Evergreen Resources Management
2 Righter Parkway, Suite 200
Wilmington, DE 19803

August 31, 2018

Mr. Rich Staron, P.G.
Pennsylvania Department of Environmental Protection
2 East Main Street
Norristown, Pennsylvania 19401

RE: Philadelphia Refinery Remediation Program
Groundwater Remediation Status Report, First Half 2018

Dear Mr. Staron:

This semi-annual summary report for Operation & Maintenance (O&M) work completed at the Philadelphia Energy Solutions Refining & Marketing LLC (PES) Philadelphia Refining Complex (Complex) and the Sunoco Partners Marketing and Terminals L.P. (SPMT) Belmont Terminal between January 1, 2018 and June 30, 2018. Detailed information regarding O&M activity is included in the attached tables for the PES Complex and Belmont Terminal as prepared by Stantec Consulting Services Inc. (Stantec). This letter summarizes the information detailed in the tables plus additional activities under the "Work Plan for Site Wide Approach under the One Cleanup Program" (Site Wide Approach) such as investigations of the various Areas of Interest (AOIs).

In compliance with the 2003 Consent Order and Agreement (CO&A) entered into between Sunoco Inc., (R&M) (Sunoco) and the Pennsylvania Department of Environmental Protection (PADEP) for the PES Complex located at 3144 Passyunk Avenue in Philadelphia, Pennsylvania, Sunoco has completed site characterization activities for all AOIs. The Complex has since entered into the Pennsylvania One Cleanup Program. On November 30, 2011, Sunoco submitted a Site Wide Approach to the PADEP and the United States Environmental Protection Agency (USEPA). The Site Wide Approach clarified the technical method beyond the CO&A and provided an anticipated schedule for future Act 2 submissions with respect to the Philadelphia Refinery remediation program. Effective December 30, 2013, Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC (Evergreen) assumed Sunoco legacy remediation liabilities with respect to the PES Complex. All remediation of Sunoco's/Atlantic's historic environmental liabilities at the PES Complex and Belmont Terminal will be managed moving forward by Evergreen. Status and anticipated dates of forthcoming Act 2 submittals will be updated in the semi-annual Groundwater Remediation Status Reports.

Evergreen will continue to submit the required documentation and implement remedial obligations. Evergreen will submit a report with the O&M summary, figures, tables, and Act 2 submittal updates on an annual basis coinciding with the annual groundwater gauging and monitoring. On the alternating six-month interval, Evergreen will submit an abbreviated letter report detailing the O&M summary with limited tables and without figures.

AOI 1 – Point Breeze Refinery No. 1 Tank Farm and No. 2 Tank Farm; and Belmont Terminal

Consent Order / Characterization Status

Sunoco submitted to the PADEP and the USEPA a Site Characterization Report (SCR) for AOI 1 dated June 30, 2005. Based on comments received by the PADEP with regard to the AOI 1 SCR, Sunoco prepared and submitted to the PADEP a revised SCR for AOI 1 dated July 17, 2006. The recommendations in the AOI 1 report were to supplement the existing remediation system along the northwestern portion of the Belmont Terminal and southeastern portion of the No. 2 Tank Farm. Sunoco has implemented these actions as detailed in previous quarterly reports. In addition, Sunoco provided the PADEP a Remedial Action Plan (RAP) for AOI 1 in January 2008. As a result of the 26th Street North Remediation System study and the S-50 Area (26th Street South) investigation, an addendum to the RAP was considered necessary. In December 2008, a RAP Addendum for AOI 1 was submitted to address the 26th Street North Remediation System data analysis and the 26th Street South investigation and subsequent remedial actions. Evergreen submitted a revised RIR for AOI 1 on August 5, 2016 which was approved by the PADEP on November 1, 2016.

Belmont Terminal Remediation System– Operation During the First Half of 2018

The Belmont Terminal Remediation System consists of two components including the Frontage Road System and the Loading Rack System.

On August 30, 2012, the Frontage Road system was turned off and will remain offline unless there are significant increases in light non-aqueous phase liquid (LNAPL) in the recovery wells. The recovery wells were gauged on February 15, 2018 and June 18, 2018, and no LNAPL was detected.

The Loading Rack system consists of six dual-phase pumping systems (RW-4, RW-21, RW-22, RW-23, RW-24, and RW-25). Each recovery well contains separate pumps controlled by density floats and conductivity probes to pump groundwater and LNAPL. Recovered groundwater is discharged to an onsite process sewer. LNAPL thicknesses are monitored, and pumps are turned on/off as needed based on recoverable LNAPL accumulations in each recovery well. The recovered LNAPL is stored in a 5,000-gallon holding tank, the contents of which are pumped out and recycled on an as needed basis. During the reporting period the pumps in RW-4, RW-23, RW-24, and RW-25 were active.

The Belmont Terminal Remediation System was operational during the reporting period. System performance and operational status for the Loading Rack system can be found in **Appendix 1.** Totals of 3,105,691 gallons of groundwater and 788 gallons of LNAPL were recovered by this system during the first half of 2018.

Shunk Street Sewer Ventilation System and Biofilter – Operation During the First Half of 2018

The biofilter was operational for the reporting period. Details of the Shunk Street Sewer Ventilation System and Biofilter operational status during the first half of 2018 can be found in **Appendix 1**.

26th Street Sewer Area – System Performance and Operation During the First Half of 2018

26th Street North Remediation System:

The 26th Street North Remediation system was modified in 2015 to increase the overall effectiveness of the system and was restarted on October 12, 2015. The four-inch diameter recovery wells (S-180, S-181, S-182, S-183, S-184, S-185, S-186, S-187, S-188, S-189, S-190, S-191, and S-192) were replaced with six-inch diameter

recovery wells. Additionally, RW-400 and RW-402 are connected to the system for a total of fifteen recovery wells.

Within each well, a QED Environmental Systems Model AP-4+T AutoPump was installed to recover groundwater and LNAPL. Each recovery well contains a two-inch diameter lateral discharge line that connects to a four-inch high density polyethylene (HDPE) trunk line, which transfers the total fluids to an onsite process sewer. The pumps utilize compressed air, which is supplied by a Kaeser rotary screw air compressor. A one-inch diameter air line runs to each recovery well and is reduced to a 3/8-inch diameter line in each well vault at the pneumatic pump.

The 26th Street North Remediation System was operational during the reporting period. Details for the 26th Street Sewer North Remediation System performance data and operational status can be found in **Appendix 1**. A total of 7,914,154 gallons of total fluids was recovered by this system during the first half of 2018.

26th Street South Remediation System:

To minimize the migration of soluble phase contaminants, a biologically active aerobic barrier utilizing a thirty-point oxygen injection system was installed in 2009. Due to the presence of LNAPL within the capture zone, the 26th Street South Remediation System was shut off on August 22, 2014. The system remained off for the first half of 2018. The conceptualization of a remediation system will be evaluated in the Site Wide Cleanup Plan.

26th Street and Packer Avenue Sewers Biofilter Remediation System – Operation During the First Half of 2018

The 26th Street and Packer Avenue Sewers Biofilter system was upgraded including replacing the compost beds, repairing the duct work, and replacing or repairing the fans. The system was restarted on June 6, 2016 for final stages of startup and system startup was completed on November 10, 2016. The system was operational during the first half of 2018. Details for the 26th Street and Packer Avenue Sewer Biofilter system performance data and operational status can be found in **Appendix 1**.

AOI 2 – Point Breeze Refinery

Consent Order / Characterization Status

The AOI 2 SCR/RIR was submitted to the PADEP and the USEPA on September 29, 2010. A revised RIR was completed in July 2017. PADEP approved the report on October 18, 2017.

Pollock Street West End Remediation System – Operation During the First Half of 2018

During October 2011, heavier than usual quantities of oil were observed within the Pollock Street sewer outfall. As a result, Sunoco completed the expansion of the existing vertical recovery well remediation system in the vicinity of the Pollock Street sewer outfall in February 2012. The system, referred to as the Pollock Street West End system, consists of a total of ten 4-inch diameter recovery wells on the east side of River Road and twenty 6-inch diameter recovery wells on the west side of River Road. Product thicknesses are checked bi-weekly, and pumps are turned on/off as needed based on recoverable LNAPL accumulations in each well. Groundwater and LNAPL are removed from select recovery wells using pneumatic submersible pumps. All liquids are processed through an oil/water separator (OWS). Water is discharged to a refinery process sewer (S-10 Sump), and LNAPL is recovered in a series of two 550-gallon tanks and then recycled by the PES Complex. A report describing the details of the investigation and remediation performed in response to the oil observed in the Pollock Street sewer outfall was submitted to the PADEP and the USEPA on June 29, 2012.

The Pollock Street West End Remediation System was turned off December 19, 2016 to evaluate LNAPL recharge. The system remained off since then with the following exceptions:

- On February 21, 2017, the system was operated to removed LNAPL from RW-128. Due to iron fouling in the system piping RW-128 was not operational. Only 100 gallons of groundwater were pumped and the removal of LNAPL was not successful. On March 30, 2017 underground piping associated with RW-128 was repaired to remove iron scaling. After the piping maintenance, the system was turned on briefly to remove LNAPL in RW-128 but did not produce enough volume of LNAPL to register an accumulation in the holding tank.
- The system was turned on October 26, 2017 to evaluate the potential to recover LNAPL in the proximity of the Pollock Street sewer outfall. Recovery wells RW-104, RW-105, RW-113, RW-125, RW-128, and RW-129 were activated. Due to a lack of recoverable LNAPL, the system was turned off November 29, 2017.
- The system was turned on April 2, 2018 to recover LNAPL using recovery wells RW-117 and RW-128. LNAPL was present in RW-117 and RW-128 prior to turning on the system but was not of significant quantity to register an increase in volume in the holding tank. LNAPL was removed from the two recovery wells and the system was turned off April 3, 2018.

A total of 7,800 gallons of groundwater was recovered by the Pollock Street West End system during the first half of 2018. During the reporting period, no measurable LNAPL was recovered by the system. Operational and performance data can be found in **Appendix 1**.

Pollock Street Vertical Well Remediation System – Operation During the First Half of 2018

The Pollock Street Vertical Well Remediation System originally consisted of RW-101, RW-102, and RW-103. All other vertical wells were previously turned off or incorporated into the Pollock Street West End Remediation System. On April 4, 2013, the vertical recovery wells were turned off for main discharge line cleaning and the installation of a new pump at horizontal well HW-1. Subsequently, HW-1 maintained adequate drawdown; therefore, the Pollock Street Vertical Well Remediation System was no longer needed. The recovery equipment was removed from RW-101, RW-102, and RW-103 on August 2, 2013.

Pollock Street Horizontal Well Remediation System – Operation During the First Half of 2018

The Pollock Street Horizontal Well Remediation System consists of HW-1, HW-2, and HW-3. HW-1 was installed in July 2004 along the north side of the Pollock Street sewer from approximately RW-103 to approximately 100 feet west of RW-101. HW-2 and HW-3 were installed from approximately RW-103 to the intersection of Pollock Street and 16th Street in the first quarter of 2006. Groundwater and LNAPL from HW-1 and HW-2 discharge directly into a Benzene National Emission Standard for Hazardous Air Pollutants (NESHAP) controlled sewer, whereas groundwater and LNAPL from HW-3 discharges directly into an onsite process sewer.

Totalizers were installed in HW-1 and HW-2 on May 25, 2013 and July 6, 2015 respectively. The estimated flow rate for HW-3, as determined by pump testing, is 15.38 gallons per minute (gpm).

The Pollock Street Horizontal Well Remediation System was operational during the reporting period. System performance data and operational status can be found in **Appendix 1**. A total of 5,411,201 gallons of total fluids was recovered by the Pollock Street Horizontal Well Remediation System during the reporting period.

Pollock Street Sewer Outfall – Operation During the First Half of 2018

The Pollock Street Sewer outfall is checked and maintained by PES personnel and findings are recorded. This practice will continue and identified LNAPL will be handled with spill control equipment to minimize or prevent releases to the Schuylkill River. Evergreen has continued to maintain a skimmer system located in the tide gate area. The skimmer discharges to a refinery process sewer (S-13 Sump). The skimmer will be activated if recoverable quantities of LNAPL are observed at the tide gate area. Except for the completion of preventative maintenance and equipment testing, the outfall skimmer remained off for the first half of 2018 due to the absence of recoverable oil in the outfall.

Short Pier Remediation System – Operation During the First Half of 2018

There was no evidence of LNAPL migration to the Schuylkill River during the reporting period. Unless evidence of LNAPL migration to the river occurs, the Short Pier Remediation System will remain offline.

Passyunk Avenue Sewer

The Passyunk Avenue Sewer combined sewer overflow outfall (CSO) is checked by PES personnel once per shift at low tide and findings are recorded. Evergreen has not been notified of any observed LNAPL at the outfall during the first half of 2018.

AOI 3 – Point Breeze Refinery, Impoundment Area

There are no groundwater or LNAPL remediation systems active in this area. The AOI 3 SCR/RIR was submitted to the PADEP and the USEPA on September 27, 2010. The SCR/RIR stated that given the limited occurrence and mobility of LNAPL observed in RW-2, the former remediation system in this area will remain offline. A revised RIR for AOI 3 was submitted March 20, 2017, and approved on June 14, 2017. The disposition of remediation systems in AOI 3 will be revisited in the Site Wide Cleanup Plan.

Note that LNAPL was identified in a new location (S-414) and with marked increases in thickness in two wells (S-283 and S-382) during the annual site-wide gauging in June. PES was notified of the observations and has taken action to identify the source and rectify the situation.

AOI 4 – Point Breeze Refinery, No. 4 Tank Farm Area

Consent Order / Characterization Status

AOI 1 and AOI 4 were identified by Sunoco as the first areas of the refinery to be investigated in accordance with the Phase II Corrective Action Schedule included in the Current Conditions Report (CCR). Sunoco submitted a SCR to the PADEP and the USEPA for AOI 4 on August 24, 2006. A repackaged SCR/RIR was submitted to the agencies on October 16, 2013. A "Disapproval of Remedial Investigation Report" was received from the PADEP on January 16, 2014. A revised RIR was submitted on March 24, 2017. The revised RIR was disapproved by the PADEP in a letter dated June 21, 2017 due to lack of offsite wells. Access for offsite well installation is actively being pursued.

Penrose Avenue Remediation System – Operation During the First Half of 2018

Following characterization of AOI 4, Sunoco installed a hydraulic control system on the southern border of AOI 4. This system is permitted for discharge to the Philadelphia Water Department (PWD) and by Philadelphia Air

Management Services (AMS). Installation of the Penrose Avenue Remediation System was completed in December 2012. Following minor modifications to the system to facilitate water discharge monitoring in accordance with the PWD groundwater discharge permit, the system was started on March 20, 2013. LNAPL thicknesses are monitored, and pumps are turned on/off as needed based on recoverable LNAPL accumulations in each recovery well. On February 21, pumps were installed in S-221, S-236, and S-237 to address LNAPL in those wells. During this reporting period, recovery wells RW-700, RW-701, RW-702, RW-703, RW-704, S-221, S-236, and S-237 were active. The presence of LNAPL in S-221, S-236, and S-237 will be evaluated to determine the continued operation of the wells.

The system operated during the reporting period until May 10 when the system was turned off for modifications. The total fluids recovery system is planned to be restarted in September 2018. Additionally, the installation of an oxygen injection system is planned for the first quarter of 2019. System performance data and operational status can be found in **Appendix 1**. A total of 1,243,500 gallons of groundwater and 1,187 gallons of LNAPL were recovered by the Penrose Avenue Remediation System during the reporting period.

S-30 and S-36 Remediation Systems – Operation During the First Half of 2018

Recovery wells S-34, S-35, and S-36 remained offline in 2017. On March 28, recovery well S-30 was activated due to an accumulation of LNAPL. The S-30 remediation system consists of an LNAPL pump, probe assembly, and control panel. The recovered LNAPL is stored in a 2,500-gallon holding tank, the contents of which are recycled by the PES Complex on an as needed basis. System performance data and operational status can be found in **Appendix 1**. A total of 163 gallons of LNAPL were recovered by the S-30 LNAPL Remediation System during the reporting period.

AOI 5 – Girard Point Refinery, South Tank Field

Consent Order / Characterization Status

In accordance with the Site Wide Approach, a SCR/RIR/Cleanup Plan was submitted to the PADEP and the USEPA on December 13, 2011. Sunoco received a Remedial Investigation Report/Cleanup Plan disapproval letter from the PADEP on March 15, 2012. A revised RIR was submitted on January 16, 2016 and was approved by the PADEP on May 2, 2017.

9 Berth Remediation System – Operation During the First Half of 2018

The 9 Berth Remediation System was taken offline in January 2009 and remains offline due to limited presence of LNAPL.

AOI 6 – Girard Point Refinery, Chemicals Processing Area

Consent Order / Characterization Status

AOI 6 was identified by Sunoco as the third area of the refinery to be investigated in accordance with the Phase II Corrective Action Schedule included in the CCR. A SCR for AOI 6 was submitted to the PADEP and the USEPA on September 29, 2006. A repackaged SCR/RIR was submitted to the agencies on September 3, 2013. PADEP issued a disapproval letter on November 27, 2013. A revised RIR was submitted on November 21, 2017 and was approved by the PADEP on February 26, 2018.

27 Pump House Remediation System – Operation During the First Half of 2018

The 27 Pump House Remediation System was turned off September 20, 2010 due to absence of recoverable LNAPL. Passive remediation began on October 10, 2010 with the installation of absorbent socks in wells B-124, B-132, B-137, B-139, B-142, B-143, and B-147. Based on limited recoverable LNAPL in the proximal wells, passive remediation was discontinued on January 26, 2015.

AOI 7 – Girard Point Refinery, Fuels Processing Area

Consent Order / Characterization Status

In accordance with the Site Wide Approach, a repackaged AOI 7 SCR/RIR was submitted to the PADEP and the USEPA on February 29, 2012. A RIR Addendum was submitted to the agencies on September 19, 2013. On December 18, 2013, Sunoco received comments on the RIR Addendum from the PADEP. These comments were addressed in the revised RIR that was submitted June 9, 2017. The RIR was approved in correspondence dated August 30, 2017.

3 Separator Remediation System – Operation During the First Half of 2018

On July 12, 2011, Sunoco reported a hydrocarbon sheen on the Schuylkill River to the National Response Center. The sheen was directly adjacent to the Girard Point Refinery No. 3 Separator. In response to the sheen on the river, Sunoco investigated the source of hydrocarbons to the river through the installation of monitoring wells and exploratory excavation around a process sewer junction box associated with the 137 Crude Unit and the No. 3 Separator. The monitoring wells demonstrated measurable oil on the water table, and the exploratory excavation revealed integrity issues with the junction box. The junction box and associated bulkhead penetration were sealed with concrete.

Construction of a ten recovery well hydraulic control system was completed on August 23, 2012 and included RW-801, RW-802, RW-803, RW-804, RW-805, RW-806, RW-807, RW-808, RW-809, and RW-810. Groundwater and LNAPL are extracted using pneumatic submersible pumps, and total fluids pass through an oil/water separator. Water is discharged to an onsite process sewer, and LNAPL is recovered in a 1,100-gallon holding tank and recycled by the PES Complex. In 2013, PES assumed primary responsibility for the 3 Separator System due to newer PES releases from the sewer system, which connects 137 Unit to the #4 separator, in the vicinity of the #3 separator.

The 3 Separator Remediation System was operational during the first half of 2018. System operation details and performance data for the system can be found in **Appendix 1**. A total of 1,250,300 gallons of groundwater and 365 gallons of LNAPL were recovered by the 3 Separator Remediation System during the first half of 2018.

AOI 8 – Point Breeze Refinery, North Yard

Consent Order / Characterization Status

A SCR was submitted to the PADEP on September 30, 2008. A repackaged SCR/RIR incorporating the PADEP's comments was submitted to the PADEP and the USEPA on January 31, 2012. Comments from the PADEP on the SCR/RIR were received by email on July 7, 2012. A revised RIR dated December 21, 2017 was submitted to the PADEP. PADEP issued an approval letter on March 22, 2018.

Northern Boundary/Verizon Area

The northern boundary of AOI 8 near the Verizon property is being evaluated for offsite impacts and potential system installation. An assessment of vapor intrusion was completed at the Verizon SDWC property during 2016 and 2017 and was reported in the December 2017 RIR. Ambient and indoor air samples collected within AOI 8 and at the adjacent Verizon SDWC property did not exceed the EPA RSLs for any of the site constituents of concern (COC). A vapor intrusion evaluation was completed in and near all occupied buildings in AOI 8, as well as the Verizon SDWC Property.

Evergreen is evaluating the performance history of existing remediation systems in AOI 8. A test well (N-157) was installed in 2017 and a well performance test was conducted to evaluate the feasibility of LNAPL recovery as a remedial option near the adjacent South District Work Center of Verizon Pennsylvania, LLC (Verizon SDWC) Property. Additional pilot testing activities are being conducted in this area.

PGW Border Remediation System – Operation During the First Half of 2018

The PGW Border Remediation System is offline. Although recovery wells operating within the AOI 8 remediation systems have been out of operation for several years, the PGW Border Remediation System area is being further evaluated for LNAPL recovery as a part of Site Wide Cleanup Plan activities.

Jackson Street Sewer Remediation System – Operation During the First Half of 2018

The Jackson Street Sewer Remediation System consists of two components, an inactive total fluids system with submersible pumps that formerly recovered groundwater and LNAPL (Jackson Street System) and a vapor suppression water curtain installed in the Jackson Street Sewer Remediation System (Jackson Street Water Curtain).

The Jackson Street System is offline. Due to limited LNAPL presence in the area, the system will remain off unless there are significant increases in LNAPL in the proximal wells.

The Jackson Street Water Curtain was operational during the first half of 2018 and is monitored weekly. Vapor readings are collected at the water curtain and at the intercepting chamber along 26th Street. System data and operational status for the first half of 2018 is included in **Appendix 1**.

Sunoco agreed at a July 30, 2009 meeting to sample the air in the sewer onsite and offsite following notification from the PADEP of a neighborhood (28th and McKean Streets) complaint. No complaints regarding sewer odors were received during the first half of 2018.

Evergreen will continue to operate the Jackson Street Water Curtain and report performance information in semi-annual Philadelphia Refinery Groundwater Remediation Status Reports. Details regarding plans to maintain this vapor mitigation system will be included in a future Act 2 deliverable. A required second round of air sampling will be completed and presented in a future Act 2 deliverable. No other vapor intrusion assessment activities are recommended for AOI 8.

North Yard Bulkhead and No. 3 Tank Farm Separator Remediation System – Operation During the First Half of 2018

The North Yard Bulkhead and No. 3 Tank Farm Separator Remediation System was taken offline due to limited LNAPL presence in the area. The system will remain off unless there are significant increases in LNAPL in the proximal wells.

AOI 9 – Schuylkill River Tank Farm

There are no groundwater or LNAPL remediation systems operational in AOI 9. A SCR was submitted to the PADEP and the USEPA on October 30, 2009. A revised RIR was submitted to the agencies in December 2015. The RIR was denied and a RIR Addendum to address the deficiencies was submitted on February 8, 2017. On April 18, the PADEP disapproved the RIR Addendum due to lack of offsite wells. Evergreen has obtained information from existing offsite wells and is actively pursuing access for offsite well installation.

AOI 10 – Point Breeze Refinery, West Yard

There are no groundwater or LNAPL remediation systems operational in AOI 10. A SCR/RIR was submitted to the PADEP and the USEPA on June 29, 2011. Approval of the RIR was received from the PADEP on January 6, 2012. An ecological assessment was conducted in 2015 and 2016 and an Ecological Risk Assessment Report was submitted in June 2016.

A Solid Waste Management Unit (SWMU) closure letter which addressed past disposal areas located in AOI 10 and AOI 8 (SWMU 1 and SWMU 2 respectively) was submitted the USEPA on February 16, 2016. On November 29, 2016, the USEPA issued a response letter denying the no further action request for SWMU 1. Evergreen collected additional information in 2017 to address the USEPA letter and 2016 PADEP comments on the 2011 SCR/RIR and the Ecological Risk Assessment Report. Results will be provided in a future submittal.

AOI 11 – Deep Aquifer

The SCR/RIR was submitted to the PADEP and the USEPA on September 12, 2011. Sunoco received comments to the report by email on December 9, 2011. The Final Report was submitted to the agencies on June 21, 2013. Sunoco received a "Disapproval of Final Report" from the PADEP dated September 26, 2013.

Groundwater Monitoring

The current monitoring program consists of quarterly groundwater and LNAPL gauging of select wells, annual groundwater and LNAPL gauging of site-wide wells, and groundwater sampling of select monitoring wells. During the first, third, and fourth quarters, select wells are gauged to monitor LNAPL thicknesses and determine hydraulic effects of targeted remediation systems. The site-wide annual well gauging event is typically conducted during the second quarter of each year with results used to identify the presence of LNAPL and determine groundwater flow patterns. Annual perimeter groundwater sampling typically is performed in the second quarter in conjunction with annual site-wide gauging.

Liquid level measurements collected during the first quarter of 2018 are provided in **Table 1**. The second quarter 2018 liquid level measurements are provided in **Table 2** of this report.

The annual perimeter groundwater samples are analyzed pursuant to Pennsylvania's Land Recycling Program for leaded and unleaded gasoline and No. 2, 4, 5, and 6 fuel oils. These parameters include benzene, cumene

(isopropylbenzene), 1,2-dichloroethane (EDC), ethylbenzene, methyl tert butyl ether (MTBE), toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and total xylenes by USEPA SW846 Method 8260B; 1,2-dibromoethane (EDB) by USEPA SW 846 Method 8011; anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, chrysene, fluorene, naphthalene, phenanthrene, and pyrene by USEPA SW846 Method 8270D; dissolved lead by USEPA SW846 Method 6010C. Additional wells were sampled for select analysis during the annual groundwater sampling event for the purposes of fate and transport characterization and groundwater modeling.

A summary of the annual perimeter groundwater sampling results from the June 2018 sampling event is provided in **Table 3**. A summary of the historical perimeter groundwater sampling analytical data is provided in **Table 4**. The laboratory analytical reports for the 2018 annual groundwater sampling event are included electronically in **Appendix 2**.

Please contact me at (302) 477-1305 or tldoerr@evergreenresmgt.com with any questions or comments.

Best Regards,

Evergreen Resources Management Operations

Tiffani L. Doerr, PG
Project Manager

Enclosures: Figure 1 – Site Location Map
Figure 2 – Site Plan
Figure 3 – Apparent LNAPL Thickness Map, June 2018
Figure 4 – Water-Table Groundwater Elevation Map, June 2018
Figure 5 – Lower Aquifer Groundwater Elevation Map, June 2018
Table 1 – First Quarter 2018 Gauging Data
Table 2 – Second Quarter 2018 Gauging Data
Table 3 –June 2018 Groundwater Sampling Analytical Results
Table 4 – Historical Perimeter Groundwater Sampling Analytical Results
Appendix 1 – Remediation System Recovery Data
Appendix 2 – Laboratory Analytical Data Reports (electronic)

cc: Mr. Paul Gotthold
United States Environmental Protection Agency
1650 Arch Street
Philadelphia, Pennsylvania 19103

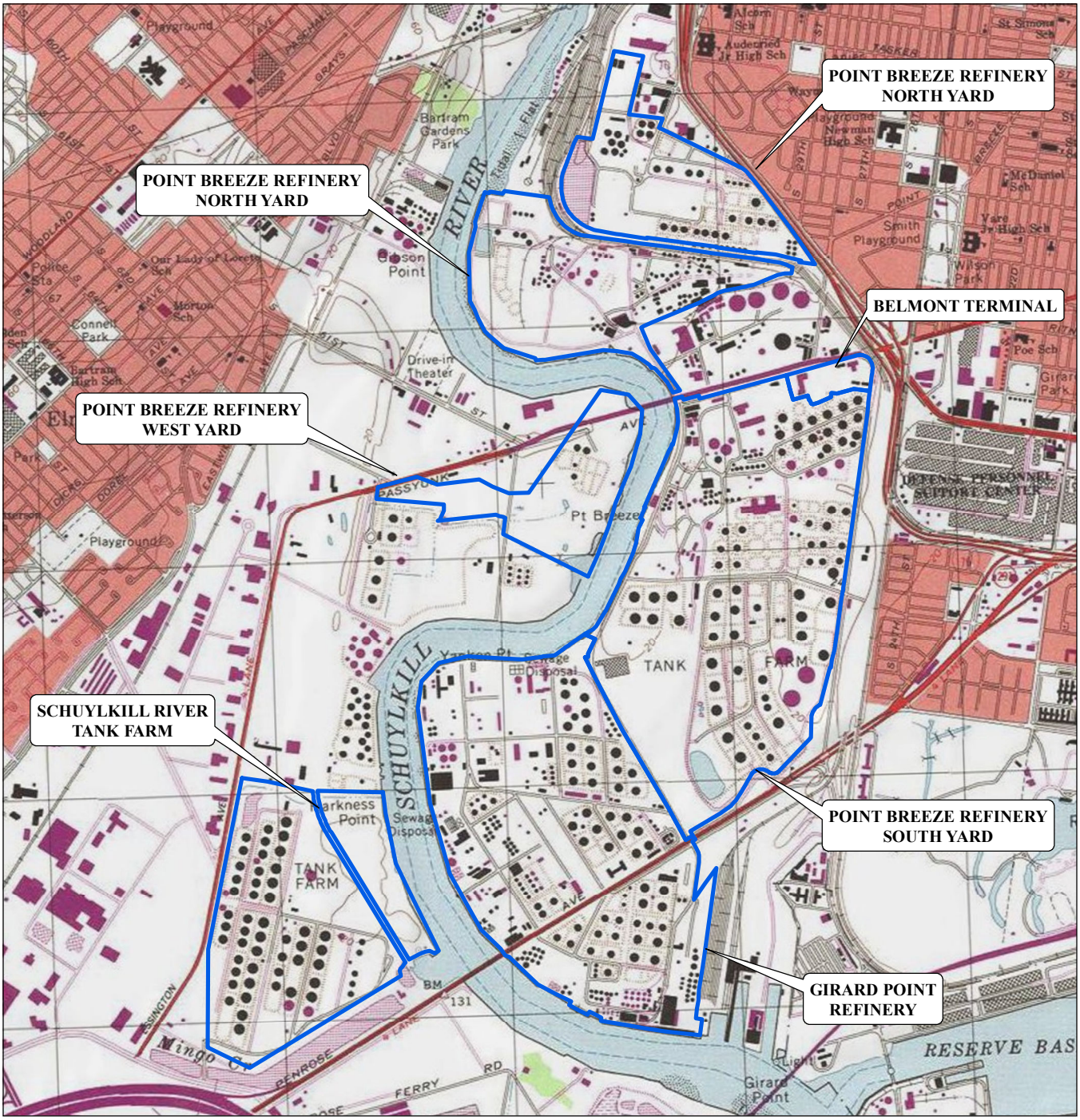
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West Chester, Pennsylvania 19380

File: ENFOS

FIGURES



PHILADELPHIA, PA-NJ
USGS 7.5' TOPOGRAPHIC QUADRANGLE

Legend

PHILADELPHIA REFINING COMPLEX

0 1,100 2,200 Feet

1:26,400 (at original document size of 8.5x11)

N

Stantec

EVERGREEN

Notes

1. Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
2. Source: Stantec, USGS
3. Service Layer Credits: Copyright© 2013 National Geographic Society, i-cubed

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Project Location
City of Philadelphia,
Philadelphia County,
Pennsylvania

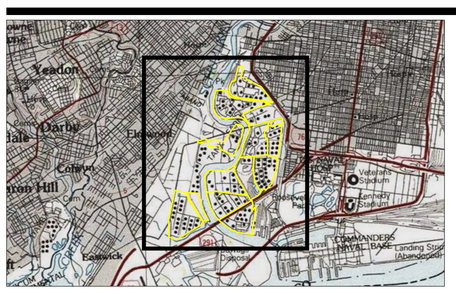
213402429
Prepared by GWC on 7/25/2017
Technical Review by AJB on 7/26/2017
Independent Review by JKD on 7/26/2017

Client/Project
PHILADELPHIA REFINERY OPERATIONS, A SERIES OF EVERGREEN RESOURCES GROUP, LLC
PHILADELPHIA REFINING COMPLEX
3144 PASSYUNK AVENUE, PHILADELPHIA, PA 19145

Figure No.
1

Title
SITE LOCATION MAP





Notes

1. Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
2. Source: Stantec
3. Aerial & Topo Source: Copyright:© 2013 National Geographic Society, i-cubed Pictometry International Corp, Philadelphia Imagery 2017 downloaded from Pennsylvania Spatial Data Access (PASDA)

Legend

- MONITORING WELL
- PROPOSED MONITORING WELL
- RECOVERY WELL
- DAMAGED MONITORING WELL
- DESTROYED MONITORING WELL
- PIEZOMETER
- UNABLE TO ACCESS OR UNABLE TO LOCATE
- APPROXIMATE LOCATION OF PHILADELPHIA WATER DEPARTMENT SEWER
- REMEDIATION SYSTEMS DESIGNATED AS CURRENTLY ACTIVE
- REMEDIATION SYSTEMS DESIGNATED AS INACTIVE
- AREA OF INTEREST (AOI)
- PHILADELPHIA GAS WORKS (PGW) PASSYUNK FACILITY PROPERTY BOUNDARY
- VERIZON SOUTH DISTRICT WORK CENTER (SDWC) PROPERTY

0 400 800 Feet

1:4,800 (At original document size of 36x48)

N

Figure No.

2

Title

SITE PLAN

Client/Project

PHILADELPHIA REFINERY OPERATIONS, A SERIES OF EVERGREEN RESOURCES GROUP, LLC
PHILADELPHIA REFINING COMPLEX
3144 PASSYUNK AVENUE, PHILADELPHIA, PA 19145

Project Location

City of Philadelphia, Philadelphia County, Pennsylvania

213402429

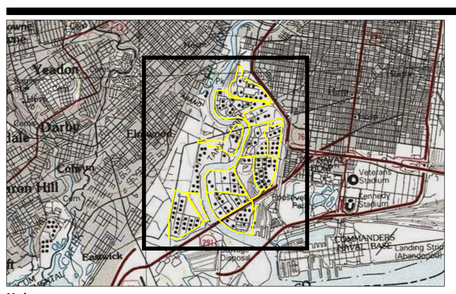
Prepared by GWC on 8/10/2018
Technical Review by JLM on 8/13/2018
Independent Review by DPH on 8/17/2018

Stantec

EVERGREEN

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Legend

- WELL – LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL) OBSERVED
- WELL – LNAPL NOT OBSERVED
- WELL – NOT MEASURED (SEE NOTE 4)
- APPROXIMATE LOCATION OF PHILADELPHIA WATER DEPARTMENT SEWER
- REMEDIATION SYSTEMS DESIGNATED AS CURRENTLY ACTIVE
- REMEDIATION SYSTEMS DESIGNATED AS INACTIVE
- AREA OF INTEREST (AOI)
- PHILADELPHIA GAS WORKS (PGW) PASSYUNK FACILITY PROPERTY BOUNDARY
- VERIZON SOUTH DISTRICT WORK CENTER (SDWC) PROPERTY
- 0.11 APPARENT LNAPL THICKNESS (FEET)
- NM NOT MEASURED

Notes

1. Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
   North American Vertical Datum of 1988 (NAVD 88)
2. Source: Stantec
3. Callouts denote product thickness measured in feet using an interface probe.
4. Measurements from wells gauged during June 2018 synoptic event are provided. Wells not measured during the event include (but not limited to) damaged wells, destroyed wells, inaccessible wells, wells with pumps, and wells that were gauged but dry.
5. Aerial & Topo Copyright:© 2013 National Geographic Society, i-cubed
   Pictometry International Corp, Philadelphia Imagery 2017 downloaded from Pennsylvania Spatial Data Access (PASDA)

0 400 800 Feet

1:4,800 (At original document size of 36x48)

N

Figure No.

