		<10		<10		17		16	J
	Oct-12	1,700		470		1,700		110		<10		<10		54		26	
	Jan-13	2,800		530		940		93		<20		<20		61		27	J
	Apr-13	2,800		520		980		120		0.94	J	2.8		75		42	
	Jul-13	2,200		570		750		96		<1.6		<1.4		66		40	
	Oct-13	6,200		1,300		1,600		220		<1.6		7.2	J	160		110	
	Jan-14	6,500		1,300		1,600		230		<1.6		<1.4		180		170	
	Apr-14	6,000		1,500		2,200		230		<1.6		<1.4		200		130	
	Oct-14	1,900		680		1,100		100		8.3	J	<6.6		36		29	J
	Apr-15	<0.74		<0.48		<0.41		<0.50		<0.43		<0.42		<0.33		<0.23	
	Oct-15	1.3		0.49	J	0.81	J	<0.50		<0.43		<0.48		<0.33		<0.23	
MW-33	Oct-11	5,200		3,200		16,000		840		<200		<200		370		2,200	
	Jan-12	1,100		190		4,100		370		<50		<50		94		450	
	Apr-12	13		11		1,800		390		12		9.3	J	46		390	
	Jul-12	40	J	35	J	3,000		290		<50		<50		34	J	88	J
	Oct-12	37		35		2,300		330		<20		<20		28		70	
	Jan-13	5.9		9.9		390		130		1.7	J	2.3		7.3		15	
	Apr-13	1.2		4.7		380		130		1.3		1.5		5.3		12	
	Jul-13	15		5.1	J	500		220		<1.6		<1.4		8.9	J	24	
	Oct-13	1.2		4.8		800		480		1.8		2		9		26	
	Jan-14	<1.6		<1.9		340		300		<1.6		<1.4		16		40	
	Apr-14	<1.6		8.4	J	360		140		<1.6		<1.4		7	J	25	
	Oct-14	1.2	J	9.7		390		440		<1.3		3.5	J	9.4		37	
	Apr-15	<0.74		2.8		150		100		1.7		1.7		3.1		11	
	Oct-15	5.0		48		260		170		<2.2		<2.4		4.6	J	19	
MW-34	Oct-11	2.2		1.7		44		14		1.6		<1		<1		<2	
	Jan-12	13		4.4		80		8.8		3.6		<1		<1		<2	
	Apr-12	4.3		2.2		64		16		2.3		<1		<1		<2	
	Jul-12	2.3		1.3		35		7.8		1.3		<1		<1		<2	
	Oct-12	4.9		1.8		45		8.6		1.8		<1		<1		<2	
	Jan-13	8.6		2.5		43		8.4		1.9		<1		<1		<2	
	Apr-13	2.7		0.91	J	19		5.7		0.76	J	<0.15		<0.097		<0.31	
	Jul-13	3		1	J	24		0.19		1.1		<0.14		<0.19		<0.20	
	Oct-13	6.1		3.1		36		9.8		1.3		<0.14		<0.19		<0.20	
	Jan-14	2.4		<0.19		14		<0.19		<0.16		<0.14		<0.19		<0.20	
	Apr-14	0.51	J	<0.19		4.2		<0.19		0.26	J	<0.14		<0.19		<0.20	
	Oct-14	1.1		0.23	J	5.1		1.8		<0.25		<0.33		0.17	J	<0.20	
	Apr-15	2.7		0.52	J	9.9		2.6		0.47	J	<0.48		<0.33		<0.23	
	Oct-15	4.2		0.86	J	16		4.4		1.3		<0.48		<0.33		<0.23	
MW-35	Jan-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Apr-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Oct-14	<0.15		<0.13		0.16	J	<0.18		<0.25		<0.33		0.11	J	<.20	
	Apr-15	<0.74		<0.48		<0.41		<0.50		<0.43		<0.48		<0.33		<0.23	
	Oct-15	<0.74		<0.48		<0.41		<0.50		<0.43		<0.48		<0.33		<0.23	
MW-36	Jan-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.14		<0.19		<0.20	
	Apr-14	<0.16		<0.19		0.33	J	<0.19		<0.16		<0.14		<0.19		<0.20	
	Oct-14	<0.15		<0.13		0.6	J	<0.18		<0.25		<0.33		<0.11		<0.20	
	Apr-15	<0.74		<0.48		0.59	J	<0.50		<0.43		<0.48		<0.33		<0.23	
	Oct-15	<0.74		<0.48		0.81	J	<0.50		<0.43		<0.48		<0.33		<0.23	
MW-37	Jan-14	30		16		860		130		14		<0.14		<0.19		1.9	
	Apr-14	22		11		690		<0.19		16		<0.14		1.8		3.8	
	Oct-14	36		12		370		93		10		0.91	J	0.83	J	2.4	J
	Apr-15	19		8.5		350		65		6.4		<0.96		<0.66		0.77	J
	Oct-15	92		25		900		200		22		<2.4		1.8	J	4.1	J

Table 3-4: Concentrations of CVOCs and VOCs in Groundwater
VOPAK Terminal Savannah, Savannah, Georgia

EPA Test Method: 8260B		PCE		TCE		DCE		VC		Benzene		Toluene		Ethylbenzene		Xylenes	
Unit		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Site-Specific Type 4 RRS Values (ug/L)		5		38		1022		3		9		5241		700		10000	
Well ID	Sample Date	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
PAN-MW-9	Feb-91	14,000		350		< 5		< 30		NS		NS		NS		NS	
	Jul-91	9,200		430		< 5		< 30		NS		NS		NS		NS	
	Jun-96	3,040		< 2500		< 2,500		< 2500		NS		NS		NS		NS	
	Sep-97	8,100		NR		NR		< 500		NS		NS		NS		NS	
	Dec-98	7,400		NR		NR		< 250		< 250		< 250		2,400		5,200	
	Dec-99	9,100		< 1000		< 400		< 400		NS		NS		NS		NS	
	Oct-00	8,000		360		130		< 100		< 100		< 100		3,900		8,600	
	Jun-01	9,800		260	J	100	J	< 200		< 500		< 500		3,700		8,500	
	Aug-03	2,400		< 500		< 500		< 200		< 500		< 500		1,100		2,000	
	Oct-03	NS		NS		NS		NS		NS		NS		NS		NS	
	Mar-04	6,900		440		300		35		< 50		< 25		3,100		7,300	
	Jul-04	3,200		270		170		14		< 10		< 5		8,400		22,000	
	Sep-04	6,000		360		< 250		< 100		< 500		< 250		2,200		5,100	
	May-05	1,100		320		220		< 100		< 100		< 100		6,000		16,000	
	Aug-05	80		9		5		< 2		<2		< 5		60		150	
	Jun-06	1,600		480		550		< 40		< 200		< 100		730		1,800	
	Oct-06	1,500		300		990		< 40		< 200		< 100		990		2,600	
	Dec-06	1,900		640		600		23		< 2		< 2		1,800		4,900	
	Mar-07	600		370		680		< 40		< 200		< 100		4,500		12,000	
	Sep-07	1,500		450		880		< 40		< 40		< 40		1,900		5,400	
	May-08	510		190		590		18		< 2		3		8,800		24,000	
	Dec-08	540		150		500		25		< 5		< 5		3,900		11,000	
	Apr-09	460		150		780		< 40		< 100		< 100		2,400		6,300	
	Sep-09	440		150		730		49		< 10		< 10		2,300		6,100	
	Apr-10	710		140		530		93		NS		NS		NS		NS	
	Oct-11	350		1,100		780		62		< 50		< 50		1,900		4,200	
	Jan-12	690		770		820		55		< 20		< 20		2,000		5,800	
	Apr-12	280		1,300		1,100		45		< 20		< 20		1,900		5,500	
	Jul-12	37		1,200		1,300		65		< 25		< 25		890		2,600	
	Oct-12	210		1,200		1,800		110		< 25		< 25		1,800		4,900	
	Jan-13	540		480		1,200		69		< 25		< 25		1,100		3,500	
	Apr-13	240		500		1,400		120		2.8	J	3.4	J	1,000		3,700	
	Jul-13	55		790		1,200		88		< 1.6		< 1.4		760		2,200	
	Oct-13	29		440		2,500		76		1.1		1.5		1,000		2,600	
	Jan-14	17		300		2,100		190		< 1.6		< 1.4		1,100		2,700	
	Apr-14	22		190		2,000		140		<1.6		<1.4		960		2,400	
	Oct-14	17		35		1,900		130		4.4	J	<3.3		650		1,800	
	Apr-15	<7.4		4.9	J	2,000		130		5.2	J	<4.8		580		1,400	
	Oct-15	<15		<9.6		2,900		160		8.6	J	<9.6		560		1,500	
PAN-MW-10	Feb-91	37		< 5		< 5		< 30		NS		NS		NS		NS	
	Sep-97	10		NR		NR		< 5		NS		NS		NS		NS	
	Dec-98	< 1		NR		NR		< 1		< 1		< 1		< 1		< 1	
	Nov-99	< 5		< 5		< 2		< 2		NS		NS		NS		NS	
	Oct-00	< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 2	
	Jun-01	< 5		< 5		< 5		< 2		< 5		< 5		< 5		< 10	
	Aug-03	< 5		< 5		< 5		< 2		< 5		< 5		< 5		< 10	
	Sep-07	< 2		< 2		< 2		< 2		< 2		< 2		< 2		< 5	
	Apr-09	< 5		< 5		< 5		< 2		< 5		< 5		< 5		< 5	
	Apr-10	< 5		< 5		< 5		< 2		NS		NS		NS		NS	
	Oct-11	0.79	J	2.6		1.3		< 1		< 1		3.7		< 1		9.9	
	Jan-12	< 1		0.21	J	3.7		0.2	J	0.28	J	1.2		< 1		17	
	Apr-12	< 1		< 1		0.71	J	< 1		< 1		< 1		< 1		< 2	
	Jul-12	< 1		< 1		0.29	J	< 1		< 1		< 1		< 1		< 2	
	Oct-12	< 1		< 1		1.4		< 1		< 1		< 1		< 1		< 2	
	Jan-13	< 1		< 1		1.2		< 1		< 1		< 1		< 1		< 2	
	Apr-13	< 0.22		< 0.20		0.82	J	< 0.30		< 0.18		<0.097		< 0.15		< 0.31	
	Jul-13	< 0.16		< 0.19		< 0.21		< 0.19		< 0.16		<0.19		< 0.14		< 0.20	
	Oct-13	< 0.16		< 0.19		0.76		< 0.19		< 0.16		<0.19		< 0.14		< 0.20	
	Jan-14	< 0.16		< 0.19		1.3		< 0.19		< 0.16		<0.19		< 0.14		< 0.20	
	Apr-14	<0.16		<0.19		<0.21		<0.19		<0.16		<0.19		<0.14		<0.20	
	Oct-14	<0.15		<0.13		0.34	J	<0.18		<0.25		<0.11		<0.33		<0.20	
	Apr-15	<0.74		<0.48		<0.41		<0.50		<0.43		<0.48		<0.33		<0.23	
	Oct-15	<0.74		<0.48		<0.41		<0.50		<0.43		<0.48		<0.33		<0.23	

Notes:
0.79 = Concentration above Minimum Detection Limit (MDL)
39 = Concentration above RRS
NR = Not Reported by Laboratory
NS = Not Sampled
NL = Not Located
NU = Not Useable due to siltation
NA = Not Avaliable
All data prior to October 2011 tabulated by ERM

Table 3-5: Historical Groundwater Elevation Table
VOPAK Terminal Savannah, Savannah, Georgia

Well ID # (Well Diameter, in.)	Groundwater Potentiometric Surface Elevation (ft.)														MW Min.*	MW Max.*	MW Range*	MW Avg.*	MW Var.*
	Oct-11	Jan-12	Apr-12	Jul-12	Oct-12	Jan-13	Apr-13	Jul-13	Oct-13	Jan-14	Apr-14	Oct-14	Apr-15	Oct-15					
IW-1R (1)	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NS	NS	NS	NS	NA	NA	NA	NA	NA
IW-18 (1)	7.15	6.36	5.52	6.39	6.30	6.22	7.28	7.44	6.77	6.73	7.20	7.02	6.89	7.30	5.52	7.44	1.92	6.76	0.29
LAW-PZ-8R (1)	7.75	7.08	7.36	7.65	6.79	6.78	7.83	8.22	7.10	7.63	7.15	6.17	7.69	7.57	6.17	8.22	2.05	7.34	0.28
MW-14 (2)[2]*	NL	NL	NL	NL	NL	NL	NL	NL	3.65	2.14	2.27	2.80	2.38	3.25	2.14	3.65	1.51	2.75	0.36
MW-16 (1)	5.67	4.36	4.31	5.24	4.34	4.04	4.72	4.91	5.15	4.40	5.09	4.70	4.98	5.30	4.04	5.67	1.63	4.80	0.22
MW-17R (1)	3.93	2.49	3.59	4.34	4.86	4.79	5.15	5.32	5.21	5.32	5.95	4.58	4.96	5.10	2.49	5.95	3.46	4.69	0.76
MW-18R (1)	7.65	6.81	7.32	7.58	6.92	6.76	7.80	8.03	7.15	7.55	8.02	7.58	7.94	8.07	6.76	8.07	1.31	7.51	0.21
MW-19 (1)	8.11	7.29	7.91	7.98	7.78	7.17	7.97	8.12	7.53	7.86	8.55	7.95	8.22	8.02	7.17	8.55	1.38	7.89	0.13
MW-23 (1)	6.39	5.65	6.51	6.25	6.18	5.71	6.34	5.63	6.19	6.19	7.43	5.63	6.97	6.45	5.63	7.43	1.80	6.25	0.27
MW-24R (1)	5.86	5.30	5.80	5.60	5.39	5.22	5.92	5.00	5.49	5.91	6.44	6.16	6.36	6.72	5.00	6.72	1.72	5.80	0.25
MW-25 (1)	7.91	7.14	7.81	7.93	7.64	7.12	8.05	8.20	7.41	7.84	8.43	7.96	8.25	8.02	7.12	8.43	1.31	7.84	0.15
MW-26R (1)	7.39	6.48	7.17	7.21	6.58	6.41	7.44	8.09	7.88	7.48	8.00	7.67	7.47	7.87	6.41	8.09	1.68	7.37	0.30
MW-27 (1)	5.06	4.10	4.89	4.77	4.42	4.30	4.66	4.47	4.58	4.61	5.66	5.45	5.30	5.17	4.10	5.66	1.56	4.82	0.21
MW-28 (2)	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NS	NS	NS	NA	NA	NA	NA	NA
MW-29 (0.75)	5.71	5.01	5.38	5.27	4.91	4.67	5.48	5.12	5.21	5.43	5.83	5.91	5.69	6.15	4.67	6.15	1.48	5.41	0.17
MW-30 (2)	6.28	5.60	5.99	6.09	5.75	5.29	6.18	6.27	6.76	6.23	6.63	6.28	6.18	6.45	5.29	6.76	1.47	6.14	0.15
MW-31 (2)	4.41	3.94	4.17	4.48	4.26	3.92	4.42	4.32	NG	4.47	5.05	5.11	5.19	5.08	3.92	5.19	1.27	4.52	0.20
MW-32 (2)	5.23	4.53	5.24	5.49	5.00	4.75	5.32	5.15	5.04	5.23	5.73	5.60	6.21	5.76	4.53	6.21	1.68	5.31	0.19
MW-33 (2)	6.54	5.67	6.17	5.90	5.05	5.07	6.60	6.41	7.07	6.24	7.02	6.48	6.58	6.87	5.05	7.07	2.02	6.26	0.41
MW-34 (2)	7.40	6.81	7.00	7.29	6.53	6.53	7.52	7.73	6.86	7.41	7.94	7.69	7.53	7.39	6.53	7.94	1.41	7.26	0.20
MW-35 (2)	NI	NI	NI	NI	NI	NI	NI	NI	NI	4.77	4.73	4.91	4.93	4.87	4.73	4.93	0.20	4.84	0.01
MW-36 (2)	NI	NI	NI	NI	NI	NI	NI	NI	NI	1.89	3.44	3.71	3.94	4.49	1.89	4.49	2.60	3.49	0.95
MW-37 (2)	NI	NI	NI	NI	NI	NI	NI	NI	NI	7.42	7.88	7.77	7.60	7.57	7.42	7.88	0.46	7.65	0.03
PAN-MW-9 (2)	6.24	5.39	5.74	5.98	5.54	5.32	6.07	5.86	5.93	6.23	6.57	6.41	5.57	6.50	5.32	6.57	1.25	5.95	0.17
PAN-MW-10 (2)	3.45	2.47	2.94	3.51	3.19	3.35	3.43	3.82	3.53	3.50	4.13	4.37	6.10	5.68	2.47	6.10	3.63	3.82	0.99
Event Min.*[3]	3.45	2.47	2.94	3.51	3.19	3.35	3.43	3.82	3.53	1.89	3.44	3.71	3.94	4.49	**Global Min.*[4]**		1.89		
Event Max.*[3]	8.11	7.29	7.91	7.98	7.78	7.17	8.05	8.22	7.88	7.86	8.55	7.96	8.25	8.07	**Global Max.*[4]**		8.55		
Event Range*[3]	4.66	4.82	4.97	4.47	4.59	3.82	4.62	4.40	4.35	5.97	5.11	4.25	4.31	3.58	**Global Range*[4]**		6.66		
Event Avg.*[3]	6.22	5.39	5.83	6.05	5.65	5.44	6.22	6.22	6.16	5.92	6.49	6.14	6.39	6.47	**Global Avg.*[4]**		6.04		
Event Var.*[3]	1.88	2.14	2.03	1.69	1.50	1.32	1.90	2.30	1.43	2.46	2.04	1.63	1.50	1.34	**Global Var.*[4]**		2.02		

Notes:

NI - Not Installed

NS - Not Surveyed, TOC elevation information is not available for well

NL - Not Located

NA - Not Applicable

NG - Not Gauged

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

*[2] = MW-14 is considered a deep well at the Site and is not considered for the shallow potentiometric surface at the Site.

***[3] = 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 October 2011 to October 2015 where available.

***[4]= Global Min., Max., Range, Avg., and Var.** - are the minimum, maximum, range, average, and total variance for all monitoring wells throughout all events from October 2011 to October 2015

Table 4-1: Mixing Model Initial Groundwater Concentrations

Constituents of Concern	Leading Edge Concentration, C_{gw1} (µg/L)	Maximum Concentration Recorded During the September/October 2015 Sampling Event C_{gw2} (µg/L)	Maximum Concentration Ever Recorded at the Site C_{gw3} (µg/L)
PCE	1.50E+00	7.40E+02	1.40E+04
TCE	9.60E-01	4.80E+02	3.20E+03
DCE	1.50E+02	9.00E+03	3.10E+04
VC	7.50E+01	1.00E+03	1.90E+03
Benzene	1.70E+00	1.20E+03	3.40E+03
Toluene	9.60E-01	4.80E+02	1.20E+03
Ethylbenzene	6.60E-01	6.20E+03	1.30E+04
Xylenes	4.60E-01	7.80E+04	1.80E+05

Notes:

Leading edge is assumed to be the concentration at MW-16 derived from EIC September/October 2015 groundwater sampling results, recorded in the 9th Semi-annual report, Table 3-4

Maximum Site Concentration September/October 2015 is the highest observed concentration for each constituent at the site during the September/October 2015 groundwater sampling event, recorded in the 9th Semi-annual report, Table 3-4

Maximum Concentration Ever Recorded is the maximum concentration of each constituent recorded at any well for any event as reported in the 9th Semi-annual report, Table 3-4

Table 4-2: Modeled Downstream River Concentrations Compared to Water Quality Standards

Constituents of Concern	Georgia Instream Water Quality Standards (µg/L)*	National Primary Drinking Water Standards (µg/L)*[2]	Estimated Downstream River Concentrations		
			Utilizing Leading Edge C_{gw1}, C_{Rd1} (µg/L)	Utilizing Event Maximum C_{gw2}, C_{Rd2} (µg/L)	Utilizing Maximum Recorded C_{gw3}, C_{Rd3} (µg/L)
PCE	3.30E+00	5.00E+00	2.52E-07	1.24E-04	2.35E-03
TCE	3.00E+01	5.00E+00	1.61E-07	8.05E-05	5.37E-04
DCE	NA	7.00E+01	2.52E-05	1.51E-03	5.20E-03
VC	2.40E+00	2.00E+00	1.26E-05	1.68E-04	3.19E-04
Benzene	5.10E+01	5.00E+00	2.85E-07	2.01E-04	5.70E-04
Toluene	5.98E+03	1.00E+03	1.61E-07	8.05E-05	2.01E-04
Ethylbenzene	2.10E+03	7.00E+02	1.11E-07	1.04E-03	2.18E-03
Xylenes	NA	1.00E+04	7.71E-08	1.31E-02	3.02E-02

Notes:

Downstream river concentrations are based on the mixing formula below. The formula assumes that the groundwater flow discharging to the river from the entire length of the site is uniformly contaminated at each of the respective groundwater concentrations (Cgw)

NA = not applicable

$$C_{Rd} = C_{gw} * \left(\frac{Q_{gw}}{Q_{gw} + Q_{Ru}} \right) = C_{gw} * DF \text{ , where } DF = 1.68 * 10^{-7}$$

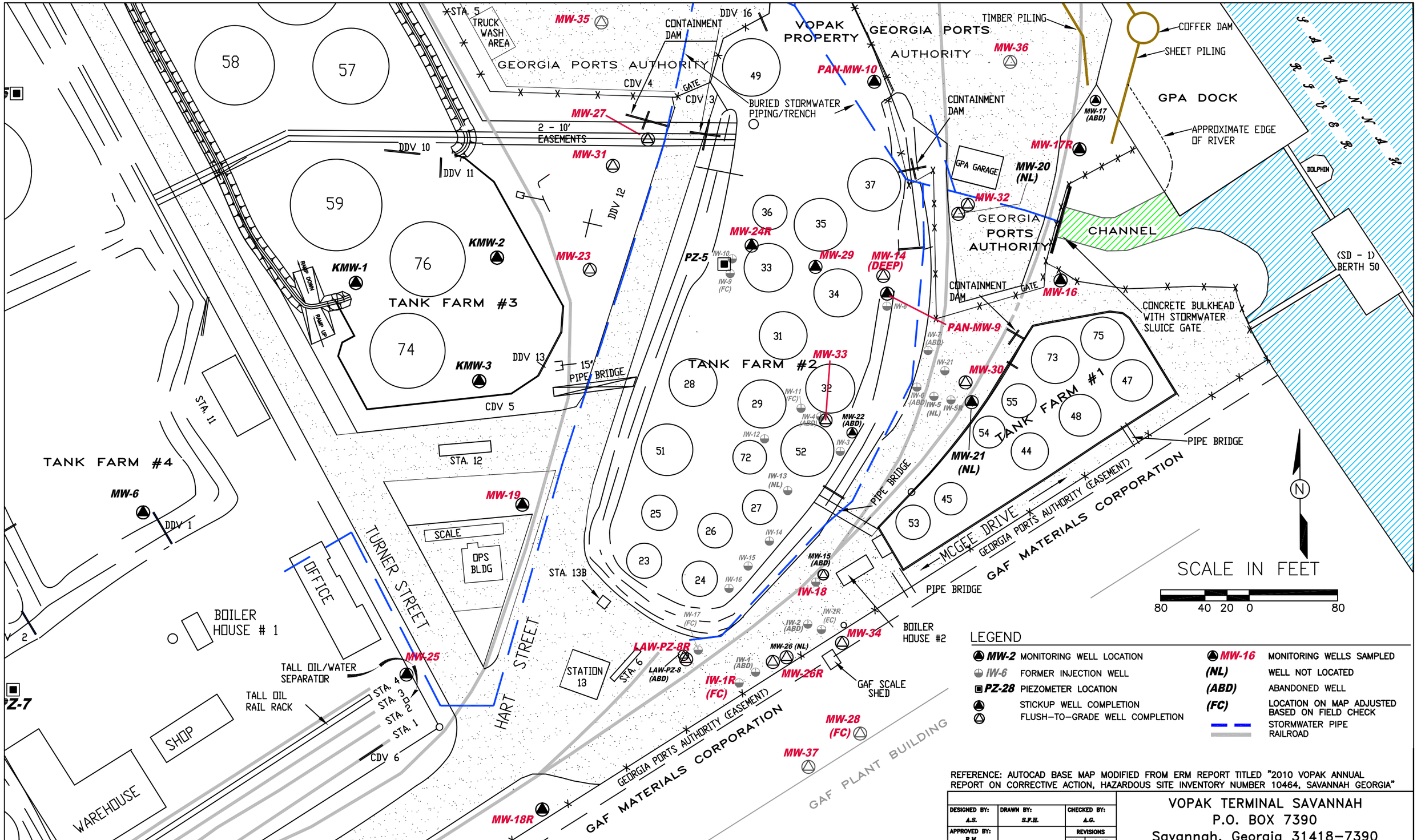
* EPD 2013. *Rules and Regulations for Water Quality Control, Chapter 391-3-6-.03*. Atlanta, Georgia. August 27, 2013.

*[2] EPA, 2009. National Primary Drinking Water Regulations. Washington, DC. May 2009

VOPAK TERMINAL SAVANNAH, SAVANNAH, GEORGIA

NINTH SEMI-ANNUAL PROGRESS REPORT

FIGURES



REFERENCE: AUTOCAD BASE MAP MODIFIED FROM ERM REPORT TITLED "2010 VOPAK ANNUAL REPORT ON CORRECTIVE ACTION, HAZARDOUS SITE INVENTORY NUMBER 10464, SAVANNAH GEORGIA"

NOTES: ALL MONITORING WELLS ("MW") EAST OF OFFICE (EXCEPT "NL","FC","KMW" WELLS, AND MW-15), IW-18, FENCE LINES BTWN VOPAK AND GPA, GPA EASEMENT AND TANKS 32, 34, 37, AND 52 WERE DRAWN BASED ON SURVEY CONDUCTED BY EMC ENGINEERING SERVICES, INC. (EMC) ON 6/30/2011. MONITORING WELLS, MW-14, MW-26R, MW-30, MW-33, AND INJECTION WELLS ("IW"), IW2-R, IW5-R, IW-6, IW-7, IW-8, AND IW-21 WERE ADJUSTED BASED ON SURVEY CONDUCTED BY EMC ON 1/24/2013. PILINGS, STORMWATER PIPES, RAIL ROAD AND CHANNEL FEATURES WERE DRAWN BASED ON AS-BUILT DRAWINGS PROVIDED BY THE GEORGIA PORTS AUTHORITY. WELLS MW-35, MW-36, AND MW-37 WERE PLOTTED BASED ON SURVEY CONDUCTED BY EMC ON 1/20/2014. MW-28 WAS DISCOVERED ON 10/16/2014 AND PLOTTED BASED ON FIELD MEASUREMENTS.

FIGURE 3-1:
SEPTEMBER 28 – OCTOBER 1, 2015
SITE MAP

DESIGNED BY: A.S.	DRAWN BY: S.F.H.	CHECKED BY: A.G.
APPROVED BY: R.M.		REVISIONS NO. / DATE

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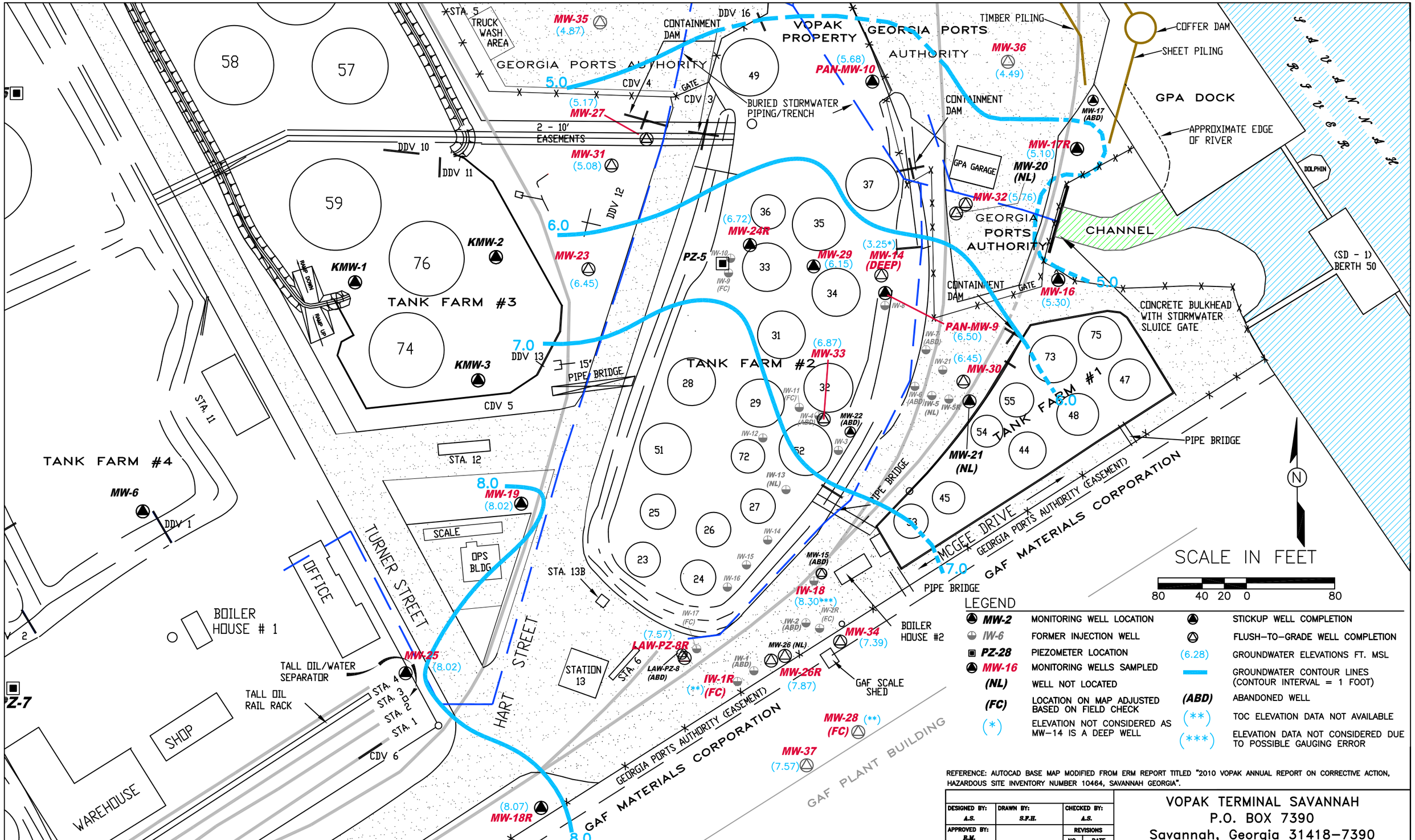
ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE ROAD
ALPHARETTA GEORGIA 30009

SCALE:	DATE:	FILE:	SHEET NO.:
SEE BAR SCALE	02/15/2016	390020 - 9TH SEMI-ANNUAL RPT	



LEGEND

MW-2	MONITORING WELL LOCATION		STICKUP WELL COMPLETION
IW-6	FORMER INJECTION WELL		FLUSH-TO-GRADE WELL COMPLETION
PZ-28	PIEZOMETER LOCATION	(6.28)	GROUNDWATER ELEVATIONS FT. MSL
MW-16	MONITORING WELLS SAMPLED		GROUNDWATER CONTOUR LINES (CONTOUR INTERVAL = 1 FOOT)
(NL)	WELL NOT LOCATED	(ABD)	ABANDONED WELL
(FC)	LOCATION ON MAP ADJUSTED BASED ON FIELD CHECK	(**)	TOC ELEVATION DATA NOT AVAILABLE
(*)	ELEVATION NOT CONSIDERED AS MW-14 IS A DEEP WELL	(***)	ELEVATION DATA NOT CONSIDERED DUE TO POSSIBLE GAUGING ERROR

REFERENCE: AUTOCAD BASE MAP MODIFIED FROM ERM REPORT TITLED "2010 VOPAK ANNUAL REPORT ON CORRECTIVE ACTION, HAZARDOUS SITE INVENTORY NUMBER 10464, SAVANNAH GEORGIA".

NOTES: ALL MONITORING WELLS ("MW") EAST OF OFFICE (EXCEPT "NL","FC","KMW" WELLS, AND MW-15), IW-18, FENCE LINES BTWN VOPAK AND GPA, GPA EASEMENT AND TANKS 32, 34, 37, AND 52 WERE DRAWN BASED ON SURVEY CONDUCTED BY EMC ENGINEERING SERVICES, INC. (EMC) ON 6/30/2011. MONITORING WELLS, MW-14, MW-26R, MW-30, MW-33, AND INJECTION WELLS ("IW"), IW2-R, IW5-R, IW-6, IW-7, IW-8, AND IW-21 WERE ADJUSTED BASED ON SURVEY CONDUCTED BY EMC ON 1/24/2013. PILINGS, STORMWATER PIPES, RAIL ROAD AND CHANNEL FEATURES WERE DRAWN BASED ON AS-BUILT DRAWINGS PROVIDED BY THE GEORGIA PORTS AUTHORITY. WELLS MW-35, MW-36, AND MW-37 WERE PLOTTED BASED ON SURVEY CONDUCTED BY EMC ON 1/20/2014. MW-28 WAS DISCOVERED ON 10/16/2014 AND PLOTTED BASED ON FIELD MEASUREMENTS.
GROUNDWATER POTENTIOMETRIC SUREFACE ELEVATIONS ARE IN NGVD29 DATUM

FIGURE 3-2
GROUNDWATER POTENTIOMETRIC SURFACE MAP
SEPTEMBER 28-OCTOBER 1, 2015

DESIGNED BY:	DRAWN BY:	CHECKED BY:
A.S.	S.P.H.	A.S.
APPROVED BY: R.M.		REVISIONS NO. / DATE

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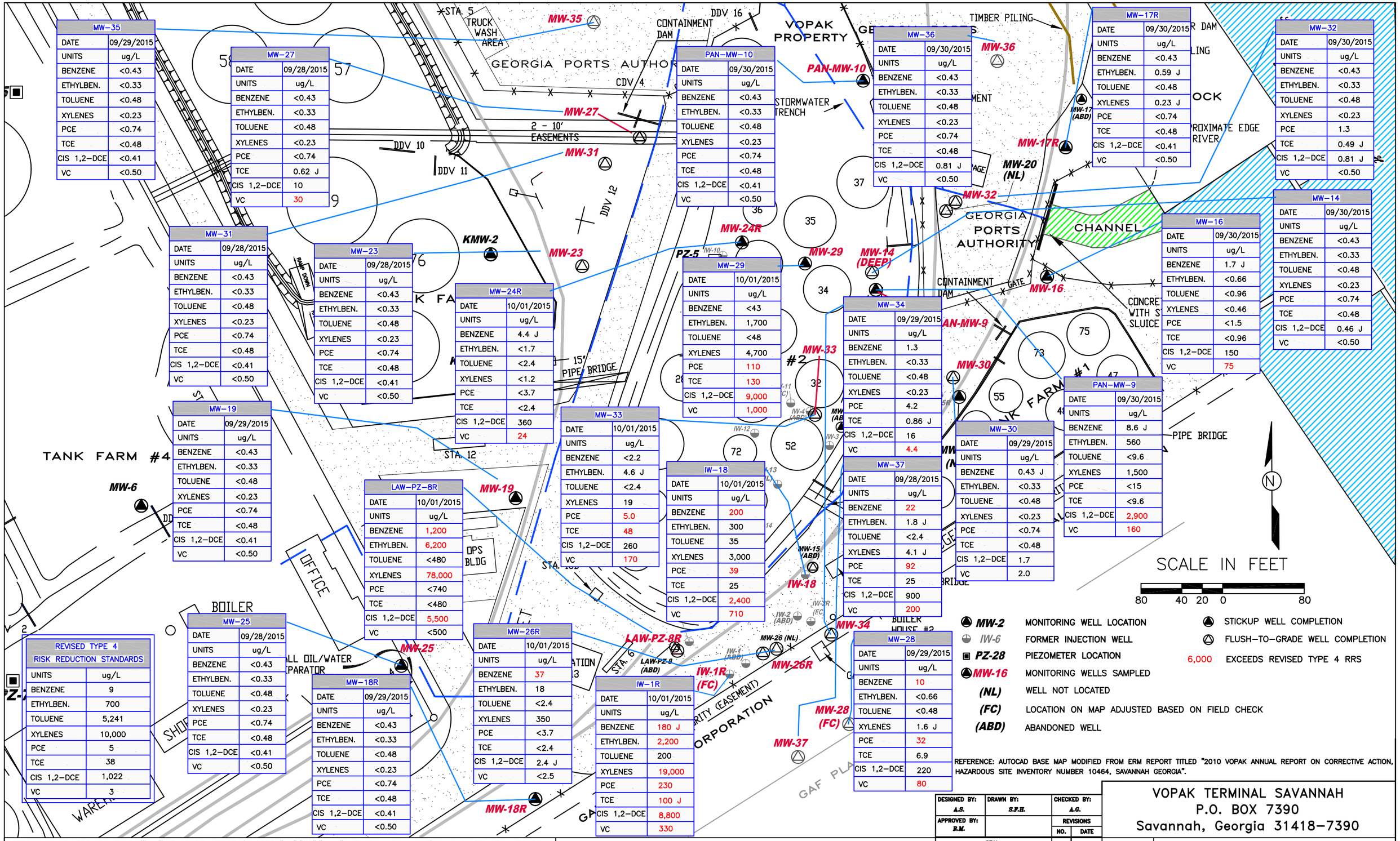
SCALE:	DATE:	FILE:	SHEET NO.:
SEE BAR SCALE	02/15/2016	390020 - 9TH SEMI-ANNUAL RPT	



MW-35	
DATE	09/29/2015
UNITS	ug/L
BENZENE	<0.43
ETHYLBEN.	<0.33
TOLUENE	<0.48
XYLENES	<0.23
PCE	<0.74
TCE	<0.48
CIS 1,2-DCE	<0.41
VC	<0.50

MW-27	
DATE	09/28/2015
UNITS	ug/L
BENZENE	<0.43
ETHYLBEN.	<0.33
TOLUENE	<0.48
XYLENES	<0.23
PCE	<0.74
TCE	0.62 J
CIS 1,2-DCE	10
VC	30

PAN-MW-10	
DATE	09/30/2015
UNITS	ug/L
BENZENE	<0.43
ETHYLBEN.	<0.33
TOLUENE	<0.48
XYLENES	<0.23
PCE	<0.74
TCE	<0.48
CIS 1,2-DCE	<0.41
VC	<0.50

MW-36	
DATE	09/30/2015
UNITS	ug/L
BENZENE	<0.43
ETHYLBEN.	<0.33
TOLUENE	<0.48
XYLENES	<0.23
PCE	<0.74
TCE	<0.48
CIS 1,2-DCE	0.81 J
VC	<0.50

MW-17R	
DATE	09/30/2015
UNITS	ug/L
BENZENE	<0.43
ETHYLBEN.	0.59 J
TOLUENE	<0.48
XYLENES	0.23 J
PCE	<0.74
TCE	<0.48
CIS 1,2-DCE	<0.41
VC	<0.50

MW-32	
DATE	09/30/2015
UNITS	ug/L
BENZENE	<0.43
ETHYLBEN.	<0.33
TOLUENE	<0.48
XYLENES	<0.23
PCE	1.3
TCE	0.49 J
CIS 1,2-DCE	0.81 J
VC	<0.50

MW-31	
DATE	09/28/2015
UNITS	ug/L
BENZENE	<0.43
ETHYLBEN.	<0.33
TOLUENE	<0.48
XYLENES	<0.23
PCE	<0.74
TCE	<0.48
CIS 1,2-DCE	<0.41
VC	<0.50

MW-23	
DATE	09/28/2015
UNITS	ug/L
BENZENE	<0.43
ETHYLBEN.	<0.33
TOLUENE	<0.48
XYLENES	<0.23
PCE	<0.74
TCE	<0.48
CIS 1,2-DCE	<0.41
VC	<0.50

MW-24R	
DATE	10/01/2015
UNITS	ug/L
BENZENE	4.4 J
ETHYLBEN.	<1.7
TOLUENE	<2.4
XYLENES	<1.2
PCE	<3.7
TCE	<2.4
CIS 1,2-DCE	360
VC	24

MW-29	
DATE	10/01/2015
UNITS	ug/L
BENZENE	<43
ETHYLBEN.	1,700
TOLUENE	<48
XYLENES	4,700
PCE	110
TCE	130
CIS 1,2-DCE	9,000
VC	1,000

MW-16	
DATE	09/30/2015
UNITS	ug/L
BENZENE	1.7 J
ETHYLBEN.	<0.66
TOLUENE	<0.96
XYLENES	<0.46
PCE	<1.5
TCE	<0.96
CIS 1,2-DCE	150
VC	75

MW-14	
DATE	09/30/2015
UNITS	ug/L
BENZENE	<0.43
ETHYLBEN.	<0.33
TOLUENE	<0.48
XYLENES	<0.23
PCE	<0.74
TCE	<0.48
CIS 1,2-DCE	0.46 J
VC	<0.50

MW-34	
DATE	09/29/2015
UNITS	ug/L
BENZENE	1.3
ETHYLBEN.	<0.33
TOLUENE	<0.48
XYLENES	<0.23
PCE	4.2
TCE	0.86 J
CIS 1,2-DCE	16
VC	4.4

PAN-MW-9	
DATE	09/30/2015
UNITS	ug/L
BENZENE	8.6 J
ETHYLBEN.	560
TOLUENE	<9.6
XYLENES	1,500
PCE	<15
TCE	<9.6
CIS 1,2-DCE	2,900
VC	160

MW-19	
DATE	09/29/2015
UNITS	ug/L
BENZENE	<0.43
ETHYLBEN.	<0.33
TOLUENE	<0.48
XYLENES	<0.23
PCE	<0.74
TCE	<0.48
CIS 1,2-DCE	<0.41
VC	<0.50

MW-33	
DATE	10/01/2015
UNITS	ug/L
BENZENE	<2.2
ETHYLBEN.	4.6 J
TOLUENE	<2.4
XYLENES	19
PCE	5.0
TCE	48
CIS 1,2-DCE	260
VC	170

MW-30	
DATE	09/29/2015
UNITS	ug/L
BENZENE	0.43 J
ETHYLBEN.	<0.33
TOLUENE	<0.48
XYLENES	<0.23
PCE	<0.74
TCE	<0.48
CIS 1,2-DCE	1.7
VC	2.0

MW-37	
DATE	09/28/2015
UNITS	ug/L
BENZENE	22
ETHYLBEN.	1.8 J
TOLUENE	<2.4
XYLENES	4.1 J
PCE	92
TCE	25
CIS 1,2-DCE	900
VC	200

IW-18	
DATE	10/01/2015
UNITS	ug/L
BENZENE	200
ETHYLBEN.	300
TOLUENE	35
XYLENES	3,000
PCE	39
TCE	25
CIS 1,2-DCE	2,400
VC	710

LAW-PZ-8R	
DATE	10/01/2015
UNITS	ug/L
BENZENE	1,200
ETHYLBEN.	6,200
TOLUENE	<480
XYLENES	78,000
PCE	<740
TCE	<480
CIS 1,2-DCE	5,500
VC	<500

MW-25	
DATE	09/28/2015
UNITS	ug/L
BENZENE	<0.43
ETHYLBEN.	<0.33
TOLUENE	<0.48
XYLENES	<0.23
PCE	<0.74
TCE	<0.48
CIS 1,2-DCE	<0.41
VC	<0.50

MW-18R	
DATE	09/29/2015
UNITS	ug/L
BENZENE	<0.43
ETHYLBEN.	<0.33
TOLUENE	<0.48
XYLENES	<0.23
PCE	<0.74
TCE	<0.48
CIS 1,2-DCE	<0.41
VC	<0.50

MW-26R	
DATE	10/01/2015
UNITS	ug/L
BENZENE	37
ETHYLBEN.	18
TOLUENE	<2.4
XYLENES	350
PCE	<3.7
TCE	<2.4
CIS 1,2-DCE	2.4 J
VC	<2.5

IW-1R	
DATE	10/01/2015
UNITS	ug/L
BENZENE	180 J
ETHYLBEN.	2,200
TOLUENE	200
XYLENES	19,000
PCE	230
TCE	100 J
CIS 1,2-DCE	8,800
VC	330

MW-28	
DATE	09/29/2015
UNITS	ug/L
BENZENE	10
ETHYLBEN.	<0.66
TOLUENE	<0.48
XYLENES	1.6 J
PCE	32
TCE	6.9
CIS 1,2-DCE	220
VC	80

REVISED TYPE 4 RISK REDUCTION STANDARDS	
UNITS	ug/L
BENZENE	9
ETHYLBEN.	700
TOLUENE	5,241
XYLENES	10,000
PCE	5
TCE	38
CIS 1,2-DCE	1,022
VC	3

MW-2 MONITORING WELL LOCATION
IW-6 FORMER INJECTION WELL
PZ-28 PIEZOMETER LOCATION
MW-16 MONITORING WELLS SAMPLED
(NL) WELL NOT LOCATED
(FC) LOCATION ON MAP ADJUSTED BASED ON FIELD CHECK
(ABD) ABANDONED WELL

STICKUP WELL COMPLETION
FLUSH-TO-GRADE WELL COMPLETION
6,000 EXCEEDS REVISED TYPE 4 RRS

REFERENCE: AUTOCAD BASE MAP MODIFIED FROM ERM REPORT TITLED "2010 VOPAK ANNUAL REPORT ON CORRECTIVE ACTION, HAZARDOUS SITE INVENTORY NUMBER 10464, SAVANNAH GEORGIA".

NOTES: ALL MONITORING WELLS ("MW") EAST OF OFFICE (EXCEPT "NL","FC","KMW" WELLS, AND MW-15), IW-18, FENCE LINES BTWN VOPAK AND GPA, GPA EASEMENT AND TANKS 32, 34, 37, AND 52 WERE DRAWN BASED ON SURVEY CONDUCTED BY EMC ENGINEERING SERVICES, INC. (EMC) ON 6/30/2011. MONITORING WELLS, MW-14, MW-26R, MW-30, MW-33, AND INJECTION WELLS ("IW"), IW2-R, IW5-R, IW-6, IW-7, IW-8, AND IW-21 WERE ADJUSTED BASED ON SURVEY CONDUCTED BY EMC ON 1/24/2013. PILINGS, STORMWATER PIPES, RAIL ROAD AND CHANNEL FEATURES WERE DRAWN BASED ON AS-BUILT DRAWINGS PROVIDED BY THE GEORGIA PORTS AUTHORITY. WELLS MW-35, MW-36, AND MW-37 WERE PLOTTED BASED ON SURVEY CONDUCTED BY EMC ON 1/20/2014. MW-28 WAS DISCOVERED ON 10/16/2014 AND PLOTTED BASED ON FIELD MEASUREMENTS.

FIGURE 3-3:
GROUNDWATER ANALYTICAL RESULTS
SEPTEMBER 28-OCTOBER 1, 2015

DESIGNED BY:	DRAWN BY:	CHECKED BY:
A.S.	S.F.H.	A.G.
APPROVED BY: R.M.		REVISIONS NO. / DATE

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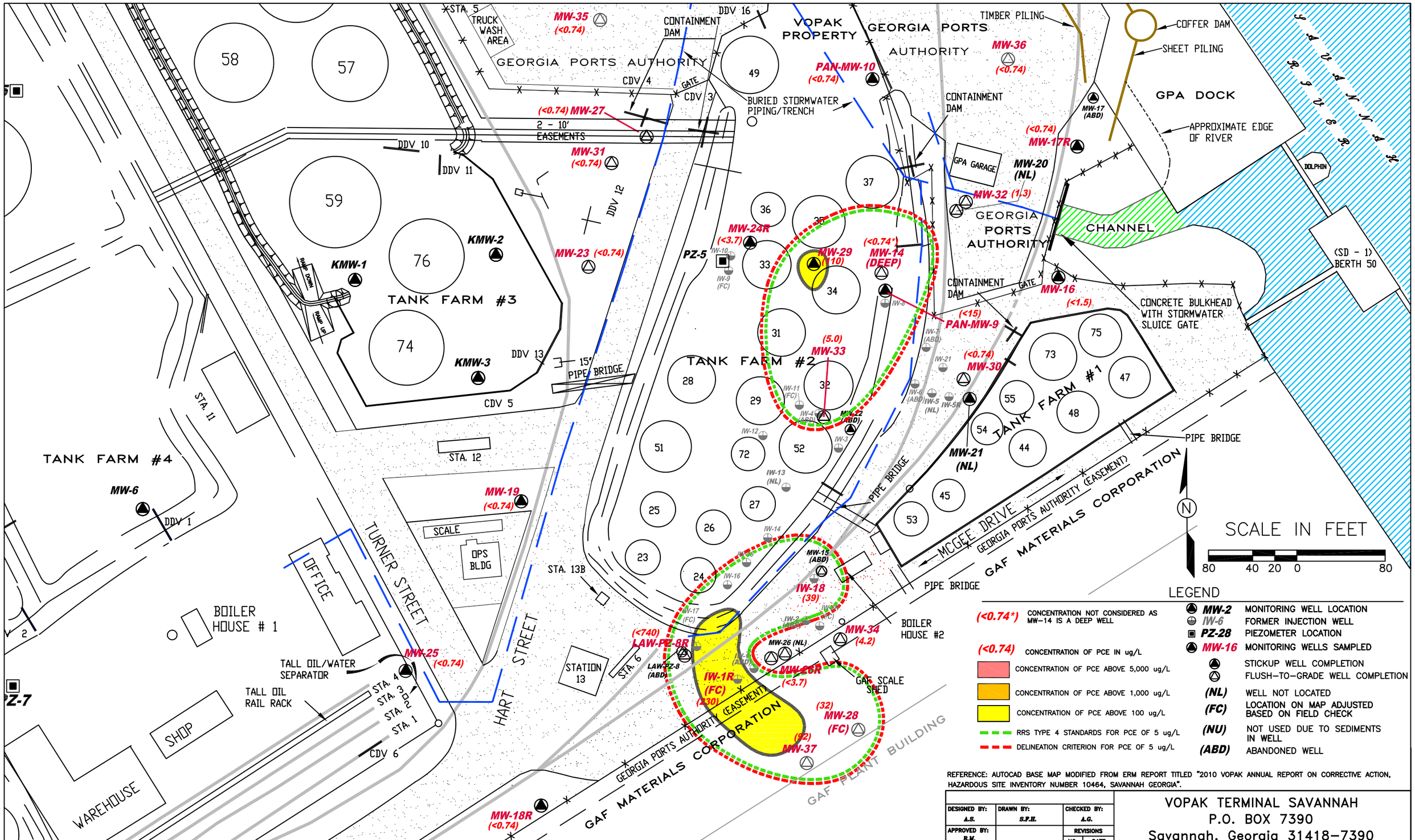
P.O. BOX 7390
Savannah, Georgia 31418-7390

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE ROAD
ALPHARETTA GEORGIA 30009

SCALE: SEE BAR SCALE | DATE: 02/15/2016 | FILE: 390020 - 9TH SEMI-ANNUAL RPT | SHEET NO.:



REFERENCE: AUTOCAD BASE MAP MODIFIED FROM ERM REPORT TITLED "2010 VOPAK ANNUAL REPORT ON CORRECTIVE ACTION, HAZARDOUS SITE INVENTORY NUMBER 10464, SAVANNAH GEORGIA".