3

Title

APPARENT LNAPL THICKNESS MAP MAY 2018

Client/Project

PHILADELPHIA REFINERY OPERATIONS, A SERIES OF
EVERGREEN RESOURCES GROUP, LLC
PHILADELPHIA REFINING COMPLEX
3144 PASSYUNK AVENUE, PHILADELPHIA, PA 19145

Project Location

City of Philadelphia,
Philadelphia County,
Pennsylvania

213402429

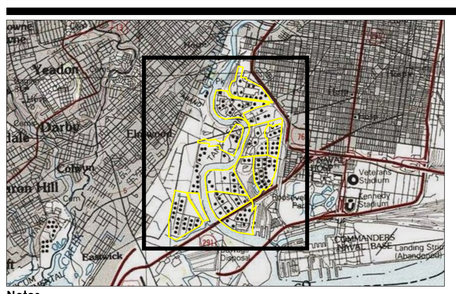
Prepared by GWC on 8/12/2018
Technical Review by JLM on 8/14/2018
Independent Review by DPH on 8/17/2018

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VERIZON SDWC PROPERTY
PHILADELPHIA GAS WORKS PROPERTY
AOI 1
AOI 2
AOI 3
AOI 4
AOI 5
AOI 6
AOI 7
AOI 8
AOI 9
AOI 10
MIFFLIN STREET SEWER
JACKSON STREET SEWER
JACKSON STREET SEWER REMEDIATION SYSTEM (WATER CURTAIN)
CSX RAILROAD
RAMBO CREEK PROCESS SEWER
PASSYUNK MAIN RELIEF SEWER
SHUNK STREET SEWER
SHUNK STREET SEWER VENTILATION SYSTEM AND BIOFILTER
LOADING DOCK REMEDIATION SYSTEM
BELMONT TERMINAL
26TH STREET SEWER REMEDIATION SYSTEM
POLLOCK STREET SEWER
POLLOCK STREET SEWER REMEDIATION SYSTEMS
PACKER AVENUE AND 26TH STREET SEWERS (POINT BREEZE) VENTILATION SYSTEM AND BIOFILTER
POLLOCK STREET / PACKER AVENUE SEWER
PENROSE AVENUE SEWER
PENROSE AVENUE REMEDIATION SYSTEM
S-30 REMEDIATION SYSTEM
3 SEPARATOR REMEDIATION SYSTEM
MINGO AVENUE SEWER
MINGO CREEK FLOOD CONTROL BASIN
SCHUYLKILL RIVER
MINGO CREEK
PENROSE AVENUE
PENROSE FERRY ROAD
DELAWARE EXP
SCHUYLKILL EXP
26TH STREET
25TH STREET
24TH STREET
23RD STREET
22ND STREET
21ST STREET
20TH STREET
19TH STREET
18TH STREET
17TH STREET
16TH STREET
15TH STREET
14TH STREET
13TH STREET
12TH STREET
11TH STREET
10TH STREET
9TH STREET
8TH STREET
7TH STREET
6TH STREET
5TH STREET
4TH STREET
3RD STREET
2ND STREET
1ST STREET
AVENUE A
AVENUE B
AVENUE C
AVENUE D
AVENUE E
AVENUE F
AVENUE G
AVENUE H
AVENUE I
AVENUE J
AVENUE K
AVENUE L
AVENUE M
AVENUE N
AVENUE P
AVENUE Q
AVENUE R
AVENUE S
AVENUE T
AVENUE U
AVENUE V
AVENUE W
AVENUE Y
PASSYUNK AVE
PENNYPACKER AVENUE
TERMINAL AVENUE
LANIER AVENUE
SHOPS AVE
MAIN STREET
MINGO ST
HARTRANFT ST
MIFFLIN ST
MOORE ST
DUDLEY ST
MC KEAN ST
EMILY ST
SNYDER AVE
POINT BREEZE AVE
OREGON AVE
PASSYUNK AVE
DICKINSON ST
MORRIS ST
FERNON ST
WATKINS ST
PIERCE ST
MC CLELLAN ST
SIGEL ST
REED ST
GERRITY ST
GRIFFITH ST
CROSS ST
WOLF ST
DURFOR ST
FITZGERALD ST
PHA DRIVEWAY
RITNER ST
SHUNK ST
HOMESTEAD ST
LANGLEY AVE
DELAWARE EXP
SCHUYLKILL EXP
POLLOCK ST
PENROSE AVE
PENROSE FERRY RD
PENROSE AVE
SHERIDAN
I-95
N-99
N-1
N-100
N-2
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N-137
N-138
N-139
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N-8
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N-504
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RW-502
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RW-300
RW-301
RW-303
RW-304
RW-305
RW-306
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PZ-507
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PZ-202
PZ-203
PZ-201
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RW-206
RW-203
RW-204
RW-201
RW-202
RW-200
RW-501
N-150
PGW-MW-21
PGW-MW-20
PGW-MW-7
PGW-MW-8
PGW-MW-6
PGW-MW-5
PGW-MW-9
PGW-MW-1S
PGW-MW-2S
PGW-MW-8S
PGW-MW-42R
PGW-MW-45
PGW-MW-44
PGW-MW-5S
PGW-MW-10S
PGW-MW-13S
PGW-MW-14S
PGW-MW-8S
PGW-MW-4S
PGW-MW-11S
PGW-MW-15S
PGW-MW-7S
PGW-MW-12S
PGW-MW-3S
V-MW-4
V-MW-16
V-MW-11
V-MW-9
V-MW-10
V-MW-3
V-MW-12
V-MW-8
V-MW-2
V-MW-7
V-MW-5
V-MW-1
V-MW-6
W-1
W-2
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W-5
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W-34
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S-153
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S-150
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S-318
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PZ-100
S-254
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S-249
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BF-107
BF-88
BF-103R
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S-366
S-104
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S-79P
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S-418
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S-305
S-217
S-213
S-214
S-368
S-221





Notes

1. Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet North American Vertical Datum of 1988 (NAVD 88)
2. Source: Stantec
3. Callouts denote corrected groundwater elevation in feet. Depth to groundwater was measured in each well to the nearest one-hundredth of a foot using an interface probe.
4. Groundwater elevation data was interpolated using block kriging with a linear variogram model in Surfer.
5. Contour Interval = 1 foot
6. Aerial & Topo Copyright:© 2013 National Geographic Society, i-cubed Pictometry International Corp. Philadelphia Imagery 2017 downloaded from Pennsylvania Spatial Data Access (PASDA)

Legend

- LOWER AQUIFER MONITORING WELL
- UNABLE TO ACCESS
- GROUNDWATER ELEVATION CONTOUR (FEET NAVD 88)
- APPROXIMATE LOCATION OF PHILADELPHIA WATER DEPARTMENT SEWER
- AREA OF INTEREST (AOI)
- VERIZON SOUTH DISTRICT WORK CENTER (SDWC) PROPERTY
- PHILADELPHIA GAS WORKS (PGW) PASSYUNK FACILITY PROPERTY BOUNDARY
- 6.54 GROUNDWATER ELEVATION (FEET NAVD 88)

0 400 800 Feet

1:4,800 (At original document size of 36x48)

N

Figure No.

5

Title

LOWER AQUIFER GROUNDWATER ELEVATION MAP JUNE 2018

Client/Project

PHILADELPHIA REFINERY OPERATIONS, A SERIES OF EVERGREEN RESOURCES GROUP, LLC
PHILADELPHIA REFINING COMPLEX
3144 PASSYUNK AVENUE, PHILADELPHIA, PA 19145

Project Location

City of Philadelphia,
Philadelphia County,
Pennsylvania

213402429

Prepared by GWC on 8/14/2017
Technical Review by ADK on 8/13/2018
Independent Review by JLM on 8/14/2018

Stantec

EVERGREEN

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TABLES

Table 1
First Quarter 2018 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
AOI 1	RW-402	2/8/2018	---	23.05	---	-1.34	unconfined	Static	
AOI 1	S-179	2/8/2018	---	20.61	---	3.92	unconfined	Static	
AOI 1	S-180	2/8/2018	---	24.05	---	-1.85	unconfined	Static	
AOI 1	S-181	2/8/2018	---	23.70	---	-0.84	NYC	Static	
AOI 1	S-182	2/8/2018	---	23.55	---	-0.55	unconfined	Static	
AOI 1	S-183	2/8/2018	---	26.25	---	-2.77	unconfined	Static	
AOI 1	S-184	2/8/2018	---	23.95	---	-0.47	unconfined	Static	
AOI 1	S-185	2/8/2018	---	25.10	---	-1.22	unconfined	Static	
AOI 1	S-186	2/8/2018	---	28.70	---	-4.34	unconfined	Static	
AOI 1	S-187	2/8/2018	---	24.40	---	0.11	unconfined	Static	
AOI 1	S-188	2/8/2018	---	25.00	---	-0.18	unconfined	Static	
AOI 1	S-189	2/8/2018	---	25.20	---	0.59	unconfined	Static	
AOI 1	S-190	2/8/2018	---	25.90	---	-0.33	NYC	Static	
AOI 1	S-191	2/8/2018	---	23.80	---	2.03	unconfined	Static	
AOI 1	S-192	2/8/2018	---	26.00	---	0.02	unconfined	Static	
AOI 2	River1	2/6/2018	---	11.70	---	NA	NYC	Static	measured at 10:10 AM
AOI 2	RW-104	2/6/2018	---	9.42	---	-0.46	NYC	Static	
AOI 2	RW-105	2/6/2018	9.41	9.41	<0.01	-0.72	NYC	Static	
AOI 2	RW-106	2/6/2018	---	8.85	---	0.45	NYC	Static	
AOI 2	RW-107	2/6/2018	---	9.83	---	0.72	NYC	Static	
AOI 2	RW-108	2/6/2018	---	7.53	---	2.37	NYC	Static	
AOI 2	RW-109	2/6/2018	---	8.22	---	1.63	NYC	Static	
AOI 2	RW-113	2/6/2018	---	10.13	---	0.10	NYC	Static	
AOI 2	RW-114	2/6/2018	---	12.80	---	0.21	NYC	Static	
AOI 2	RW-115	2/6/2018	---	9.88	---	0.32	NYC	Static	
AOI 2	RW-116	2/6/2018	---	10.37	---	0.44	NYC	Static	
AOI 2	RW-117	2/6/2018	9.24	9.42	0.18	0.52	NYC	Static	
AOI 2	RW-118	2/6/2018	---	11.28	---	0.54	NYC	Static	
AOI 2	RW-119	2/6/2018	12.37	12.40	0.03	0.48	NYC	Static	
AOI 2	RW-120	2/6/2018	13.20	13.44	0.24	0.35	NYC	Static	
AOI 2	RW-121	2/6/2018	---	14.90	---	0.40	NYC	Static	
AOI 2	RW-122	2/6/2018	---	9.70	---	0.54	NYC	Static	
AOI 2	RW-123	2/6/2018	---	9.34	---	0.63	NYC	Static	
AOI 2	RW-124	2/6/2018	8.43	8.43	<0.01	0.74	NYC	Static	
AOI 2	RW-125	2/6/2018	---	13.48	---	0.79	NYC	Static	
AOI 2	RW-126	2/6/2018	8.40	8.40	<0.01	0.84	NYC	Static	
AOI 2	RW-127	2/6/2018	---	13.59	---	0.31	NYC	Static	
AOI 2	RW-128	2/6/2018	8.84	9.27	0.43	-0.47	NYC	Static	
AOI 2	RW-129	2/6/2018	---	9.70	---	0.13	NYC	Static	
AOI 2	S-64	2/6/2018	---	7.81	---	2.75	NYC	Static	
AOI 2	S-65	2/6/2018	9.64	9.64	<0.01	0.99	NYC	Static	
AOI 2	S-93	2/6/2018	17.9	17.98	0.08	0.34	NYC	Static	changed out absorbent sock
AOI 2	S-313	2/6/2018	---	20.20	---	0.70	NYC	Static	
AOI 2	S-315	2/6/2018	---	20.63	---	-0.16	NYC	Static	
AOI 2	S-316	2/6/2018	---	18.97	---	1.93	NYC	Static	
AOI 2	S-406	2/6/2018	11.29	11.52	0.23	0.87	NYC	Static	read with absorbent sock in well
AOI 2	S-420	2/6/2018	---	6.68	---	2.58	NYC	Static	
AOI 3	RW-2	2/13/2018	12.10	13.13	1.03	-1.01	NYC	Static	
AOI 4	RW-700	2/7/2018	---	20.90	---	-2.89	unconfined	Pumping	
AOI 4	RW-701	2/7/2018	---	20.30	---	-2.03	unconfined	Pumping	
AOI 4	RW-702	2/7/2018	---	33.80	---	-12.85	unconfined	Pumping	
AOI 4	RW-703	2/7/2018	---	29.70	---	-9.08	unconfined	Pumping	
AOI 4	RW-704	2/7/2018	---	21.25	---	-1.02	unconfined	Pumping	
AOI 4	RW-705	2/7/2018	---	15.57	---	0.35	unconfined	Static	
AOI 4	RW-706	2/7/2018	---	15.99	---	-0.10	unconfined	Static	
AOI 4	RW-707	2/7/2018	---	16.03	---	0.26	unconfined	Static	
AOI 4	RW-708	2/7/2018	---	16.77	---	-1.28	unconfined	Static	
AOI 4	RW-709	2/7/2018	---	15.62	---	-0.32	unconfined	Static	
AOI 4	RW-710	2/7/2018	---	15.79	---	0.09	unconfined	Static	
AOI 4	RW-711	2/7/2018	---	15.81	---	-0.32	unconfined	Static	
AOI 4	RW-712	2/7/2018	---	15.69	---	-0.13	unconfined	Static	
AOI 4	RW-713	2/7/2018	---	15.41	---	-0.39	unconfined	Static	
AOI 4	RW-714	2/7/2018	---	15.46	---	-0.25	unconfined	Static	
AOI 4	RW-715	2/7/2018	---	15.68	---	-0.31	unconfined	Static	
AOI 4	RW-716	2/7/2018	---	15.74	---	-0.20	unconfined	Static	

Table 1
First Quarter 2018 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
AOI 4	RW-717	2/7/2018	---	15.81	---	-0.20	unconfined	Static	
AOI 4	S-30	2/13/2018	22.06	29.82	7.76	0.05	unconfined	Static	
AOI 4	S-34	2/13/2018	---	18.10	---	2.79	unconfined	Static	
AOI 4	S-35	2/13/2018	---	21.27	---	-0.33	unconfined	Static	
AOI 4	S-36	2/13/2018	---	24.40	---	-0.17	unconfined	Static	
AOI 5	RWBH-1	2/12/2018	3.96	3.96	<0.01	1.38	unconfined	Static	
AOI 5	RWBH-2	2/12/2018	2.01	4.16	2.15	1.91	unconfined	Static	
AOI 6	B-124	2/12/2018	5.08	6.42	1.34	3.64	NYC	Static	
AOI 6	B-132	2/12/2018	4.86	4.88	0.02	2.01	NYC	Static	
AOI 6	B-135	2/12/2018	---	5.08	---	1.30	NYC	Static	
AOI 6	B-136	2/12/2018	4.57	4.58	0.01	4.58	NYC	Static	
AOI 6	B-137	2/12/2018	3.95	5.28	1.33	4.60	NYC	Static	
AOI 6	B-142	2/12/2018	6.65	7.13	0.48	3.03	NYC	Static	
AOI 6	B-143	2/12/2018	3.80	4.62	0.82	5.07	NYC	Static	
AOI 6	B-147	2/12/2018	5.14	5.15	0.01	3.76	NYC	Static	
AOI 7	RW-801	2/6/2018	---	18.80	---	-12.53	NYC	Pumping	
AOI 7	RW-802	2/6/2018	---	16.80	---	-11.10	NYC	Pumping	
AOI 7	RW-803	2/6/2018	---	21.95	---	-16.17	NYC	Pumping	
AOI 7	RW-804	2/6/2018	---	20.00	---	-14.22	NYC	Pumping	
AOI 7	RW-805	2/6/2018	---	17.30	---	-11.55	NYC	Pumping	
AOI 7	RW-806	2/6/2018	---	20.40	---	-14.99	NYC	Pumping	
AOI 7	RW-807	2/6/2018	---	16.10	---	-9.26	NYC	Pumping	
AOI 7	RW-808	2/6/2018	---	18.15	---	-12.07	NYC	Pumping	
AOI 7	RW-809	2/6/2018	---	19.80	---	-13.25	NYC	Pumping	
AOI 7	RW-810	2/6/2018	---	14.20	---	-7.76	NYC	Pumping	
AOI 8	N-137	2/14/2018	18.45	18.67	0.22	7.10	unconfined	Static	passive bailer
AOI 8	N-138	2/14/2018	28.18	28.53	0.35	7.04	unconfined	Static	passive bailer
AOI 8	N-139	2/14/2018	27.9	28.34	0.44	7.00	unconfined	Static	passive bailer
AOI 8	N-142	2/14/2018	---	27.82	---	6.74	unconfined	Static	
AOI 8	N-144	2/14/2018	---	27.33	---	6.95	unconfined	Static	
AOI 8	N-145	2/14/2018	---	18.91	---	7.08	unconfined	Static	
AOI 8	N-146	2/14/2018	17.95	18.85	0.9	8.27	unconfined	Static	
AOI 8	N-155	2/14/2018	---	27.29	---	NA	lower aquifer	Static	
AOI 8	N-157	2/14/2018	---	28.56	---	NA	lower aquifer	Static	
AOI 8	RW-200	2/14/2018	---	5.22	---	6.80	unconfined	Static	
AOI 8	RW-201	2/14/2018	22.98	23.27	0.29	8.97	unconfined	Static	
AOI 8	RW-202	2/14/2018	---	20.44	---	9.07	unconfined	Static	
AOI 8	RW-203	2/14/2018	22.68	22.72	0.04	8.42	unconfined	Static	
AOI 8	RW-204	2/14/2018	19.61	21.07	1.46	8.81	unconfined	Static	
AOI 8	RW-205	2/14/2018	19.70	20.05	0.35	9.94	unconfined	Static	
AOI 8	RW-206	2/14/2018	21.62	23.23	1.61	9.14	unconfined	Static	
AOI 8	RW-300	2/14/2018	15.53	15.80	0.27	6.07	lower aquifer	Static	
AOI 8	RW-301	2/14/2018	---	12.69	---	9.72	unconfined	Static	
AOI 8	RW-302	2/14/2018	---	13.98	---	10.11	unconfined	Static	
AOI 8	RW-303	2/14/2018	---	14.76	---	10.22	unconfined	Static	
AOI 8	RW-304	2/14/2018	---	15.22	---	10.06	unconfined	Static	
AOI 8	RW-305	2/14/2018	---	15.31	---	9.96	unconfined	Static	
AOI 8	RW-306	2/14/2018	13.38	13.39	0.01	10.20	unconfined	Static	
AOI 8	RW-307	2/14/2018	---	14.85	---	8.41	unconfined	Static	
AOI 8	RW-308	2/14/2018	---	15.87	---	9.74	unconfined	Static	
AOI 8	RW-309	2/14/2018	---	16.96	---	8.27	unconfined	Static	
AOI 8	RW-500	2/14/2018	---	1.89	---	5.67	unconfined	Static	
AOI 8	RW-501	2/14/2018	---	4.62	---	5.17	unconfined	Static	
AOI 8	RW-502	2/14/2018	8.90	9.47	0.57	3.52	unconfined	Static	
BELMONT	RW-1	2/15/2018	---		---	NA	unconfined	Static	no access-vehicle parked on well vault
BELMONT	RW-4	2/15/2018	27.86	27.86	<0.01	2.60	NYC	Pumping	
BELMONT	RW-6	2/15/2018	---	27.27	---	3.79	unconfined	Static	
BELMONT	RW-7	2/15/2018	---	24.62	---	3.59	unconfined	Static	
BELMONT	RW-15	2/15/2018	---	27.33	---	2.72	unconfined	Static	
BELMONT	RW-21	2/15/2018	---		---	NA	unconfined	Static	no access-vault lid damaged
BELMONT	RW-22	2/15/2018	23.44	23.44	<0.01	3.60	unconfined	Static	
BELMONT	RW-23	2/15/2018	27.10	27.22	0.12	0.00	NYC	Pumping	
BELMONT	RW-24	2/15/2018	28.03	28.35	0.32	-0.93	unconfined	Pumping	
BELMONT	RW-25	2/15/2018	28.79	29.28	0.49	1.27	NYC	Pumping	
BELMONT	RW-26	2/15/2018	---	23.85	---	5.36	unconfined	Static	
BELMONT	RW-27	2/15/2018	---	26.47	---	3.24	unconfined	Static	
BELMONT	RW-28	2/15/2018	---	23.42	---	6.32	unconfined	Static	

Table 1
First Quarter 2018 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
BELMONT	RW-29	2/15/2018	---	26.30	---	3.14	unconfined	Static	
BELMONT	RW-31	2/15/2018	---	26.21	---	3.17	unconfined	Static	
BELMONT	RW-32	2/15/2018	---	7.30	---	21.75	unconfined	Static	
BELMONT	RW-30	2/15/2018	---	26.20	---	3.19	unconfined	Static	
BELMONT	RW-400	2/15/2018	---	28.20	---	-0.01	unconfined	Static	

Notes:
For product thicknesses <0.01 ft, the corrected groundwater elevation was calculated using 0.01 foot.
LNAPL = Light non-aqueous phase liquid
ft = Feet
toc = Top of casing
ft btoc = Feet below top of casing
NAVD 88 = North American Vertical Datum of 1988
--- = LNAPL not present
NM = Field reading not measured and/or corrected groundwater elevation not calculated due to lack of surveyed reference elevation or down well pump.
NA = Not Accessible, Not Applicable, or Not Available
NYC = Not yet classified

Table 2
Second Quarter 2018 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
AOI 1	ARCO-1	6/18/2018	---	26.11	---	0.84	unconfined	Static	
AOI 1	ARCO-1D	6/18/2018	---	25.90	---	1.16	lower aquifer	Static	
AOI 1	ARCO-2	6/18/2018	---	25.21	---	0.79	unconfined	Static	
AOI 1	ARCO-3	6/18/2018	---	23.92	---	0.39	unconfined	Static	
AOI 1	MWELL-28	6/18/2018	---	20.54	---	1.11	NYC	Static	
AOI 1	MWELL-29	6/18/2018	---	22.08	---	0.14	NYC	Static	
AOI 1	MWELL-30	6/18/2018	---	25.63	---	0.50	NYC	Static	
AOI 1	MWELL-31	6/18/2018	---	25.10	---	0.82	NYC	Static	
AOI 1	PZ-401	6/18/2018	19.68	19.69	0.01	4.04	unconfined	Static	
AOI 1	PZ-402	6/18/2018	19.20	19.30	0.10	4.17	NYC	Static	
AOI 1	PZ-403	6/18/2018	24.37	24.37	<0.01	0.05	NYC	Static	
AOI 1	PZ-404	6/18/2018	25.96	26.60	0.64	-0.04	NYC	Static	
AOI 1	RW-110	6/18/2018	---	15.80	---	1.87	unconfined	Static	
AOI 1	RW-111	6/18/2018	---	7.52	---	10.20	unconfined	Static	
AOI 1	RW-112	6/18/2018	---	16.20	---	1.41	unconfined	Static	
AOI 1	RW-401	6/18/2018	25.50	26.20	0.70	-0.87	NYC	Static	
AOI 1	RW-402	6/18/2018	---	17.59	---	4.12	unconfined	Static	
AOI 1	RW-403	6/18/2018	---	20.35	---	3.78	unconfined	Static	
AOI 1	RW-404	6/18/2018	---	21.92	---	1.82	unconfined	Static	
AOI 1	RW-405	6/18/2018	24.20	24.65	0.45	-0.16	NYC	Static	
AOI 1	RW-406	6/18/2018	22.47	22.75	0.28	6.07	NYC	Static	
AOI 1	S-41	6/18/2018	---	24.96	---	0.79	unconfined	Static	
AOI 1	S-42I	6/18/2018	---	24.33	---	-0.77	lower aquifer	Static	
AOI 1	S-43	6/18/2018	---	23.20	---	0.02	unconfined	Static	
AOI 1	S-44	6/18/2018	---	24.38	---	-1.04	unconfined	Static	
AOI 1	S-45	6/18/2018	---	19.74	---	1.83	unconfined	Static	
AOI 1	S-46	6/18/2018	---	20.70	---	1.86	unconfined	Static	
AOI 1	S-46D	6/18/2018	---	13.91	---	1.80	lower aquifer	Static	
AOI 1	S-47I	6/18/2018	---	20.32	---	1.89	middle clay unit	Static	
AOI 1	S-50	6/18/2018	---	21.14	---	1.34	unconfined	Static	
AOI 1	S-51	6/18/2018	---	21.66	---	0.88	unconfined	Static	
AOI 1	S-52	6/18/2018	---	22.22	---	1.32	unconfined	Static	
AOI 1	S-77	6/18/2018	9.89	10.63	0.74	20.77	NYC	Static	
AOI 1	S-77P	6/18/2018	---	28.73	---	4.31	unconfined	Static	
AOI 1	S-78	6/18/2018	---	26.20	---	4.73	unconfined	Static	
AOI 1	S-79	6/18/2018	23.31	23.67	0.36	7.60	NYC	Static	
AOI 1	S-79P	6/18/2018	---	26.04	---	4.38	unconfined	Static	
AOI 1	S-80	6/18/2018	---	27.49	---	4.64	unconfined	Static	
AOI 1	S-80D	6/18/2018	---	29.30	---	2.44	lower aquifer	Static	
AOI 1	S-82	6/18/2018	23.02	23.03	0.01	4.27	NYC	Static	
AOI 1	S-83	6/18/2018	19.13	19.15	0.02	4.20	NYC	Static	
AOI 1	S-84P	6/18/2018	---	16.16	---	7.10	unconfined	Static	
AOI 1	S-85	6/18/2018	---	23.14	---	1.99	unconfined	Static	
AOI 1	S-86	6/18/2018	25.70	25.75	0.05	1.34	NYC	Static	
AOI 1	S-87I	6/18/2018	---	24.11	---	1.76	lower aquifer	Static	
AOI 1	S-88	6/18/2018	---	24.82	---	-0.72	unconfined	Static	
AOI 1	S-88A	6/18/2018	---	23.36	---	0.44	unconfined	Static	
AOI 1	S-89	6/18/2018	26.06	26.08	0.02	-0.07	unconfined	Static	
AOI 1	S-95	6/18/2018	---	21.75	---	1.24	unconfined	Static	
AOI 1	S-98	6/18/2018	22.59	22.59	<0.01	6.22	unconfined	Static	
AOI 1	S-99	6/18/2018	---	24.58	---	0.82	unconfined	Static	
AOI 1	S-100	6/18/2018	22.65	23.43	0.78	4.14	NYC	Static	
AOI 1	S-101	6/18/2018	---	46.81	---	2.31	unconfined	Static	
AOI 1	S-117	6/18/2018	---	16.46	---	1.95	unconfined	Static	
AOI 1	S-118	6/18/2018	NM	NM	NM	NM	unconfined	Static	unable to locate
AOI 1	S-125	6/18/2018	21.65	21.73	0.08	4.32	NYC	Static	
AOI 1	S-126	6/18/2018	NM	NM	NM	NM	NYC	Static	
AOI 1	S-127	6/18/2018	---	15.60	---	1.50	unconfined	Static	
AOI 1	S-162	6/18/2018	16.44	16.45	0.01	1.62	unconfined	Static	
AOI 1	S-164	6/18/2018	---	14.59	---	2.11	unconfined	Static	
AOI 1	S-179	6/18/2018	---	18.25	---	6.28	unconfined	Static	
AOI 1	S-180	6/18/2018	---	18.04	---	4.16	unconfined	Static	
AOI 1	S-181	6/18/2018	---	18.71	---	4.15	NYC	Static	
AOI 1	S-182	6/18/2018	NM	NM	NM	NM	unconfined	Static	not gauged-well is sealed
AOI 1	S-183	6/18/2018	---	19.26	---	4.22	unconfined	Static	
AOI 1	S-184	6/18/2018	NM	NM	NM	NM	unconfined	Static	
AOI 1	S-185	6/18/2018	---	19.22	---	4.66	unconfined	Static	
AOI 1	S-186	6/18/2018	---	19.72	---	4.64	unconfined	Static	
AOI 1	S-187	6/18/2018	19.88	19.90	0.02	4.63	unconfined	Static	
AOI 1	S-188	6/18/2018	---	20.00	---	4.82	unconfined	Static	
AOI 1	S-189	6/18/2018	---	21.18	---	4.61	unconfined	Static	
AOI 1	S-190	6/18/2018	---	20.90	---	4.67	NYC	Static	

Table 2
Second Quarter 2018 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
AOI 1	S-191	6/18/2018	---	21.17	---	4.66	unconfined	Static	
AOI 1	S-192	6/18/2018	---	19.89	---	6.13	unconfined	Static	
AOI 1	S-193	6/18/2018	---	23.46	---	4.64	unconfined	Static	
AOI 1	S-194	6/18/2018	---	24.67	---	6.37	unconfined	Static	
AOI 1	S-196	6/18/2018	---	45.20	---	4.85	unconfined	Static	
AOI 1	S-197	6/18/2018	---	44.55	---	5.23	NYC	Static	
AOI 1	S-198	6/18/2018	24.51	25.50	0.99	4.61	NYC	Static	
AOI 1	S-199	6/18/2018	24.39	25.24	0.85	4.62	NYC	Static	
AOI 1	S-200	6/18/2018	---	24.58	---	4.48	unconfined	Static	
AOI 1	S-201	6/18/2018	23.21	23.85	0.64	4.59	NYC	Static	
AOI 1	S-202	6/18/2018	---	28.22	---	4.39	unconfined	Static	
AOI 1	S-203	6/18/2018	---	27.60	---	4.42	NYC	Static	
AOI 1	S-205	6/18/2018	17.14	17.25	0.11	11.01	NYC	Static	
AOI 1	S-206	6/18/2018	---	26.43	---	5.35	unconfined	Static	
AOI 1	S-207	6/18/2018	---	12.61	---	14.59	unconfined	Static	
AOI 1	S-208	6/18/2018	---	18.49	---	2.37	unconfined	Static	
AOI 1	S-209	6/18/2018	---	25.30	---	1.68	unconfined	Static	
AOI 1	S-210	6/18/2018	---	23.10	---	0.59	unconfined	Static	
AOI 1	S-211	6/18/2018	---	13.02	---	2.23	unconfined	Static	
AOI 1	S-213	6/18/2018	---	13.33	---	1.88	unconfined	Static	
AOI 1	S-214	6/18/2018	---	18.32	---	1.52	unconfined	Static	
AOI 1	S-226	6/18/2018	---	21.20	---	0.88	unconfined	Static	
AOI 1	S-227	6/18/2018	---	21.66	---	0.13	unconfined	Static	
AOI 1	S-228	6/18/2018	---	20.97	---	0.21	unconfined	Static	
AOI 1	S-230	6/18/2018	---	18.75	---	1.44	unconfined	Static	
AOI 1	S-231	6/18/2018	---	19.46	---	0.48	unconfined	Static	
AOI 1	S-232	6/18/2018	---	20.22	---	0.09	unconfined	Static	
AOI 1	S-255	6/18/2018	---	21.14	---	0.77	unconfined	Static	
AOI 1	S-256	6/18/2018	---	20.97	---	0.44	unconfined	Static	
AOI 1	S-257	6/18/2018	---	22.95	---	0.32	unconfined	Static	
AOI 1	S-258	6/18/2018	---	23.36	---	-0.56	unconfined	Static	
AOI 1	S-259	6/18/2018	---	23.29	---	-0.73	unconfined	Static	
AOI 1	S-260	6/18/2018	---	22.55	---	-0.85	unconfined	Static	
AOI 1	S-261	6/18/2018	---	23.70	---	3.71	unconfined	Static	
AOI 1	S-262	6/18/2018	---	17.67	---	1.77	unconfined	Static	
AOI 1	S-263	6/18/2018	---	15.33	---	1.45	unconfined	Static	
AOI 1	S-264D	6/18/2018	---	25.15	---	1.48	lower aquifer	Static	
AOI 1	S-265	6/18/2018	---	14.24	---	16.94	NYC	Static	
AOI 1	S-267	6/18/2018	---	18.66	---	14.21	unconfined	Static	
AOI 1	S-268	6/18/2018	---	26.60	---	4.85	unconfined	Static	
AOI 1	S-269	6/18/2018	---	19.14	---	3.42	unconfined	Static	
AOI 1	S-270	6/18/2018	---	20.76	---	2.37	unconfined	Static	
AOI 1	S-271	6/18/2018	---	23.80	---	4.68	unconfined	Static	
AOI 1	S-272	6/18/2018	---	22.44	---	5.92	unconfined	Static	
AOI 1	S-273	6/18/2018	---	22.95	---	4.80	unconfined	Static	
AOI 1	S-274	6/18/2018	---	22.63	---	4.74	unconfined	Static	
AOI 1	S-275	6/18/2018	---	21.82	---	4.75	unconfined	Static	
AOI 1	S-276	6/18/2018	21.96	22.14	0.18	4.59	NYC	Static	
AOI 1	S-277	6/18/2018	21.65	22.00	0.35	3.98	NYC	Static	
AOI 1	S-312	6/18/2018	---	5.52	---	12.36	unconfined	Static	
AOI 1	S-388D	6/18/2018	---	24.57	---	1.62	lower aquifer	Static	
AOI 1	S-389D	6/18/2018	---	24.60	---	1.70	lower aquifer	Static	
AOI 1	S-390D	6/18/2018	---	24.80	---	1.68	lower aquifer	Static	
AOI 1	S-391D	6/18/2018	---	29.20	---	2.26	lower aquifer	Static	
AOI 1	S-392D	6/18/2018	---	18.51	---	1.46	lower aquifer	Static	
AOI 1	S-396	6/18/2018	---	24.28	---	1.91	upper sand unit	Static	
AOI 1	S-397	6/18/2018	---	25.05	---	1.55	upper sand unit	Static	
AOI 1	S-398	6/18/2018	NM	NM	NM	NM	middle clay unit	Static	could not access-bees in manhole
AOI 1	S-399	6/18/2018	---	18.63	---	1.53	lower aquifer	Static	
AOI 1	S-400	6/18/2018	---	29.82	---	1.87	lower aquifer	Static	
AOI 1	S-401	6/18/2018	---	28.99	---	2.77	middle clay unit	Static	
AOI 1	S-402	6/18/2018	29.05	29.12	0.07	4.38	NYC	Static	
AOI 1	S-403	6/18/2018	23.44	23.46	0.02	3.38	NYC	Static	
AOI 1	S-404	6/18/2018	12.68	12.80	0.12	15.81	NYC	Static	
AOI 1	S-405	6/18/2018	22.00	22.06	0.06	4.12	NYC	Static	
AOI 1	S-417	6/18/2018	26.91	27.15	0.24	5.33	NYC	Static	
AOI 1	S-418	6/18/2018	---	16.71	---	0.58	NYC	Static	
AOI 1	S-419	6/18/2018	---	14.43	---	1.59	NYC	Static	
AOI 2	C-HEADER	6/20/2018	---	5.55	---	15.06	NYC	Static	
AOI 2	PGW-MW-8D	6/20/2018	---	32.07	---	3.04	lower aquifer	Static	
AOI 2	PGW-MW-8S	6/20/2018	NM	NM	NM	NM	unconfined	Static	could not access well
AOI 2	PGW-MW-9D	6/20/2018	---	29.56	---	2.87	lower aquifer	Static	

Table 2
Second Quarter 2018 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
AOI 2	PZ-100	6/20/2018	---	14.71	---	3.36	NYC	Static	
AOI 2	PZ-101	6/20/2018	---	6.27	---	10.90	NYC	Static	
AOI 2	River1	6/20/2018	---	9.05	---	NM	NYC	Static	at 10:00
AOI 2	River3	6/20/2018	---	9.70	---	NM	NYC	Static	at 11:00
AOI 2	RW-100	6/20/2018	17.58	17.81	0.23	3.12	NYC	Static	
AOI 2	RW-101	6/20/2018	16.67	16.68	0.01	3.10	NYC	Static	
AOI 2	RW-102	6/20/2018	13.95	13.96	0.01	3.52	NYC	Static	
AOI 2	RW-103	6/20/2018	16.55	17.32	0.77	3.37	NYC	Static	
AOI 2	RW-104	6/20/2018	---	6.56	---	2.40	NYC	Static	
AOI 2	RW-105	6/20/2018	7.93	7.93	<0.01	0.76	NYC	Static	
AOI 2	RW-106	6/20/2018	---	6.68	---	2.62	NYC	Static	
AOI 2	RW-107	6/20/2018	---	8.60	---	1.95	NYC	Static	
AOI 2	RW-108	6/20/2018	---	7.30	---	2.60	NYC	Static	
AOI 2	RW-109	6/20/2018	---	6.39	---	3.46	NYC	Static	
AOI 2	RW-113	6/20/2018	---	7.96	---	2.27	NYC	Static	
AOI 2	RW-114	6/20/2018	---	10.42	---	2.59	NYC	Static	
AOI 2	RW-115	6/20/2018	---	7.72	---	2.48	NYC	Static	
AOI 2	RW-116	6/20/2018	---	8.18	---	2.63	NYC	Static	
AOI 2	RW-117	6/20/2018	7.15	7.17	0.02	2.63	NYC	Static	
AOI 2	RW-118	6/20/2018	---	9.13	---	2.69	NYC	Static	
AOI 2	RW-119	6/20/2018	10.13	10.13	<0.01	2.73	NYC	Static	
AOI 2	RW-120	6/20/2018	10.89	10.89	<0.01	2.70	NYC	Static	
AOI 2	RW-121	6/20/2018	---	12.60	---	2.70	NYC	Static	
AOI 2	RW-122	6/20/2018	---	7.67	---	2.57	NYC	Static	
AOI 2	RW-123	6/20/2018	---	7.29	---	2.68	NYC	Static	
AOI 2	RW-124	6/20/2018	---	6.36	---	2.80	NYC	Static	
AOI 2	RW-125	6/20/2018	---	12.03	---	2.24	NYC	Static	
AOI 2	RW-126	6/20/2018	---	6.62	---	2.61	NYC	Static	
AOI 2	RW-127	6/20/2018	---	11.23	---	2.67	NYC	Static	
AOI 2	RW-128	6/20/2018	7.39	7.55	0.16	1.02	NYC	Static	
AOI 2	RW-129	6/20/2018	---	8.44	---	1.39	NYC	Static	
AOI 2	RW-600	6/20/2018	---	2.15	---	6.90	NYC	Static	
AOI 2	S-48	6/20/2018	18.61	18.76	0.15	2.64	NYC	Static	
AOI 2	S-53	6/20/2018	---	16.40	---	5.28	NYC	Static	
AOI 2	S-54	6/20/2018	NM	NM	NM	NM	NYC	Static	unable to access
AOI 2	S-61	6/20/2018	15.55	15.76	0.21	2.70	NYC	Static	
AOI 2	S-62	6/20/2018	---	17.98	---	3.40	NYC	Static	
AOI 2	S-63	6/20/2018	18.32	18.82	0.50	2.88	NYC	Static	
AOI 2	S-64	6/20/2018	---	5.65	---	4.91	NYC	Static	
AOI 2	S-65	6/20/2018	8.35	8.35	<0.01	2.28	NYC	Static	
AOI 2	S-71	6/20/2018	---	20.47	---	3.57	NYC	Static	
AOI 2	S-72	6/20/2018	---	26.54	---	4.52	NYC	Static	
AOI 2	S-72D	6/20/2018	---	32.85	---	1.66	lower aquifer	Static	
AOI 2	S-91	6/20/2018	---	16.08	---	7.05	NYC	Static	
AOI 2	S-92	6/20/2018	9.53	9.54	0.01	10.54	NYC	Static	
AOI 2	S-93	6/20/2018	15.35	15.36	0.01	2.90	NYC	Static	
AOI 2	S-107	6/20/2018	8.65	9.64	0.99	3.43	NYC	Static	
AOI 2	S-108	6/20/2018	---	4.77	---	5.95	NYC	Static	
AOI 2	S-110	6/20/2018	---	15.38	---	10.29	NYC	Static	
AOI 2	S-131	6/20/2018	---	13.53	---	5.23	NYC	Static	
AOI 2	S-132	6/20/2018	---	16.47	---	4.56	NYC	Static	
AOI 2	S-133	6/20/2018	---	16.75	---	5.27	NYC	Static	
AOI 2	S-134	6/20/2018	---	17.27	---	4.76	NYC	Static	
AOI 2	S-135	6/20/2018	17.72	20.04	2.32	5.15	NYC	Static	
AOI 2	S-136	6/20/2018	---	16.11	---	4.48	NYC	Static	
AOI 2	S-137	6/20/2018	---	14.94	---	5.10	NYC	Static	
AOI 2	S-139	6/20/2018	---	18.13	---	3.33	NYC	Static	
AOI 2	S-141	6/20/2018	18.80	18.82	0.02	3.12	NYC	Static	
AOI 2	S-142	6/20/2018	17.38	17.60	0.22	2.43	NYC	Static	
AOI 2	S-150	6/20/2018	---	17.41	---	3.42	NYC	Static	
AOI 2	S-152	6/20/2018	---	7.40	---	3.09	NYC	Static	
AOI 2	S-153	6/20/2018	---	7.30	---	2.51	NYC	Static	
AOI 2	S-154	6/20/2018	---	9.39	---	1.23	NYC	Static	
AOI 2	S-156	6/20/2018	---	16.00	---	4.84	NYC	Static	
AOI 2	S-157	6/20/2018	14.68	14.68	<0.01	5.27	NYC	Static	
AOI 2	S-159	6/20/2018	---	15.42	---	3.45	NYC	Static	
AOI 2	S-165	6/20/2018	---	15.43	---	2.68	unconfined	Static	
AOI 2	S-166	6/20/2018	---	15.60	---	2.63	unconfined	Static	
AOI 2	S-174	6/20/2018	8.82	8.89	0.07	10.79	NYC	Static	
AOI 2	S-175	6/20/2018	15.90	16.78	0.88	4.01	NYC	Static	
AOI 2	S-177	6/20/2018	---	16.72	---	2.84	unconfined	Static	
AOI 2	S-178	6/20/2018	NM	NM	NM	NM	unconfined	Static	obstruction at 11.63 feet

Table 2
Second Quarter 2018 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
AOI 2	S-246A	6/20/2018	---	9.70	---	2.06	NYC	Static	
AOI 2	S-247	6/20/2018	---	10.77	---	1.32	NYC	Static	
AOI 2	S-248	6/20/2018	---	9.63	---	1.17	NYC	Static	
AOI 2	S-249	6/20/2018	---	10.57	---	2.04	NYC	Static	
AOI 2	S-251	6/20/2018	---	16.33	---	2.94	NYC	Static	
AOI 2	S-252	6/20/2018	---	16.46	---	2.83	NYC	Static	
AOI 2	S-253	6/20/2018	---	17.97	---	2.86	NYC	Static	
AOI 2	S-254	6/20/2018	18.44	18.56	0.12	2.42	NYC	Static	
AOI 2	S-292	6/20/2018	NM	NM	NM	NM	NYC	Static	obstruction at 19.50 feet
AOI 2	S-294	6/20/2018	---	24.50	---	9.97	unconfined	Static	
AOI 2	S-294D	6/20/2018	---	31.56	---	3.12	lower aquifer	Static	
AOI 2	S-295	6/20/2018	---	23.87	---	8.87	NYC	Static	
AOI 2	S-298	6/20/2018	15.38	16.17	0.79	11.43	NYC	Static	
AOI 2	S-299	6/20/2018	---	20.18	---	3.82	NYC	Static	
AOI 2	S-300	6/20/2018	---	20.83	---	4.45	NYC	Static	
AOI 2	S-301	6/20/2018	---	16.76	---	3.65	NYC	Static	
AOI 2	S-302	6/20/2018	21.15	21.20	0.05	2.80	NYC	Static	
AOI 2	S-302D	6/20/2018	---	24.24	---	0.36	lower aquifer	Static	
AOI 2	S-303	6/20/2018	19.15	19.15	<0.01	3.45	NYC	Static	
AOI 2	S-305	6/20/2018	---	17.18	---	2.55	unconfined	Static	
AOI 2	S-305D	6/20/2018	---	18.94	---	1.54	lower aquifer	Static	
AOI 2	S-306	6/20/2018	---	19.72	---	2.75	NYC	Static	
AOI 2	S-307	6/20/2018	---	15.22	---	3.35	NYC	Static	
AOI 2	S-308	6/20/2018	---	23.25	---	4.86	NYC	Static	
AOI 2	S-309	6/20/2018	---	16.90	---	2.83	NYC	Static	
AOI 2	S-311	6/20/2018	22.00	22.10	0.10	4.15	NYC	Static	
AOI 2	S-313	6/20/2018	---	17.96	---	2.94	NYC	Static	
AOI 2	S-314	6/20/2018	---	18.12	---	2.58	NYC	Static	
AOI 2	S-315	6/20/2018	---	18.32	---	2.15	NYC	Static	
AOI 2	S-316	6/20/2018	---	16.30	---	4.60	NYC	Static	
AOI 2	S-317	6/20/2018	---	17.59	---	2.60	NYC	Static	
AOI 2	S-318	6/20/2018	---	21.44	---	2.31	NYC	Static	
AOI 2	S-328	6/20/2018	18.78	18.78	<0.01	3.19	NYC	Static	
AOI 2	S-333	6/20/2018	---	12.28	---	1.45	NYC	Static	
AOI 2	S-335	6/20/2018	---	9.70	---	0.40	NYC	Static	
AOI 2	S-336	6/20/2018	---	9.86	---	1.66	NYC	Static	
AOI 2	S-337	6/20/2018	9.85	9.97	0.12	2.34	NYC	Static	
AOI 2	S-338	6/20/2018	12.46	12.62	0.16	3.04	NYC	Static	
AOI 2	S-346	6/20/2018	16.81	16.82	0.01	2.68	NYC	Static	
AOI 2	S-347	6/20/2018	16.42	16.95	0.53	2.64	NYC	Static	
AOI 2	S-348	6/20/2018	13.30	15.10	1.80	6.07	NYC	Static	
AOI 2	S-349	6/20/2018	14.80	15.04	0.24	3.78	NYC	Static	
AOI 2	S-350	6/20/2018	---	27.85	---	3.63	unconfined	Static	
AOI 2	S-351	6/20/2018	---	28.95	---	6.29	NYC	Static	
AOI 2	S-354	6/20/2018	---	24.43	---	3.60	NYC	Static	
AOI 2	S-355	6/20/2018	26.91	27.11	0.20	3.88	NYC	Static	
AOI 2	S-357	6/20/2018	18.42	18.43	0.01	9.68	NYC	Static	
AOI 2	S-359	6/20/2018	---	15.61	---	4.67	NYC	Static	
AOI 2	S-360	6/20/2018	NM	NM	NM	NM	NYC	Static	unable to access- area under construction
AOI 2	S-361	6/20/2018	---	22.41	---	3.96	NYC	Static	
AOI 2	S-363	6/20/2018	NM	NM	NM	NM	NYC	Static	unable to access- area under construction
AOI 2	S-406	6/20/2018	---	9.54	---	2.66	NYC	Static	
AOI 2	S-420	6/20/2018	---	6.62	---	2.64	NYC	Static	
AOI 2	S-422	6/20/2018	---	13.27	---	3.30	NYC	Static	
AOI 2	S-423	6/20/2018	26.33	26.84	0.51	5.04	NYC	Static	
AOI 2	S-425	6/20/2018	---	8.55	---	NM	unconfined	Static	
AOI 2	S-426	6/20/2018	---	5.41	---	NM	unconfined	Static	
AOI 2	S-427	6/20/2018	---	5.53	---	NM	NYC	Static	
AOI 2	SD-1	6/20/2018	---	6.62	---	12.88	NYC	Static	
AOI 3	BF-88	6/18/2018	---	9.36	---	1.25	NYC	Static	
AOI 3	BF-90	6/18/2018	---	1.90	---	5.59	NYC	Static	
AOI 3	BF-90D	6/18/2018	---	9.27	---	0.50	lower aquifer	Static	
AOI 3	BF-99	6/18/2018	---	9.84	---	1.12	NYC	Static	
AOI 3	BF-100	6/18/2018	---	11.35	---	1.01	NYC	Static	
AOI 3	BF-101	6/18/2018	---	3.42	---	3.45	NYC	Static	
AOI 3	BF-103R	6/18/2018	---	13.63	---	0.94	NYC	Static	
AOI 3	BF-104	6/18/2018	---	5.45	---	6.29	NYC	Static	
AOI 3	BF-105	6/18/2018	---	10.95	---	0.96	NYC	Static	
AOI 3	BF-106	6/18/2018	---	12.66	---	0.96	NYC	Static	
AOI 3	BF-107	6/18/2018	---	11.29	---	1.07	NYC	Static	
AOI 3	BF-108	6/18/2018	---	10.47	---	0.51	lower aquifer	Static	
AOI 3,7	C-95	6/25/2018	---	5.95	---	6.30	NYC	Static	

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AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
AOI 3	RW-2	6/18/2018	10.36	11.15	0.79	0.78	NYC	Static	
AOI 3	S-1	6/18/2018	---	5.50	---	3.25	NYC	Static	
AOI 3	S-2	6/18/2018	NM	NM	NM	NM	NYC	Static	unable to locate
AOI 3	S-3	6/19/2018	---	7.64	---	3.16	NYC	Static	
AOI 3	S-5	6/19/2018	3.43	3.50	0.07	2.39	NYC	Static	
AOI 3	S-8	6/18/2018	---	6.61	---	-0.19	lower aquifer	Static	
AOI 3	S-9	6/19/2018	---	3.62	---	2.96	NYC	Static	
AOI 3	S-10	6/18/2018	---	4.00	---	2.07	NYC	Static	
AOI 3	S-11	6/18/2018	---	3.46	---	2.92	NYC	Static	
AOI 3	S-12	6/18/2018	---	4.31	---	1.92	NYC	Static	
AOI 3	S-13	6/18/2018	---	6.80	---	-0.44	lower aquifer	Static	
AOI 3	S-14	6/18/2018	---	2.89	---	2.85	NYC	Static	
AOI 3	S-16	6/18/2018	---	21.64	---	2.04	NYC	Static	
AOI 3	S-17	6/18/2018	---	14.73	---	2.12	unconfined	Static	
AOI 3	S-18	6/18/2018	---	3.97	---	19.52	NYC	Static	
AOI 3	S-20	6/18/2018	---	18.24	---	2.02	unconfined	Static	
AOI 3	S-21	6/18/2018	---	12.15	---	10.58	NYC	Static	
AOI 3	S-22	6/19/2018	---	18.83	---	-0.17	lower aquifer	Static	
AOI 3	S-23	6/19/2018	---	18.30	---	1.98	NYC	Static	
AOI 3	S-25	6/19/2018	---	10.22	---	1.89	NYC	Static	
AOI 3	S-59	6/19/2018	8.82	8.82	<0.01	3.67	unconfined	Static	
AOI 3	S-60	6/19/2018	10.70	11.27	0.57	1.44	NYC	Static	
AOI 3	S-66	6/19/2018	---	25.63	---	1.40	NYC	Static	
AOI 3	S-69D	6/18/2018	---	10.92	---	0.43	lower aquifer	Static	
AOI 3	S-112	6/21/2018	9.89	10.00	0.11	NM	NYC	Static	
AOI 3	S-113	6/18/2018	11.17	11.79	0.62	1.39	NYC	Static	
AOI 3	S-280	6/19/2018	---	24.38	---	2.14	NYC	Static	
AOI 3	S-280D	6/18/2018	---	24.81	---	1.07	lower aquifer	Static	
AOI 3	S-281	6/19/2018	NM	NM	NM	NM	NYC	Static	unable to access
AOI 3	S-283	6/19/2018	9.88	11.80	1.92	0.73	NYC	Static	
AOI 3	S-284	6/19/2018	---	8.22	---	1.29	NYC	Static	
AOI 3	S-284D	6/18/2018	---	11.01	---	1.11	lower aquifer	Static	
AOI 3	S-285	6/19/2018	11.97	13.59	1.62	3.07	NYC	Static	
AOI 3	S-288	6/19/2018	---	14.63	---	4.46	NYC	Static	
AOI 3	S-290	6/19/2018	---	9.10	---	2.59	NYC	Static	
AOI 3	S-291	6/19/2018	---	7.46	---	4.53	NYC	Static	
AOI 3	S-372	6/19/2018	---	17.75	---	1.98	unconfined	Static	
AOI 3	S-382	6/19/2018	15.84	18.92	3.08	3.63	NYC	Static	
AOI 3	S-384	6/19/2018	---	15.33	---	1.19	NYC	Static	
AOI 3	S-385	6/19/2018	---	11.32	---	1.59	unconfined	Static	
AOI 3	S-386	6/19/2018	---	12.07	---	1.68	NYC	Static	
AOI 3	S-387	6/19/2018	---	4.22	---	2.89	NYC	Static	
AOI 3	S-407	6/19/2018	---	12.55	---	1.46	NYC	Static	
AOI 3	S-409	6/19/2018	---	2.81	---	19.48	NYC	Static	
AOI 3	S-410	6/19/2018	11.38	13.43	2.05	10.69	NYC	Static	
AOI 3	S-411	6/19/2018	---	22.21	---	2.84	NYC	Static	
AOI 3	S-412	6/19/2018	---	12.04	---	1.07	NYC	Static	
AOI 3	S-413	6/19/2018	---	16.68	---	1.23	NYC	Static	
AOI 3	S-414	6/19/2018	19.75	23.40	3.65	1.78	NYC	Static	
AOI 4	RW-700	6/18/2018	---	16.43	---	1.58	unconfined	Static	
AOI 4	RW-701	6/18/2018	---	16.92	---	1.35	unconfined	Static	
AOI 4	RW-702	6/18/2018	---	19.27	---	1.69	unconfined	Static	
AOI 4	RW-703	6/18/2018	---	19.43	---	1.19	unconfined	Static	
AOI 4	RW-704	6/18/2018	---	19.01	---	1.22	unconfined	Static	
AOI 4	RW-705	6/18/2018	---	14.00	---	1.92	unconfined	Static	
AOI 4	RW-706	6/18/2018	---	14.12	---	1.77	unconfined	Static	
AOI 4	RW-707	6/18/2018	---	14.52	---	1.77	unconfined	Static	
AOI 4	RW-708	6/18/2018	---	14.58	---	0.91	unconfined	Static	
AOI 4	RW-709	6/18/2018	---	14.16	---	1.14	unconfined	Static	
AOI 4	RW-710	6/18/2018	---	14.32	---	1.56	unconfined	Static	
AOI 4	RW-711	6/18/2018	---	13.68	---	1.81	unconfined	Static	
AOI 4	RW-712	6/18/2018	---	13.21	---	2.35	unconfined	Static	
AOI 4	RW-713	6/18/2018	---	13.19	---	1.83	unconfined	Static	
AOI 4	RW-714	6/18/2018	---	14.02	---	1.19	unconfined	Static	
AOI 4	RW-715	6/18/2018	---	17.63	---	-2.26	unconfined	Static	
AOI 4	RW-716	6/18/2018	---	13.72	---	1.83	unconfined	Static	
AOI 4	RW-717	6/18/2018	---	13.74	---	1.87	unconfined	Static	
AOI 4	S-26	6/18/2018	---	18.81	---	1.95	unconfined	Static	
AOI 4	S-27	6/18/2018	NM	NM	NM	NM	unconfined	Static	
AOI 4	S-28	6/18/2018	---	19.55	---	6.19	unconfined	Static	
AOI 4	S-29	6/18/2018	19.85	22.85	3.00	3.04	unconfined	Static	
AOI 4	S-30	6/18/2018	22.11	22.13	0.02	1.02	unconfined	Static	

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AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
AOI 4	S-32	6/18/2018	---	19.42	---	4.78	unconfined	Static	
AOI 4	S-34	6/18/2018	---	19.40	---	1.49	unconfined	Static	
AOI 4	S-35	6/18/2018	---	17.06	---	3.88	unconfined	Static	
AOI 4	S-36	6/18/2018	22.60	22.62	0.02	1.63	unconfined	Static	
AOI 4	S-38	6/18/2018	---	17.06	---	1.89	unconfined	Static	
AOI 4	S-38D	6/18/2018	---	17.41	---	0.29	lower aquifer	Static	
AOI 4	S-38D2	6/18/2018	---	17.86	---	0.33	lower aquifer	Static	
AOI 4	S-39	6/18/2018	---	20.81	---	2.07	unconfined	Static	
AOI 4	S-39D	6/18/2018	---	23.79	---	0.72	lower aquifer	Static	
AOI 4	S-40	6/18/2018	---	23.01	---	1.45	unconfined	Static	
AOI 4	S-57	6/18/2018	---	10.89	---	1.61	unconfined	Static	
AOI 4	S-58D2	6/18/2018	NM	NM	NM	NM	NYC	Static	
AOI 4	S-59D	6/18/2018	---	15.68	---	1.45	lower aquifer	Static	
AOI 4	S-96	6/18/2018	17.87	19.60	1.73	1.67	unconfined	Static	
AOI 4	S-102	6/18/2018	---	16.52	---	1.70	unconfined	Static	
AOI 4	S-104	6/18/2018	16.22	16.48	0.26	2.31	unconfined	Static	
AOI 4	S-111	6/21/2018	8.61	8.80	0.19	NM	NYC	Static	
AOI 4	S-119	6/18/2018	---	25.03	---	1.57	unconfined	Static	
AOI 4	S-119D	6/18/2018	---	23.82	---	1.28	lower aquifer	Static	
AOI 4	S-120	6/18/2018	---	17.77	---	2.05	unconfined	Static	
AOI 4	S-121	6/18/2018	---	18.83	---	2.29	unconfined	Static	
AOI 4	S-122	6/18/2018	---	21.86	---	3.85	unconfined	Static	
AOI 4	S-123	6/18/2018	---	20.14	---	1.99	unconfined	Static	
AOI 4	S-124	6/18/2018	---	21.36	---	1.84	unconfined	Static	
AOI 4	S-216	6/18/2018	---	18.94	---	-3.18	unconfined	Static	
AOI 4	S-218	6/18/2018	---	23.63	---	2.11	unconfined	Static	
AOI 4	S-218D	6/18/2018	---	23.64	---	0.88	lower aquifer	Static	
AOI 4	S-219	6/18/2018	---	20.93	---	2.16	unconfined	Static	
AOI 4	S-220	6/18/2018	18.63	19.60	0.97	2.08	unconfined	Static	
AOI 4	S-221	6/18/2018	---	21.02	---	1.98	unconfined	Static	
AOI 4	S-222	6/18/2018	---	14.29	---	2.00	unconfined	Static	
AOI 4	S-223	6/18/2018	---	14.96	---	0.92	unconfined	Static	
AOI 4	S-224	6/18/2018	---	14.11	---	1.92	unconfined	Static	
AOI 4	S-225	6/18/2018	---	17.48	---	-2.49	unconfined	Static	
AOI 4	S-233	6/18/2018	---	20.68	---	3.67	unconfined	Static	
AOI 4	S-234	6/18/2018	---	19.59	---	1.64	unconfined	Static	
AOI 4	S-235	6/18/2018	20.96	21.32	0.36	2.10	unconfined	Static	
AOI 4	S-236	6/18/2018	20.98	21.37	0.39	1.92	unconfined	Static	
AOI 4	S-237	6/18/2018	---	21.03	---	1.79	unconfined	Static	
AOI 4	S-238	6/18/2018	20.95	21.37	0.42	1.89	unconfined	Static	
AOI 4	S-239	6/18/2018	---	19.65	---	-3.83	unconfined	Static	
AOI 4	S-240	6/18/2018	---	19.34	---	4.52	unconfined	Static	
AOI 4	S-241	6/18/2018	23.96	26.60	2.64	1.84	unconfined	Static	
AOI 4	S-242	6/18/2018	---	20.01	---	1.88	unconfined	Static	
AOI 4	S-243	6/18/2018	---	14.52	---	1.22	unconfined	Static	
AOI 4	S-244	6/18/2018	---	18.92	---	3.02	unconfined	Static	
AOI 4	S-245	6/18/2018	---	20.04	---	2.17	unconfined	Static	
AOI 4	S-246	6/18/2018	---	19.17	---	2.39	unconfined	Static	
AOI 4	S-278	6/18/2018	---	19.10	---	1.93	unconfined	Static	
AOI 4	S-279	6/18/2018	23.74	24.60	0.86	2.55	unconfined	Static	
AOI 4	S-282	6/18/2018	19.95	20.04	0.09	0.82	unconfined	Static	
AOI 4	S-329	6/18/2018	---	19.02	---	1.90	unconfined	Static	
AOI 4	S-366	6/18/2018	---	17.29	---	4.97	unconfined	Static	
AOI 4	S-367	6/18/2018	---	18.98	---	-2.96	unconfined	Static	
AOI 4	S-368	6/18/2018	15.69	16.72	1.03	2.21	unconfined	Static	
AOI 4	S-370	6/18/2018	---	10.53	---	1.53	unconfined	Static	
AOI 4	S-371	6/18/2018	---	18.80	---	3.25	unconfined	Static	
AOI 4	S-373	6/18/2018	19.08	19.13	0.05	1.68	unconfined	Static	
AOI 4	S-379	6/18/2018	---	24.30	---	1.35	unconfined	Static	
AOI 4	S-380	6/18/2018	---	19.42	---	1.90	unconfined	Static	
AOI 4	S-381	6/18/2018	---	24.16	---	1.70	unconfined	Static	
AOI 4	S-408	6/18/2018	---	13.84	---	2.04	unconfined	Static	
AOI 4	S-415	6/18/2018	---	17.60	---	1.63	unconfined	Static	
AOI 4	S-416	6/18/2018	---	9.96	---	9.22	unconfined	Static	
AOI 5	A-3	6/22/2018	---	6.28	---	1.96	unconfined	Static	
AOI 5	A-4	6/22/2018	---	4.12	---	1.92	unconfined	Static	
AOI 5	A-5	6/22/2018	NM	NM	NM	NM	unconfined	Static	unable to locate
AOI 5	A-6	6/22/2018	---	2.92	---	3.82	unconfined	Static	
AOI 5	A-7	6/22/2018	4.35	4.64	0.29	2.53	unconfined	Static	
AOI 5	A-9	6/22/2018	NM	NM	NM	NM	unconfined	Static	unable to locate
AOI 5	A-10	6/22/2018	---	3.82	---	4.46	unconfined	Static	
AOI 5	A-11	6/22/2018	---	4.79	---	2.98	unconfined	Static	

Table 2
Second Quarter 2018 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
AOI 5	A-12	6/22/2018	---	5.22	---	2.35	unconfined	Static	
AOI 5	A-15	6/22/2018	---	1.07	---	4.04	unconfined	Static	
AOI 5	A-19D	6/22/2018	---	12.47	---	-1.83	lower aquifer	Static	
AOI 5	A-21	6/22/2018	2.44	2.45	0.01	5.72	unconfined	Static	
AOI 5	A-21D	6/22/2018	---	17.02	---	-5.77	lower aquifer	Static	
AOI 5	A-22	6/22/2018	---	5.80	---	2.15	unconfined	Static	
AOI 5	A-23	6/22/2018	---	3.58	---	2.73	unconfined	Static	
AOI 5	A-24	6/22/2018	---	2.45	---	3.08	unconfined	Static	
AOI 5	A-25	6/22/2018	---	4.67	---	4.13	unconfined	Static	
AOI 5	A-26	6/22/2018	---	5.00	---	3.65	unconfined	Static	
AOI 5	A-27	6/22/2018	---	6.17	---	3.84	unconfined	Static	
AOI 5	A-39	6/22/2018	NM	NM	NM	NM	unconfined	Static	unable to locate
AOI 5	A-40	6/22/2018	---	3.97	---	4.66	unconfined	Static	
AOI 5	A-41	6/22/2018	---	3.90	---	1.73	unconfined	Static	
AOI 5	A-44	6/22/2018	---	7.81	---	2.20	unconfined	Static	
AOI 5	A-45	6/22/2018	---	3.73	---	0.99	unconfined	Static	
AOI 5	A-46	6/22/2018	---	8.92	---	1.90	unconfined	Static	
AOI 5	A-48	6/22/2018	---	4.30	---	2.15	unconfined	Static	
AOI 5	A-49	6/22/2018	---	3.50	---	3.70	unconfined	Static	
AOI 5	A-118	6/22/2018	---	2.55	---	5.75	unconfined	Static	
AOI 5	A-122	6/22/2018	---	4.96	---	2.48	unconfined	Static	
AOI 5	A-133	6/22/2018	---	9.42	---	3.60	unconfined	Static	
AOI 5	A-134	6/22/2018	---	7.58	---	1.56	unconfined	Static	
AOI 5	A-135	6/22/2018	---	7.49	---	3.27	unconfined	Static	
AOI 5	A-136	6/22/2018	---	7.14	---	1.56	unconfined	Static	
AOI 5	A-137	6/22/2018	---	4.23	---	4.40	unconfined	Static	
AOI 5	A-139	6/22/2018	---	4.73	---	4.39	unconfined	Static	
AOI 5	A-142	6/22/2018	---	2.94	---	5.62	unconfined	Static	
AOI 5	A-143	6/22/2018	---	7.32	---	2.18	unconfined	Static	
AOI 5	A-146	6/22/2018	NM	NM	NM	NM	unconfined	Static	unable to locate
AOI 5	A-147	6/22/2018	NM	NM	NM	NM	unconfined	Static	unable to locate
AOI 5	A-148	6/22/2018	---	2.46	---	5.55	unconfined	Static	
AOI 5	A-149	6/22/2018	---	3.35	---	5.14	unconfined	Static	
AOI 5	A-150	6/22/2018	NM	NM	NM	NM	unconfined	Static	well damaged at 3.50 feet
AOI 5	A-151	6/22/2018	---	4.50	---	2.99	unconfined	Static	
AOI 5	A-152	6/22/2018	NM	NM	NM	NM	unconfined	Static	well damaged below grade
AOI 5	A-153	6/22/2018	NM	NM	NM	NM	unconfined	Static	unable to locate
AOI 5	A-154	6/22/2018	NM	NM	NM	NM	unconfined	Static	unable to locate
AOI 5	A-155	6/22/2018	4.94	6.14	1.20	3.30	unconfined	Static	
AOI 5	A-156	6/22/2018	---	4.52	---	4.36	unconfined	Static	
AOI 5	A-157	6/22/2018	---	4.85	---	3.77	unconfined	Static	
AOI 5	A-158	6/22/2018	---	3.70	---	2.44	unconfined	Static	
AOI 5	A-163	6/22/2018	---	6.22	---	4.27	unconfined	Static	
AOI 5	A-164	6/22/2018	---	4.90	---	4.01	unconfined	Static	
AOI 5	A-166	6/22/2018	---	8.11	---	3.17	unconfined	Static	
AOI 5	A-167	6/22/2018	---	4.69	---	4.77	unconfined	Static	
AOI 5	A-168	6/22/2018	---	6.76	---	3.93	unconfined	Static	
AOI 5	A-169	6/22/2018	---	4.64	---	3.98	unconfined	Static	
AOI 5	A-170	6/22/2018	---	2.73	---	1.90	unconfined	Static	
AOI 5	A-171	6/22/2018	---	5.53	---	2.11	unconfined	Static	
AOI 5	A-172	6/22/2018	---	4.51	---	1.81	unconfined	Static	
AOI 5	A-173	6/22/2018	3.53	3.55	0.02	NM	unconfined	Static	
AOI 5	A-175	6/22/2018	---	3.99	---	0.74	unconfined	Static	
AOI 5	A-176	6/22/2018	3.97	4.41	0.44	0.55	unconfined*	Static	viscous LNAPL
AOI 5	A-178	6/22/2018	3.47	3.89	0.42	1.04	unconfined	Static	
AOI 5	A-179	6/22/2018	3.43	5.68	2.25	4.84	unconfined*	Static	
AOI 5	A-181	6/22/2018	NM	NM	NM	NM	unconfined	Static	unable to locate
AOI 5	A-182	6/22/2018	---	4.94	---	1.96	unconfined	Static	
AOI 5	A-183	6/22/2018	3.74	4.40	0.66	4.56	unconfined*	Static	
AOI 5	A-184	6/22/2018	5.20	5.30	0.10	NM	unconfined	Static	
AOI 5	A-186	6/22/2018	---	5.47	---	2.79	unconfined	Static	
AOI 5	A-187	6/22/2018	---	5.90	---	3.50	unconfined	Static	
AOI 5	A-188	6/22/2018	8.00	8.66	0.66	3.41	unconfined	Static	
AOI 5	A-189	6/22/2018	---	5.08	---	3.43	unconfined	Static	
AOI 5	PZ-2	6/22/2018	---	5.29	---	5.59	unconfined*	Static	
AOI 5	PZ-3	6/22/2018	---	7.47	---	3.06	unconfined*	Static	
AOI 5	RW-6S	6/22/2018	---	5.04	---	3.18	unconfined	Static	
AOI 5	RWBH-1	6/22/2018	3.76	3.88	0.12	1.56	unconfined	Static	
AOI 5	RWBH-2	6/22/2018	1.63	4.47	2.84	2.22	unconfined	Static	
AOI 5	SW-1	6/22/2018	7.47	9.67	2.20	2.09	unconfined	Static	
AOI 5	SW-2	6/22/2018	---	7.13	---	2.81	unconfined	Static	
AOI 5	SW-3	6/22/2018	---	7.91	---	2.06	unconfined	Static	

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Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
AOI 5	SW-4	6/22/2018	4.80	4.88	0.08	2.34	unconfined	Static	
AOI 5	SW-5	6/22/2018	5.35	6.85	1.50	5.01	unconfined	Static	
AOI 5	SWR-1	6/22/2018	---	5.25	---	3.03	unconfined*	Static	
AOI 5	SWR-2	6/22/2018	---	7.50	---	2.56	unconfined	Static	
AOI 5	SWR-3	6/22/2018	---	7.27	---	3.34	unconfined	Static	
AOI 5	WP-8	6/22/2018	---	5.28	---	1.71	unconfined	Static	
AOI 5	WP-9	6/22/2018	---	1.17	---	7.40	unconfined	Static	
AOI 5	WP9-8	6/22/2018	5.68	7.02	1.34	3.07	unconfined*	Static	
AOI 5	WP-14	6/22/2018	---	7.16	---	1.96	unconfined	Static	
AOI 5	WP16-3	6/22/2018	---	7.58	---	3.49	unconfined	Static	
AOI 5	WP-A	6/22/2018	5.60	5.63	0.03	4.00	unconfined	Static	viscous LNAPL
AOI 5	WP-B	6/22/2018	6.97	6.98	0.01	3.11	unconfined	Static	
AOI 5	WP-C	6/22/2018	---	4.30	---	2.23	unconfined	Static	
AOI 5	WP-D	6/22/2018	---	5.31	---	2.95	unconfined	Static	
AOI 5	WP-E	6/22/2018	---	4.53	---	2.82	unconfined	Static	
AOI 6	B-39	6/20/2018	NM	NM	NM	NM	NYC	Static	unable to locate
AOI 6	B-43	6/20/2018	---	4.52	---	2.69	NYC	Static	
AOI 6	B-45	6/20/2018	---	0.78	---	4.32	NYC	Static	
AOI 6	B-46	6/20/2018	---	1.29	---	6.74	NYC	Static	
AOI 6	B-47	6/20/2018	2.98	3.42	0.44	5.31	NYC	Static	
AOI 6	B-48	6/20/2018	---	0.50	---	6.00	NYC	Static	
AOI 6	B-48D	6/20/2018	---	10.69	---	-1.27	lower aquifer	Static	
AOI 6	B-92	6/20/2018	5.17	5.61	0.44	4.98	NYC	Static	
AOI 6	B-94	6/20/2018	---	6.64	---	3.71	NYC	Static	
AOI 6	B-95	6/20/2018	---	3.97	---	4.90	NYC	Static	
AOI 6	B-115	6/20/2018	---	3.01	---	4.49	NYC	Static	
AOI 6	B-116	6/20/2018	---	5.23	---	NM	NYC	Static	
AOI 6	B-117	6/20/2018	---	7.52	---	NM	NYC	Static	
AOI 6	B-123	6/20/2018	---	4.70	---	6.06	NYC	Static	
AOI 6	B-124	6/20/2018	4.54	6.87	2.33	3.99	NYC	Static	
AOI 6	B-125	6/20/2018	---	4.68	---	3.83	NYC	Static	
AOI 6	B-126	6/20/2018	---	5.08	---	3.43	NYC	Static	
AOI 6	B-129	6/20/2018	5.00	10.41	5.41	2.29	NYC	Static	
AOI 6	B-130	6/20/2018	5.45	6.46	1.01	4.17	NYC	Static	
AOI 6	B-131	6/20/2018	---	5.25	---	3.47	NYC	Static	
AOI 6	B-132	6/20/2018	4.90	5.14	0.24	1.94	NYC	Static	
AOI 6	B-132D	7/20/2018	---	15.54	---	-5.23	lower aquifer	Static	
AOI 6	B-133	6/20/2018	---	4.90	---	2.43	NYC	Static	
AOI 6	B-133D	6/18/2018	---	10.02	---	-1.42	lower aquifer	Static	
AOI 6	B-134	6/20/2018	4.89	4.92	0.03	1.63	NYC	Static	
AOI 6	B-134D	7/20/2018	---	11.33	---	-3.21	lower aquifer	Static	
AOI 6	B-135	6/20/2018	5.14	5.22	0.08	1.23	NYC	Static	
AOI 6	B-136	6/20/2018	5.43	5.63	0.20	3.69	NYC	Static	
AOI 6	B-137	6/20/2018	4.59	4.81	0.22	4.11	NYC	Static	
AOI 6	B-138	6/20/2018	4.52	4.62	0.10	4.80	NYC	Static	
AOI 6	B-142	6/20/2018	6.98	7.92	0.94	2.63	NYC	Static	
AOI 6	B-143	6/20/2018	5.11	5.93	0.82	3.76	NYC	Static	
AOI 6	B-144	6/20/2018	5.09	5.33	0.24	3.90	NYC	Static	
AOI 6	B-145	6/20/2018	---	5.69	---	4.12	NYC	Static	
AOI 6	B-146	6/20/2018	NM	NM	NM	NM	NYC	Static	unable to locate
AOI 6	B-147	6/20/2018	5.57	6.04	0.47	3.27	NYC	Static	
AOI 6	B-148	6/20/2018	5.70	6.52	0.82	1.42	NYC	Static	
AOI 6	B-149	6/20/2018	3.35	3.93	0.58	4.33	NYC	Static	
AOI 6	B-150	6/20/2018	3.30	6.10	2.80	4.18	NYC	Static	
AOI 6	B-151	6/20/2018	---	3.94	---	3.80	NYC	Static	
AOI 6	B-152	6/20/2018	---	1.40	---	3.64	NYC	Static	
AOI 6	B-153	6/20/2018	---	2.38	---	3.99	NYC	Static	
AOI 6	B-155	6/20/2018	---	4.51	---	4.03	NYC	Static	
AOI 6	B-156	6/20/2018	---	6.56	---	2.30	NYC	Static	
AOI 6	B-157	6/20/2018	---	1.62	---	3.30	NYC	Static	
AOI 6	B-158	6/20/2018	---	2.27	---	5.94	NYC	Static	
AOI 6	B-160	6/20/2018	---	4.06	---	4.47	NYC	Static	
AOI 6	B-161	6/20/2018	4.54	4.63	0.09	3.74	NYC	Static	
AOI 6	B-162	6/20/2018	---	2.50	---	5.09	NYC	Static	
AOI 6	B-163	6/20/2018	---	2.32	---	5.13	NYC	Static	
AOI 6	B-164	6/20/2018	---	5.63	---	3.19	NYC	Static	
AOI 6	B-165	6/20/2018	---	2.97	---	2.82	NYC	Static	
AOI 6	B-166	6/20/2018	NM	NM	NM	NM	NYC	Static	unable to access
AOI 6	B-167	6/20/2018	---	5.61	---	1.12	NYC	Static	
AOI 6	B-168	6/20/2018	---	2.82	---	3.64	NYC	Static	
AOI 6	B-169	6/20/2018	---	1.69	---	4.43	NYC	Static	
AOI 6	B-170	6/20/2018	---	4.28	---	-4.24	NYC	Static	

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AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
AOI 6	B-171	6/20/2018	---	5.75	---	NM	NYC	Static	
AOI 6	B-172	6/20/2018	---	6.73	---	1.28	NYC	Static	
AOI 6	B-173	6/20/2018	---	4.49	---	3.69	NYC	Static	
AOI 6	B-174	6/20/2018	---	3.66	---	4.64	NYC	Static	
AOI 6	B-175	6/20/2018	3.97	7.67	3.70	4.07	NYC	Static	
AOI 6,7	C-134D	7/3/2018	---	10.89	---	-1.49	lower aquifer	Static	
AOI 6	PZ-132A	6/20/2018	NM	NM	NM	NM	NYC	Static	
AOI 6	RW-9	6/20/2018	4.52	5.75	1.23	4.01	NYC	Static	
AOI 6	SUMP-1	6/20/2018	5.50	5.64	0.14	5.18	NYC	Static	
AOI 6	U-2	6/20/2018	---	6.41	---	2.98	NYC	Static	well damaged; crimped at grade
AOI 6	U-3	6/20/2018	5.40	6.10	0.70	4.27	NYC	Static	
AOI 6	U-4	6/20/2018	---	5.54	---	3.68	NYC	Static	
AOI 6	U-5	6/20/2018	---	8.00	---	1.79	NYC	Static	
AOI 6	URS-1	6/20/2018	---	6.43	---	3.59	NYC	Static	
AOI 6	URS-3	6/20/2018	---	3.82	---	3.78	NYC	Static	
AOI 6	URS-4	6/20/2018	---	7.82	---	2.12	NYC	Static	
AOI 6	URS-5	6/20/2018	---	5.15	---	2.79	NYC	Static	
AOI 6	WP9-4	6/20/2018	---	4.87	---	4.17	NYC	Static	
AOI 6	WPM-2	6/20/2018	---	3.68	---	3.79	NYC	Static	
AOI 6	WPM-3	6/20/2018	---	3.25	---	4.78	NYC	Static	
AOI 6	WPM-11	6/20/2018	---	3.59	---	2.92	NYC	Static	
AOI 7	C-49	6/22/2018	---	4.45	---	5.13	NYC	Static	
AOI 7	C-50	6/22/2018	---	7.54	---	5.23	NYC	Static	
AOI 7	C-51	6/22/2018	---	4.96	---	4.30	NYC	Static	
AOI 7	C-52	6/22/2018	---	4.31	---	3.32	NYC	Static	
AOI 7	C-53A	6/22/2018	---	4.37	---	5.10	NYC	Static	
AOI 7	C-54	6/22/2018	---	1.01	---	5.60	NYC	Static	
AOI 7	C-55	6/22/2018	---	5.18	---	4.23	NYC	Static	
AOI 7	C-56	6/22/2018	---	2.53	---	8.19	NYC	Static	
AOI 7	C-57	6/22/2018	---	2.90	---	5.60	NYC	Static	
AOI 7	C-58	6/22/2018	---	1.94	---	5.48	NYC	Static	
AOI 7	C-60	6/22/2018	---	3.70	---	3.74	NYC	Static	
AOI 7	C-61	6/22/2018	---	3.75	---	4.18	NYC	Static	
AOI 7	C-62	6/22/2018	---	4.78	---	6.62	NYC	Static	
AOI 7	C-63	6/22/2018	---	5.41	---	2.00	NYC	Static	
AOI 7	C-64	6/22/2018	8.68	8.69	0.01	-0.54	NYC	Static	
AOI 7	C-65	6/22/2018	6.27	6.65	0.38	4.54	NYC	Static	
AOI 7	C-96	6/22/2018	---	6.24	---	6.64	NYC	Static	
AOI 7	C-97	6/22/2018	14.13	14.45	0.32	-3.64	NYC	Static	
AOI 7	C-98	6/22/2018	---	5.59	---	4.96	NYC	Static	
AOI 7	C-104	6/22/2018	---	6.88	---	2.65	NYC	Static	
AOI 7	C-105	6/22/2018	---	4.06	---	5.11	NYC	Static	
AOI 7	C-106	6/22/2018	NM	NM	NM	NM	NYC	Static	viscous LNAPL
AOI 7	C-108	6/22/2018	---	3.84	---	4.43	NYC	Static	
AOI 7	C-109	6/22/2018	---	4.45	---	5.55	NYC	Static	
AOI 7	C-110	6/22/2018	---	5.83	---	6.75	NYC	Static	
AOI 7	C-111	6/22/2018	---	5.32	---	6.85	NYC	Static	
AOI 7	C-112	6/22/2018	NM	NM	NM	NM	NYC	Static	unable to access
AOI 7	C-113	6/22/2018	---	4.61	---	7.04	NYC	Static	
AOI 7	C-114	6/22/2018	---	4.03	---	6.93	NYC	Static	
AOI 7	C-127	6/22/2018	---	8.38	---	1.42	NYC	Static	
AOI 7	C-129	6/22/2018	---	4.62	---	4.32	NYC	Static	
AOI 7	C-129D	6/22/2018	---	8.97	---	0.22	lower aquifer	Static	
AOI 7	C-130	6/22/2018	---	6.83	---	5.15	NYC	Static	
AOI 7	C-131	6/22/2018	---	3.43	---	6.71	NYC	Static	
AOI 7	C-132	6/22/2018	---	3.70	---	6.27	NYC	Static	
AOI 7	C-133	6/22/2018	---	1.86	---	5.87	NYC	Static	
AOI 7	C-136	6/22/2018	---	4.92	---	3.93	NYC	Static	
AOI 7	C-137	6/22/2018	---	2.10	---	1.81	NYC	Static	
AOI 7	C-138	6/22/2018	---	4.74	---	2.21	NYC	Static	
AOI 7	C-139	6/22/2018	---	2.81	---	4.51	NYC	Static	
AOI 7	C-140	6/22/2018	---	1.26	---	6.29	NYC	Static	
AOI 7	C-142	6/22/2018	---	8.06	---	3.29	NYC	Static	
AOI 7	C-143	6/22/2018	---	10.31	---	-3.86	NYC	Static	
AOI 7	C-144D	6/22/2018	---	12.44	---	-3.48	lower aquifer	Static	
AOI 7	C-145	6/22/2018	---	5.68	---	1.24	NYC	Static	
AOI 7	C-146	6/22/2018	9.95	10.23	0.28	-3.26	NYC	Static	
AOI 7	C-147	6/22/2018	9.74	10.12	0.38	-2.93	NYC	Static	
AOI 7	C-150	6/22/2018	11.52	12.27	0.75	-3.45	NYC	Static	
AOI 7	C-152	6/22/2018	---	8.96	---	0.42	NYC	Static	
AOI 7	C-153	6/22/2018	---	11.89	---	-3.62	NYC	Static	
AOI 7	C-154	6/22/2018	---	11.32	---	-3.43	NYC	Static	