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FIGURE 3-4:
PCE ISOCONCENTRATION MAP
SEPTEMBER 28-OCTOBER 1, 2015

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APPROVED BY: R.M.		REVISIONS NO. / DATE

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EIC
ENVIRONMENTAL INTERNATIONAL CORP.
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ALPHARETTA GEORGIA 30009

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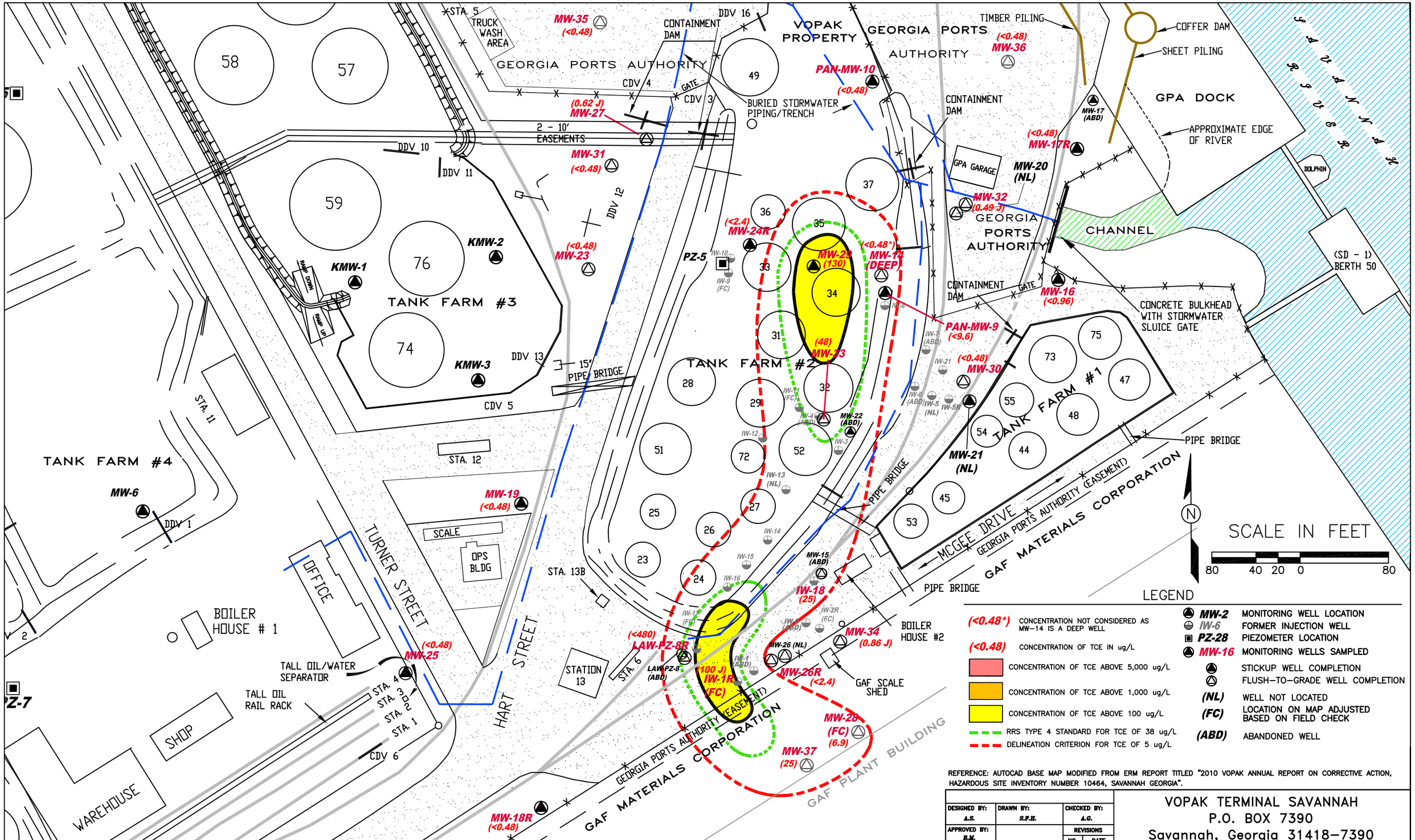

REFERENCE: AUTOCAD BASE MAP MODIFIED FROM ERM REPORT TITLED "2010 VOPAK ANNUAL REPORT ON CORRECTIVE ACTION, HAZARDOUS SITE INVENTORY NUMBER 10464, SAVANNAH GEORGIA".

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FIGURE 3-5:
TCE ISOCONCENTRATION MAP
SEPTEMBER 28-OCTOBER 1, 2015

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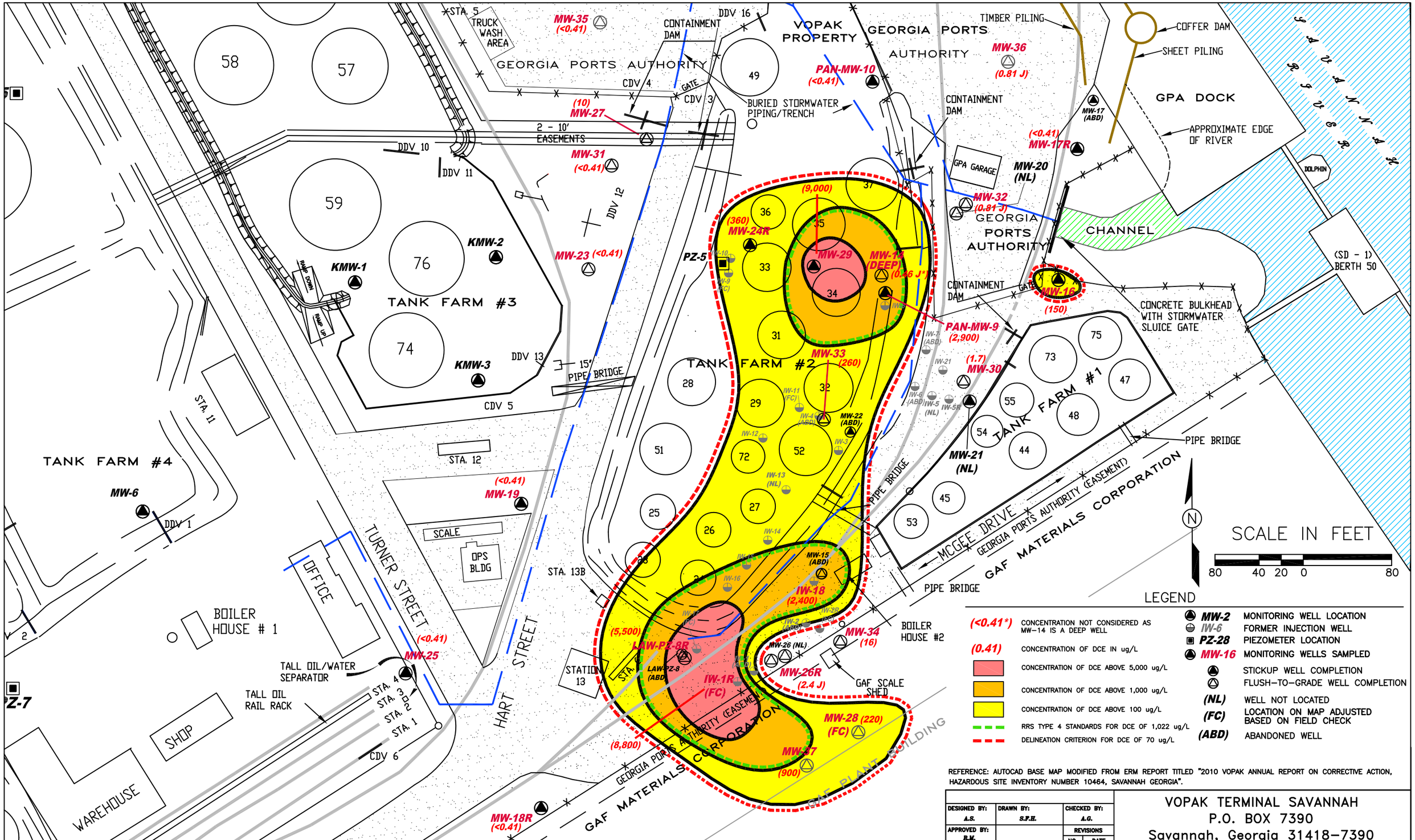

REFERENCE: AUTOCAD BASE MAP MODIFIED FROM ERM REPORT TITLED "2010 VOPAK ANNUAL REPORT ON CORRECTIVE ACTION, HAZARDOUS SITE INVENTORY NUMBER 10464, SAVANNAH GEORGIA".

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FIGURE 3-6:
CIS-1, 2 DCE ISOCONCENTRATION MAP
SEPTEMBER 28-OCTOBER 1, 2015

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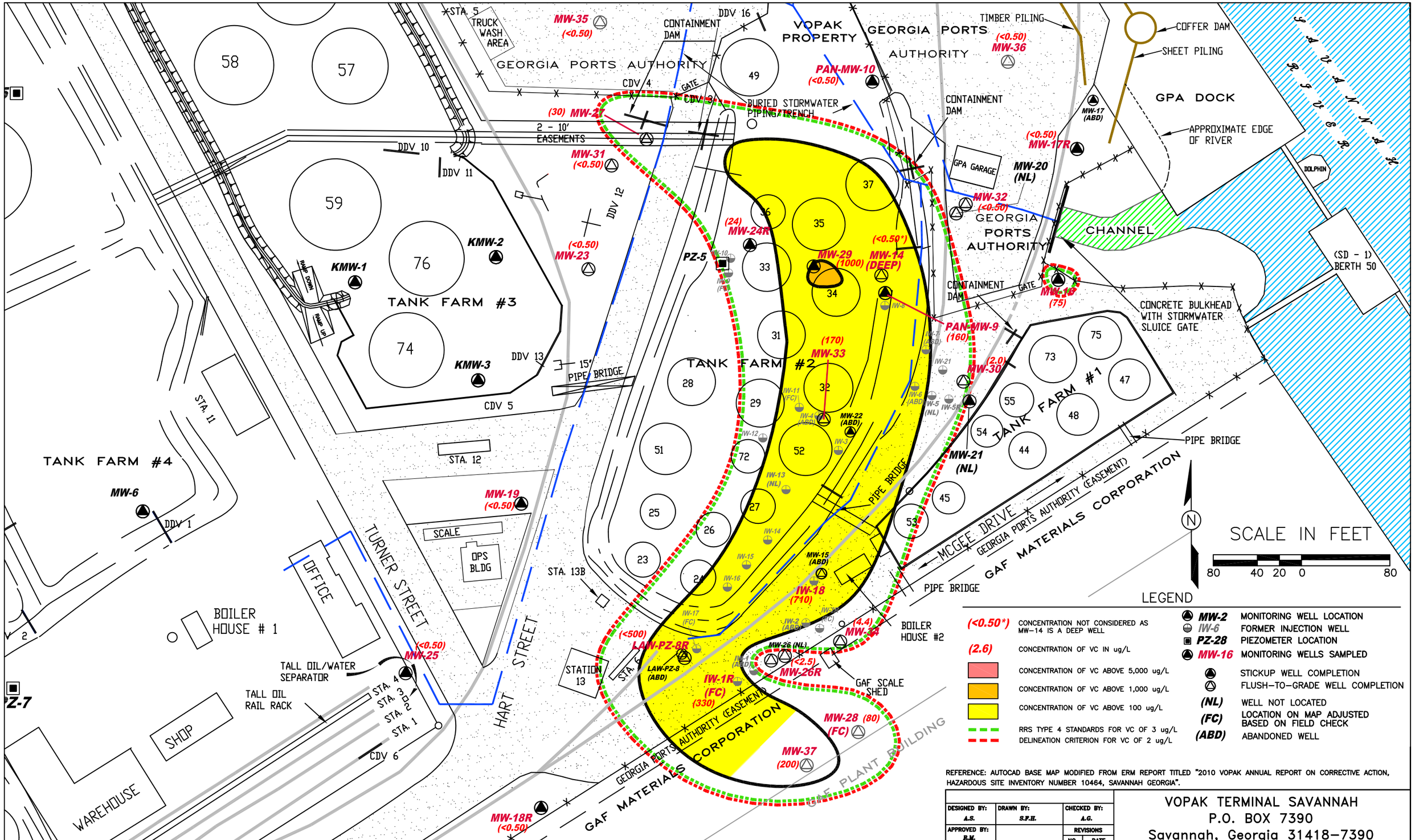

REFERENCE: AUTOCAD BASE MAP MODIFIED FROM ERM REPORT TITLED "2010 VOPAK ANNUAL REPORT ON CORRECTIVE ACTION, HAZARDOUS SITE INVENTORY NUMBER 10464, SAVANNAH GEORGIA".

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FIGURE 3-7:
VINYL CHLORIDE ISOCONCENTRATION MAP
SEPTEMBER 28-OCTOBER 1, 2015

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APPROVED BY: R.M.		REVISIONS NO. / DATE

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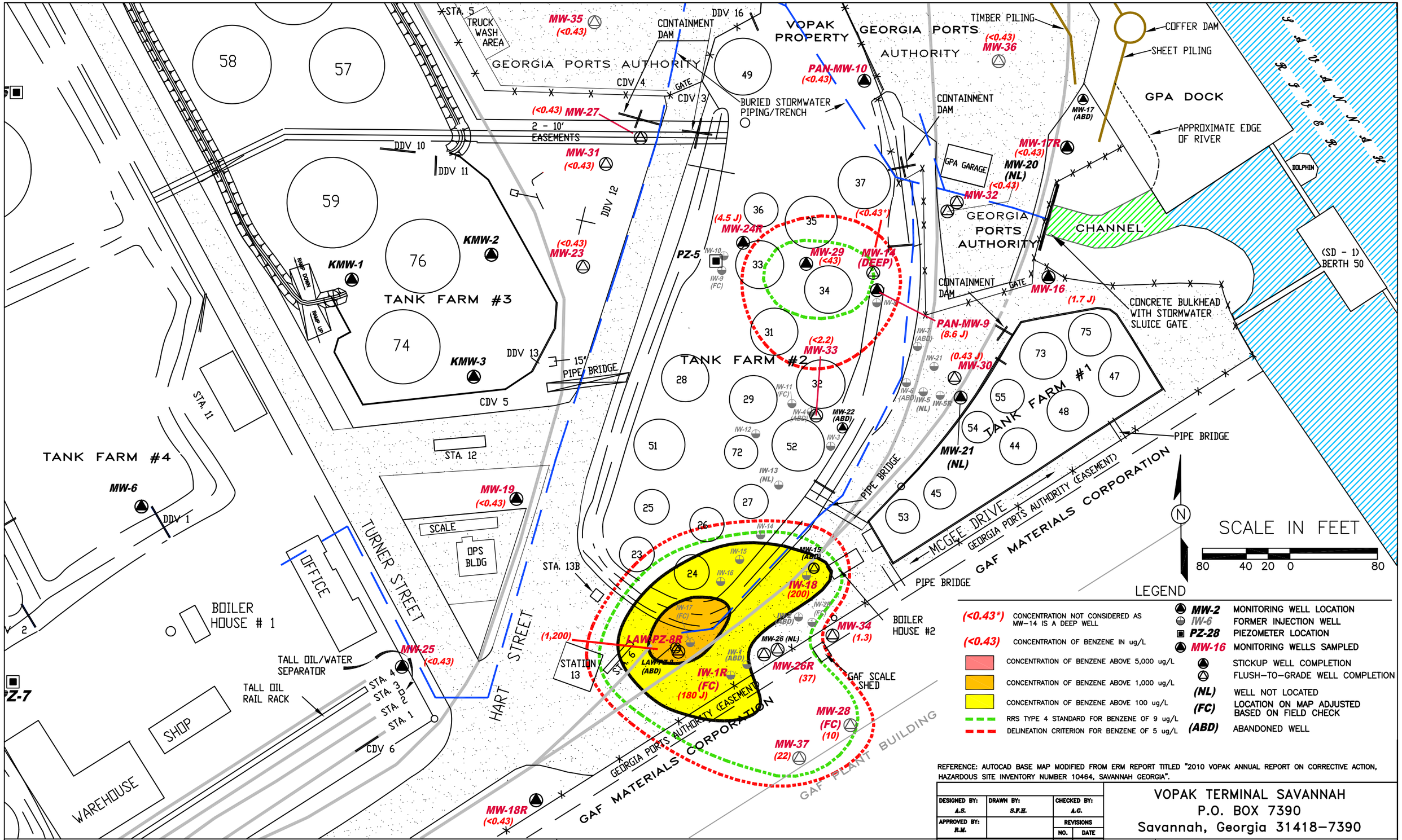

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FIGURE 3-8:
BENZENE ISOCONCENTRATION MAP
SEPTEMBER 28-OCTOBER 1, 2015

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APPROVED BY: R.M.		REVISIONS NO. / DATE

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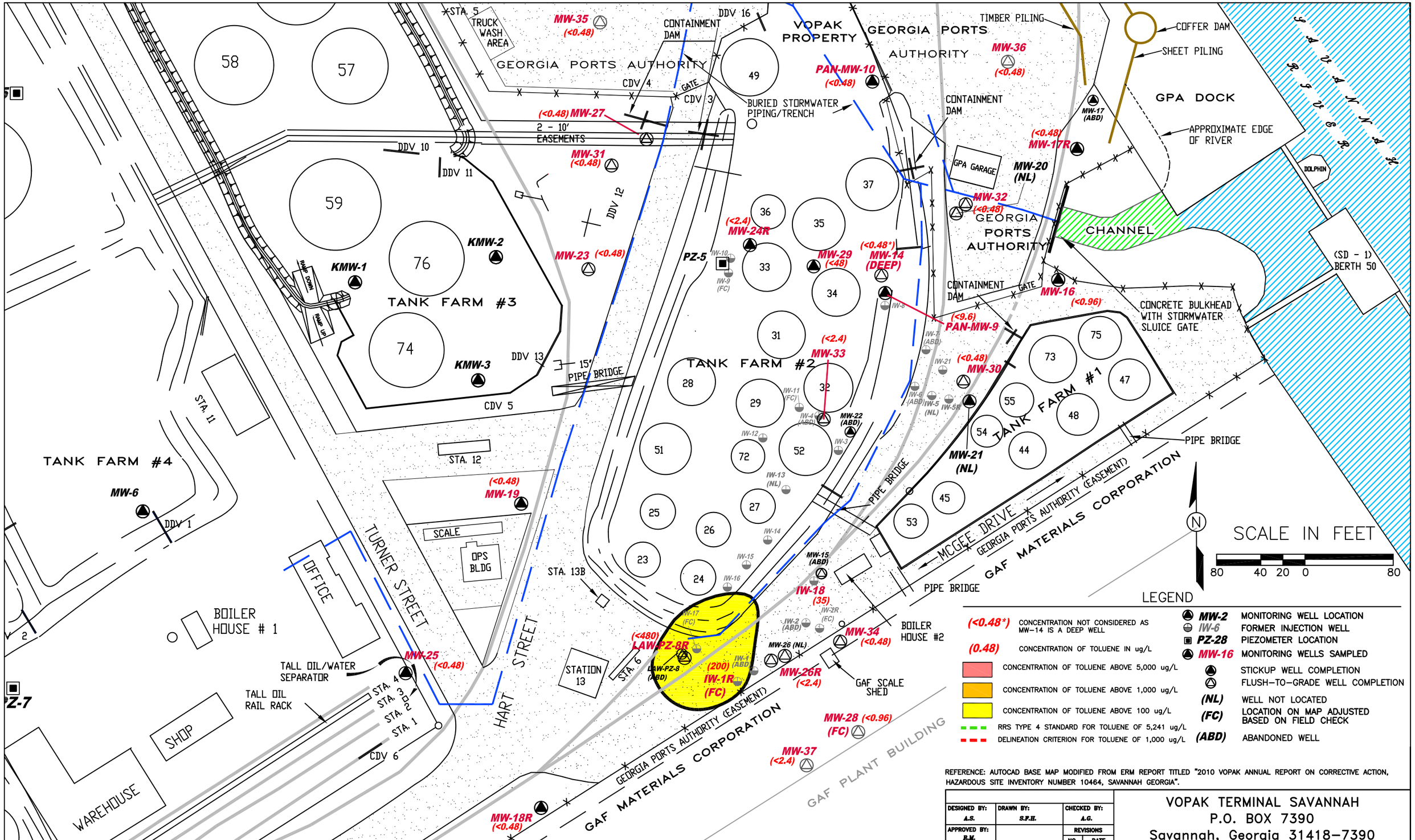

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FIGURE 3-9:
TOLUENE ISOCONCENTRATION MAP
SEPTEMBER 28-OCTOBER 1, 2015

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APPROVED BY: R.M.		REVISIONS NO. / DATE

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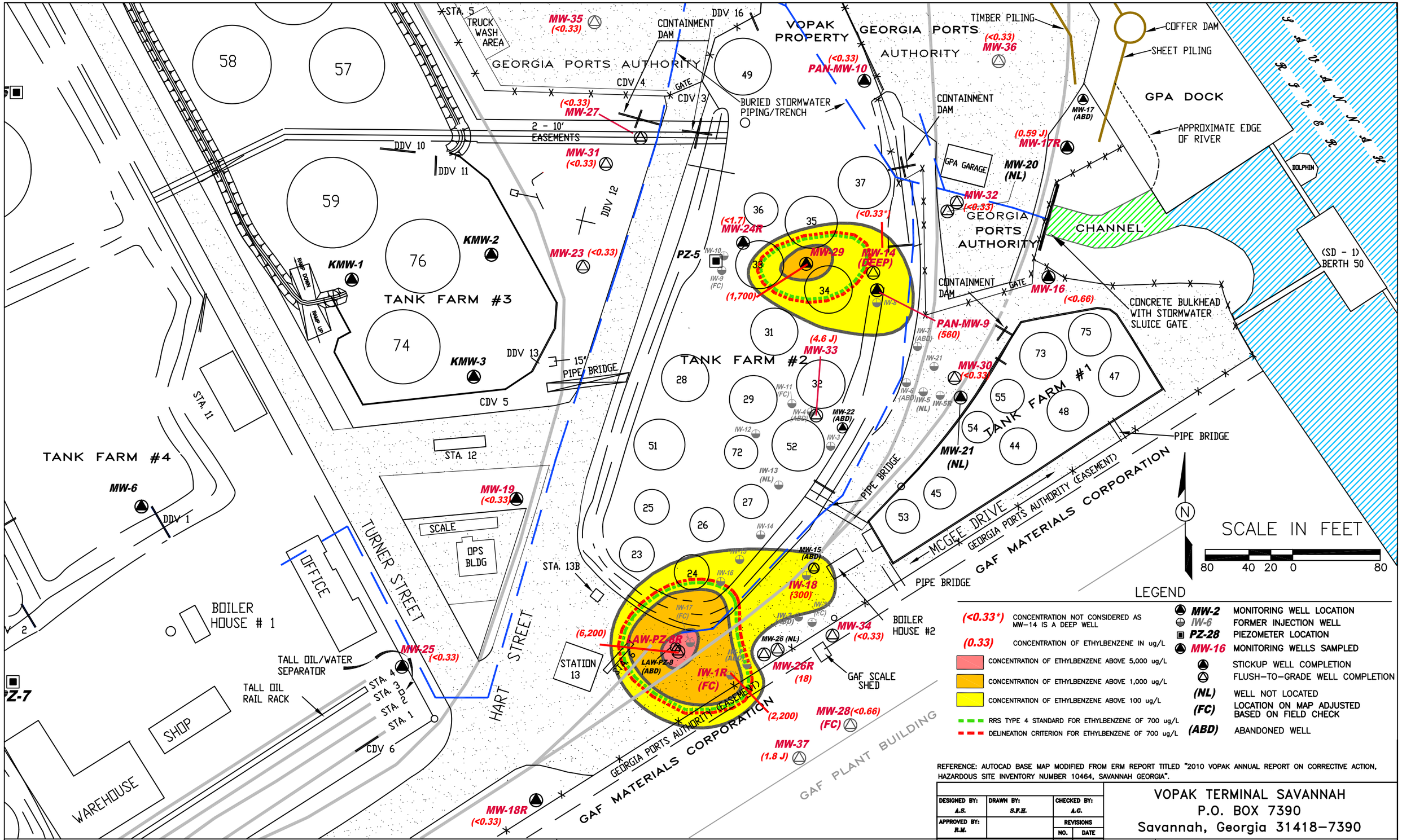

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FIGURE 3-10:
ETHYLBENZENE ISOCONCENTTRAION MAP
SEPTEMBER 28-OCTOBER 1, 2015

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APPROVED BY: R.M.		REVISIONS NO. DATE	
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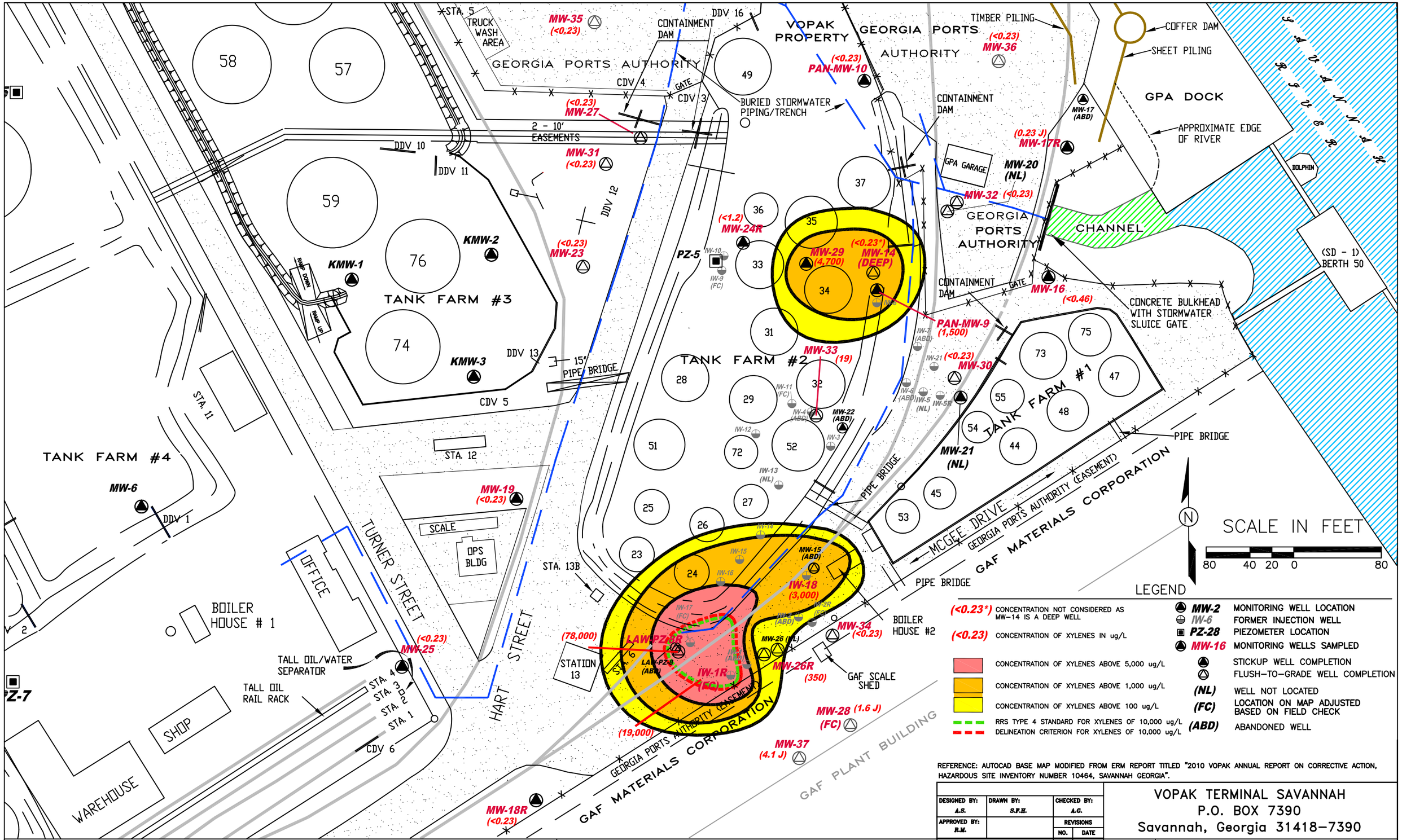
SCALE: SEE BAR SCALE	DATE: 02/15/2015	FILE: 390020 - 9TH SEMI-ANNUAL RPT	SHEET NO.:



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APPROVED BY: R.M.		REVISIONS NO. DATE	
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		SCALE: SEE BAR SCALE	DATE: 02/15/2016 · FILE: 390020 - 9TH SEMI-ANNUAL RPT · SHEET NO.:

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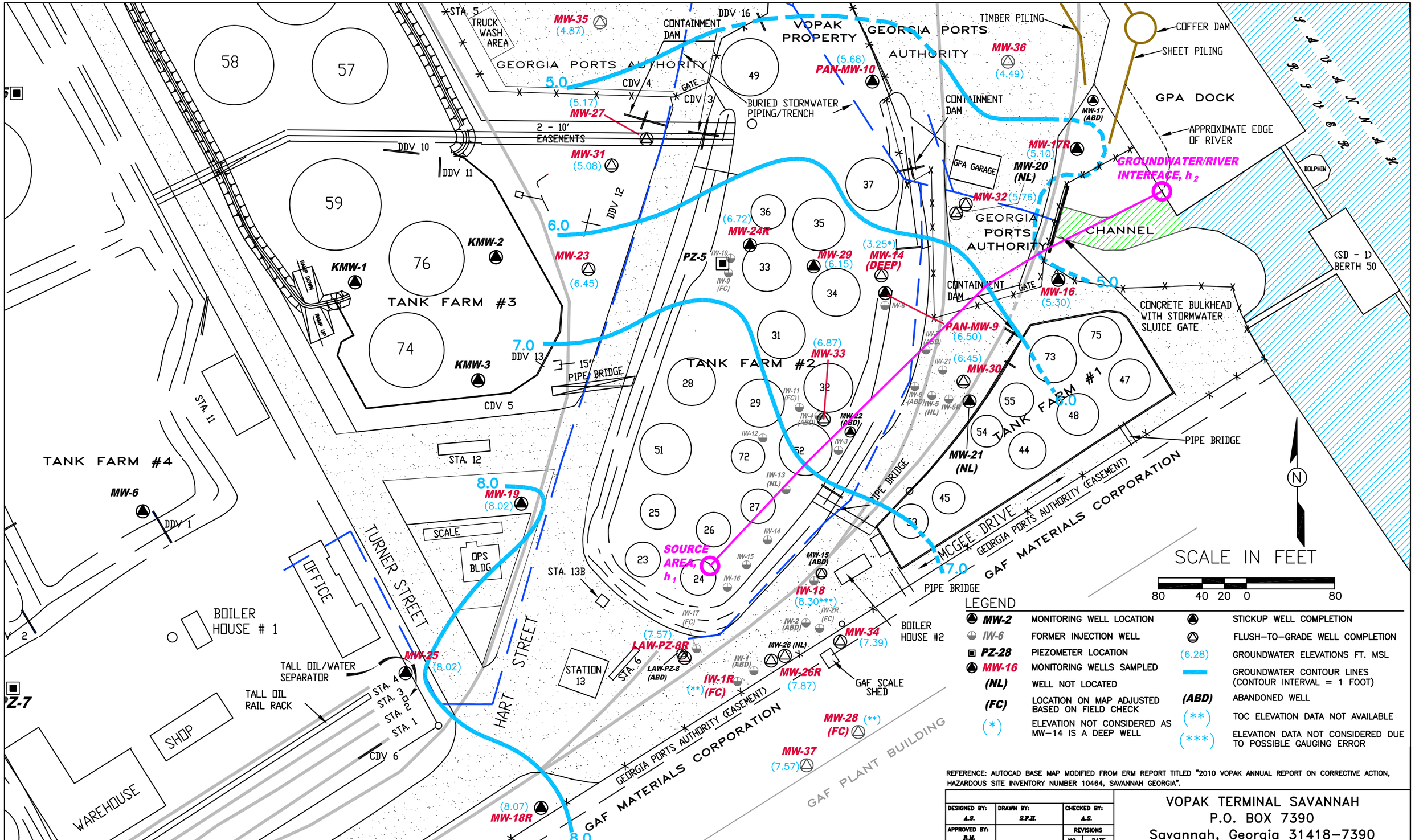
FIGURE 3-11:
TOTAL XYLENES ISOCONCENTRATION MAP
SEPTEMBER 28-OCTOBER 1, 2015



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GROUNDWATER POTENTIOMETRIC SUREFACE ELEVATIONS ARE IN NGVD29 DATUM

FIGURE 4-1
MIXING MODEL LOCATIONS
SEPTEMBER 28-OCTOBER 1, 2015

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APPROVED BY: R.M.		REVISIONS NO. / DATE

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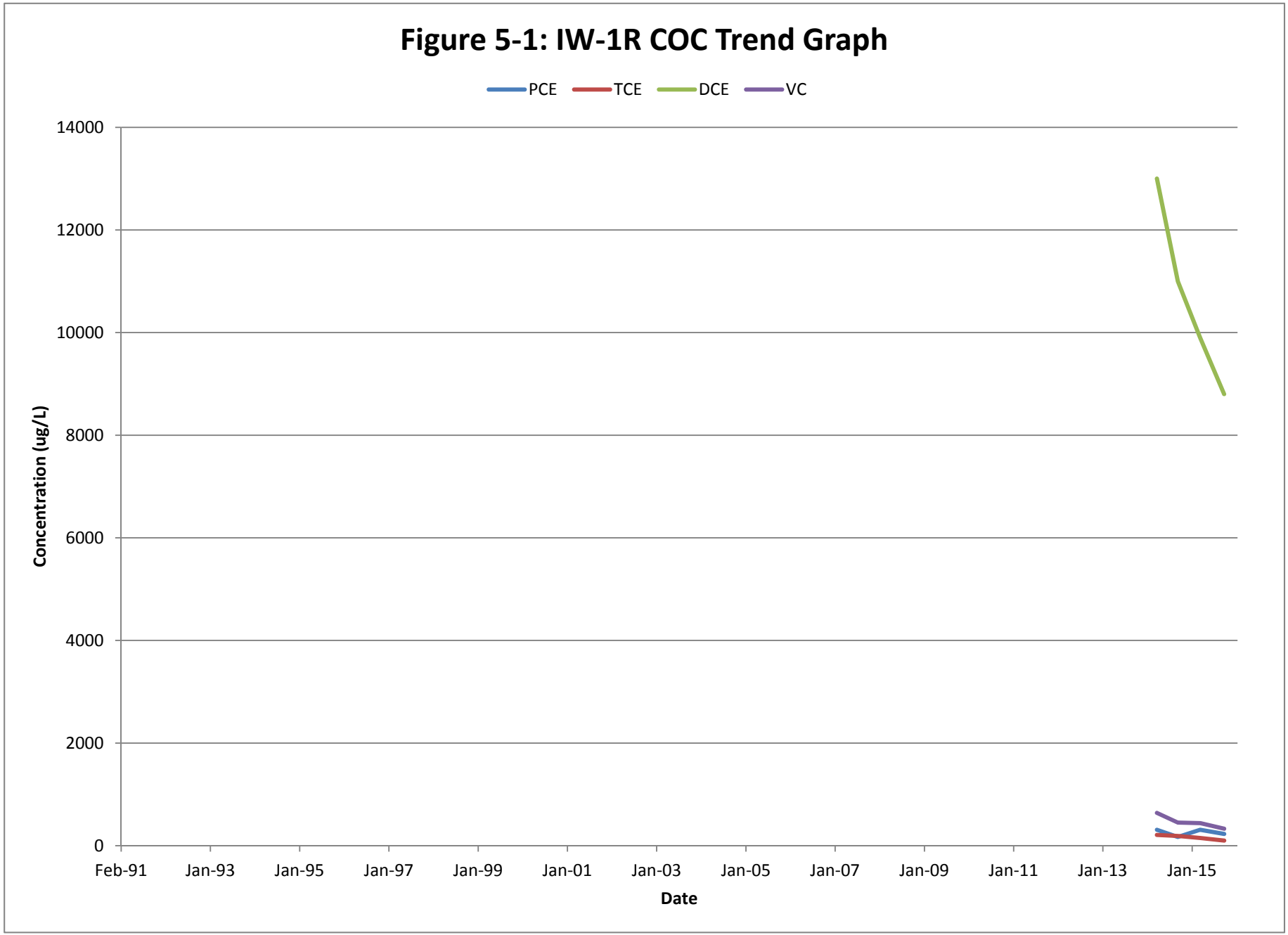


Figure 5-1: IW-1R COC Trend Graph
PCE
TCE
DCE
VC
14000
12000
10000
8000
6000
4000
2000
0
Concentration (ug/L)
Feb-91
Jan-93
Jan-95
Jan-97
Jan-99
Jan-01
Jan-03
Jan-05
Jan-07
Jan-09
Jan-11
Jan-13
Jan-15
Date

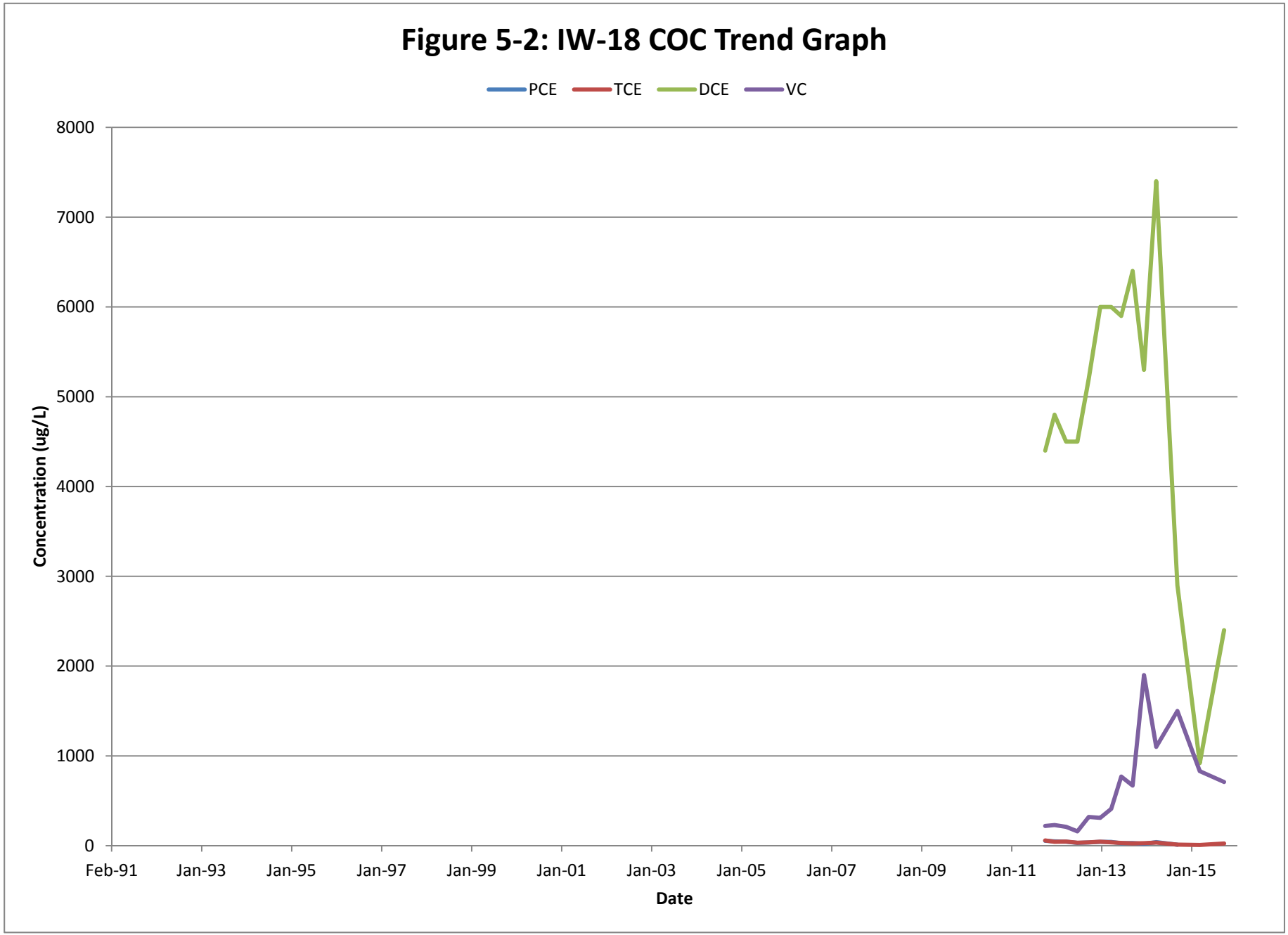


Figure 5-2: IW-18 COC Trend Graph
PCE
TCE
DCE
VC
8000
7000
6000
5000
4000
3000
2000
1000
0
Concentration (ug/L)
Feb-91
Jan-93
Jan-95
Jan-97
Jan-99
Jan-01
Jan-03
Jan-05
Jan-07
Jan-09
Jan-11
Jan-13
Jan-15
Date

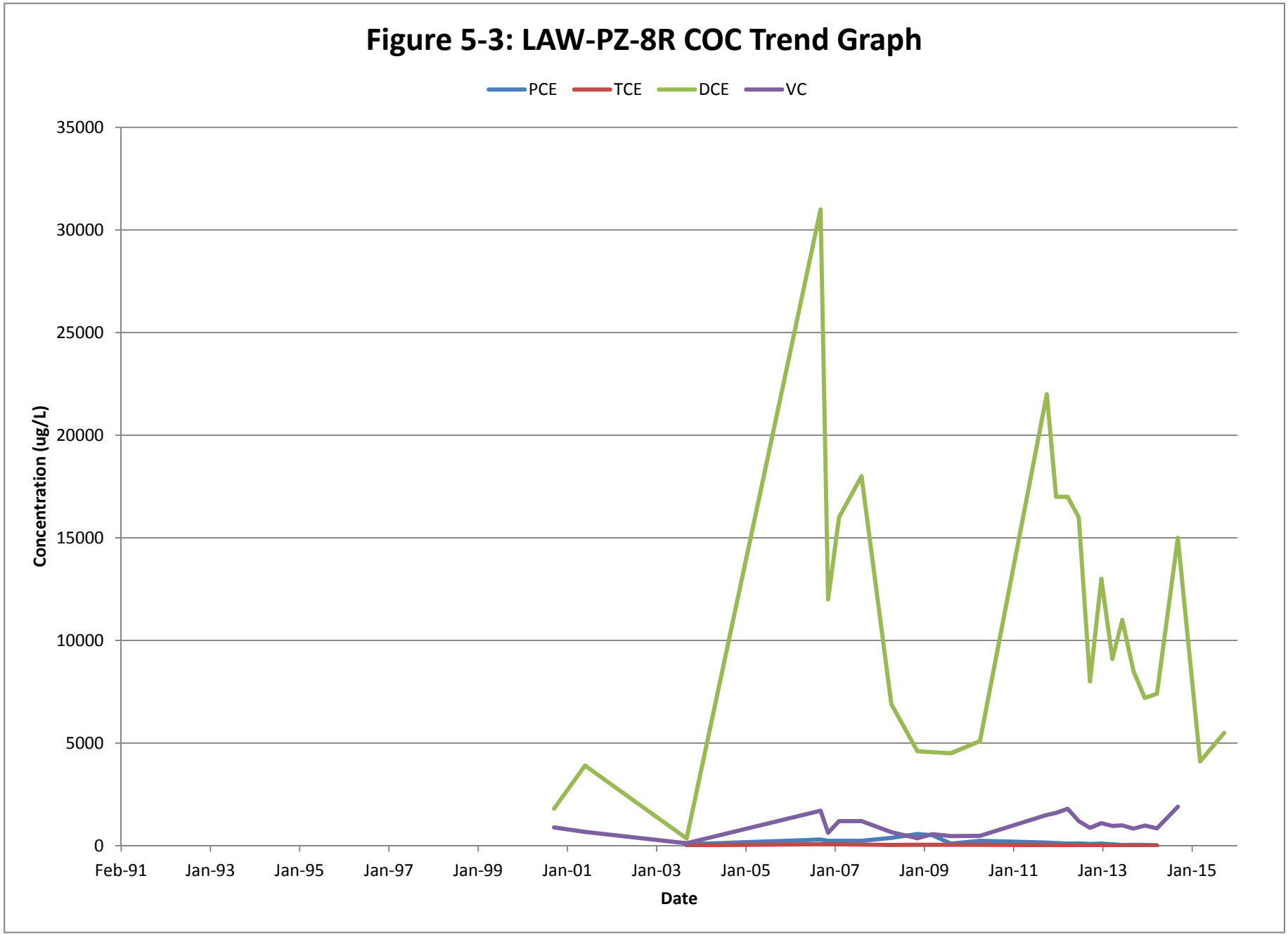


Figure 5-3: LAW-PZ-8R COC Trend Graph
PCE
TCE
DCE
VC
35000
30000
25000
20000
15000
10000
5000
0
Concentration (ug/L)
Feb-91
Jan-93
Jan-95
Jan-97
Jan-99
Jan-01
Jan-03
Jan-05
Jan-07
Jan-09
Jan-11
Jan-13
Jan-15
Date

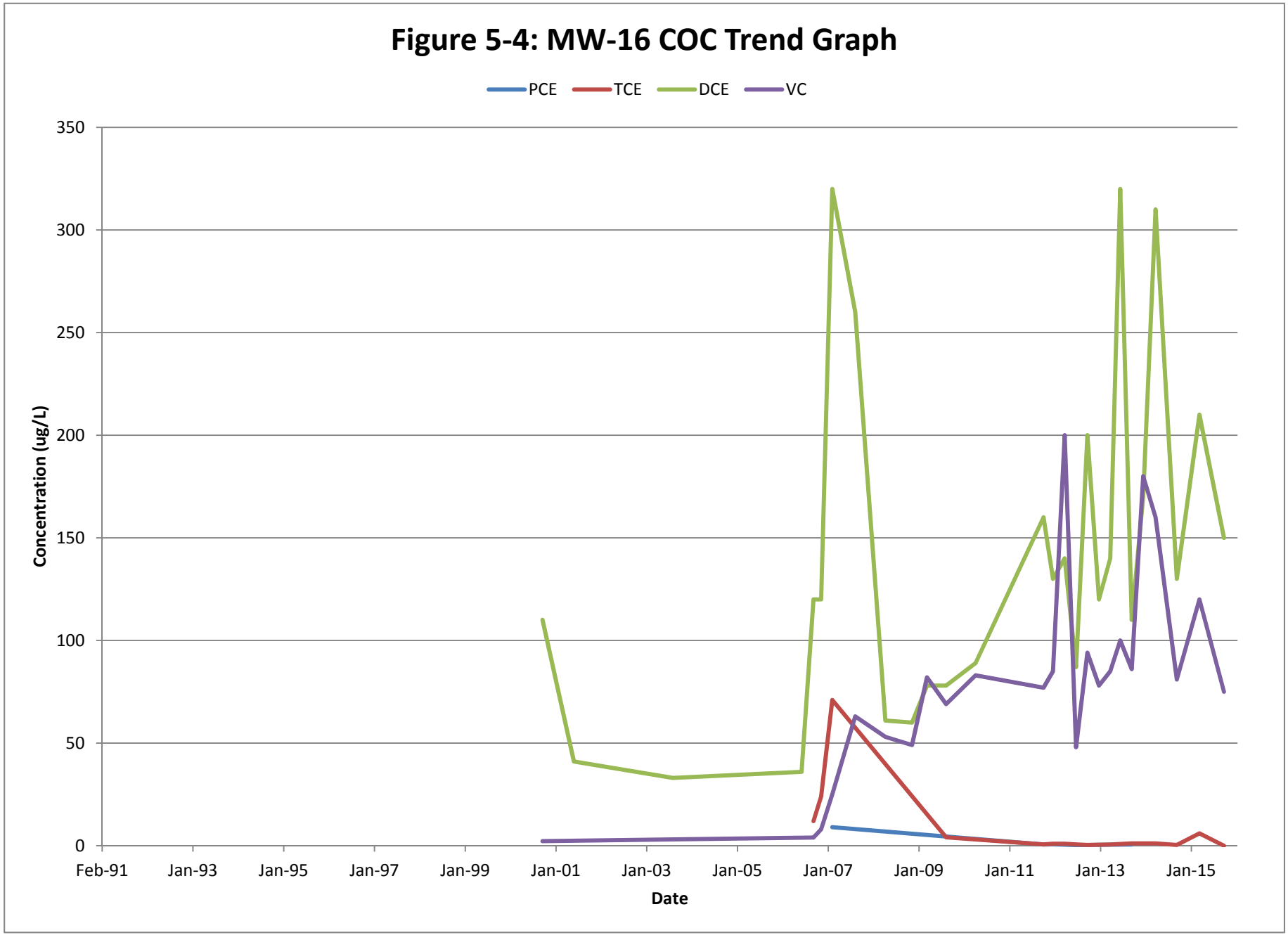


Figure 5-4: MW-16 COC Trend Graph
PCE
TCE
DCE
VC
Concentration (ug/L)
350
300
250
200
150
100
50
0
Feb-91
Jan-93
Jan-95
Jan-97
Jan-99
Jan-01
Jan-03
Jan-05
Jan-07
Jan-09
Jan-11
Jan-13
Jan-15
Date