Table 2
Second Quarter 2018 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
AOI 7	C-155	6/22/2018	---	6.32	---	2.85	NYC	Static	
AOI 7	C-156	6/22/2018	---	1.53	---	5.19	NYC	Static	
AOI 7	C-157	6/22/2018	NM	NM	NM	NM	NYC	Static	unable to access
AOI 7	C-159	6/22/2018	NM	NM	NM	NM	NYC	Static	unable to access
AOI 7	C-161	6/22/2018	---	8.98	---	0.09	NYC	Static	
AOI 7	C-162	6/22/2018	---	10.47	---	-1.97	NYC	Static	
AOI 7	C-163	6/22/2018	---	3.39	---	3.49	NYC	Static	
AOI 7	C-164	6/22/2018	---	2.27	---	4.56	NYC	Static	
AOI 7	C-165	6/22/2018	---	4.62	---	3.84	NYC	Static	
AOI 7	C-166	6/22/2018	---	6.79	---	0.20	NYC	Static	
AOI 7	C-167	6/22/2018	10.14	12.15	2.01	-2.61	NYC	Static	
AOI 7	C-169	6/22/2018	7.67	8.75	1.08	-0.84	NYC	Static	
AOI 7	C-171	6/22/2018	---	3.22	---	7.14	NYC	Static	
AOI 7	C-172	6/22/2018	---	3.57	---	2.34	NYC	Static	
AOI 7	C-174	6/22/2018	---	11.35	---	0.14	unconfined	Static	
AOI 7	River4	6/22/2018	---	7.90	---	NM	NYC	Static	at 12:55
AOI 7	RW-801	6/22/2018	---	9.87	---	-3.60	NYC	Static	
AOI 7	RW-802	6/22/2018	---	9.36	---	-3.66	NYC	Static	
AOI 7	RW-803	6/22/2018	---	8.80	---	-3.02	NYC	Static	
AOI 7	RW-804	6/22/2018	9.58	9.98	0.40	-3.85	NYC	Static	
AOI 7	RW-805	6/22/2018	---	9.86	---	-4.11	NYC	Static	
AOI 7	RW-806	6/22/2018	---	8.87	---	-3.46	NYC	Static	
AOI 7	RW-807	6/22/2018	---	9.80	---	-2.96	NYC	Static	
AOI 7	RW-808	6/22/2018	10.13	10.13	<0.01	-4.04	NYC	Static	
AOI 7	RW-809	6/22/2018	8.82	8.95	0.13	-2.29	NYC	Static	
AOI 7	RW-810	6/22/2018	7.88	7.89	0.01	-1.44	NYC	Static	
AOI 7	WP14-2	6/22/2018	9.68	9.68	<0.01	-1.76	NYC	Static	
AOI 8	N-1	6/26/2018	---	10.25	---	12.02	unconfined	Static	
AOI 8	N-2	6/26/2018	---	17.71	---	8.62	unconfined	Static	
AOI 8	N-3	6/26/2018	NM	NM	NM	12.25	NA	Static	corrected elevation from data logger
AOI 8	N-4	6/26/2018	NM	NM	NM	8.92	lower aquifer	Static	corrected elevation from data logger
AOI 8	N-5	6/26/2018	---	8.73	---	17.23	perched aquifer	Static	
AOI 8	N-6	6/26/2018	---	11.34	---	19.71	perched aquifer	Static	
AOI 8	N-8	6/26/2018	---	25.50	---	12.11	unconfined	Static	
AOI 8	N-9	6/27/2018	---	31.82	---	4.08	lower aquifer	Static	
AOI 8	N-10	6/26/2018	---	4.70	---	15.24	perched aquifer	Static	
AOI 8	N-11	6/26/2018	---	17.88	---	11.86	unconfined	Static	bailer stuck in well
AOI 8	N-12	6/26/2018	---	15.48	---	11.71	unconfined	Static	
AOI 8	N-13	6/27/2018	NM	NM	NM	NM	lower aquifer	Static	well destroyed
AOI 8	N-14	6/26/2018	---	20.49	---	11.50	unconfined	Static	
AOI 8	N-15	6/26/2018	---	20.33	---	9.02	unconfined	Static	
AOI 8	N-16	6/26/2018	---	21.16	---	11.82	unconfined	Static	
AOI 8	N-17	6/26/2018	---	22.59	---	11.83	unconfined	Static	
AOI 8	N-18	6/26/2018	---	21.22	---	11.68	unconfined	Static	
AOI 8	N-19	6/27/2018	---	29.00	---	3.78	lower aquifer	Static	
AOI 8	N-20	6/26/2018	---	17.10	---	11.29	unconfined	Static	
AOI 8	N-21	6/27/2018	---	21.89	---	6.12	lower aquifer	Static	
AOI 8	N-24	6/26/2018	---	9.40	---	8.33	unconfined	Static	
AOI 8	N-25	6/26/2018	4.52	4.62	0.10	14.25	perched aquifer	Static	
AOI 8	N-26	6/26/2018	---	8.04	---	12.99	perched aquifer	Static	
AOI 8	N-27	6/27/2018	---	19.41	---	NM	lower aquifer	Static	
AOI 8	N-29	6/27/2018	---	25.23	---	11.21	unconfined	Static	
AOI 8	N-30	6/27/2018	---	32.70	---	3.60	lower aquifer	Static	
AOI 8	N-33	6/27/2018	---	10.22	---	NM	lower aquifer	Static	
AOI 8	N-34	6/27/2018	4.09	4.09	<0.01	6.88	unconfined	Static	
AOI 8	N-35	6/27/2018	NM	NM	NM	NM	unconfined	Static	well destroyed
AOI 8	N-36	6/27/2018	---	5.21	---	6.66	unconfined	Static	
AOI 8	N-37	6/27/2018	---	11.93	---	6.29	lower aquifer	Static	
AOI 8	N-38	6/27/2018	---	6.57	---	3.52	unconfined	Static	
AOI 8	N-38D	6/27/2018	---	9.35	---	1.08	lower aquifer	Static	
AOI 8	N-39	6/27/2018	NM	NM	NM	NM	unconfined	Static	unable to locate
AOI 8	N-40	6/27/2018	NM	NM	NM	NM	unconfined	Static	unable to locate
AOI 8	N-42	6/27/2018	---	7.46	---	7.44	unconfined	Static	
AOI 8	N-45	6/27/2018	NM	NM	NM	NM	unconfined	Static	well destroyed
AOI 8	N-47	6/27/2018	19.07	19.31	0.24	12.82	unconfined	Static	
AOI 8	N-48	6/27/2018	20.81	20.92	0.11	10.43	unconfined	Static	
AOI 8	N-49	6/27/2018	23.75	25.42	1.67	9.78	unconfined	Static	
AOI 8	N-51	6/27/2018	21.90	23.60	1.70	9.78	unconfined	Static	
AOI 8	N-52	6/27/2018	NM	NM	NM	NM	unconfined	Static	well destroyed
AOI 8	N-54	6/27/2018	NM	NM	NM	NM	unconfined	Static	well destroyed
AOI 8	N-55	6/27/2018	---	5.01	---	5.25	unconfined	Static	
AOI 11	N-55D	6/26/2018	---	25.82	---	NM	NYC	Static	

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Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
AOI 8	N-56	6/27/2018	---	7.78	---	5.59	unconfined	Static	
AOI 8	N-57	6/27/2018	---	5.46	---	5.45	unconfined	Static	
AOI 8	N-58	6/27/2018	---	3.94	---	5.29	unconfined	Static	
AOI 8	N-59	6/27/2018	1.65	1.66	0.01	5.30	unconfined	Static	
AOI 8	N-61	6/27/2018	---	3.68	---	5.23	unconfined	Static	
AOI 8	N-64	6/27/2018	---	4.70	---	4.08	unconfined	Static	
AOI 8	N-67	6/26/2018	---	5.06	---	13.17	unconfined	Static	
AOI 8	N-68	6/26/2018	7.13	7.56	0.43	17.06	unconfined	Static	
AOI 8	N-69	6/26/2018	---	14.39	---	8.81	lower aquifer	Static	
AOI 8	N-70	6/27/2018	---	14.12	---	8.05	lower aquifer	Static	
AOI 8	N-72	6/27/2018	---	8.91	---	3.76	unconfined	Static	
AOI 8	N-73	6/27/2018	---	7.10	---	1.80	lower aquifer	Static	
AOI 8	N-74	6/27/2018	5.30	5.52	0.22	2.88	unconfined	Static	
AOI 8	N-75	6/27/2018	---	6.33	---	1.55	lower aquifer	Static	
AOI 8	N-76	6/27/2018	NM	NM	NM	NM	unconfined	Static	well destroyed
AOI 8	N-77	6/26/2018	---	7.11	---	11.50	unconfined	Static	
AOI 8	N-82	6/27/2018	21.75	22.41	0.66	11.68	unconfined	Static	
AOI 8	N-83	6/26/2018	---	14.91	---	6.54	lower aquifer	Static	
AOI 8	N-84	6/26/2018	---	14.38	---	11.50	unconfined	Static	
AOI 8	N-85	6/26/2018	---	13.66	---	11.63	unconfined	Static	
AOI 8	N-86	6/26/2018	---	14.84	---	11.00	unconfined	Static	
AOI 8	N-87	6/26/2018	---	15.09	---	11.17	unconfined	Static	
AOI 8	N-89	6/26/2018	---	13.90	---	9.51	unconfined	Static	
AOI 8	N-91	6/26/2018	---	8.96	---	11.94	perched aquifer	Static	
AOI 8	N-92	6/26/2018	---	7.86	---	13.00	unconfined	Static	
AOI 8	N-93	6/26/2018	---	14.72	---	10.37	unconfined	Static	
AOI 8	N-94	6/26/2018	---	5.88	---	14.48	lower aquifer	Static	
AOI 8	N-97	6/26/2018	---	13.67	---	9.29	unconfined	Static	
AOI 8	N-98	6/26/2018	---	23.03	---	11.50	unconfined	Static	
AOI 8	N-99	6/26/2018	---	18.07	---	10.19	unconfined	Static	
AOI 8	N-100	6/26/2018	---	17.29	---	9.72	unconfined	Static	
AOI 8	N-101	6/26/2018	---	15.55	---	11.60	unconfined	Static	
AOI 8	N-102	6/26/2018	21.65	21.65	<0.01	11.57	unconfined	Static	
AOI 8	N-103	6/26/2018	16.79	16.79	<0.01	12.55	unconfined	Static	
AOI 8	N-104	6/26/2018	---	16.22	---	11.42	unconfined	Static	
AOI 8	N-105	6/26/2018	---	16.88	---	11.23	unconfined	Static	
AOI 8	N-106	6/26/2018	---	9.12	---	13.91	unconfined	Static	
AOI 8	N-107	6/26/2018	14.71	14.83	0.12	11.65	unconfined	Static	
AOI 8	N-108	6/26/2018	10.54	10.60	0.06	11.86	unconfined	Static	
AOI 8	N-109	6/27/2018	---	11.55	---	6.87	lower aquifer	Static	
AOI 8	N-111	6/27/2018	---	6.77	---	3.99	unconfined	Static	
AOI 8	N-112	6/27/2018	9.34	10.93	1.59	6.24	lower aquifer	Static	
AOI 8	N-113	6/27/2018	7.68	10.50	2.82	6.24	unconfined	Static	
AOI 8	N-114	6/27/2018	---	7.92	---	6.45	lower aquifer	Static	
AOI 8	N-115	6/27/2018	---	7.50	---	7.83	unconfined	Static	
AOI 8	N-116	6/27/2018	5.10	6.98	1.88	5.99	unconfined	Static	
AOI 8	N-118	6/26/2018	---	14.15	---	9.03	unconfined	Static	
AOI 8	N-120	6/27/2018	NM	NM	NM	NM	unconfined	Static	unable to locate
AOI 8	N-122	6/27/2018	---	9.61	---	7.44	unconfined	Static	
AOI 8	N-127	6/27/2018	23.70	24.43	0.73	9.66	unconfined	Static	
AOI 8	N-129	6/27/2018	18.46	19.00	0.54	10.38	unconfined	Static	
AOI 8	N-130	6/27/2018	19.97	20.58	0.61	11.50	unconfined	Static	
AOI 8	N-132	6/27/2018	NM	NM	NM	NM	unconfined	Static	well destroyed
AOI 8	N-133	6/27/2018	---	3.67	---	5.69	unconfined	Static	
AOI 8	N-134	6/26/2018	---	16.41	---	11.08	unconfined	Static	
AOI 8	N-137	6/26/2018	16.68	17.02	0.34	8.85	unconfined	Static	reinstalled passive bailer
AOI 8	N-138	6/26/2018	26.35	26.78	0.43	8.86	unconfined	Static	reinstalled passive bailer
AOI 8	N-139	6/26/2018	26.10	26.47	0.37	8.82	unconfined	Static	reinstalled passive bailer
AOI 8	N-140	6/26/2018	---	16.43	---	10.31	unconfined	Static	
AOI 8	N-141	6/26/2018	---	13.28	---	11.11	unconfined	Static	
AOI 8	N-142	6/26/2018	NM	NM	NM	8.89	unconfined	Static	corrected elevation from data logger
AOI 8	N-143	6/26/2018	---	22.06	---	10.96	unconfined	Static	
AOI 8	N-144	6/26/2018	---	25.31	---	8.97	unconfined	Static	
AOI 8	N-145	6/26/2018	NM	NM	NM	8.92	unconfined	Static	corrected elevation from data logger
AOI 8	N-146	6/26/2018	16.61	17.67	1.06	9.60	unconfined	Static	
AOI 8	N-147D	6/27/2018	---	12.19	---	3.03	lower aquifer	Static	
AOI 8	N-148D	7/3/2018	---	28.63	---	3.35	lower aquifer	Static	
AOI 8	N-149D	6/27/2018	---	11.30	---	-1.01	lower aquifer	Static	
AOI 8	N-150	6/27/2018	---	6.22	---	3.98	unconfined	Static	
AOI 8	N-151	6/27/2018	16.41	19.45	3.04	10.95	unconfined	Static	
AOI 8	N-152	6/26/2018	---	9.55	---	11.31	unconfined	Static	
AOI 8	N-153	6/26/2018	NM	NM	NM	8.94	unconfined	Static	corrected elevation from data logger

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AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
AOI 8	N-154	6/26/2018	---	8.82	---	18.71	perched aquifer	Static	
AOI 8	N-155	6/26/2018	---	25.46	---	NM	lower aquifer	Static	
AOI 8	N-156	6/27/2018	---	8.94	---	1.57	unconfined	Static	
AOI 8	N-157	6/26/2018	---	26.77	---	NM	lower aquifer	Static	
AOI 8	N-503	6/27/2018	8.43	9.10	0.67	3.91	unconfined	Static	
AOI 8	N-504	6/27/2018	8.65	8.66	0.01	3.66	unconfined	Static	
AOI 8	PGW-MW-20	7/20/2018	---	5.55	---	9.47	unconfined	Static	
AOI 8	PGW-MW-21	6/27/2018	---	4.34	---	9.73	unconfined	Static	
AOI 8	PGW-MW-5	7/20/2018	---	25.98	---	9.23	unconfined	Static	
AOI 8	PGW-MW-6	7/20/2018	---	4.81	---	4.24	unconfined	Static	
AOI 8	PGW-MW-7	7/20/2018	---	14.82	---	9.36	unconfined	Static	
AOI 8	PGW-MW-8	7/20/2018	---	23.03	---	9.7	unconfined	Static	
AOI 8	PGW-MW-9	7/20/2018	24.66	24.66	<0.01	8.88	unconfined	Static	
AOI 8	PZ-201	6/27/2018	20.96	20.97	0.01	11.32	unconfined	Static	
AOI 8	PZ-202	6/27/2018	21.97	22.15	0.18	11.40	unconfined	Static	
AOI 8	PZ-203	6/27/2018	---	19.52	---	14.59	unconfined	Static	
AOI 8	PZ-204	6/27/2018	19.56	20.77	1.21	9.20	unconfined	Static	
AOI 8	PZ-300	6/26/2018	---	15.31	---	11.46	unconfined	Static	
AOI 8	PZ-500	6/27/2018	---	2.23	---	5.32	unconfined	Static	
AOI 8	PZ-501	6/27/2018	---	3.84	---	5.16	unconfined	Static	
AOI 8	PZ-502	6/27/2018	2.51	4.08	1.57	5.28	unconfined	Static	
AOI 8	PZ-503	6/27/2018	---	3.47	---	5.22	unconfined	Static	
AOI 8	PZ-504	6/27/2018	---	2.48	---	5.15	unconfined	Static	
AOI 8	PZ-505	6/27/2018	---	3.26	---	5.20	unconfined	Static	
AOI 8	PZ-507	6/27/2018	---	8.49	---	4.19	unconfined	Static	
AOI 8	River2	6/27/2018	---	6.90	---	NM	NYC	Static	at 11:00
AOI 8	RW-200	6/27/2018	---	5.60	---	6.42	unconfined	Static	
AOI 8	RW-201	6/27/2018	22.37	22.42	0.05	9.61	unconfined	Static	
AOI 8	RW-202	6/27/2018	---	19.76	---	9.75	unconfined	Static	
AOI 8	RW-203	6/27/2018	21.90	21.92	0.02	9.20	unconfined	Static	
AOI 8	RW-204	6/27/2018	18.43	18.65	0.22	10.12	unconfined	Static	
AOI 8	RW-205	6/27/2018	18.14	19.81	1.67	11.38	unconfined	Static	
AOI 8	RW-206	6/27/2018	20.16	22.13	1.97	10.56	unconfined	Static	
AOI 8	RW-300	6/26/2018	14.35	14.52	0.17	7.26	lower aquifer	Static	
AOI 8	RW-301	6/26/2018	---	11.72	---	10.69	unconfined	Static	
AOI 8	RW-302	6/26/2018	---	12.93	---	11.16	unconfined	Static	
AOI 8	RW-303	6/26/2018	---	13.65	---	11.33	unconfined	Static	
AOI 8	RW-304	6/26/2018	---	14.57	---	10.71	unconfined	Static	
AOI 8	RW-305	6/26/2018	---	14.58	---	10.69	unconfined	Static	
AOI 8	RW-306	6/26/2018	---	12.70	---	10.88	unconfined	Static	
AOI 8	RW-307	6/26/2018	---	14.46	---	8.80	unconfined	Static	
AOI 8	RW-308	6/26/2018	---	16.47	---	9.14	unconfined	Static	
AOI 8	RW-309	6/26/2018	---	15.36	---	9.87	unconfined	Static	
AOI 8	RW-500	6/27/2018	---	2.30	---	5.26	unconfined	Static	
AOI 8	RW-501	6/27/2018	---	4.93	---	4.86	unconfined	Static	
AOI 8	RW-502	6/27/2018	8.47	8.85	0.38	3.97	unconfined	Static	
AOI 9	MW-1SRTF	6/21/2018	1.90	4.83	2.93	5.02	NYC	Static	
AOI 9	MW-2SRTF	6/21/2018	2.49	3.60	1.11	4.62	NYC	Static	
AOI 9	MW-3SRTF	6/21/2018	1.85	3.47	1.62	4.88	NYC	Static	
AOI 9	RW-A	6/21/2018	---	2.97	---	-4.84	NYC	Static	
AOI 9	RW-B	6/21/2018	2.25	4.20	1.95	4.72	NYC	Static	
AOI 9	RW-B5	6/21/2018	3.02	3.70	0.68	4.67	NYC	Static	
AOI 9	S-27SRTF	6/21/2018	NM	NM	NM	NM	NYC	Static	unable to locate
AOI 9	S-74D1SRTF	6/21/2018	---	21.03	---	-8.29	lower aquifer	Static	
AOI 9	S-74D2SRTF	6/21/2018	---	16.05	---	-2.97	NYC	Static	
AOI 9	S-74I SRTF	7/3/2018	---	21.05	---	NM	NYC	Static	
AOI 9	S-74SRTF	6/21/2018	---	7.97	---	6.57	NYC	Static	
AOI 9	S-75SRTF	6/21/2018	---	7.70	---	3.83	NYC	Static	
AOI 9	S-76D	6/21/2018	---	16.71	---	NM	NYC	Static	
AOI 9	S-76DSRTF	6/21/2018	---	16.71	---	-8.16	lower aquifer	Static	
AOI 9	S-76SRTF	6/21/2018	---	5.68	---	1.25	NYC	Static	
AOI 9	S-77SRTF	6/21/2018	---	12.05	---	-7.70	NYC	Static	
AOI 9	S-78SRTF	6/21/2018	---	9.79	---	-8.29	NYC	Static	
AOI 9	S-79SRTF	6/21/2018	---	8.10	---	-6.26	NYC	Static	
AOI 9	S-80SRTF	6/21/2018	---	4.11	---	-1.54	NYC	Static	
AOI 9	S-81SRTF	6/21/2018	---	9.63	---	-8.17	NYC	Static	
AOI 9	S-82SRTF	6/21/2018	---	1.50	---	-0.39	NYC	Static	
AOI 9	S-83SRTF	6/21/2018	---	3.88	---	-1.50	NYC	Static	
AOI 9	S-105SRTF	6/21/2018	---	5.54	---	-3.59	NYC	Static	
AOI 9	S-106DSRTF	6/21/2018	---	18.38	---	-8.92	lower aquifer	Static	
AOI 9	S-106SRTF	6/21/2018	---	5.42	---	4.60	NYC	Static	
AOI 9	S-108SRTF	6/21/2018	---	4.81	---	-0.50	NYC	Static	

Table 2
Second Quarter 2018 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
AOI 9	S-109SRTF	6/21/2018	---	2.73	---	-0.38	NYC	Static	
AOI 9	S-110DSRTF	6/21/2018	---	10.77	---	-8.10	lower aquifer	Static	
AOI 9	S-110SRTF	6/21/2018	NM	NM	NM	NM	NYC	Static	dry at 8.64 feet
AOI 9	S-111SRTF	6/21/2018	8.61	8.80	0.19	-7.87	NYC	Static	
AOI 9	S-112SRTF	6/21/2018	9.89	10.00	0.11	-8.39	NYC	Static	
AOI 9	S-113SRTF	6/21/2018	---	11.40	---	-8.38	NYC	Static	
AOI 9	S-114SRTF	6/21/2018	---	10.60	---	-8.44	NYC	Static	
AOI 9	S-115DSRTF	6/21/2018	---	10.98	---	-8.28	lower aquifer	Static	
AOI 9	S-115SRTF	6/21/2018	---	11.37	---	-8.62	NYC	Static	
AOI 9	S-116SRTF	6/21/2018	---	9.59	---	-8.72	NYC	Static	
AOI 9	S-117SRTF	6/21/2018	---	8.22	---	-5.35	NYC	Static	
AOI 9	S-118DSRTF	6/21/2018	---	12.01	---	-8.75	lower aquifer	Static	
AOI 9	S-118SRTF	6/21/2018	---	11.67	---	-8.04	NYC	Static	
AOI 9	S-119SRTF	6/21/2018	---	3.60	---	-1.25	NYC	Static	
AOI 9	S-120DSRTF	6/21/2018	---	21.23	---	-8.86	NYC	Static	
AOI 9	S-120SRTF	6/21/2018	---	8.76	---	3.31	NYC	Static	
AOI 9	S-121SRTF	6/21/2018	---	7.73	---	-6.72	NYC	Static	
AOI 9	S-122SRTF	6/21/2018	8.95	8.98	0.03	-6.54	NYC	Static	
AOI 9	S-123SRTF	6/21/2018	NM	NM	NM	NM	NYC	Static	dry at 9.90 feet
AOI 9	S-124SRTF	6/21/2018	---	6.57	---	1.31	NYC	Static	
AOI 9	S-125SRTF	6/21/2018	---	4.92	---	2.26	NYC	Static	
AOI 9	S-126SRTF	6/21/2018	---	5.32	---	6.51	NYC	Static	
AOI 9	S-127SRTF	6/21/2018	---	7.73	---	4.40	NYC	Static	
AOI 9	S-128SRTF	6/21/2018	---	9.54	---	3.77	NYC	Static	
AOI 9	S-129SRTF	6/21/2018	NM	NM	NM	NM	NYC	Static	unable to access
AOI 9	S-130SRTF	6/21/2018	---	7.71	---	2.83	perched aquifer	Static	
AOI 9	S-131SRTF	6/21/2018	---	4.55	---	4.26	NYC	Static	
AOI 9	S-132SRTF	6/21/2018	---	6.97	---	1.73	NYC	Static	
AOI 9	S-133SRTF	6/21/2018	---	3.67	---	1.01	NYC	Static	
AOI 9	S-134SRTF	6/21/2018	---	7.76	---	2.42	NYC	Static	
AOI 9	S-135SRTF	6/21/2018	---	10.56	---	-7.58	NYC	Static	
AOI 9	S-136SRTF	6/21/2018	NM	NM	NM	NM	NYC	Static	unable to locate
AOI 9	S-137SRTF	6/21/2018	---	19.15	---	-9.19	unconfined	Static	
AOI 9	S-138SRTF	6/21/2018	---	18.41	---	-8.42	lower aquifer	Static	
AOI 9	S-139SRTF	6/21/2018	---	17.83	---	-7.78	unconfined	Static	
AOI 9	S-140SRTF	6/21/2018	---	5.33	---	5.14	unconfined	Static	
AOI 9	S-141SRTF	6/21/2018	---	20.12	---	-9.66	unconfined	Static	
AOI 9	S-142SRTF	6/21/2018	---	16.88	---	-9.94	NYC	Static	
AOI 9	S-143SRTF	6/21/2018	---	15.95	---	-9.18	lower aquifer	Static	
AOI 9	S-144SRTF	6/21/2018	---	8.45	---	-7.93	unconfined	Static	
AOI 9	S-740 SRTF	7/3/2018	NM	NM	NM	NM	NYC	Static	
AOI 9	WPA-1	6/21/2018	---	6.51	---	-3.78	NYC	Static	
AOI 9	WPA-2	6/21/2018	---	7.82	---	-5.13	NYC	Static	
AOI 9	WPA-3	6/21/2018	NM	NM	NM	NM	NYC	Static	dry at 7.30 feet
AOI 9	WPA-5	6/21/2018	NM	NM	NM	NM	NYC	Static	dry at 7.35 feet
AOI 9	WPB-2	6/21/2018	6.79	6.79	<0.01	4.52	NYC	Static	
AOI 9	WPB-3	6/21/2018	2.34	3.32	0.98	4.62	NYC	Static	
AOI 9	WPB-4	6/21/2018	NM	NM	NM	NM	NYC	Static	obstruction at 2.00 feet
AOI 9	WPB-5	6/21/2018	3.02	3.55	0.53	9.18	NYC	Static	
AOI 10	W-1	7/3/2018	---	6.47	---	3.13	NYC	Static	
AOI 10	W-1D	7/3/2018	---	11.55	---	-0.82	lower aquifer	Static	
AOI 10	W-2	7/3/2018	---	15.37	---	4.08	NYC	Static	
AOI 10	W-5	7/3/2018	---	3.54	---	4.19	NYC	Static	
AOI 10	W-6	7/3/2018	---	1.12	---	6.37	NYC	Static	well was a stickup but now is a flush mount
AOI 10	W-8	7/3/2018	4.31	4.37	0.06	4.13	NYC	Static	
AOI 10	W-9	7/3/2018	---	10.02	---	-0.73	lower aquifer	Static	
AOI 10	W-10	7/3/2018	4.58	4.58	<0.01	2.99	NYC	Static	
AOI 10	W-11	7/3/2018	---	5.33	---	2.73	NYC	Static	
AOI 10	W-12	7/3/2018	---	4.00	---	3.10	NYC	Static	
AOI 10	W-13	7/3/2018	---	8.22	---	-1.57	lower aquifer	Static	
AOI 10	W-14	7/3/2018	---	3.81	---	3.45	NYC	Static	
AOI 10	W-15	7/3/2018	---	4.02	---	4.76	NYC	Static	
AOI 10	W-16	7/3/2018	---	2.95	---	3.69	NYC	Static	
AOI 10	W-17	7/3/2018	---	3.92	---	3.30	NYC	Static	
AOI 10	W-19	7/3/2018	---	11.35	---	-1.29	lower aquifer	Static	
AOI 10	W-20	7/3/2018	---	4.39	---	5.72	NYC	Static	
AOI 10	W-22	7/3/2018	---	1.91	---	4.53	NYC	Static	

Table 2
Second Quarter 2018 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
AOI 10	W-23	7/3/2018	---	2.87	---	4.68	NYC	Static	
AOI 10	W-24	7/3/2018	NM	NM	NM	NM	NYC	Static	area around well is flooded; no access
AOI 10	W-25	7/3/2018	---	6.28	---	3.87	NYC	Static	
AOI 10	W-26	7/3/2018	---	12.07	---	-2.09	lower aquifer	Static	
AOI 10	W-27	7/3/2018	---	9.93	---	0.93	lower aquifer	Static	
AOI 10	W-28	7/3/2018	---	4.17	---	4.44	NYC	Static	
AOI 10	W-29	7/3/2018	---	7.60	---	4.22	NYC	Static	
AOI 10	W-30	7/3/2018	---	4.35	---	4.30	NYC	Static	
AOI 10	W-31	7/3/2018	4.81	4.82	0.01	3.46	NYC	Static	
AOI 10	W-32	7/3/2018	10.15	10.34	0.19	4.67	NYC	Static	
AOI 10	W-32D	7/3/2018	---	15.36	---	-0.66	lower aquifer	Static	
AOI 10	W-33	7/3/2018	---	12.07	---	5.00	NYC	Static	
AOI 10	W-34	7/3/2018	---	8.68	---	5.46	NYC	Static	
BELMONT	MW-26	6/18/2018	21.80	22.86	1.06	4.71	NYC	Static	
BELMONT	MW-27	6/18/2018	23.96	24.34	0.38	4.61	NYC	Static	
BELMONT	MW-28	6/18/2018	24.20	24.63	0.43	4.49	unconfined	Static	
BELMONT	MW-29	6/18/2018	24.01	26.29	2.28	4.48	NYC	Static	
BELMONT	MW-30	6/18/2018	---	24.45	---	7.25	unconfined	Static	
BELMONT	MW-31	6/18/2018	---	25.08	---	5.48	unconfined	Static	
BELMONT	MW-32	6/18/2018	---	24.89	---	4.25	unconfined	Static	
BELMONT	MW-33	6/18/2018	---	25.16	---	4.83	unconfined	Static	
BELMONT	MW-35	6/18/2018	---	26.64	---	4.01	unconfined	Static	
BELMONT	MW-36	6/18/2018	---	27.55	---	5.02	unconfined	Static	
BELMONT	MW-37	6/18/2018	---	26.68	---	5.24	unconfined	Static	
BELMONT	MW-38	6/18/2018	---	22.92	---	4.70	unconfined	Static	
BELMONT	MW-39	6/18/2018	---	22.83	---	4.72	unconfined	Static	
BELMONT	MW-40	6/18/2018	23.10	23.36	0.26	4.73	NYC	Static	
BELMONT	MW-41	6/18/2018	22.57	22.57	<0.01	4.79	unconfined	Static	
BELMONT	MW-43	6/18/2018	NM	NM	NM	NM	unconfined	Static	
BELMONT	MW-44	6/18/2018	---	25.43	---	3.87	unconfined	Static	
BELMONT	OW-2	6/18/2018	---	26.60	---	5.07	unconfined	Static	
BELMONT	OW-12	6/18/2018	---	25.26	---	4.96	unconfined	Static	
BELMONT	OW-13	6/18/2018	---	27.22	---	4.98	unconfined	Static	
BELMONT	OW-14	6/18/2018	---	27.38	---	4.83	unconfined	Static	
BELMONT	OW-16	6/18/2018	26.40	26.40	<0.01	4.99	unconfined	Static	
BELMONT	OW-17	6/18/2018	---	25.68	---	4.31	unconfined	Static	
BELMONT	OW-18	6/18/2018	---	26.13	---	4.71	unconfined	Static	
BELMONT	OW-19	6/18/2018	---	25.71	---	5.29	unconfined	Static	
BELMONT	OW-20	6/18/2018	---	26.83	---	5.04	unconfined	Static	
BELMONT	PZ-400	6/18/2018	---	23.36	---	4.74	unconfined	Static	
BELMONT	RW-1	6/18/2018	NM	NM	NM	NM	unconfined	Static	unable to access
BELMONT	RW-4	6/18/2018	25.65	25.65	<0.01	4.81	NYC	Static	
BELMONT	RW-6	6/18/2018	---	26.17	---	4.89	unconfined	Static	
BELMONT	RW-7	6/18/2018	NM	NM	NM	NM	unconfined	Static	
BELMONT	RW-15	6/18/2018	---	26.42	---	3.63	unconfined	Static	
BELMONT	RW-21	6/18/2018	24.26	24.26	<0.01	4.61	unconfined	Static	
BELMONT	RW-22	6/18/2018	---	22.13	---	4.90	unconfined	Static	
BELMONT	RW-23	6/18/2018	22.18	22.28	0.10	4.93	NYC	Static	
BELMONT	RW-24	6/18/2018	22.39	22.51	0.12	4.75	unconfined	Static	
BELMONT	RW-25	6/18/2018	25.20	25.20	<0.01	4.96	NYC	Static	
BELMONT	RW-26	6/18/2018	---	24.53	---	4.68	unconfined	Static	
BELMONT	RW-27	6/18/2018	---	25.87	---	3.84	unconfined	Static	
BELMONT	RW-28	6/18/2018	---	25.10	---	4.64	unconfined	Static	
BELMONT	RW-29	6/18/2018	---	25.57	---	3.87	unconfined	Static	
BELMONT	RW-30	6/18/2018	---	25.45	---	3.94	unconfined	Static	
BELMONT	RW-31	6/18/2018	---	25.48	---	3.90	unconfined	Static	
BELMONT	RW-32	6/18/2018	---	21.78	---	7.27	unconfined	Static	
BELMONT	RW-400	6/18/2018	---	23.45	---	4.74	unconfined	Static	
BELMONT	S-74	6/18/2018	---	25.38	---	4.66	unconfined	Static	
BELMONT	S-75	6/18/2018	26.47	26.52	0.05	4.75	unconfined	Static	
BELMONT	S-76	6/18/2018	26.33	27.00	0.67	4.57	NYC	Static	
BELMONT	S-330	6/18/2018	---	25.42	---	4.43	unconfined	Static	
BELMONT	S-331	6/18/2018	---	26.24	---	5.04	unconfined	Static	
BELMONT	S-332	7/3/2018	---	26.01	---	4.24	unconfined	Static	
BELMONT	S-393D	6/18/2018	---	28.96	---	3.10	lower aquifer	Static	
BELMONT	S-394	6/18/2018	---	29.16	---	2.96	lower aquifer	Static	
BELMONT	S-395	6/18/2018	---	27.10	---	5.12	unconfined	Static	
BELMONT	TW-3	6/18/2018	---	27.14	---	4.97	unconfined	Static	

Table 2
Second Quarter 2018 Gauging Data
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

AOI	Well ID	Date	Depth to LNAPL (feet btoc)	Depth to Water (feet btoc)	Apparent LNAPL Thickness (feet)	Corrected Groundwater Elevation (ft NAVD 88)	Well Classification	Static or Pumping	Comments
BELMONT	TW-5	6/18/2018	---	26.87	---	5.20	unconfined	Static	
BELMONT	TW-9	6/18/2018	---	27.26	---	4.84	unconfined	Static	
BELMONT	TW-10	6/18/2018	NM	NM	NM	NM	NYC	Static	unable to access
BELMONT	TW-11	6/18/2018	---	27.69	---	4.71	unconfined	Static	
PGW	PGW-MW-30	6/27/2018	NM	NM	NM	NM	unconfined	Static	unable to access
PGW	PGW-MW-42D	6/27/2018	---	30.23	---	3.46	lower aquifer	Static	
PGW	PGW-MW-44	6/27/2018	---	20.17	---	13.12	unconfined	Static	
PGW	PGW-MW-45	6/27/2018	22.12	22.12	<0.01	12.63	unconfined	Static	

Notes:
2nd Quarter 2018 gauging was performed under static conditions.
For product thickness <0.01 ft, the corrected groundwater elevation was calculated using 0.01 foot.
LNAPL = Light non-aqueous phase liquid
ft = Feet
toc = Top of casing
ft btoc = Feet below top of casing
NAVD 88 = North American Vertical Datum of 1988
--- = LNAPL not present
NM = Field reading not measured and/or corrected groundwater elevation not calculated due to lack of surveyed reference elevation or well was dry or presence of down-well pump.
NA = Not Accessible, Not Applicable, or Not Available
NYC = Not yet classified
unconfined* = Hydrostratigraphic unit was assumed because there was no well construction data available.