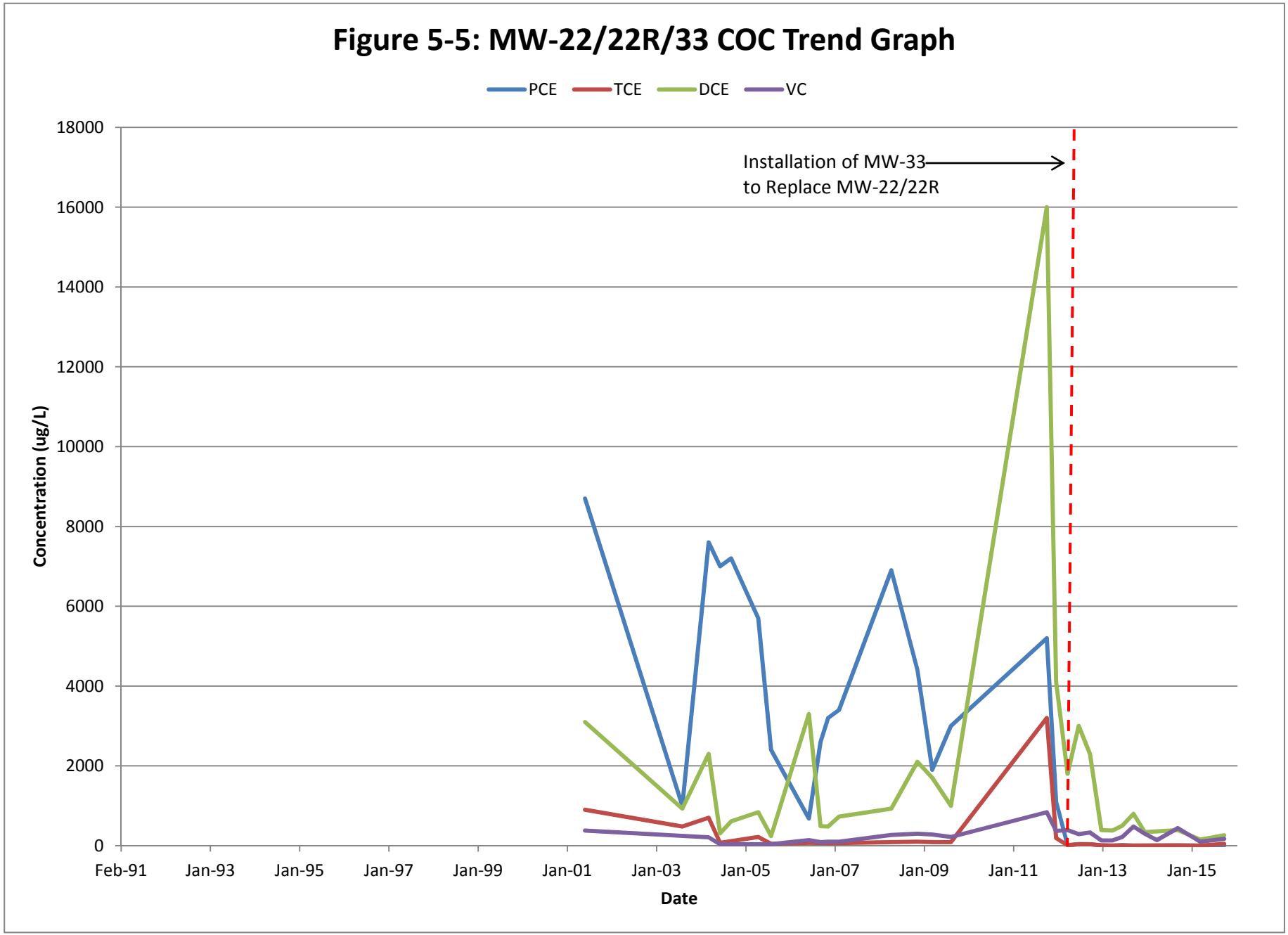


Figure 5-5: MW-22/22R/33 COC Trend Graph
PCE
TCE
DCE
VC
Installation of MW-33
to Replace MW-22/22R
Concentration (ug/L)
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
Feb-91
Jan-93
Jan-95
Jan-97
Jan-99
Jan-01
Jan-03
Jan-05
Jan-07
Jan-09
Jan-11
Jan-13
Jan-15
Date

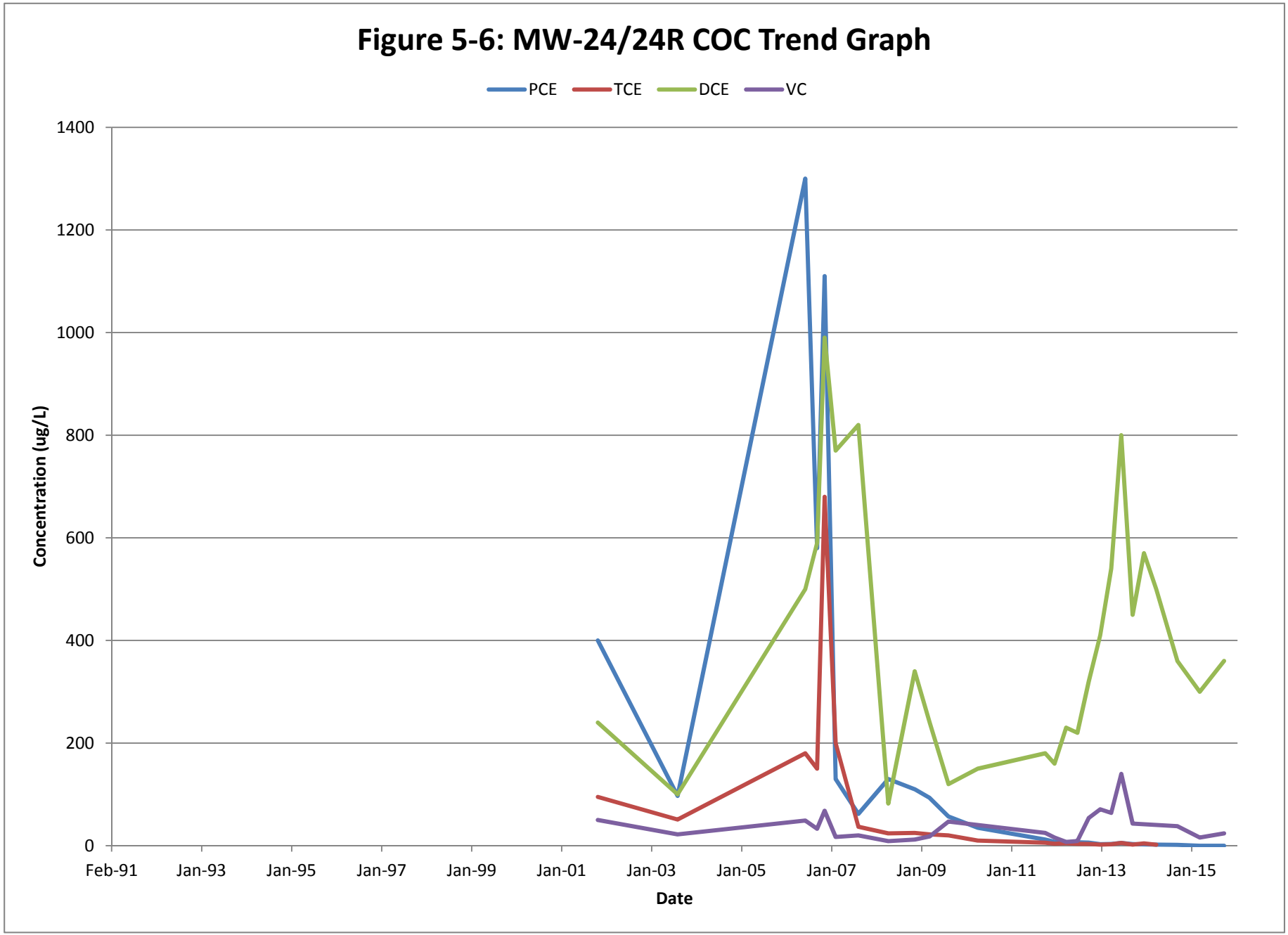


Figure 5-6: MW-24/24R COC Trend Graph
PCE
TCE
DCE
VC
1400
1200
1000
800
600
400
200
0
Concentration (ug/L)
Feb-91
Jan-93
Jan-95
Jan-97
Jan-99
Jan-01
Jan-03
Jan-05
Jan-07
Jan-09
Jan-11
Jan-13
Jan-15
Date

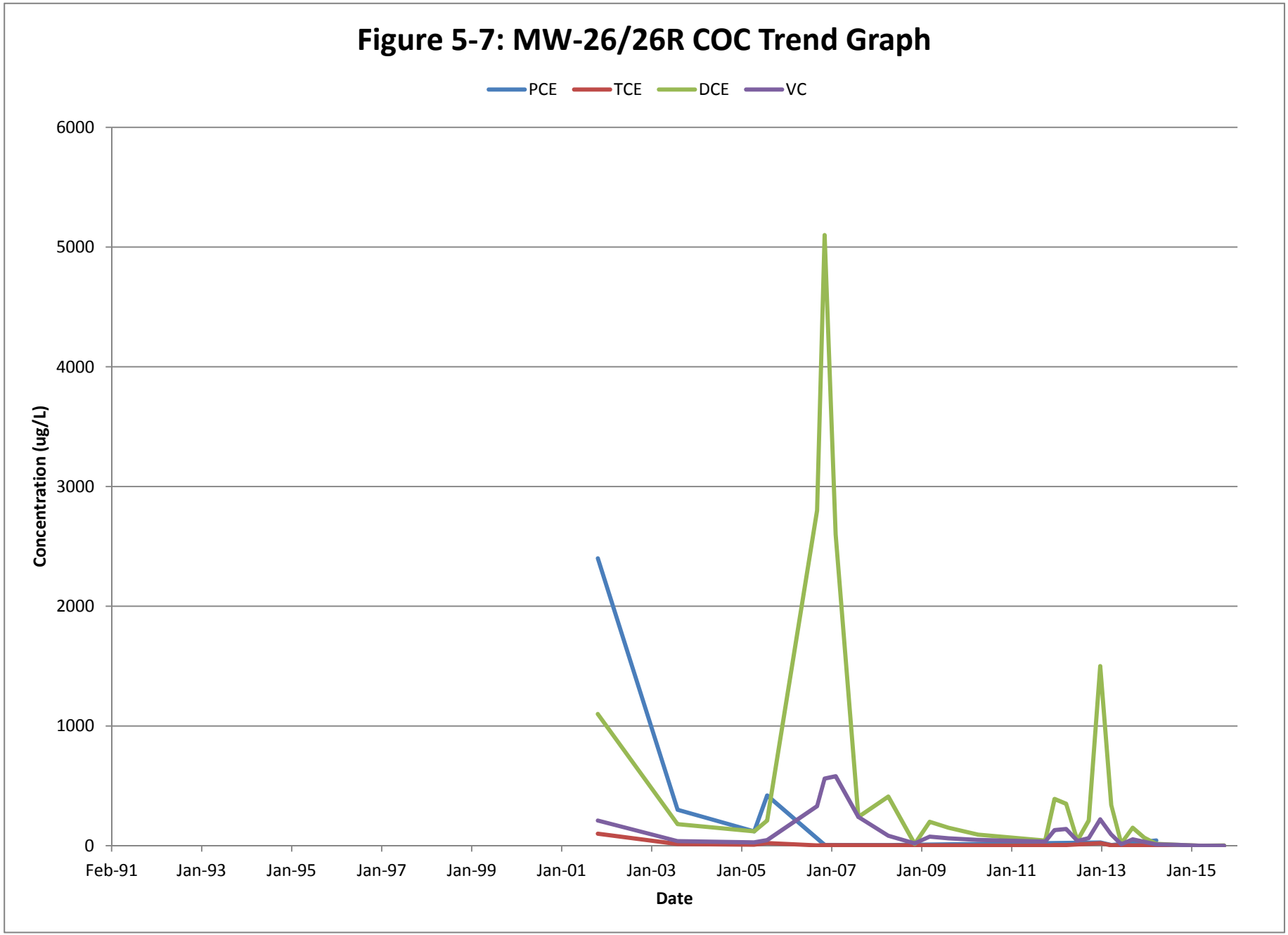


Figure 5-7: MW-26/26R COC Trend Graph
PCE
TCE
DCE
VC
6000
5000
4000
3000
2000
1000
0
Concentration (ug/L)
Feb-91
Jan-93
Jan-95
Jan-97
Jan-99
Jan-01
Jan-03
Jan-05
Jan-07
Jan-09
Jan-11
Jan-13
Jan-15
Date

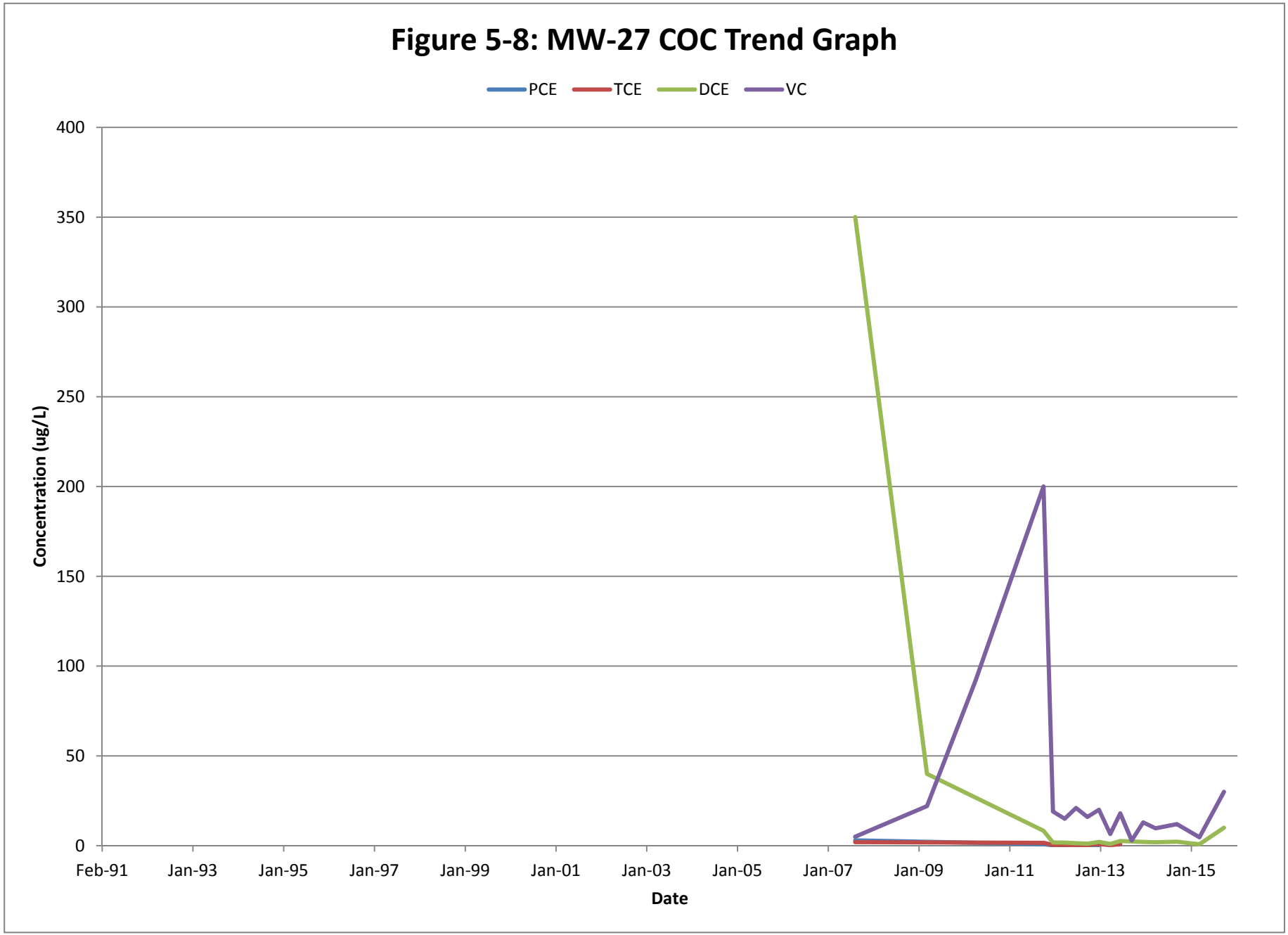


Figure 5-8: MW-27 COC Trend Graph
PCE
TCE
DCE
VC
Concentration (ug/L)
400
350
300
250
200
150
100
50
0
Feb-91
Jan-93
Jan-95
Jan-97
Jan-99
Jan-01
Jan-03
Jan-05
Jan-07
Jan-09
Jan-11
Jan-13
Jan-15
Date

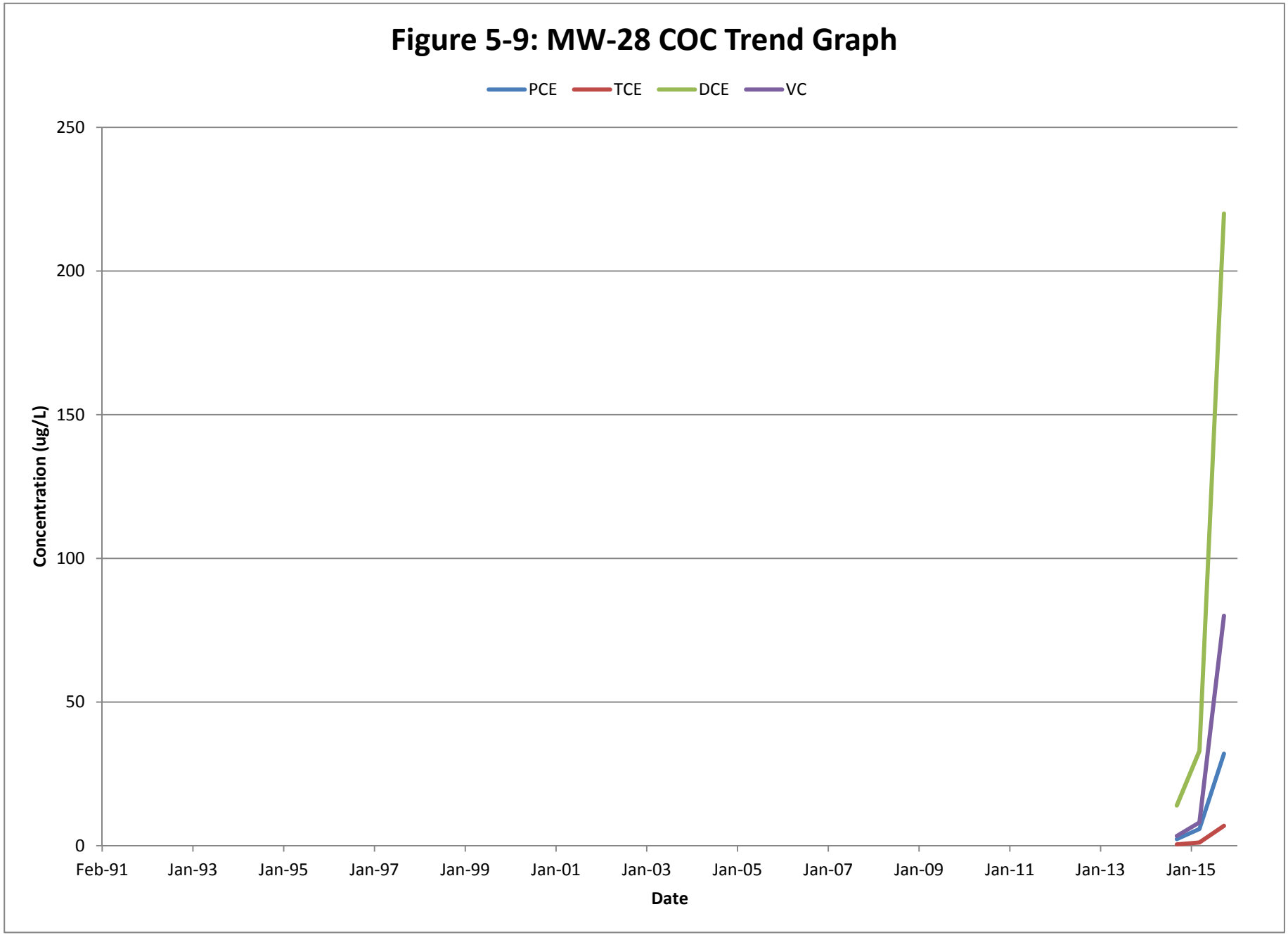


Figure 5-9: MW-28 COC Trend Graph
PCE
TCE
DCE
VC
250
200
150
100
50
0
Concentration (ug/L)
Feb-91
Jan-93
Jan-95
Jan-97
Jan-99
Jan-01
Jan-03
Jan-05
Jan-07
Jan-09
Jan-11
Jan-13
Jan-15
Date

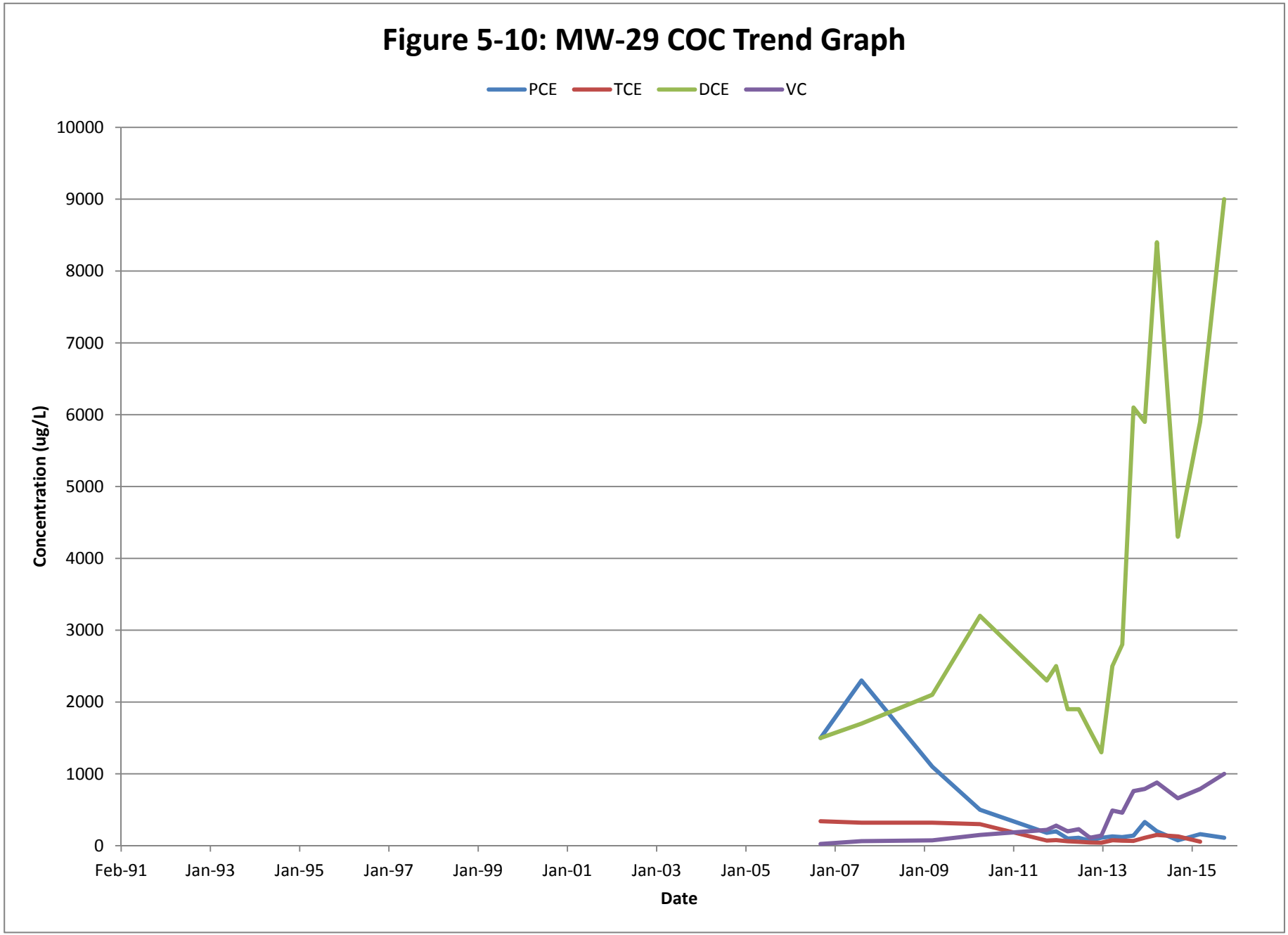


Figure 5-10: MW-29 COC Trend Graph
PCE
TCE
DCE
VC
Concentration (ug/L)
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Feb-91
Jan-93
Jan-95
Jan-97
Jan-99
Jan-01
Jan-03
Jan-05
Jan-07
Jan-09
Jan-11
Jan-13
Jan-15
Date

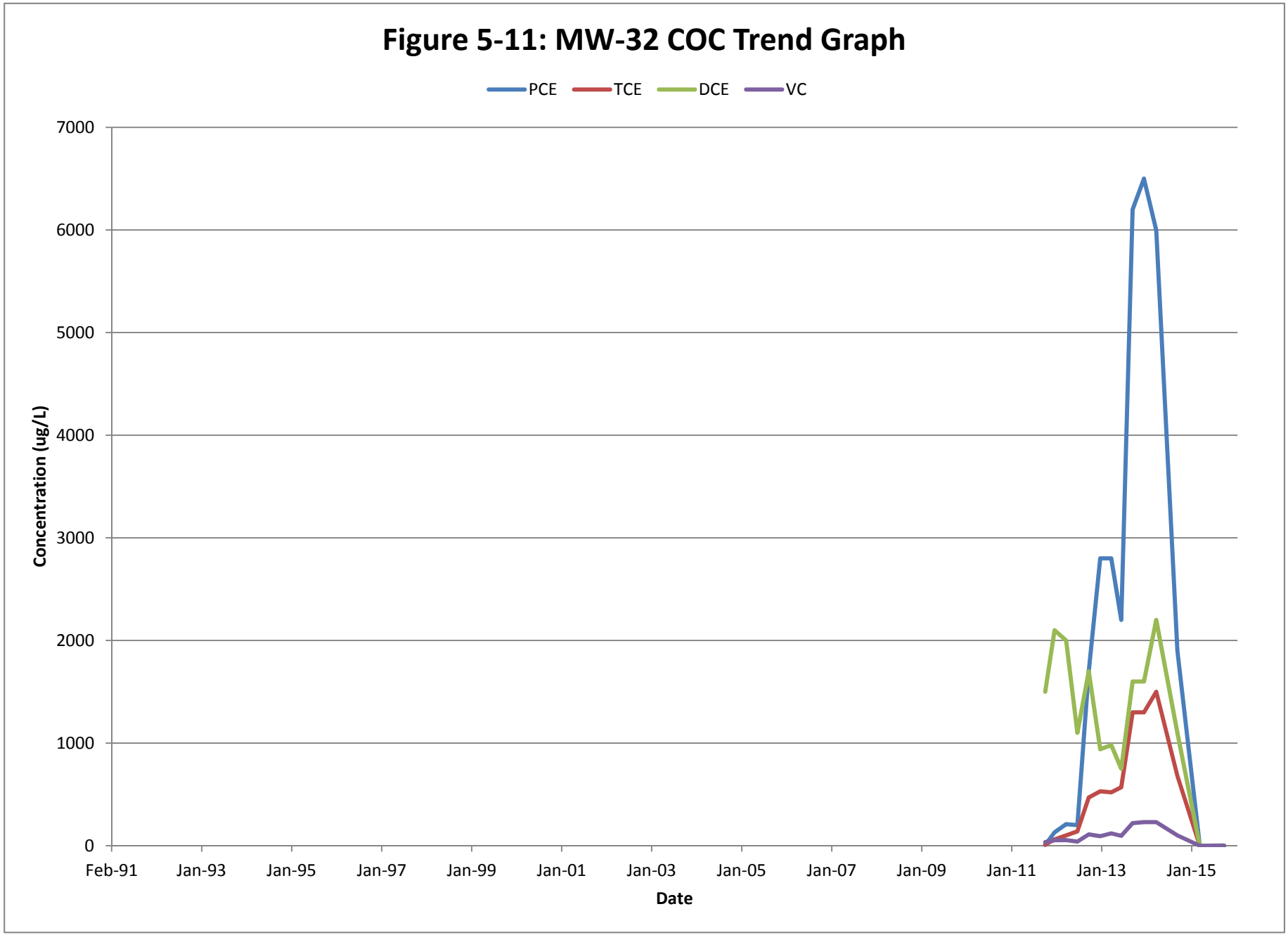


Figure 5-11: MW-32 COC Trend Graph
PCE
TCE
DCE
VC
7000
6000
5000
4000
3000
2000
1000
0
Concentration (ug/L)
Feb-91
Jan-93
Jan-95
Jan-97
Jan-99
Jan-01
Jan-03
Jan-05
Jan-07
Jan-09
Jan-11
Jan-13
Jan-15
Date

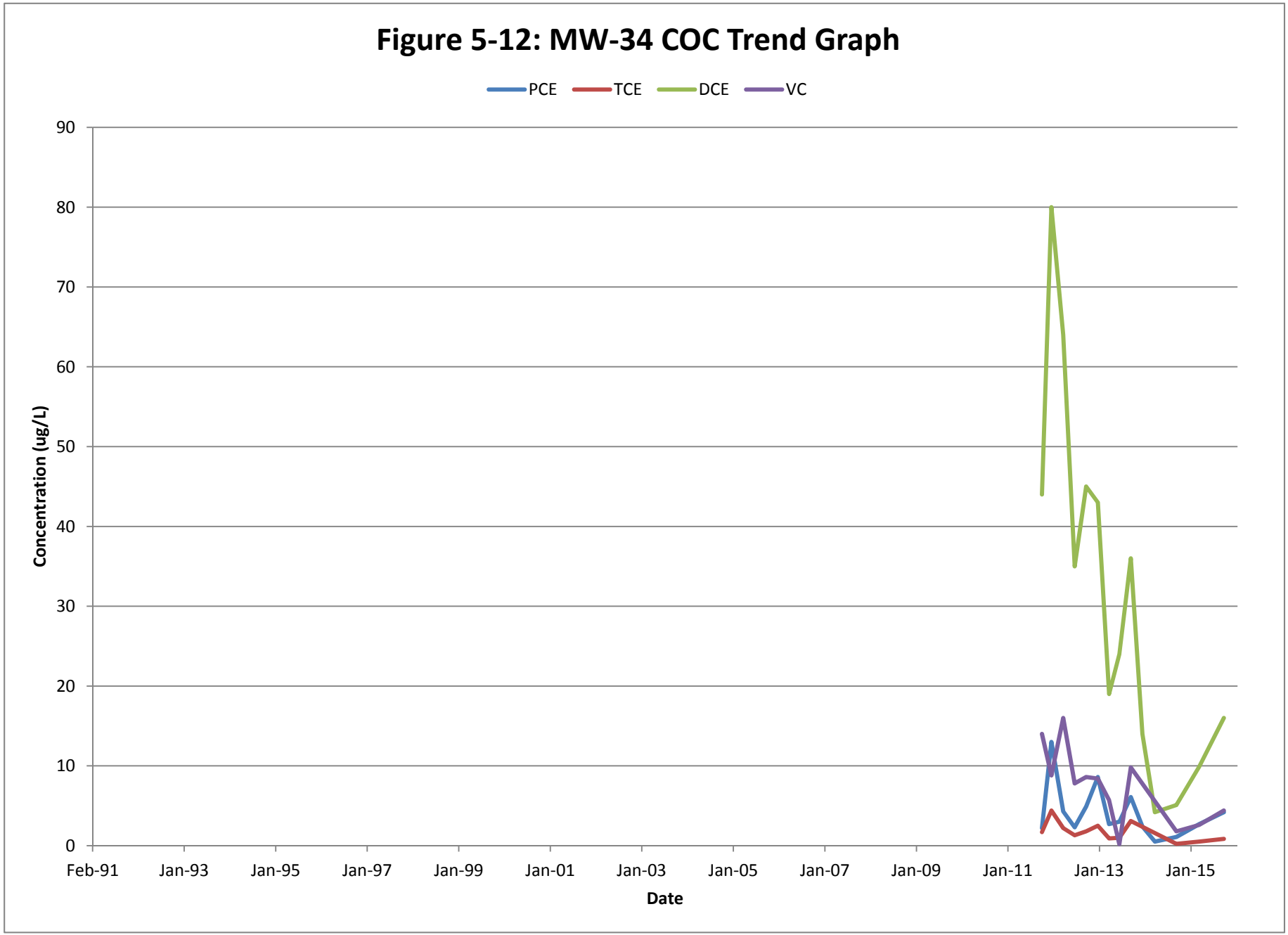


Figure 5-12: MW-34 COC Trend Graph
PCE
TCE
DCE
VC
Concentration (ug/L)
90
80
70
60
50
40
30
20
10
0
Feb-91
Jan-93
Jan-95
Jan-97
Jan-99
Jan-01
Jan-03
Jan-05
Jan-07
Jan-09
Jan-11
Jan-13
Jan-15
Date

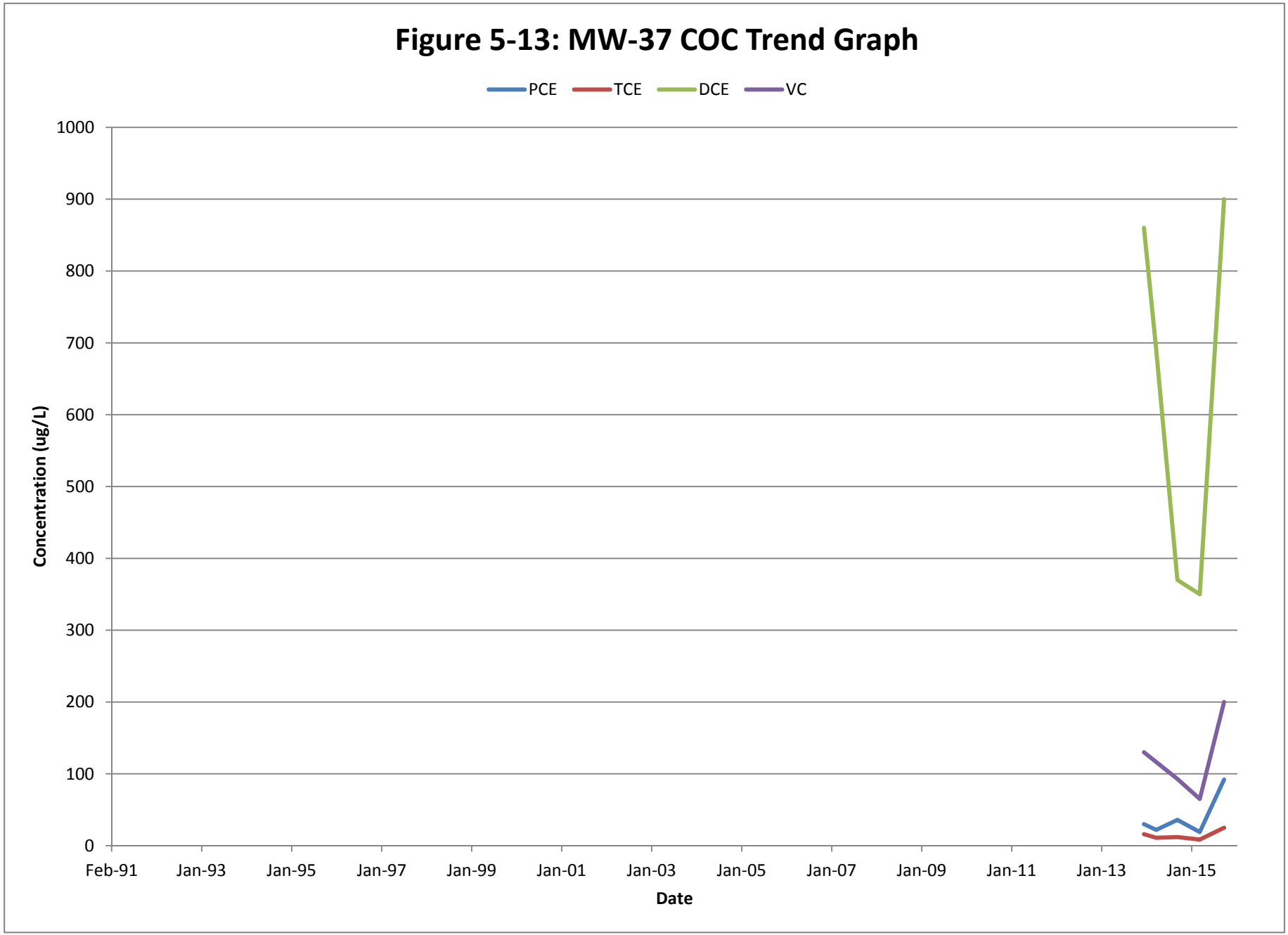


Figure 5-13: MW-37 COC Trend Graph
PCE
TCE
DCE
VC
Concentration (ug/L)
1000
900
800
700
600
500
400
300
200
100
0
Feb-91
Jan-93
Jan-95
Jan-97
Jan-99
Jan-01
Jan-03
Jan-05
Jan-07
Jan-09
Jan-11
Jan-13
Jan-15
Date

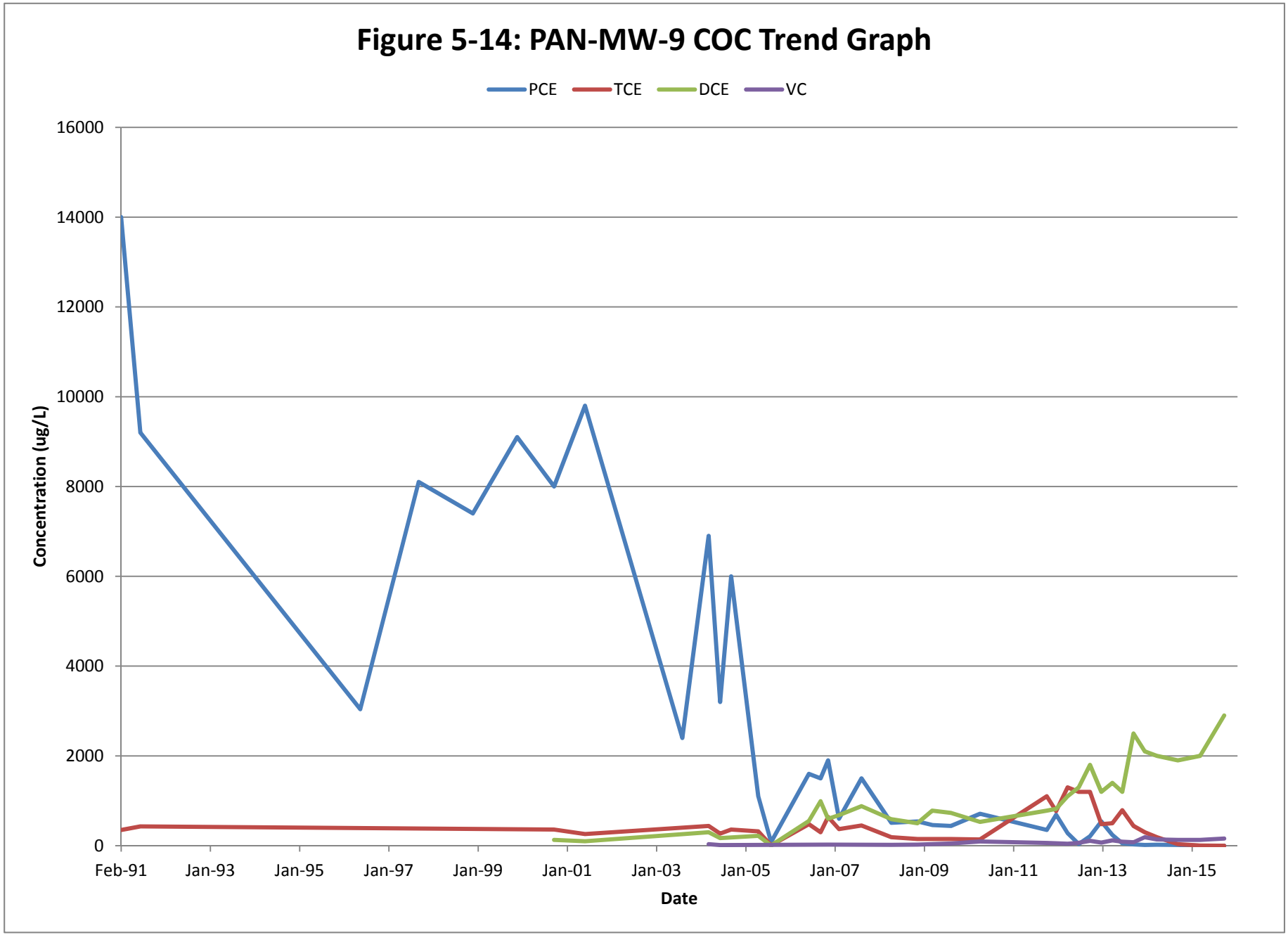


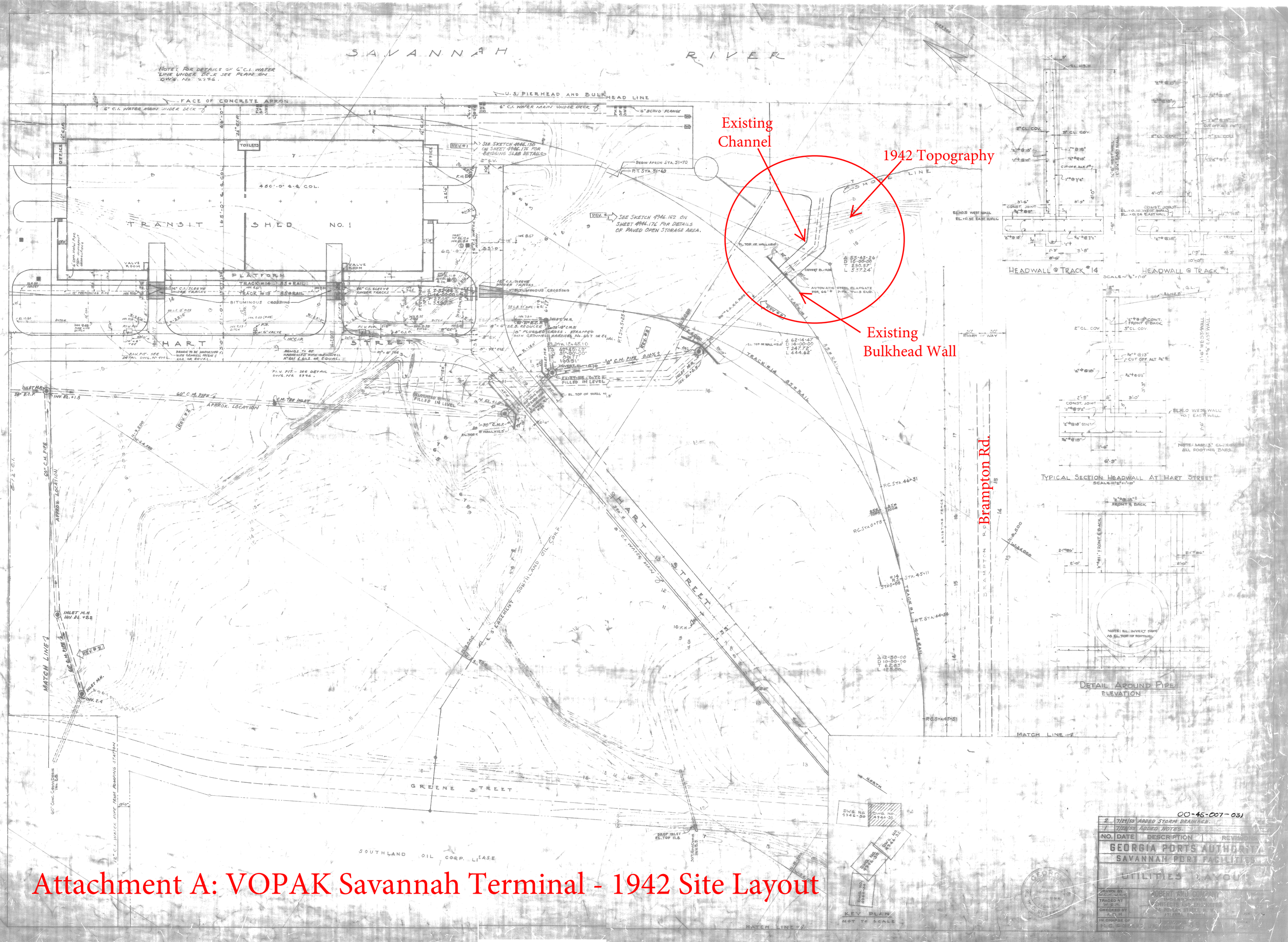
Figure 5-14: PAN-MW-9 COC Trend Graph
PCE
TCE
DCE
VC
16000
14000
12000
10000
8000
6000
4000
2000
0
Concentration (ug/L)
Feb-91
Jan-93
Jan-95
Jan-97
Jan-99
Jan-01
Jan-03
Jan-05
Jan-07
Jan-09
Jan-11
Jan-13
Jan-15
Date

VOPAK TERMINAL SAVANNAH, SAVANNAH, GEORGIA

NINTH SEMI-ANNUAL PROGRESS REPORT

ATTACHMENT A

VOPAK SAVANNAH TERMINAL - 1942 SITE LAYOUT



Attachment A: VOPAK Savannah Terminal - 1942 Site Layout

VOPAK TERMINAL SAVANNAH, SAVANNAH, GEORGIA

NINTH SEMI-ANNUAL PROGRESS REPORT

ATTACHMENT B

SEPTEMBER/OCTOBER 2015 EIC WELL PURGING AND SAMPLING DATA FIELD LOGS

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: IW-1R

DATE: 10/01/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: cloudy, little wind towards BAF property, ~80°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 9.90 FT. to 19.90 FT.

INITIAL WATER LEVEL (BTOC): 2.77 FT. | TIME: 10:27 | BTOC WELL SCREEN INTERVAL: 8.90 FT. to 18.90 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 18.9 FT. | MEASURED TOTAL WELL DEPTH (BTOC: — FT. | HEIGHT OF STICK-UP: -1 FT.

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 413 peak

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
10:42	0	26.55	4.14	165	0.459	85.1	1.56	N/A	
10:47	320	26.89	4.21	156	0.467	75.3	1.03	N/A	
10:52	600	26.71	4.17	155	0.470	66.0	0.82	N/A	
10:58	1020	26.46	4.17	153	0.474	56.0	0.48	N/A	
11:03	1240	26.33	4.19	151	0.476	57.0	0.53	N/A	
11:08	1520	26.28	4.20	148	0.480	35.8	0.48	N/A	
11:13	1780	26.22	4.20	148	0.481	28.4	0.45	N/A	
11:18	2000	26.17	4.22	146	0.484	31.0	0.43	N/A	
11:19	—						—	4.15	

COMMENTS:

SAMPLE COLLECTION TIME: 11:20

PREPARED BY: amelia Grant

* 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.

10:43 began raining

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	14
Final tubing depth (ft.) BTOC	14
Initial pump speed	1.97
Time pump speed was initialized	10:32
Pump speed at flow into cylinder	1.97
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	11:18							
Cummulative Volume (mL)	2000							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: IW-18

DATE: 10/01/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: ~~Rainy little to no wind, ~80°F~~ ody Cloudy, little to no wind ~72°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 10.00 FT. to 20.00 FT.

INITIAL WATER LEVEL (BTOC): 1.77 FT. | TIME: 18:30 | BTOC WELL SCREEN INTERVAL: 9.67 FT. to 19.67 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 19.3 FT. | MEASURED TOTAL WELL DEPTH (BTOC 19.28 FT. | HEIGHT OF STICK-UP: 0.33 FT. BGS

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: ~~0/0~~ NM ody BENEATH OUTER CAP: NM BENEATH INNER CAP: NM

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
18:32	0	23.24	5.32	86	0.848	316	1.89	N/A	
18:37	100	24.92	5.35	69	0.869	298	1.23	N/A	
18:42	420	25.76	5.28	70	0.872	334	0.84	N/A	
18:47	1100	26.15	5.27	69	0.894	282	0.52	N/A	
18:52	1720	26.28	5.16	71	0.913	230	0.41	N/A	
18:57	2450	26.32	4.97	78	0.933	192	0.36	N/A	
19:02	3020	26.35	~~4.875~~ ody	82	0.945	173	0.33	N/A	pH=4.85 ody
19:07	3700	26.26	4.85	82	0.953	148	0.31	N/A	
19:12	4220	26.29	4.84	83	0.962	132	0.33	N/A	
19:13	—							3.58	

COMMENTS:

SAMPLE COLLECTION TIME: 19:14

PREPARED BY: Amelia Grant

* 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.)	20
Initial tubing depth (ft.) BTOC	14.5
Final tubing depth (ft.) BTOC	14.5
Initial pump speed	2.00
Time pump speed was initialized	18:25
Pump speed at flow into cylinder	2.00
Started new roll of tubing at	—
Three well volume (mL)	—

@ 18:37 changed pump speed to 3.57

2,000 mL volume poured into bucket: 19:10 ody

Time	18:54	~~19:09~~ 19:10						
Cummulative Volume (mL)	2000	4000						

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: LAW-PZ-8R

DATE: 10/01/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: Raining, little to no wind, ~80°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 1.80 FT. to 11.80 FT.

INITIAL WATER LEVEL (BTOC): 1.65 FT. | TIME: 12:51 | BTOC WELL SCREEN INTERVAL: 1.32 FT. to 11.32 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 11.1 FT. | MEASURED TOTAL WELL DEPTH (BTO ____ FT. | HEIGHT OF STICK-UP: -0.476 FT.

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 769 peak

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B, 9060A, 310.1, 9056A, SM 3500 FE D, 6010C, 9034, AM20GAX

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
13:37	0	24.84	5.563 adj	61	0.707	439	0.74	N/A	
13:42	400	24.91	~~5.60~~ adj	52	0.723	1000+	0.52	N/A	pH=5.51 adj
13:47	830	24.94	~~5.61~~ adj	45	0.743	1000+	0.44	N/A	pH=5.51 adj
13:52	1230	25.03	~~5.57~~ adj	38	0.778	900	0.37	N/A	pH=5.51 adj
13:57	1600	25.17	5.51	32	0.777	714	0.36	N/A	
14:02	2000	25.27	5.53	26	0.779	629	0.34	N/A	
14:07	2360	25.50	5.54	21	0.782	460	0.33	N/A	
14:12	2760	25.58	5.54	17	0.784	357	0.34	N/A	
14:17	3160	25.65	5.55	15	0.784	338	0.33	N/A	
14:22	3530	25.73	5.55	11	0.783	242	0.33	N/A	
14:27	3920	25.93	5.53	10	0.777	246	0.31	N/A	
14:32	4200	26.20	5.52	9	0.773	232	0.34	N/A	
14:33	—							2.17	

COMMENTS:

SAMPLE COLLECTION TIME: 14:34

PREPARED BY: Amelia Gr[illegible]

* 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.)	20
Initial tubing depth (ft.) BTOC	6.8
Final tubing depth (ft.) BTOC	6.8
Initial pump speed	2.22
Time pump speed was initialized	13:~~02~~ 34 adj
Pump speed at flow into cylinder	2.22
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	14:02	14:31						
Cummulative Volume (mL)	2000	4000						

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-14

DATE: 9/30/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: drizzling partly cloudy ~ 81°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 39.44 FT. to 49.57 FT.

INITIAL WATER LEVEL (BTOC): 5.61 FT. TIME: 16:33 | BTOC WELL SCREEN INTERVAL: 39.44 FT. to 49.57 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): FT. | MEASURED TOTAL WELL DEPTH (BTOC 49.57 FT. | HEIGHT OF STICK-UP: 0 FT.

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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) odg	DTW (FT)	REMARKS (COLOR, ODOR, ETC.)
16:56	0	29.44	6.87	35	0.375	0.0	~~5.94~~	5.94	DO = 2.61 mg/L odg
17:01	250	28.92	7.31	6	0.386	0.0	1.38	6.05	
17:06	600	28.02	7.29	0	0.409	26.4	1.03	6.15	
17:11	900	27.58	7.35	-6	0.434	31.3	0.83	6.21	
17:16	1220	27.27	7.34	-8	0.451	32.2	0.80	6.24	
17:21	1580	27.00	7.34	-11	0.457	29.5	0.74	6.27	
17:26	1830	26.57	7.34	-13	0.460	22.9	0.70	6.29	
17:31	2150	26.59	7.33	-16	0.463	20.0	0.67	6.31	
17:36	2430	26.49	7.36	-20	0.463	19.7	0.64	6.32	

COMMENTS:

SAMPLE COLLECTION TIME: 17:38

PREPARED BY: Amelia Grant

* 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.)	47.0
Initial tubing depth (ft.) BTOC	44.5
Final tubing depth (ft.) BTOC	44.5
Initial pump speed	2.09
Time pump speed was initialized	16:47
Pump speed at flow into cylinder	2.09
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	17:28							
Cummulative Volume (mL)	2000							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-16

DATE: 9/30/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: Sunny + partly cloudy ~78°F little to no wind

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 4.95 FT. to 14.95 FT.

INITIAL WATER LEVEL (BTOC): 11.71 FT. | TIME: 15:04 | BTOC WELL SCREEN INTERVAL: 8.13 FT. to 18.13 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 13.98 FT. | MEASURED TOTAL WELL DEPTH (BTOC 14.02 FT. | HEIGHT OF STICK-UP: 3.18 FT.

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
15:36	0	30.53	5.91	145	0.395	143	1.25	N/A	
15:41	240	30.41	5.80	113	0.396	154	0.66	N/A	
15:46	500	30.06	5.79	96	0.399	176	0.60	N/A	
15:51	740	26.64	5.78	80	0.403	179	0.54	N/A	
15:56	1000	29.29	5.78	66	0.407	176	0.51	N/A	
16:01	1200	29.06	5.76	59	0.409	175	0.51	N/A	
16:02								12.17	

COMMENTS:

SAMPLE COLLECTION TIME: 16:03

PREPARED BY: Amelia Grant

* 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.)	20	
Initial tubing depth (ft.) BTOC	12.9	ady
Final tubing depth (ft.) BTOC	~~12.9~~	13.4
Initial pump speed	1.51	
Time pump speed was initialized	15.09	ady
Pump speed at flow into cylinder	~~1.51~~	1.78
Started new roll of tubing at	—	
Three well volume (mL)	—	

15:26 lowered tubing to 13.40 ft BTOC

2,000 mL volume poured into bucket:

Time								
Cummulative Volume (mL)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-17 R

DATE: 9/30/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: partly cloudy little to no wind ~78°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 5.60 FT. to 20.60 FT.

INITIAL WATER LEVEL (BTOC): 10.79 FT. | TIME: 9:13 | BTOC WELL SCREEN INTERVAL: 9.12 FT. to 24.12 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 23.99 FT. | MEASURED TOTAL WELL DEPTH (BTOC 23.96 FT. | HEIGHT OF STICK-UP: 3.52 FT.

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
9:29	0	26.68	6.21	11	0.362	36.5	1.84	N/A	
9:34	340	27.26	6.02	15	0.358	34.5	0.97	N/A	
9:39	700	27.38	6.02	10	0.357	43.4	0.70	N/A	
9:44	1020	~~27.50~~	5.89	13	0.360	40.1	0.60	N/A	Temp. = 27.50
9:49	1320	27.62	5.99	5	0.360	40.2	0.54	N/A	
9:55	1650	27.95	5.99	3	0.359	37.1	0.51	N/A	
10:01	2000	27.63	~~5.99~~	2	0.367	39.5	0.53	N/A	pH= 5.94
10:04								16.35	

COMMENTS:

SAMPLE COLLECTION TIME: 10:03

PREPARED BY: Amelia Grant

* 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.)	25
Initial tubing depth (ft.) BTOC	17.5
Final tubing depth (ft.) BTOC	17.5
Initial pump speed	2.01
Time pump speed was initialized	9:20
Pump speed at flow into cylinder	2.01
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time								
Cummulative Volume (mL)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-18R

DATE: 9/29/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: slightly drizzling ~70°F little to no wind

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 3.00 FT. to 13.00 FT.

INITIAL WATER LEVEL (BTOC): 6.05 FT. | TIME: 18:03 | BTOC WELL SCREEN INTERVAL: 6.66 FT. to 16.66 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 16.61 FT. | MEASURED TOTAL WELL DEPTH (BTOC 16.55 FT. | HEIGHT OF STICK-UP: 3.66 FT.

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B, 9060A, 310.1, 9056A, SM 3500 FE D, 6010C, 9034, AM20GAX

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
18:13	0	26.61	4.12	187	0.265	38.1	3.00	N/A	
18:18	430	26.60	4.16	186	0.264	35.3	2.08	N/A	
18:23	1160	26.58	4.21	184	0.262	28.9	1.62	N/A	
18:28	1700	26.56	4.24	184	0.261	24.4	1.33	N/A	
18:33	2200	26.55	4.29	181	0.261	23.1	1.11	N/A	
18:38	2730	26.53	4.32	180	0.261	21.4	0.93	N/A	
18:43	3240	26.51	4.31	181	0.261	20.8	0.81	N/A	
18:48	3740	26.50	4.33	182	0.261	20.0	0.72	N/A	
18:54	4490	26.48	~~4.34~~ 4.37	190	0.261	18.1	0.68	N/A	pH=4.37
18:59	5030	26.48	4.34	182	0.261	17.5	0.48	N/A	
19:00	—	—	—	—	—	—	—	~~N/A~~ adj	PTW=6.15

COMMENTS:

SAMPLE COLLECTION TIME: 19:01

PREPARED BY: Amelia Grant

* 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.)	20.0
Initial tubing depth (ft.) BTOC	11.5
Final tubing depth (ft.) BTOC	11.5
Initial pump speed	2.94
Time pump speed was initialized	18:08
Pump speed at flow into cylinder	2.94
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	18:31	18:49						
Cummulative Volume (mL)	2000	4000						

Additional remarks: Sampled due to terminal work permit time constraints.

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-19

DATE: 9/28/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: Partly cloudy ~78°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 3.38 FT. to 13.38 FT.

INITIAL WATER LEVEL (BTOC): 6.89 FT. | TIME: 15:31 | BTOC WELL SCREEN INTERVAL: 7.58 FT. to 17.58 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 17.97 FT. | MEASURED TOTAL WELL DEPTH (BTOC 17.96 FT. | HEIGHT OF STICK-UP: 4.2 FT.

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
15:39	0	32.08	6.62	1.13	0.951	0.5	2.55	N/A	
15:44	780	30.60	6.39	97	0.976	0.0	1.42	N/A	
15:49	1440	30.13	6.36	77	0.965	7.7	0.77	N/A	
15:54	2050	29.66	6.29	67	0.935	23.3	1.40	N/A	
15:59	2720	29.44	6.29	59	0.913	24.4	1.05	N/A	
16:04	3440	29.30	6.27	55	0.895	20.1	1.11	N/A	
16:09	4000	29.30	6.27	53	0.881	10.8	0.95	N/A	
16:14	4720	29.65	6.25	51	0.861	1.5	0.94	N/A	
16:19	5440	29.62	6.23	51	0.843	0.0	0.76	N/A	
16:24	6000	29.53	6.21	51	0.837	0.0	0.67	N/A	
16:29	6820	29.39	6.21	50	0.827	0.0	0.66	N/A	
16:32								6.95	

COMMENTS:

SAMPLE COLLECTION TIME: 16:33

PREPARED BY: Amelia Grant

* 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.)	20
Initial tubing depth (ft.) BTOC	12.5
Final tubing depth (ft.) BTOC	12.5
Initial pump speed	3.54
Time pump speed was initialized	15:36
Pump speed at flow into cylinder	3.54
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	15:53	16:09	16:24					
Cummulative Volume (mL)	2000	4000	6000					

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-23

DATE: 9/28/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: sunny ~78°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 6.15 FT. to 11.15 FT.

INITIAL WATER LEVEL (BTOC): 3.44 FT. | TIME: 13:45 | BTOC WELL SCREEN INTERVAL: 5.90 FT. to 10.90 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 11.72 FT. | MEASURED TOTAL WELL DEPTH (BTOC 11.68 FT. | HEIGHT OF STICK-UP: 0.25 FT. BGS

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
13:56	0	28.62	6.48	92	0.792	2.3	2.50	N/A	
14:01	480	28.38	6.43	87	0.797	3.0	1.28	N/A	
14:06	940	28.48	6.44	83	0.796	0.2	0.89	N/A	
14:11	1340	28.78	6.46	81	0.791	83.4	0.74	N/A	
14:16	1730	28.92	6.51	78	0.775	54.5	0.67	N/A	
14:21	2400	28.69	6.56	77	0.788	31.8	0.64	N/A	
14:26	2680	28.70	6.57	76	0.768	21.8	0.61	N/A	
14:31	3100	28.85	6.57	76	0.766	14.9	0.61	N/A	
14:36	3580	29.03	6.58	76	0.760	10.5	0.59	N/A	
14:41	3950	28.95	6.58	77	0.750	0.0	0.58	N/A	
14:42	—	—	—	—	—	—	—	4.90	

COMMENTS:

SAMPLE COLLECTION TIME: 14:43

PREPARED BY: Amelia Grant

* 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.)	~~25~~ 20
Initial tubing depth (ft.) BTOC	8.5
Final tubing depth (ft.) BTOC	8.5
Initial pump speed	2.53
Time pump speed was initialized	13:50
Pump speed at flow into cylinder	2.53
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	14:20							
Cummulative Volume (mL)	2200							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-24 R

DATE: 10/01/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: Cloudy, little to no wind, ~72°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 4.95 FT. to 14.95 FT.

INITIAL WATER LEVEL (BTOC): 5.09 FT. | TIME: 15:17 | BTOC WELL SCREEN INTERVAL: 8.68 FT. to 18.68 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 18.15 FT. | MEASURED TOTAL WELL DEPTH (BTOC) 18.4 FT. | HEIGHT OF STICK-UP: 3.73 FT.

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B, 9060A, 310.1, 9056A, SM 3500 FE D, 6010C, 9034, AM20GAX

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
15:31	0	24.51	4.47	125	0.514	11.7	2.71	N/A	
15:36	300	24.08	4.46	124	0.524	9.8	1.45	N/A	
15:41	620	24.04	4.48	123	0.522	12.7	1.10	N/A	
15:46	1000	24.03	4.50	120	0.511	18.7	0.71	N/A	
15:51	1420	23.97	4.46	123	0.488	24.5	0.56	N/A	
15:56	1770	23.88	4.53	117	0.468	25.5	0.50	N/A	
16:01	2050	23.73	4.59	113	0.458	25.2	0.48	N/A	
16:06	2400	23.65	4.60	111	0.451	23.9	0.46	N/A	
16:07								7.11	

COMMENTS:

SAMPLE COLLECTION TIME: 16:08

PREPARED BY: Amelia Grant

* 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.)	20
Initial tubing depth (ft.) BTOC	13.5
Final tubing depth (ft.) BTOC	13.5
Initial pump speed	2.14
Time pump speed was initialized	15:24
Pump speed at flow into cylinder	2.14
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	16:00							
Cummulative Volume (mL)	2000							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-25

DATE: 9/28/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: cloudy 68°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 6.40 FT. to 16.40 FT.

INITIAL WATER LEVEL (BTOC): 6.74 FT. | TIME: 17:16 | BTOC WELL SCREEN INTERVAL: 9.67 FT. to 19.67 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 17.93 FT. | MEASURED TOTAL WELL DEPTH (BTOC 17.91 FT. | HEIGHT OF STICK-UP: 3.27 FT.

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
17:26	0	29.46	5.79	74	0.568	72.6	1.80	N/A	
17:31	880	29.20	5.76	49	0.710	64.3	0.66	N/A	
17:37	1680	28.97	5.86	21	0.760	65.6	0.48	N/A	
17:42	2200	28.82	5.85	8	0.782	63.9	0.44	N/A	
17:47	2820	28.67	5.93	-7	0.805	63.2	0.40	N/A	
17:52	3400	28.55	5.95	-15	0.812	61.7	0.38	N/A	
17:57	4020	28.42	5.96	-21	0.818	59.4	0.35	N/A	4020 mL = Va
18:02	4440	28.31	5.96	-25	0.830	58.2	0.34	N/A	
18:03	—							6.85	

COMMENTS:

SAMPLE COLLECTION TIME: 18:04

PREPARED BY: Amelia Grant

* 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.)	20
Initial tubing depth (ft.) BTOC	14.5
Final tubing depth (ft.) BTOC	14.5
Initial pump speed	3.42
Time pump speed was initialized	17:21
Pump speed at flow into cylinder	3.42
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	17:42	17:58						
Cummulative Volume (mL)	2200	2000						

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-26R

DATE: 10/01/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: cloudy, little to no wind, ~85°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 5.10 FT. to 15.10 FT.

INITIAL WATER LEVEL (BTOC): 2.72 FT. | TIME: 8:53 | BTOC WELL SCREEN INTERVAL: 4.80 FT. to 14.80 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 14.51 FT. | MEASURED TOTAL WELL DEPTH (BTOC 14.51 FT. | HEIGHT OF STICK-UP: 0.3 FT. BGS

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
9:03	0	23.69	5.80	163	0.318	91.1	1.92	N/A	
9:08	440	24.88	5.43	148	0.308	88.1	1.29	N/A	
9:13	920	25.49	5.56	132	0.290	99.1	0.93	N/A	
9:18	1400	25.73	5.55	125	0.276	67.0	0.76	N/A	
9:23	1780	25.92	5.57	118	0.271	79.8	0.69	N/A	
9:28	2120	26.13	5.57	112	0.271	88.5	0.62	N/A	
9:33	2550	26.24	5.57	104	0.271	68.6	0.56	N/A	
9:38	3000	26.34	5.58	97	0.272	54.4	0.55	N/A	
9:43	3400	26.36	5.57	92	0.273	45.3	0.51	N/A	
9:48	3900	26.47	5.59	84	0.276	39.2	0.47	N/A	
9:53	4300	26.65	5.59	78	0.275	37.7	0.44	N/A	
9:58	4770	26.70	5.59	75	0.275	32.7	0.40	N/A	
10:03	5200	26.76	5.59	72	0.275	30.4	0.39	N/A	
10:04	—	—	—	—	—	—	—	3.15	

COMMENTS:

SAMPLE COLLECTION TIME: 10:05

PREPARED BY: Amelia Grant

* 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.)	21
Initial tubing depth (ft.) BTOC	10
Final tubing depth (ft.) BTOC	10
Initial pump speed	2.50
Time pump speed was initialized	8:57
Pump speed at flow into cylinder	2.50
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	9:27	9:49						
Cummulative Volume (mL)	2000	4000						

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-27

DATE: 9/28/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: cloudy

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 7.79 FT. to 17.79 FT.

INITIAL WATER LEVEL (BTOC): 4.21 FT. | TIME: 10:14 | BTOC WELL SCREEN INTERVAL: 7.52 FT. to 17.52 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 13.85 FT. | MEASURED TOTAL WELL DEPTH (BTOC): 13.84 FT. | HEIGHT OF STICK-UP: -0.27 FT.

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
10:35	0	23.08	6.60	203	0.444	51.4	1.43	N/A	
10:40	220	23.98	6.22	241	0.428	47.3	1.28	N/A	
10:45	460	24.34	6.20	216	0.417	48.0	1.15	N/A	
10:50	760	24.72	6.21	215	0.415	69.8	1.04	N/A	bacteria stuck Horiba
11:14	820	25.13	6.31	199	0.436	12.2	1.92	N/A	
11:19	1360	25.52	6.17	192	0.437	11.7	1.04	N/A	
11:24	1420	25.77	6.18	184	0.435	8.2	0.67	N/A	
11:29	1740	25.94	6.17	127	0.437	4.4	0.60	N/A	odor
11:30	—	—	—	—	—	—	—	4.52	DTW = 6.32 adg

COMMENTS:

SAMPLE COLLECTION TIME: 11:31

PREPARED BY: Amelia Grant

* 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.)	20
Initial tubing depth (ft.) BTOC	12.50
Final tubing depth (ft.) BTOC	12.50
Initial pump speed	1.59
Time pump speed was initialized	10:25
Pump speed at flow into cylinder	1.59
Started new roll of tubing at	—
Three well volume (mL)	—

10:52 stopped pump to clean Horiba flow through cell.
10:57 restart pump.
11:06 gasket did not seal properly on flow through cell drained Horiba fixed gasket + continued purging
11:08 changed pump speed to 2.08

2,000 mL volume poured into bucket:

Time								
Cummulative Volume (mL)								

Additional remarks: tan bacteria at first pull of GW

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-28

DATE: 9/29/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: Cloudy ~69°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 3.71 FT. to 13.71 FT.

INITIAL WATER LEVEL (BTOC): 4.79 FT. | TIME: 10:31 | BTOC WELL SCREEN INTERVAL: FT. to FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 16.0 FT. | MEASURED TOTAL WELL DEPTH (BTOC 14.05 FT. | HEIGHT OF STICK-UP: -0.125 FT.

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
10:45	0	26.17	6.07	81	0.297	24.1	1.38	N/A	
adg ~~10:50~~	460	26.45	6.18	65	0.295	22.5	1.14	N/A	time=10:52
10:57	800	26.58	6.15	68	0.298	16.7	1.11	N/A	
11:02	1140	26.77	6.13	70	0.300	15.0	1.00	N/A	
11:07	1500	26.94	6.08	74	0.301	11.4	0.90	N/A	
11:12	1800	27.05	6.03	78	0.302	10.8	0.84	N/A	
11:17	2100	27.17	6.01	81	0.306	8.6	0.75	N/A	
11:19	—	—	—	—	—	—	—	7.05	

COMMENTS:

SAMPLE COLLECTION TIME: 11:21

PREPARED BY: Amelia Grant

* 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.)	20
Initial tubing depth (ft.) BTOC	~~20~~ 9 adg
Final tubing depth (ft.) BTOC	9
Initial pump speed	2.09
Time pump speed was initialized	10:37
Pump speed at flow into cylinder	2.09
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	11:15							
Cummulative Volume (mL)	2000							

Additional remarks: Red bacteria in first pull of water from well

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-29

DATE: 10/01/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: cloudy, medium wind coming off river, ~70°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [ ] 2 [ ] 4 [ ] 6 [X] OTHER (3/4") | BGS WELL SCREEN INTERVAL: 10.00 FT. to 20.00 FT.

INITIAL WATER LEVEL (BTOC): 5.58 FT. | TIME: 16:15 | BTOC WELL SCREEN INTERVAL: 13.55 FT. to 23.55 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 23.26 FT. | MEASURED TOTAL WELL DEPTH (BTOC 23.15 FT. | HEIGHT OF STICK-UP: 3.55 FT.

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] 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: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
16:42	50	23.25	4.53	101	1.04	62.9	1.72	N/A	
16:48	600	23.09	4.59	95	1.07	57.6	0.86	N/A	
16:53	910	23.09	4.57	96	1.10	57.2	0.72	N/A	
16:58	1230	22.99	4.62	94	1.14	59.2	0.61	N/A	
17:03	1600	22.96	4.64	93	1.20	56.5	0.53	N/A	
17:10	2000	22.80	~~4.60~~	99	1.26	56.2	0.49	N/A	pH=4.65 adj
17:15	2320	22.83	4.63	93	1.27	56.1	0.48	N/A	
17:20	2690	22.77	4.64	91	1.29	55.4	0.45	N/A	
17:21	—	—	—	—	—	—	—	9.69	

COMMENTS:

SAMPLE COLLECTION TIME: 17:22

PREPARED BY: amelia Grant

* 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.)	~~N/A~~	24 adj
Initial tubing depth (ft.) BTOC	18.5	
Final tubing depth (ft.) BTOC	18.5	
Initial pump speed	~~1.57~~	2.08 adj
Time pump speed was initialized	16:23	
Pump speed at flow into cylinder	~~1.57~~	2.08 adj
Started new roll of tubing at	—	
Three well volume (mL)	—	

2,000 mL volume poured into bucket:

Time	17:10							
Cummulative Volume (mL)	2000							

Additional remarks: gauged DTB = 23.29

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-30

DATE: 9/29/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: Cloudy ~72°F little to no wind

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 5.25 FT. to 15.25 FT.

INITIAL WATER LEVEL (BTOC): 4.78 FT. | TIME: 17:06 | BTOC WELL SCREEN INTERVAL: 4.97 FT. to 14.97 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 15.07 FT. | MEASURED TOTAL WELL DEPTH (BTOC 15.05 FT. | HEIGHT OF STICK-UP: 0.28 FT. BGS

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
17:16	0	26.24	4.63	135	0.284	22.7	1.41	4.87	
17:21	820	26.45	4.53	135	0.286	13.7	0.87	4.88	
17:26	1480	26.51	4.48	134	0.288	7.5	0.64	4.88	
17:31	2050	26.58	4.52	129	0.285	4.3	0.59	4.88	
17:36	2850	26.67	4.49	129	0.283	2.2	0.52	4.88	
17:43	3840	26.68	~~4.35~~ 4.45 odg	134	0.281	0.5	0.46	4.88	pH = 4.45 odg

COMMENTS:

SAMPLE COLLECTION TIME: 17:45

PREPARED BY: Amelia Grant

* 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.)	20
Initial tubing depth (ft.) BTOC	10
Final tubing depth (ft.) BTOC	10
Initial pump speed	3.48
Time pump speed was initialized	17:12
Pump speed at flow into cylinder	3.48
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	17:30							
Cummulative Volume (mL)	2000							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-31

DATE: 9/28/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: cloudy ~78°F little to no wind

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 10.50 FT. to 20.50 FT.

INITIAL WATER LEVEL (BTOC): 4.59 FT. | TIME: 13:01 | BTOC WELL SCREEN INTERVAL: 10.08 FT. to 20.08 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 20.48 FT. | MEASURED TOTAL WELL DEPTH (BTOC): — FT. | HEIGHT OF STICK-UP: 0.42 FT. BGS

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

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

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
13:09	0	27.02	6.50	141	0.802	2.4	2.54	4.71	
13:14	700	26.04	6.52	128	0.837	0.9	0.91	4.72	
13:19	1420	25.57	6.51	118	0.844	0.0	0.69	4.73	
13:24	2000	25.40	6.52	107	0.846	0.0	0.59	4.73	
13:29	2670	25.34	6.51	98	0.846	0.0	0.53	4.73	

COMMENTS:

SAMPLE COLLECTION TIME: 13:31

PREPARED BY: Amelia Grant

* 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.)	20
Initial tubing depth (ft.) BTOC	15
Final tubing depth (ft.) BTOC	15
Initial pump speed	3.46
Time pump speed was initialized	13:05
Pump speed at flow into cylinder	3.46
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	13:24							
Cummulative Volume (mL)	2000							

Additional remarks: first pull of water in tubing is clear

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-32

DATE: 9/30/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: partly cloudy little to no wind ~74°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 6.50 FT. to 16.50 FT.

INITIAL WATER LEVEL (BTOC): 5.94 FT. | TIME: 10:19 | BTOC WELL SCREEN INTERVAL: 6.08 FT. to 16.08 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 16.43 FT. | MEASURED TOTAL WELL DEPTH (BTOC) 16.41 FT. | HEIGHT OF STICK-UP: 0.42 FT. BGS

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B, 9060A, 310.1, 9056A, SM 3500 FE D, 6010C, 9034, AM20GAX

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
10:29	0	29.92	6.63	-11	0.989	0.0	2.22	6.14	
10:35	620	29.86	6.78	-19	0.962	0.0	1.92	6.27	
10:40	1140	30.00	6.78	-17	0.965	0.0	1.76	6.31	
10:45	1620	30.03	6.78	-16	0.965	0.0	1.54	6.19	
10:50	2080	30.15	6.77	-13	0.971	0.0	1.52	6.34	
10:55	2480	30.03	6.75	-11	0.976	0.0	1.46	6.41	
11:00	2980	30.45	6.78	-10	0.973	0.0	1.47	6.47	

COMMENTS:

SAMPLE COLLECTION TIME: 11:02

PREPARED BY: amelia Graff

* 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.)	20
Initial tubing depth (ft.) BTOC	11
Final tubing depth (ft.) BTOC	11
Initial pump speed	2.74
Time pump speed was initialized	10:24
Pump speed at flow into cylinder	2.74
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	10:49							
Cummulative Volume (mL)	2000							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-33

DATE: 10/01/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: cloudy, slight wind from off of River ~70°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 5.50 FT. to 15.50 FT.

INITIAL WATER LEVEL (BTOC): 2.09 FT. | TIME: 16:42 | BTOC WELL SCREEN INTERVAL: 5.50 FT. to 15.50 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 14.42 FT. | MEASURED TOTAL WELL DEPTH (BTOC) 14.35 FT. | HEIGHT OF STICK-UP: 0 FT.

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

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

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B, 9060A, 310.1, 9056A, SM 3500 FE D, 6010C, 9034, AM20GAX

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
17:48	0	23.39	5.29	81	0.395	34.5	1.58	2.16	water in cylinder has yellow tint
17:53	750	23.88	5.27	73	0.402	30.3	0.62	2.19	
17:58	1380	23.92	5.27	70	0.416	30.4	0.43	2.21	
18:03	2000	24.01	5.30	66	0.416	25.3	0.36	2.21	

COMMENTS:

SAMPLE COLLECTION TIME: 18:05

PREPARED BY: Amelia Grant

* 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.)	20
Initial tubing depth (ft.) BTOC	10
Final tubing depth (ft.) BTOC	10
Initial pump speed	3.43
Time pump speed was initialized	17:33
Pump speed at flow into cylinder	3.43
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	18:03							
Cummulative Volume (mL)	2000							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-34

DATE: 9/29/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: cloudy ~72°F little to no wind

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [ ] 2 [X] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 6.50 FT. to 16.50 FT.

INITIAL WATER LEVEL (BTOC): 3.42 FT. | TIME: 11:32 | BTOC WELL SCREEN INTERVAL: 6.02 FT. to 16.02 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 16.34 FT. | MEASURED TOTAL WELL DEPTH (BTOC 16.34 FT. | HEIGHT OF STICK-UP: 0.48 FT. BGS

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
11:43	0	27.78	4.49	173	0.145	9.2	1.13	3.45	
11:48	610	27.28	4.37	189	0.147	0.0	0.71	3.45	
11:53	1320	27.10	4.39	188	0.144	0.0	0.57	3.45	
11:58	1840	27.12	4.36	192	0.144	0.0	0.52	3.45	

COMMENTS:

SAMPLE COLLECTION TIME: 12:00

PREPARED BY: Amelia Grant

* 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.)	20
Initial tubing depth (ft.) BTOC	11
Final tubing depth (ft.) BTOC	11
Initial pump speed	3.03
Time pump speed was initialized	11:38
Pump speed at flow into cylinder	3.03
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time								
Cummulative Volume (mL)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-35

DATE: 9/29/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: Raining ~74°F, slight wind towards SE

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 5.63 FT. to 15.63 FT.

INITIAL WATER LEVEL (BTOC): 5.53 FT. | TIME: 13:57 | BTOC WELL SCREEN INTERVAL: 5.32 FT. to 15.32 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 15.32 FT. | MEASURED TOTAL WELL DEPTH (BTOC) FT. | HEIGHT OF STICK-UP: -0.31 FT. BGS

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
14:08	0	27.00	6.36	125	1.73	608	0.89	5.55	
14:13	520	26.66	6.56	26	1.62	430	0.54	5.55	
14:18	1040	26.41	6.60	-26	1.44	118	0.50	5.55	
14:23	1680	26.32	6.63	-51	1.30	16.8	0.43	5.55	
14:28	2150	26.29	6.66	-62	1.22	14.9	0.41	5.55	
14:33	2600	26.28	6.67	-70	1.09	1.5	0.39	5.55	
14:38	3010	26.36	6.68	-76	1.01	0.4	0.37	5.55	
14:43	3680	26.38	6.69	-80	0.927	3.4	0.35	5.55	
14:48	4130	26.42	6.70	-86	0.878	0.0	0.33	5.55	
14:53	4680	26.42	6.71	-88	0.846	0.0	0.32	5.55	
14:58	5100	26.43	6.71	-90	0.809	0.0	0.32	5.55	
15:03	5620	26.40	6.72	-92	0.786	0.2	0.33	5.55	
15:08	6200	26.39	6.74	-95	0.769	2.7	0.33	5.55	
15:13	6660	26.41	6.72	-96	0.743	0.0	0.33	5.55	

COMMENTS:

SAMPLE COLLECTION TIME: 15:15

PREPARED BY: Amelia Grant

* 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.)	20
Initial tubing depth (ft.) BTOC	10
Final tubing depth (ft.) BTOC	10
Initial pump speed	2.99
Time pump speed was initialized	14:03
Pump speed at flow into cylinder	2.99
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	14:27	14:47	15:08					
Cummulative Volume (mL)	2000	4000	6200					

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-36

DATE: 9/30/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: cloudy, little to no wind

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 5.55 FT. to 15.55 FT.

INITIAL WATER LEVEL (BTOC): 5.93 FT. | TIME: 8:13 | BTOC WELL SCREEN INTERVAL: 5.43 FT. to 15.43 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 15.425 FT. | MEASURED TOTAL WELL DEPTH (BTOC FT. | HEIGHT OF STICK-UP: -0.125 FT. BGS

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
8:23	0	22.35	6.21	167	1.21	44.9	4.18	6.18	
8:28	500	25.31	6.39	43	1.19	55.8	1.42	6.25	
8:33	1050	25.94	6.40	-14	1.20	41.9	0.95	6.30	
8:38	1620	25.94	6.40	-39	1.22	25.8	0.78	6.32	
8:43	2000	26.04	6.42	-53	1.23	17.1	0.68	6.35	
8:48	2500	26.10	6.40	-58	1.23	12.0	0.62	6.36	
8:53	3010	26.24	6.40	-63	1.24	9.0	0.57	6.38	
8:58	3520	26.46	6.40	-66	1.24	4.2	0.53	6.38	

COMMENTS:

SAMPLE COLLECTION TIME: 9:01

PREPARED BY: Amelia [illegible]

* 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.)	20
Initial tubing depth (ft.) BTOC	11
Final tubing depth (ft.) BTOC	11
Initial pump speed	3.04
Time pump speed was initialized	8:18
Pump speed at flow into cylinder	3.04
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	8:44							
Cummulative Volume (mL)	2000							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION
WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-37

DATE: 9/28/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: OVC (Rain) Light wind 83°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 5.15 FT. to 15.15 FT.

INITIAL WATER LEVEL (BTOC): 4.00 FT. | TIME: 9:17 | BTOC WELL SCREEN INTERVAL: 5.15 FT. to 15.15 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 15.15 FT. | MEASURED TOTAL WELL DEPTH (BTOC FT. | HEIGHT OF STICK-UP: 0 FT. BGS

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
9:30	0	22.40	6.62	145	0.323	32.1	2.09	4.09	
9:35	880	23.51	5.62	110	0.307	47.2	1.06	4.10	
9:40	1640	23.73	5.60	104	0.304	29.0	0.81	4.10	
9:45	2540	24.07	5.54	105	0.301	13.5	0.69	4.10	
9:50	3280	24.15	5.50	107	0.298	9.3	0.62	4.10	
9:55	4000	24.22	5.43	111	0.296	16.5	0.57	4.10	
10:00	4860	24.33	5.34	116	0.296	6.1	0.53	4.10	
10:05	5770	24.40	5.28	119	0.297	6.3	0.49	4.10	
10:10	6520	24.48	5.24	123	0.298	2.5	0.48	4.10	
10:15	7160	24.57	5.18	125	0.294	0.0	0.45	4.10	

COMMENTS:

SAMPLE COLLECTION TIME: 10:17

PREPARED BY: Amelia Grant

* 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.)	20
Initial tubing depth (ft.) BTOC	10
Final tubing depth (ft.) BTOC	10
Initial pump speed	3.99
Time pump speed was initialized	9:26
Pump speed at flow into cylinder	3.99
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	9:42	9:55	10:06					
Cummulative Volume (mL)	2000	4000	6000					

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: PAN-MW-9

DATE: 9/30/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: Partly cloudy little to no wind ~78°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 3.00 FT. to 13.00 FT.

INITIAL WATER LEVEL (BTOC): 6.09 FT. | TIME: 17:48 | BTOC WELL SCREEN INTERVAL: 6.25 FT. to 16.25 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 14.78 FT. | MEASURED TOTAL WELL DEPTH (BTOC) 14.77 FT. | HEIGHT OF STICK-UP: 3.25 FT.

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 22.2 peak

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B, 9060A, 310.1, 9056A, SM 3500 FE D, 6010C, 9034, AM20GAX

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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.)
18:07	0	27.10	5.34	78	0.422	97.1	0.91	6.68	
18:12	290	26.83	5.37	64	0.428	82.3	0.80	6.72	~~[illegible]~~
18:17	~~540~~	26.91	5.35	57	0.428	78.5	0.64	6.85	Vol = 540 mL
18:22	780	26.71	5.24	58	0.431	79.7	0.62	6.92	
18:27	980	26.60	5.32	49	0.432	78.7	0.59	6.98	

COMMENTS:

SAMPLE COLLECTION TIME: 18:29

PREPARED BY: Amelia Grant

* 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.)	20.75
Initial tubing depth (ft.) BTOC	10.5
Final tubing depth (ft.) BTOC	10.5
Initial pump speed	1.68
Time pump speed was initialized	17:53
Pump speed at flow into cylinder	1.68
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time								
Cummulative Volume (mL)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: PAN-MW-10

DATE: 9/30/15 | PROJECT NAME: VOPAK Savannah | PROJECT NO: 390020

WEATHER CONDITIONS: Sunny & partly cloudy ~75°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 3.00 FT. to 13.00 FT.

INITIAL WATER LEVEL (BTOC): 8.13 FT. | TIME: 14:11 | BTOC WELL SCREEN INTERVAL: 6.68 FT. to 16.68 FT.

HISTORICAL TOTAL WELL DEPTH (BTOC): 15.93 FT. | MEASURED TOTAL WELL DEPTH (BTOC 15.9 FT. | HEIGHT OF STICK-UP: 3.68 FT.

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [ ] DECONTAMINATED

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

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

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

PID/FID READINGS (ppm): BACKGROUND: 0.0 BENEATH OUTER CAP: 0.0 BENEATH INNER CAP: 0.0

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: Test America | WATER ANALYZER 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) only	REMARKS (COLOR, ODOR, ETC.)
14:21	0	29.40	4.62	102	0.548	133	3.11	~~8.23~~	DTW = 8.23
14:26	860	28.73	6.16	127	0.558	28.5	2.32	8.27	
14:31	1540	28.41	6.15	128	0.563	21.4	2.16	8.27	
14:36	2220	28.23	6.13	129	0.565	13.0	1.94	8.27	
14:41	2920	28.18	6.14	129	0.565	6.8	1.83	8.27	

COMMENTS:

SAMPLE COLLECTION TIME: 14:43

PREPARED BY: Amelia Gratt

* 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.)	20
Initial tubing depth (ft.) BTOC	12.25
Final tubing depth (ft.) BTOC	12.25
Initial pump speed	3.45
Time pump speed was initialized	14:16
Pump speed at flow into cylinder	3.45
Started new roll of tubing at	—
Three well volume (mL)	—

2,000 mL volume poured into bucket:

Time	14:34							
Cummulative Volume (mL)	2000							

Additional remarks:

VOPAK TERMINAL SAVANNAH, SAVANNAH, GEORGIA

NINTH SEMI-ANNUAL PROGRESS REPORT

ATTACHMENT C

LAB ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES SEPTEMBER/OCTOBER 2015

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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TestAmerica Job ID: 680-117408-1
Client Project/Site: VOPAK Savannah Terminal/390020

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LINKS

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Results relate only to the items tested and the sample(s) as received by the laboratory.

Sample Summary

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-117408-1	IW-IR	Water	10/01/15 11:20	10/02/15 15:10
680-117408-2	IW-18	Water	10/01/15 19:14	10/02/15 15:10
680-117408-3	LAW-PZ-8R	Water	10/01/15 14:34	10/02/15 15:10
680-117408-4	MW-14	Water	09/30/15 17:38	10/02/15 15:10
680-117408-5	MW-16	Water	09/30/15 16:03	10/02/15 15:10
680-117408-6	MW-17R	Water	09/30/15 10:03	10/02/15 15:10
680-117408-7	MW-18R	Water	09/29/15 19:01	10/02/15 15:10
680-117408-8	MW-19	Water	09/28/15 16:33	10/02/15 15:10
680-117408-9	MW-23	Water	09/28/15 14:43	10/02/15 15:10
680-117408-10	MW-24R	Water	10/01/15 16:08	10/02/15 15:10
680-117408-11	MW-25	Water	09/28/15 18:04	10/02/15 15:10
680-117408-12	MW-26R	Water	10/01/15 10:05	10/02/15 15:10
680-117408-13	MW-27	Water	09/28/15 11:31	10/02/15 15:10
680-117408-14	MW-28	Water	09/29/15 11:21	10/02/15 15:10
680-117408-15	MW-29	Water	10/01/15 17:22	10/02/15 15:10
680-117408-16	MW-30	Water	09/29/15 17:45	10/02/15 15:10
680-117408-17	MW-31	Water	09/28/15 13:31	10/02/15 15:10
680-117408-18	MW-32	Water	09/30/15 11:02	10/02/15 15:10
680-117408-19	MW-33	Water	10/01/15 18:05	10/02/15 15:10
680-117408-20	MW-34	Water	09/29/15 12:00	10/02/15 15:10
680-117408-21	MW-35	Water	09/29/15 15:15	10/02/15 15:10
680-117408-22	MW-36	Water	09/30/15 09:01	10/02/15 15:10
680-117408-23	MW-37	Water	09/28/15 10:17	10/02/15 15:10
680-117408-24	PAN-MW-9	Water	09/30/15 18:29	10/02/15 15:10
680-117408-25	PAN-MW-10	Water	09/30/15 14:43	10/02/15 15:10
680-117408-26	Trip Blank	Water	09/28/15 00:00	10/02/15 15:10

Method Summary

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Definitions/Glossary

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 680-117408-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: Environmental International Corporation

Project: VOPAK Savannah Terminal/390020

Report Number: 680-117408-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT
The samples were received on 10/02/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.2 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples IW-IR (680-117408-1), IW-18 (680-117408-2), LAW-PZ-8R (680-117408-3), MW-14 (680-117408-4), MW-16 (680-117408-5), MW-17R (680-117408-6), MW-18R (680-117408-7), MW-19 (680-117408-8), MW-23 (680-117408-9), MW-24R (680-117408-10), MW-25 (680-117408-11), MW-26R (680-117408-12), MW-27 (680-117408-13), MW-28 (680-117408-14), MW-29 (680-117408-15), MW-30 (680-117408-16), MW-31 (680-117408-17), MW-32 (680-117408-18), MW-33 (680-117408-19), MW-34 (680-117408-20), MW-35 (680-117408-21), MW-36 (680-117408-22), MW-37 (680-117408-23), PAN-MW-9 (680-117408-24), PAN-MW-10 (680-117408-25) and Trip Blank (680-117408-26) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 10/09/2015, 10/10/2015, 10/12/2015, 10/13/2015 and 10/14/2015.

Bromomethane, Chloromethane and Tetrachloroethene failed the recovery criteria high for LCS 680-405241/4. Carbon tetrachloride failed the recovery criteria high for LCS 680-405400/4. Bromomethane, Chloromethane and Tetrachloroethene failed the recovery criteria high for LCSD 680-405241/5. Carbon tetrachloride failed the recovery criteria high for LCSD 680-405400/5. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Several analytes failed the recovery criteria high for the MS of sample 680-117585-3 in batch 680-405413.

Several analytes exceeded the RPD limit for the MSD of sample 680-117585-3 in batch 680-405413.

Refer to the QC report for details.

Samples IW-IR (680-117408-1)[200X], IW-18 (680-117408-2)[25X], LAW-PZ-8R (680-117408-3)[1000X], MW-16 (680-117408-5)[2X], MW-24R (680-117408-10)[5X], MW-26R (680-117408-12)[5X], MW-28 (680-117408-14)[2X], MW-29 (680-117408-15)[100X], MW-33 (680-117408-19)[5X], MW-37 (680-117408-23)[5X] and PAN-MW-9 (680-117408-24)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: IW-IR — Lab Sample ID: 680-117408-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	330		200	100	ug/L	200		8260B	Total/NA
cis-1,2-Dichloroethene	8800		200	82	ug/L	200		8260B	Total/NA
Benzene	180	J	200	86	ug/L	200		8260B	Total/NA
Trichloroethene	100	J	200	96	ug/L	200		8260B	Total/NA
Toluene	200		200	96	ug/L	200		8260B	Total/NA
Tetrachloroethene	230		200	150	ug/L	200		8260B	Total/NA
Chlorobenzene	920		200	52	ug/L	200		8260B	Total/NA
Ethylbenzene	2200		200	66	ug/L	200		8260B	Total/NA
Xylenes, Total	19000		200	46	ug/L	200		8260B	Total/NA
1,3-Dichlorobenzene	89	J	200	86	ug/L	200		8260B	Total/NA
1,4-Dichlorobenzene	780		200	92	ug/L	200		8260B	Total/NA
1,2-Dichlorobenzene	170	J	200	74	ug/L	200		8260B	Total/NA
1,2,4-Trichlorobenzene	1200		1000	500	ug/L	200		8260B	Total/NA

Client Sample ID: IW-18 — Lab Sample ID: 680-117408-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	710		25	13	ug/L	25		8260B	Total/NA
cis-1,2-Dichloroethene	2400		25	10	ug/L	25		8260B	Total/NA
Benzene	200		25	11	ug/L	25		8260B	Total/NA
Trichloroethene	25		25	12	ug/L	25		8260B	Total/NA
Toluene	35		25	12	ug/L	25		8260B	Total/NA
Tetrachloroethene	39		25	19	ug/L	25		8260B	Total/NA
Chlorobenzene	670		25	6.5	ug/L	25		8260B	Total/NA
Ethylbenzene	300		25	8.3	ug/L	25		8260B	Total/NA
Xylenes, Total	3000		25	5.8	ug/L	25		8260B	Total/NA
1,3-Dichlorobenzene	13	J	25	11	ug/L	25		8260B	Total/NA
1,4-Dichlorobenzene	75		25	12	ug/L	25		8260B	Total/NA
1,2-Dichlorobenzene	21	J	25	9.3	ug/L	25		8260B	Total/NA
1,2,4-Trichlorobenzene	70	J	130	63	ug/L	25		8260B	Total/NA

Client Sample ID: LAW-PZ-8R — Lab Sample ID: 680-117408-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	5500		1000	410	ug/L	1000		8260B	Total/NA
Benzene	1200		1000	430	ug/L	1000		8260B	Total/NA
Chlorobenzene	3600		1000	260	ug/L	1000		8260B	Total/NA
Ethylbenzene	6200		1000	330	ug/L	1000		8260B	Total/NA
Xylenes, Total	78000		1000	230	ug/L	1000		8260B	Total/NA
1,4-Dichlorobenzene	940	J	1000	460	ug/L	1000		8260B	Total/NA

Client Sample ID: MW-14 — Lab Sample ID: 680-117408-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.46	J	1.0	0.41	ug/L	1		8260B	Total/NA

Client Sample ID: MW-16 — Lab Sample ID: 680-117408-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	75		2.0	1.0	ug/L	2		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-16 (Continued) — Lab Sample ID: 680-117408-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	150		2.0	0.82	ug/L	2		8260B	Total/NA
Benzene	1.7	J	2.0	0.86	ug/L	2		8260B	Total/NA
Chlorobenzene	9.2		2.0	0.52	ug/L	2		8260B	Total/NA
1,3-Dichlorobenzene	2.1		2.0	0.86	ug/L	2		8260B	Total/NA
1,4-Dichlorobenzene	4.4		2.0	0.92	ug/L	2		8260B	Total/NA

Client Sample ID: MW-17R — Lab Sample ID: 680-117408-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.59	J	1.0	0.33	ug/L	1		8260B	Total/NA
Xylenes, Total	0.23	J	1.0	0.23	ug/L	1		8260B	Total/NA
Isopropylbenzene	45		1.0	0.35	ug/L	1		8260B	Total/NA

Client Sample ID: MW-18R — Lab Sample ID: 680-117408-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	1.1		1.0	0.60	ug/L	1		8260B	Total/NA

Client Sample ID: MW-19 — Lab Sample ID: 680-117408-8

No Detections.

Client Sample ID: MW-23 — Lab Sample ID: 680-117408-9

No Detections.

Client Sample ID: MW-24R — Lab Sample ID: 680-117408-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	24		5.0	2.5	ug/L	5		8260B	Total/NA
trans-1,2-Dichloroethene	1.9	J	5.0	1.9	ug/L	5		8260B	Total/NA
Methyl tert-butyl ether	140		50	1.5	ug/L	5		8260B	Total/NA
cis-1,2-Dichloroethene	360		5.0	2.1	ug/L	5		8260B	Total/NA
Benzene	4.4	J	5.0	2.2	ug/L	5		8260B	Total/NA

Client Sample ID: MW-25 — Lab Sample ID: 680-117408-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyclohexane	0.72	J	1.0	0.39	ug/L	1		8260B	Total/NA
Isopropylbenzene	1.2		1.0	0.35	ug/L	1		8260B	Total/NA

Client Sample ID: MW-26R — Lab Sample ID: 680-117408-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.4	J	5.0	2.1	ug/L	5		8260B	Total/NA
Benzene	37		5.0	2.2	ug/L	5		8260B	Total/NA
Chlorobenzene	100		5.0	1.3	ug/L	5		8260B	Total/NA
Ethylbenzene	18		5.0	1.7	ug/L	5		8260B	Total/NA
Xylenes, Total	350		5.0	1.2	ug/L	5		8260B	Total/NA
Isopropylbenzene	2.6	J	5.0	1.8	ug/L	5		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-27 — Lab Sample ID: 680-117408-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	30		1.0	0.50	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	3.9	J	10	0.30	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	10		1.0	0.41	ug/L	1		8260B	Total/NA
Trichloroethene	0.62	J	1.0	0.48	ug/L	1		8260B	Total/NA
Chlorobenzene	34		1.0	0.26	ug/L	1		8260B	Total/NA
1,3-Dichlorobenzene	3.2		1.0	0.43	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	2.3		1.0	0.46	ug/L	1		8260B	Total/NA
1,2-Dichlorobenzene	0.48	J	1.0	0.37	ug/L	1		8260B	Total/NA

Client Sample ID: MW-28 — Lab Sample ID: 680-117408-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	80		2.0	1.0	ug/L	2		8260B	Total/NA
1,1-Dichloroethene	0.91	J	2.0	0.72	ug/L	2		8260B	Total/NA
trans-1,2-Dichloroethene	0.97	J	2.0	0.74	ug/L	2		8260B	Total/NA
cis-1,2-Dichloroethene	220		2.0	0.82	ug/L	2		8260B	Total/NA
Benzene	10		2.0	0.86	ug/L	2		8260B	Total/NA
Trichloroethene	6.9		2.0	0.96	ug/L	2		8260B	Total/NA
Tetrachloroethene	32		2.0	1.5	ug/L	2		8260B	Total/NA
Chlorobenzene	67		2.0	0.52	ug/L	2		8260B	Total/NA
Xylenes, Total	1.6	J	2.0	0.46	ug/L	2		8260B	Total/NA
1,3-Dichlorobenzene	2.7		2.0	0.86	ug/L	2		8260B	Total/NA
1,4-Dichlorobenzene	19		2.0	0.92	ug/L	2		8260B	Total/NA
1,2-Dichlorobenzene	4.6		2.0	0.74	ug/L	2		8260B	Total/NA
1,2,4-Trichlorobenzene	21		10	5.0	ug/L	2		8260B	Total/NA

Client Sample ID: MW-29 — Lab Sample ID: 680-117408-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	1000		100	50	ug/L	100		8260B	Total/NA
cis-1,2-Dichloroethene	9000		100	41	ug/L	100		8260B	Total/NA
Trichloroethene	130		100	48	ug/L	100		8260B	Total/NA
Tetrachloroethene	110		100	74	ug/L	100		8260B	Total/NA
Chlorobenzene	190		100	26	ug/L	100		8260B	Total/NA
Ethylbenzene	1700		100	33	ug/L	100		8260B	Total/NA
Xylenes, Total	4700		100	23	ug/L	100		8260B	Total/NA
Isopropylbenzene	49	J	100	35	ug/L	100		8260B	Total/NA
1,3-Dichlorobenzene	55	J	100	43	ug/L	100		8260B	Total/NA
1,4-Dichlorobenzene	190		100	46	ug/L	100		8260B	Total/NA
1,2-Dichlorobenzene	39	J	100	37	ug/L	100		8260B	Total/NA

Client Sample ID: MW-30 — Lab Sample ID: 680-117408-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	2.0		1.0	0.50	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.7		1.0	0.41	ug/L	1		8260B	Total/NA
Benzene	0.43	J	1.0	0.43	ug/L	1		8260B	Total/NA
Chlorobenzene	0.90	J	1.0	0.26	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-31 — Lab Sample ID: 680-117408-17

No Detections.

Client Sample ID: MW-32 — Lab Sample ID: 680-117408-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichlorofluoromethane	5.7		1.0	0.42	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.81	J	1.0	0.41	ug/L	1		8260B	Total/NA
Trichloroethene	0.49	J	1.0	0.48	ug/L	1		8260B	Total/NA
Tetrachloroethene	1.3		1.0	0.74	ug/L	1		8260B	Total/NA

Client Sample ID: MW-33 — Lab Sample ID: 680-117408-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	170		5.0	2.5	ug/L	5		8260B	Total/NA
trans-1,2-Dichloroethene	3.3	J	5.0	1.9	ug/L	5		8260B	Total/NA
cis-1,2-Dichloroethene	260		5.0	2.1	ug/L	5		8260B	Total/NA
Trichloroethene	48		5.0	2.4	ug/L	5		8260B	Total/NA
Tetrachloroethene	5.0		5.0	3.7	ug/L	5		8260B	Total/NA
Chlorobenzene	70		5.0	1.3	ug/L	5		8260B	Total/NA
Ethylbenzene	4.6	J	5.0	1.7	ug/L	5		8260B	Total/NA
Xylenes, Total	19		5.0	1.2	ug/L	5		8260B	Total/NA
1,3-Dichlorobenzene	26		5.0	2.2	ug/L	5		8260B	Total/NA
1,4-Dichlorobenzene	110		5.0	2.3	ug/L	5		8260B	Total/NA
1,2-Dichlorobenzene	10		5.0	1.9	ug/L	5		8260B	Total/NA
1,2,4-Trichlorobenzene	23	J	25	13	ug/L	5		8260B	Total/NA

Client Sample ID: MW-34 — Lab Sample ID: 680-117408-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	4.4		1.0	0.50	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	16		1.0	0.41	ug/L	1		8260B	Total/NA
Benzene	1.3		1.0	0.43	ug/L	1		8260B	Total/NA
Trichloroethene	0.86	J	1.0	0.48	ug/L	1		8260B	Total/NA
Tetrachloroethene	4.2		1.0	0.74	ug/L	1		8260B	Total/NA
Chlorobenzene	4.2		1.0	0.26	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	1.1		1.0	0.46	ug/L	1		8260B	Total/NA
1,2,4-Trichlorobenzene	2.7	J	5.0	2.5	ug/L	1		8260B	Total/NA

Client Sample ID: MW-35 — Lab Sample ID: 680-117408-21

No Detections.