Table 3
June 2018 Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Type	Sample Date	BENZENE µg/L	TOLUENE µg/L	ETHYLBENZENE µg/L	XYLENES, TOTAL (DIMETHYLBENZENE) µg/L	METHYL TERTIARY BUTYL ETHER µg/L	TERT-BUTYL ALCOHOL µg/L	ISOPROPYLBENZENE (CUMENE) µg/L	NAPHTHALENE µg/L	1,2,4-TRIMETHYLBENZENE µg/L	1,3,5-TRIMETHYLBENZENE µg/L	1,2-DICHLOROETHANE (EDC) µg/L	1,2-DIBROMOETHANE (EDB) µg/L	CHRYSENE µg/L	FLUORENE µg/L	PHENANTHRENE µg/L	PYRENE µg/L	ANTHRACENE µg/L	BENZO(A)ANTHRACENE µg/L	BENZO(A)PYRENE µg/L	BENZO(B)FLUORANTHENE µg/L	BENZO(G,H,I)PERYLENE µg/L	LEAD, Dissolved µg/L
AOI 1	ARCO-1		25-Jun-18	327	21.6	7.81	27.6	ND (1.00)	-	54.7	3.47	ND (1.00)	2.69	ND (1.00)	ND (0.0100)	ND (0.100)	1.67	1.46	ND (0.100)	0.160	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (2.00)
	ARCO-1D		25-Jun-18	276	1.22	ND (1.00)	ND (3.00)	30.4	-	1.61	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	ARCO-2		25-Jun-18	301	36.9	66.7	58.2	ND (1.00)	-	60.5	10.6	ND (1.00)	3.82	ND (1.00)	ND (0.0101)	ND (0.0500)	2.10	1.56	ND (0.0500)	0.143	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	ARCO-3		26-Jun-18	2,080	108	46.0	122	ND (1.00)	-	68.0	1.23	11.0	14.8	ND (1.00)	ND (0.0101)	ND (0.0500)	1.61	0.827	ND (0.0500)	0.153	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-41		21-Jun-18	ND (1.00)	1.48	ND (1.00)	ND (3.00)	ND (1.00)	-	106	1.38	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	2.49	0.314	0.0519	0.178	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-42I		19-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	13.5	ND (5.00)	ND (1.00)	-	ND (1.00)	ND (1.00)	1.01	ND (0.0100) HT	-	-	-	-	-	-	-	-	-	-
	S-44		22-Jun-18	231	11.2	4.34	16.6	94.3	-	51.3	0.794	ND (1.00)	1.64	ND (1.00)	ND (0.0100)	ND (0.0500)	2.08	1.42	ND (0.0500)	0.0841	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-47I		19-Jun-18	ND (1.00)	2.26	ND (1.00)	3.39	19.3	743	49.5	-	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100) HT	-	-	-	-	-	-	-	-	-	-
	S-50		26-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.0590	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-87I		19-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	937	229,000	ND (1.00)	-	ND (1.00)	ND (1.00)	10.5	ND (0.0100) HT	-	-	-	-	-	-	-	-	-	-
	S-230		26-Jun-18	3,380	4.24	18.0	12.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	S-271		28-Jun-18	86.7	ND (50.0)	ND (50.0)	ND (150)	ND (50.0)	1,010	74.2	-	ND (50.0)	ND (50.0)	ND (50.0)	ND (0.0100) HT	-	-	-	-	-	-	-	-	-	-
		HydraSleeve	28-Jun-18	67.1	ND (50.0)	ND (50.0)	ND (150)	ND (50.0)	1,160	ND (50.0)	-	ND (50.0)	ND (50.0)	ND (50.0)	ND (0.0100) HT	-	-	-	-	-	-	-	-	-	-
	S-273		22-Jun-18	9.88	2.57	2.49	16.6	91.8	1,320	54.1	-	18.6	9.79	ND (1.00)	ND (0.0100)	-	-	-	-	-	-	-	-	-	-
	S-276		29-Jun-18	6,040 SL	ND (200) SL	373 SL	1,500 SL	ND (200) SL	ND (1,000) SL	ND (200) SL	-	454 SL	243 SL	ND (200) SL	ND (0.0100) HT SL	-	-	-	-	-	-	-	-	-	-
	S-277		29-Jun-18	4,020 SL	1,050 SL	139 SL	2,910 SL	4,320 SL	120,000 SL	ND (50.0) SL	-	614 SL	323 SL	ND (50.0) SL	ND (0.0100) HT SL	-	-	-	-	-	-	-	-	-	-
	S-396		28-Jun-18	4,650	1.01	20.3	22.1	2,120	72,800	14.9	-	4.19	ND (1.00)	ND (1.00)	ND (0.0100) HT	-	-	-	-	-	-	-	-	-	-
		HydraSleeve	28-Jun-18	5,200	1.13	23.9	25.0	2,290	75,400	20.1	-	5.32	ND (1.00)	ND (1.00)	ND (0.0100) HT	-	-	-	-	-	-	-	-	-	-
	S-397		21-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	7.78	ND (5.00)	ND (1.00)	-	ND (1.00)	ND (1.00)	ND (1.00)	0.0122 HT	-	-	-	-	-	-	-	-	-	-
	S-398		26-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	24.7	ND (1.00)	-	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100) HT	-	-	-	-	-	-	-	-	-	-
	S-399		19-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	22.9	2,620	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.119	0.234	ND (0.0500)	0.0654	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-418		28-Jun-18	30,200	131	249	273	64.7	1,480	83.3	-	149	67.1	ND (10.0)	ND (0.0100) HT	-	-	-	-	-	-	-	-	-	-
		HydraSleeve	28-Jun-18	7,620	ND (50.0)	282	502	195	3,070	50.5	-	519	124	ND (50.0)	ND (0.0100) HT	-	-	-	-	-	-	-	-	-	-
AOI 2	RW-108		22-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	1.42	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-154		28-Jun-18	1.30	ND (1.00)	ND (1.00)	ND (3.00)	11.7	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.457	0.145	ND (0.0500)	0.106	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		HydraSleeve	28-Jun-18	1.35	ND (1.00)	ND (1.00)	ND (3.00)	12.4	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.367	0.0809	ND (0.0500)	0.0807	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-249		22-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0101)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-351		25-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	1.87	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.161	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-354		22-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-423		3-Jul-18	ND (1.00) SL	1.60 SL	ND (1.00) SL	ND (3.00) SL	34.4 SL	-	64.5 SL	1.23 SL	1.07 SL	ND (1.00) SL	ND (1.00) SL	ND (0.0100) SL	0.155 SL	4.60 SL	3.90 SL	0.161 SL	0.206 SL	0.0797 SL	ND (0.0500) SL	ND (0.0500) SL	ND (0.0500) SL	ND (2.00) SL
AOI 3	S-3		25-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-25		26-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	2.09	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		Field Duplicate	26-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	2.09	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-280		25-Jun-18	37,200	ND (50.0)	ND (50.0)	ND (150)	ND (50.0)	-	ND (50.0)	ND (0.258)	ND (50.0)	ND (50.0)	ND (50.0)	ND (0.0102)	ND (0.0515)	ND (0.0515)	ND (0.0515)	ND (0.0515)	ND (0.0515)	ND (0.0515)	ND (0.0515)	ND (0.0515)	ND (0.0515)	ND (2.00)
		Field Duplicate	25-Jun-18	39,900	ND (50.0)	ND (50.0)	ND (150)	ND (50.0)	-	ND (50.0)	ND (0.250)	ND (50.0)	ND (50.0)	ND (50.0)	ND (0.0100)	ND (0.0500)	ND (0.0500)	0.106	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	0.0563	ND (2.00)
	S-382		29-Jun-18	478,000 SL	75,700 SL	ND (1,000) SL	ND (3,000) SL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Field Duplicate	29-Jun-18	515,000 SL	70,700 SL	ND (500) SL	ND (1,500) SL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	S-411		27-Jun-18	3.14	ND (1.00)	ND (1.00)	ND (3.00)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	S-414		2-Jul-18	255,000 SL	39,400 SL	ND (500) SL	ND (1,500) SL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		HydraSleeve	2-Jul-18	249,000 SL	54,400 SL	ND (1,000) SL	ND (3,000) SL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AOI 4	RW-701		29-Jun-18	4,570 SL	2,120 SL	554 SL	3,580 SL	ND (200) SL	ND (1,000) HT SL	ND (200) SL	271 SL	615 SL	201 SL	ND (200) SL	ND (0.0100) SL	0.149 SL	48.7 SL	126 SL	6.99 SL	30.6 SL	0.0935 SL	ND (0.0515) SL	ND (0.0515) SL	ND (0.0515) SL	ND (2.00) SL
		HydraSleeve	29-Jun-18	4,250 SL	1,380 SL	489 SL	3,160 SL	ND (200) SL	ND (1,000) HT SL	ND (200) SL	12.7 SL	515 SL	ND (200) SL	ND (200) SL	ND (0.0100) SL	ND (0.100) SL	0.372 SL	0.560 SL	0.169 SL	ND (0.100) SL	ND (0.100) SL	ND (0.100) SL	ND (0.100) SL	ND (0.100) SL	ND (2.00) SL
	RW-715		26-Jun-18	47.8	3.06	2.23	4.08	1.58	-	1.81	1.45	1.53	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-38		26-Jun-18	72.3	45.4	30.9	30.4	ND (1.00)	-	4.68	6.48	7.22	3.46	ND (1.00)	ND (0.0101)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-39D		28-Jun-18	-	-	-	-	55.1	ND (5.00)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		HydraSleeve	28-Jun-18	-	-	-	-	28.2	ND (5.00)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	S-218D		28-Jun-18	-	-	-	-	48.6	ND (5.00)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		HydraSleeve	28-Jun-18	-	-	-	-	50.6	ND (5.00)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	S-223		27-Jun-18	1,830	136	739	1,740	ND (1.00)	-	25.5	56.6	822	241	ND (1.00)	ND (0.0100)	ND (0.0500)	0.701	ND (0.0500)	ND (0.0500)	0.0826	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		Field Duplicate	27-Jun-18	1,850	145	764	1,790	ND (1.00)	-	27.1	78.1	807	245	ND (1.00)	ND (0.0100)	ND (0.0500)	0.707	0.0986	ND (0.0500)	0.0799	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-369		27-Jun-18	1,460	54.5	13.3	33.2	62.3	-	72.8	3.13	ND (1.00)	3.73	ND (1.00)	ND (0.0100)	ND (0.0500)	2.08	1.26	0.0772	0.236	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-380		26-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	0.0625	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
AOI 5	A-47		27-Jun-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (2.00)
	A-133		27-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (2.50)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	6.55	1.43	ND (0.500)	9.83	ND (0.500)	2.49	2.38	1.50	2.14	ND (2.00)
	A-134		27-Jun-18	10.7	6.26	ND (1.00)	11.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	A-137		27-Jun-18	ND (1.00)	1.97	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	0.663	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.231	0.629	0.226	0.123	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	A-139		6-Jul-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64.9
		HydraSleeve	6-Jul-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57.7
	WP-14		27-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.724	0.767	0.245	0.109	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
AOI 6	B-43		27-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	2.35	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	0.326	ND (0.0500)	ND (0.0500)	1.52	ND (0.0500)	0.327	0.253	0.311	0.160	ND (2.00)
	B-150		5-Jul-18	436,000 SL	55,600 SL	ND (1,000) SL	ND (3,000) SL	ND (1,000) SL	-	10,600 SL	175 SL	ND (1,000) SL	ND (1,000) SL	ND (1,000) SL	ND (0.0100) SL	6.60 SL	23.7 SL	44.5 SL	13.6 SL	7.75 SL	6.31 SL	4.43 SL	5.53 SL	2.34 SL	ND (2.00) SL
	URS-5		29-Jun-18	3,260	6,140	664	3,050	ND (1.00)	-	27.3	355	212	64.9	ND (1.00)	ND (0.0100)	0.110	24.3	38.7	3.21	6.50	0.174	ND (0.0500)	0.0716	ND (0.0500)	ND (2.00)
		HydraSleeve	29-Jun-18	3,430	2,570	539	2,360	ND (100)	-	ND (100)	414	186	ND (100)	ND (100)	ND (0.0100)	0.107	21.3	41.7	3.54	6.63	0.168	ND (0.0500)	0.0571	ND (0.0500)	ND (2.00)
		Field Duplicate	29-Jun-18	3,980	4,960	613	2,770	ND (25.0)	-	25.4	359	219	65.0	ND (25.0)	ND (0.0100)	0.108	23.0	40.6	3.46	6.82	0.180	ND (0.0500)	0.0693	ND (0.0500)	ND (2.00)

See notes on last page.

Table 3
June 2018 Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Type	Sample Date	BENZENE µg/L	TOLUENE µg/L	ETHYLBENZENE µg/L	XYLENES, TOTAL (DIMETHYLBENZENE) µg/L	METHYL TERTIARY BUTYL ETHER µg/L	TERT-BUTYL ALCOHOL µg/L	ISOPROPYLBENZENE (CUMENE) µg/L	NAPHTHALENE µg/L	1,2,4-TRIMETHYLBENZENE µg/L	1,3,5-TRIMETHYLBENZENE µg/L	1,2-DICHLOROETHANE (EDC) µg/L	1,2-DIBROMOETHANE (EDB) µg/L	CHRYSENE µg/L	FLUORENE µg/L	PHENANTHRENE µg/L	PYRENE µg/L	ANTHRACENE µg/L	BENZO(A)ANTHRACENE µg/L	BENZO(A)PYRENE µg/L	BENZO(B)FLUORANTHENE µg/L	BENZO(G,H,I)PERYLENE µg/L	LEAD, Dissolved µg/L
AOI 7	C-62		26-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	6.58	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.515	0.344	0.0542	0.113	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	C-104		26-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	0.103	3.39	0.285	1.56	0.480	0.0909	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	C-127		26-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	4.11	-	1.37	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	0.0880	3.14	ND (0.0500)	1.07	0.456	0.0591	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	C-129		26-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	C-146		23-Jul-18	ND (1.00) SL	ND (1.00) SL	ND (1.00) SL	ND (3.00) SL	ND (1.00) SL	-	61.6 SL	19.1 SL	3.87 SL	ND (1.00) SL	ND (1.00) SL	ND (0.0100) SL	21.0 SL	38.9 SL	96.2 SL	54.4 SL	23.8 SL	19.3 SL	11.8 SL	15.7 SL	5.64 SL	ND (2.00) SL
	C-168		3-Jul-18	730	36.6	10.3	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AOI 8	N-1		29-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	N-2		29-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.526	0.115	0.509	0.218	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	N-3		29-Jun-18	6.75	9.30	3.36	8.84	ND (1.00)	-	4.42	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	N-8		29-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	1.98	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	N-33		6-Jul-18	2.35	1.20	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	0.241	0.250	0.192	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		HydraSleeve	6-Jul-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	0.145	0.123	0.138	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	N-37		27-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	N-57		13-Jul-18	ND (1.00)	ND (1.00)	ND (1.00)	36.4	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	0.0684	ND (0.0500)	0.201	ND (0.0500)	0.0903	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	N-75		29-Jun-18	9.62	ND (1.00)	ND (1.00)	ND (3.00)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		HydraSleeve	29-Jun-18	20.4	ND (1.00)	ND (1.00)	ND (3.00)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-82		13-Jul-18	13,000 SL	4,320 SL	4,550 SL	3,570 SL	ND (50.0) SL	-	153 SL	9,820 SL	612 SL	176 SL	ND (50.0) SL	ND (0.0100) SL	0.787 SL	43.3 SL	35.9 SL	3.72 SL	6.51 SL	0.765 SL	ND (0.500) SL	0.505 SL	ND (0.500) SL	ND (2.00) SL
	N-85		2-Jul-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	11.3	0.327	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0101)	ND (0.0500)	0.537	0.283	ND (0.0500)	0.0890	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	N-98		29-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	N-99		29-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	N-111		2-Jul-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	4.85	0.278	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	3.65	ND (0.0500)	0.367	0.370	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	N-112		6-Jul-18	ND (1.00) SL	ND (1.00) SL	ND (1.00) SL	ND (3.00) SL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-133		29-Jun-18	11,500	5.41	17.4	35.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		HydraSleeve	29-Jun-18	11,000	5.43	18.4	38.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-138		6-Jul-18	353 SL	126 SL	109 SL	401 SL	ND (10.0) SL	-	50.4 SL	16.7 SL	46.5 SL	196 SL	ND (10.0) SL	ND (0.0100) SL	0.329 SL	2.19 SL	3.84 SL	1.42 SL	0.925 SL	0.295 SL	0.149 SL	0.183 SL	0.0969 SL	ND (2.00) SL
	N-142		5-Jul-18	124	40.3	12.7	60.0	ND (1.00)	-	22.1	20.6	17.0	78.1	1.91	ND (0.0100)	ND (0.525)	1.35	1.81	1.46	1.14	ND (0.525)	ND (0.525)	ND (0.525)	ND (0.525)	ND (2.00)
	N-156		3-Jul-18	5.26	ND (1.00)	1.05	6.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-157		2-Jul-18	262	64.0	28.2	79.6	2.68	-	15.6	35.0	1.17 B	29.7	ND (1.00)	ND (0.0100)	ND (0.0500)	0.258	0.110	ND (0.0500)	0.0732	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		HydraSleeve	2-Jul-18	383	86.4	37.0	106	4.69	-	19.3	63.3	1.55 B	39.0	1.04	ND (0.0100)	ND (0.0500)	0.358	0.137	ND (0.0500)	0.0711	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	PGW-MW-21	HydraSleeve	5-Jul-18	106	14.8	200	160	ND (1.00)	-	39.7	604	65.5	22.4	ND (1.00)	ND (0.0100)	0.752	106	85.7	6.80	16.6	1.03	0.854	0.906	0.522	ND (2.00)
			5-Jul-18	77.5	8.66	11.2	103	ND (1.00)	-	2.05	ND (5.00)	49.0	19.3	ND (1.00)	ND (0.0100)	4.00	95.9	15.0	13.7	19.5	4.63	4.66	5.01	2.89	ND (2.00)
	RW-502		6-Jul-18	ND (1.00) SL	ND (1.00) SL	ND (1.00) SL	ND (3.00) SL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AOI 9	S-110DSRTF		3-Jul-18	4.23	1.73	ND (1.00)	ND (3.00)	33.5	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	3.94	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		HydraSleeve	3-Jul-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	31.6	30.1	ND (1.00)	-	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100) HT	-	-	-	-	-	-	-	-	-	-
	S-112SRTF		3-Jul-18	170 SL	119 SL	301 SL	1,590 SL	ND (50.0) SL	-	56.4 SL	86.6 SL	674 SL	238 SL	ND (50.0) SL	ND (0.0100) SL	ND (0.0500) SL	4.30 SL	3.69 SL	0.211 SL	0.301 SL	ND (0.0500) SL	ND (0.0500) SL	ND (0.0500) SL	ND (0.0500) SL	ND (2.00) SL
	S-113SRTF		28-Jun-18	145	ND (10.0)	ND (10.0)	ND (30.0)	ND (10.0)	-	19.1	1.39	ND (10.0)	ND (10.0)	ND (10.0)	ND (0.0100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (2.00)
	S-114SRTF		28-Jun-18	241	703	131	1,810	15.7	-	22.5	97.0	532	184	ND (10.0)	ND (0.0100)	ND (0.100)	0.432	0.292	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (2.00)
	S-115DSRTF		5-Jul-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	36.2	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		HydraSleeve	5-Jul-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	18.3	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-115SRTF		28-Jun-18	1,030	118	144	157	ND (50.0)	-	131	25.2	ND (50.0)	ND (50.0)	ND (50.0)	ND (0.0100)	ND (0.100)	0.378	0.195	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	3.84
	S-116SRTF		28-Jun-18	48.3	ND (10.0)	ND (10.0)	ND (30.0)	16.1	-	53.6	0.729	ND (10.0)	ND (10.0)	ND (10.0)	ND (0.0100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (2.00)
	S-118DSRTF		5-Jul-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	134	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		HydraSleeve	5-Jul-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-137SRTF		3-Jul-18	5.23	1.98	ND (1.00)	ND (3.00)	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	0.233	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-139SRTF		2-Jul-18	47.8	21.8	ND (1.00)	3.05	21.2	-	ND (1.00)	0.762	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	1.50	0.458	0.274	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-142SRTF		3-Jul-18	2.45	1.15	ND (1.00)	ND (3.00)	150	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-143SRTF		21-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	172	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		HydraSleeve	21-Jun-18	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	149	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
AOI 9,11	S-120DSRTF		5-Jul-18	1.31	ND (1.00)	ND (1.00)	ND (3.00)	44.4	-	6.82	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.0579	0.220	ND (0.0500)	0.110	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)

Notes:

15.2	Concentration was detected.
ND (0.5)	Analyte was not detected at a concentration greater than the laboratory reporting limit.
B	Indicates the analyte is detected in the associated blank as well as in the sample.
HT	Sample(s) received past/too close to holding time expiration
ND	Not Detected
SL	Sample was collected below LNAPL
µg/L	Micrograms per liter
-	Not analyzed

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 1	S-41	19-Oct-04			70	5.5	ND (1.8)	ND (3.2)	75.5	490	-	63	ND (3.6)	-	-	ND (1.5)	ND (0.0020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (5.0)
		13-Nov-09			3	3	3	1 J	10	56	-	120	ND (1)	ND (0.5)	0.7 J	ND (0.5)	ND (0.0098)	ND (0.057)	-	1.9	ND (0.095)	-	-	-	-	-	0.22 J
		11-Nov-10			14	3	2	3	22	23	-	41	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (1)	2 J	1 J	ND (1)	-	-	-	-	-	0.20 J
		22-Nov-11			4	2	3	1	10	25	-	110	ND (0.95)	0.5 J	0.5 J	ND (0.5)	ND (0.0097)	ND (0.076)	5.8	1.4	ND (0.095)	-	-	-	-	-	0.22 J
		19-Jul-12			19	3	1 J	3	26	13	-	35	ND (0.09)	ND (1)	ND (1)	ND (1)	ND (0.0097)	ND (0.09)	2	0.8	ND (0.09)	0.1 J	ND (0.09)	ND (0.09)	ND (0.09)	ND (0.09)	0.22 J
		2-Apr-13			1.3 J	1.1 J	3.1	0.65 J	6.15	17.4	-	101	ND (0.10)	ND (4.0)	ND (4.0)	ND (2.0)	ND (0.020)	ND (0.10)	1.79	1.33	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (1)
		23-May-14			2.2	1.5	1.1	2.6	7.4	9.6	-	47.7	ND (0.10)	ND (2.0)	0.36 J	ND (1.0) J	ND (0.020)	ND (0.10)	1.45	0.868	ND (0.10)	0.117	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		8-Dec-14			0.93	2.1	1.6	1.3	5.93	6.5	-	91.0	ND (0.10)	ND (2.0)	0.23 J	ND (1.0)	ND (0.020)	ND (0.10)	2.21	1.77	ND (0.10)	0.192	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	2.2 J
		18-May-15			6	2	0.9 J	3	11.9	5	-	20	1	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.1)	2	1	ND (0.1)	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.50 J
		10-May-16			ND (5)	ND (5)	ND (5)	ND (5)	ND	6	-	28	2	ND (10)	ND (10)	ND (5)	ND (0.029)	ND (0.5)	2	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)
		16-May-17			ND (3)	ND (3)	ND (3)	ND (3)	ND	4 J	-	70	0.8	ND (3)	ND (3)	ND (3)	ND (0.0095)	ND (0.1)	0.7	0.3 J	ND (0.1)	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.15 J
		21-Jun-18			ND (1.00)	1.48	ND (1.00)	ND (3.00)	1.48	ND (1.00)	-	106	1.38	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	2.49	0.314	0.0519	0.178	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-43	1-Jan-93	DM		12,000	190	1,300	1,000	14,490	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-94	DM		17,000	1,700	250 J	1,680	20,630	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	ND (10)	ND (10)	ND (10)	-	-
		28-Dec-95			12,000	1,200	170	860	14,230	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-96	DM		2,100	110	120	110	2,440	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		19-Nov-97			13,000	210	1,200	1,000	15,410	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		12-Nov-98			6,700	94 J	720	470	7,984	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		2-Dec-99			3,600	ND (100)	ND (100)	250	3,850	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		16-Nov-00			990	ND (100)	ND (100)	ND (200)	990	ND (100)	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		14-Nov-01			6,100	ND (500)	ND (500)	ND (1,000)	6,100	ND (500)	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		12-Nov-02			5,500	170	790	460	6,920	-	-	-	-	-	-	-	-	ND (15)	-	-	-	-	ND (13)	ND (10)	ND (14)	-	-
		13-Nov-03			3,600	130	836	489	5,055	18.8	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-	-
		19-Oct-04			720	31	150	90	991	ND (4.4)	-	39	50	-	-	11	ND (0.020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (5.0)
		30-Nov-06			890	32	48	34	1,004	7.0	-	13	9.0	-	-	ND (1.0)	ND (0.0099)	1.0 J	ND (1.0)	2.0 J	3.0 J	-	-	-	-	-	0.2 J
		5-Dec-07			15	1.0	3.0	3.0	22	-	-	2.0 J	1.0 J	-	-	ND (0.5)	ND (0.0096)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.40 J
		7-Nov-08			140	15	30	20	205	4	-	32	6	8	5	ND (0.5)	ND (0.0098)	ND (1)	-	ND (1)	ND (1)	-	-	-	-	-	7.7
		17-Nov-09			860	59	200	210	1,329	6	-	40	61	140	71	ND (0.5)	ND (0.0098)	0.19	-	0.64	0.44	-	-	-	-	-	0.37 J
		11-Nov-10			850	91	410	340	1,691	9	-	76	110	210	93	ND (1)	ND (0.0096)	ND (10)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	0.29 J
		22-Nov-11			29	3	19	16	67	ND (0.5)	-	4	16	11	2 J	ND (0.5)	ND (0.0099)	0.95	2.2	1.9	1.1	-	-	-	-	-	2.6
		19-Jul-12			260	36	190	110	596	3	-	30	51	75	38	ND (0.5)	ND (0.0097)	0.4 J	1	1	0.5	0.1 J	0.3 J	0.3 J	0.5 J	0.2 J	8.7
		2-Apr-13			371	52.7	222	78.9	724.6	2.7	-	31.7	28.2	74.5	44.5	ND (2.5)	ND (0.020)	ND (0.10)	0.668	0.330	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (1)
		27-May-14			44.3	7.4	13.7	9.5	74.9	4.5	-	55.4	1.66	2.9	1.8 J	ND (1.0)	ND (0.020)	ND (0.10)	1.14	0.370	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	1.5 J
		12-Dec-14			36.6	15.2	33.0	20.9	105.7	4.4	-	69.2	7.52	6.6	5.2	ND (1.0)	ND (0.020)	ND (0.10)	3.27	1.56	0.122	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		18-May-15			50	21	52	34	157	5	-	68	29	19	14	ND (0.5)	ND (0.0097)	0.4 J	5	5	0.6	0.2 J	0.3 J	0.3 J	0.5 J	0.3 J	0.11 J
		10-May-16			11	7	3	7	28	5	-	56	1	ND (2)	ND (2)	ND (1)	ND (0.029)	ND (0.5)	4	2	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 1	S-44	18-Oct-04			1,700	37	16	28	1,722	19	-	51	ND (10)	-	-	ND (5.0)	0.058	ND (0.16)	ND (11)	ND (11)	ND (11)	-	-	-	-	-	ND (5.0)
		18-Nov-09			1,100	27	7	38	1,172	270	-	17	ND (1)	0.8 J	4	ND (0.5)	ND (0.0097)	ND (40)	-	2.5	ND (0.099)	-	-	-	-	-	0.14 J
		11-Nov-10			660	20	10	20	710	260	-	30	ND (1)	ND (5)	ND (5)	ND (5)	ND (0.0096)	ND (1)	2 J	1 J	ND (1)	-	-	-	-	-	0.25 J
		21-Nov-11			850	20	14	24	908	180	-	38	ND (1.1)	ND (5)	6 J	ND (5)	ND (0.0096)	ND (0.089)	3.4	0.95	ND (0.11)	-	-	-	-	-	0.17 J
		20-Jul-12			590	13	5	12	620	180	-	23	1	ND (3)	ND (3)	ND (3)	ND (0.0096)	0.2 J	3	2	0.3 J	0.3 J	ND (0.09)	ND (0.09)	ND (0.09)	ND (0.09)	0.38 J
		3-Apr-13			450	14.3	7.8	16.5	488.6	146	-	53.3	ND (0.10)	37.1	1.8 J	ND (4.0)	ND (0.020)	ND (0.10)	1.33	0.611	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (1)
		27-May-14			575	22.5	9.1	28.6	635.2	144	-	44.8	ND (0.10)	0.68 J	2.4	ND (1.0)	ND (0.020)	ND (0.10)	1.18	0.687	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		15-Dec-14			260	11.6	3.6	17.2	292.4	134	-	23.0	ND (0.10)	0.45 J	2.3	ND (1.0)	ND (0.020)	ND (0.10)	1.47	0.956	ND (0.10)	ND (0.10)	ND (0.10) J	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		18-May-15			340	16	5	20	381	110	-	34	3	0.6 J	2	ND (0.5)	ND (0.0097)	0.2 J	4	4	0.3 J	0.6	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.26 J
		11-May-16			310	14	ND (5)	19	343	120	-	14	1	ND (10)	ND (10)	ND (5)	ND (0.029)	ND (0.5)	2	0.6	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)
		11-May-16		Field Duplicate	310	14	ND (5)	17	341	120	-	14	1	ND (10)	ND (10)	ND (5)	ND (0.029)	ND (0.5)	2	0.7	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)
		16-May-17			130	7	3 J	7	147	78	-	27	ND (0.1)	ND (3)	23	ND (3)	ND (0.0095)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.19 J
		22-Jun-18			231	11.2	4.34	16.6	263.14	94.3	-	51.3	0.794	ND (1.00)	1.64	ND (1.00)	ND (0.0100)	ND (0.0500)	2.08	1.42	ND (0.0500)	0.0841	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-50	1-Jan-85	DM		23,000	ND	5,400	23,000	51,400	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-86	DM		24,000	ND	2,300	1,520	27,820	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-88	DM		24,000	ND	ND	ND	24,000	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-94	DM		290	20 J	160 J	40 J	510	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	ND (10)	ND (10)	ND (10)	-	-
		28-Dec-95			17,000	1,600	98 J	3,000	21,698	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-96	DM		14	ND (0.3)	ND (0.4)	ND (0.6)	14	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		19-Nov-97			21,000	210	1,300	2,200	24,710	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		12-Nov-98			18,000	57 J	570	980	19,607	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		2-Dec-99			28,000	ND (1,000)	ND (1,000)	ND (2,000)	28,000	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		16-Nov-00			47,000	ND (100)	240	370	47,610	590	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		27-Nov-01			53,000	1,400	9	1,300	55,709	5,200	-	-	-	-	-	-	-	ND (2)	-	-	-	-	ND (2)	ND (2)	ND (3)	-	-
		30-Nov-06			42,000	94 J	720	630	43,444	99 J	-	ND (50)	170 J	-	-	ND (50)	ND (0.0098)	ND (1.0)	1.0 J	1.0 J	ND (1.0)	-	-	-	-	-	0.15 J
		4-Dec-07			31,000	86	420	370	31,876	-	-	35 J	93 J	-	-	ND (25)	ND (0.0098)	ND (1.0)	ND (1.0)	1.0 J	ND (1.0)	-	-	-	-	-	0.14 J
		10-Nov-08			16,000	160	400	1,400	17,960	390	-	36 J	110 J	260	90 J	ND (25)	ND (0.0096)	ND (1)	-	1 J	ND (1)	-	-	-	-	-	0.073 J
		19-Nov-09			4,700	10	75	22	4,807	45	-	10 J	37 J	42	17 J	ND (5)	ND (0.0097)	0.18 J	-	0.66	ND (0.098)	-	-	-	-	-	ND (0.050)
		11-Nov-10			7,600	12	34	11	7,657	39	-	7 J	13	8 J	5 J	ND (5)	ND (0.0097)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	0.083 J
		21-Nov-11			190	1	1	0.5 J	192.5	1	-	2	3.7	ND (0.5)	0.5 J	ND (0.5)	ND (0.0097)	ND (0.076)	0.20 J	0.083 J	ND (0.095)	-	-	-	-	-	ND (0.080)
		24-Jul-12			130	2	ND (0.5)	2	134	ND (0.5)	-	2 J	1	1 J	0.9 J	ND (0.5)	ND (0.0098)	ND (0.09)	0.2 J	0.3 J	ND (0.09)	ND (0.09)	ND (0.09)	ND (0.09)	ND (0.09)	ND (0.09)	ND (0.034)
		3-Apr-13			0.46 J	ND (1.0)	ND (1.0)	0.29 J	0.75	ND (1.0)	-	ND (2.0)	ND (0.11)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	0.090 J
		20-May-14			509	2.2 J	13.5	1.2 J	525.9	ND (5.0)	-	4.2 J	2.46	1.2 J	3.1 J	ND (5.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		15-Dec-14			2,390	9.8	19.7	ND (5.0)	2,419.5	5.7	-	6.1	4.53	ND (10)	3.9 J	ND (5.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10) J	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		18-May-15			2,000	8	34	ND (3)	2,042	3 J	-	9 J	16	ND (3)	5 J	ND (3)	ND (0.0097)	ND (0.1)	0.1 J	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.092 J
		10-May-16			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (2)	ND (0.5)	ND (2)	ND (2)	ND (1)	ND (0.029)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)
		16-May-17			5	ND (0.5)	ND (0.5)	ND (0.5)	5	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		26-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.0590	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE µg/L	TOLUENE µg/L	ETHYLBENZENE µg/L	XYLENES, TOTAL (DIMETHYLBENZENE) µg/L	TOTAL BTEX µg/L	METHYL TERTIARY BUTYL ETHER µg/L	TERT-BUTYL ALCOHOL µg/L	ISOPROPYLBENZENE (CUMENE) µg/L	NAPHTHALENE µg/L	1,2,4-TRIMETHYLBENZENE µg/L	1,3,5-TRIMETHYLBENZENE µg/L	1,2-DICHLOROETHANE (EDC) µg/L	1,2-DIBROMOETHANE (EDB) µg/L	CHRYSENE µg/L	FLUORENE µg/L	PHENANTHRENE µg/L	PYRENE µg/L	ANTHRACENE µg/L	BENZO(A)ANTHRACENE µg/L	BENZO(A)PYRENE µg/L	BENZO(B)FLUORANTHENE µg/L	BENZO(G,H,I)PERYLENE µg/L	LEAD µg/L
AOI 1	S-51	19-Apr-05			590	ND (100)	ND (100)	190	780	1,900	-	ND (100)	15	-	-	ND (100)	ND (0.029)	ND (10)	ND (10)	10	ND (10)	-	-	-	-	-	ND (1)
		5-Dec-07			120	10	5.0 J	9.0	144.0	-	-	60	ND (5.0)	-	-	ND (3.0)	0.034	ND (10)	22 J	24 J	ND (10)	-	-	-	-	-	0.32 J
		10-Nov-08			5,000	32	160	38	5,230	41	-	14 J	22 J	14 J	14 J	ND (5)	ND (0.0096)	ND (0.9)	-	ND (0.9)	ND (0.9)	-	-	-	-	-	ND (0.050)
		17-Nov-09			250	8	5	5	268	120	-	61	1 J	5	7	ND (0.5)	ND (0.0097)	13	-	39	ND (60)	-	-	-	-	-	0.93 J
		11-Nov-10			140	5	3	3	151	51	-	55	1 J	ND (0.5)	0.6 J	ND (0.5)	ND (0.0098)	ND (1)	3 J	2 J	ND (1)	-	-	-	-	-	0.98 J
		23-Nov-11			12	ND (0.5)	ND (0.5)	ND (0.5)	12	ND (0.5)	-	ND (0.5)	ND (0.96)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	0.52	0.19 J	0.55	0.71	-	-	-	-	-	0.41 J
		2-Apr-13			4.1	3.3	1.4 J	4.4	13.2	33.6	-	74.7	ND (0.10)	ND (5.0)	ND (5.0)	ND (2.5)	ND (0.020)	ND (0.10)	2.50	1.47	0.176	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (1)
		23-May-14			9.9	2.6 J	ND (5.0)	2.3 J	14.8	36.0	-	62.5	ND (0.10)	ND (10)	ND (10)	ND (5.0) J	ND (0.020)	ND (0.10)	1.51	0.775	0.212	ND (0.10)	ND (0.10)	ND (0.10)	0.130	ND (0.10)	ND (3.0)
		12-Dec-14			13.9	2.7	2.6	4.1	23.3	20.7	-	51.4	ND (0.10)	0.26 J	ND (2.0)	ND (1.0)	ND (0.020)	0.210	1.62	1.10	0.395	0.183	0.203	0.155	0.185	0.121	1.8 J
		19-May-15			5	3	1	4	13	39	-	79	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.1)	3	1	ND (0.1)	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.099 J
		10-May-16			ND (5)	ND (5)	ND (5)	ND (5)	ND	32	-	28	0.6	ND (10)	ND (10)	ND (5)	ND (0.029)	ND (0.5)	2	1	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)
	S-52	19-Oct-04			57	5.3	ND (5.0)	ND (10)	62.3	960	-	30	34	-	-	ND (5.0)	ND (0.020)	ND (0.16)	ND (11)	ND (11)	ND (11)	-	-	-	-	-	ND (5.0)
		19-Apr-05			230	ND (50)	ND (50)	ND (50)	230	1,200	-	ND (50)	ND (10)	-	-	ND (50)	ND (0.029)	ND (10)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (1)
		7-Nov-05			72	ND (10)	ND (10)	11	83	1,390	-	33	ND (10)	-	-	ND (10)	ND (0.02)	ND (0.01)	1.5	0.8	0.2	-	-	-	-	-	ND (10)
		25-Jul-12			1 J	2	ND (1)	ND (1)	3	420	-	12	ND (0.1)	ND (1)	ND (1)	ND (1)	ND (0.0098)	ND (0.1)	2	0.1 J	0.2 J	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.43 J
		3-Apr-13			1.3	1.5	0.24 J	0.72 J	3.76	316	-	15.4	ND (0.11)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.11)	0.697	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	0.39 J
		20-May-14			ND (2.5)	ND (5.0)	ND (2.5)	ND (5.0)	ND	194	-	15.8	ND (0.10)	ND (10)	ND (10)	ND (5.0)	ND (0.020)	ND (0.10)	1.06	0.123	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		9-Dec-14			0.26 J	0.40 J	ND (1.0)	0.30 J	0.96	133	-	7.3	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	1.09	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	1.6 J
	S-82	8-Nov-05			19,900 D	91	248	850	21,089	3,100 D	-	-	205	-	-	489	ND (0.02)	0.4	13.4	17	1.9	-	0.7	ND (0.3)	0.3	ND (0.3)	-
	S-88	5-Dec-06			22.0	6.0	5.0	1.0 J	34	81.0	-	24.0	ND (1.0)	-	-	ND (1.0)	ND (0.0099)	3.0 J	8.0	10.0	10.0	-	-	-	-	-	1.3
		14-Dec-07			5.0	2.0	1.0	ND (0.5)	8.0	-	-	13	ND (1.0)	-	-	ND (0.5)	ND (0.0095)	5.0 J	2.0 J	3.0 J	6.0	-	-	-	-	-	1.1
		7-Nov-08			29	8	2	3	42	70	-	29	ND (1)	ND (0.5)	0.5 J	ND (0.5)	ND (0.0097)	6	-	11	7	3 J	3 J	2 J	3 J	2 J	3.1
		24-Feb-09			30	8	4	27	42	69	-	27	ND (1)	13	9	ND (0.5)	ND (0.0096)	ND (9.0)	5.3	11	ND (16)	3.7	2.3	2.2	3.4	ND (6.0)	2.1
		26-Jun-09			29	11	4	6	50	92	-	48	ND (1)	0.8 J	1 J	ND (0.5)	ND (0.010)	0.40	4.4	5.1	ND (0.90)	1.2	0.25	0.20	0.20	0.40	2.1
		8-Sep-09			35	24	6	28	93	77	-	42	7	7	7	ND (0.5)	ND (0.0099)	ND (1)	3 J	3 J	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	1.8
		20-Nov-09			12	4	3	3	22	47	-	16	ND (2)	2 J	2 J	ND (1)	ND (0.0097)	1.8 J	3.1 J	3.2	1.6 J	0.98 J	0.45	0.89	1.3	1.9 J	1.5
		8-Mar-10			17	8	2	4	31	100	-	29	ND (1)	0.5 J	1 J	ND (0.5)	ND (0.0097)	2.5	2.7 J	2.4	1.8 J	0.70 J	0.54	0.83	1.7	ND (2.3)	17.9
		5-May-10			8	3	ND (1)	1 J	12	170	-	15	ND (2)	ND (1)	ND (1)	ND (1)	ND (0.018)	360	160	240	350	83	90	160	250	330	2,060
		22-Jul-10			19	8	2	6	35	100	-	38	ND (1)	0.9 J	0.8 J	ND (0.5)	ND (0.0097)	ND (9.7)	9.2	11	13	3.8	ND (2.8)	4.3	9.1	ND (20)	0.98 J
		19-Jul-12			11	4	0.8 J	4	19.8	340	-	27	ND (0.09)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.5	3	2	0.8	0.7	0.2 J	0.2 J	0.3 J	0.1 J	42.6
		28-May-14			15.1	7.1	ND (5.0)	4.4 J	26.6	186	-	42.1	ND (0.10)	ND (10)	ND (10)	ND (5.0)	ND (0.020)	4.06	4.71	4.39	3.77	1.36	2.37	2.00	2.29	1.00	ND (3.0)
		12-Dec-14			11.8	5.1	1.1	4.1	22.1	422	-	34.6	ND (0.10)	0.28 J	ND (2.0)	ND (1.0)	ND (0.020)	0.164	2.13	1.73	0.350	0.366	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	2.7 J