Client Sample ID: MW-36 — Lab Sample ID: 680-117408-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.81	J	1.0	0.41	ug/L	1		8260B	Total/NA

Client Sample ID: MW-37 — Lab Sample ID: 680-117408-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	200		5.0	2.5	ug/L	5		8260B	Total/NA
1,1-Dichloroethene	4.2	J	5.0	1.8	ug/L	5		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-37 (Continued) — Lab Sample ID: 680-117408-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
trans-1,2-Dichloroethene	2.3	J	5.0	1.9	ug/L	5		8260B	Total/NA
cis-1,2-Dichloroethene	900		5.0	2.1	ug/L	5		8260B	Total/NA
Benzene	22		5.0	2.2	ug/L	5		8260B	Total/NA
Trichloroethene	25		5.0	2.4	ug/L	5		8260B	Total/NA
Tetrachloroethene	92		5.0	3.7	ug/L	5		8260B	Total/NA
Chlorobenzene	180		5.0	1.3	ug/L	5		8260B	Total/NA
Ethylbenzene	1.8	J	5.0	1.7	ug/L	5		8260B	Total/NA
Xylenes, Total	4.1	J	5.0	1.2	ug/L	5		8260B	Total/NA
Isopropylbenzene	2.3	J	5.0	1.8	ug/L	5		8260B	Total/NA
1,3-Dichlorobenzene	15		5.0	2.2	ug/L	5		8260B	Total/NA
1,4-Dichlorobenzene	100		5.0	2.3	ug/L	5		8260B	Total/NA
1,2-Dichlorobenzene	25		5.0	1.9	ug/L	5		8260B	Total/NA
1,2,4-Trichlorobenzene	270		25	13	ug/L	5		8260B	Total/NA

Client Sample ID: PAN-MW-9 — Lab Sample ID: 680-117408-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	160		20	10	ug/L	20		8260B	Total/NA
1,1-Dichloroethene	7.5	J	20	7.2	ug/L	20		8260B	Total/NA
cis-1,2-Dichloroethene	2900		20	8.2	ug/L	20		8260B	Total/NA
Benzene	8.6	J	20	8.6	ug/L	20		8260B	Total/NA
Chlorobenzene	54		20	5.2	ug/L	20		8260B	Total/NA
Ethylbenzene	560		20	6.6	ug/L	20		8260B	Total/NA
Xylenes, Total	1500		20	4.6	ug/L	20		8260B	Total/NA
Isopropylbenzene	25		20	7.0	ug/L	20		8260B	Total/NA
1,3-Dichlorobenzene	12	J	20	8.6	ug/L	20		8260B	Total/NA
1,4-Dichlorobenzene	39		20	9.2	ug/L	20		8260B	Total/NA
1,2-Dichlorobenzene	7.5	J	20	7.4	ug/L	20		8260B	Total/NA

Client Sample ID: PAN-MW-10 — Lab Sample ID: 680-117408-25

No Detections.

Client Sample ID: Trip Blank — Lab Sample ID: 680-117408-26

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: IW-IR

Date Collected: 10/01/15 11:20
Date Received: 10/02/15 15:10

Lab Sample ID: 680-117408-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<120		200	120	ug/L			10/14/15 14:41	200
Chloromethane	<80		200	80	ug/L			10/14/15 14:41	200
Vinyl chloride	**330**		200	100	ug/L			10/14/15 14:41	200
Bromomethane	<500		1000	500	ug/L			10/14/15 14:41	200
Chloroethane	<500		1000	500	ug/L			10/14/15 14:41	200
Trichlorofluoromethane	<84		200	84	ug/L			10/14/15 14:41	200
1,1-Dichloroethene	<72		200	72	ug/L			10/14/15 14:41	200
1,1,2-Trichloro-1,2,2-trifluoroethane	<72		200	72	ug/L			10/14/15 14:41	200
Acetone	<1400		2000	1400	ug/L			10/14/15 14:41	200
Carbon disulfide	<200		400	200	ug/L			10/14/15 14:41	200
Methyl acetate	<360		1000	360	ug/L			10/14/15 14:41	200
Methylene Chloride	<500		1000	500	ug/L			10/14/15 14:41	200
trans-1,2-Dichloroethene	<74		200	74	ug/L			10/14/15 14:41	200
Methyl tert-butyl ether	<60		2000	60	ug/L			10/14/15 14:41	200
1,1-Dichloroethane	<76		200	76	ug/L			10/14/15 14:41	200
cis-1,2-Dichloroethene	**8800**		200	82	ug/L			10/14/15 14:41	200
2-Butanone	<680		2000	680	ug/L			10/14/15 14:41	200
Chloroform	<100		200	100	ug/L			10/14/15 14:41	200
1,1,1-Trichloroethane	<74		200	74	ug/L			10/14/15 14:41	200
Cyclohexane	<78		200	78	ug/L			10/14/15 14:41	200
Carbon tetrachloride	<66		200	66	ug/L			10/14/15 14:41	200
Benzene	**180**	**J**	200	86	ug/L			10/14/15 14:41	200
1,2-Dichloroethane	<100		200	100	ug/L			10/14/15 14:41	200
Trichloroethene	**100**	**J**	200	96	ug/L			10/14/15 14:41	200
Methylcyclohexane	<86		200	86	ug/L			10/14/15 14:41	200
1,2-Dichloropropane	<130		200	130	ug/L			10/14/15 14:41	200
Bromodichloromethane	<88		200	88	ug/L			10/14/15 14:41	200
cis-1,3-Dichloropropene	<80		200	80	ug/L			10/14/15 14:41	200
4-Methyl-2-pentanone	<420		2000	420	ug/L			10/14/15 14:41	200
Toluene	**200**		200	96	ug/L			10/14/15 14:41	200
trans-1,3-Dichloropropene	<84		200	84	ug/L			10/14/15 14:41	200
1,1,2-Trichloroethane	<66		200	66	ug/L			10/14/15 14:41	200
Tetrachloroethene	**230**		200	150	ug/L			10/14/15 14:41	200
2-Hexanone	<400		2000	400	ug/L			10/14/15 14:41	200
Dibromochloromethane	<64		200	64	ug/L			10/14/15 14:41	200
1,2-Dibromoethane	<88		200	88	ug/L			10/14/15 14:41	200
Chlorobenzene	**920**		200	52	ug/L			10/14/15 14:41	200
Ethylbenzene	**2200**		200	66	ug/L			10/14/15 14:41	200
Xylenes, Total	**19000**		200	46	ug/L			10/14/15 14:41	200
Styrene	<54		200	54	ug/L			10/14/15 14:41	200
Bromoform	<86		200	86	ug/L			10/14/15 14:41	200
Isopropylbenzene	<70		200	70	ug/L			10/14/15 14:41	200
1,1,2,2-Tetrachloroethane	<120		200	120	ug/L			10/14/15 14:41	200
1,3-Dichlorobenzene	**89**	**J**	200	86	ug/L			10/14/15 14:41	200
1,4-Dichlorobenzene	**780**		200	92	ug/L			10/14/15 14:41	200
1,2-Dichlorobenzene	**170**	**J**	200	74	ug/L			10/14/15 14:41	200
1,2-Dibromo-3-Chloropropane	<220		1000	220	ug/L			10/14/15 14:41	200
1,2,4-Trichlorobenzene	**1200**		1000	500	ug/L			10/14/15 14:41	200

Client Sample Results

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: IW-IR

Lab Sample ID: 680-117408-1
Date Collected: 10/01/15 11:20
Matrix: Water
Date Received: 10/02/15 15:10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*70 - 130*		*10/14/15 14:41*	*200*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*10/14/15 14:41*	*200*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*10/14/15 14:41*	*200*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*		*10/14/15 14:41*	*200*

Client Sample ID: IW-18

Lab Sample ID: 680-117408-2
Date Collected: 10/01/15 19:14
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<15		25	15	ug/L			10/14/15 12:06	25
Chloromethane	<10		25	10	ug/L			10/14/15 12:06	25
Vinyl chloride	**710**		25	13	ug/L			10/14/15 12:06	25
Bromomethane	<63		130	63	ug/L			10/14/15 12:06	25
Chloroethane	<63		130	63	ug/L			10/14/15 12:06	25
Trichlorofluoromethane	<11		25	11	ug/L			10/14/15 12:06	25
1,1-Dichloroethene	<9.0		25	9.0	ug/L			10/14/15 12:06	25
1,1,2-Trichloro-1,2,2-trifluoroethane	<9.0		25	9.0	ug/L			10/14/15 12:06	25
Acetone	<180		250	180	ug/L			10/14/15 12:06	25
Carbon disulfide	<25		50	25	ug/L			10/14/15 12:06	25
Methyl acetate	<45		130	45	ug/L			10/14/15 12:06	25
Methylene Chloride	<63		130	63	ug/L			10/14/15 12:06	25
trans-1,2-Dichloroethene	<9.3		25	9.3	ug/L			10/14/15 12:06	25
Methyl tert-butyl ether	<7.5		250	7.5	ug/L			10/14/15 12:06	25
1,1-Dichloroethane	<9.5		25	9.5	ug/L			10/14/15 12:06	25
cis-1,2-Dichloroethene	**2400**		25	10	ug/L			10/14/15 12:06	25
2-Butanone	<85		250	85	ug/L			10/14/15 12:06	25
Chloroform	<13		25	13	ug/L			10/14/15 12:06	25
1,1,1-Trichloroethane	<9.3		25	9.3	ug/L			10/14/15 12:06	25
Cyclohexane	<9.8		25	9.8	ug/L			10/14/15 12:06	25
Carbon tetrachloride	<8.3		25	8.3	ug/L			10/14/15 12:06	25
Benzene	**200**		25	11	ug/L			10/14/15 12:06	25
1,2-Dichloroethane	<13		25	13	ug/L			10/14/15 12:06	25
Trichloroethene	**25**		25	12	ug/L			10/14/15 12:06	25
Methylcyclohexane	<11		25	11	ug/L			10/14/15 12:06	25
1,2-Dichloropropane	<17		25	17	ug/L			10/14/15 12:06	25
Bromodichloromethane	<11		25	11	ug/L			10/14/15 12:06	25
cis-1,3-Dichloropropene	<10		25	10	ug/L			10/14/15 12:06	25
4-Methyl-2-pentanone	<53		250	53	ug/L			10/14/15 12:06	25
Toluene	**35**		25	12	ug/L			10/14/15 12:06	25
trans-1,3-Dichloropropene	<11		25	11	ug/L			10/14/15 12:06	25
1,1,2-Trichloroethane	<8.3		25	8.3	ug/L			10/14/15 12:06	25
Tetrachloroethene	**39**		25	19	ug/L			10/14/15 12:06	25
2-Hexanone	<50		250	50	ug/L			10/14/15 12:06	25
Dibromochloromethane	<8.0		25	8.0	ug/L			10/14/15 12:06	25
1,2-Dibromoethane	<11		25	11	ug/L			10/14/15 12:06	25
Chlorobenzene	**670**		25	6.5	ug/L			10/14/15 12:06	25
Ethylbenzene	**300**		25	8.3	ug/L			10/14/15 12:06	25
Xylenes, Total	**3000**		25	5.8	ug/L			10/14/15 12:06	25

Client Sample ID: IW-18

Lab Sample ID: 680-117408-2
Matrix: Water
Date Collected: 10/01/15 19:14
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<6.8		25	6.8	ug/L			10/14/15 12:06	25
Bromoform	<11		25	11	ug/L			10/14/15 12:06	25
Isopropylbenzene	<8.8		25	8.8	ug/L			10/14/15 12:06	25
1,1,2,2-Tetrachloroethane	<16		25	16	ug/L			10/14/15 12:06	25
1,3-Dichlorobenzene	**13**	**J**	25	11	ug/L			10/14/15 12:06	25
1,4-Dichlorobenzene	**75**		25	12	ug/L			10/14/15 12:06	25
1,2-Dichlorobenzene	**21**	**J**	25	9.3	ug/L			10/14/15 12:06	25
1,2-Dibromo-3-Chloropropane	<28		130	28	ug/L			10/14/15 12:06	25
1,2,4-Trichlorobenzene	**70**	**J**	130	63	ug/L			10/14/15 12:06	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*70 - 130*		*10/14/15 12:06*	*25*
1,2-Dichloroethane-d4 (Surr)	*125*		*70 - 130*		*10/14/15 12:06*	*25*
Dibromofluoromethane (Surr)	*118*		*70 - 130*		*10/14/15 12:06*	*25*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*10/14/15 12:06*	*25*

Client Sample ID: LAW-PZ-8R

Lab Sample ID: 680-117408-3
Matrix: Water
Date Collected: 10/01/15 14:34
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<600		1000	600	ug/L			10/13/15 15:09	1000
Chloromethane	<400		1000	400	ug/L			10/13/15 15:09	1000
Vinyl chloride	<500		1000	500	ug/L			10/13/15 15:09	1000
Bromomethane	<2500		5000	2500	ug/L			10/13/15 15:09	1000
Chloroethane	<2500		5000	2500	ug/L			10/13/15 15:09	1000
Trichlorofluoromethane	<420		1000	420	ug/L			10/13/15 15:09	1000
1,1-Dichloroethene	<360		1000	360	ug/L			10/13/15 15:09	1000
1,1,2-Trichloro-1,2,2-trifluoroethane	<360		1000	360	ug/L			10/13/15 15:09	1000
Acetone	<7000		10000	7000	ug/L			10/13/15 15:09	1000
Carbon disulfide	<1000		2000	1000	ug/L			10/13/15 15:09	1000
Methyl acetate	<1800		5000	1800	ug/L			10/13/15 15:09	1000
Methylene Chloride	<2500		5000	2500	ug/L			10/13/15 15:09	1000
trans-1,2-Dichloroethene	<370		1000	370	ug/L			10/13/15 15:09	1000
Methyl tert-butyl ether	<300		10000	300	ug/L			10/13/15 15:09	1000
1,1-Dichloroethane	<380		1000	380	ug/L			10/13/15 15:09	1000
cis-1,2-Dichloroethene	**5500**		1000	410	ug/L			10/13/15 15:09	1000
2-Butanone	<3400		10000	3400	ug/L			10/13/15 15:09	1000
Chloroform	<500		1000	500	ug/L			10/13/15 15:09	1000
1,1,1-Trichloroethane	<370		1000	370	ug/L			10/13/15 15:09	1000
Cyclohexane	<390		1000	390	ug/L			10/13/15 15:09	1000
Carbon tetrachloride	<330		1000	330	ug/L			10/13/15 15:09	1000
Benzene	**1200**		1000	430	ug/L			10/13/15 15:09	1000
1,2-Dichloroethane	<500		1000	500	ug/L			10/13/15 15:09	1000
Trichloroethene	<480		1000	480	ug/L			10/13/15 15:09	1000
Methylcyclohexane	<430		1000	430	ug/L			10/13/15 15:09	1000
1,2-Dichloropropane	<670		1000	670	ug/L			10/13/15 15:09	1000
Bromodichloromethane	<440		1000	440	ug/L			10/13/15 15:09	1000
cis-1,3-Dichloropropene	<400		1000	400	ug/L			10/13/15 15:09	1000

Client Sample ID: LAW-PZ-8R

Lab Sample ID: 680-117408-3
Date Collected: 10/01/15 14:34
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone	<2100		10000	2100	ug/L			10/13/15 15:09	1000
Toluene	<480		1000	480	ug/L			10/13/15 15:09	1000
trans-1,3-Dichloropropene	<420		1000	420	ug/L			10/13/15 15:09	1000
1,1,2-Trichloroethane	<330		1000	330	ug/L			10/13/15 15:09	1000
Tetrachloroethene	<740		1000	740	ug/L			10/13/15 15:09	1000
2-Hexanone	<2000		10000	2000	ug/L			10/13/15 15:09	1000
Dibromochloromethane	<320		1000	320	ug/L			10/13/15 15:09	1000
1,2-Dibromoethane	<440		1000	440	ug/L			10/13/15 15:09	1000
Chlorobenzene	**3600**		1000	260	ug/L			10/13/15 15:09	1000
Ethylbenzene	**6200**		1000	330	ug/L			10/13/15 15:09	1000
Xylenes, Total	**78000**		1000	230	ug/L			10/13/15 15:09	1000
Styrene	<270		1000	270	ug/L			10/13/15 15:09	1000
Bromoform	<430		1000	430	ug/L			10/13/15 15:09	1000
Isopropylbenzene	<350		1000	350	ug/L			10/13/15 15:09	1000
1,1,2,2-Tetrachloroethane	<620		1000	620	ug/L			10/13/15 15:09	1000
1,3-Dichlorobenzene	<430		1000	430	ug/L			10/13/15 15:09	1000
1,4-Dichlorobenzene	**940**	**J**	1000	460	ug/L			10/13/15 15:09	1000
1,2-Dichlorobenzene	<370		1000	370	ug/L			10/13/15 15:09	1000
1,2-Dibromo-3-Chloropropane	<1100		5000	1100	ug/L			10/13/15 15:09	1000
1,2,4-Trichlorobenzene	<2500		5000	2500	ug/L			10/13/15 15:09	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*80*		*70 - 130*		*10/13/15 15:09*	*1000*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*10/13/15 15:09*	*1000*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*10/13/15 15:09*	*1000*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*10/13/15 15:09*	*1000*

Client Sample ID: MW-14

Lab Sample ID: 680-117408-4
Date Collected: 09/30/15 17:38
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/12/15 16:47	1
Chloromethane	<0.40	*	1.0	0.40	ug/L			10/12/15 16:47	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/12/15 16:47	1
Bromomethane	<2.5	*	5.0	2.5	ug/L			10/12/15 16:47	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/12/15 16:47	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/12/15 16:47	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/12/15 16:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/12/15 16:47	1
Acetone	<7.0		10	7.0	ug/L			10/12/15 16:47	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/12/15 16:47	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/12/15 16:47	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/12/15 16:47	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/12/15 16:47	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/12/15 16:47	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/12/15 16:47	1
cis-1,2-Dichloroethene	**0.46**	**J**	1.0	0.41	ug/L			10/12/15 16:47	1
2-Butanone	<3.4		10	3.4	ug/L			10/12/15 16:47	1

Client Sample ID: MW-14

Lab Sample ID: 680-117408-4

Date Collected: 09/30/15 17:38

Matrix: Water

Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<0.50		1.0	0.50	ug/L			10/12/15 16:47	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/12/15 16:47	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/12/15 16:47	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/12/15 16:47	1
Benzene	<0.43		1.0	0.43	ug/L			10/12/15 16:47	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/12/15 16:47	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/12/15 16:47	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/12/15 16:47	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/12/15 16:47	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/12/15 16:47	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/12/15 16:47	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/12/15 16:47	1
Toluene	<0.48		1.0	0.48	ug/L			10/12/15 16:47	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/12/15 16:47	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/12/15 16:47	1
Tetrachloroethene	<0.74	*	1.0	0.74	ug/L			10/12/15 16:47	1
2-Hexanone	<2.0		10	2.0	ug/L			10/12/15 16:47	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/12/15 16:47	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/12/15 16:47	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/12/15 16:47	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/12/15 16:47	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/12/15 16:47	1
Styrene	<0.27		1.0	0.27	ug/L			10/12/15 16:47	1
Bromoform	<0.43		1.0	0.43	ug/L			10/12/15 16:47	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/12/15 16:47	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/12/15 16:47	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/12/15 16:47	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/12/15 16:47	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/12/15 16:47	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/12/15 16:47	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/12/15 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*107*		*70 - 130*		*10/12/15 16:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*		*10/12/15 16:47*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*10/12/15 16:47*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*10/12/15 16:47*	*1*

Client Sample ID: MW-16

Lab Sample ID: 680-117408-5

Date Collected: 09/30/15 16:03

Matrix: Water

Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<1.2		2.0	1.2	ug/L			10/12/15 16:02	2
Chloromethane	<0.80	*	2.0	0.80	ug/L			10/12/15 16:02	2
Vinyl chloride	**75**		2.0	1.0	ug/L			10/12/15 16:02	2
Bromomethane	<5.0	*	10	5.0	ug/L			10/12/15 16:02	2
Chloroethane	<5.0		10	5.0	ug/L			10/12/15 16:02	2
Trichlorofluoromethane	<0.84		2.0	0.84	ug/L			10/12/15 16:02	2

Client Sample Results

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-16

Date Collected: 09/30/15 16:03
Date Received: 10/02/15 15:10

Lab Sample ID: 680-117408-5

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<0.72		2.0	0.72	ug/L			10/12/15 16:02	2
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.72		2.0	0.72	ug/L			10/12/15 16:02	2
Acetone	<14		20	14	ug/L			10/12/15 16:02	2
Carbon disulfide	<2.0		4.0	2.0	ug/L			10/12/15 16:02	2
Methyl acetate	<3.6		10	3.6	ug/L			10/12/15 16:02	2
Methylene Chloride	<5.0		10	5.0	ug/L			10/12/15 16:02	2
trans-1,2-Dichloroethene	<0.74		2.0	0.74	ug/L			10/12/15 16:02	2
Methyl tert-butyl ether	<0.60		20	0.60	ug/L			10/12/15 16:02	2
1,1-Dichloroethane	<0.76		2.0	0.76	ug/L			10/12/15 16:02	2
cis-1,2-Dichloroethene	**150**		2.0	0.82	ug/L			10/12/15 16:02	2
2-Butanone	<6.8		20	6.8	ug/L			10/12/15 16:02	2
Chloroform	<1.0		2.0	1.0	ug/L			10/12/15 16:02	2
1,1,1-Trichloroethane	<0.74		2.0	0.74	ug/L			10/12/15 16:02	2
Cyclohexane	<0.78		2.0	0.78	ug/L			10/12/15 16:02	2
Carbon tetrachloride	<0.66		2.0	0.66	ug/L			10/12/15 16:02	2
Benzene	**1.7**	**J**	2.0	0.86	ug/L			10/12/15 16:02	2
1,2-Dichloroethane	<1.0		2.0	1.0	ug/L			10/12/15 16:02	2
Trichloroethene	<0.96		2.0	0.96	ug/L			10/12/15 16:02	2
Methylcyclohexane	<0.86		2.0	0.86	ug/L			10/12/15 16:02	2
1,2-Dichloropropane	<1.3		2.0	1.3	ug/L			10/12/15 16:02	2
Bromodichloromethane	<0.88		2.0	0.88	ug/L			10/12/15 16:02	2
cis-1,3-Dichloropropene	<0.80		2.0	0.80	ug/L			10/12/15 16:02	2
4-Methyl-2-pentanone	<4.2		20	4.2	ug/L			10/12/15 16:02	2
Toluene	<0.96		2.0	0.96	ug/L			10/12/15 16:02	2
trans-1,3-Dichloropropene	<0.84		2.0	0.84	ug/L			10/12/15 16:02	2
1,1,2-Trichloroethane	<0.66		2.0	0.66	ug/L			10/12/15 16:02	2
Tetrachloroethene	<1.5	*	2.0	1.5	ug/L			10/12/15 16:02	2
2-Hexanone	<4.0		20	4.0	ug/L			10/12/15 16:02	2
Dibromochloromethane	<0.64		2.0	0.64	ug/L			10/12/15 16:02	2
1,2-Dibromoethane	<0.88		2.0	0.88	ug/L			10/12/15 16:02	2
Chlorobenzene	**9.2**		2.0	0.52	ug/L			10/12/15 16:02	2
Ethylbenzene	<0.66		2.0	0.66	ug/L			10/12/15 16:02	2
Xylenes, Total	<0.46		2.0	0.46	ug/L			10/12/15 16:02	2
Styrene	<0.54		2.0	0.54	ug/L			10/12/15 16:02	2
Bromoform	<0.86		2.0	0.86	ug/L			10/12/15 16:02	2
Isopropylbenzene	<0.70		2.0	0.70	ug/L			10/12/15 16:02	2
1,1,2,2-Tetrachloroethane	<1.2		2.0	1.2	ug/L			10/12/15 16:02	2
1,3-Dichlorobenzene	**2.1**		2.0	0.86	ug/L			10/12/15 16:02	2
1,4-Dichlorobenzene	**4.4**		2.0	0.92	ug/L			10/12/15 16:02	2
1,2-Dichlorobenzene	<0.74		2.0	0.74	ug/L			10/12/15 16:02	2
1,2-Dibromo-3-Chloropropane	<2.2		10	2.2	ug/L			10/12/15 16:02	2
1,2,4-Trichlorobenzene	<5.0		10	5.0	ug/L			10/12/15 16:02	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*70 - 130*		*10/12/15 16:02*	*2*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*		*10/12/15 16:02*	*2*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*10/12/15 16:02*	*2*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*10/12/15 16:02*	*2*

Client Sample Results

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-17R

Date Collected: 09/30/15 10:03
Date Received: 10/02/15 15:10

Lab Sample ID: 680-117408-6

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/12/15 14:09	1
Chloromethane	<0.40	*	1.0	0.40	ug/L			10/12/15 14:09	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/12/15 14:09	1
Bromomethane	<2.5	*	5.0	2.5	ug/L			10/12/15 14:09	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/12/15 14:09	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/12/15 14:09	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/12/15 14:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/12/15 14:09	1
Acetone	<7.0		10	7.0	ug/L			10/12/15 14:09	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/12/15 14:09	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/12/15 14:09	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/12/15 14:09	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/12/15 14:09	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/12/15 14:09	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/12/15 14:09	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/12/15 14:09	1
2-Butanone	<3.4		10	3.4	ug/L			10/12/15 14:09	1
Chloroform	<0.50		1.0	0.50	ug/L			10/12/15 14:09	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/12/15 14:09	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/12/15 14:09	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/12/15 14:09	1
Benzene	<0.43		1.0	0.43	ug/L			10/12/15 14:09	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/12/15 14:09	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/12/15 14:09	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/12/15 14:09	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/12/15 14:09	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/12/15 14:09	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/12/15 14:09	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/12/15 14:09	1
Toluene	<0.48		1.0	0.48	ug/L			10/12/15 14:09	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/12/15 14:09	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/12/15 14:09	1
Tetrachloroethene	<0.74	*	1.0	0.74	ug/L			10/12/15 14:09	1
2-Hexanone	<2.0		10	2.0	ug/L			10/12/15 14:09	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/12/15 14:09	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/12/15 14:09	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/12/15 14:09	1
Ethylbenzene	**0.59**	**J**	1.0	0.33	ug/L			10/12/15 14:09	1
Xylenes, Total	**0.23**	**J**	1.0	0.23	ug/L			10/12/15 14:09	1
Styrene	<0.27		1.0	0.27	ug/L			10/12/15 14:09	1
Bromoform	<0.43		1.0	0.43	ug/L			10/12/15 14:09	1
Isopropylbenzene	**45**		1.0	0.35	ug/L			10/12/15 14:09	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/12/15 14:09	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/12/15 14:09	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/12/15 14:09	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/12/15 14:09	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/12/15 14:09	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/12/15 14:09	1

Client Sample Results

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-17R

Lab Sample ID: 680-117408-6
Date Collected: 09/30/15 10:03
Matrix: Water
Date Received: 10/02/15 15:10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*70 - 130*		*10/12/15 14:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*		*10/12/15 14:09*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*10/12/15 14:09*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*10/12/15 14:09*	*1*

Client Sample ID: MW-18R

Lab Sample ID: 680-117408-7
Date Collected: 09/29/15 19:01
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	**1.1**		1.0	0.60	ug/L			10/10/15 13:42	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/10/15 13:42	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/10/15 13:42	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/10/15 13:42	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/10/15 13:42	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/10/15 13:42	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/10/15 13:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/10/15 13:42	1
Acetone	<7.0		10	7.0	ug/L			10/10/15 13:42	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/10/15 13:42	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/10/15 13:42	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/10/15 13:42	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/10/15 13:42	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/10/15 13:42	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/10/15 13:42	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/10/15 13:42	1
2-Butanone	<3.4		10	3.4	ug/L			10/10/15 13:42	1
Chloroform	<0.50		1.0	0.50	ug/L			10/10/15 13:42	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/10/15 13:42	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/10/15 13:42	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/10/15 13:42	1
Benzene	<0.43		1.0	0.43	ug/L			10/10/15 13:42	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/10/15 13:42	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/10/15 13:42	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/10/15 13:42	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/10/15 13:42	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/10/15 13:42	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/10/15 13:42	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/10/15 13:42	1
Toluene	<0.48		1.0	0.48	ug/L			10/10/15 13:42	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/10/15 13:42	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/10/15 13:42	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/10/15 13:42	1
2-Hexanone	<2.0		10	2.0	ug/L			10/10/15 13:42	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/10/15 13:42	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/10/15 13:42	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/10/15 13:42	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/10/15 13:42	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/10/15 13:42	1

Client Sample ID: MW-18R

Lab Sample ID: 680-117408-7
Date Collected: 09/29/15 19:01
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<0.27		1.0	0.27	ug/L			10/10/15 13:42	1
Bromoform	<0.43		1.0	0.43	ug/L			10/10/15 13:42	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/10/15 13:42	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/10/15 13:42	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/10/15 13:42	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/10/15 13:42	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/10/15 13:42	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/10/15 13:42	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/10/15 13:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*70 - 130*		*10/10/15 13:42*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*10/10/15 13:42*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*10/10/15 13:42*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*10/10/15 13:42*	*1*

Client Sample ID: MW-19

Lab Sample ID: 680-117408-8
Date Collected: 09/28/15 16:33
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/10/15 11:54	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/10/15 11:54	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/10/15 11:54	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/10/15 11:54	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/10/15 11:54	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/10/15 11:54	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/10/15 11:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/10/15 11:54	1
Acetone	<7.0		10	7.0	ug/L			10/10/15 11:54	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/10/15 11:54	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/10/15 11:54	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/10/15 11:54	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/10/15 11:54	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/10/15 11:54	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/10/15 11:54	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/10/15 11:54	1
2-Butanone	<3.4		10	3.4	ug/L			10/10/15 11:54	1
Chloroform	<0.50		1.0	0.50	ug/L			10/10/15 11:54	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/10/15 11:54	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/10/15 11:54	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/10/15 11:54	1
Benzene	<0.43		1.0	0.43	ug/L			10/10/15 11:54	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/10/15 11:54	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/10/15 11:54	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/10/15 11:54	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/10/15 11:54	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/10/15 11:54	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/10/15 11:54	1

Client Sample ID: MW-19

Lab Sample ID: 680-117408-8
Date Collected: 09/28/15 16:33
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/10/15 11:54	1
Toluene	<0.48		1.0	0.48	ug/L			10/10/15 11:54	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/10/15 11:54	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/10/15 11:54	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/10/15 11:54	1
2-Hexanone	<2.0		10	2.0	ug/L			10/10/15 11:54	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/10/15 11:54	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/10/15 11:54	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/10/15 11:54	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/10/15 11:54	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/10/15 11:54	1
Styrene	<0.27		1.0	0.27	ug/L			10/10/15 11:54	1
Bromoform	<0.43		1.0	0.43	ug/L			10/10/15 11:54	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/10/15 11:54	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/10/15 11:54	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/10/15 11:54	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/10/15 11:54	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/10/15 11:54	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/10/15 11:54	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/10/15 11:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*105*		*70 - 130*		*10/10/15 11:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*10/10/15 11:54*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*10/10/15 11:54*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*10/10/15 11:54*	*1*

Client Sample ID: MW-23

Lab Sample ID: 680-117408-9
Date Collected: 09/28/15 14:43
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/09/15 16:06	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/09/15 16:06	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/09/15 16:06	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/09/15 16:06	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/09/15 16:06	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/09/15 16:06	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/09/15 16:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/09/15 16:06	1
Acetone	<7.0		10	7.0	ug/L			10/09/15 16:06	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/09/15 16:06	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/09/15 16:06	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/09/15 16:06	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/09/15 16:06	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/09/15 16:06	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/09/15 16:06	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/09/15 16:06	1
2-Butanone	<3.4		10	3.4	ug/L			10/09/15 16:06	1

Client Sample ID: MW-23

Lab Sample ID: 680-117408-9

Date Collected: 09/28/15 14:43

Matrix: Water

Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<0.50		1.0	0.50	ug/L			10/09/15 16:06	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/09/15 16:06	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/09/15 16:06	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/09/15 16:06	1
Benzene	<0.43		1.0	0.43	ug/L			10/09/15 16:06	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/09/15 16:06	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/09/15 16:06	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/09/15 16:06	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/09/15 16:06	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/09/15 16:06	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/09/15 16:06	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/09/15 16:06	1
Toluene	<0.48		1.0	0.48	ug/L			10/09/15 16:06	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/09/15 16:06	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/09/15 16:06	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/09/15 16:06	1
2-Hexanone	<2.0		10	2.0	ug/L			10/09/15 16:06	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/09/15 16:06	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/09/15 16:06	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/09/15 16:06	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/09/15 16:06	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/09/15 16:06	1
Styrene	<0.27		1.0	0.27	ug/L			10/09/15 16:06	1
Bromoform	<0.43		1.0	0.43	ug/L			10/09/15 16:06	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/09/15 16:06	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/09/15 16:06	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/09/15 16:06	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/09/15 16:06	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/09/15 16:06	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/09/15 16:06	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/09/15 16:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*105*		*70 - 130*		*10/09/15 16:06*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*10/09/15 16:06*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*10/09/15 16:06*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*10/09/15 16:06*	*1*

Client Sample ID: MW-24R

Lab Sample ID: 680-117408-10

Date Collected: 10/01/15 16:08

Matrix: Water

Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<3.0		5.0	3.0	ug/L			10/12/15 12:56	5
Chloromethane	<2.0		5.0	2.0	ug/L			10/12/15 12:56	5
Vinyl chloride	**24**		5.0	2.5	ug/L			10/12/15 12:56	5
Bromomethane	<13		25	13	ug/L			10/12/15 12:56	5
Chloroethane	<13		25	13	ug/L			10/12/15 12:56	5
Trichlorofluoromethane	<2.1		5.0	2.1	ug/L			10/12/15 12:56	5

Client Sample Results

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-24R

Date Collected: 10/01/15 16:08
Date Received: 10/02/15 15:10

Lab Sample ID: 680-117408-10

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<1.8		5.0	1.8	ug/L			10/12/15 12:56	5
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.8		5.0	1.8	ug/L			10/12/15 12:56	5
Acetone	<35		50	35	ug/L			10/12/15 12:56	5
Carbon disulfide	<5.0		10	5.0	ug/L			10/12/15 12:56	5
Methyl acetate	<9.0		25	9.0	ug/L			10/12/15 12:56	5
Methylene Chloride	<13		25	13	ug/L			10/12/15 12:56	5
trans-1,2-Dichloroethene	**1.9**	**J**	5.0	1.9	ug/L			10/12/15 12:56	5
Methyl tert-butyl ether	**140**		50	1.5	ug/L			10/12/15 12:56	5
1,1-Dichloroethane	<1.9		5.0	1.9	ug/L			10/12/15 12:56	5
cis-1,2-Dichloroethene	**360**		5.0	2.1	ug/L			10/12/15 12:56	5
2-Butanone	<17		50	17	ug/L			10/12/15 12:56	5
Chloroform	<2.5		5.0	2.5	ug/L			10/12/15 12:56	5
1,1,1-Trichloroethane	<1.9		5.0	1.9	ug/L			10/12/15 12:56	5
Cyclohexane	<2.0		5.0	2.0	ug/L			10/12/15 12:56	5
Carbon tetrachloride	<1.7		5.0	1.7	ug/L			10/12/15 12:56	5
Benzene	**4.4**	**J**	5.0	2.2	ug/L			10/12/15 12:56	5
1,2-Dichloroethane	<2.5		5.0	2.5	ug/L			10/12/15 12:56	5
Trichloroethene	<2.4		5.0	2.4	ug/L			10/12/15 12:56	5
Methylcyclohexane	<2.2		5.0	2.2	ug/L			10/12/15 12:56	5
1,2-Dichloropropane	<3.4		5.0	3.4	ug/L			10/12/15 12:56	5
Bromodichloromethane	<2.2		5.0	2.2	ug/L			10/12/15 12:56	5
cis-1,3-Dichloropropene	<2.0		5.0	2.0	ug/L			10/12/15 12:56	5
4-Methyl-2-pentanone	<11		50	11	ug/L			10/12/15 12:56	5
Toluene	<2.4		5.0	2.4	ug/L			10/12/15 12:56	5
trans-1,3-Dichloropropene	<2.1		5.0	2.1	ug/L			10/12/15 12:56	5
1,1,2-Trichloroethane	<1.7		5.0	1.7	ug/L			10/12/15 12:56	5
Tetrachloroethene	<3.7		5.0	3.7	ug/L			10/12/15 12:56	5
2-Hexanone	<10		50	10	ug/L			10/12/15 12:56	5
Dibromochloromethane	<1.6		5.0	1.6	ug/L			10/12/15 12:56	5
1,2-Dibromoethane	<2.2		5.0	2.2	ug/L			10/12/15 12:56	5
Chlorobenzene	<1.3		5.0	1.3	ug/L			10/12/15 12:56	5
Ethylbenzene	<1.7		5.0	1.7	ug/L			10/12/15 12:56	5
Xylenes, Total	<1.2		5.0	1.2	ug/L			10/12/15 12:56	5
Styrene	<1.4		5.0	1.4	ug/L			10/12/15 12:56	5
Bromoform	<2.2		5.0	2.2	ug/L			10/12/15 12:56	5
Isopropylbenzene	<1.8		5.0	1.8	ug/L			10/12/15 12:56	5
1,1,2,2-Tetrachloroethane	<3.1		5.0	3.1	ug/L			10/12/15 12:56	5
1,3-Dichlorobenzene	<2.2		5.0	2.2	ug/L			10/12/15 12:56	5
1,4-Dichlorobenzene	<2.3		5.0	2.3	ug/L			10/12/15 12:56	5
1,2-Dichlorobenzene	<1.9		5.0	1.9	ug/L			10/12/15 12:56	5
1,2-Dibromo-3-Chloropropane	<5.5		25	5.5	ug/L			10/12/15 12:56	5
1,2,4-Trichlorobenzene	<13		25	13	ug/L			10/12/15 12:56	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*109*		*70 - 130*		*10/12/15 12:56*	*5*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*10/12/15 12:56*	*5*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*10/12/15 12:56*	*5*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*10/12/15 12:56*	*5*

Client Sample Results

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-25

Date Collected: 09/28/15 18:04
Date Received: 10/02/15 15:10

Lab Sample ID: 680-117408-11

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/09/15 16:49	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/09/15 16:49	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/09/15 16:49	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/09/15 16:49	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/09/15 16:49	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/09/15 16:49	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/09/15 16:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/09/15 16:49	1
Acetone	<7.0		10	7.0	ug/L			10/09/15 16:49	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/09/15 16:49	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/09/15 16:49	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/09/15 16:49	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/09/15 16:49	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/09/15 16:49	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/09/15 16:49	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/09/15 16:49	1
2-Butanone	<3.4		10	3.4	ug/L			10/09/15 16:49	1
Chloroform	<0.50		1.0	0.50	ug/L			10/09/15 16:49	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/09/15 16:49	1
Cyclohexane	**0.72**	**J**	1.0	0.39	ug/L			10/09/15 16:49	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/09/15 16:49	1
Benzene	<0.43		1.0	0.43	ug/L			10/09/15 16:49	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/09/15 16:49	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/09/15 16:49	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/09/15 16:49	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/09/15 16:49	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/09/15 16:49	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/09/15 16:49	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/09/15 16:49	1
Toluene	<0.48		1.0	0.48	ug/L			10/09/15 16:49	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/09/15 16:49	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/09/15 16:49	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/09/15 16:49	1
2-Hexanone	<2.0		10	2.0	ug/L			10/09/15 16:49	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/09/15 16:49	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/09/15 16:49	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/09/15 16:49	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/09/15 16:49	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/09/15 16:49	1
Styrene	<0.27		1.0	0.27	ug/L			10/09/15 16:49	1
Bromoform	<0.43		1.0	0.43	ug/L			10/09/15 16:49	1
Isopropylbenzene	**1.2**		1.0	0.35	ug/L			10/09/15 16:49	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/09/15 16:49	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/09/15 16:49	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/09/15 16:49	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/09/15 16:49	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/09/15 16:49	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/09/15 16:49	1

Client Sample Results

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-25

Lab Sample ID: 680-117408-11
Date Collected: 09/28/15 18:04
Matrix: Water
Date Received: 10/02/15 15:10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*105*		*70 - 130*		*10/09/15 16:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*10/09/15 16:49*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*10/09/15 16:49*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*10/09/15 16:49*	*1*

Client Sample ID: MW-26R

Lab Sample ID: 680-117408-12
Date Collected: 10/01/15 10:05
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<3.0		5.0	3.0	ug/L			10/14/15 14:15	5
Chloromethane	<2.0		5.0	2.0	ug/L			10/14/15 14:15	5
Vinyl chloride	<2.5		5.0	2.5	ug/L			10/14/15 14:15	5
Bromomethane	<13		25	13	ug/L			10/14/15 14:15	5
Chloroethane	<13		25	13	ug/L			10/14/15 14:15	5
Trichlorofluoromethane	<2.1		5.0	2.1	ug/L			10/14/15 14:15	5
1,1-Dichloroethene	<1.8		5.0	1.8	ug/L			10/14/15 14:15	5
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.8		5.0	1.8	ug/L			10/14/15 14:15	5
Acetone	<35		50	35	ug/L			10/14/15 14:15	5
Carbon disulfide	<5.0		10	5.0	ug/L			10/14/15 14:15	5
Methyl acetate	<9.0		25	9.0	ug/L			10/14/15 14:15	5
Methylene Chloride	<13		25	13	ug/L			10/14/15 14:15	5
trans-1,2-Dichloroethene	<1.9		5.0	1.9	ug/L			10/14/15 14:15	5
Methyl tert-butyl ether	<1.5		50	1.5	ug/L			10/14/15 14:15	5
1,1-Dichloroethane	<1.9		5.0	1.9	ug/L			10/14/15 14:15	5
cis-1,2-Dichloroethene	**2.4**	**J**	5.0	2.1	ug/L			10/14/15 14:15	5
2-Butanone	<17		50	17	ug/L			10/14/15 14:15	5
Chloroform	<2.5		5.0	2.5	ug/L			10/14/15 14:15	5
1,1,1-Trichloroethane	<1.9		5.0	1.9	ug/L			10/14/15 14:15	5
Cyclohexane	<2.0		5.0	2.0	ug/L			10/14/15 14:15	5
Carbon tetrachloride	<1.7		5.0	1.7	ug/L			10/14/15 14:15	5
Benzene	**37**		5.0	2.2	ug/L			10/14/15 14:15	5
1,2-Dichloroethane	<2.5		5.0	2.5	ug/L			10/14/15 14:15	5
Trichloroethene	<2.4		5.0	2.4	ug/L			10/14/15 14:15	5
Methylcyclohexane	<2.2		5.0	2.2	ug/L			10/14/15 14:15	5
1,2-Dichloropropane	<3.4		5.0	3.4	ug/L			10/14/15 14:15	5
Bromodichloromethane	<2.2		5.0	2.2	ug/L			10/14/15 14:15	5
cis-1,3-Dichloropropene	<2.0		5.0	2.0	ug/L			10/14/15 14:15	5
4-Methyl-2-pentanone	<11		50	11	ug/L			10/14/15 14:15	5
Toluene	<2.4		5.0	2.4	ug/L			10/14/15 14:15	5
trans-1,3-Dichloropropene	<2.1		5.0	2.1	ug/L			10/14/15 14:15	5
1,1,2-Trichloroethane	<1.7		5.0	1.7	ug/L			10/14/15 14:15	5
Tetrachloroethene	<3.7		5.0	3.7	ug/L			10/14/15 14:15	5
2-Hexanone	<10		50	10	ug/L			10/14/15 14:15	5
Dibromochloromethane	<1.6		5.0	1.6	ug/L			10/14/15 14:15	5
1,2-Dibromoethane	<2.2		5.0	2.2	ug/L			10/14/15 14:15	5
Chlorobenzene	**100**		5.0	1.3	ug/L			10/14/15 14:15	5
Ethylbenzene	**18**		5.0	1.7	ug/L			10/14/15 14:15	5
Xylenes, Total	**350**		5.0	1.2	ug/L			10/14/15 14:15	5

Client Sample ID: MW-26R

Lab Sample ID: 680-117408-12
Date Collected: 10/01/15 10:05
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<1.4		5.0	1.4	ug/L			10/14/15 14:15	5
Bromoform	<2.2		5.0	2.2	ug/L			10/14/15 14:15	5
Isopropylbenzene	**2.6**	**J**	5.0	1.8	ug/L			10/14/15 14:15	5
1,1,2,2-Tetrachloroethane	<3.1		5.0	3.1	ug/L			10/14/15 14:15	5
1,3-Dichlorobenzene	<2.2		5.0	2.2	ug/L			10/14/15 14:15	5
1,4-Dichlorobenzene	<2.3		5.0	2.3	ug/L			10/14/15 14:15	5
1,2-Dichlorobenzene	<1.9		5.0	1.9	ug/L			10/14/15 14:15	5
1,2-Dibromo-3-Chloropropane	<5.5		25	5.5	ug/L			10/14/15 14:15	5
1,2,4-Trichlorobenzene	<13		25	13	ug/L			10/14/15 14:15	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*70 - 130*		*10/14/15 14:15*	*5*
1,2-Dichloroethane-d4 (Surr)	*127*		*70 - 130*		*10/14/15 14:15*	*5*
Dibromofluoromethane (Surr)	*120*		*70 - 130*		*10/14/15 14:15*	*5*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*10/14/15 14:15*	*5*

Client Sample ID: MW-27

Lab Sample ID: 680-117408-13
Date Collected: 09/28/15 11:31
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/09/15 17:10	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/09/15 17:10	1
Vinyl chloride	**30**		1.0	0.50	ug/L			10/09/15 17:10	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/09/15 17:10	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/09/15 17:10	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/09/15 17:10	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/09/15 17:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/09/15 17:10	1
Acetone	<7.0		10	7.0	ug/L			10/09/15 17:10	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/09/15 17:10	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/09/15 17:10	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/09/15 17:10	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/09/15 17:10	1
Methyl tert-butyl ether	**3.9**	**J**	10	0.30	ug/L			10/09/15 17:10	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/09/15 17:10	1
cis-1,2-Dichloroethene	**10**		1.0	0.41	ug/L			10/09/15 17:10	1
2-Butanone	<3.4		10	3.4	ug/L			10/09/15 17:10	1
Chloroform	<0.50		1.0	0.50	ug/L			10/09/15 17:10	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/09/15 17:10	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/09/15 17:10	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/09/15 17:10	1
Benzene	<0.43		1.0	0.43	ug/L			10/09/15 17:10	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/09/15 17:10	1
Trichloroethene	**0.62**	**J**	1.0	0.48	ug/L			10/09/15 17:10	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/09/15 17:10	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/09/15 17:10	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/09/15 17:10	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/09/15 17:10	1

Client Sample ID: MW-27

Lab Sample ID: 680-117408-13

Date Collected: 09/28/15 11:31

Matrix: Water

Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/09/15 17:10	1
Toluene	<0.48		1.0	0.48	ug/L			10/09/15 17:10	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/09/15 17:10	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/09/15 17:10	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/09/15 17:10	1
2-Hexanone	<2.0		10	2.0	ug/L			10/09/15 17:10	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/09/15 17:10	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/09/15 17:10	1
Chlorobenzene	**34**		1.0	0.26	ug/L			10/09/15 17:10	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/09/15 17:10	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/09/15 17:10	1
Styrene	<0.27		1.0	0.27	ug/L			10/09/15 17:10	1
Bromoform	<0.43		1.0	0.43	ug/L			10/09/15 17:10	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/09/15 17:10	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/09/15 17:10	1
1,3-Dichlorobenzene	**3.2**		1.0	0.43	ug/L			10/09/15 17:10	1
1,4-Dichlorobenzene	**2.3**		1.0	0.46	ug/L			10/09/15 17:10	1
1,2-Dichlorobenzene	**0.48**	**J**	1.0	0.37	ug/L			10/09/15 17:10	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/09/15 17:10	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/09/15 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*105*		*70 - 130*		*10/09/15 17:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*10/09/15 17:10*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 130*		*10/09/15 17:10*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*10/09/15 17:10*	*1*

Client Sample ID: MW-28

Lab Sample ID: 680-117408-14

Date Collected: 09/29/15 11:21

Matrix: Water

Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<1.2		2.0	1.2	ug/L			10/12/15 14:06	2
Chloromethane	<0.80		2.0	0.80	ug/L			10/12/15 14:06	2
Vinyl chloride	**80**		2.0	1.0	ug/L			10/12/15 14:06	2
Bromomethane	<5.0		10	5.0	ug/L			10/12/15 14:06	2
Chloroethane	<5.0		10	5.0	ug/L			10/12/15 14:06	2
Trichlorofluoromethane	<0.84		2.0	0.84	ug/L			10/12/15 14:06	2
1,1-Dichloroethene	**0.91**	**J**	2.0	0.72	ug/L			10/12/15 14:06	2
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.72		2.0	0.72	ug/L			10/12/15 14:06	2
Acetone	<14		20	14	ug/L			10/12/15 14:06	2
Carbon disulfide	<2.0		4.0	2.0	ug/L			10/12/15 14:06	2
Methyl acetate	<3.6		10	3.6	ug/L			10/12/15 14:06	2
Methylene Chloride	<5.0		10	5.0	ug/L			10/12/15 14:06	2
trans-1,2-Dichloroethene	**0.97**	**J**	2.0	0.74	ug/L			10/12/15 14:06	2
Methyl tert-butyl ether	<0.60		20	0.60	ug/L			10/12/15 14:06	2
1,1-Dichloroethane	<0.76		2.0	0.76	ug/L			10/12/15 14:06	2
cis-1,2-Dichloroethene	**220**		2.0	0.82	ug/L			10/12/15 14:06	2
2-Butanone	<6.8		20	6.8	ug/L			10/12/15 14:06	2

Client Sample ID: MW-28

Lab Sample ID: 680-117408-14

Date Collected: 09/29/15 11:21

Matrix: Water

Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<1.0		2.0	1.0	ug/L			10/12/15 14:06	2
1,1,1-Trichloroethane	<0.74		2.0	0.74	ug/L			10/12/15 14:06	2
Cyclohexane	<0.78		2.0	0.78	ug/L			10/12/15 14:06	2
Carbon tetrachloride	<0.66		2.0	0.66	ug/L			10/12/15 14:06	2
Benzene	**10**		2.0	0.86	ug/L			10/12/15 14:06	2
1,2-Dichloroethane	<1.0		2.0	1.0	ug/L			10/12/15 14:06	2
Trichloroethene	**6.9**		2.0	0.96	ug/L			10/12/15 14:06	2
Methylcyclohexane	<0.86		2.0	0.86	ug/L			10/12/15 14:06	2
1,2-Dichloropropane	<1.3		2.0	1.3	ug/L			10/12/15 14:06	2
Bromodichloromethane	<0.88		2.0	0.88	ug/L			10/12/15 14:06	2
cis-1,3-Dichloropropene	<0.80		2.0	0.80	ug/L			10/12/15 14:06	2
4-Methyl-2-pentanone	<4.2		20	4.2	ug/L			10/12/15 14:06	2
Toluene	<0.96		2.0	0.96	ug/L			10/12/15 14:06	2
trans-1,3-Dichloropropene	<0.84		2.0	0.84	ug/L			10/12/15 14:06	2
1,1,2-Trichloroethane	<0.66		2.0	0.66	ug/L			10/12/15 14:06	2
Tetrachloroethene	**32**		2.0	1.5	ug/L			10/12/15 14:06	2
2-Hexanone	<4.0		20	4.0	ug/L			10/12/15 14:06	2
Dibromochloromethane	<0.64		2.0	0.64	ug/L			10/12/15 14:06	2
1,2-Dibromoethane	<0.88		2.0	0.88	ug/L			10/12/15 14:06	2
Chlorobenzene	**67**		2.0	0.52	ug/L			10/12/15 14:06	2
Ethylbenzene	<0.66		2.0	0.66	ug/L			10/12/15 14:06	2
Xylenes, Total	**1.6**	**J**	2.0	0.46	ug/L			10/12/15 14:06	2
Styrene	<0.54		2.0	0.54	ug/L			10/12/15 14:06	2
Bromoform	<0.86		2.0	0.86	ug/L			10/12/15 14:06	2
Isopropylbenzene	<0.70		2.0	0.70	ug/L			10/12/15 14:06	2
1,1,2,2-Tetrachloroethane	<1.2		2.0	1.2	ug/L			10/12/15 14:06	2
1,3-Dichlorobenzene	**2.7**		2.0	0.86	ug/L			10/12/15 14:06	2
1,4-Dichlorobenzene	**19**		2.0	0.92	ug/L			10/12/15 14:06	2
1,2-Dichlorobenzene	**4.6**		2.0	0.74	ug/L			10/12/15 14:06	2
1,2-Dibromo-3-Chloropropane	<2.2		10	2.2	ug/L			10/12/15 14:06	2
1,2,4-Trichlorobenzene	**21**		10	5.0	ug/L			10/12/15 14:06	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*108*		*70 - 130*		*10/12/15 14:06*	*2*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*10/12/15 14:06*	*2*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*10/12/15 14:06*	*2*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*10/12/15 14:06*	*2*