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 1	S-99	12-Oct-04			150	25	6.2	25	206.2	ND (5.0)	-	72	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (5.0)
		6-Nov-08			46	14	ND (3)	14	74	36	-	30	ND (5)	ND (3)	ND (3)	ND (3)	ND (0.0098)	ND (1)	-	4 J	1 J	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	1.6
		23-Feb-09			55	20	4	20	99	19	-	65	ND (1)	ND (0.5)	1 J	ND (0.5)	ND (0.0097)	ND (0.15)	5.4	3.7	ND (0.095)	0.69	0.062	0.072	0.076	ND (0.15)	1.2
		29-Jun-09			34	31	7	31	103	25	-	99	ND (1)	ND (0.5)	2 J	ND (0.5)	ND (0.017)	-	-	-	-	-	-	-	-	-	1.4
		9-Sep-09			24	22	5	26	77	19	-	87	ND (2)	ND (1)	2 J	ND (1)	ND (0.0099)	ND (1)	3 J	4 J	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	1.5
		20-Nov-09			22	25	6 J	26	79	21	-	90	ND (10)	ND (5)	ND (5)	ND (5)	ND (0.0097)	ND (0.057)	5.0	3.3	0.18 J	0.69	0.030 J	0.024 J	0.017 J	ND (0.057)	1.5
		9-Mar-10			22	16	4	18	60	8	-	60	ND (1)	ND (0.5)	1 J	ND (0.5)	ND (0.0097)	ND (0.57)	4.7	3.8	ND (0.95)	ND (0.72)	0.15 J	0.14 J	0.22 J	ND (0.57)	1.2
		6-May-10			30	23	5 J	27	85	8 J	-	82	ND (10)	ND (5)	ND (5)	ND (5)	ND (0.018)	0.092 J	4.4	3.8	0.41	0.72	0.054	0.033 J	0.042	ND (0.057)	1.4
		21-Jul-10			17	22	5	33	77	10	-	89	ND (1)	0.7 J	2 J	ND (0.5)	ND (0.0098)	0.17 J	4.6	4.1	0.50	0.87	0.097	0.066	0.089	ND (0.057)	1.4
		10-Jul-12			5	22	5	28	60	5	-	77	1	1 J	2 J	ND (0.5)	ND (0.0097)	0.3 J	3	4	0.9	0.9	0.2 J	0.1 J	0.2 J	ND (0.1)	1.9
		3-Jun-14			1.9	21.8	4.9	31.5	60.1	3.2	-	77.2	ND (0.10)	0.83 J	1.5 J	ND (1.0)	ND (0.020)	ND (0.10)	1.78	1.48	0.281	0.378	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	2.9 J
		9-Dec-14			4.0	28.0	4.9	28.4	65.3	2.6	-	77.6	ND (0.10)	0.72 J	1.2 J	ND (2.0)	ND (0.020)	0.155	1.89	1.75 B	0.370 B	0.352	0.136 B	ND (0.10)	0.136	ND (0.10)	2.1 J
	S-101	12-Oct-04			1,100	7.5	16	68	1,191.5	ND (5.0)	-	13	74	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (5.0)
		6-Nov-08			85	16	6	23	130	0.5 J	-	38	2 J	3	2 J	ND (0.5)	ND (0.010)	ND (10)	-	37 J	15 J	11 J	ND (10)	ND (10)	ND (10)	ND (10)	0.86 J
		23-Feb-09			260	10	23	16	309	ND (3)	-	29	12 J	4 J	5 J	ND (3)	ND (0.0096)	ND (1.5)	13	11	4.2	2.4	0.90	ND (0.60)	0.57	ND (0.60)	0.38 J
		29-Jun-09			330	4	3	3	340	ND (0.5)	-	24	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.010)	-	-	-	-	-	-	-	-	-	0.35 J
		9-Sep-09			420	6	5	5	436	0.6 J	-	33	3 J	1 J	1 J	ND (0.5)	ND (0.0098)	1 J	7	5	5 J	3 J	1 J	ND (1)	ND (1)	ND (1)	0.70 J
		20-Nov-09			490	7	ND (3)	3 J	500	ND (3)	-	23	ND (5)	ND (3)	ND (3)	ND (3)	ND (0.0098)	ND (0.057)	1.4	0.51	0.31 J	0.17	0.025 J	0.019 J	0.020 J	ND (0.057)	0.45 J
		9-Mar-10			270	7	2	5	284	ND (0.5)	-	26	1 J	0.9 J	0.8 J	ND (0.5)	ND (0.0097)	0.065 J	1.6	0.57	0.28 J	0.16	0.035 J	0.024 J	0.030	0.083 J	0.43 J
		6-May-10			260	6	ND (3)	4 J	270	ND (3)	-	21	ND (5)	ND (3)	ND (3)	ND (3)	ND (0.018)	ND (0.057)	1.4	0.61	0.23 J	0.13	0.028 J	0.028 J	0.026 J	0.069 J	0.45 J
		21-Jul-10			350	8	4	9	371	ND (0.5)	-	37	3 J	2	2 J	ND (0.5)	ND (0.0099)	0.13 J	4.7	2.3	0.88	0.65	0.10	0.046	0.054	ND (0.060)	0.37 J
		10-Jul-12			24	3	0.9 J	5	32.9	ND (0.5)	-	25	0.5	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0099)	0.2 J	6	1	0.9	0.9	0.1 J	ND (0.1)	0.1 J	ND (0.1)	0.23 J
		4-Jun-14			27.8	14.0	1.5	16.3	59.6	ND (1.0)	-	39.7	ND (0.10)	0.44 J	0.89 J	ND (1.0)	ND (0.020)	ND (0.10)	4.60	2.19	0.325	0.578	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		11-Dec-14			20.2	6.4	1.6	12.0	40.2	ND (1.0)	-	30.0	ND (0.10)	0.70 J	0.79 J	ND (1.0)	ND (0.037)	0.131	4.84	2.00	0.507	0.594	0.136	ND (0.10)	0.106	ND (0.10)	ND (3.0)

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Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE µg/L	TOLUENE µg/L	ETHYLBENZENE µg/L	XYLENES, TOTAL (DIMETHYLBENZENE) µg/L	TOTAL BTEX µg/L	METHYL TERTIARY BUTYL ETHER µg/L	TERT-BUTYL ALCOHOL µg/L	ISOPROPYLBENZENE (CUMENE) µg/L	NAPHTHALENE µg/L	1,2,4-TRIMETHYLBENZENE µg/L	1,3,5-TRIMETHYLBENZENE µg/L	1,2-DICHLOROETHANE (EDC) µg/L	1,2-DIBROMOETHANE (EDB) µg/L	CHRYSENE µg/L	FLUORENE µg/L	PHENANTHRENE µg/L	PYRENE µg/L	ANTHRACENE µg/L	BENZO(A)ANTHRACENE µg/L	BENZO(A)PYRENE µg/L	BENZO(B)FLUORANTHENE µg/L	BENZO(G,H,I)PERYLENE µg/L	LEAD µg/L
AOI 1	S-193	17-Mar-04			170	ND (5)	51	68	289	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		7-Nov-05			404	ND (10)	13	28	445	ND (10)	-	28	ND (10)	-	-	10	ND (0.02)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	-	-	-	-	-	ND (100)
		5-Dec-06			140	2.0 J	19.0	31.0	192	ND (0.5)	-	7.0	3.0 J	-	-	ND (1.0)	ND (0.0098)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.19 J
		19-Dec-07			270	4.0	7.0	13	294	-	-	16	2.0 J	-	-	ND (0.5)	ND (0.0095)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.38 J
		6-Nov-08			930	13	22	64	1,029	5	-	19	ND (5)	40	ND (3)	ND (3)	ND (0.0097)	ND (1)	-	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	0.97 J
		23-Feb-09			760	10	15	71	856	4 J	-	20	ND (5)	21	3 J	ND (3)	ND (0.0095)	ND (0.040)	0.96	0.050 J	ND (0.095)	ND (0.060)	ND (0.0095)	ND (0.0095)	ND (0.0076)	ND (0.057)	1.3
		29-Jun-09			210	3	4	21	238	9	-	16	ND (1)	6	1 J	ND (0.5)	ND (0.0099)	-	-	-	-	-	-	-	-	-	0.33 J
		9-Sep-09			760	9	37	120	926	30	-	17	8	44	15	ND (1)	ND (0.0097)	ND (0.9)	ND (0.9)	ND (0.9)	ND (0.9)	ND (0.9)	ND (0.9)	ND (0.9)	ND (0.9)	ND (0.9)	0.37 J
		20-Nov-09			930	11	19	81	1,041	9	-	16	ND (5)	25	11	ND (3)	ND (0.0098)	0.066 J	0.39	ND (0.12)	ND (0.095)	ND (0.065)	0.021 J	0.015 J	0.012 J	ND (0.057)	0.51 J
		9-Mar-10			500	6	52	130	688	110	-	16	4 J	17	7	ND (0.5)	ND (0.0096)	ND (0.057)	0.12 J	ND (0.15)	ND (0.095)	ND (0.025)	ND (0.0095)	ND (0.0095)	ND (0.0076)	ND (0.057)	0.12 J
		6-May-10			270	3 J	18	63	354	45	-	9 J	6 J	12	6 J	ND (3)	ND (0.018)	ND (0.058)	ND (0.35)	ND (0.038)	ND (0.096)	ND (0.025)	ND (0.0096)	ND (0.0096)	ND (0.0077)	ND (0.058)	0.17 J
		21-Jul-10			350	3	28	120	501	34	-	7	8	50	16	ND (0.5)	ND (0.0097)	ND (0.057)	0.28 J	0.13 J	ND (0.095)	0.060 J	ND (0.0095)	ND (0.0095)	0.011 J	ND (0.057)	0.097 J
		10-Nov-10			1,000	12	20	110	1,142	37	-	20	7	28	14 J	ND (5)	ND (0.0098)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	0.53 J
		22-Nov-11			1,200	11	100	180	1,491	16	-	11	11	40	18	ND (1)	ND (0.0098)	0.30	0.53	0.28	ND (0.096)	-	-	-	-	-	0.12 J
		10-Jul-12			330	5 J	4 J	38	377	15	-	16	1	5 J	5 J	ND (3)	ND (0.0098)	ND (0.1)	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.19 J
		4-Apr-13			640	8.3	12.9	71.0	732.2	16.0	-	16.6	0.311	30.1	13.4	15.7	ND (0.020)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	1.1
		3-Jun-14			707	6.3	49.6	89.1	852	12.6	-	7.4	3.59	35.2	13.6	ND (2.5)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		15-Dec-14			1,350	10.2	46.9	138	1,545.1	35.5	-	13.5	4.42 J-	50.6	22.1	ND (5.0)	ND (0.020)	R R	0.302 J-	0.262 J-	R R	ND (0.10)	R R	R R	R R	R R	2.0 J
		19-May-15			1,000	8	34	140	1,182	15	-	10	6	46	20	ND (3)	ND (0.0097)	ND (0.1)	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.090 J
		18-May-16			240	5	9	38	292	10	-	16	1	19	11	ND (0.5)	0.029	ND (0.1)	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.82 J
		16-May-17			47	1	22	110	180	2	-	8	1	140	59	ND (0.5)	ND (0.0095)	ND (0.1)	0.3 J	0.4 J	0.2 J	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	3.1

See notes on last page.

Table 4
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Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 1	S-195	17-Mar-04			ND (5)	ND (5)	ND (5)	ND (5)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		7-Nov-05			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (1)	ND (1)	-	-	ND (1)	ND (0.02)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	-	-	-	-	-	ND (10)
	S-196	18-Mar-04			ND (5)	ND (5)	ND (5)	ND (5)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		7-Nov-05			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	4	ND (1)	-	-	ND (1)	ND (0.02)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	-	-	-	-	-	ND (10)
		19-Dec-06			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0097)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.21 J
		19-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0096)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.066 J
		6-Nov-08			ND (3)	ND (3)	ND (3)	ND (3)	ND	ND (3)	-	ND (3)	ND (5)	ND (3)	ND (3)	ND (3)	ND (0.0096)	ND (10)	-	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	0.18 J
		23-Feb-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.039)	ND (0.097)	0.059 J	ND (0.097)	ND (0.040)	ND (0.0097)	ND (0.0097)	ND (0.0078)	ND (0.058)	0.12 J
		29-Jun-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.010)	-	-	-	-	-	-	-	-	-	0.12 J
		9-Sep-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	1	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	0.10 J
		20-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	0.063 J	ND (0.10)	ND (0.040)	ND (0.10)	ND (0.020)	0.015 J	0.029 J	0.023 J	ND (0.060)	ND (0.050)
		9-Mar-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.058)	ND (0.096)	ND (0.038)	ND (0.096)	ND (0.019)	ND (0.0096)	ND (0.0096)	ND (0.0077)	ND (0.058)	ND (0.050)
		6-May-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.018)	ND (0.12)	ND (0.20)	ND (0.080)	ND (0.20)	ND (0.040)	ND (0.020)	ND (0.020)	ND (0.016)	ND (0.12)	ND (0.050)
		21-Jul-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (0.058)	ND (0.097)	0.047 J	ND (0.097)	0.025 J	ND (0.0097)	ND (0.0097)	ND (0.0077)	ND (0.058)	0.078 J
		10-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.9)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.9)	ND (0.9)	ND (0.9)	ND (0.9)	-	-	-	-	-	0.061 J
		22-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.99)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.19 J	ND (0.099)	ND (0.079)	0.16 J	-	-	-	-	-	ND (0.080)
		10-Jul-12			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.034)
		4-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (2.0)	ND (0.11)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	0.035 J
		4-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	0.180	0.323	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	4.1
		9-Dec-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		19-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.082)
		16-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	0.013 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
	S-197	18-Mar-04			ND (5)	ND (5)	ND (5)	ND (5)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		7-Nov-05			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (1)	ND (1)	-	-	ND (1)	ND (0.02)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	-	-	-	-	-	ND (10)
	S-231	11-Nov-10			9,500	460	86	280	10,326	16	-	14 J	54	110	75	ND (5)	ND (0.0096)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	0.61 J
		23-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.96)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0094)	0.28	ND (0.096)	0.32	0.39	-	-	-	-	-	ND (0.080)
		2-Apr-13			1,570	33.7	105	1,560	3,268.7	ND (5.0)	-	21.7	30.4	479	200	ND (5.0)	ND (0.020)	ND (0.11)	0.780	0.834	0.321	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (1)
		21-May-14			24.3	5.8	26.5	24.0	80.6	ND (1.0)	-	18.7	6.02	41.5	27.4	ND (1.0)	ND (0.020)	ND (0.10)	0.324	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	2.7 J
		12-Dec-14			232	7.4	22.5	22.3	284.2	1.1	-	14.9	9.51	36.4	27.2	ND (1.0)	ND (0.020)	ND (0.10)	0.230	0.132	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	1.9 J
		18-May-15			25	8	15	10	58	2	-	22	3	15	10	ND (0.5)	ND (0.0097)	0.4 J	0.3 J	0.6	0.5	ND (0.1)	0.3 J	0.2 J	0.3 J	0.2 J	0.11 J
		10-May-16			29	15	11	18	73	4	-	29	4	10	16	ND (1)	ND (0.029)	ND (0.5)	0.6	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 1	S-232	19-Nov-09			6,800	39	130	410	7,379	26	-	21	42	140	82	ND (5)	ND (0.0097)	0.2	-	0.6	0.39 J	-	-	-	-	-	0.13 J
		11-Nov-10			39	6	2	3	50	4	-	0.7 J	ND (1)	1 J	1 J	ND (0.5)	ND (0.0098)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	0.10 J
		21-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (11)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	1.4 J	ND (1.1)	1.5 J	1.9 J	-	-	-	-	-	ND (0.080)
		24-Jul-12			4	0.7 J	0.7 J	ND (0.5)	5.4	ND (0.5)	-	1 J	1	0.6 J	0.6 J	ND (0.5)	ND (0.0099)	0.1 J	0.2 J	0.3 J	0.2 J	ND (0.09)	0.1 J	0.2 J	0.2 J	0.1 J	1.6
		2-Apr-13			30.1	3.5	5.8	3.8	43.2	0.76 J	-	3.0	0.929	0.83 J	2.0	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (1)
		20-May-14			4.7	0.67 J	1.1	0.91 J	7.38	ND (1.0)	-	1.5	0.486	0.23 J	0.40 J	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		9-Dec-14			0.66	ND (1.0)	ND (1.0)	ND (1.0)	0.66	ND (1.0)	-	0.30 J	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	0.122 B	0.120 B	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	2.7 J
		18-May-15			2	ND (0.5)	ND (0.5)	ND (0.5)	2	ND (0.5)	-	ND (0.5)	0.1 J	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.1 J	ND (0.1)	0.1 J	0.2 J	ND (0.1)	ND (0.1)	0.1 J	0.2 J	ND (0.1)	0.17 J
		10-May-16			2	ND (1)	ND (1)	ND (1)	2	ND (1)	-	ND (2)	ND (0.5)	ND (2)	ND (2)	ND (1)	ND (0.029)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)
	S-268	19-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0096)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.93 J
		6-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0099)	ND (1)	-	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	0.19 J
		23-Feb-09			4	0.6 J	2	18	24.6	ND (0.5)	-	ND (0.5)	3 J	12	4	ND (0.5)	ND (0.0095)	ND (0.15)	0.28 J	0.67	ND (0.095)	0.18	ND (0.040)	0.012 J	0.015 J	ND (0.070)	0.31 J
		29-Jun-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.010)	-	-	-	-	-	-	-	-	-	0.19 J
		9-Sep-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.010)	ND (0.9)	ND (0.9)	ND (0.9)	ND (0.9)	ND (0.9)	ND (0.9)	ND (0.9)	ND (0.9)	ND (0.9)	0.13 J
		20-Nov-09			1	ND (0.5)	ND (0.5)	ND (0.5)	1	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.057)	ND (0.095)	0.065 J	0.22 J	0.046 J	0.014 J	ND (0.0095)	ND (0.0076)	ND (0.057)	0.16 J
		9-Mar-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	0.074 J	ND (0.095)	ND (0.060)	0.20 J	0.032 J	0.050	0.066	0.062	0.062 J	0.27 J
		6-May-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.018)	0.069 J	ND (0.095)	ND (0.10)	0.18 J	0.043 J	ND (0.0095)	ND (0.0095)	0.0080 J	ND (0.057)	0.30 J
		21-Jul-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	0.069 J	ND (0.096)	0.054 J	0.14 J	0.031 J	ND (0.0096)	ND (0.0096)	ND (0.0077)	ND (0.057)	0.30 J
		10-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	0.064 J
		22-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.99)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.079)	ND (0.099)	ND (0.079)	ND (0.099)	-	-	-	-	-	ND (0.080)
		11-Jul-12			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.051 J
		4-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (2.0)	ND (0.11)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	0.10 J
		4-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	1.3 J
		9-Dec-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		19-May-15			2	ND (0.5)	ND (0.5)	ND (0.5)	2	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.082)
		18-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.1)	ND (0.1)	ND (0.1)	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
AOI 2	PGW-MW-8S	8-Apr-13			-	-	-	-	13.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		8-Apr-13			2.4	1.9	0.78 J	8.4	13.48	2.1	-	35.8	ND (0.1)	0.94 J	1.5 J	ND (1)	ND (0.02)	6.45	7.17	14.1	16.8	3.57	4.75	3.33	2.89	1.52	ND (3)
		29-May-14			1.3	0.36 J	0.53 J	1.5	3.69	ND (1.0)	-	7.1	ND (0.10)	1.3 J	0.61 J	ND (1.0)	ND (0.020)	2.62	1.90	0.351	8.01	0.997	2.78	1.45	2.15	0.710	9.1
	RW-108	10-Dec-09			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (2)	ND (5)	ND (2)	ND (2)	ND (1)	ND (0.029)	ND (5)	ND (5)	ND (5)	ND (5)	-	-	-	-	-	ND (1)
		11-May-16			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (2)	ND (0.5)	ND (2)	ND (2)	ND (1)	ND (0.030)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)
		17-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		22-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	1.42	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE µg/L	TOLUENE µg/L	ETHYLBENZENE µg/L	XYLENES, TOTAL (DIMETHYLBENZENE) µg/L	TOTAL BTEX µg/L	METHYL TERTIARY BUTYL ETHER µg/L	TERT-BUTYL ALCOHOL µg/L	ISOPROPYLBENZENE (CUMENE) µg/L	NAPHTHALENE µg/L	1,2,4-TRIMETHYLBENZENE µg/L	1,3,5-TRIMETHYLBENZENE µg/L	1,2-DICHLOROETHANE (EDC) µg/L	1,2-DIBROMOETHANE (EDB) µg/L	CHRYSENE µg/L	FLUORENE µg/L	PHENANTHRENE µg/L	PYRENE µg/L	ANTHRACENE µg/L	BENZO(A)ANTHRACENE µg/L	BENZO(A)PYRENE µg/L	BENZO(B)FLUORANTHENE µg/L	BENZO(G,H,I)PERYLENE µg/L	LEAD µg/L
AOI 2	RW-109	5-Dec-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	ND (0.5)	-	ND (1.0)	ND (1.0)	-	-	ND (1.0)	ND (0.0099)	ND (1.0)	1.0 J	2.0 J	ND (1.0)	-	-	-	-	-	0.15 J
		18-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	3.0 J	-	-	ND (0.5)	ND (0.0096)	ND (1.0)	ND (1.0)	1.0 J	ND (1.0)	-	-	-	-	-	0.094 J
		7-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0099)	ND (1)	-	1 J	ND (1)	-	-	-	-	-	ND (0.050)
		8-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.9)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.9)	1 J	ND (0.9)	ND (0.9)	-	-	-	-	-	ND (0.052)
		28-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.97)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (0.078)	0.26 J	0.12 J	ND (0.097)	-	-	-	-	-	ND (0.080)
		4-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (2.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	0.532	0.585	0.174	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.051 J
		29-May-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	0.591	0.632	0.301	0.121	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		19-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	0.2 J	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	0.7	0.8	0.2 J	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.082)
	RW-600	5-Dec-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	7.0	-	2.0 J	ND (1.0)	-	-	ND (1.0)	ND (0.0098)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND	ND	ND	-	0.071 J
		7-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	9	-	2	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (1)	-	ND (1)	ND (1)	-	-	-	-	-	ND (0.050)
	S-72	1-Jan-93	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-
		1-Jan-94	DM		ND (250)	ND (250)	ND (250)	ND (500)	ND	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-95	DM		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-96	DM		ND (0.3)	32	110	180	322	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		19-Nov-97			5	22	22	97	146	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		12-Nov-98			69	14	ND (10)	12	95	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	2	3	ND (3)	-	-
		2-Dec-99			ND (20)	ND (20)	ND (20)	ND (40)	ND	-	-	-	-	-	-	-	-	1	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		16-Nov-00			ND (100)	ND (100)	ND (100)	ND (200)	ND	ND (100)	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-
		14-Nov-01			ND (1)	24	35	48	107	ND (1)	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
		7-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (1)	-	ND (1)	ND (1)	-	-	-	-	-	ND (0.050)
		8-Nov-10			21	4	0.6 J	12	37.6	0.9 J	-	68	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	3 J	4 J	5 J	6	-	-	-	-	-	0.091 J
		28-Nov-11			8	1	ND (0.5)	1	10	ND (0.5)	-	32	ND (10)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	15	7.0	3.9	ND (1.0)	-	-	-	-	-	3.8
		29-May-14			10.8	0.66 J	ND (1.0)	ND (1.0)	11.46	0.50 J	-	7.0	47.7	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	4.43	19.8	24.9	8.38	ND (0.50)	2.31	2.05	3.46	1.35	ND (3.0)
		11-May-16			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	9	ND (0.5)	ND (2)	ND (2)	ND (1)	ND (0.029)	3	3	2	4	1	1	2	3	1	ND (1.0)
	S-73	1-Jan-93	DM		520	9	27	18	574	-	-	-	-	-	-	-	-	55	-	-	-	-	110	59 J	68 J	-	-
		1-Jan-94	DM		900	ND (250)	ND (250)	ND (500)	900	-	-	-	-	-	-	-	-	4 J	-	-	-	-	55	34	37	-	-
		28-Dec-95			430	34	ND	15 J	479	-	-	-	-	-	-	-	-	100	-	-	-	-	29	15	21	-	-
		1-Jan-96	DM		5.6	ND (0.3)	ND (0.4)	ND (0.6)	5.6	-	-	-	-	-	-	-	-	77	-	-	-	-	2	1	ND (1)	-	-
		19-Nov-97			840	49 J	61 J	55 J	1,005	-	-	-	-	-	-	-	-	39	-	-	-	-	13	7	7	-	-
		12-Nov-98			320	ND (10)	36	20	376	-	-	-	-	-	-	-	-	2	-	-	-	-	7	6	5	-	-
		2-Dec-99			400	ND (20)	110	31	541	-	-	-	-	-	-	-	-	14	-	-	-	-	23	15	13	-	-
		16-Nov-00			340	ND (10)	20	11	371	ND (10)	-	-	-	-	-	-	-	9	-	-	-	-	6	4	4	-	-
		14-Nov-01			220	ND (10)	10	10	240	ND (10)	-	-	-	-	-	-	-	31	-	-	-	-	4.7	2.9	3.7	-	-
		13-Nov-02			98	2	2	7	109	ND (1)	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-
		12-Nov-03			135	3.9	10.1	12.3	161.3	1.6	-	-	-	-	-	-	-	5.2	-	-	-	-	-	-	-	-	-
		21-Oct-04			100	ND (5.0)	11	14	125	ND (5.0)	-	99	ND (5.0)	-	-	ND (5.0)	ND (0.020)	3.7 J	56	80	12	-	-	-	-	-	ND (5.0)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 2	S-154	18-Dec-07			29	12	2.0	39	82	-	-	5.0	3.0 J	-	-	ND (0.5)	ND (0.0095)	ND (0.9)	1.0 J	1.0 J	ND (0.9)	-	-	-	-	-	0.17 J
		18-Nov-09			35	22	8	73	138	47	-	14	3 J	12	5	ND (0.5)	ND (0.0097)	ND (49)	-	2.9	ND (0.11)	-	-	-	-	-	0.084 J
		18-Nov-10			44	53	24	220	341	50	-	12	5.8	29	9	ND (0.5)	ND (0.0096)	ND (3.3)	2.2	1.3	ND (0.10)	-	-	-	-	-	ND (0.052)
		28-Nov-11			2	0.8 J	ND (0.5)	6	8.8	26	-	3	ND (0.97)	0.9 J	0.8 J	ND (0.5)	ND (0.0098)	ND (0.078)	1.5	0.46	ND (0.097)	-	-	-	-	-	ND (0.080)
		5-Apr-13			30.9	27.0	12.9	138	208.8	33.2	-	10.8	1.66	19.8	6.9	ND (1.0)	ND (0.020)	ND (0.10)	0.707	0.428	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.16 J
		29-May-14			9.6	15.5	7.8	80.4	113.3	42.2	-	7.4	0.830	10.2	3.4	ND (1.0)	ND (0.023)	ND (0.10)	0.442	0.309	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		19-May-15			4	4	2	20	30	120	-	6	1	3	1 J	ND (0.5)	ND (0.0096)	ND (0.1)	1	0.9	ND (0.1)	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.098 J
		11-May-16			2	1	ND (1)	7	10	34	-	5	0.6	ND (2)	ND (2)	ND (1)	ND (0.029)	ND (0.5)	0.9	0.6	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)
		16-May-17			ND (5)	7 J	ND (5)	44	51	19	-	6 J	ND (0.1)	6 J	ND (5)	ND (5)	ND (0.0094)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		28-Jun-18			1.30	ND (1.00)	ND (1.00)	ND (3.00)	1.3	11.7	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.457	0.145	ND (0.0500)	0.106	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		28-Jun-18		Hydra Sleeve	1.35	ND (1.00)	ND (1.00)	ND (3.00)	1.35	12.4	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.367	0.0809	ND (0.0500)	0.0807	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-249	18-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	1	-	ND (0.5)	ND (0.96)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	0.061 J	ND (0.096)	0.040 J	ND (0.096)	-	-	-	-	-	ND (0.052)
		28-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (0.080)	ND (0.10)	ND (0.080)	ND (0.10)	-	-	-	-	-	ND (0.080)
		4-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	0.37 J	-	ND (2.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.19 J
		29-May-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.025)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	4.3
		19-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	0.1 J	ND (0.1)	ND (0.1)	0.1 J	ND (0.1)	ND (0.1)	0.1 J	0.2 J	0.2 J	0.098 J
		11-May-16			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (2)	ND (0.5)	ND (2)	ND (2)	ND (1)	ND (0.029)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)
		17-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		22-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0101)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-351	4-Jun-13			4.1	0.73 J	7.4	6.4	18.63	1.5	-	27	42.5	8.8	2.1	ND (1)	ND (0.02)	0.158	4	3.35	0.787	1.43	0.142	ND (0.1)	ND (0.1)	ND (0.1)	ND (3)
		19-May-15			2	ND (0.5)	0.6 J	0.6 J	3.2	ND (0.5)	-	8	1	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	0.3 J	2	3	1	1	0.3 J	0.1 J	0.1 J	ND (0.1)	0.31 J
		12-May-16			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (2)	ND (0.5)	ND (2)	ND (2)	ND (1)	ND (0.030)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)
		17-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	2 J	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.1)	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		25-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	1.87	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.161	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-354	5-Jun-13			0.48 J	0.77 J	0.48 J	1.6	3.33	ND (1)	-	26.2	ND (0.1)	0.53 J	ND (2)	ND (1)	ND (0.02)	ND (0.1)	1.65	0.57	0.289	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (3)
		16-Aug-16			ND (1.0)	ND (1.0)	ND (1.0)	ND (3.0)	ND	ND (1.0)	-	9.4	1.2	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.040)	0.35	2.1	0.94	0.33	1.1	ND (0.14)	0.059 J	0.10 J	0.032 J	7.1 J
		17-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	2 J	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0094)	0.2 J	0.4 J	0.1 J	0.3 J	0.2 J	ND (0.1)	ND (0.1)	0.1 J	ND (0.1)	0.094 J
		22-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-72D	5-Dec-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	1.0 J	-	ND (1.0)	ND (1.0)	-	-	ND (1.0)	ND (0.0097)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	52	36	44	-	0.16 J

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 3	BF-103R	12-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	1.0	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0095)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND	ND	ND	-	0.065 J
	S-1	1-Jan-85	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-86	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-88	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND (10)	ND (10)	ND (10)	-	-
		1-Jan-93	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-94	DM		ND (50)	ND (50)	ND (50)	ND (100)	ND	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		28-Dec-95			2.7	ND	ND	0.8 J	3.5	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-96	DM		ND (0.3)	ND (0.3)	ND (0.4)	ND (0.6)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		19-Nov-97			ND (1)	ND (1)	ND (1)	2	2	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	1	1	ND (1)	-	-
		12-Nov-98			ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	1.2	ND (2)	ND (3)	-	-
		2-Dec-99			ND (1)	ND (1)	ND (1)	ND (2)	ND	-	-	-	-	-	-	-	-	1	-	-	-	-	ND (10)	ND (20)	ND (30)	-	-
		16-Nov-00			ND (1)	ND (1)	ND (1)	ND (2)	ND	10	-	-	-	-	-	-	-	1.4	-	-	-	-	-	-	-	-	-
		14-Nov-01			ND (1)	ND (1)	ND (1)	3	3	38	-	-	-	-	-	-	-	12	-	-	-	-	1.0 J	1.0 J	0.88 J	-	-
		13-Nov-03			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	-	-	-	-	-	-	1.1 J	-	-	-	-	-	-	-	-	-
		21-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (9.8)	ND (9.8)	ND (9.8)	-	-	-	-	-	ND (5.0)
		30-Nov-06			ND (0.5)	0.8 J	ND (0.8)	ND (0.8)	0.8	ND (0.5)	-	ND (1.0)	2.0 J	-	-	ND (1.0)	ND (0.0097)	1.0 J	ND (1.0)	ND (1.0)	2.0 J	-	ND	ND	ND	-	0.44 J
		11-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0095)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND	ND	ND	-	0.63 J
		4-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (1)	-	ND (1)	ND (1)	-	-	-	-	-	0.067 J
		12-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	1.4	-	0.78	3.2	-	-	-	-	-	1.9
		15-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.96)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	0.7	0.94	0.33	2.1	-	-	-	-	-	0.10 J
		18-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (9.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	6.9	1.6 J	ND (0.76)	6.1	-	-	-	-	-	0.24 J
		4-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (2.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	0.242	0.502	ND (0.10)	0.678	0.282	0.233	0.258	0.227	0.260	0.52 J
		30-May-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	0.118	0.235	ND (0.10)	0.251	ND (0.10)	0.110	0.150	0.204	ND (0.10)	11.6
		12-May-16			ND (1)	1	ND (1)	ND (1)	1	ND (1)	-	ND (2)	ND (0.5)	ND (2)	ND (2)	ND (1)	ND (0.029)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)

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Table 4
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Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 3	S-3	1-Jan-85	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-86	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-88	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND (10)	ND (10)	ND (10)	-	-
		1-Jan-93	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-94	DM		2 J	ND (5)	ND (5)	ND (10)	2	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		28-Dec-95			1.3	ND	ND	ND	1.3	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-96	DM		ND (0.3)	ND (0.3)	ND (0.4)	ND (0.6)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		19-Nov-97			ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		12-Nov-98			ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		2-Dec-99			ND (1)	ND (1)	ND (1)	ND (2)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	2	2	ND (3)	-	-
		16-Nov-00			ND (1)	ND (1)	ND (1)	ND (2)	ND	94	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		14-Nov-01			52	ND (2)	ND (2)	ND (4)	52	ND (2)	-	-	-	-	-	-	-	3	-	-	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-	-
		13-Nov-02			ND (1)	ND (1)	ND (1)	ND (1)	ND	4	-	-	-	-	-	-	-	ND (2)	-	-	-	-	-	-	-	-	-
		13-Nov-03			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	4.3	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	-	-	-	-	-
		21-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	19	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (9.8)	ND (9.8)	ND (9.8)	-	-	-	-	-	ND (5.0)
		30-Nov-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	0.7 J	-	ND (1.0)	4.0 J	-	-	ND (1.0)	ND (0.0096)	ND (1.0)	ND (1.0)	1.0 J	2.0 J	-	ND	ND	ND	-	0.43 J
		11-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	6.0	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0095)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND	ND	ND	-	0.27 J
		6-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	7	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0099)	ND (1)	-	ND (1)	ND (1)	-	-	-	-	-	ND (0.050)
		19-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	0.5 J	-	ND (0.5)	ND (1)	0.6 J	ND (0.5)	ND (0.5)	ND (0.0097)	0.16 J	-	0.13 J	0.35 J	-	-	-	-	-	0.29 J
		17-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	1	-	3	ND (1.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	0.11 J	ND (0.10)	0.092 J	0.13 J	-	-	-	-	-	10.5
		21-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	2	-	ND (0.5)	ND (1.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.081)	ND (0.10)	ND (0.081)	ND (0.10)	-	-	-	-	-	0.28 J
		3-Apr-13			3.1	0.46 J	0.65 J	3.0	7.21	2.9	-	ND (2.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.73 J
		30-May-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	0.53 J	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.025)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	2.3 J
		12-May-16			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (2)	ND (0.5)	ND (2)	ND (2)	ND (1)	ND (0.029)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)
		22-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.13 J
		25-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)

See notes on last page.

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Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 3	S-25	1-Jan-85	DM		ND	ND	ND	5	5	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-86	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-88	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND (10)	ND (10)	ND (10)	-	-
		1-Jan-93	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-94	DM		ND (5)	ND (5)	ND (5)	ND (10)	ND	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-96	DM		ND (0.3)	ND (0.3)	ND (0.4)	ND (0.6)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		19-Nov-97			ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		12-Nov-98			ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (10)	ND (2)	ND (3)	-	-
		2-Dec-99			ND (1)	ND (1)	ND (1)	ND (2)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		16-Nov-00			ND (1)	ND (1)	ND (1)	ND (2)	ND	140	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		14-Nov-01			ND (10)	ND (10)	ND (10)	ND (20)	ND	110	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-	-
		13-Nov-02			ND (1)	ND (1)	ND (1)	ND (1)	ND	2	-	-	-	-	-	-	-	ND (2)	-	-	-	-	-	-	-	-	-
		13-Nov-03			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	61.7	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	-	-	-	-	-
		21-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	37	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (9.8)	ND (9.8)	ND (9.8)	-	-	-	-	-	ND (5.0)
		30-Nov-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	0.8 J	-	ND (1.0)	ND (1.0)	-	-	ND (1.0)	ND (0.0097)	1.0 J	ND (1.0)	4.0 J	3.0 J	-	ND	ND	ND	-	0.13 J
		13-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	5.0	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0097)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND	ND	ND	-	0.13 J
		4-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	11	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (0.9)	-	ND (0.9)	ND (0.9)	-	-	-	-	-	ND (0.050)
		12-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	2	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0099)	ND (0.060)	-	ND (0.040)	ND (0.10)	-	-	-	-	-	ND (0.050)
		15-Nov-10			3	ND (0.5)	0.7 J	3	6.7	12	-	ND (0.5)	ND (1)	1 J	ND (0.5)	ND (0.5)	ND (0.0097)	0.11 J	ND (0.096)	ND (0.038)	ND (0.096)	-	-	-	-	-	0.070 J
		18-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	3	-	ND (0.5)	ND (0.98)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.078)	ND (0.098)	ND (0.078)	ND (0.098)	-	-	-	-	-	ND (0.080)
		3-Apr-13			1.7	0.32 J	0.49 J	2.4	4.91	1.2	-	ND (2.0)	ND (0.10)	0.54 J	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.13 J
		30-May-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	0.49 J	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	6.2
		12-May-16			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (2)	ND (0.5)	ND (2)	ND (2)	ND (1)	ND (0.029)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)
		22-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	0.1 J	ND (0.1)	0.1 J	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.21 J
		26-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	2.09	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		26-Jun-18		Field Duplicate	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	2.09	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 3	S-66	1-Jan-85	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-86	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-88	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND (10)	ND (10)	ND (10)	-	-
		1-Jan-93	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-94	DM		ND (5)	ND (5)	ND (5)	ND (10)	ND	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-96	DM		ND (0.3)	ND (0.3)	ND (0.4)	ND (0.6)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		19-Nov-97			ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		12-Nov-98			ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		2-Dec-99			ND (1)	ND (1)	ND (1)	ND (2)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		16-Nov-00			ND (1)	ND (1)	ND (1)	ND (2)	ND	10	-	-	-	-	-	-	-	ND (4)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		14-Nov-01			ND (1)	ND (1)	ND (1)	ND (2)	ND	1	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-	-
		13-Nov-02			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	-	-	-	-	-	-	ND (2)	-	-	-	-	-	-	-	-	-
		12-Nov-03			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	ND	ND	ND	-	-
		19-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (9.8)	ND (9.8)	ND (9.8)	-	ND	ND	ND	-	ND (5.0)
		15-Nov-10			DR	DR	DR	DR	DR	DR	-	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR
		18-Nov-11			DR	DR	DR	DR	DR	DR	-	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR
		2-Apr-13			DR	DR	DR	DR	DR	DR	-	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR
		29-May-14			ND (0.50)	0.88 J	ND (1.0)	ND (1.0)	0.88	ND (1.0)	-	ND (1.0)	-	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	-	-	-	-	-	-	-	-	-	-
		30-May-14			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (3.0)
	S-69	1-Jan-85	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-86	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-88	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND (10)	ND (10)	ND (10)	-	-
		1-Jan-93	DM		ND	ND	ND	1	1	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-94	DM		21	ND (5)	ND (5)	ND (10)	21	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		28-Dec-95			ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-96	DM		ND (0.3)	ND (0.3)	ND (0.4)	ND (0.6)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		19-Nov-97			ND (1)	16	7	27	50	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		12-Nov-98			ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		2-Dec-99			ND (1)	ND (1)	ND (1)	ND (2)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		16-Nov-00			ND (1)	ND (1)	ND (1)	ND (2)	ND	6.8	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		14-Nov-01			ND (1)	ND (1)	ND (1)	ND (2)	ND	3	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-	-
		13-Nov-02			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	-	-	-	-	-	-	ND (2)	-	-	-	-	-	-	-	-	-
		12-Nov-03			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	1.9	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	-	-	-	-	-
		19-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (9.9)	ND (9.9)	ND (9.9)	-	-	-	-	-	ND (5.0)
	S-69D	30-Nov-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	4.0 J	-	ND (1.0)	1.0 J	-	-	ND (1.0)	ND (0.0097)	ND (1.0)	ND (1.0)	ND (1.0)	1.0 J	-	-	-	-	-	0.25 J
		7-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (1)	-	ND (1)	ND (1)	-	-	-	-	-	0.064 J
	S-112	1-Dec-06			1.0 J	ND (0.7)	ND (0.8)	ND (0.8)	1	46	-	28	ND (1.0)	-	-	ND (1.0)	ND (0.0099)	ND (1.0)	12	18	2.0 J	-	-	-	-	-	0.13 J
		11-Dec-07			0.8 J	ND (0.5)	ND (0.5)	ND (0.5)	0.8	-	-	21	1.0 J	-	-	ND (0.5)	ND (0.0097)	ND (1.0)	10	16	1.0 J	-	-	-	-	-	0.11 J

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date	Sample Type	BENZENE µg/L	TOLUENE µg/L	ETHYLBENZENE µg/L	XYLENES, TOTAL (DIMETHYLBENZENE) µg/L	TOTAL BTEX µg/L	METHYL TERTIARY BUTYL ETHER µg/L	TERT-BUTYL ALCOHOL µg/L	ISOPROPYLBENZENE (CUMENE) µg/L	NAPHTHALENE µg/L	1,2,4-TRIMETHYLBENZENE µg/L	1,3,5-TRIMETHYLBENZENE µg/L	1,2-DICHLOROETHANE (EDC) µg/L	1,2-DIBROMOETHANE (EDB) µg/L	CHRYSENE µg/L	FLUORENE µg/L	PHENANTHRENE µg/L	PYRENE µg/L	ANTHRACENE µg/L	BENZO(A)ANTHRACENE µg/L	BENZO(A)PYRENE µg/L	BENZO(B)FLUORANTHENE µg/L	BENZO(G,H,I)PERYLENE µg/L	LEAD µg/L
AOI 3	S-280	7-Jul-10		41,000	6,900	ND (50)	ND (50)	47,900	ND (50)	-	ND (100)	6	ND (100)	ND (100)	ND (50)	ND (0.028)	ND (5)	7	12	ND (5)	-	-	-	-	-	ND (1.0)
		8-Jun-15		6,570	ND (50.0)	ND (50.0)	ND (150)	6,570	ND (50.0)	-	ND (50.0)	0.15 J	ND (50.0)	ND (50.0)	ND (50.0)	ND (0.040)	0.048 J	ND (0.24)	0.37	0.21 J	0.038 J	0.058 J	ND (0.24)	ND (0.24)	0.35	ND (5.0)
		16-Dec-15		28,500	35.1 J	ND (100)	ND (100)	28,535.1	ND (100)	-	ND (100)	ND (0.10)	ND (200)	ND (200)	ND (100)	ND (0.019)	ND (0.10)	ND (0.10)	0.176	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	ND (3.0)
		20-May-16		16,000	26 J	ND (25)	ND (25)	16,026	ND (25)	-	ND (25)	ND (0.1)	ND (25)	ND (25)	ND (25)	ND (0.0097)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
		22-May-17		27,000	290	5	19	27,314	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		25-Jun-18		37,200	ND (50.0)	ND (50.0)	ND (150)	37,200	ND (50.0)	-	ND (50.0)	ND (0.258)	ND (50.0)	ND (50.0)	ND (50.0)	ND (0.0102)	ND (0.0515)	ND (0.0515)	ND (0.0515)	ND (0.0515)	ND (0.0515)	ND (0.0515)	ND (0.0515)	ND (0.0515)	ND (0.0515)	ND (2.00)
		25-Jun-18	Field Duplicate	39,900	ND (50.0)	ND (50.0)	ND (150)	39,900	ND (50.0)	-	ND (50.0)	ND (0.250)	ND (50.0)	ND (50.0)	ND (50.0)	ND (0.0100)	ND (0.0500)	ND (0.0500)	0.106	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	0.0563	ND (2.00)
AOI 4	RW-701	19-Oct-10		13,000	9,900	1,400	8,200	32,500	ND (50)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		13-Dec-12		10,700	9,260	1,140	6,090	27,190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (3.0)
		26-Feb-14		13,900	10,400	1,160	7,290	32,750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		18-Mar-15		2,800	1,300	830	5,600	10,530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-Feb-16		14,100	8,370	1,380	7,360	31,210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		17-Aug-16		13,300	8,430	1,160	6,100	28,990	4,980	-	ND (50.0)	323	714	209	ND (50.0)	0.491*	ND (0.0500)	6.45	14.6	0.572	0.995	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		12-Oct-16		13,300	6,790	1,250	6,410	27,750	5,070	-	ND (500)	734	840	ND (500)	ND (500)	0.537*	ND (2.50)	105	452	27.8	ND (2.50)	ND (2.50)	ND (2.50)	ND (2.50)	ND (2.50)	ND (2.00)
		17-May-17		16,000	9,100	1,300	6,900	33,300	5,100	-	35 J	470	870	250	ND (10)	0.64	0.5 J	91	230	11	35	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	0.17 J
		29-Jun-18		4,570 SL	2,120 SL	554 SL	3,580 SL	10,824 SL	ND (200) SL	ND (1,000) HT SL	ND (200) SL	271 SL	615 SL	201 SL	ND (200) SL	ND (0.0100) SL	0.149 SL	48.7 SL	126 SL	6.99 SL	30.6 SL	0.0935 SL	ND (0.0515) SL	ND (0.0515) SL	ND (0.0515) SL	ND (2.00) SL
		29-Jun-18	Hydra Sleeve	4,250 SL	1,380 SL	489 SL	3,160 SL	9,279 SL	ND (200) SL	ND (1,000) HT SL	ND (200) SL	12.7 SL	515 SL	ND (200) SL	ND (200) SL	ND (0.0100) SL	ND (0.100) SL	0.372 SL	0.560 SL	0.169 SL	ND (0.100) SL	ND (0.100) SL	ND (0.100) SL	ND (0.100) SL	ND (0.100) SL	ND (2.00) SL

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 4	S-38	**1-Jan-85**	**DM**		1,200	ND	ND	ND	1,200	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-86	**DM**		1,300	160	ND	210	1,670	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-88	**DM**		930	260	240	280	1,710	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND (10)	ND (10)	ND (10)	-	-
		1-Jan-93	**DM**		310	120	60	94	584	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-94	**DM**		1 J	ND (5)	ND (5)	ND (10)	1	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		28-Dec-95			300	42	80	100	522	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-96	**DM**		9.3	5.5	3.9	4.4	23.1	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		19-Nov-97			1,300	720	220	500	2,740	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		12-Nov-98			700	410	220	430	1,760	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		2-Dec-99			89	3	3	5	100	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		16-Nov-00			8.5	5.1	2.5	2.5	18.6	ND (1)	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		14-Nov-01			1,100	180	260	150	1,690	ND (100)	-	-	-	-	-	-	-	1	-	-	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-	-
		12-Nov-02			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	-	-	-	-	-	-	ND (2)	-	-	-	-	-	-	-	-	-
		13-Nov-03			66.6	5.2	23.7	14.2	109.7	ND (1.0)	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	-	-	-	-	-
		21-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (5.0)
		29-Nov-06			7.0	3.0 J	17	6.0	33	ND (0.5)	-	6.0	4.0 J	-	-	ND (1.0)	ND (0.0097)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.18 J
		6-Dec-07			26	7.0	19	29	81	-	-	6.0	4.0	-	-	ND (0.5)	ND (0.0097)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	ND (0.047)
		5-Nov-08			140	21	72	41	274	ND (0.5)	-	27	14	10	9	ND (0.5)	ND (0.0097)	ND (1)	-	ND (1)	ND (1)	-	-	-	-	-	ND (0.050)
		13-Nov-09			3	ND (0.5)	2	1 J	6	ND (0.5)	-	2 J	ND (1)	1 J	0.6 J	ND (0.5)	ND (0.0097)	0.080 J	-	0.069 J	0.10 J	-	-	-	-	-	0.11 J
		12-Nov-10			12	3	16	32	63	ND (0.5)	-	15	4 J	71	32	ND (0.5)	ND (0.0097)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	0.14 J
		18-Nov-11			ND (5.0)	ND (5.0)	4	10	14	ND (5.0)	-	5	6.4	31	14	ND (0.5)	ND (0.0097)	0.14 J	ND (0.63)	0.31	ND (0.096)	-	-	-	-	-	0.13 J
		3-Apr-13			1.9	2.2	10.6	23.9	38.6	ND (1.0)	-	7.5	1.66	41.3	16.7	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	1.4
		30-May-14			0.55	ND (1.0)	ND (1.0)	ND (1.0)	0.55	ND (1.0)	-	ND (1.0)	0.180	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	8.1
		18-May-15			160	64	79	88	391	ND (0.5)	-	16	20	33	11	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.095 J
		18-May-16			180	96	79	83	438	ND (0.5)	-	13	26	17	7	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
		17-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	1	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	1	0.3 J	0.1 J	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.099 J
		26-Jun-18			72.3	45.4	30.9	30.4	179	ND (1.00)	-	4.68	6.48	7.22	3.46	ND (1.00)	ND (0.0101)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 4	S-39	1-Jan-93	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-94	DM		1 J	ND (5)	ND (5)	ND (10)	1	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		28-Dec-95			ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-96	DM		ND (0.3)	ND (0.3)	ND (0.4)	ND (0.6)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		19-Nov-97			ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		12-Nov-98			ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		2-Dec-99			ND (1)	ND (1)	ND (1)	ND (2)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		16-Nov-00			ND (1)	ND (1)	ND (1)	ND (2)	ND	1.7	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		14-Nov-01			ND (1)	ND (1)	ND (1)	ND (2)	ND	1	-	-	-	-	-	-	-	ND (1)	-	-	-	-	-	-	-	-	-
		12-Nov-02			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	-	-	-	-	-	-	ND (2)	-	-	-	-	-	-	-	-	-
		20-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (5.0)
		29-Nov-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	ND (0.5)	-	ND (1.0)	ND (1.0)	-	-	ND (1.0)	ND (0.0097)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND (2.0)	ND (2.0)	ND (2.0)	-	0.16 J
		6-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0097)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND	ND	ND	-	ND (0.047)
		7-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (1)	-	ND (1)	ND (1)	-	-	-	-	-	ND (0.050)
		13-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0099)	ND (0.059)	-	ND (0.039)	ND (0.098)	-	-	-	-	-	ND (0.050)
		11-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	ND (0.052)
		18-Nov-11			2	ND (0.5)	0.7 J	2	4.7	ND (0.5)	-	ND (0.5)	ND (0.98)	0.8 J	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.078)	ND (0.098)	ND (0.078)	ND (0.098)	-	-	-	-	-	0.080 J
		2-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (2.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (1)
		19-May-14			ND (0.50)	ND (1.0)	ND (0.50)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	1.8 J
		18-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.082)
		12-May-16			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (2)	ND (0.5)	ND (2)	ND (2)	ND (1)	ND (0.029)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 4	S-40	1-Jan-85	DM		2,800	ND	1,200	6,100	10,100	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-86	DM		600	ND	210	1,520	2,330	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-88	DM		2,000	ND	2,900	4,100	9,000	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND (10)	ND (10)	ND (10)	-	-
		1-Jan-93	DM		78	6	12	16	112	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-94	DM		280	55 J	140 J	75 J	550	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		28-Dec-95			150	23	29	51.2	253.2	-	-	-	-	-	-	-	-	ND	-	-	-	-	1	ND (1)	1	-	-
		1-Jan-96	DM		12	1.8	3.4	1.9	19.1	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		19-Nov-97			350	ND (100)	ND (100)	56 J	406	-	-	-	-	-	-	-	-	1	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		12-Nov-98			630	ND (100)	ND (100)	ND (100)	630	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	2	ND (2)	ND (3)	-	-
		2-Dec-99			1,000	ND (100)	ND (100)	ND (200)	1,000	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	2	ND (2)	ND (3)	-	-
		16-Nov-00			600	ND (100)	ND (100)	ND (200)	600	ND (100)	-	-	-	-	-	-	-	3	-	-	-	-	ND (13)	ND (10)	ND (14)	-	-
		14-Nov-01			1,200	76	68	ND (100)	1,344	1,200	-	-	-	-	-	-	-	4	-	-	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-	-
		12-Nov-02			240	9	7	8	264	ND (5)	-	-	-	-	-	-	-	ND (15)	-	-	-	-	-	-	-	-	-
		13-Nov-03			987	36.9	19.5	20.9	1,064.3	ND (5.0)	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	-	-	-	-	-
		6-Dec-06			220	9.0	8.0	5.0 J	242	ND (0.5)	-	17.0	ND (1.0)	-	-	ND (1.0)	ND (0.0097)	ND (1.0)	3.0 J	5.0 J	ND (1.0)	-	-	-	-	-	0.18 J
		18-Dec-07			3.0	ND (0.5)	ND (0.5)	ND (0.5)	3.0	-	-	1.0 J	ND (1.0)	-	-	ND (0.5)	ND (0.0095)	ND (0.9)	1.0 J	2.0 J	ND (0.9)	-	-	-	-	-	0.12 J
		7-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (1)	-	ND (1)	ND (1)	-	-	-	-	-	0.34 J
		13-Nov-09			5	0.5 J	0.7 J	ND (0.5)	6.2	ND (0.5)	-	4	ND (1)	ND (0.5)	0.5 J	ND (0.5)	ND (0.0099)	0.37	-	1.6	ND (0.10)	-	-	-	-	-	0.25 J
		11-Nov-10			72	3	2	1	78	ND (0.5)	-	12	ND (1)	ND (0.5)	0.7 J	ND (0.5)	ND (0.0095)	1 J	6	12	2 J	-	-	-	-	-	0.074 J
		28-Nov-11			ND (0.5)	2	ND (0.5)	ND (0.5)	2	ND (0.5)	-	0.6 J	ND (9.6)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0099)	6.0	6.7	9.2	ND (0.096)	-	-	-	-	-	ND (0.080)
		8-Apr-13			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (2)	ND (0.1)	ND (2)	ND (2)	ND (1)	ND (0.02)	ND (0.1)	0.135	0.255	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (3)
		18-May-15			10	2	ND (0.5)	ND (0.5)	12	ND (0.5)	-	6	0.6	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	0.4 J	0.6	0.2 J	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.19 J
		19-May-16			18	4	1	1	24	ND (0.5)	-	16	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.2 J	1	2	0.4 J	0.5 J	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
	S-120	20-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (5.0)
		29-Nov-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	ND (0.5)	-	ND (1.0)	ND (1.0)	-	-	ND (1.0)	ND (0.0097)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.16 J
		14-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0095)	ND (0.9)	ND (0.9)	ND (0.9)	ND (0.9)	-	-	-	-	-	0.10 J
		5-Nov-08			0.5 J	ND (0.5)	ND (0.5)	ND (0.5)	0.5	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (1)	-	ND (1)	ND (1)	-	-	-	-	-	ND (0.050)
		13-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (0.057)	-	ND (0.038)	ND (0.095)	-	-	-	-	-	ND (0.050)
		11-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	ND (0.052)
		18-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.95)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.076)	ND (0.095)	ND (0.076)	ND (0.095)	-	-	-	-	-	ND (0.080)
		2-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (2.0)	1.39	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (1)
		21-May-14			7.8	1.1	ND (1.0)	ND (1.0)	79.1	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		18-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.082)
		18-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE µg/L	TOLUENE µg/L	ETHYLBENZENE µg/L	XYLENES, TOTAL (DIMETHYLBENZENE) µg/L	TOTAL BTEX µg/L	METHYL TERTIARY BUTYL ETHER µg/L	TERT-BUTYL ALCOHOL µg/L	ISOPROPYLBENZENE (CUMENE) µg/L	NAPHTHALENE µg/L	1,2,4-TRIMETHYLBENZENE µg/L	1,3,5-TRIMETHYLBENZENE µg/L	1,2-DICHLOROETHANE (EDC) µg/L	1,2-DIBROMOETHANE (EDB) µg/L	CHRYSENE µg/L	FLUORENE µg/L	PHENANTHRENE µg/L	PYRENE µg/L	ANTHRACENE µg/L	BENZO(A)ANTHRACENE µg/L	BENZO(A)PYRENE µg/L	BENZO(B)FLUORANTHENE µg/L	BENZO(G,H,I)PERYLENE µg/L	LEAD µg/L
AOI 4	S-122	20-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (5.0)
		29-Nov-06			ND (0.5)	ND (0.7)	1.0 J	2.0 J	3	ND (0.5)	-	4.0 J	2.0 J	-	-	ND (1.0)	ND (0.0098)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.13 J
		6-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0096)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.14 J
		5-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (1)	-	ND (1)	ND (1)	-	-	-	-	-	ND (0.050)
		13-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.059)	-	ND (0.039)	ND (0.098)	-	-	-	-	-	ND (0.050)
		12-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	1 J	ND (1)	2	ND (0.5)	ND (0.5)	ND (0.0097)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	ND (0.052)
		18-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.95)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.076)	0.10 J	ND (0.076)	ND (0.095)	-	-	-	-	-	ND (0.080)
		2-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (2.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (1)
		19-May-14			ND (0.50)	ND (1.0)	ND (0.50)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		18-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	0.2 J	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.082)
		12-May-16			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (2)	ND (0.5)	ND (2)	ND (2)	ND (1)	ND (0.029)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (1.0)
	S-222	30-Nov-06			0.8 J	ND (0.7)	ND (0.8)	ND (0.8)	0.8	ND (0.5)	-	ND (1.0)	ND (1.0)	-	-	ND (1.0)	ND (0.0098)	ND (1.0)	ND (1.0)	3.0 J	3.0 J	-	-	-	-	-	0.16 J
		6-Dec-07			3.0	1.0	ND (0.5)	0.5 J	4.5	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0098)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.11 J
		5-Nov-08			3	ND (0.5)	ND (0.5)	ND (0.5)	3.0	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (1)	-	ND (1)	ND (1)	-	-	-	-	-	0.050 J
		12-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0099)	ND (0.058)	-	ND (0.080)	ND (0.096)	-	-	-	-	-	ND (0.050)
		15-Nov-10			15	2	4	16	37.0	ND (0.5)	-	ND (0.5)	ND (0.96)	4	1 J	ND (0.5)	ND (0.0097)	ND (0.058)	ND (0.096)	0.044 J	ND (0.096)	-	-	-	-	-	ND (0.052)
		18-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.95)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.076)	ND (0.095)	ND (0.076)	ND (0.095)	-	-	-	-	-	0.87 J
		3-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (2.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	1.3
		21-May-14			29.7	6.8	ND (1.0)	ND (1.0)	36.5	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		18-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.082)
		18-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
		17-May-17			3	2	2	8	15	ND (0.5)	-	ND (0.5)	0.3 J	2 J	0.6 J	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
	S-223	29-Nov-06			4,300	2,800	930	4,400	12,430	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		14-Dec-07			4,700	2,000	900	4,500	12,100	-	-	33	380	-	-	ND (5.0)	ND (0.0094)	ND (1.0)	2.0 J	2.0 J	ND (1.0)	-	-	-	-	-	0.060 J
		5-Nov-08			8,100	1,700	1,100	5,100	16,000	ND (5)	-	38	380	1,000	330	ND (5)	ND (0.010)	ND (1)	-	1 J	ND (1)	-	-	-	-	-	0.10 J
		12-Nov-09			3,900	460	850	3,700	8,910	ND (3)	-	36	330	1,000	360	ND (3)	ND (0.0099)	0.47	-	2.3	ND (0.095)	-	-	-	-	-	0.098 J
		15-Nov-10			3,300	410	890	3,800	8,400	ND (3)	-	32	170	920	360	ND (3)	ND (0.0097)	0.14 J	3.4	0.86	1.1	-	-	-	-	-	0.095 J
		18-Nov-11			1,100	110	440	1,900	3,550	ND (5)	-	25	170	780	350	ND (5)	ND (0.0096)	ND (0.077)	3.7	1.4	ND (0.096)	-	-	-	-	-	ND (0.080)
		3-Apr-13			5,530	337	866	4,040	10,773	ND (40)	-	29.3 J	130	1,070	351	ND (40)	ND (0.020)	ND (0.10)	0.625	0.601	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.26 J
		15-Jan-14			6,280	2,030	960	3,860	13,130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		4-Apr-14			2,320	1,020	259	1,370	4,969	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		30-May-14			1,470	108	396	1,300	3,274	ND (10)	-	23.0	38.6	812	314	ND (10)	ND (0.020)	ND (0.10)	0.940	0.770	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	6.8
		12-Aug-14			4,240	294	713	2,820	8,067	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		6-Jan-15			11,400	5,410	871	3,980	21,661	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16-Apr-15			1,100	190	330	1,200	2,820	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		19-May-16			2,200	330	440	1,500	4,470	ND (10)	-	16 J	87	490	170	ND (10)	ND (0.0097)	ND (0.1)	0.8	0.2 J	ND (0.1)	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
		17-May-17			37	9	26	87	159	ND (0.5)	-	1 J	0.1 J	50	21	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.40 J
		27-Jun-18			1,830	136	739	1,740	4,445	ND (1.00)	-	25.5	56.6	822	241	ND (1.00)	ND (0.0100)	ND (0.0500)	0.701	ND (0.0500)	ND (0.0500)	0.0826	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		27-Jun-18		Field Duplicate	1,850	145	764	1,790	4,549	ND (1.00)	-	27.1	78.1	807	245	ND (1.00)	ND (0.0100)	ND (0.0500)	0.707	0.0986	ND (0.0500)	0.0799	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 4	S-224	29-Nov-06			1,200	1,400	500	2,200	5,300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-Jan-14			405	127	289	697	1,518	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		4-Apr-14			110	45.0	182	363	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		12-Aug-14			114	35.0	81.9	197	427.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		6-Jan-15			255	150	213	457	1075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16-Apr-15			480	84	300	370	1,234	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	S-239	29-Nov-06			12	260	310	1,100	1,682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		15-Jan-14			ND (1.0)	ND (1.0)	ND (1.0)	0.74 J	0.74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		4-Apr-14			0.49 J	ND (1.0)	0.79	3.5	4.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		29-May-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	0.95 J	0.35 J	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	3.7
		12-Aug-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		6-Jan-15			ND (0.50)	0.26 J	0.51 J	2.0	2.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		16-Apr-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	S-369	16-Aug-16			2,370	ND (125)	ND (25.0)	ND (75.0)	2,370	ND (25.0)	-	71.7	11.9	ND (25.0)	ND (25.0)	ND (25.0)	ND (25.0)*	0.0860	2.39	3.12	0.364	0.576	0.0811	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		10-Oct-16			1,870	ND (100)	ND (20.0)	ND (60.0)	1,870	ND (20.0)	-	62.4	10.4	ND (20.0)	ND (20.0)	ND (20.0)	ND (20.0)*	0.153	3.74	4.65	0.678	0.518	0.152	0.0695	0.0654	ND (0.0500)	ND (2.00)
		17-May-17			1,900	62	17	42	2,021	47	-	71	3	ND (5)	5 J	ND (5)	ND (0.0097)	0.1 J	2	2	0.4 J	0.6	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	0.67 J
		27-Jun-18			1,460	54.5	13.3	33.2	1,561	62.3	-	72.8	3.13	ND (1.00)	3.73	ND (1.00)	ND (0.0100)	ND (0.0500)	2.08	1.26	0.0772	0.236	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-380	12-Jun-13			2.1	0.27 J	0.26 J	0.45 J	3.08	ND (1)	-	ND (2)	ND (0.1)	ND (2)	ND (2)	ND (1)	ND (0.02)	ND (0.1)	0.3	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (3)
		12-Aug-16			ND (1.00)	14.7	ND (1.00)	ND (3.00)	14.7	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)*	0.0698	ND (0.0500)	0.0745 B	0.126	ND (0.0500)	0.0689 B	0.0617	0.0939	0.0561	ND (2.00)
		10-Oct-16			ND (1.00)	ND (5.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)*	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		10-Oct-16		Field Duplicate	ND (1.00)	ND (5.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)*	ND (0.0500)	ND (0.0500)	0.0609	0.0809	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		17-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.3 J	ND (0.1)	0.3 J	0.4 J	ND (0.1)	0.2 J	0.2 J	0.3 J	0.2 J	0.16 J
		26-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	0.0625	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
AOI 5	A-17	1-Jan-95	DM		WI	WI	WI	WI	WI	WI	-	WI	WI	-	-	WI	WI	WI	WI	WI	WI	-	-	-	-	-	WI
		1-Jan-96	DM		ND (1)	ND (1)	ND (0.4)	ND (0.6)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-97	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-98	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-99	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-00	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	4	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		1-Jan-01	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	-	-	-	-	-	-	2	-	-	-	-	2	2	ND (3)	-	-
		1-Jan-02	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	-	-	-	-	-	-	ND (2)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		13-Nov-03			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-	-
		27-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (5.0)
		6-Dec-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	ND (0.5)	-	ND (1)	ND (1)	-	-	ND (1)	ND (0.0099)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	0.14 J
		6-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0097)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.19 J
		3-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	0.7 J	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (1)	-	ND (1)	ND (1)	-	-	-	-	-	ND (0.050)
		17-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.49	0.73	0.5	1.2	-	-	-	-	-	3.1
		16-Nov-11			WELL DESTROYED	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 5	A-133	17-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	3	ND (20)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	71	48	49	ND (170)	-	-	-	-	-	ND (0.052)
		16-Nov-11			ND (0.5)	0.5 J	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	2	ND (400)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	2,200	760	1,000	ND (4,000)	-	-	-	-	-	4.2
		8-Apr-13			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (2)	ND (0.1)	ND (2)	ND (2)	ND (1)	ND (0.02)	0.574	ND (0.1)	ND (0.1)	0.959	ND (0.1)	0.173	0.269	ND (0.1)	ND (0.1)	ND (3)
		2-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	0.39 J	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	23.6	8.11	9.18	24.1	2.58	7.36	11.1	4.40	6.58	3.4
		24-Jul-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	0.60 J	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	0.644	0.351	ND (0.10)	1.09	ND (0.10)	0.210	0.192	0.111	ND (0.10)	ND (3.0)
		21-Oct-14			0.38 J	0.86 J	ND (1.0)	ND (1.0)	1.24	ND (1.0)	-	0.49 J	0.125	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	1.19	0.321	0.195	2.09	0.621	1.35	1.18	1.43	0.877	ND (3.0)
		21-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	0.1 J	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	3	2	0.6	3	0.5	0.8	1	0.5 J	0.7	0.10 J
		19-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.9	ND (0.1)	ND (0.1)	1	ND (0.1)	0.2 J	0.4 J	0.2 J	0.2 J	ND (0.13)
		19-May-16		Field Duplicate	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	1	ND (0.1)	ND (0.1)	1	ND (0.1)	0.2 J	0.3 J	0.2 J	0.2 J	ND (0.13)
		22-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	1	ND (0.1)	ND (0.1)	1	ND (0.1)	0.3 J	0.5 J	0.2 J	0.6	ND (0.090)
		27-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	ND (2.50)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	6.55	1.43	ND (0.500)	9.83	ND (0.500)	2.49	2.38	1.50	2.14	ND (2.00)
	A-136	1-Jan-95	DM		ND	ND	ND	0.8 J	0.8	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-96	DM		ND (0.3)	ND (0.3)	ND (0.4)	ND (0.6)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-97	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	2	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-98	DM		2	ND (1)	ND (1)	ND (1)	2	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-99	DM		ND (20)	ND (20)	ND (20)	ND (20)	ND	-	-	-	-	-	-	-	-	9	-	-	-	-	7	5	6	-	-
		3-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	0.6 J	0.6	ND (0.5)	-	7	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	6	-	7	15	-	-	-	-	-	0.41 J
		1-Aug-14			ND (0.50) SL	ND (1.0) SL	ND (1.0) SL	1.1 SL	1.1 SL	ND (1.0) SL	-	19.5 SL	ND (0.11) SL	0.48 J SL	ND (2.0) SL	ND (1.0) SL	ND (0.020) SL	1.53 SL	2.79 SL	1.24 SL	7.00 SL	1.28 SL	1.39 SL	1.07 SL	1.52 SL	0.900 SL	1.4 J SL
		17-Oct-14			ND (0.50)	ND (1.0)	ND (1.0)	0.76 J	0.76	ND (1.0)	-	8.4	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	2.01	3.22	2.23	4.22	1.41	1.65	0.651	1.23	0.459	3.4