Client Sample ID: MW-29

Lab Sample ID: 680-117408-15

Date Collected: 10/01/15 17:22

Matrix: Water

Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<60		100	60	ug/L			10/14/15 14:18	100
Chloromethane	<40		100	40	ug/L			10/14/15 14:18	100
Vinyl chloride	**1000**		100	50	ug/L			10/14/15 14:18	100
Bromomethane	<250		500	250	ug/L			10/14/15 14:18	100
Chloroethane	<250		500	250	ug/L			10/14/15 14:18	100
Trichlorofluoromethane	<42		100	42	ug/L			10/14/15 14:18	100

Client Sample Results

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-29

Date Collected: 10/01/15 17:22
Date Received: 10/02/15 15:10

Lab Sample ID: 680-117408-15

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<36		100	36	ug/L			10/14/15 14:18	100
1,1,2-Trichloro-1,2,2-trifluoroethane	<36		100	36	ug/L			10/14/15 14:18	100
Acetone	<700		1000	700	ug/L			10/14/15 14:18	100
Carbon disulfide	<100		200	100	ug/L			10/14/15 14:18	100
Methyl acetate	<180		500	180	ug/L			10/14/15 14:18	100
Methylene Chloride	<250		500	250	ug/L			10/14/15 14:18	100
trans-1,2-Dichloroethene	<37		100	37	ug/L			10/14/15 14:18	100
Methyl tert-butyl ether	<30		1000	30	ug/L			10/14/15 14:18	100
1,1-Dichloroethane	<38		100	38	ug/L			10/14/15 14:18	100
cis-1,2-Dichloroethene	**9000**		100	41	ug/L			10/14/15 14:18	100
2-Butanone	<340		1000	340	ug/L			10/14/15 14:18	100
Chloroform	<50		100	50	ug/L			10/14/15 14:18	100
1,1,1-Trichloroethane	<37		100	37	ug/L			10/14/15 14:18	100
Cyclohexane	<39		100	39	ug/L			10/14/15 14:18	100
Carbon tetrachloride	<33		100	33	ug/L			10/14/15 14:18	100
Benzene	<43		100	43	ug/L			10/14/15 14:18	100
1,2-Dichloroethane	<50		100	50	ug/L			10/14/15 14:18	100
Trichloroethene	**130**		100	48	ug/L			10/14/15 14:18	100
Methylcyclohexane	<43		100	43	ug/L			10/14/15 14:18	100
1,2-Dichloropropane	<67		100	67	ug/L			10/14/15 14:18	100
Bromodichloromethane	<44		100	44	ug/L			10/14/15 14:18	100
cis-1,3-Dichloropropene	<40		100	40	ug/L			10/14/15 14:18	100
4-Methyl-2-pentanone	<210		1000	210	ug/L			10/14/15 14:18	100
Toluene	<48		100	48	ug/L			10/14/15 14:18	100
trans-1,3-Dichloropropene	<42		100	42	ug/L			10/14/15 14:18	100
1,1,2-Trichloroethane	<33		100	33	ug/L			10/14/15 14:18	100
Tetrachloroethene	**110**		100	74	ug/L			10/14/15 14:18	100
2-Hexanone	<200		1000	200	ug/L			10/14/15 14:18	100
Dibromochloromethane	<32		100	32	ug/L			10/14/15 14:18	100
1,2-Dibromoethane	<44		100	44	ug/L			10/14/15 14:18	100
Chlorobenzene	**190**		100	26	ug/L			10/14/15 14:18	100
Ethylbenzene	**1700**		100	33	ug/L			10/14/15 14:18	100
Xylenes, Total	**4700**		100	23	ug/L			10/14/15 14:18	100
Styrene	<27		100	27	ug/L			10/14/15 14:18	100
Bromoform	<43		100	43	ug/L			10/14/15 14:18	100
Isopropylbenzene	**49**	**J**	100	35	ug/L			10/14/15 14:18	100
1,1,2,2-Tetrachloroethane	<62		100	62	ug/L			10/14/15 14:18	100
1,3-Dichlorobenzene	**55**	**J**	100	43	ug/L			10/14/15 14:18	100
1,4-Dichlorobenzene	**190**		100	46	ug/L			10/14/15 14:18	100
1,2-Dichlorobenzene	**39**	**J**	100	37	ug/L			10/14/15 14:18	100
1,2-Dibromo-3-Chloropropane	<110		500	110	ug/L			10/14/15 14:18	100
1,2,4-Trichlorobenzene	<250		500	250	ug/L			10/14/15 14:18	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*70 - 130*		*10/14/15 14:18*	*100*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*10/14/15 14:18*	*100*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*10/14/15 14:18*	*100*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*10/14/15 14:18*	*100*

Client Sample Results

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-30

Date Collected: 09/29/15 17:45
Date Received: 10/02/15 15:10

Lab Sample ID: 680-117408-16

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/12/15 14:29	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/12/15 14:29	1
Vinyl chloride	**2.0**		1.0	0.50	ug/L			10/12/15 14:29	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/12/15 14:29	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/12/15 14:29	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/12/15 14:29	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/12/15 14:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/12/15 14:29	1
Acetone	<7.0		10	7.0	ug/L			10/12/15 14:29	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/12/15 14:29	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/12/15 14:29	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/12/15 14:29	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/12/15 14:29	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/12/15 14:29	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/12/15 14:29	1
cis-1,2-Dichloroethene	**1.7**		1.0	0.41	ug/L			10/12/15 14:29	1
2-Butanone	<3.4		10	3.4	ug/L			10/12/15 14:29	1
Chloroform	<0.50		1.0	0.50	ug/L			10/12/15 14:29	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/12/15 14:29	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/12/15 14:29	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/12/15 14:29	1
Benzene	**0.43**	**J**	1.0	0.43	ug/L			10/12/15 14:29	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/12/15 14:29	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/12/15 14:29	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/12/15 14:29	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/12/15 14:29	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/12/15 14:29	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/12/15 14:29	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/12/15 14:29	1
Toluene	<0.48		1.0	0.48	ug/L			10/12/15 14:29	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/12/15 14:29	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/12/15 14:29	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/12/15 14:29	1
2-Hexanone	<2.0		10	2.0	ug/L			10/12/15 14:29	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/12/15 14:29	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/12/15 14:29	1
Chlorobenzene	**0.90**	**J**	1.0	0.26	ug/L			10/12/15 14:29	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/12/15 14:29	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/12/15 14:29	1
Styrene	<0.27		1.0	0.27	ug/L			10/12/15 14:29	1
Bromoform	<0.43		1.0	0.43	ug/L			10/12/15 14:29	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/12/15 14:29	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/12/15 14:29	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/12/15 14:29	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/12/15 14:29	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/12/15 14:29	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/12/15 14:29	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/12/15 14:29	1

Client Sample Results

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-30

Lab Sample ID: 680-117408-16
Date Collected: 09/29/15 17:45
Matrix: Water
Date Received: 10/02/15 15:10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*108*		*70 - 130*		*10/12/15 14:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*10/12/15 14:29*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*10/12/15 14:29*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*10/12/15 14:29*	*1*

Client Sample ID: MW-31

Lab Sample ID: 680-117408-17
Date Collected: 09/28/15 13:31
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/09/15 17:32	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/09/15 17:32	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/09/15 17:32	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/09/15 17:32	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/09/15 17:32	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/09/15 17:32	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/09/15 17:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/09/15 17:32	1
Acetone	<7.0		10	7.0	ug/L			10/09/15 17:32	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/09/15 17:32	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/09/15 17:32	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/09/15 17:32	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/09/15 17:32	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/09/15 17:32	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/09/15 17:32	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/09/15 17:32	1
2-Butanone	<3.4		10	3.4	ug/L			10/09/15 17:32	1
Chloroform	<0.50		1.0	0.50	ug/L			10/09/15 17:32	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/09/15 17:32	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/09/15 17:32	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/09/15 17:32	1
Benzene	<0.43		1.0	0.43	ug/L			10/09/15 17:32	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/09/15 17:32	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/09/15 17:32	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/09/15 17:32	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/09/15 17:32	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/09/15 17:32	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/09/15 17:32	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/09/15 17:32	1
Toluene	<0.48		1.0	0.48	ug/L			10/09/15 17:32	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/09/15 17:32	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/09/15 17:32	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/09/15 17:32	1
2-Hexanone	<2.0		10	2.0	ug/L			10/09/15 17:32	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/09/15 17:32	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/09/15 17:32	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/09/15 17:32	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/09/15 17:32	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/09/15 17:32	1

Client Sample ID: MW-31

Lab Sample ID: 680-117408-17
Date Collected: 09/28/15 13:31
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<0.27		1.0	0.27	ug/L			10/09/15 17:32	1
Bromoform	<0.43		1.0	0.43	ug/L			10/09/15 17:32	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/09/15 17:32	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/09/15 17:32	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/09/15 17:32	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/09/15 17:32	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/09/15 17:32	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/09/15 17:32	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/09/15 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*70 - 130*		*10/09/15 17:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*10/09/15 17:32*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*10/09/15 17:32*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*10/09/15 17:32*	*1*

Client Sample ID: MW-32

Lab Sample ID: 680-117408-18
Date Collected: 09/30/15 11:02
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/13/15 10:30	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/13/15 10:30	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/13/15 10:30	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/13/15 10:30	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/13/15 10:30	1
Trichlorofluoromethane	**5.7**		1.0	0.42	ug/L			10/13/15 10:30	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/13/15 10:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/13/15 10:30	1
Acetone	<7.0		10	7.0	ug/L			10/13/15 10:30	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/13/15 10:30	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/13/15 10:30	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/13/15 10:30	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/13/15 10:30	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/13/15 10:30	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/13/15 10:30	1
cis-1,2-Dichloroethene	**0.81**	**J**	1.0	0.41	ug/L			10/13/15 10:30	1
2-Butanone	<3.4		10	3.4	ug/L			10/13/15 10:30	1
Chloroform	<0.50		1.0	0.50	ug/L			10/13/15 10:30	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/13/15 10:30	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/13/15 10:30	1
Carbon tetrachloride	<0.33	*	1.0	0.33	ug/L			10/13/15 10:30	1
Benzene	<0.43		1.0	0.43	ug/L			10/13/15 10:30	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/13/15 10:30	1
Trichloroethene	**0.49**	**J**	1.0	0.48	ug/L			10/13/15 10:30	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/13/15 10:30	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/13/15 10:30	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/13/15 10:30	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/13/15 10:30	1

Client Sample ID: MW-32

Lab Sample ID: 680-117408-18
Date Collected: 09/30/15 11:02
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/13/15 10:30	1
Toluene	<0.48		1.0	0.48	ug/L			10/13/15 10:30	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/13/15 10:30	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/13/15 10:30	1
Tetrachloroethene	**1.3**		1.0	0.74	ug/L			10/13/15 10:30	1
2-Hexanone	<2.0		10	2.0	ug/L			10/13/15 10:30	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/13/15 10:30	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/13/15 10:30	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/13/15 10:30	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/13/15 10:30	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/13/15 10:30	1
Styrene	<0.27		1.0	0.27	ug/L			10/13/15 10:30	1
Bromoform	<0.43		1.0	0.43	ug/L			10/13/15 10:30	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/13/15 10:30	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/13/15 10:30	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/13/15 10:30	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/13/15 10:30	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/13/15 10:30	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/13/15 10:30	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/13/15 10:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*105*		*70 - 130*		*10/13/15 10:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*		*10/13/15 10:30*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*10/13/15 10:30*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*10/13/15 10:30*	*1*

Client Sample ID: MW-33

Lab Sample ID: 680-117408-19
Date Collected: 10/01/15 18:05
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<3.0		5.0	3.0	ug/L			10/13/15 15:51	5
Chloromethane	<2.0		5.0	2.0	ug/L			10/13/15 15:51	5
Vinyl chloride	**170**		5.0	2.5	ug/L			10/13/15 15:51	5
Bromomethane	<13		25	13	ug/L			10/13/15 15:51	5
Chloroethane	<13		25	13	ug/L			10/13/15 15:51	5
Trichlorofluoromethane	<2.1		5.0	2.1	ug/L			10/13/15 15:51	5
1,1-Dichloroethene	<1.8		5.0	1.8	ug/L			10/13/15 15:51	5
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.8		5.0	1.8	ug/L			10/13/15 15:51	5
Acetone	<35		50	35	ug/L			10/13/15 15:51	5
Carbon disulfide	<5.0		10	5.0	ug/L			10/13/15 15:51	5
Methyl acetate	<9.0		25	9.0	ug/L			10/13/15 15:51	5
Methylene Chloride	<13		25	13	ug/L			10/13/15 15:51	5
trans-1,2-Dichloroethene	**3.3**	**J**	5.0	1.9	ug/L			10/13/15 15:51	5
Methyl tert-butyl ether	<1.5		50	1.5	ug/L			10/13/15 15:51	5
1,1-Dichloroethane	<1.9		5.0	1.9	ug/L			10/13/15 15:51	5
cis-1,2-Dichloroethene	**260**		5.0	2.1	ug/L			10/13/15 15:51	5
2-Butanone	<17		50	17	ug/L			10/13/15 15:51	5

Client Sample ID: MW-33

Lab Sample ID: 680-117408-19

Date Collected: 10/01/15 18:05

Matrix: Water

Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<2.5		5.0	2.5	ug/L			10/13/15 15:51	5
1,1,1-Trichloroethane	<1.9		5.0	1.9	ug/L			10/13/15 15:51	5
Cyclohexane	<2.0		5.0	2.0	ug/L			10/13/15 15:51	5
Carbon tetrachloride	<1.7		5.0	1.7	ug/L			10/13/15 15:51	5
Benzene	<2.2		5.0	2.2	ug/L			10/13/15 15:51	5
1,2-Dichloroethane	<2.5		5.0	2.5	ug/L			10/13/15 15:51	5
Trichloroethene	**48**		5.0	2.4	ug/L			10/13/15 15:51	5
Methylcyclohexane	<2.2		5.0	2.2	ug/L			10/13/15 15:51	5
1,2-Dichloropropane	<3.4		5.0	3.4	ug/L			10/13/15 15:51	5
Bromodichloromethane	<2.2		5.0	2.2	ug/L			10/13/15 15:51	5
cis-1,3-Dichloropropene	<2.0		5.0	2.0	ug/L			10/13/15 15:51	5
4-Methyl-2-pentanone	<11		50	11	ug/L			10/13/15 15:51	5
Toluene	<2.4		5.0	2.4	ug/L			10/13/15 15:51	5
trans-1,3-Dichloropropene	<2.1		5.0	2.1	ug/L			10/13/15 15:51	5
1,1,2-Trichloroethane	<1.7		5.0	1.7	ug/L			10/13/15 15:51	5
Tetrachloroethene	**5.0**		5.0	3.7	ug/L			10/13/15 15:51	5
2-Hexanone	<10		50	10	ug/L			10/13/15 15:51	5
Dibromochloromethane	<1.6		5.0	1.6	ug/L			10/13/15 15:51	5
1,2-Dibromoethane	<2.2		5.0	2.2	ug/L			10/13/15 15:51	5
Chlorobenzene	**70**		5.0	1.3	ug/L			10/13/15 15:51	5
Ethylbenzene	**4.6**	**J**	5.0	1.7	ug/L			10/13/15 15:51	5
Xylenes, Total	**19**		5.0	1.2	ug/L			10/13/15 15:51	5
Styrene	<1.4		5.0	1.4	ug/L			10/13/15 15:51	5
Bromoform	<2.2		5.0	2.2	ug/L			10/13/15 15:51	5
Isopropylbenzene	<1.8		5.0	1.8	ug/L			10/13/15 15:51	5
1,1,2,2-Tetrachloroethane	<3.1		5.0	3.1	ug/L			10/13/15 15:51	5
1,3-Dichlorobenzene	**26**		5.0	2.2	ug/L			10/13/15 15:51	5
1,4-Dichlorobenzene	**110**		5.0	2.3	ug/L			10/13/15 15:51	5
1,2-Dichlorobenzene	**10**		5.0	1.9	ug/L			10/13/15 15:51	5
1,2-Dibromo-3-Chloropropane	<5.5		25	5.5	ug/L			10/13/15 15:51	5
1,2,4-Trichlorobenzene	**23**	**J**	25	13	ug/L			10/13/15 15:51	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*90*		*70 - 130*		*10/13/15 15:51*	*5*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*10/13/15 15:51*	*5*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*10/13/15 15:51*	*5*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*		*10/13/15 15:51*	*5*

Client Sample ID: MW-34

Lab Sample ID: 680-117408-20

Date Collected: 09/29/15 12:00

Matrix: Water

Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/10/15 14:46	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/10/15 14:46	1
Vinyl chloride	**4.4**		1.0	0.50	ug/L			10/10/15 14:46	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/10/15 14:46	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/10/15 14:46	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/10/15 14:46	1

Client Sample Results

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-34

Date Collected: 09/29/15 12:00
Date Received: 10/02/15 15:10

Lab Sample ID: 680-117408-20

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/10/15 14:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/10/15 14:46	1
Acetone	<7.0		10	7.0	ug/L			10/10/15 14:46	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/10/15 14:46	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/10/15 14:46	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/10/15 14:46	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/10/15 14:46	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/10/15 14:46	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/10/15 14:46	1
cis-1,2-Dichloroethene	**16**		1.0	0.41	ug/L			10/10/15 14:46	1
2-Butanone	<3.4		10	3.4	ug/L			10/10/15 14:46	1
Chloroform	<0.50		1.0	0.50	ug/L			10/10/15 14:46	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/10/15 14:46	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/10/15 14:46	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/10/15 14:46	1
Benzene	**1.3**		1.0	0.43	ug/L			10/10/15 14:46	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/10/15 14:46	1
Trichloroethene	**0.86**	**J**	1.0	0.48	ug/L			10/10/15 14:46	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/10/15 14:46	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/10/15 14:46	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/10/15 14:46	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/10/15 14:46	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/10/15 14:46	1
Toluene	<0.48		1.0	0.48	ug/L			10/10/15 14:46	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/10/15 14:46	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/10/15 14:46	1
Tetrachloroethene	**4.2**		1.0	0.74	ug/L			10/10/15 14:46	1
2-Hexanone	<2.0		10	2.0	ug/L			10/10/15 14:46	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/10/15 14:46	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/10/15 14:46	1
Chlorobenzene	**4.2**		1.0	0.26	ug/L			10/10/15 14:46	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/10/15 14:46	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/10/15 14:46	1
Styrene	<0.27		1.0	0.27	ug/L			10/10/15 14:46	1
Bromoform	<0.43		1.0	0.43	ug/L			10/10/15 14:46	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/10/15 14:46	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/10/15 14:46	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/10/15 14:46	1
1,4-Dichlorobenzene	**1.1**		1.0	0.46	ug/L			10/10/15 14:46	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/10/15 14:46	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/10/15 14:46	1
1,2,4-Trichlorobenzene	**2.7**	**J**	5.0	2.5	ug/L			10/10/15 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*105*		*70 - 130*		*10/10/15 14:46*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*10/10/15 14:46*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*10/10/15 14:46*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*10/10/15 14:46*	*1*

Client Sample Results

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-35

Date Collected: 09/29/15 15:15
Date Received: 10/02/15 15:10

Lab Sample ID: 680-117408-21

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/10/15 15:08	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/10/15 15:08	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/10/15 15:08	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/10/15 15:08	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/10/15 15:08	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/10/15 15:08	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/10/15 15:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/10/15 15:08	1
Acetone	<7.0		10	7.0	ug/L			10/10/15 15:08	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/10/15 15:08	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/10/15 15:08	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/10/15 15:08	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/10/15 15:08	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/10/15 15:08	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/10/15 15:08	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/10/15 15:08	1
2-Butanone	<3.4		10	3.4	ug/L			10/10/15 15:08	1
Chloroform	<0.50		1.0	0.50	ug/L			10/10/15 15:08	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/10/15 15:08	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/10/15 15:08	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/10/15 15:08	1
Benzene	<0.43		1.0	0.43	ug/L			10/10/15 15:08	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/10/15 15:08	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/10/15 15:08	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/10/15 15:08	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/10/15 15:08	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/10/15 15:08	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/10/15 15:08	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/10/15 15:08	1
Toluene	<0.48		1.0	0.48	ug/L			10/10/15 15:08	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/10/15 15:08	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/10/15 15:08	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/10/15 15:08	1
2-Hexanone	<2.0		10	2.0	ug/L			10/10/15 15:08	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/10/15 15:08	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/10/15 15:08	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/10/15 15:08	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/10/15 15:08	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/10/15 15:08	1
Styrene	<0.27		1.0	0.27	ug/L			10/10/15 15:08	1
Bromoform	<0.43		1.0	0.43	ug/L			10/10/15 15:08	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/10/15 15:08	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/10/15 15:08	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/10/15 15:08	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/10/15 15:08	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/10/15 15:08	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/10/15 15:08	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/10/15 15:08	1

Client Sample Results

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-35

Lab Sample ID: 680-117408-21
Date Collected: 09/29/15 15:15
Matrix: Water
Date Received: 10/02/15 15:10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*105*		*70 - 130*		*10/10/15 15:08*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*10/10/15 15:08*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 130*		*10/10/15 15:08*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*10/10/15 15:08*	*1*

Client Sample ID: MW-36

Lab Sample ID: 680-117408-22
Date Collected: 09/30/15 09:01
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/12/15 14:54	1
Chloromethane	<0.40	*	1.0	0.40	ug/L			10/12/15 14:54	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/12/15 14:54	1
Bromomethane	<2.5	*	5.0	2.5	ug/L			10/12/15 14:54	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/12/15 14:54	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/12/15 14:54	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/12/15 14:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/12/15 14:54	1
Acetone	<7.0		10	7.0	ug/L			10/12/15 14:54	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/12/15 14:54	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/12/15 14:54	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/12/15 14:54	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/12/15 14:54	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/12/15 14:54	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/12/15 14:54	1
cis-1,2-Dichloroethene	**0.81**	**J**	1.0	0.41	ug/L			10/12/15 14:54	1
2-Butanone	<3.4		10	3.4	ug/L			10/12/15 14:54	1
Chloroform	<0.50		1.0	0.50	ug/L			10/12/15 14:54	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/12/15 14:54	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/12/15 14:54	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/12/15 14:54	1
Benzene	<0.43		1.0	0.43	ug/L			10/12/15 14:54	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/12/15 14:54	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/12/15 14:54	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/12/15 14:54	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/12/15 14:54	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/12/15 14:54	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/12/15 14:54	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/12/15 14:54	1
Toluene	<0.48		1.0	0.48	ug/L			10/12/15 14:54	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/12/15 14:54	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/12/15 14:54	1
Tetrachloroethene	<0.74	*	1.0	0.74	ug/L			10/12/15 14:54	1
2-Hexanone	<2.0		10	2.0	ug/L			10/12/15 14:54	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/12/15 14:54	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/12/15 14:54	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/12/15 14:54	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/12/15 14:54	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/12/15 14:54	1

Client Sample ID: MW-36

Lab Sample ID: 680-117408-22
Date Collected: 09/30/15 09:01
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<0.27		1.0	0.27	ug/L			10/12/15 14:54	1
Bromoform	<0.43		1.0	0.43	ug/L			10/12/15 14:54	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/12/15 14:54	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/12/15 14:54	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/12/15 14:54	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/12/15 14:54	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/12/15 14:54	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/12/15 14:54	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/12/15 14:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*107*		*70 - 130*		*10/12/15 14:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*		*10/12/15 14:54*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*10/12/15 14:54*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*10/12/15 14:54*	*1*

Client Sample ID: MW-37

Lab Sample ID: 680-117408-23
Date Collected: 09/28/15 10:17
Matrix: Water
Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<3.0		5.0	3.0	ug/L			10/12/15 13:19	5
Chloromethane	<2.0		5.0	2.0	ug/L			10/12/15 13:19	5
Vinyl chloride	**200**		5.0	2.5	ug/L			10/12/15 13:19	5
Bromomethane	<13		25	13	ug/L			10/12/15 13:19	5
Chloroethane	<13		25	13	ug/L			10/12/15 13:19	5
Trichlorofluoromethane	<2.1		5.0	2.1	ug/L			10/12/15 13:19	5
1,1-Dichloroethene	**4.2**	**J**	5.0	1.8	ug/L			10/12/15 13:19	5
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.8		5.0	1.8	ug/L			10/12/15 13:19	5
Acetone	<35		50	35	ug/L			10/12/15 13:19	5
Carbon disulfide	<5.0		10	5.0	ug/L			10/12/15 13:19	5
Methyl acetate	<9.0		25	9.0	ug/L			10/12/15 13:19	5
Methylene Chloride	<13		25	13	ug/L			10/12/15 13:19	5
trans-1,2-Dichloroethene	**2.3**	**J**	5.0	1.9	ug/L			10/12/15 13:19	5
Methyl tert-butyl ether	<1.5		50	1.5	ug/L			10/12/15 13:19	5
1,1-Dichloroethane	<1.9		5.0	1.9	ug/L			10/12/15 13:19	5
cis-1,2-Dichloroethene	**900**		5.0	2.1	ug/L			10/12/15 13:19	5
2-Butanone	<17		50	17	ug/L			10/12/15 13:19	5
Chloroform	<2.5		5.0	2.5	ug/L			10/12/15 13:19	5
1,1,1-Trichloroethane	<1.9		5.0	1.9	ug/L			10/12/15 13:19	5
Cyclohexane	<2.0		5.0	2.0	ug/L			10/12/15 13:19	5
Carbon tetrachloride	<1.7		5.0	1.7	ug/L			10/12/15 13:19	5
Benzene	**22**		5.0	2.2	ug/L			10/12/15 13:19	5
1,2-Dichloroethane	<2.5		5.0	2.5	ug/L			10/12/15 13:19	5
Trichloroethene	**25**		5.0	2.4	ug/L			10/12/15 13:19	5
Methylcyclohexane	<2.2		5.0	2.2	ug/L			10/12/15 13:19	5
1,2-Dichloropropane	<3.4		5.0	3.4	ug/L			10/12/15 13:19	5
Bromodichloromethane	<2.2		5.0	2.2	ug/L			10/12/15 13:19	5
cis-1,3-Dichloropropene	<2.0		5.0	2.0	ug/L			10/12/15 13:19	5

Client Sample ID: MW-37

Lab Sample ID: 680-117408-23

Date Collected: 09/28/15 10:17

Matrix: Water

Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone	<11		50	11	ug/L			10/12/15 13:19	5
Toluene	<2.4		5.0	2.4	ug/L			10/12/15 13:19	5
trans-1,3-Dichloropropene	<2.1		5.0	2.1	ug/L			10/12/15 13:19	5
1,1,2-Trichloroethane	<1.7		5.0	1.7	ug/L			10/12/15 13:19	5
Tetrachloroethene	**92**		5.0	3.7	ug/L			10/12/15 13:19	5
2-Hexanone	<10		50	10	ug/L			10/12/15 13:19	5
Dibromochloromethane	<1.6		5.0	1.6	ug/L			10/12/15 13:19	5
1,2-Dibromoethane	<2.2		5.0	2.2	ug/L			10/12/15 13:19	5
Chlorobenzene	**180**		5.0	1.3	ug/L			10/12/15 13:19	5
Ethylbenzene	**1.8**	**J**	5.0	1.7	ug/L			10/12/15 13:19	5
Xylenes, Total	**4.1**	**J**	5.0	1.2	ug/L			10/12/15 13:19	5
Styrene	<1.4		5.0	1.4	ug/L			10/12/15 13:19	5
Bromoform	<2.2		5.0	2.2	ug/L			10/12/15 13:19	5
Isopropylbenzene	**2.3**	**J**	5.0	1.8	ug/L			10/12/15 13:19	5
1,1,2,2-Tetrachloroethane	<3.1		5.0	3.1	ug/L			10/12/15 13:19	5
1,3-Dichlorobenzene	**15**		5.0	2.2	ug/L			10/12/15 13:19	5
1,4-Dichlorobenzene	**100**		5.0	2.3	ug/L			10/12/15 13:19	5
1,2-Dichlorobenzene	**25**		5.0	1.9	ug/L			10/12/15 13:19	5
1,2-Dibromo-3-Chloropropane	<5.5		25	5.5	ug/L			10/12/15 13:19	5
1,2,4-Trichlorobenzene	**270**		25	13	ug/L			10/12/15 13:19	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*109*		*70 - 130*		*10/12/15 13:19*	*5*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*10/12/15 13:19*	*5*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*10/12/15 13:19*	*5*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*10/12/15 13:19*	*5*

Client Sample ID: PAN-MW-9

Lab Sample ID: 680-117408-24

Date Collected: 09/30/15 18:29

Matrix: Water

Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<12		20	12	ug/L			10/13/15 10:52	20
Chloromethane	<8.0		20	8.0	ug/L			10/13/15 10:52	20
Vinyl chloride	**160**		20	10	ug/L			10/13/15 10:52	20
Bromomethane	<50		100	50	ug/L			10/13/15 10:52	20
Chloroethane	<50		100	50	ug/L			10/13/15 10:52	20
Trichlorofluoromethane	<8.4		20	8.4	ug/L			10/13/15 10:52	20
1,1-Dichloroethene	**7.5**	**J**	20	7.2	ug/L			10/13/15 10:52	20
1,1,2-Trichloro-1,2,2-trifluoroethane	<7.2		20	7.2	ug/L			10/13/15 10:52	20
Acetone	<140		200	140	ug/L			10/13/15 10:52	20
Carbon disulfide	<20		40	20	ug/L			10/13/15 10:52	20
Methyl acetate	<36		100	36	ug/L			10/13/15 10:52	20
Methylene Chloride	<50		100	50	ug/L			10/13/15 10:52	20
trans-1,2-Dichloroethene	<7.4		20	7.4	ug/L			10/13/15 10:52	20
Methyl tert-butyl ether	<6.0		200	6.0	ug/L			10/13/15 10:52	20
1,1-Dichloroethane	<7.6		20	7.6	ug/L			10/13/15 10:52	20
cis-1,2-Dichloroethene	**2900**		20	8.2	ug/L			10/13/15 10:52	20
2-Butanone	<68		200	68	ug/L			10/13/15 10:52	20

Client Sample ID: PAN-MW-9

Lab Sample ID: 680-117408-24

Date Collected: 09/30/15 18:29

Matrix: Water

Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<10		20	10	ug/L			10/13/15 10:52	20
1,1,1-Trichloroethane	<7.4		20	7.4	ug/L			10/13/15 10:52	20
Cyclohexane	<7.8		20	7.8	ug/L			10/13/15 10:52	20
Carbon tetrachloride	<6.6	*	20	6.6	ug/L			10/13/15 10:52	20
Benzene	**8.6**	**J**	20	8.6	ug/L			10/13/15 10:52	20
1,2-Dichloroethane	<10		20	10	ug/L			10/13/15 10:52	20
Trichloroethene	<9.6		20	9.6	ug/L			10/13/15 10:52	20
Methylcyclohexane	<8.6		20	8.6	ug/L			10/13/15 10:52	20
1,2-Dichloropropane	<13		20	13	ug/L			10/13/15 10:52	20
Bromodichloromethane	<8.8		20	8.8	ug/L			10/13/15 10:52	20
cis-1,3-Dichloropropene	<8.0		20	8.0	ug/L			10/13/15 10:52	20
4-Methyl-2-pentanone	<42		200	42	ug/L			10/13/15 10:52	20
Toluene	<9.6		20	9.6	ug/L			10/13/15 10:52	20
trans-1,3-Dichloropropene	<8.4		20	8.4	ug/L			10/13/15 10:52	20
1,1,2-Trichloroethane	<6.6		20	6.6	ug/L			10/13/15 10:52	20
Tetrachloroethene	<15		20	15	ug/L			10/13/15 10:52	20
2-Hexanone	<40		200	40	ug/L			10/13/15 10:52	20
Dibromochloromethane	<6.4		20	6.4	ug/L			10/13/15 10:52	20
1,2-Dibromoethane	<8.8		20	8.8	ug/L			10/13/15 10:52	20
Chlorobenzene	**54**		20	5.2	ug/L			10/13/15 10:52	20
Ethylbenzene	**560**		20	6.6	ug/L			10/13/15 10:52	20
Xylenes, Total	**1500**		20	4.6	ug/L			10/13/15 10:52	20
Styrene	<5.4		20	5.4	ug/L			10/13/15 10:52	20
Bromoform	<8.6		20	8.6	ug/L			10/13/15 10:52	20
Isopropylbenzene	**25**		20	7.0	ug/L			10/13/15 10:52	20
1,1,2,2-Tetrachloroethane	<12		20	12	ug/L			10/13/15 10:52	20
1,3-Dichlorobenzene	**12**	**J**	20	8.6	ug/L			10/13/15 10:52	20
1,4-Dichlorobenzene	**39**		20	9.2	ug/L			10/13/15 10:52	20
1,2-Dichlorobenzene	**7.5**	**J**	20	7.4	ug/L			10/13/15 10:52	20
1,2-Dibromo-3-Chloropropane	<22		100	22	ug/L			10/13/15 10:52	20
1,2,4-Trichlorobenzene	<50		100	50	ug/L			10/13/15 10:52	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*70 - 130*		*10/13/15 10:52*	*20*
1,2-Dichloroethane-d4 (Surr)	*123*		*70 - 130*		*10/13/15 10:52*	*20*
Dibromofluoromethane (Surr)	*119*		*70 - 130*		*10/13/15 10:52*	*20*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*10/13/15 10:52*	*20*

Client Sample ID: PAN-MW-10

Lab Sample ID: 680-117408-25

Date Collected: 09/30/15 14:43

Matrix: Water

Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/12/15 15:17	1
Chloromethane	<0.40	*	1.0	0.40	ug/L			10/12/15 15:17	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/12/15 15:17	1
Bromomethane	<2.5	*	5.0	2.5	ug/L			10/12/15 15:17	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/12/15 15:17	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/12/15 15:17	1

Client Sample ID: PAN-MW-10

Lab Sample ID: 680-117408-25

Date Collected: 09/30/15 14:43

Matrix: Water

Date Received: 10/02/15 15:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/12/15 15:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/12/15 15:17	1
Acetone	<7.0		10	7.0	ug/L			10/12/15 15:17	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/12/15 15:17	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/12/15 15:17	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/12/15 15:17	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/12/15 15:17	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/12/15 15:17	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/12/15 15:17	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/12/15 15:17	1
2-Butanone	<3.4		10	3.4	ug/L			10/12/15 15:17	1
Chloroform	<0.50		1.0	0.50	ug/L			10/12/15 15:17	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/12/15 15:17	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/12/15 15:17	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/12/15 15:17	1
Benzene	<0.43		1.0	0.43	ug/L			10/12/15 15:17	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/12/15 15:17	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/12/15 15:17	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/12/15 15:17	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/12/15 15:17	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/12/15 15:17	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/12/15 15:17	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/12/15 15:17	1
Toluene	<0.48		1.0	0.48	ug/L			10/12/15 15:17	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/12/15 15:17	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/12/15 15:17	1
Tetrachloroethene	<0.74	*	1.0	0.74	ug/L			10/12/15 15:17	1
2-Hexanone	<2.0		10	2.0	ug/L			10/12/15 15:17	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/12/15 15:17	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/12/15 15:17	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/12/15 15:17	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/12/15 15:17	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/12/15 15:17	1
Styrene	<0.27		1.0	0.27	ug/L			10/12/15 15:17	1
Bromoform	<0.43		1.0	0.43	ug/L			10/12/15 15:17	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/12/15 15:17	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/12/15 15:17	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/12/15 15:17	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/12/15 15:17	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/12/15 15:17	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/12/15 15:17	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/12/15 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*106*		*70 - 130*		*10/12/15 15:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*		*10/12/15 15:17*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*10/12/15 15:17*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*10/12/15 15:17*	*1*

Client Sample Results

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: Trip Blank

Date Collected: 09/28/15 00:00
Date Received: 10/02/15 15:10

Lab Sample ID: 680-117408-26

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/09/15 14:40	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/09/15 14:40	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/09/15 14:40	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/09/15 14:40	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/09/15 14:40	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/09/15 14:40	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/09/15 14:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/09/15 14:40	1
Acetone	<7.0		10	7.0	ug/L			10/09/15 14:40	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/09/15 14:40	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/09/15 14:40	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/09/15 14:40	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/09/15 14:40	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/09/15 14:40	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/09/15 14:40	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/09/15 14:40	1
2-Butanone	<3.4		10	3.4	ug/L			10/09/15 14:40	1
Chloroform	<0.50		1.0	0.50	ug/L			10/09/15 14:40	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/09/15 14:40	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/09/15 14:40	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/09/15 14:40	1
Benzene	<0.43		1.0	0.43	ug/L			10/09/15 14:40	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/09/15 14:40	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/09/15 14:40	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/09/15 14:40	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/09/15 14:40	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/09/15 14:40	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/09/15 14:40	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/09/15 14:40	1
Toluene	<0.48		1.0	0.48	ug/L			10/09/15 14:40	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/09/15 14:40	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/09/15 14:40	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/09/15 14:40	1
2-Hexanone	<2.0		10	2.0	ug/L			10/09/15 14:40	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/09/15 14:40	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/09/15 14:40	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/09/15 14:40	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/09/15 14:40	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/09/15 14:40	1
Styrene	<0.27		1.0	0.27	ug/L			10/09/15 14:40	1
Bromoform	<0.43		1.0	0.43	ug/L			10/09/15 14:40	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/09/15 14:40	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/09/15 14:40	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/09/15 14:40	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/09/15 14:40	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/09/15 14:40	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/09/15 14:40	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/09/15 14:40	1

Client Sample Results

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: Trip Blank

Lab Sample ID: 680-117408-26

Date Collected: 09/28/15 00:00

Matrix: Water

Date Received: 10/02/15 15:10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		70 - 130		10/09/15 14:40	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		10/09/15 14:40	1
Dibromofluoromethane (Surr)	106		70 - 130		10/09/15 14:40	1
4-Bromofluorobenzene (Surr)	99		70 - 130		10/09/15 14:40	1

Surrogate Summary

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	12DCE	DBFM	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
680-117408-1	IW-IR	102	99	97	105
680-117408-2	IW-18	97	125	118	98
680-117408-3	LAW-PZ-8R	80	105	110	93
680-117408-4	MW-14	107	89	97	103
680-117408-5	MW-16	103	90	98	101
680-117408-6	MW-17R	100	90	97	93
680-117408-7	MW-18R	103	108	109	101
680-117408-8	MW-19	105	106	107	100
680-117408-9	MW-23	105	106	109	100
680-117408-10	MW-24R	109	108	109	101
680-117408-11	MW-25	105	105	106	98
680-117408-12	MW-26R	100	127	120	98
680-117408-13	MW-27	105	108	108	98
680-117408-14	MW-28	108	94	99	98
680-117408-15	MW-29	102	101	98	108
680-117408-16	MW-30	108	95	101	99
680-117408-17	MW-31	104	110	110	99
680-117408-18	MW-32	105	111	109	103
680-117408-19	MW-33	90	106	103	85
680-117408-20	MW-34	105	109	107	99
680-117408-21	MW-35	105	110	108	100
680-117408-22	MW-36	107	88	96	101
680-117408-23	MW-37	109	107	107	97
680-117408-24	PAN-MW-9	95	123	119	98
680-117408-25	PAN-MW-10	106	90	98	99
680-117408-26	Trip Blank	104	106	106	99
LCS 680-404977/4	Lab Control Sample	88	96	96	89
LCS 680-405143/3	Lab Control Sample	99	113	111	97
LCS 680-405239/4	Lab Control Sample	111	98	111	92
LCS 680-405241/4	Lab Control Sample	104	97	104	84
LCS 680-405400/4	Lab Control Sample	99	112	112	103
LCS 680-405413/4	Lab Control Sample	89	91	94	94
LCS 680-405604/4	Lab Control Sample	100	116	114	100
LCS 680-405615/4	Lab Control Sample	104	102	106	104
LCSD 680-404977/5	Lab Control Sample Dup	85	102	98	87
LCSD 680-405143/4	Lab Control Sample Dup	100	113	113	99
LCSD 680-405239/5	Lab Control Sample Dup	111	99	111	93
LCSD 680-405241/5	Lab Control Sample Dup	103	96	102	83
LCSD 680-405400/5	Lab Control Sample Dup	100	115	113	100
LCSD 680-405413/5	Lab Control Sample Dup	100	107	106	97
LCSD 680-405604/5	Lab Control Sample Dup	101	114	114	100
LCSD 680-405615/5	Lab Control Sample Dup	105	104	107	106
MB 680-404977/9	Method Blank	104	105	106	98
MB 680-405143/8	Method Blank	106	107	107	100
MB 680-405239/9	Method Blank	110	95	100	98
MB 680-405241/9	Method Blank	104	92	100	99
MB 680-405400/9	Method Blank	105	109	110	100
MB 680-405413/9	Method Blank	101	108	113	97
MB 680-405604/9	Method Blank	105	108	109	100

Surrogate Summary

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		TOL	12DCE	DBFM	BFB				
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)				
MB 680-405615/9	Method Blank	105	98	99	106				

Surrogate Legend

TOL = Toluene-d8 (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)
DBFM = Dibromofluoromethane (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-404977/9
Matrix: Water
Analysis Batch: 404977

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/09/15 11:04	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/09/15 11:04	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/09/15 11:04	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/09/15 11:04	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/09/15 11:04	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/09/15 11:04	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/09/15 11:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/09/15 11:04	1
Acetone	<7.0		10	7.0	ug/L			10/09/15 11:04	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/09/15 11:04	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/09/15 11:04	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/09/15 11:04	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/09/15 11:04	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/09/15 11:04	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/09/15 11:04	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/09/15 11:04	1
2-Butanone	<3.4		10	3.4	ug/L			10/09/15 11:04	1
Chloroform	<0.50		1.0	0.50	ug/L			10/09/15 11:04	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/09/15 11:04	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/09/15 11:04	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/09/15 11:04	1
Benzene	<0.43		1.0	0.43	ug/L			10/09/15 11:04	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/09/15 11:04	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/09/15 11:04	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/09/15 11:04	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/09/15 11:04	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/09/15 11:04	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/09/15 11:04	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/09/15 11:04	1
Toluene	<0.48		1.0	0.48	ug/L			10/09/15 11:04	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/09/15 11:04	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/09/15 11:04	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/09/15 11:04	1
2-Hexanone	<2.0		10	2.0	ug/L			10/09/15 11:04	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/09/15 11:04	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/09/15 11:04	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/09/15 11:04	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/09/15 11:04	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/09/15 11:04	1
Styrene	<0.27		1.0	0.27	ug/L			10/09/15 11:04	1
Bromoform	<0.43		1.0	0.43	ug/L			10/09/15 11:04	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/09/15 11:04	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/09/15 11:04	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/09/15 11:04	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/09/15 11:04	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/09/15 11:04	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/09/15 11:04	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/09/15 11:04	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-404977/9
Matrix: Water
Analysis Batch: 404977

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		70 - 130		10/09/15 11:04	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		10/09/15 11:04	1
Dibromofluoromethane (Surr)	106		70 - 130		10/09/15 11:04	1
4-Bromofluorobenzene (Surr)	98		70 - 130		10/09/15 11:04	1

Lab Sample ID: LCS 680-404977/4
Matrix: Water
Analysis Batch: 404977

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	50.0	42.9		ug/L		86	51 - 140
Chloromethane	50.0	43.8		ug/L		88	63 - 126
Vinyl chloride	50.0	43.3		ug/L		87	68 - 132
Bromomethane	50.0	47.9		ug/L		96	20 - 180
Chloroethane	50.0	44.1		ug/L		88	50 - 151
Trichlorofluoromethane	50.0	47.9		ug/L		96	58 - 145
1,1-Dichloroethene	50.0	44.1		ug/L		88	74 - 125
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	45.6		ug/L		91	65 - 131
Acetone	250	202		ug/L		81	60 - 154
Carbon disulfide	50.0	43.4		ug/L		87	73 - 127
Methyl acetate	250	222		ug/L		89	66 - 134
Methylene Chloride	50.0	45.3		ug/L		91	76 - 129
trans-1,2-Dichloroethene	50.0	44.5		ug/L		89	78 - 123
Methyl tert-butyl ether	50.0	45.7		ug/L		91	74 - 135
1,1-Dichloroethane	50.0	46.3		ug/L		93	80 - 120
cis-1,2-Dichloroethene	50.0	46.9		ug/L		94	80 - 122
2-Butanone	250	217		ug/L		87	75 - 133
Chloroform	50.0	47.3		ug/L		95	79 - 122
1,1,1-Trichloroethane	50.0	50.3		ug/L		101	74 - 128
Cyclohexane	50.0	43.2		ug/L		86	69 - 130
Carbon tetrachloride	50.0	53.3		ug/L		107	75 - 130
Benzene	50.0	43.7		ug/L		87	73 - 131
1,2-Dichloroethane	50.0	48.4		ug/L		97	75 - 130
Trichloroethene	50.0	47.4		ug/L		95	80 - 123
Methylcyclohexane	50.0	43.4		ug/L		87	75 - 127
1,2-Dichloropropane	50.0	45.7		ug/L		91	80 - 123
Bromodichloromethane	50.0	50.6		ug/L		101	77 - 129
cis-1,3-Dichloropropene	50.0	48.4		ug/L		97	80 - 133
4-Methyl-2-pentanone	250	221		ug/L		88	75 - 135
Toluene	50.0	44.6		ug/L		89	80 - 122
trans-1,3-Dichloropropene	50.0	51.1		ug/L		102	74 - 140
1,1,2-Trichloroethane	50.0	44.9		ug/L		90	79 - 125
Tetrachloroethene	50.0	45.3		ug/L		91	77 - 123
2-Hexanone	250	220		ug/L		88	70 - 141
Dibromochloromethane	50.0	52.1		ug/L		104	71 - 136
1,2-Dibromoethane	50.0	45.2		ug/L		90	77 - 131
Chlorobenzene	50.0	44.2		ug/L		88	80 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-404977/4
Matrix: Water
Analysis Batch: 404977

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	50.0	43.4		ug/L		87	80 - 120
Xylenes, Total	100	89.8		ug/L		90	80 - 120
Styrene	50.0	44.6		ug/L		89	80 - 122
Bromoform	50.0	50.7		ug/L		101	69 - 135
Isopropylbenzene	50.0	45.1		ug/L		90	80 - 120
1,1,2,2-Tetrachloroethane	50.0	42.4		ug/L		85	72 - 128
1,3-Dichlorobenzene	50.0	45.5		ug/L		91	80 - 120
1,4-Dichlorobenzene	50.0	45.4		ug/L		91	80 - 120
1,2-Dichlorobenzene	50.0	46.3		ug/L		93	80 - 120
1,2-Dibromo-3-Chloropropane	50.0	45.9		ug/L		92	59 - 141
1,2,4-Trichlorobenzene	50.0	49.9		ug/L		100	77 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*88*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
Dibromofluoromethane (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: LCSD 680-404977/5
Matrix: Water
Analysis Batch: 404977

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	50.0	35.3		ug/L		71	51 - 140	19	40
Chloromethane	50.0	43.0		ug/L		86	63 - 126	2	30
Vinyl chloride	50.0	39.3		ug/L		79	68 - 132	10	30
Bromomethane	50.0	49.0		ug/L		98	20 - 180	2	40
Chloroethane	50.0	44.3		ug/L		89	50 - 151	0	30
Trichlorofluoromethane	50.0	40.7		ug/L		81	58 - 145	16	30
1,1-Dichloroethene	50.0	40.8		ug/L		82	74 - 125	8	20
1,1,2-Trichloro-1,2,2-trifluoroetha ne	50.0	38.1		ug/L		76	65 - 131	18	30
Acetone	250	229		ug/L		92	60 - 154	13	40
Carbon disulfide	50.0	40.7		ug/L		81	73 - 127	6	20
Methyl acetate	250	243		ug/L		97	66 - 134	9	30
Methylene Chloride	50.0	47.2		ug/L		94	76 - 129	4	20
trans-1,2-Dichloroethene	50.0	43.9		ug/L		88	78 - 123	1	20
Methyl tert-butyl ether	50.0	49.4		ug/L		99	74 - 135	8	20
1,1-Dichloroethane	50.0	46.1		ug/L		92	80 - 120	0	20
cis-1,2-Dichloroethene	50.0	48.3		ug/L		97	80 - 122	3	20
2-Butanone	250	237		ug/L		95	75 - 133	9	30
Chloroform	50.0	48.3		ug/L		97	79 - 122	2	20
1,1,1-Trichloroethane	50.0	48.0		ug/L		96	74 - 128	5	20
Cyclohexane	50.0	37.8		ug/L		76	69 - 130	13	30
Carbon tetrachloride	50.0	49.1		ug/L		98	75 - 130	8	20
Benzene	50.0	44.4		ug/L		89	73 - 131	2	30
1,2-Dichloroethane	50.0	51.6		ug/L		103	75 - 130	6	20
Trichloroethene	50.0	45.9		ug/L		92	80 - 123	3	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-404977/5
Matrix: Water
Analysis Batch: 404977

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylcyclohexane	50.0	37.7		ug/L		75	75 - 127	14	30
1,2-Dichloropropane	50.0	47.2		ug/L		94	80 - 123	3	20
Bromodichloromethane	50.0	52.5		ug/L		105	77 - 129	4	20
cis-1,3-Dichloropropene	50.0	50.2		ug/L		100	80 - 133	4	20
4-Methyl-2-pentanone	250	245		ug/L		98	75 - 135	10	30
Toluene	50.0	45.2		ug/L		90	80 - 122	1	20
trans-1,3-Dichloropropene	50.0	53.8		ug/L		108	74 - 140	5	20
1,1,2-Trichloroethane	50.0	48.5		ug/L		97	79 - 125	8	20
Tetrachloroethene	50.0	43.8		ug/L		88	77 - 123	4	20
2-Hexanone	250	246		ug/L		99	70 - 141	11	40
Dibromochloromethane	50.0	54.6		ug/L		109	71 - 136	5	20
1,2-Dibromoethane	50.0	48.5		ug/L		97	77 - 131	7	30
Chlorobenzene	50.0	44.3		ug/L		89	80 - 120	0	20
Ethylbenzene	50.0	42.4		ug/L		85	80 - 120	3	20
Xylenes, Total	100	88.5		ug/L		89	80 - 120	1	20
Styrene	50.0	45.6		ug/L		91	80 - 122	2	20
Bromoform	50.0	53.0		ug/L		106	69 - 135	5	20
Isopropylbenzene	50.0	43.5		ug/L		87	80 - 120	4	20
1,1,2,2-Tetrachloroethane	50.0	45.2		ug/L		90	72 - 128	6	20
1,3-Dichlorobenzene	50.0	44.5		ug/L		89	80 - 120	2	20
1,4-Dichlorobenzene	50.0	43.7		ug/L		87	80 - 120	4	20
1,2-Dichlorobenzene	50.0	45.0		ug/L		90	80 - 120	3	20
1,2-Dibromo-3-Chloropropane	50.0	48.0		ug/L		96	59 - 141	5	30
1,2,4-Trichlorobenzene	50.0	49.4		ug/L		99	77 - 131	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*85*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: MB 680-405143/8
Matrix: Water
Analysis Batch: 405143

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/10/15 11:11	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/10/15 11:11	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/10/15 11:11	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/10/15 11:11	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/10/15 11:11	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/10/15 11:11	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/10/15 11:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/10/15 11:11	1
Acetone	<7.0		10	7.0	ug/L			10/10/15 11:11	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/10/15 11:11	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/10/15 11:11	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/10/15 11:11	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-405143/8
Matrix: Water
Analysis Batch: 405143

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/10/15 11:11	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/10/15 11:11	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/10/15 11:11	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/10/15 11:11	1
2-Butanone	<3.4		10	3.4	ug/L			10/10/15 11:11	1
Chloroform	<0.50		1.0	0.50	ug/L			10/10/15 11:11	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/10/15 11:11	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/10/15 11:11	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/10/15 11:11	1
Benzene	<0.43		1.0	0.43	ug/L			10/10/15 11:11	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/10/15 11:11	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/10/15 11:11	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/10/15 11:11	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/10/15 11:11	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/10/15 11:11	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/10/15 11:11	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/10/15 11:11	1
Toluene	<0.48		1.0	0.48	ug/L			10/10/15 11:11	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/10/15 11:11	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/10/15 11:11	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/10/15 11:11	1
2-Hexanone	<2.0		10	2.0	ug/L			10/10/15 11:11	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/10/15 11:11	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/10/15 11:11	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/10/15 11:11	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/10/15 11:11	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/10/15 11:11	1
Styrene	<0.27		1.0	0.27	ug/L			10/10/15 11:11	1
Bromoform	<0.43		1.0	0.43	ug/L			10/10/15 11:11	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/10/15 11:11	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/10/15 11:11	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/10/15 11:11	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/10/15 11:11	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/10/15 11:11	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/10/15 11:11	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/10/15 11:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*106*		*70 - 130*		*10/10/15 11:11*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*10/10/15 11:11*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*10/10/15 11:11*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*10/10/15 11:11*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-405143/3
Matrix: Water
Analysis Batch: 405143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	50.0	57.3		ug/L		115	51 - 140
Chloromethane	50.0	54.5		ug/L		109	63 - 126
Vinyl chloride	50.0	53.8		ug/L		108	68 - 132
Bromomethane	50.0	56.9		ug/L		114	20 - 180
Chloroethane	50.0	54.9		ug/L		110	50 - 151
Trichlorofluoromethane	50.0	59.0		ug/L		118	58 - 145
1,1-Dichloroethene	50.0	52.0		ug/L		104	74 - 125
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	55.2		ug/L		110	65 - 131
Acetone	250	233		ug/L		93	60 - 154
Carbon disulfide	50.0	50.8		ug/L		102	73 - 127
Methyl acetate	250	240		ug/L		96	66 - 134
Methylene Chloride	50.0	51.3		ug/L		103	76 - 129
trans-1,2-Dichloroethene	50.0	51.6		ug/L		103	78 - 123
Methyl tert-butyl ether	50.0	52.6		ug/L		105	74 - 135
1,1-Dichloroethane	50.0	51.4		ug/L		103	80 - 120
cis-1,2-Dichloroethene	50.0	54.4		ug/L		109	80 - 122
2-Butanone	250	249		ug/L		100	75 - 133
Chloroform	50.0	54.6		ug/L		109	79 - 122
1,1,1-Trichloroethane	50.0	57.9		ug/L		116	74 - 128
Cyclohexane	50.0	50.1		ug/L		100	69 - 130
Carbon tetrachloride	50.0	64.7		ug/L		129	75 - 130
Benzene	50.0	49.4		ug/L		99	73 - 131
1,2-Dichloroethane	50.0	56.8		ug/L		114	75 - 130
Trichloroethene	50.0	54.9		ug/L		110	80 - 123
Methylcyclohexane	50.0	51.3		ug/L		103	75 - 127
1,2-Dichloropropane	50.0	53.5		ug/L		107	80 - 123
Bromodichloromethane	50.0	58.2		ug/L		116	77 - 129
cis-1,3-Dichloropropene	50.0	58.1		ug/L		116	80 - 133
4-Methyl-2-pentanone	250	256		ug/L		103	75 - 135
Toluene	50.0	50.8		ug/L		102	80 - 122
trans-1,3-Dichloropropene	50.0	58.8		ug/L		118	74 - 140
1,1,2-Trichloroethane	50.0	51.6		ug/L		103	79 - 125
Tetrachloroethene	50.0	52.8		ug/L		106	77 - 123
2-Hexanone	250	256		ug/L		103	70 - 141
Dibromochloromethane	50.0	61.1		ug/L		122	71 - 136
1,2-Dibromoethane	50.0	54.1		ug/L		108	77 - 131
Chlorobenzene	50.0	49.0		ug/L		98	80 - 120
Ethylbenzene	50.0	48.1		ug/L		96	80 - 120
Xylenes, Total	100	98.7		ug/L		99	80 - 120
Styrene	50.0	49.8		ug/L		100	80 - 122
Bromoform	50.0	63.7		ug/L		127	69 - 135
Isopropylbenzene	50.0	51.0		ug/L		102	80 - 120
1,1,2,2-Tetrachloroethane	50.0	48.8		ug/L		98	72 - 128
1,3-Dichlorobenzene	50.0	49.3		ug/L		99	80 - 120
1,4-Dichlorobenzene	50.0	48.7		ug/L		97	80 - 120
1,2-Dichlorobenzene	50.0	50.4		ug/L		101	80 - 120
1,2-Dibromo-3-Chloropropane	50.0	53.6		ug/L		107	59 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-405143/3
Matrix: Water
Analysis Batch: 405143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trichlorobenzene			50.0	55.5		ug/L		111	77 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 130*
Dibromofluoromethane (Surr)	*111*		*70 - 130*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 680-405143/4
Matrix: Water
Analysis Batch: 405143

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane			50.0	55.8		ug/L		112	51 - 140	3	40
Chloromethane			50.0	53.8		ug/L		108	63 - 126	1	30
Vinyl chloride			50.0	53.6		ug/L		107	68 - 132	0	30
Bromomethane			50.0	58.8		ug/L		118	20 - 180	3	40
Chloroethane			50.0	54.3		ug/L		109	50 - 151	1	30
Trichlorofluoromethane			50.0	57.9		ug/L		116	58 - 145	2	30
1,1-Dichloroethene			50.0	52.2		ug/L		104	74 - 125	0	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	54.4		ug/L		109	65 - 131	2	30
Acetone			250	237		ug/L		95	60 - 154	2	40
Carbon disulfide			50.0	50.7		ug/L		101	73 - 127	0	20
Methyl acetate			250	236		ug/L		94	66 - 134	2	30
Methylene Chloride			50.0	50.8		ug/L		102	76 - 129	1	20
trans-1,2-Dichloroethene			50.0	51.4		ug/L		103	78 - 123	0	20
Methyl tert-butyl ether			50.0	53.1		ug/L		106	74 - 135	1	20
1,1-Dichloroethane			50.0	51.0		ug/L		102	80 - 120	1	20
cis-1,2-Dichloroethene			50.0	54.9		ug/L		110	80 - 122	1	20
2-Butanone			250	243		ug/L		97	75 - 133	3	30
Chloroform			50.0	54.7		ug/L		109	79 - 122	0	20
1,1,1-Trichloroethane			50.0	58.4		ug/L		117	74 - 128	1	20
Cyclohexane			50.0	51.0		ug/L		102	69 - 130	2	30
Carbon tetrachloride			50.0	65.0		ug/L		130	75 - 130	0	20
Benzene			50.0	50.4		ug/L		101	73 - 131	2	30
1,2-Dichloroethane			50.0	56.0		ug/L		112	75 - 130	1	20
Trichloroethene			50.0	54.9		ug/L		110	80 - 123	0	20
Methylcyclohexane			50.0	50.7		ug/L		101	75 - 127	1	30
1,2-Dichloropropane			50.0	53.5		ug/L		107	80 - 123	0	20
Bromodichloromethane			50.0	58.2		ug/L		116	77 - 129	0	20
cis-1,3-Dichloropropene			50.0	58.2		ug/L		116	80 - 133	0	20
4-Methyl-2-pentanone			250	255		ug/L		102	75 - 135	0	30
Toluene			50.0	52.0		ug/L		104	80 - 122	2	20
trans-1,3-Dichloropropene			50.0	59.0		ug/L		118	74 - 140	0	20
1,1,2-Trichloroethane			50.0	51.0		ug/L		102	79 - 125	1	20
Tetrachloroethene			50.0	53.9		ug/L		108	77 - 123	2	20
2-Hexanone			250	257		ug/L		103	70 - 141	0	40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-405143/4
Matrix: Water
Analysis Batch: 405143

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromochloromethane	50.0	61.9		ug/L		124	71 - 136	1	20
1,2-Dibromoethane	50.0	55.0		ug/L		110	77 - 131	2	30
Chlorobenzene	50.0	49.5		ug/L		99	80 - 120	1	20
Ethylbenzene	50.0	49.3		ug/L		99	80 - 120	2	20
Xylenes, Total	100	101		ug/L		101	80 - 120	2	20
Styrene	50.0	50.6		ug/L		101	80 - 122	2	20
Bromoform	50.0	65.4		ug/L		131	69 - 135	3	20
Isopropylbenzene	50.0	51.5		ug/L		103	80 - 120	1	20
1,1,2,2-Tetrachloroethane	50.0	47.9		ug/L		96	72 - 128	2	20
1,3-Dichlorobenzene	50.0	50.4		ug/L		101	80 - 120	2	20
1,4-Dichlorobenzene	50.0	49.3		ug/L		99	80 - 120	1	20
1,2-Dichlorobenzene	50.0	51.4		ug/L		103	80 - 120	2	20
1,2-Dibromo-3-Chloropropane	50.0	56.0		ug/L		112	59 - 141	4	30
1,2,4-Trichlorobenzene	50.0	57.2		ug/L		114	77 - 131	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 130*
Dibromofluoromethane (Surr)	*113*		*70 - 130*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: MB 680-405239/9
Matrix: Water
Analysis Batch: 405239

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/12/15 10:01	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/12/15 10:01	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/12/15 10:01	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/12/15 10:01	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/12/15 10:01	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/12/15 10:01	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/12/15 10:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/12/15 10:01	1
Acetone	<7.0		10	7.0	ug/L			10/12/15 10:01	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/12/15 10:01	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/12/15 10:01	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/12/15 10:01	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/12/15 10:01	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/12/15 10:01	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/12/15 10:01	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/12/15 10:01	1
2-Butanone	<3.4		10	3.4	ug/L			10/12/15 10:01	1
Chloroform	<0.50		1.0	0.50	ug/L			10/12/15 10:01	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/12/15 10:01	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/12/15 10:01	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/12/15 10:01	1
Benzene	<0.43		1.0	0.43	ug/L			10/12/15 10:01	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-405239/9
Matrix: Water
Analysis Batch: 405239

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/12/15 10:01	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/12/15 10:01	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/12/15 10:01	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/12/15 10:01	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/12/15 10:01	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/12/15 10:01	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/12/15 10:01	1
Toluene	<0.48		1.0	0.48	ug/L			10/12/15 10:01	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/12/15 10:01	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/12/15 10:01	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/12/15 10:01	1
2-Hexanone	<2.0		10	2.0	ug/L			10/12/15 10:01	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/12/15 10:01	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/12/15 10:01	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/12/15 10:01	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/12/15 10:01	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/12/15 10:01	1
Styrene	<0.27		1.0	0.27	ug/L			10/12/15 10:01	1
Bromoform	<0.43		1.0	0.43	ug/L			10/12/15 10:01	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/12/15 10:01	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/12/15 10:01	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/12/15 10:01	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/12/15 10:01	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/12/15 10:01	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/12/15 10:01	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/12/15 10:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*110*		*70 - 130*		*10/12/15 10:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*10/12/15 10:01*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*10/12/15 10:01*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*10/12/15 10:01*	*1*

Lab Sample ID: LCS 680-405239/4
Matrix: Water
Analysis Batch: 405239

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	50.0	53.0		ug/L		106	51 - 140
Chloromethane	50.0	52.4		ug/L		105	63 - 126
Vinyl chloride	50.0	55.1		ug/L		110	68 - 132
Bromomethane	50.0	54.9		ug/L		110	20 - 180
Chloroethane	50.0	62.6		ug/L		125	50 - 151
Trichlorofluoromethane	50.0	51.1		ug/L		102	58 - 145
1,1-Dichloroethene	50.0	45.1		ug/L		90	74 - 125
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	54.9		ug/L		110	65 - 131
Acetone	250	227		ug/L		91	60 - 154

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-405239/4
Matrix: Water
Analysis Batch: 405239

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon disulfide	50.0	50.0		ug/L		100	73 - 127
Methyl acetate	250	204		ug/L		82	66 - 134
Methylene Chloride	50.0	53.0		ug/L		106	76 - 129
trans-1,2-Dichloroethene	50.0	54.8		ug/L		110	78 - 123
Methyl tert-butyl ether	50.0	49.3		ug/L		99	74 - 135
1,1-Dichloroethane	50.0	49.6		ug/L		99	80 - 120
cis-1,2-Dichloroethene	50.0	51.7		ug/L		103	80 - 122
2-Butanone	250	234		ug/L		94	75 - 133
Chloroform	50.0	53.0		ug/L		106	79 - 122
1,1,1-Trichloroethane	50.0	50.8		ug/L		102	74 - 128
Cyclohexane	50.0	53.7		ug/L		107	69 - 130
Carbon tetrachloride	50.0	42.3		ug/L		85	75 - 130
Benzene	50.0	52.9		ug/L		106	73 - 131
1,2-Dichloroethane	50.0	49.0		ug/L		98	75 - 130
Trichloroethene	50.0	55.7		ug/L		111	80 - 123
Methylcyclohexane	50.0	56.5		ug/L		113	75 - 127
1,2-Dichloropropane	50.0	52.8		ug/L		106	80 - 123
Bromodichloromethane	50.0	52.5		ug/L		105	77 - 129
cis-1,3-Dichloropropene	50.0	52.7		ug/L		105	80 - 133
4-Methyl-2-pentanone	250	225		ug/L		90	75 - 135
Toluene	50.0	55.2		ug/L		110	80 - 122
trans-1,3-Dichloropropene	50.0	49.1		ug/L		98	74 - 140
1,1,2-Trichloroethane	50.0	50.7		ug/L		101	79 - 125
Tetrachloroethene	50.0	50.0		ug/L		100	77 - 123
2-Hexanone	250	218		ug/L		87	70 - 141
Dibromochloromethane	50.0	43.8		ug/L		88	71 - 136
1,2-Dibromoethane	50.0	53.6		ug/L		107	77 - 131
Chlorobenzene	50.0	55.1		ug/L		110	80 - 120
Ethylbenzene	50.0	54.6		ug/L		109	80 - 120
Xylenes, Total	100	107		ug/L		107	80 - 120
Styrene	50.0	54.8		ug/L		110	80 - 122
Bromoform	50.0	40.1		ug/L		80	69 - 135
Isopropylbenzene	50.0	55.8		ug/L		112	80 - 120
1,1,2,2-Tetrachloroethane	50.0	49.8		ug/L		100	72 - 128
1,3-Dichlorobenzene	50.0	50.8		ug/L		102	80 - 120
1,4-Dichlorobenzene	50.0	51.4		ug/L		103	80 - 120
1,2-Dichlorobenzene	50.0	50.4		ug/L		101	80 - 120
1,2-Dibromo-3-Chloropropane	50.0	34.7		ug/L		69	59 - 141
1,2,4-Trichlorobenzene	50.0	44.0		ug/L		88	77 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*111*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
Dibromofluoromethane (Surr)	*111*		*70 - 130*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-405239/5
Matrix: Water
Analysis Batch: 405239

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	50.0	54.2		ug/L		108	51 - 140	2	40
Chloromethane	50.0	52.6		ug/L		105	63 - 126	0	30
Vinyl chloride	50.0	57.3		ug/L		115	68 - 132	4	30
Bromomethane	50.0	62.1		ug/L		124	20 - 180	12	40
Chloroethane	50.0	63.0		ug/L		126	50 - 151	1	30
Trichlorofluoromethane	50.0	50.0		ug/L		100	58 - 145	2	30
1,1-Dichloroethene	50.0	46.5		ug/L		93	74 - 125	3	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	55.7		ug/L		111	65 - 131	2	30
Acetone	250	245		ug/L		98	60 - 154	8	40
Carbon disulfide	50.0	49.3		ug/L		99	73 - 127	1	20
Methyl acetate	250	208		ug/L		83	66 - 134	2	30
Methylene Chloride	50.0	53.2		ug/L		106	76 - 129	1	20
trans-1,2-Dichloroethene	50.0	54.9		ug/L		110	78 - 123	0	20
Methyl tert-butyl ether	50.0	49.9		ug/L		100	74 - 135	1	20
1,1-Dichloroethane	50.0	49.8		ug/L		100	80 - 120	1	20
cis-1,2-Dichloroethene	50.0	51.8		ug/L		104	80 - 122	0	20
2-Butanone	250	236		ug/L		94	75 - 133	1	30
Chloroform	50.0	53.2		ug/L		106	79 - 122	0	20
1,1,1-Trichloroethane	50.0	51.2		ug/L		102	74 - 128	1	20
Cyclohexane	50.0	55.0		ug/L		110	69 - 130	2	30
Carbon tetrachloride	50.0	43.6		ug/L		87	75 - 130	3	20
Benzene	50.0	53.2		ug/L		106	73 - 131	1	30
1,2-Dichloroethane	50.0	49.0		ug/L		98	75 - 130	0	20
Trichloroethene	50.0	55.0		ug/L		110	80 - 123	1	20
Methylcyclohexane	50.0	56.2		ug/L		112	75 - 127	0	30
1,2-Dichloropropane	50.0	52.4		ug/L		105	80 - 123	1	20
Bromodichloromethane	50.0	53.3		ug/L		107	77 - 129	2	20
cis-1,3-Dichloropropene	50.0	52.6		ug/L		105	80 - 133	0	20
4-Methyl-2-pentanone	250	229		ug/L		91	75 - 135	1	30
Toluene	50.0	55.6		ug/L		111	80 - 122	1	20
trans-1,3-Dichloropropene	50.0	49.9		ug/L		100	74 - 140	2	20
1,1,2-Trichloroethane	50.0	51.0		ug/L		102	79 - 125	1	20
Tetrachloroethene	50.0	50.2		ug/L		100	77 - 123	0	20
2-Hexanone	250	222		ug/L		89	70 - 141	2	40
Dibromochloromethane	50.0	43.5		ug/L		87	71 - 136	1	20
1,2-Dibromoethane	50.0	53.1		ug/L		106	77 - 131	1	30
Chlorobenzene	50.0	54.3		ug/L		109	80 - 120	1	20
Ethylbenzene	50.0	54.0		ug/L		108	80 - 120	1	20
Xylenes, Total	100	106		ug/L		106	80 - 120	1	20
Styrene	50.0	54.2		ug/L		108	80 - 122	1	20
Bromoform	50.0	40.2		ug/L		80	69 - 135	0	20
Isopropylbenzene	50.0	55.2		ug/L		110	80 - 120	1	20
1,1,2,2-Tetrachloroethane	50.0	49.7		ug/L		99	72 - 128	0	20
1,3-Dichlorobenzene	50.0	50.9		ug/L		102	80 - 120	0	20
1,4-Dichlorobenzene	50.0	51.2		ug/L		102	80 - 120	0	20
1,2-Dichlorobenzene	50.0	51.0		ug/L		102	80 - 120	1	20
1,2-Dibromo-3-Chloropropane	50.0	35.2		ug/L		70	59 - 141	1	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-405239/5
Matrix: Water
Analysis Batch: 405239

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene			50.0	44.8		ug/L		90	77 - 131	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*111*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*
Dibromofluoromethane (Surr)	*111*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: MB 680-405241/9
Matrix: Water
Analysis Batch: 405241

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/12/15 12:01	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/12/15 12:01	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/12/15 12:01	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/12/15 12:01	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/12/15 12:01	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/12/15 12:01	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/12/15 12:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/12/15 12:01	1
Acetone	<7.0		10	7.0	ug/L			10/12/15 12:01	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/12/15 12:01	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/12/15 12:01	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/12/15 12:01	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/12/15 12:01	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/12/15 12:01	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/12/15 12:01	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/12/15 12:01	1
2-Butanone	<3.4		10	3.4	ug/L			10/12/15 12:01	1
Chloroform	<0.50		1.0	0.50	ug/L			10/12/15 12:01	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/12/15 12:01	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/12/15 12:01	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/12/15 12:01	1
Benzene	<0.43		1.0	0.43	ug/L			10/12/15 12:01	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/12/15 12:01	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/12/15 12:01	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/12/15 12:01	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/12/15 12:01	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/12/15 12:01	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/12/15 12:01	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/12/15 12:01	1
Toluene	<0.48		1.0	0.48	ug/L			10/12/15 12:01	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/12/15 12:01	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/12/15 12:01	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/12/15 12:01	1
2-Hexanone	<2.0		10	2.0	ug/L			10/12/15 12:01	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/12/15 12:01	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-405241/9
Matrix: Water
Analysis Batch: 405241

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/12/15 12:01	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/12/15 12:01	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/12/15 12:01	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/12/15 12:01	1
Styrene	<0.27		1.0	0.27	ug/L			10/12/15 12:01	1
Bromoform	<0.43		1.0	0.43	ug/L			10/12/15 12:01	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/12/15 12:01	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/12/15 12:01	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/12/15 12:01	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/12/15 12:01	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/12/15 12:01	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/12/15 12:01	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/12/15 12:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*70 - 130*		*10/12/15 12:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*10/12/15 12:01*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*10/12/15 12:01*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*10/12/15 12:01*	*1*

Lab Sample ID: LCS 680-405241/4
Matrix: Water
Analysis Batch: 405241

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	50.0	58.2		ug/L		116	51 - 140
Chloromethane	50.0	64.7	*	ug/L		129	63 - 126
Vinyl chloride	50.0	51.6		ug/L		103	68 - 132
Bromomethane	50.0	97.3	*	ug/L		195	20 - 180
Chloroethane	50.0	60.9		ug/L		122	50 - 151
Trichlorofluoromethane	50.0	55.1		ug/L		110	58 - 145
1,1-Dichloroethene	50.0	50.9		ug/L		102	74 - 125
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	53.1		ug/L		106	65 - 131
Acetone	250	203		ug/L		81	60 - 154
Carbon disulfide	50.0	50.5		ug/L		101	73 - 127
Methyl acetate	250	224		ug/L		90	66 - 134
Methylene Chloride	50.0	48.8		ug/L		98	76 - 129
trans-1,2-Dichloroethene	50.0	51.2		ug/L		102	78 - 123
Methyl tert-butyl ether	50.0	47.6		ug/L		95	74 - 135
1,1-Dichloroethane	50.0	50.5		ug/L		101	80 - 120
cis-1,2-Dichloroethene	50.0	52.2		ug/L		104	80 - 122
2-Butanone	250	202		ug/L		81	75 - 133
Chloroform	50.0	50.2		ug/L		100	79 - 122
1,1,1-Trichloroethane	50.0	43.7		ug/L		87	74 - 128
Cyclohexane	50.0	52.9		ug/L		106	69 - 130
Carbon tetrachloride	50.0	46.2		ug/L		92	75 - 130
Benzene	50.0	50.7		ug/L		101	73 - 131

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-405241/4
Matrix: Water
Analysis Batch: 405241

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	50.0	49.9		ug/L		100	75 - 130
Trichloroethene	50.0	59.0		ug/L		118	80 - 123
Methylcyclohexane	50.0	53.2		ug/L		106	75 - 127
1,2-Dichloropropane	50.0	53.3		ug/L		107	80 - 123
Bromodichloromethane	50.0	53.2		ug/L		106	77 - 129
cis-1,3-Dichloropropene	50.0	55.8		ug/L		112	80 - 133
4-Methyl-2-pentanone	250	234		ug/L		94	75 - 135
Toluene	50.0	54.7		ug/L		109	80 - 122
trans-1,3-Dichloropropene	50.0	45.5		ug/L		91	74 - 140
1,1,2-Trichloroethane	50.0	52.2		ug/L		104	79 - 125
Tetrachloroethene	50.0	65.0	*	ug/L		130	77 - 123
2-Hexanone	250	231		ug/L		92	70 - 141
Dibromochloromethane	50.0	49.1		ug/L		98	71 - 136
1,2-Dibromoethane	50.0	57.7		ug/L		115	77 - 131
Chlorobenzene	50.0	55.2		ug/L		110	80 - 120
Ethylbenzene	50.0	53.7		ug/L		107	80 - 120
Xylenes, Total	100	108		ug/L		108	80 - 120
Styrene	50.0	49.3		ug/L		99	80 - 122
Bromoform	50.0	50.0		ug/L		100	69 - 135
Isopropylbenzene	50.0	60.2		ug/L		120	80 - 120
1,1,2,2-Tetrachloroethane	50.0	51.1		ug/L		102	72 - 128
1,3-Dichlorobenzene	50.0	50.9		ug/L		102	80 - 120
1,4-Dichlorobenzene	50.0	49.3		ug/L		99	80 - 120
1,2-Dichlorobenzene	50.0	50.1		ug/L		100	80 - 120
1,2-Dibromo-3-Chloropropane	50.0	42.9		ug/L		86	59 - 141
1,2,4-Trichlorobenzene	50.0	53.1		ug/L		106	77 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*104*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
Dibromofluoromethane (Surr)	*104*		*70 - 130*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: LCSD 680-405241/5
Matrix: Water
Analysis Batch: 405241

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	50.0	58.6		ug/L		117	51 - 140	1	40
Chloromethane	50.0	64.4	*	ug/L		129	63 - 126	0	30
Vinyl chloride	50.0	51.4		ug/L		103	68 - 132	1	30
Bromomethane	50.0	91.9	*	ug/L		184	20 - 180	6	40
Chloroethane	50.0	58.1		ug/L		116	50 - 151	5	30
Trichlorofluoromethane	50.0	54.2		ug/L		108	58 - 145	2	30
1,1-Dichloroethene	50.0	50.1		ug/L		100	74 - 125	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	54.5		ug/L		109	65 - 131	3	30
Acetone	250	203		ug/L		81	60 - 154	0	40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-405241/5
Matrix: Water
Analysis Batch: 405241

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Carbon disulfide	50.0	50.6		ug/L		101	73 - 127	0	20
Methyl acetate	250	220		ug/L		88	66 - 134	2	30
Methylene Chloride	50.0	48.1		ug/L		96	76 - 129	1	20
trans-1,2-Dichloroethene	50.0	51.3		ug/L		103	78 - 123	0	20
Methyl tert-butyl ether	50.0	47.6		ug/L		95	74 - 135	0	20
1,1-Dichloroethane	50.0	49.7		ug/L		99	80 - 120	1	20
cis-1,2-Dichloroethene	50.0	52.1		ug/L		104	80 - 122	0	20
2-Butanone	250	211		ug/L		84	75 - 133	4	30
Chloroform	50.0	49.8		ug/L		100	79 - 122	1	20
1,1,1-Trichloroethane	50.0	43.9		ug/L		88	74 - 128	0	20
Cyclohexane	50.0	53.1		ug/L		106	69 - 130	0	30
Carbon tetrachloride	50.0	47.7		ug/L		95	75 - 130	3	20
Benzene	50.0	51.1		ug/L		102	73 - 131	1	30
1,2-Dichloroethane	50.0	50.3		ug/L		101	75 - 130	1	20
Trichloroethene	50.0	59.2		ug/L		118	80 - 123	0	20
Methylcyclohexane	50.0	53.9		ug/L		108	75 - 127	1	30
1,2-Dichloropropane	50.0	52.5		ug/L		105	80 - 123	1	20
Bromodichloromethane	50.0	52.2		ug/L		104	77 - 129	2	20
cis-1,3-Dichloropropene	50.0	54.6		ug/L		109	80 - 133	2	20
4-Methyl-2-pentanone	250	229		ug/L		92	75 - 135	2	30
Toluene	50.0	53.9		ug/L		108	80 - 122	1	20
trans-1,3-Dichloropropene	50.0	44.6		ug/L		89	74 - 140	2	20
1,1,2-Trichloroethane	50.0	50.8		ug/L		102	79 - 125	3	20
Tetrachloroethene	50.0	65.3	*	ug/L		131	77 - 123	0	20
2-Hexanone	250	231		ug/L		93	70 - 141	0	40
Dibromochloromethane	50.0	48.7		ug/L		97	71 - 136	1	20
1,2-Dibromoethane	50.0	57.0		ug/L		114	77 - 131	1	30
Chlorobenzene	50.0	54.7		ug/L		109	80 - 120	1	20
Ethylbenzene	50.0	53.2		ug/L		106	80 - 120	1	20
Xylenes, Total	100	107		ug/L		107	80 - 120	1	20
Styrene	50.0	48.6		ug/L		97	80 - 122	1	20
Bromoform	50.0	50.3		ug/L		101	69 - 135	1	20
Isopropylbenzene	50.0	59.2		ug/L		118	80 - 120	2	20
1,1,2,2-Tetrachloroethane	50.0	50.0		ug/L		100	72 - 128	2	20
1,3-Dichlorobenzene	50.0	51.2		ug/L		102	80 - 120	1	20
1,4-Dichlorobenzene	50.0	49.8		ug/L		100	80 - 120	1	20
1,2-Dichlorobenzene	50.0	50.6		ug/L		101	80 - 120	1	20
1,2-Dibromo-3-Chloropropane	50.0	42.6		ug/L		85	59 - 141	1	30
1,2,4-Trichlorobenzene	50.0	53.7		ug/L		107	77 - 131	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*103*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
Dibromofluoromethane (Surr)	*102*		*70 - 130*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-405400/9
Matrix: Water
Analysis Batch: 405400

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/13/15 09:26	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/13/15 09:26	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/13/15 09:26	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/13/15 09:26	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/13/15 09:26	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/13/15 09:26	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/13/15 09:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/13/15 09:26	1
Acetone	<7.0		10	7.0	ug/L			10/13/15 09:26	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/13/15 09:26	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/13/15 09:26	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/13/15 09:26	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/13/15 09:26	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/13/15 09:26	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/13/15 09:26	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/13/15 09:26	1
2-Butanone	<3.4		10	3.4	ug/L			10/13/15 09:26	1
Chloroform	<0.50		1.0	0.50	ug/L			10/13/15 09:26	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/13/15 09:26	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/13/15 09:26	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/13/15 09:26	1
Benzene	<0.43		1.0	0.43	ug/L			10/13/15 09:26	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/13/15 09:26	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/13/15 09:26	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/13/15 09:26	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/13/15 09:26	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/13/15 09:26	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/13/15 09:26	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/13/15 09:26	1
Toluene	<0.48		1.0	0.48	ug/L			10/13/15 09:26	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/13/15 09:26	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/13/15 09:26	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/13/15 09:26	1
2-Hexanone	<2.0		10	2.0	ug/L			10/13/15 09:26	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/13/15 09:26	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/13/15 09:26	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/13/15 09:26	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/13/15 09:26	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/13/15 09:26	1
Styrene	<0.27		1.0	0.27	ug/L			10/13/15 09:26	1
Bromoform	<0.43		1.0	0.43	ug/L			10/13/15 09:26	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/13/15 09:26	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/13/15 09:26	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/13/15 09:26	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/13/15 09:26	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/13/15 09:26	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/13/15 09:26	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/13/15 09:26	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-405400/9
Matrix: Water
Analysis Batch: 405400

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		70 - 130		10/13/15 09:26	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 130		10/13/15 09:26	1
Dibromofluoromethane (Surr)	110		70 - 130		10/13/15 09:26	1
4-Bromofluorobenzene (Surr)	100		70 - 130		10/13/15 09:26	1

Lab Sample ID: LCS 680-405400/4
Matrix: Water
Analysis Batch: 405400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	50.0	56.7		ug/L		113	51 - 140
Chloromethane	50.0	54.9		ug/L		110	63 - 126
Vinyl chloride	50.0	54.6		ug/L		109	68 - 132
Bromomethane	50.0	53.2		ug/L		106	20 - 180
Chloroethane	50.0	53.7		ug/L		107	50 - 151
Trichlorofluoromethane	50.0	61.4		ug/L		123	58 - 145
1,1-Dichloroethene	50.0	53.4		ug/L		107	74 - 125
1,1,2-Trichloro-1,2,2-trifluoroetha ne	50.0	57.6		ug/L		115	65 - 131
Acetone	250	219		ug/L		88	60 - 154
Carbon disulfide	50.0	52.3		ug/L		105	73 - 127
Methyl acetate	250	238		ug/L		95	66 - 134
Methylene Chloride	50.0	51.2		ug/L		102	76 - 129
trans-1,2-Dichloroethene	50.0	50.8		ug/L		102	78 - 123
Methyl tert-butyl ether	50.0	50.9		ug/L		102	74 - 135
1,1-Dichloroethane	50.0	53.5		ug/L		107	80 - 120
cis-1,2-Dichloroethene	50.0	54.7		ug/L		109	80 - 122
2-Butanone	250	226		ug/L		90	75 - 133
Chloroform	50.0	54.6		ug/L		109	79 - 122
1,1,1-Trichloroethane	50.0	60.8		ug/L		122	74 - 128
Cyclohexane	50.0	51.6		ug/L		103	69 - 130
Carbon tetrachloride	50.0	66.9	*	ug/L		134	75 - 130
Benzene	50.0	49.8		ug/L		100	73 - 131
1,2-Dichloroethane	50.0	56.0		ug/L		112	75 - 130
Trichloroethene	50.0	55.5		ug/L		111	80 - 123
Methylcyclohexane	50.0	52.4		ug/L		105	75 - 127
1,2-Dichloropropane	50.0	51.7		ug/L		103	80 - 123
Bromodichloromethane	50.0	57.4		ug/L		115	77 - 129
cis-1,3-Dichloropropene	50.0	56.0		ug/L		112	80 - 133
4-Methyl-2-pentanone	250	239		ug/L		96	75 - 135
Toluene	50.0	50.7		ug/L		101	80 - 122
trans-1,3-Dichloropropene	50.0	58.3		ug/L		117	74 - 140
1,1,2-Trichloroethane	50.0	50.0		ug/L		100	79 - 125
Tetrachloroethene	50.0	54.9		ug/L		110	77 - 123
2-Hexanone	250	238		ug/L		95	70 - 141
Dibromochloromethane	50.0	61.3		ug/L		123	71 - 136
1,2-Dibromoethane	50.0	49.9		ug/L		100	77 - 131
Chlorobenzene	50.0	50.1		ug/L		100	80 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-405400/4
Matrix: Water
Analysis Batch: 405400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	50.0	49.8		ug/L		100	80 - 120
Xylenes, Total	100	102		ug/L		102	80 - 120
Styrene	50.0	50.2		ug/L		100	80 - 122
Bromoform	50.0	58.7		ug/L		117	69 - 135
Isopropylbenzene	50.0	51.5		ug/L		103	80 - 120
1,1,2,2-Tetrachloroethane	50.0	45.7		ug/L		91	72 - 128
1,3-Dichlorobenzene	50.0	52.0		ug/L		104	80 - 120
1,4-Dichlorobenzene	50.0	50.0		ug/L		100	80 - 120
1,2-Dichlorobenzene	50.0	51.7		ug/L		103	80 - 120
1,2-Dibromo-3-Chloropropane	50.0	50.4		ug/L		101	59 - 141
1,2,4-Trichlorobenzene	50.0	55.4		ug/L		111	77 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 130*
Dibromofluoromethane (Surr)	*112*		*70 - 130*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 680-405400/5
Matrix: Water
Analysis Batch: 405400

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	50.0	55.1		ug/L		110	51 - 140	3	40
Chloromethane	50.0	53.8		ug/L		108	63 - 126	2	30
Vinyl chloride	50.0	53.6		ug/L		107	68 - 132	2	30
Bromomethane	50.0	57.6		ug/L		115	20 - 180	8	40
Chloroethane	50.0	55.0		ug/L		110	50 - 151	2	30
Trichlorofluoromethane	50.0	59.9		ug/L		120	58 - 145	3	30
1,1-Dichloroethene	50.0	52.9		ug/L		106	74 - 125	1	20
1,1,2-Trichloro-1,2,2-trifluoroetha ne	50.0	55.6		ug/L		111	65 - 131	4	30
Acetone	250	226		ug/L		90	60 - 154	3	40
Carbon disulfide	50.0	51.6		ug/L		103	73 - 127	1	20
Methyl acetate	250	246		ug/L		99	66 - 134	3	30
Methylene Chloride	50.0	51.4		ug/L		103	76 - 129	0	20
trans-1,2-Dichloroethene	50.0	52.2		ug/L		104	78 - 123	3	20
Methyl tert-butyl ether	50.0	52.5		ug/L		105	74 - 135	3	20
1,1-Dichloroethane	50.0	53.0		ug/L		106	80 - 120	1	20
cis-1,2-Dichloroethene	50.0	55.5		ug/L		111	80 - 122	1	20
2-Butanone	250	239		ug/L		96	75 - 133	6	30
Chloroform	50.0	55.4		ug/L		111	79 - 122	1	20
1,1,1-Trichloroethane	50.0	59.8		ug/L		120	74 - 128	2	20
Cyclohexane	50.0	50.4		ug/L		101	69 - 130	2	30
Carbon tetrachloride	50.0	66.1	*	ug/L		132	75 - 130	1	20
Benzene	50.0	49.6		ug/L		99	73 - 131	0	30
1,2-Dichloroethane	50.0	57.2		ug/L		114	75 - 130	2	20
Trichloroethene	50.0	53.1		ug/L		106	80 - 123	4	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-405400/5
Matrix: Water
Analysis Batch: 405400

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylcyclohexane	50.0	51.1		ug/L		102	75 - 127	3	30
1,2-Dichloropropane	50.0	51.4		ug/L		103	80 - 123	1	20
Bromodichloromethane	50.0	59.0		ug/L		118	77 - 129	3	20
cis-1,3-Dichloropropene	50.0	56.7		ug/L		113	80 - 133	1	20
4-Methyl-2-pentanone	250	247		ug/L		99	75 - 135	3	30
Toluene	50.0	51.5		ug/L		103	80 - 122	2	20
trans-1,3-Dichloropropene	50.0	59.4		ug/L		119	74 - 140	2	20
1,1,2-Trichloroethane	50.0	51.0		ug/L		102	79 - 125	2	20
Tetrachloroethene	50.0	53.6		ug/L		107	77 - 123	2	20
2-Hexanone	250	247		ug/L		99	70 - 141	4	40
Dibromochloromethane	50.0	61.8		ug/L		124	71 - 136	1	20
1,2-Dibromoethane	50.0	52.2		ug/L		104	77 - 131	4	30
Chlorobenzene	50.0	49.8		ug/L		100	80 - 120	1	20
Ethylbenzene	50.0	49.1		ug/L		98	80 - 120	1	20
Xylenes, Total	100	102		ug/L		102	80 - 120	0	20
Styrene	50.0	50.3		ug/L		101	80 - 122	0	20
Bromoform	50.0	60.1		ug/L		120	69 - 135	2	20
Isopropylbenzene	50.0	51.0		ug/L		102	80 - 120	1	20
1,1,2,2-Tetrachloroethane	50.0	46.1		ug/L		92	72 - 128	1	20
1,3-Dichlorobenzene	50.0	50.5		ug/L		101	80 - 120	3	20
1,4-Dichlorobenzene	50.0	50.3		ug/L		101	80 - 120	1	20
1,2-Dichlorobenzene	50.0	51.7		ug/L		103	80 - 120	0	20
1,2-Dibromo-3-Chloropropane	50.0	51.2		ug/L		102	59 - 141	2	30
1,2,4-Trichlorobenzene	50.0	57.0		ug/L		114	77 - 131	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 130*
Dibromofluoromethane (Surr)	*113*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: MB 680-405413/9
Matrix: Water
Analysis Batch: 405413

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/13/15 09:51	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/13/15 09:51	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/13/15 09:51	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/13/15 09:51	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/13/15 09:51	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/13/15 09:51	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/13/15 09:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/13/15 09:51	1
Acetone	<7.0		10	7.0	ug/L			10/13/15 09:51	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/13/15 09:51	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/13/15 09:51	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/13/15 09:51	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-405413/9
Matrix: Water
Analysis Batch: 405413

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/13/15 09:51	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/13/15 09:51	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/13/15 09:51	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/13/15 09:51	1
2-Butanone	<3.4		10	3.4	ug/L			10/13/15 09:51	1
Chloroform	<0.50		1.0	0.50	ug/L			10/13/15 09:51	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/13/15 09:51	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/13/15 09:51	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/13/15 09:51	1
Benzene	<0.43		1.0	0.43	ug/L			10/13/15 09:51	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/13/15 09:51	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/13/15 09:51	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/13/15 09:51	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/13/15 09:51	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/13/15 09:51	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/13/15 09:51	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/13/15 09:51	1
Toluene	<0.48		1.0	0.48	ug/L			10/13/15 09:51	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/13/15 09:51	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/13/15 09:51	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/13/15 09:51	1
2-Hexanone	<2.0		10	2.0	ug/L			10/13/15 09:51	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/13/15 09:51	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/13/15 09:51	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/13/15 09:51	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/13/15 09:51	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/13/15 09:51	1
Styrene	<0.27		1.0	0.27	ug/L			10/13/15 09:51	1
Bromoform	<0.43		1.0	0.43	ug/L			10/13/15 09:51	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/13/15 09:51	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/13/15 09:51	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/13/15 09:51	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/13/15 09:51	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/13/15 09:51	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/13/15 09:51	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/13/15 09:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*10/13/15 09:51*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*10/13/15 09:51*	*1*
Dibromofluoromethane (Surr)	*113*		*70 - 130*		*10/13/15 09:51*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*10/13/15 09:51*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-405413/4
Matrix: Water
Analysis Batch: 405413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	50.0	47.3		ug/L		95	51 - 140
Chloromethane	50.0	53.6		ug/L		107	63 - 126
Vinyl chloride	50.0	44.7		ug/L		89	68 - 132
Bromomethane	50.0	70.6		ug/L		141	20 - 180
Chloroethane	50.0	47.2		ug/L		94	50 - 151
Trichlorofluoromethane	50.0	49.5		ug/L		99	58 - 145
1,1-Dichloroethene	50.0	49.9		ug/L		100	74 - 125
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	53.2		ug/L		106	65 - 131
Acetone	250	256		ug/L		103	60 - 154
Carbon disulfide	50.0	52.3		ug/L		105	73 - 127
Methyl acetate	250	245		ug/L		98	66 - 134
Methylene Chloride	50.0	53.4		ug/L		107	76 - 129
trans-1,2-Dichloroethene	50.0	53.2		ug/L		106	78 - 123
Methyl tert-butyl ether	50.0	50.8		ug/L		102	74 - 135
1,1-Dichloroethane	50.0	47.7		ug/L		95	80 - 120
cis-1,2-Dichloroethene	50.0	46.5		ug/L		93	80 - 122
2-Butanone	250	230		ug/L		92	75 - 133
Chloroform	50.0	46.0		ug/L		92	79 - 122
1,1,1-Trichloroethane	50.0	48.5		ug/L		97	74 - 128
Cyclohexane	50.0	46.7		ug/L		93	69 - 130
Carbon tetrachloride	50.0	52.1		ug/L		104	75 - 130
Benzene	50.0	44.8		ug/L		90	73 - 131
1,2-Dichloroethane	50.0	46.2		ug/L		92	75 - 130
Trichloroethene	50.0	45.6		ug/L		91	80 - 123
Methylcyclohexane	50.0	45.9		ug/L		92	75 - 127
1,2-Dichloropropane	50.0	43.2		ug/L		86	80 - 123
Bromodichloromethane	50.0	47.2		ug/L		94	77 - 129
cis-1,3-Dichloropropene	50.0	47.2		ug/L		94	80 - 133
4-Methyl-2-pentanone	250	216		ug/L		86	75 - 135
Toluene	50.0	47.1		ug/L		94	80 - 122
trans-1,3-Dichloropropene	50.0	51.6		ug/L		103	74 - 140
1,1,2-Trichloroethane	50.0	50.4		ug/L		101	79 - 125
Tetrachloroethene	50.0	53.9		ug/L		108	77 - 123
2-Hexanone	250	252		ug/L		101	70 - 141
Dibromochloromethane	50.0	53.4		ug/L		107	71 - 136
1,2-Dibromoethane	50.0	52.0		ug/L		104	77 - 131
Chlorobenzene	50.0	48.4		ug/L		97	80 - 120
Ethylbenzene	50.0	48.7		ug/L		97	80 - 120
Xylenes, Total	100	98.2		ug/L		98	80 - 120
Styrene	50.0	48.8		ug/L		98	80 - 122
Bromoform	50.0	51.5		ug/L		103	69 - 135
Isopropylbenzene	50.0	49.8		ug/L		100	80 - 120
1,1,2,2-Tetrachloroethane	50.0	45.6		ug/L		91	72 - 128
1,3-Dichlorobenzene	50.0	48.3		ug/L		97	80 - 120
1,4-Dichlorobenzene	50.0	47.2		ug/L		94	80 - 120
1,2-Dichlorobenzene	50.0	46.0		ug/L		92	80 - 120
1,2-Dibromo-3-Chloropropane	50.0	42.8		ug/L		86	59 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-405413/4
Matrix: Water
Analysis Batch: 405413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,4-Trichlorobenzene			50.0	46.7		ug/L		93	77 - 131		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*89*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*
Dibromofluoromethane (Surr)	*94*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: LCSD 680-405413/5
Matrix: Water
Analysis Batch: 405413

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane			50.0	45.8		ug/L		92	51 - 140	3	40
Chloromethane			50.0	51.0		ug/L		102	63 - 126	5	30
Vinyl chloride			50.0	52.3		ug/L		105	68 - 132	16	30
Bromomethane			50.0	71.4		ug/L		143	20 - 180	1	40
Chloroethane			50.0	50.3		ug/L		101	50 - 151	6	30
Trichlorofluoromethane			50.0	50.9		ug/L		102	58 - 145	3	30
1,1-Dichloroethene			50.0	53.5		ug/L		107	74 - 125	7	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	49.0		ug/L		98	65 - 131	8	30
Acetone			250	271		ug/L		108	60 - 154	6	40
Carbon disulfide			50.0	53.2		ug/L		106	73 - 127	2	20
Methyl acetate			250	250		ug/L		100	66 - 134	2	30
Methylene Chloride			50.0	52.9		ug/L		106	76 - 129	1	20
trans-1,2-Dichloroethene			50.0	51.5		ug/L		103	78 - 123	3	20
Methyl tert-butyl ether			50.0	52.1		ug/L		104	74 - 135	3	20
1,1-Dichloroethane			50.0	51.1		ug/L		102	80 - 120	7	20
cis-1,2-Dichloroethene			50.0	50.3		ug/L		101	80 - 122	8	20
2-Butanone			250	261		ug/L		104	75 - 133	13	30
Chloroform			50.0	52.4		ug/L		105	79 - 122	13	20
1,1,1-Trichloroethane			50.0	52.0		ug/L		104	74 - 128	7	20
Cyclohexane			50.0	51.0		ug/L		102	69 - 130	9	30
Carbon tetrachloride			50.0	52.6		ug/L		105	75 - 130	1	20
Benzene			50.0	50.9		ug/L		102	73 - 131	13	30
1,2-Dichloroethane			50.0	50.1		ug/L		100	75 - 130	8	20
Trichloroethene			50.0	45.7		ug/L		91	80 - 123	0	20
Methylcyclohexane			50.0	46.4		ug/L		93	75 - 127	1	30
1,2-Dichloropropane			50.0	45.1		ug/L		90	80 - 123	4	20
Bromodichloromethane			50.0	46.1		ug/L		92	77 - 129	2	20
cis-1,3-Dichloropropene			50.0	47.2		ug/L		94	80 - 133	0	20
4-Methyl-2-pentanone			250	219		ug/L		88	75 - 135	1	30
Toluene			50.0	47.6		ug/L		95	80 - 122	1	20
trans-1,3-Dichloropropene			50.0	46.6		ug/L		93	74 - 140	10	20
1,1,2-Trichloroethane			50.0	43.4		ug/L		87	79 - 125	15	20
Tetrachloroethene			50.0	44.9		ug/L		90	77 - 123	18	20
2-Hexanone			250	211		ug/L		84	70 - 141	18	40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-405413/5
Matrix: Water
Analysis Batch: 405413

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromochloromethane			50.0	48.3		ug/L		97	71 - 136	10	20
1,2-Dibromoethane			50.0	46.3		ug/L		93	77 - 131	11	30
Chlorobenzene			50.0	49.3		ug/L		99	80 - 120	2	20
Ethylbenzene			50.0	49.7		ug/L		99	80 - 120	2	20
Xylenes, Total			100	106		ug/L		106	80 - 120	8	20
Styrene			50.0	54.4		ug/L		109	80 - 122	11	20
Bromoform			50.0	59.4		ug/L		119	69 - 135	14	20
Isopropylbenzene			50.0	54.9		ug/L		110	80 - 120	10	20
1,1,2,2-Tetrachloroethane			50.0	53.6		ug/L		107	72 - 128	16	20
1,3-Dichlorobenzene			50.0	49.6		ug/L		99	80 - 120	3	20
1,4-Dichlorobenzene			50.0	48.5		ug/L		97	80 - 120	3	20
1,2-Dichlorobenzene			50.0	49.6		ug/L		99	80 - 120	8	20
1,2-Dibromo-3-Chloropropane			50.0	49.1		ug/L		98	59 - 141	14	30
1,2,4-Trichlorobenzene			50.0	44.9		ug/L		90	77 - 131	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*
Dibromofluoromethane (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: MB 680-405604/9
Matrix: Water
Analysis Batch: 405604

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/14/15 09:35	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/14/15 09:35	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/14/15 09:35	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/14/15 09:35	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/14/15 09:35	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/14/15 09:35	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/14/15 09:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/14/15 09:35	1
Acetone	<7.0		10	7.0	ug/L			10/14/15 09:35	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/14/15 09:35	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/14/15 09:35	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/14/15 09:35	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/14/15 09:35	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/14/15 09:35	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/14/15 09:35	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/14/15 09:35	1
2-Butanone	<3.4		10	3.4	ug/L			10/14/15 09:35	1
Chloroform	<0.50		1.0	0.50	ug/L			10/14/15 09:35	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/14/15 09:35	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/14/15 09:35	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/14/15 09:35	1
Benzene	<0.43		1.0	0.43	ug/L			10/14/15 09:35	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-405604/9
Matrix: Water
Analysis Batch: 405604

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/14/15 09:35	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/14/15 09:35	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/14/15 09:35	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/14/15 09:35	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/14/15 09:35	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/14/15 09:35	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/14/15 09:35	1
Toluene	<0.48		1.0	0.48	ug/L			10/14/15 09:35	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/14/15 09:35	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/14/15 09:35	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/14/15 09:35	1
2-Hexanone	<2.0		10	2.0	ug/L			10/14/15 09:35	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/14/15 09:35	1
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/14/15 09:35	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/14/15 09:35	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/14/15 09:35	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/14/15 09:35	1
Styrene	<0.27		1.0	0.27	ug/L			10/14/15 09:35	1
Bromoform	<0.43		1.0	0.43	ug/L			10/14/15 09:35	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/14/15 09:35	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/14/15 09:35	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/14/15 09:35	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/14/15 09:35	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/14/15 09:35	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/14/15 09:35	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/14/15 09:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*105*		*70 - 130*		*10/14/15 09:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*10/14/15 09:35*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*10/14/15 09:35*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*10/14/15 09:35*	*1*

Lab Sample ID: LCS 680-405604/4
Matrix: Water
Analysis Batch: 405604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	50.0	53.7		ug/L		107	51 - 140
Chloromethane	50.0	53.8		ug/L		108	63 - 126
Vinyl chloride	50.0	52.0		ug/L		104	68 - 132
Bromomethane	50.0	52.8		ug/L		106	20 - 180
Chloroethane	50.0	53.9		ug/L		108	50 - 151
Trichlorofluoromethane	50.0	58.4		ug/L		117	58 - 145
1,1-Dichloroethene	50.0	50.4		ug/L		101	74 - 125
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	53.3		ug/L		107	65 - 131
Acetone	250	214		ug/L		85	60 - 154

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-405604/4
Matrix: Water
Analysis Batch: 405604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon disulfide	50.0	49.9		ug/L		100	73 - 127
Methyl acetate	250	234		ug/L		94	66 - 134
Methylene Chloride	50.0	52.2		ug/L		104	76 - 129
trans-1,2-Dichloroethene	50.0	50.1		ug/L		100	78 - 123
Methyl tert-butyl ether	50.0	51.5		ug/L		103	74 - 135
1,1-Dichloroethane	50.0	53.7		ug/L		107	80 - 120
cis-1,2-Dichloroethene	50.0	55.5		ug/L		111	80 - 122
2-Butanone	250	227		ug/L		91	75 - 133
Chloroform	50.0	55.0		ug/L		110	79 - 122
1,1,1-Trichloroethane	50.0	59.0		ug/L		118	74 - 128
Cyclohexane	50.0	48.7		ug/L		97	69 - 130
Carbon tetrachloride	50.0	64.2		ug/L		128	75 - 130
Benzene	50.0	49.5		ug/L		99	73 - 131
1,2-Dichloroethane	50.0	56.9		ug/L		114	75 - 130
Trichloroethene	50.0	53.7		ug/L		107	80 - 123
Methylcyclohexane	50.0	48.5		ug/L		97	75 - 127
1,2-Dichloropropane	50.0	51.7		ug/L		103	80 - 123
Bromodichloromethane	50.0	59.2		ug/L		118	77 - 129
cis-1,3-Dichloropropene	50.0	56.4		ug/L		113	80 - 133
4-Methyl-2-pentanone	250	241		ug/L		96	75 - 135
Toluene	50.0	50.9		ug/L		102	80 - 122
trans-1,3-Dichloropropene	50.0	60.0		ug/L		120	74 - 140
1,1,2-Trichloroethane	50.0	51.1		ug/L		102	79 - 125
Tetrachloroethene	50.0	53.1		ug/L		106	77 - 123
2-Hexanone	250	236		ug/L		94	70 - 141
Dibromochloromethane	50.0	61.1		ug/L		122	71 - 136
1,2-Dibromoethane	50.0	51.5		ug/L		103	77 - 131
Chlorobenzene	50.0	50.2		ug/L		100	80 - 120
Ethylbenzene	50.0	49.6		ug/L		99	80 - 120
Xylenes, Total	100	103		ug/L		103	80 - 120
Styrene	50.0	50.5		ug/L		101	80 - 122
Bromoform	50.0	59.4		ug/L		119	69 - 135
Isopropylbenzene	50.0	50.9		ug/L		102	80 - 120
1,1,2,2-Tetrachloroethane	50.0	44.4		ug/L		89	72 - 128
1,3-Dichlorobenzene	50.0	50.5		ug/L		101	80 - 120
1,4-Dichlorobenzene	50.0	50.0		ug/L		100	80 - 120
1,2-Dichlorobenzene	50.0	51.0		ug/L		102	80 - 120
1,2-Dibromo-3-Chloropropane	50.0	49.0		ug/L		98	59 - 141
1,2,4-Trichlorobenzene	50.0	53.6		ug/L		107	77 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*116*		*70 - 130*
Dibromofluoromethane (Surr)	*114*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-405604/5
Matrix: Water
Analysis Batch: 405604

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	50.0	54.0		ug/L		108	51 - 140	1	40
Chloromethane	50.0	53.9		ug/L		108	63 - 126	0	30
Vinyl chloride	50.0	52.8		ug/L		106	68 - 132	1	30
Bromomethane	50.0	56.5		ug/L		113	20 - 180	7	40
Chloroethane	50.0	53.3		ug/L		107	50 - 151	1	30
Trichlorofluoromethane	50.0	58.5		ug/L		117	58 - 145	0	30
1,1-Dichloroethene	50.0	51.0		ug/L		102	74 - 125	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	54.4		ug/L		109	65 - 131	2	30
Acetone	250	222		ug/L		89	60 - 154	4	40
Carbon disulfide	50.0	50.0		ug/L		100	73 - 127	0	20
Methyl acetate	250	237		ug/L		95	66 - 134	1	30
Methylene Chloride	50.0	52.2		ug/L		104	76 - 129	0	20
trans-1,2-Dichloroethene	50.0	50.7		ug/L		101	78 - 123	1	20
Methyl tert-butyl ether	50.0	52.4		ug/L		105	74 - 135	2	20
1,1-Dichloroethane	50.0	53.0		ug/L		106	80 - 120	1	20
cis-1,2-Dichloroethene	50.0	55.4		ug/L		111	80 - 122	0	20
2-Butanone	250	231		ug/L		92	75 - 133	2	30
Chloroform	50.0	54.9		ug/L		110	79 - 122	0	20
1,1,1-Trichloroethane	50.0	59.0		ug/L		118	74 - 128	0	20
Cyclohexane	50.0	49.9		ug/L		100	69 - 130	2	30
Carbon tetrachloride	50.0	64.7		ug/L		129	75 - 130	1	20
Benzene	50.0	50.1		ug/L		100	73 - 131	1	30
1,2-Dichloroethane	50.0	57.3		ug/L		115	75 - 130	1	20
Trichloroethene	50.0	54.0		ug/L		108	80 - 123	1	20
Methylcyclohexane	50.0	49.3		ug/L		99	75 - 127	2	30
1,2-Dichloropropane	50.0	51.6		ug/L		103	80 - 123	0	20
Bromodichloromethane	50.0	59.3		ug/L		119	77 - 129	0	20
cis-1,3-Dichloropropene	50.0	56.4		ug/L		113	80 - 133	0	20
4-Methyl-2-pentanone	250	240		ug/L		96	75 - 135	0	30
Toluene	50.0	50.6		ug/L		101	80 - 122	1	20
trans-1,3-Dichloropropene	50.0	59.7		ug/L		119	74 - 140	1	20
1,1,2-Trichloroethane	50.0	50.5		ug/L		101	79 - 125	1	20
Tetrachloroethene	50.0	52.6		ug/L		105	77 - 123	1	20
2-Hexanone	250	238		ug/L		95	70 - 141	1	40
Dibromochloromethane	50.0	61.5		ug/L		123	71 - 136	1	20
1,2-Dibromoethane	50.0	51.7		ug/L		103	77 - 131	0	30
Chlorobenzene	50.0	50.6		ug/L		101	80 - 120	1	20
Ethylbenzene	50.0	49.3		ug/L		99	80 - 120	1	20
Xylenes, Total	100	103		ug/L		103	80 - 120	0	20
Styrene	50.0	51.4		ug/L		103	80 - 122	2	20
Bromoform	50.0	60.3		ug/L		121	69 - 135	1	20
Isopropylbenzene	50.0	51.0		ug/L		102	80 - 120	0	20
1,1,2,2-Tetrachloroethane	50.0	45.9		ug/L		92	72 - 128	3	20
1,3-Dichlorobenzene	50.0	50.2		ug/L		100	80 - 120	0	20
1,4-Dichlorobenzene	50.0	49.5		ug/L		99	80 - 120	1	20
1,2-Dichlorobenzene	50.0	51.4		ug/L		103	80 - 120	1	20
1,2-Dibromo-3-Chloropropane	50.0	49.5		ug/L		99	59 - 141	1	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-405604/5
Matrix: Water
Analysis Batch: 405604

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene			50.0	55.3		ug/L		111	77 - 131	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*101*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 130*
Dibromofluoromethane (Surr)	*114*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: MB 680-405615/9
Matrix: Water
Analysis Batch: 405615

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.60		1.0	0.60	ug/L			10/14/15 11:54	1
Chloromethane	<0.40		1.0	0.40	ug/L			10/14/15 11:54	1
Vinyl chloride	<0.50		1.0	0.50	ug/L			10/14/15 11:54	1
Bromomethane	<2.5		5.0	2.5	ug/L			10/14/15 11:54	1
Chloroethane	<2.5		5.0	2.5	ug/L			10/14/15 11:54	1
Trichlorofluoromethane	<0.42		1.0	0.42	ug/L			10/14/15 11:54	1
1,1-Dichloroethene	<0.36		1.0	0.36	ug/L			10/14/15 11:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.36		1.0	0.36	ug/L			10/14/15 11:54	1
Acetone	<7.0		10	7.0	ug/L			10/14/15 11:54	1
Carbon disulfide	<1.0		2.0	1.0	ug/L			10/14/15 11:54	1
Methyl acetate	<1.8		5.0	1.8	ug/L			10/14/15 11:54	1
Methylene Chloride	<2.5		5.0	2.5	ug/L			10/14/15 11:54	1
trans-1,2-Dichloroethene	<0.37		1.0	0.37	ug/L			10/14/15 11:54	1
Methyl tert-butyl ether	<0.30		10	0.30	ug/L			10/14/15 11:54	1
1,1-Dichloroethane	<0.38		1.0	0.38	ug/L			10/14/15 11:54	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/14/15 11:54	1
2-Butanone	<3.4		10	3.4	ug/L			10/14/15 11:54	1
Chloroform	<0.50		1.0	0.50	ug/L			10/14/15 11:54	1
1,1,1-Trichloroethane	<0.37		1.0	0.37	ug/L			10/14/15 11:54	1
Cyclohexane	<0.39		1.0	0.39	ug/L			10/14/15 11:54	1
Carbon tetrachloride	<0.33		1.0	0.33	ug/L			10/14/15 11:54	1
Benzene	<0.43		1.0	0.43	ug/L			10/14/15 11:54	1
1,2-Dichloroethane	<0.50		1.0	0.50	ug/L			10/14/15 11:54	1
Trichloroethene	<0.48		1.0	0.48	ug/L			10/14/15 11:54	1
Methylcyclohexane	<0.43		1.0	0.43	ug/L			10/14/15 11:54	1
1,2-Dichloropropane	<0.67		1.0	0.67	ug/L			10/14/15 11:54	1
Bromodichloromethane	<0.44		1.0	0.44	ug/L			10/14/15 11:54	1
cis-1,3-Dichloropropene	<0.40		1.0	0.40	ug/L			10/14/15 11:54	1
4-Methyl-2-pentanone	<2.1		10	2.1	ug/L			10/14/15 11:54	1
Toluene	<0.48		1.0	0.48	ug/L			10/14/15 11:54	1
trans-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/14/15 11:54	1
1,1,2-Trichloroethane	<0.33		1.0	0.33	ug/L			10/14/15 11:54	1
Tetrachloroethene	<0.74		1.0	0.74	ug/L			10/14/15 11:54	1
2-Hexanone	<2.0		10	2.0	ug/L			10/14/15 11:54	1
Dibromochloromethane	<0.32		1.0	0.32	ug/L			10/14/15 11:54	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-405615/9
Matrix: Water
Analysis Batch: 405615

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	<0.44		1.0	0.44	ug/L			10/14/15 11:54	1
Chlorobenzene	<0.26		1.0	0.26	ug/L			10/14/15 11:54	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			10/14/15 11:54	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			10/14/15 11:54	1
Styrene	<0.27		1.0	0.27	ug/L			10/14/15 11:54	1
Bromoform	<0.43		1.0	0.43	ug/L			10/14/15 11:54	1
Isopropylbenzene	<0.35		1.0	0.35	ug/L			10/14/15 11:54	1
1,1,2,2-Tetrachloroethane	<0.62		1.0	0.62	ug/L			10/14/15 11:54	1
1,3-Dichlorobenzene	<0.43		1.0	0.43	ug/L			10/14/15 11:54	1
1,4-Dichlorobenzene	<0.46		1.0	0.46	ug/L			10/14/15 11:54	1
1,2-Dichlorobenzene	<0.37		1.0	0.37	ug/L			10/14/15 11:54	1
1,2-Dibromo-3-Chloropropane	<1.1		5.0	1.1	ug/L			10/14/15 11:54	1
1,2,4-Trichlorobenzene	<2.5		5.0	2.5	ug/L			10/14/15 11:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*105*		*70 - 130*		*10/14/15 11:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*10/14/15 11:54*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*10/14/15 11:54*	*1*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*		*10/14/15 11:54*	*1*

Lab Sample ID: LCS 680-405615/4
Matrix: Water
Analysis Batch: 405615

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	50.0	42.9		ug/L		86	51 - 140
Chloromethane	50.0	39.3		ug/L		79	63 - 126
Vinyl chloride	50.0	45.4		ug/L		91	68 - 132
Bromomethane	50.0	40.3		ug/L		81	20 - 180
Chloroethane	50.0	46.2		ug/L		92	50 - 151
Trichlorofluoromethane	50.0	40.6		ug/L		81	58 - 145
1,1-Dichloroethene	50.0	53.8		ug/L		108	74 - 125
1,1,2-Trichloro-1,2,2-trifluoroetha ne	50.0	52.0		ug/L		104	65 - 131
Acetone	250	270		ug/L		108	60 - 154
Carbon disulfide	50.0	48.4		ug/L		97	73 - 127
Methyl acetate	250	283		ug/L		113	66 - 134
Methylene Chloride	50.0	52.0		ug/L		104	76 - 129
trans-1,2-Dichloroethene	50.0	50.3		ug/L		101	78 - 123
Methyl tert-butyl ether	50.0	55.9		ug/L		112	74 - 135
1,1-Dichloroethane	50.0	51.4		ug/L		103	80 - 120
cis-1,2-Dichloroethene	50.0	51.9		ug/L		104	80 - 122
2-Butanone	250	262		ug/L		105	75 - 133
Chloroform	50.0	50.4		ug/L		101	79 - 122
1,1,1-Trichloroethane	50.0	53.7		ug/L		107	74 - 128
Cyclohexane	50.0	51.3		ug/L		103	69 - 130
Carbon tetrachloride	50.0	46.7		ug/L		93	75 - 130
Benzene	50.0	50.6		ug/L		101	73 - 131

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-405615/4
Matrix: Water
Analysis Batch: 405615

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	50.0	50.1		ug/L		100	75 - 130
Trichloroethene	50.0	51.9		ug/L		104	80 - 123
Methylcyclohexane	50.0	52.1		ug/L		104	75 - 127
1,2-Dichloropropane	50.0	51.1		ug/L		102	80 - 123
Bromodichloromethane	50.0	52.1		ug/L		104	77 - 129
cis-1,3-Dichloropropene	50.0	48.3		ug/L		97	80 - 133
4-Methyl-2-pentanone	250	269		ug/L		108	75 - 135
Toluene	50.0	51.2		ug/L		102	80 - 122
trans-1,3-Dichloropropene	50.0	47.3		ug/L		95	74 - 140
1,1,2-Trichloroethane	50.0	51.3		ug/L		103	79 - 125
Tetrachloroethene	50.0	52.5		ug/L		105	77 - 123
2-Hexanone	250	274		ug/L		110	70 - 141
Dibromochloromethane	50.0	47.5		ug/L		95	71 - 136
1,2-Dibromoethane	50.0	55.5		ug/L		111	77 - 131
Chlorobenzene	50.0	50.6		ug/L		101	80 - 120
Ethylbenzene	50.0	50.7		ug/L		101	80 - 120
Xylenes, Total	100	103		ug/L		103	80 - 120
Styrene	50.0	52.9		ug/L		106	80 - 122
Bromoform	50.0	35.9		ug/L		72	69 - 135
Isopropylbenzene	50.0	53.2		ug/L		106	80 - 120
1,1,2,2-Tetrachloroethane	50.0	50.2		ug/L		100	72 - 128
1,3-Dichlorobenzene	50.0	52.1		ug/L		104	80 - 120
1,4-Dichlorobenzene	50.0	50.1		ug/L		100	80 - 120
1,2-Dichlorobenzene	50.0	50.8		ug/L		102	80 - 120
1,2-Dibromo-3-Chloropropane	50.0	42.6		ug/L		85	59 - 141
1,2,4-Trichlorobenzene	50.0	55.5		ug/L		111	77 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*104*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*
Dibromofluoromethane (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 680-405615/5
Matrix: Water
Analysis Batch: 405615

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	50.0	44.5		ug/L		89	51 - 140	4	40
Chloromethane	50.0	44.2		ug/L		88	63 - 126	12	30
Vinyl chloride	50.0	46.5		ug/L		93	68 - 132	2	30
Bromomethane	50.0	42.7		ug/L		85	20 - 180	6	40
Chloroethane	50.0	46.6		ug/L		93	50 - 151	1	30
Trichlorofluoromethane	50.0	49.2		ug/L		98	58 - 145	19	30
1,1-Dichloroethene	50.0	54.4		ug/L		109	74 - 125	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	53.0		ug/L		106	65 - 131	2	30
Acetone	250	278		ug/L		111	60 - 154	3	40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-405615/5
Matrix: Water
Analysis Batch: 405615

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Carbon disulfide	50.0	51.6		ug/L		103	73 - 127	6	20
Methyl acetate	250	285		ug/L		114	66 - 134	1	30
Methylene Chloride	50.0	53.0		ug/L		106	76 - 129	2	20
trans-1,2-Dichloroethene	50.0	50.6		ug/L		101	78 - 123	1	20
Methyl tert-butyl ether	50.0	56.2		ug/L		112	74 - 135	1	20
1,1-Dichloroethane	50.0	51.5		ug/L		103	80 - 120	0	20
cis-1,2-Dichloroethene	50.0	52.6		ug/L		105	80 - 122	1	20
2-Butanone	250	271		ug/L		109	75 - 133	4	30
Chloroform	50.0	51.1		ug/L		102	79 - 122	1	20
1,1,1-Trichloroethane	50.0	55.2		ug/L		110	74 - 128	3	20
Cyclohexane	50.0	51.6		ug/L		103	69 - 130	1	30
Carbon tetrachloride	50.0	49.2		ug/L		98	75 - 130	5	20
Benzene	50.0	51.2		ug/L		102	73 - 131	1	30
1,2-Dichloroethane	50.0	51.4		ug/L		103	75 - 130	3	20
Trichloroethene	50.0	52.7		ug/L		105	80 - 123	2	20
Methylcyclohexane	50.0	53.2		ug/L		106	75 - 127	2	30
1,2-Dichloropropane	50.0	52.0		ug/L		104	80 - 123	2	20
Bromodichloromethane	50.0	53.9		ug/L		108	77 - 129	4	20
cis-1,3-Dichloropropene	50.0	49.8		ug/L		100	80 - 133	3	20
4-Methyl-2-pentanone	250	270		ug/L		108	75 - 135	0	30
Toluene	50.0	51.3		ug/L		103	80 - 122	0	20
trans-1,3-Dichloropropene	50.0	48.5		ug/L		97	74 - 140	3	20
1,1,2-Trichloroethane	50.0	52.9		ug/L		106	79 - 125	3	20
Tetrachloroethene	50.0	53.5		ug/L		107	77 - 123	2	20
2-Hexanone	250	274		ug/L		110	70 - 141	0	40
Dibromochloromethane	50.0	49.8		ug/L		100	71 - 136	5	20
1,2-Dibromoethane	50.0	55.8		ug/L		112	77 - 131	1	30
Chlorobenzene	50.0	51.4		ug/L		103	80 - 120	1	20
Ethylbenzene	50.0	51.2		ug/L		102	80 - 120	1	20
Xylenes, Total	100	104		ug/L		104	80 - 120	1	20
Styrene	50.0	53.4		ug/L		107	80 - 122	1	20
Bromoform	50.0	38.9		ug/L		78	69 - 135	8	20
Isopropylbenzene	50.0	54.0		ug/L		108	80 - 120	2	20
1,1,2,2-Tetrachloroethane	50.0	51.1		ug/L		102	72 - 128	2	20
1,3-Dichlorobenzene	50.0	52.9		ug/L		106	80 - 120	1	20
1,4-Dichlorobenzene	50.0	50.9		ug/L		102	80 - 120	2	20
1,2-Dichlorobenzene	50.0	51.1		ug/L		102	80 - 120	1	20
1,2-Dibromo-3-Chloropropane	50.0	46.0		ug/L		92	59 - 141	8	30
1,2,4-Trichlorobenzene	50.0	58.1		ug/L		116	77 - 131	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*105*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*
Dibromofluoromethane (Surr)	*107*		*70 - 130*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*

QC Association Summary

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

GC/MS VOA

Analysis Batch: 404977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-117408-9	MW-23	Total/NA	Water	8260B	
680-117408-11	MW-25	Total/NA	Water	8260B	
680-117408-13	MW-27	Total/NA	Water	8260B	
680-117408-17	MW-31	Total/NA	Water	8260B	
680-117408-26	Trip Blank	Total/NA	Water	8260B	
LCS 680-404977/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-404977/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-404977/9	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 405143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-117408-7	MW-18R	Total/NA	Water	8260B	
680-117408-8	MW-19	Total/NA	Water	8260B	
680-117408-20	MW-34	Total/NA	Water	8260B	
680-117408-21	MW-35	Total/NA	Water	8260B	
LCS 680-405143/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-405143/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-405143/8	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 405239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-117408-10	MW-24R	Total/NA	Water	8260B	
680-117408-14	MW-28	Total/NA	Water	8260B	
680-117408-16	MW-30	Total/NA	Water	8260B	
680-117408-23	MW-37	Total/NA	Water	8260B	
LCS 680-405239/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-405239/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-405239/9	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 405241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-117408-4	MW-14	Total/NA	Water	8260B	
680-117408-5	MW-16	Total/NA	Water	8260B	
680-117408-6	MW-17R	Total/NA	Water	8260B	
680-117408-22	MW-36	Total/NA	Water	8260B	
680-117408-25	PAN-MW-10	Total/NA	Water	8260B	
LCS 680-405241/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-405241/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-405241/9	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 405400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-117408-18	MW-32	Total/NA	Water	8260B	
680-117408-24	PAN-MW-9	Total/NA	Water	8260B	
LCS 680-405400/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-405400/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-405400/9	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 405413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-117408-3	LAW-PZ-8R	Total/NA	Water	8260B	

GC/MS VOA (Continued)

Analysis Batch: 405413 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-117408-19	MW-33	Total/NA	Water	8260B	
LCS 680-405413/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-405413/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-405413/9	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 405604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-117408-2	IW-18	Total/NA	Water	8260B	
680-117408-12	MW-26R	Total/NA	Water	8260B	
LCS 680-405604/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-405604/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-405604/9	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 405615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-117408-1	IW-IR	Total/NA	Water	8260B	
680-117408-15	MW-29	Total/NA	Water	8260B	
LCS 680-405615/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-405615/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-405615/9	Method Blank	Total/NA	Water	8260B	

Lab Chronicle

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: IW-IR — Lab Sample ID: 680-117408-1

Date Collected: 10/01/15 11:20 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		200	5 mL	5 mL	405615	10/14/15 14:41	CEJ	TAL SAV
	Instrument ID: CMSAC									

Client Sample ID: IW-18 — Lab Sample ID: 680-117408-2

Date Collected: 10/01/15 19:14 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		25	5 mL	5 mL	405604	10/14/15 12:06	CEJ	TAL SAV
	Instrument ID: CMSP2									

Client Sample ID: LAW-PZ-8R — Lab Sample ID: 680-117408-3

Date Collected: 10/01/15 14:34 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1000	5 mL	5 mL	405413	10/13/15 15:09	CEJ	TAL SAV
	Instrument ID: CMSO2									

Client Sample ID: MW-14 — Lab Sample ID: 680-117408-4

Date Collected: 09/30/15 17:38 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	405241	10/12/15 16:47	CEJ	TAL SAV
	Instrument ID: CMSS									

Client Sample ID: MW-16 — Lab Sample ID: 680-117408-5

Date Collected: 09/30/15 16:03 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	5 mL	5 mL	405241	10/12/15 16:02	CEJ	TAL SAV
	Instrument ID: CMSS									

Client Sample ID: MW-17R — Lab Sample ID: 680-117408-6

Date Collected: 09/30/15 10:03 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	405241	10/12/15 14:09	CEJ	TAL SAV
	Instrument ID: CMSS									

Lab Chronicle

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-18R — Lab Sample ID: 680-117408-7

Date Collected: 09/29/15 19:01 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	405143	10/10/15 13:42	RWB	TAL SAV
	Instrument ID: CMSP2									

Client Sample ID: MW-19 — Lab Sample ID: 680-117408-8

Date Collected: 09/28/15 16:33 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	405143	10/10/15 11:54	RWB	TAL SAV
	Instrument ID: CMSP2									

Client Sample ID: MW-23 — Lab Sample ID: 680-117408-9

Date Collected: 09/28/15 14:43 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	404977	10/09/15 16:06	CEJ	TAL SAV
	Instrument ID: CMSP2									

Client Sample ID: MW-24R — Lab Sample ID: 680-117408-10

Date Collected: 10/01/15 16:08 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	5 mL	5 mL	405239	10/12/15 12:56	CEJ	TAL SAV
	Instrument ID: CMSAC									

Client Sample ID: MW-25 — Lab Sample ID: 680-117408-11

Date Collected: 09/28/15 18:04 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	404977	10/09/15 16:49	CEJ	TAL SAV
	Instrument ID: CMSP2									

Client Sample ID: MW-26R — Lab Sample ID: 680-117408-12

Date Collected: 10/01/15 10:05 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	5 mL	5 mL	405604	10/14/15 14:15	CEJ	TAL SAV
	Instrument ID: CMSP2									

Lab Chronicle

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-27
Date Collected: 09/28/15 11:31
Date Received: 10/02/15 15:10

Lab Sample ID: 680-117408-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	404977	10/09/15 17:10	CEJ	TAL SAV
	Instrument ID: CMSP2									

Client Sample ID: MW-28
Date Collected: 09/29/15 11:21
Date Received: 10/02/15 15:10

Lab Sample ID: 680-117408-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	5 mL	5 mL	405239	10/12/15 14:06	CEJ	TAL SAV
	Instrument ID: CMSAC									

Client Sample ID: MW-29
Date Collected: 10/01/15 17:22
Date Received: 10/02/15 15:10

Lab Sample ID: 680-117408-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	5 mL	5 mL	405615	10/14/15 14:18	CEJ	TAL SAV
	Instrument ID: CMSAC									

Client Sample ID: MW-30
Date Collected: 09/29/15 17:45
Date Received: 10/02/15 15:10

Lab Sample ID: 680-117408-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	405239	10/12/15 14:29	CEJ	TAL SAV
	Instrument ID: CMSAC									

Client Sample ID: MW-31
Date Collected: 09/28/15 13:31
Date Received: 10/02/15 15:10

Lab Sample ID: 680-117408-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	404977	10/09/15 17:32	CEJ	TAL SAV
	Instrument ID: CMSP2									

Client Sample ID: MW-32
Date Collected: 09/30/15 11:02
Date Received: 10/02/15 15:10

Lab Sample ID: 680-117408-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	405400	10/13/15 10:30	CEJ	TAL SAV
	Instrument ID: CMSP2									

Lab Chronicle

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: MW-33 — Lab Sample ID: 680-117408-19

Date Collected: 10/01/15 18:05 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	5 mL	5 mL	405413	10/13/15 15:51	CEJ	TAL SAV
	Instrument ID: CMSO2									

Client Sample ID: MW-34 — Lab Sample ID: 680-117408-20

Date Collected: 09/29/15 12:00 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	405143	10/10/15 14:46	RWB	TAL SAV
	Instrument ID: CMSP2									

Client Sample ID: MW-35 — Lab Sample ID: 680-117408-21

Date Collected: 09/29/15 15:15 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	405143	10/10/15 15:08	RWB	TAL SAV
	Instrument ID: CMSP2									

Client Sample ID: MW-36 — Lab Sample ID: 680-117408-22

Date Collected: 09/30/15 09:01 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	405241	10/12/15 14:54	CEJ	TAL SAV
	Instrument ID: CMSS									

Client Sample ID: MW-37 — Lab Sample ID: 680-117408-23

Date Collected: 09/28/15 10:17 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	5 mL	5 mL	405239	10/12/15 13:19	CEJ	TAL SAV
	Instrument ID: CMSAC									

Client Sample ID: PAN-MW-9 — Lab Sample ID: 680-117408-24

Date Collected: 09/30/15 18:29 — **Matrix: Water**
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	5 mL	5 mL	405400	10/13/15 10:52	CEJ	TAL SAV
	Instrument ID: CMSP2									

Lab Chronicle

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Client Sample ID: PAN-MW-10

Lab Sample ID: 680-117408-25
Date Collected: 09/30/15 14:43
Matrix: Water
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	405241	10/12/15 15:17	CEJ	TAL SAV
	Instrument ID: CMSS									

Client Sample ID: Trip Blank

Lab Sample ID: 680-117408-26
Date Collected: 09/28/15 00:00
Matrix: Water
Date Received: 10/02/15 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	404977	10/09/15 14:40	CEJ	TAL SAV
	Instrument ID: CMSP2									

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Serial Number 80588

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:

PROJECT REFERENCE: VOPAK Savannah Terminal	PROJECT NO.: 390020	PROJECT LOCATION (STATE): GA
TAL (LAB) PROJECT MANAGER: Sheila Hoffman	PO NUMBER:	CONTRACT NO.:
CLIENT (SITE) PM: Alan Sanders	CLIENT PHONE: 770-772-7100	CLIENT FAX:
CLIENT NAME: EIC	CLIENT E-MAIL: asanders@eicusa.com	
CLIENT ADDRESS: 151 Kimball Bridge Rd Alpharetta, GA 30009		
COMPANY CONTRACTING THIS WORK (if applicable):		

PAGE 1 OF 3

STANDARD REPORT DELIVERY ●
DATE DUE 10/16/15

EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

REQUIRED ANALYSIS: 82608 (1421)

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
10/01/15	11:20	IW-1R	G	✓				3	
10/01/15	19:14	IW-18	G	✓				3	
10/01/15	14:34	LAW-PZ-8R	G	✓				3	
9/30/15	17:38	MW-14	G	✓				3	
9/30/15	16:03	MW-16	G	✓				3	
9/30/15	10:03	MW-17R	G	✓				3	
9/29/15	19:01	MW-18R	G	✓				3	
9/28/15	16:33	MW-19	G	✓				3	
9/28/15	14:43	MW-23	G	✓				3	
10/01/15	16:08	MW-24R	G	✓				3	
9/28/15	18:054	MW-25	G	✓				3	
10/01/15	10:05	MW-26R	G	✓				3	

680-117408 Chain of Custody

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Amelia [signature]	10/2/15	1510						

RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
Lyn Kirkin	10/2/15	1510	YES ○ NO ○			48152

TAL8240-680 (1008)

Serial Number 97969

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax.

PROJECT REFERENCE: VOPAK Savannah Terminal	PROJECT NO: 390020	PROJECT LOCATION (STATE): GA
TAL (LAB) PROJECT MANAGER: Sheila Hoffman	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM: Alan Sanders	CLIENT PHONE: 770-772-7100	CLIENT FAX
CLIENT NAME: EIC	CLIENT E-MAIL: asanders@eicusa.com	
CLIENT ADDRESS: 161 Kimball Bridge Rd Alpharetta GA, 30009		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE 2 OF 3

STANDARD REPORT DELIVERY ●
DATE DUE 10/16/15

EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE 1

NUMBER OF COOLERS SUBMITTED PER SHIPMENT.

REQUIRED ANALYSIS: #21 82608 — PRESERVATIVE

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
9/28/15	11:31	MW-27	G	✓				3	
9/29/15	11:21	MW-28	G	✓				3	
10/01/15	17:22	MW-29	G	✓				3	
9/29/15	17:45	MW-30	G	✓				3	
9/28/15	13:31	MW-31	G	✓				3	
9/30/15	11:02	MW-32	G	✓				3	
10/01/15	18:05	MW-33	G	✓				3	
9/29/15	12:00	MW-34	G	✓				3	
9/29/15	15:15	MW-35	G	✓				3	
9/30/15	9:01	MW-36	G	✓				3	
9/28/15	10:17	MW-37	G	✓				3	
9/30/15	18:29	PAN-MW-9	G	✓				3	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Amelia	10/2/15	1510						

RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
Kym Kurth	10/2/15	1510	YES ○ NO ○			4.8/5.2 680-117408

TAL8240-680 (1008)

10/15/2015

Serial Number 97970

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:

PROJECT REFERENCE: WOPAK Savannah Terminal	PROJECT NO.: 390020	PROJECT LOCATION (STATE): GA
TAL (LAB) PROJECT MANAGER: Sheila Hoffman	P.O. NUMBER:	CONTRACT NO.:
CLIENT (SITE) PM: Alan Sanders	CLIENT PHONE: 770-772-7100	CLIENT FAX:
CLIENT NAME: EIC	CLIENT E-MAIL: asanders@eicusa.com	
CLIENT ADDRESS: 161 Kimball Bridge Rd, Alpharetta GA 30009		
COMPANY CONTRACTING THIS WORK (if applicable):		

PAGE 3 OF 3

STANDARD REPORT DELIVERY ●
DATE DUE 10/16/15
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

REQUIRED ANALYSIS: #C1 8260B — PRESERVATIVE

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	#C1 8260B	REMARKS
9/30/15	14:43	PAN-MW-10	G	✓				3	
—	—	Trip Blank	G	✓				2	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Amelia [signature]	10/2/15	1510						

RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
Kyn Kirkland	10/2/15	1510	YES ○ NO ○			4.8/5.2 1680-117408

TAL8240-680 (1008)

10/15/2015

Login Sample Receipt Checklist

Client: Environmental International Corporation

Job Number: 680-117408-1

Login Number: 117408
List Number: 1
Creator: White, Menica R

List Source: TestAmerica Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: Environmental International Corporation
Project/Site: VOPAK Savannah Terminal/390020

TestAmerica Job ID: 680-117408-1

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Georgia	State Program	4	803	06-30-16

VOPAK TERMINAL SAVANNAH, SAVANNAH, GEORGIA

NINTH SEMI-ANNUAL PROGRESS REPORT

ATTACHMENT D

GAUGING DATA FROM USGS GAUGING STATION 021989773

Attachment D

Date & Time	Gauge Height (Feet, NAVD88)	Stream Velocity (feet per Second)
1/8/2008 13:45	-4.38	1.46
2/3/2008 23:45	-4.38	0.97
3/4/2008 12:15	-4.38	0.68
3/5/2008 12:00	-4.38	1.64
3/7/2008 15:45	-4.38	0.09
3/15/2008 22:00	-4.38	0.6
3/15/2008 22:45	-4.38	0.47
5/2/2008 12:15	-4.38	0.44
5/10/2008 7:00	-4.38	1.78
5/20/2008 4:00	-4.38	0.03
6/8/2008 19:15	-4.38	1.15
6/28/2008 9:15	-4.38	1.4
7/5/2008 16:15	-4.38	1.41
8/2/2008 3:15	-4.38	1.77
8/5/2008 18:30	-4.38	1.58
10/14/2008 15:30	-4.38	1.43
10/29/2008 2:45	-4.38	1.64
11/18/2008 6:15	-4.38	1.02
11/27/2008 2:00	-4.38	0.52
11/28/2008 1:45	-4.38	1.09
12/1/2008 18:15	-4.38	1.04
12/14/2008 2:15	-4.38	1.77
1/2/2009 5:45	-4.38	0.83
1/28/2009 4:00	-4.38	0.46
1/30/2009 5:15	-4.38	0.61
3/16/2009 6:45	-4.38	2.16
3/31/2009 18:15	-4.38	1.92
5/1/2009 9:15	-4.38	0.32
5/2/2009 21:30	-4.38	1.69
5/3/2009 22:30	-4.38	1.7
6/6/2009 3:15	-4.38	0.32
7/16/2009 9:45	-4.38	0.02
7/29/2009 22:15	-4.38	0.3
8/6/2009 16:15	-4.38	0.37
8/7/2009 3:15	-4.38	1.11
8/18/2009 12:45	-4.38	1.19
12/16/2009 2:15	-4.38	1.1
1/3/2010 16:15	-4.38	1.98
1/8/2010 22:45	-4.38	0.06
5/22/2010 22:45	-4.38	1.23
6/12/2010 2:45	-4.38	1.36
6/18/2010 20:45	-4.38	1.33
6/18/2010 21:00	-4.38	1.33
6/28/2010 17:15	-4.38	0.87
7/19/2010 8:30	-4.38	1.89
7/19/2010 8:45	-4.38	1.89

Attachment D

Date & Time	Gauge Height (Feet, NAVD88)	Stream Velocity (feet per Second)
7/19/2010 22:00	-4.38	1.25
8/24/2010 3:00	-4.38	1.06
10/9/2010 4:30	-4.38	1.3
10/22/2010 2:15	-4.38	1.15
11/9/2010 3:30	-4.38	1.58
11/19/2010 0:30	-4.38	1
12/24/2010 18:00	-4.38	0.49
1/25/2011 19:45	-4.38	0.37
2/2/2011 1:30	-4.38	0.9
2/9/2011 18:30	-4.38	1.39
2/15/2011 11:30	-4.38	1.29
4/6/2011 6:00	-4.38	0.36
4/8/2011 6:00	-4.38	1.29
4/8/2011 6:15	-4.38	1.15
4/14/2011 12:45	-4.38	0.21
4/25/2011 9:45	-4.38	0.71
5/3/2011 3:15	-4.38	1.17
5/4/2011 4:00	-4.38	1.06
5/5/2011 4:15	-4.38	1.25
5/20/2011 6:45	-4.38	0.28
5/29/2011 12:30	-4.38	1.52
6/14/2011 3:15	-4.38	0.17
6/17/2011 5:00	-4.38	0.94
6/17/2011 16:00	-4.38	1.34
7/1/2011 15:00	-4.38	1.04
7/1/2011 15:15	-4.38	1.04
7/9/2011 8:30	-4.38	1.66
7/29/2011 13:15	-4.38	1.53
7/30/2011 2:15	-4.38	1.52
8/7/2011 9:15	-4.38	1.5
8/9/2011 0:00	-4.38	0.85
9/10/2011 2:00	-4.38	1.33
11/21/2011 10:15	-4.38	1.73
11/22/2011 13:00	-4.38	0.1
11/23/2011 14:30	-4.38	0.02
12/9/2011 1:00	-4.38	1.39
12/15/2011 17:30	-4.38	1.88
12/18/2011 20:45	-4.38	0.81
1/5/2012 0:00	-4.38	0.86
1/11/2012 17:15	-4.38	0.82
1/27/2012 5:00	-4.38	0.97
1/28/2012 5:15	-4.38	1.96
2/2/2012 22:00	-4.38	0.75
2/8/2012 16:00	-4.38	0.82
2/26/2012 5:30	-4.38	0.33
2/26/2012 5:45	-4.38	0.33

Attachment D

Date & Time	Gauge Height (Feet, NAVD88)	Stream Velocity (feet per Second)
3/16/2012 23:15	-4.38	0.24
3/21/2012 2:00	-4.38	1.75
4/6/2012 4:00	-4.38	0.47
4/10/2012 17:45	-4.38	2.06
4/10/2012 18:00	-4.38	2.06
4/15/2012 23:15	-4.38	1.32
5/1/2012 11:15	-4.38	0.48
5/4/2012 0:45	-4.38	2.34
5/7/2012 17:00	-4.38	1.46
5/31/2012 10:45	-4.38	2.49
5/31/2012 11:00	-4.38	1.68
7/7/2012 19:00	-4.38	0.82
7/22/2012 4:30	-4.38	1.6
8/7/2012 7:30	-4.38	0.61
8/21/2012 5:15	-4.38	2.04
8/21/2012 5:30	-4.38	2.04
8/29/2012 2:15	-4.38	1.47
9/3/2012 17:15	-4.38	2.04
9/3/2012 17:30	-4.38	2.04
9/27/2012 2:00	-4.38	0.84
9/27/2012 13:00	-4.38	1.33
12/13/2012 3:15	-4.38	0.63
12/15/2012 3:30	-4.38	1.66
12/22/2012 22:15	-4.38	0.64
12/28/2012 1:00	-4.38	1.94
1/6/2013 10:00	-4.38	0.23
2/1/2013 16:45	-4.38	2.42
2/1/2013 17:00	-4.38	2.42
2/15/2013 17:30	-4.38	2.38
2/23/2013 0:45	-4.38	1.42
2/28/2013 17:45	-4.38	0.05
3/4/2013 7:00	-4.38	2.1
3/4/2013 19:30	-4.38	1.04
3/6/2013 23:15	-4.38	0.13
3/28/2013 15:15	-4.38	2.03
4/1/2013 6:15	-4.38	1.44
4/5/2013 11:00	-4.38	1.92
4/13/2013 17:00	-4.38	2.14
4/13/2013 17:45	-4.38	0.49
5/7/2013 2:00	-4.38	0.76
5/30/2013 7:45	-4.38	1.21
6/18/2013 23:15	-4.38	2.13
7/9/2013 3:30	-4.38	1.55
7/29/2013 8:15	-4.38	0.35
8/10/2013 5:15	-4.38	1.25
9/4/2013 2:45	-4.38	0.83

Attachment D

Date & Time	Gauge Height (Feet, NAVD88)	Stream Velocity (feet per Second)
9/4/2013 14:00	-4.38	2.16
9/6/2013 16:00	-4.38	1.05
9/16/2013 0:45	-4.38	1.83
10/6/2013 4:30	-4.38	1.22
12/16/2013 14:45	-4.38	0.92
12/17/2013 14:15	-4.38	1.6
12/17/2013 14:30	-4.38	1.6
1/5/2014 17:45	-4.38	2.02
1/5/2014 18:00	-4.38	2.02
1/21/2014 17:15	-4.38	3
2/3/2014 16:30	-4.38	1.89
2/3/2014 16:45	-4.38	1.89
2/13/2014 14:00	-4.38	1.82
2/15/2014 3:15	-4.38	0.58
2/15/2014 3:30	-4.38	0.58
2/25/2014 11:15	-4.38	1.46
3/21/2014 6:30	-4.38	0.91
3/22/2014 19:30	-4.38	1.57
3/25/2014 22:00	-4.38	2.24
4/1/2014 5:45	-4.38	0.06
4/3/2014 5:15	-4.38	1.66
4/27/2014 1:45	-4.38	1.69
5/21/2014 20:45	-4.38	1.57
6/16/2014 7:00	-4.38	1.17
6/16/2014 18:00	-4.38	1.85
7/9/2014 11:30	-4.38	2.17
8/10/2014 14:30	-4.38	1.84
8/15/2014 7:30	-4.38	1.27
9/7/2014 13:30	-4.38	1.63
9/8/2014 2:15	-4.38	1.7
9/9/2014 3:00	-4.38	1.94
9/11/2014 17:45	-4.38	1.69
10/7/2014 15:30	-4.38	0.94
10/9/2014 3:00	-4.38	2.13
1/4/2015 1:00	-4.38	2.24
1/22/2015 15:45	-4.38	1.9
3/8/2015 16:45	-4.38	1.98
3/8/2015 17:45	-4.38	0.86
4/16/2015 14:15	-4.38	1.18
5/4/2015 16:00	-4.38	1.14
6/16/2015 14:15	-4.38	1.66
6/19/2015 18:15	-4.38	0.16
6/19/2015 18:30	-4.38	0.16
6/27/2015 11:30	-4.38	0.21
6/29/2015 0:30	-4.38	1.38
6/30/2015 14:45	-4.38	0.41

Attachment D

Date & Time	Gauge Height (Feet, NAVD88)	Stream Velocity (feet per Second)
6/30/2015 15:00	-4.38	0.41
8/29/2015 3:15	-4.38	1.98
9/3/2015 19:45	-4.38	2.02
9/4/2015 7:30	-4.38	2.53
9/13/2015 15:30	-4.38	0.86
10/24/2015 1:00	-4.38	0.75
10/29/2015 6:00	-4.38	0.24
11/23/2015 0:00	-4.38	1.54
11/28/2015 5:00	-4.38	0.16
12/24/2015 0:30	-4.38	1.34
12/29/2015 17:45	-4.38	1.44
Average River Velocity (feet per second) -->		**1.24**

Notes:

Selected stream velocities were obtained by Environmental International Corporation (EIC) from USGS Waterdata database from Gauging Station 021989773. The dates of the data EIC obtained ranged from 2008 to 2015, which included all years with complete gauge and stream velocity data from this gauging station.

VOPAK TERMINAL SAVANNAH, SAVANNAH, GEORGIA

NINTH SEMI-ANNUAL PROGRESS REPORT

ATTACHMENT E

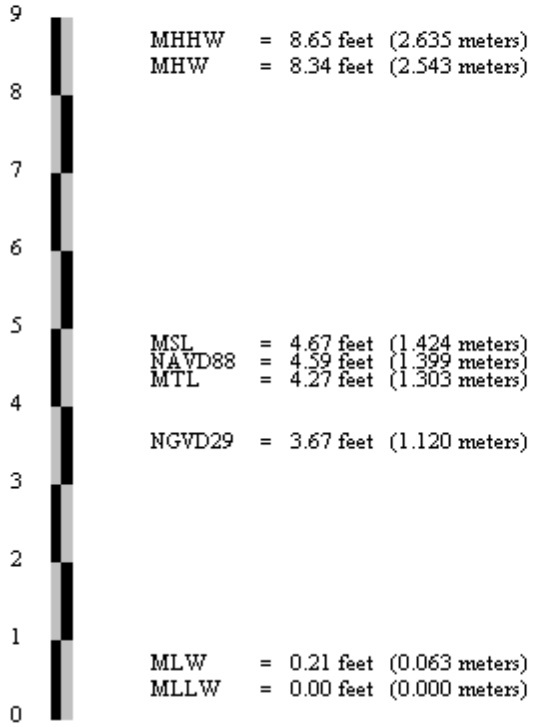
ELEVATION INFORMATION, NATIONAL GEODETIC SURVEY – TIDAL EVALUATION

National Geodetic Survey - Tidal Elevation

ngs.noaa.gov/Tidal_Elevation/diagram.jsp

ELEVATION INFORMATION

PID:	CK0429
VM:	16682
STATION ID:	8670424
EPOCH:	1983-2001
DATE:	Tuesday, July 28, 2015 3:04:50 PM EST



The NAVD 88 and the NGVD 29 elevations related to MLLW were computed from Bench Mark, A 3, at the station.

Displayed tidal datums are Mean Higher High Water(MHHW), Mean High Water (MHW), Mean Tide Level(MTL), Mean Sea Level (MSL), Mean Low Water(MLW), and Mean Lower Low Water(MLLW) referenced on 1960-1978 Epoch.

Go Back to Main Page

VOPAK TERMINAL SAVANNAH, SAVANNAH, GEORGIA

NINTH SEMI-ANNUAL PROGRESS REPORT

ATTACHMENT F

U.S. ARMY CORPS OF ENGINEERS – SAVANNAH HARBOR EXPANSION PROJECT – CHANNEL DESIGN DRAWINGS, PLAT REFERENCE NO. 3

DISPOSAL AREA 2-A
HUTCHINSON ISLAND
BACK RIVER
PANOCEAN SOUTHLAND INC.
BERTH 2 EXTENSION
BERTH 30
G.A.F. CORPORATION
Vopak Terminal Savannah
RUBEROID COMPANY
NATIONAL GYPSUM COMPANY (GOLD BOND)
NEW GYPSUM
RANGE
OUTFALL PIPE
MARSH ISLAND TURNING BASIN 900'X1000'X34' DEEP
SAVANNAH ELECTRIC AND POWER COMPANY TRANSMISSION LINE
UNION CAMP AERATION LAGOON
SOUTHERN BULK INDUSTRIES
CITGO ASPHALT REFINING CO.
UNION CAMP CORP.
STA. 89+250 IP EFFLUENT LINE
STA. 88+600 ELECTRIC CABLE
CHANNEL LEGEND
SINGLE SOLID LINE REPRESENTS COINCIDENT EXISTING & FINAL DESIGN CHANNEL TOE
DUAL LINES REPRESENT EXISTING CHANNEL TOE & FINAL DESIGN CHANNEL TOE
NOTES:
1. SOUNDINGS SHOWN INDICATE ALL CHANGES OR CRITICAL POINTS IN THE RIVERBED.
2. STATIONS ARE AT 1000' INTERVALS.
3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
4. DATUM: HORIZONTAL = GA EAST. NAD 83
VERTICAL = M.L.W. (MLW - 0.22' = MLLW)
5. AERIALS ©2008 DIGITALGLOBE
SCALE: 1"=200'
200 0 200 400 600
US ARMY CORPS OF ENGINEERS SAVANNAH
SYMBOL DESCRIPTION DATE BY
PREPARED BY: SAVANNAH DISTRICT
APPROVED BY:
CHIEF, ENGINEERING BRANCH
REVIEWED BY:
CHIEF, DESIGN SECTION SOLICITATION NO.:
CONTRACT NO.:
CATEGORY CODE:
DESIGNED BY:
CHK BY:
DATE:
FILE NAME:
SIZE: D 22"X34"
PLOT SCALE:
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS SAVANNAH DISTRICT
SAVANNAH HARBOR EXPANSION SAVANNAH HARBOR, GEORGIA
MARSH ISLAND
PLATE REFERENCE NUMBER 03
SHEET

VOPAK TERMINAL SAVANNAH, SAVANNAH, GEORGIA

NINTH SEMI-ANNUAL PROGRESS REPORT

ATTACHMENT G

MONTHLY SUMMARY OF HOURS INVOICED
(SEPT. 2015 – FEB. 2016)

Environmental International Corporation
Time by Job Summary
August 23, 2015 through February 2016

TASKS	Aug 23 - 31, 15	Sep 15	Oct 15	Nov 15	Dec 15	Jan 16	Feb 16	TOTAL
VTSI Quarterly MNA GW Sampling	0	96	64	15	15	0	1	190
Semi-annual report for VTSI	18	2	0	0	7	86	67	180
Site Conceptual Model	32	0	0	0	0	0	0	32
TOTAL	**50**		**64**	**15**	**22**	**86**	**67**	**304**