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 5	A-137	1-Jan-95	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-96	DM		ND (0.3)	ND (0.3)	ND (0.4)	ND (0.6)	ND	-	-	-	-	-	-	-	-	2	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-97	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	2	-	-	-	-	1	ND (1)	2	-	-
		1-Jan-98	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-99	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	2	-	-	-	-	2	2	2	-	-
		1-Jan-00	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	250	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		1-Jan-01	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	5	-	-	-	-	-	-	-	2	-	-	-	-	2	ND (2)	ND (3)	-	-
		1-Jan-02	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	6	-	-	-	-	-	-	-	2	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		13-Nov-03			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-	-
		22-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	0.45 J	ND (9.9)	ND (9.9)	ND (9.9)	-	-	-	-	-	ND (5.0)
		4-Dec-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	1.0 J	-	ND (1.0)	ND (1.0)	-	-	ND (1.0)	ND (0.0096)	1.0 J	ND (1.0)	2.0 J	3.0 J	-	-	-	-	-	0.25 J
		6-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0097)	ND (0.9)	ND (0.9)	ND (0.9)	ND (0.9)	-	-	-	-	-	0.25 J
		3-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	2	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0099)	ND (1)	-	ND (1)	ND (1)	-	-	-	-	-	0.17 J
		17-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	3	-	ND (0.5)	ND (1.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	0.085 J	0.16 J	0.41	0.25 J	-	-	-	-	-	0.50 J
		16-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	2	-	ND (0.5)	ND (0.97)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.078)	0.17 J	0.46	0.22 J	-	-	-	-	-	3.8
		8-Apr-13			ND (1)	ND (1)	ND (1)	ND (1)	ND	0.84 J	-	ND (2)	ND (0.11)	ND (2)	ND (2)	ND (1)	ND (0.02)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (3)
		2-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	0.43 J	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	0.245	0.138	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	1.9 J
		17-Jul-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	0.80 J	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	0.310	0.153	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		15-Oct-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	0.89 J	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	0.215	0.137	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		21-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	0.7 J	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.1)	0.1 J	0.3 J	0.3 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.30 J
		19-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	1	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.1)	ND (0.1)	0.3 J	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
		22-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	0.8 J	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.1)	0.1 J	0.4 J	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		27-Jun-18			ND (1.00)	1.97	ND (1.00)	ND (3.00)	1.97	ND (1.00)	-	ND (1.00)	0.663	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.231	0.629	0.226	0.123	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	A-138	17-Nov-10			6	ND (0.5)	10	27	43	1 J	-	7,900	1.1 J	3	3	ND (0.5)	ND (0.0097)	0.16 J	1.5	1.5	ND (0.70)	-	-	-	-	-	0.17 J
		21-Nov-11			4 J	ND (0.5)	3 J	12	19	ND (0.5)	-	1,700	ND (9.6)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	2.9	ND (0.96)	2.6	2.2 J	-	-	-	-	-	0.21 J
		8-Apr-13			0.76 J	ND (1)	ND (1)	0.33 J	1.09	1.1	-	104	ND (0.1)	ND (2)	ND (2)	ND (1)	ND (0.02)	0.152	ND (0.1)	0.235	0.174	ND (0.1)	0.151	ND (0.1)	0.166	ND (0.1)	ND (3)
	A-139	2-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	2.6 J
		21-Oct-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	25.7
		21-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	94.6
		6-Jul-18			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64.9
		6-Jul-18		Hydra Sleeve	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57.7
	A-140	17-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	0.6 J	-	ND (0.5)	ND (0.97)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.058)	ND (0.097)	ND (0.039)	ND (0.097)	-	-	-	-	-	0.093 J
		16-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.98)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.078)	ND (0.098)	ND (0.078)	ND (0.098)	-	-	-	-	-	ND (0.080)
		8-Apr-13			ND (1)	ND (1)	ND (1)	0.73 J	0.73	0.24 J	-	ND (2)	ND (0.11)	0.39 J	ND (2)	ND (1)	ND (0.02)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (3)
		2-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		21-Oct-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.11)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (3.0)
		21-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.082)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE µg/L	TOLUENE µg/L	ETHYLBENZENE µg/L	XYLENES, TOTAL (DIMETHYLBENZENE) µg/L	TOTAL BTEX µg/L	METHYL TERTIARY BUTYL ETHER µg/L	TERT-BUTYL ALCOHOL µg/L	ISOPROPYLBENZENE (CUMENE) µg/L	NAPHTHALENE µg/L	1,2,4-TRIMETHYLBENZENE µg/L	1,3,5-TRIMETHYLBENZENE µg/L	1,2-DICHLOROETHANE (EDC) µg/L	1,2-DIBROMOETHANE (EDB) µg/L	CHRYSENE µg/L	FLUORENE µg/L	PHENANTHRENE µg/L	PYRENE µg/L	ANTHRACENE µg/L	BENZO(A)ANTHRACENE µg/L	BENZO(A)PYRENE µg/L	BENZO(B)FLUORANTHENE µg/L	BENZO(G,H,I)PERYLENE µg/L	LEAD µg/L
AOI 5	WP-14	17-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (100)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	40	16 J	53	100	-	-	-	-	-	0.45 J
		28-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (9.8)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.010)	ND (4.5)	1.7 J	2.3	7.4	-	-	-	-	-	0.34 J
		8-Apr-13			ND (1)	ND (1)	ND (1)	ND (1)	ND	0.26 J	-	ND (2)	0.228	ND (2)	ND (2)	ND (1)	ND (0.02)	0.576	0.228	0.54	1.17	0.249	0.586	0.463	0.432	0.27	ND (3)
		2-Jun-14			ND (5.0)	ND (10)	ND (10)	ND (10)	ND	ND (10)	-	ND (10)	ND (0.10)	ND (20)	ND (20)	ND (10)	ND (0.020)	ND (0.10)	4.94	1.65	1.34	0.631	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	2.0 J
		25-Jul-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	1.03	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	2.78	1.16	1.84	6.16	1.12	3.47	2.18	2.96	1.20	6.2
		9-Oct-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	0.32 J	-	ND (1.0)	0.154	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	0.269	0.297	0.345	1.15	0.264	0.398	0.167	0.210	ND (0.10)	ND (3.0)
		21-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	0.2 J	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	0.7	0.1 J	0.5 J	0.8	0.2 J	0.6	0.7	0.7	0.5	0.97 J
		20-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	0.4 J	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.7	0.5	0.6	1	0.3 J	0.6	0.7	0.7	0.6	0.31 J
		22-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	0.5	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	1	0.4 J	1	2	0.5 J	1	2	2	1	0.40 J
		27-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.724	0.767	0.245	0.109	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	WP-A	4-Dec-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	1.0 J	-	ND (1.0)	ND (1.0)	-	-	ND (1.0)	ND (0.0097)	1.0 J	4.0 J	ND (1.0)	7.0	-	-	-	-	-	0.20 J
		31-Jul-14			ND (0.50) SL	ND (1.0) SL	ND (1.0) SL	ND (1.0) SL	ND SL	ND (1.0) SL	-	ND (1.0) SL	ND (0.50) SL	ND (2.0) SL	ND (2.0) SL	ND (1.0) SL	ND (0.020) SL	23.4 SL	2.34 SL	1.83 SL	65.2 SL	6.75 SL	9.79 SL	18.5 SL	18.2 SL	23.8 SL	3.9 SL
	WP-C	6-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	2.0	2.0	-	-	4.0	ND (1.0)	-	-	ND (0.5)	ND (0.0097)	3.0 J	4.0 J	ND (1.0)	4.0 J	-	-	-	-	-	2
	B-43	23-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	4	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	3	0.9	ND (0.1)	7	0.7	2	2	2	1	ND (0.13)
		22-May-17			ND (0.5)	ND (0.5)	ND (0.5)	2	2	ND (0.5)	-	7	1	0.8 J	ND (0.5)	ND (0.5)	ND (0.020)	0.3 J	0.3 J	1	2	0.4 J	0.4 J	0.3 J	0.3 J	0.1 J	ND (0.090)
		27-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	2.35	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	0.326	ND (0.0500)	ND (0.0500)	1.52	ND (0.0500)	0.327	0.253	0.311	0.160	ND (2.00)
	B-45	18-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0097)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	ND	ND	ND	-	ND (0.047)
		4-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.010)	ND (1)	-	ND (1)	ND (1)	-	-	-	-	-	ND (0.050)
	B-95	8-Jun-11			ND (0.5)	ND (0.5)	ND (0.5)	0.5 J	0.5	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0099)	0.18 J	-	0.18 J	1.2	-	-	-	-	-	ND (0.052)
		23-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.4 J	ND (0.1)	ND (0.1)	0.7	ND (0.1)	0.2 J	0.3 J	0.2 J	0.2 J	ND (0.13)
AOI 6	B-131	1-Jan-95	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-96	DM		ND (0.3)	ND (0.3)	ND (0.4)	ND (0.6)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	-	-	-	-	-
		1-Jan-97	DM		12	1	2	11	26	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-98	DM		ND (1)	ND (1)	ND (1)	1	1	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-99	DM		19	ND (1)	ND (1)	1	20	-	-	-	-	-	-	-	-	1	-	-	-	-	1	ND (1)	ND (1)	-	-
		1-Jan-00	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	1.1	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		1-Jan-01	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	2	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		1-Jan-02	DM		5	1	ND (1)	2	8	ND (1)	-	-	-	-	-	-	-	ND (2)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		13-Nov-03			4.2	ND (1.0)	ND (1.0)	0.93 J	5.13	ND (1.0)	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	0.60 J	ND (2.0)	ND (2.0)	-	-
		21-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	10	ND (5.0)	-	-	ND (5.0)	ND (0.020)	0.35 J	ND (9.8)	ND (9.8)	ND (9.8)	-	-	-	-	-	ND (5.0)
		4-Dec-06			4.0 J	ND (0.7)	ND (0.8)	ND (0.8)	4	ND (0.5)	-	11	ND (1.0)	-	-	ND (1.0)	ND (0.0098)	2.0 J	2.0 J	1.0 J	8.0	-	-	-	-	-	0.14 J
		18-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	9.0	ND (1.0)	-	-	ND (0.5)	ND (0.0096)	ND (1.0)	2.0 J	ND (1.0)	4.0 J	-	-	-	-	-	0.091 J
		4-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	6	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (1)	-	ND (1)	5	-	-	-	-	-	ND (0.050)
		9-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	0.5 J	0.5	ND (0.5)	-	10	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (1)	3 J	ND (1)	5	-	-	-	-	-	ND (0.052)
		16-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	5	ND (0.96)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	5.4	4.0	0.65	19	-	-	-	-	-	ND (0.080)
		8-Apr-13			1.1	0.61 J	0.32 J	0.62 J	2.65	ND (1)	-	13	ND (0.1)	ND (2)	ND (2)	ND (1)	ND (0.02)	0.132	1.08	0.43	1.13	0.477	0.169	ND (0.1)	ND (0.1)	ND (0.1)	ND (3)
		2-Jun-14			0.29 J	0.30 J	ND (1.0)	0.56 J	1.15	ND (1.0)	-	12.1	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	0.206	1.74	0.333	2.51	0.747	0.258	ND (0.10)	ND (0.10)	ND (0.10)	1.6 J
		20-May-15			2	0.9 J	ND (0.5)	0.6 J	3.5	ND (0.5)	-	11	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	0.4 J	2	0.4 J	3	0.7	0.4 J	0.2 J	0.2 J	ND (0.1)	0.13 J

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 6	B-153	9-Jun-06			ND (5)	ND (5)	ND (5)	ND (5)	ND	ND (5)	-	9	ND (5)	-	-	ND (5)	ND (0.029)	ND (5)	ND (5)	ND (5)	ND (5)	-	-	-	-	-	-
		4-Jan-13			ND (1.0)	ND (1.0)	ND (1.0)	1.4	1.4	ND (1.0)	-	ND (2.0)	0.466	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	0.192	ND (0.10)	0.213	0.190	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
	B-158	9-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (1)	ND (1)	ND (1)	1 J	-	-	-	-	-	0.072 J
		16-Nov-11			180	250	13	130	573	ND (1)	-	2 J	ND (0.96)	4 J	3 J	ND (1)	ND (0.0096)	0.35	0.23 J	0.19 J	0.80	-	-	-	-	-	0.10 J
		8-Apr-13			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (2)	ND (0.1)	ND (2)	ND (2)	ND (1)	ND (0.02)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (3)
		2-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	0.126	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	1.7 J
		20-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.1)	ND (0.1)	ND (0.1)	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.14 J
	B-165	3-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	0.34 J	-	3.4	ND (0.10)	0.23 J	ND (2.0)	ND (1.0)	ND (0.020)	0.134	1.67	0.223	1.14	0.416	0.196	ND (0.10)	0.124	ND (0.10)	1.4 J
		20-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	0.6 J	-	6	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	0.2 J	2	0.1 J	2	0.6	0.2 J	ND (0.1)	0.1 J	ND (0.1)	0.11 J
AOI 7	C-51	5-Dec-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	ND (0.5)	-	ND (1.0)	ND (1.0)	-	-	ND (1.0)	ND (0.0097)	4.0 J	1.0 J	2.0 J	8.0	-	-	-	-	-	0.16 J
		17-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0097)	ND (1.0)	2.0 J	ND (1.0)	2.0 J	-	-	-	-	-	0.11 J
		5-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (1)	-	ND (1)	2 J	-	-	-	-	-	0.059 J
		11-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.6	-	0.65	3.0	-	-	-	-	-	ND (0.050)
	C-62	15-Jan-10			ND (0.5)	ND (0.5)	ND (0.5)	2	2	ND (0.5)	-	0.9 J	ND (0.9)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (0.9)	ND (0.9)	2 J	ND (0.9)	-	-	-	-	-	0.076 J
		20-Jul-10			ND (0.5)	ND (0.5)	ND (0.5)	0.6 J	0.6	ND (0.5)	-	0.5 J	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (1)	1 J	2 J	1 J	-	-	-	-	-	0.17 J
		27-Jul-16			ND (5)	ND (5)	ND (5)	ND (5)	ND	ND (5)	-	ND (10)	ND (0.061)	ND (10)	ND (10)	ND (5)	ND (0.028)	0.28	0.64	1.2	0.46	0.33	0.26	0.30	0.34	0.22	0.19 J
		23-May-17			ND (0.5)	ND (0.5)	ND (0.5)	0.8 J	0.8	ND (0.5)	-	0.9 J	9	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	0.4 J	0.9	1	0.7	0.4 J	0.4 J	0.5 J	0.5 J	0.4 J	0.29 J
		26-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	6.58	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.515	0.344	0.0542	0.113	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 7	C-104	1-Jan-95	DM		ND	ND	ND	1.3 J	1.3	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-96	DM		ND (0.3)	ND (0.3)	3.8	ND (0.6)	3.8	-	-	-	-	-	-	-	-	4	-	-	-	-	2	ND (1)	ND (1)	-	-
		1-Jan-97	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	6	-	-	-	-	4	2	3	-	-
		1-Jan-98	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-99	DM		ND (1)	ND (1)	ND (1)	1	1	-	-	-	-	-	-	-	-	2	-	-	-	-	1	ND (1)	ND (1)	-	-
		1-Jan-00	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		1-Jan-01	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	-	-	-	-	-	-	20	-	-	-	-	17	12	9	-	-
		1-Jan-02	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	-	-	-	-	-	-	ND (2)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		13-Nov-03			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-	-
		21-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	2.8 J	ND (9.9)	ND (9.9)	ND (9.9)	-	-	-	-	-	ND (5.0)
		5-Dec-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	ND (0.5)	-	ND (1.0)	ND (1.0)	-	-	ND (1.0)	ND (0.0096)	7.0 J	9.0 J	ND (5.0)	15.0 J	-	-	-	-	-	0.13 J
		12-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	0.7 J	ND (1.0)	-	-	ND (0.5)	ND (0.0095)	13	12	5.0	34	-	-	-	-	-	0.12 J
		5-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	0.6 J	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.010)	15 J	-	ND (10)	39 J	-	-	-	-	-	0.51 J
		11-Nov-09			ND (3.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND	ND (3.0)	-	ND (3.0)	ND (5.0)	ND (3.0)	ND (3.0)	ND (3.0)	ND (0.0096)	0.20 J	-	0.14 J	1.7	-	-	-	-	-	0.076 J
		9-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	0.5 J	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (1)	8	ND (1)	2 J	-	-	-	-	-	0.078 J
		16-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.97)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	0.17 J	0.24 J	ND (0.078)	1.7	-	-	-	-	-	3.8
		8-Apr-13			ND (1)	ND (1)	ND (1)	0.62 J	0.62	ND (1)	-	ND (2)	ND (0.1)	ND (2)	ND (2)	ND (1)	ND (0.02)	ND (0.1)	2.35	0.633	0.641	0.364	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (3)
		3-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	0.202	ND (0.10)	0.161	0.429	ND (0.10)	0.260	0.201	0.240	0.122	2.3 J
		21-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	0.2 J	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	1	7	3	3	1	0.8	0.6	0.5 J	0.3 J	ND (0.082)
		24-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	0.1 J	6	0.3 J	2	0.5 J	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
		23-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	0.3 J	5	1	2	0.6	0.2 J	0.2 J	ND (0.1)	ND (0.1)	ND (0.090)
		26-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	0.103	3.39	0.285	1.56	0.480	0.0909	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)

See notes on last page.

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Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 7	C-127	1-Jan-95	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-96	DM		ND (0.3)	ND (0.3)	ND (0.4)	ND (0.6)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-97	DM		ND (1)	1	ND (1)	ND (1)	1	-	-	-	-	-	-	-	-	11	-	-	-	-	6	3	4	-	-
		1-Jan-98	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-99	DM		ND (1)	ND (1)	ND (1)	1	1	-	-	-	-	-	-	-	-	4	-	-	-	-	3	2	2	-	-
		1-Jan-00	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	10	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		1-Jan-01	DM		ND (1)	1	2	2	5	8	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		13-Nov-03			ND (1)	ND (1)	ND (1)	ND (1)	ND	16	-	-	-	-	-	-	-	ND (2)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		21-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	23	-	7.1	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (9.8)	ND (9.8)	ND (9.8)	-	-	-	-	-	ND (5.0)
		5-Dec-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	27.0	-	5.0	ND (1.0)	-	-	ND (1.0)	ND (0.0096)	3.0 J	8.0	2.0 J	9.0	-	-	-	-	-	0.13 J
		12-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	22	-	3.0	ND (1.0)	-	-	ND (0.5)	ND (0.0096)	1.0 J	5.0	ND (0.9)	4.0 J	-	-	-	-	-	0.18 J
		5-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	19	-	3	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	3 J	-	ND (1)	9	-	-	-	-	-	0.51 J
		11-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	10	-	6.0	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	0.46	-	0.93	3.3	-	-	-	-	-	ND (0.050)
		9-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	12	-	10	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (1)	6	ND (1)	2 J	-	-	-	-	-	0.073 J
		16-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	10	-	9	ND (0.96)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.90)	7.9	ND (0.75)	2.5	-	-	-	-	-	ND (0.080)
		8-Apr-13			ND (1)	ND (1)	ND (1)	0.57 J	0.57	7.5	-	2.2	ND (0.1)	ND (2)	ND (2)	ND (1)	ND (0.02)	ND (0.1)	1.64	ND (0.1)	0.59	0.285	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (3)
		3-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	0.22 J	0.22	4.4	-	3.6	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	2.15	0.225	0.440	0.281	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		21-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	6	-	2	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.2 J	4	0.1 J	1	0.5 J	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.082)
		24-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	5	-	4	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.1)	3	0.3 J	0.7	0.4 J	0.1 J	0.1 J	ND (0.1)	0.6	ND (0.13)
		23-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	5	-	3	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.1)	3	0.1 J	0.9	0.5 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		26-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	4.11	-	1.37	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	0.0880	3.14	ND (0.0500)	1.07	0.456	0.0591	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	C-129	9-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	0.082 J
		17-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.97)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.73	ND (0.097)	0.24	0.34 J	-	-	-	-	-	1.0
		8-Apr-13			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (2)	ND (0.1)	ND (2)	ND (2)	ND (1)	ND (0.02)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (3)
		3-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	2.2 J
		21-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.13 J
		24-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
		23-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	0.1 J	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	0.5 J	0.1 J	0.4 J	0.6	0.2 J	0.4 J	0.4 J	0.5 J	0.4 J	0.39 J
		26-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 8	N-1	1-Jan-85	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-86	DM		ND (0.3)	ND (0.3)	ND (0.4)	ND (0.6)	ND	-	-	-	-	-	-	-	-	ND (2)	-	-	-	-	ND	ND	ND	-	-
		1-Jan-88	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-93	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-94	DM		ND (5)	ND (5)	ND (5)	ND (10)	ND	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	ND (10)	ND (10)	ND (10)	-	-
		1-Jan-95	DM		ND	ND	0.5 J	ND	0.5	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		4-Jan-96			ND (0.3)	ND (0.3)	ND (0.4)	ND (0.6)	ND	-	-	-	-	-	-	-	-	2	-	-	-	-	2	2	2	-	-
		1-Jan-97	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-98	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Dec-99			ND (1)	ND (1)	ND (1)	ND (2)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		15-Nov-00			ND (1)	ND (1)	ND (1)	ND (2)	ND	ND (1)	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		15-Nov-01			ND (1)	ND (1)	ND (1)	ND (2)	ND	ND (1)	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		12-Nov-02			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	-	-	-	-	-	-	ND (2)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		13-Nov-03			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-	-
		20-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (5.0)
		19-Dec-06			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0097)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.15 J
		4-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0098)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.089 J
		4-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	0.5 J	0.5	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.9)	-	ND (0.9)	ND (0.9)	-	-	-	-	-	ND (0.050)
		16-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.068 J	-	0.050 J	ND (0.10)	-	-	-	-	-	ND (0.050)
		8-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	ND (0.052)
		17-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.96)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.10 J	ND (0.096)	0.13 J	0.27 J	-	-	-	-	-	1.5
		4-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (2.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.13 J
		2-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	1.4 J
		19-May-15			0.9 J	ND (0.5)	0.7 J	2	3.6	ND (0.5)	-	ND (0.5)	0.2 J	0.5 J	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.082)
		23-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
		23-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	0.2 J	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	0.2 J	0.3 J	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		29-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	N-2	4-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	12.3	-	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	-	-	-	-	-	-	-	-	-	0.39 J
		2-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	1.8	0.117	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	0.766	0.268	0.394	1.27	0.498	0.807	0.959	1.34	1.43	4.1
		19-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.7	0.2 J	0.2 J	1	0.3 J	0.6	0.8	0.8	0.9	ND (0.082)
		23-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	0.4 J	0.6	0.1 J	1	0.2 J	0.4 J	0.5 J	0.5 J	0.4 J	ND (0.13)
		23-May-17			4	ND (0.5)	ND (0.5)	ND (0.5)	4	ND (0.5)	-	0.9 J	0.3 J	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	9	2	3	15	3	9	10	11	6	0.18 J
		29-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.526	0.115	0.509	0.218	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 8	N-3	20-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (5.0)
		17-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	0.86	-	0.65	2.1	-	-	-	-	-	0.15 J
		8-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	10	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	10	3 J	11	33	-	-	-	-	-	0.24 J
		17-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (4.8)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (1.9)	0.90 J	2.1	1.8 J	-	-	-	-	-	0.13 J
		4-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (2.0)	-	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	-	-	-	-	-	-	-	-	-	30.5
		2-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	2.23	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	2.69	0.297	0.662	6.08	1.59	2.43	1.53	2.26	0.971	2.4 J
		19-May-15			3	3	0.9 J	4	10.9	ND (0.5)	-	0.6 J	5	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	10	1	2	13	5	7	6	6	2	2.4
		27-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	1	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	0.9	0.3 J	0.7	1	0.5	0.7	0.9	0.8	0.6	1.6
		23-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	0.8	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	2	0.5 J	1	2	0.8	1	1	1	1	0.87 J
		29-Jun-18			6.75	9.30	3.36	8.84	28.25	ND (1.00)	-	4.42	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	N-7	1-Jan-93	DM		ND	ND	ND	8	8	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-94	DM		ND (250)	ND (250)	480	ND (500)	480	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	ND (10)	ND (10)	ND (10)	-	-
		1-Jan-95	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		4-Jan-96			ND (0.3)	ND (0.3)	ND (0.4)	ND (0.6)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-97	DM		1	3	4	3	11	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-98	DM		ND (10)	ND (10)	ND (10)	ND (10)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Dec-99			ND (1)	ND (1)	ND (1)	ND (2)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		15-Nov-00			ND (1)	1.7	ND (1)	ND (2)	1.7	1.2	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		15-Nov-01			28	4	2	6	40	ND (1)	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		12-Nov-02			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	-	-	-	-	-	-	ND (2)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		13-Nov-03			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-	-
		20-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (5.0)
	N-8	20-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (5.0)
		6-Dec-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	ND (0.5)	-	ND (1.0)	ND (1.0)	-	-	ND (1.0)	ND (0.0097)	ND (10.0)	ND (10.0)	ND (10.0)	ND (10.0)	-	-	-	-	-	0.14 J
		4-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0098)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	1.7
		4-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (1)	-	ND (1)	ND (1)	-	-	-	-	-	0.053 J
		16-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.059)	-	ND (0.039)	ND (0.098)	-	-	-	-	-	ND (0.050)
		8-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0099)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	0.074 J
		17-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.97)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.077)	ND (0.097)	ND (0.077)	ND (0.097)	-	-	-	-	-	ND (0.080)
		5-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (2.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (1.0)
		2-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	1.3 J
		20-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.082)
		24-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
		24-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		29-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	1.98	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 8	N-28	1-Jan-85	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-86	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-88	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-93	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	11	15	-	-
		1-Jan-94	DM		ND (5)	ND (5)	ND (5)	ND (10)	ND	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	ND (10)	ND (10)	ND (10)	-	-
		1-Jan-95	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		4-Jan-96			ND (0.3)	ND (0.3)	ND (0.4)	ND (0.6)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-97	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-98	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Dec-99			ND (1)	ND (1)	ND (1)	ND (2)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		15-Nov-00			ND (1)	ND (1)	ND (1)	ND (2)	ND	ND (1)	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		15-Nov-01			ND (1)	ND (1)	ND (1)	ND (2)	ND	ND (1)	-	-	-	-	-	-	-	3	-	-	-	-	3	4	3	-	-
		12-Nov-02			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	-	-	-	-	-	-	ND (2)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		13-Nov-03			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-	-
		20-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (5.0)
		19-Dec-06			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0097)	ND (1.0)	ND (1.0)	ND (1.0)	1.0 J	-	-	-	-	-	0.53 J
		4-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0095)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.29 J
		3-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0099)	ND (0.9)	-	ND (0.9)	ND (0.9)	-	-	-	-	-	1.2
		16-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	0.17 J	-	0.15 J	0.38 J	-	-	-	-	-	0.28 J
		8-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	3 J	ND (1)	3 J	4 J	-	-	-	-	-	0.47 J
		17-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.95)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	0.087 J	ND (0.095)	ND (0.076)	ND (0.095)	-	-	-	-	-	0.40 J
		5-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (2.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	15.6

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 8	N-37	1-Jan-85	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	62	-	-	-	-	55	49	32	-	-
		1-Jan-86	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-88	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	21	-	-	-	-	28	ND	ND	-	-
		1-Jan-93	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-94	DM		ND (50)	ND (50)	ND (50)	ND (100)	ND	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	2 J	1 J	ND (10)	-	-
		1-Jan-95	DM		ND	ND	ND	0.9 J	0.9	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		4-Jan-96			ND (0.3)	ND (0.3)	7.8	ND (0.6)	7.8	-	-	-	-	-	-	-	-	7	-	-	-	-	8	6	4	-	-
		1-Jan-97	DM		ND (1)	1	ND	2	3	-	-	-	-	-	-	-	-	5	-	-	-	-	8	4	2	-	-
		1-Jan-98	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	3	-	-	-	-	4	4	2	-	-
		1-Dec-99			ND (1)	ND (1)	ND (1)	ND (2)	ND	-	-	-	-	-	-	-	-	2	-	-	-	-	2	2	1	-	-
		15-Nov-00			ND (1)	ND (1)	ND (1)	ND (2)	ND	ND (1)	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		15-Nov-01			ND (1)	ND (1)	ND (1)	ND (2)	ND	ND (1)	-	-	-	-	-	-	-	4	-	-	-	-	7	5	ND (3)	-	-
		12-Nov-02			2	ND (1)	ND (1)	ND (1)	2	ND (1)	-	-	-	-	-	-	-	ND (2)	-	-	-	-	3	3	ND (1)	-	-
		14-Nov-03			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-	-
		19-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (9.9)	ND (9.9)	ND (9.9)	-	-	-	-	-	ND (5.0)
		1-Dec-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	ND (0.5)	-	ND (1.0)	ND (1.0)	-	-	ND (1.0)	ND (0.0097)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.12 J
		5-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0095)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.13 J
		3-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (0.9)	-	ND (0.9)	ND (0.9)	-	-	-	-	-	0.19 J
		11-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.55	-	ND (0.40)	0.8	-	-	-	-	-	0.075 J
		8-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	ND (0.052)
		17-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.95)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.076)	0.21 J	ND (0.076)	ND (0.13)	-	-	-	-	-	2.6
		4-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	0.25 J	-	ND (2.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.048 J
		4-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	2.1 J
		20-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.082)
		26-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
		24-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	0.1 J	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		27-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 8	N-57	1-Jan-85	DM		330	ND	2,100	17,100	19,530	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-86	DM		300	ND	1,300	10,900	12,500	-	-	-	-	-	-	-	-	21	-	-	-	-	14	16	16	-	-
		1-Jan-88	DM		ND	ND	ND	1,600	1,600	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-93	DM		20	2	4	567	593	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-94	DM		110 J	ND (250)	720	4,140	4,970	-	-	-	-	-	-	-	-	5 J	-	-	-	-	ND (10)	2 J	ND (10)	-	-
		1-Jan-95	DM		89	ND	ND	3,040	3,129	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		4-Jan-96			190	2.8	13	2,000	2,205.8	-	-	-	-	-	-	-	-	1	-	-	-	-	1	2	ND (1)	-	-
		1-Jan-97	DM		180	ND (100)	ND (100)	1,900	2,080	-	-	-	-	-	-	-	-	2	-	-	-	-	2	2	1	-	-
		1-Jan-98	DM		82 J	ND (100)	ND (100)	1,600	1,682	-	-	-	-	-	-	-	-	8	-	-	-	-	8	12	3	-	-
		1-Dec-99			120	ND (100)	ND (100)	660	780	-	-	-	-	-	-	-	-	13	-	-	-	-	10	15	9	-	-
		15-Nov-00			110	ND (100)	ND (100)	440	550	260	-	-	-	-	-	-	-	12	-	-	-	-	9	14	7	-	-
		15-Nov-01			75	ND (10)	ND (10)	240	315	ND (10)	-	-	-	-	-	-	-	3	-	-	-	-	2	ND (2)	ND (3)	-	-
		12-Nov-02			6	ND (1)	2	203	211	ND (1)	-	-	-	-	-	-	-	2	-	-	-	-	1	3	ND (1)	-	-
		14-Nov-03			24.1	1.1	1.1	32.3	58.6	ND (1.0)	-	-	-	-	-	-	-	0.63 J	-	-	-	-	ND (2.0)	0.70 J	0.58 J	-	-
		19-Oct-04			38	ND (5.0)	ND (5.0)	140	178	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (9.8)	ND (9.8)	ND (9.8)	-	-	-	-	-	ND (5.0)
		1-Dec-06			ND (0.5)	ND (0.7)	ND (0.8)	24	24	ND (0.5)	-	2.0 J	ND (1.0)	-	-	ND (1.0)	ND (0.0097)	1.0 J	ND (1.0)	ND (1.0)	1.0 J	-	-	-	-	-	0.14 J
		5-Dec-07			ND (0.5)	ND (0.5)	0.5 J	19	19.5	-	-	1.0 J	ND (1.0)	-	-	ND (0.5)	ND (0.0096)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.21 J
		4-Nov-08			ND (0.5)	0.6 J	0.6 J	93	94.2	ND (0.5)	-	3	ND (1)	3	0.5 J	ND (0.5)	ND (0.0097)	1 J	-	ND (0.9)	ND (0.9)	-	-	-	-	-	0.11 J
		11-Nov-09			ND (0.5)	0.7 J	ND (0.5)	230	230.7	ND (0.5)	-	2	ND (1)	8.0	1 J	ND (0.5)	ND (0.0098)	ND (0.20)	-	ND (0.20)	ND (0.50)	-	-	-	-	-	0.090 J
		8-Nov-10			0.5 J	1	0.7 J	600	602.2	ND (0.5)	-	4	2 J	13	4	ND (0.5)	ND (0.0099)	ND (1)	1 J	ND (1)	ND (1)	-	-	-	-	-	0.070 J
		17-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	280	280	ND (0.5)	-	1 J	ND (4.8)	3	1 J	ND (0.5)	ND (0.0096)	ND (0.38)	ND (0.48)	ND (0.38)	ND (0.48)	-	-	-	-	-	ND (0.080)
		4-Apr-13			ND (5.0)	ND (5.0)	ND (5.0)	384	384	ND (5.0)	-	ND (10)	ND (0.10)	5.6 J	ND (10)	ND (5.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.064 J
		2-Jun-14			ND (0.50)	0.54 J	ND (1.0)	267	267.54	ND (1.0)	-	1.2	ND (0.10)	5.8	2.0	ND (1.0)	ND (0.020)	0.313	ND (0.10)	ND (0.10)	0.357	ND (0.10)	0.180	0.739	0.283	1.34	ND (3.0)
		20-May-15			ND (5)	ND (5)	ND (5)	250	250	ND (5)	-	ND (5)	0.2 J	ND (5)	ND (5)	ND (5)	ND (0.0096)	1	0.4 J	0.3 J	0.9	0.2 J	0.6	2	1	2	0.30 J
		26-May-16			ND (0.5)	ND (0.5)	ND (0.5)	56	ND	ND (0.5)	-	0.7 J	ND (0.1)	1 J	ND (0.5)	ND (0.5)	ND (0.0097)	0.3 J	ND (0.1)	0.1 J	0.3 J	ND (0.1)	0.2 J	0.4 J	0.3 J	0.5 J	0.23 J
		24-May-17			ND (5)	ND (5)	ND (5)	290	290	ND (5)	-	ND (5)	0.1 J	ND (5)	ND (5)	ND (5)	ND (0.0096)	0.9	0.4 J	0.2 J	1	ND (0.1)	0.6	1	0.7	2	0.091 J
		13-Jul-18			ND (1.00)	ND (1.00)	ND (1.00)	36.4	36.4	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	0.0684	ND (0.0500)	0.201	ND (0.0500)	0.0903	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 8	N-60	1-Jan-85	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-86	DM		6	ND	ND	ND	6	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-88	DM		96	ND	ND	ND	96	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-93	DM		13	ND	ND	ND	13	-	-	-	-	-	-	-	-	13	-	-	-	-	ND	ND	ND	-	-
		1-Jan-94	DM		ND (250)	ND (250)	ND (250)	ND (500)	ND	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	ND (10)	ND (10)	ND (10)	-	-
		1-Jan-95	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	2 J	-	-	-	-	2 J	ND	ND	-	-
		11-Jan-96			16	ND (0.3)	ND (0.4)	ND (0.6)	16	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-97	DM		7	5	ND (1)	ND (1)	12	-	-	-	-	-	-	-	-	6	-	-	-	-	3	2	2	-	-
		1-Jan-98	DM		9	3	ND (1)	6	18	-	-	-	-	-	-	-	-	10	-	-	-	-	8	7	5	-	-
		1-Dec-99			ND (100)	ND (100)	ND (100)	ND (200)	ND	-	-	-	-	-	-	-	-	3	-	-	-	-	3	2	1	-	-
		15-Nov-00			ND (1)	ND (1)	ND (1)	ND (2)	ND	960	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		15-Nov-01			4	1	ND (1)	ND (2)	5	ND (1)	-	-	-	-	-	-	-	9	-	-	-	-	8	4	3	-	-
		12-Nov-02			3	ND (1)	ND (1)	ND (1)	3	ND (1)	-	-	-	-	-	-	-	2	-	-	-	-	2	2	ND (1)	-	-
		14-Nov-03			0.99 J	ND (1.0)	ND (1.0)	ND (1.0)	0.99	ND (1.0)	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-	-
		19-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	1.9 J	ND (9.9)	ND (9.9)	ND (9.9)	-	-	-	-	-	ND (5.0)
		1-Dec-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	ND (0.5)	-	ND (1.0)	ND (1.0)	-	-	ND (1.0)	ND (0.0096)	9.0	2.0 J	ND (1.0)	8.0	-	-	-	-	-	0.18 J
		5-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0096)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	0.42 J
		4-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	5	-	ND (1)	4 J	-	-	-	-	-	0.24 J
		11-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	4.0	-	0.56	3.8	-	-	-	-	-	0.095 J
		8-Nov-10			0.6 J	ND (0.5)	ND (0.5)	ND (0.5)	0.6	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	4 J	1 J	ND (1)	3 J	-	-	-	-	-	0.57 J
		17-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (4.8)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	6.0	0.81 J	0.50 J	2.2	-	-	-	-	-	3.9
		4-Apr-13			ND (2.0)	0.66 J	ND (2.0)	ND (2.0)	0.66	2.9	-	ND (4.0)	ND (0.10)	ND (4.0)	ND (4.0)	ND (2.0)	ND (0.020)	ND (0.10)	0.263	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.072 J

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Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 8	N-64	1-Jan-93	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		1-Jan-94	DM		ND (250)	ND (250)	90 J	ND (500)	90	-	-	-	-	-	-	-	-	ND (10)	-	-	-	-	ND (10)	ND (10)	ND (10)	-	-
		1-Jan-95	DM		ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	ND	-	-	-	-	ND	ND	ND	-	-
		11-Jan-96			ND (0.3)	ND (0.3)	ND (0.4)	ND (0.6)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-97	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		1-Jan-98	DM		ND (1)	ND (1)	ND (1)	ND (1)	ND	-	-	-	-	-	-	-	-	1	-	-	-	-	1	ND (1)	ND (1)	-	-
		1-Dec-99			ND (1)	ND (1)	ND (1)	ND (2)	ND	-	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		15-Nov-00			ND (1)	ND (1)	ND (1)	ND (2)	ND	ND (1)	-	-	-	-	-	-	-	ND (1)	-	-	-	-	ND (1)	ND (2)	ND (3)	-	-
		15-Nov-01			ND (1)	ND (1)	ND (1)	ND (2)	ND	ND (1)	-	-	-	-	-	-	-	4	-	-	-	-	3	3	ND (3)	-	-
		12-Nov-02			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	-	-	-	-	-	-	ND (2)	-	-	-	-	ND (1)	ND (1)	ND (1)	-	-
		14-Nov-03			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	-	-	-	-	-	-	ND (2.0)	-	-	-	-	ND (2.0)	ND (2.0)	ND (2.0)	-	-
		19-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	-	-	-	-	-	-	-	-	-	ND (5.0)
		1-Dec-06			ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	ND	ND (0.5)	-	ND (1.0)	ND (1.0)	-	-	ND (1.0)	ND (0.0097)	ND (1.0)	6.0	2.0 J	2.0 J	-	-	-	-	-	0.18 J
		5-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0096)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	2.9
		3-Nov-08			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.9)	-	ND (0.9)	ND (0.9)	-	-	-	-	-	18.1
		16-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.14 J	-	0.85	0.96	-	-	-	-	-	0.36 J
		8-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.9)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.9)	2 J	ND (0.9)	ND (0.9)	-	-	-	-	-	12.8
		17-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.98)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	0.12 J	7.6	1.7	0.74	-	-	-	-	-	0.37 J
		5-Apr-13			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (2)	ND (0.1)	0.22 J	ND (2)	ND (1)	ND (0.02)	ND (0.1)	3.16	0.873	0.177	0.738	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (3)
		2-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	0.43 J	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	0.113	4.92	1.02	0.493	1.08	0.112	ND (0.10)	0.127	ND (0.10)	11.8
		20-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	3	0.8	0.3 J	0.8	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.082)
		26-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0094)	0.3 J	4	2	0.6	1	0.3 J	0.2 J	0.2 J	0.1 J	0.14 J
	N-74	7-Feb-08			25	ND (1)	ND (1)	ND (1)	25	ND (1)	-	ND (2)	ND (5)	-	-	ND (1)	ND (0.029)	ND (5)	ND (5)	ND (5)	ND (5)	-	-	-	-	-	ND (1)
		25-Jul-08			4	ND (1)	ND (1)	ND (1)	4	ND (1)	-	ND (2)	ND (5)	-	-	ND (1)	ND (0.029)	ND (5)	ND (5)	ND (5)	ND (5)	-	-	-	-	-	ND (1)
		22-May-15			10	ND (0.5)	ND (0.5)	ND (0.5)	10	ND (0.5)	-	0.5 J	2	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	2	1	0.4 J	0.6	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.085 J
		27-May-16			26	ND (0.5)	ND (0.5)	ND (0.5)	26	ND (0.5)	-	0.6 J	1	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	3	0.5 J	0.5 J	0.6	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
		24-May-17			6	ND (0.5)	ND (0.5)	ND (0.5)	6	ND (0.5)	-	ND (0.5)	0.7	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.1)	2	0.4 J	0.4 J	0.5 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
	N-85	19-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	26	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (5.0)
		5-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	0.34 J	-	0.30 J	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	1.5 J
		20-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.1)	0.4 J	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.13 J
		26-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0093)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
		24-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	0.7 J	0.1 J	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	0.3 J	0.1 J	0.2 J	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		2-Jul-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	11.3	0.327	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0101)	ND (0.0500)	0.537	0.283	ND (0.0500)	0.0890	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	N-98	5-Apr-13			ND (1)	ND (1)	ND (1)	ND (1)	ND	ND (1)	-	ND (2)	ND (0.1)	ND (2)	ND (2)	ND (1)	ND (0.02)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (3)
		4-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		20-May-15			ND (0.5)	ND (0.5)	ND (0.5)	0.7 J	0.7	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.32 J
		24-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
		24-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		29-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 8	N-99	17-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.058)	-	ND (0.038)	ND (0.096)	-	-	-	-	-	ND (0.050)
		10-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	ND (0.052)
		17-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.96)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.076)	ND (0.096)	ND (0.076)	ND (0.096)	-	-	-	-	-	ND (0.080)
		5-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (2.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.036 J
		4-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	2.7 J
		20-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.082)
		26-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0093)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
		24-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	0.3 J	0.3 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		29-Jun-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	N-100	4-Apr-13			ND (1.0)	0.79 J	ND (1.0)	ND (1.0)	0.79	ND (1.0)	-	ND (2.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.091 J
		2-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		19-May-15			5	ND (0.5)	4	11	20	ND (0.5)	-	ND (0.5)	0.7	4	1 J	ND (0.5)	ND (0.0097)	ND (0.1)	0.2 J	0.3 J	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.46 J
		23-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
	N-111	11-Nov-09			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	2	-	4	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	5.5	-	8.6	ND (19)	-	-	-	-	-	ND (0.050)
		10-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	4	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	1 J	5	2 J	3 J	-	-	-	-	-	0.52 J
		17-Nov-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	0.8 J	-	4	ND (0.95)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	0.21	4.4	ND (0.55)	ND (2.1)	-	-	-	-	-	ND (0.080)
		4-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	0.98 J	0.98	0.58 J	-	6.9	ND (0.10)	0.87 J	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	1.89	0.399	0.177	0.240	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.083 J
		2-Jun-14			ND (0.50)	ND (1.0)	ND (1.0)	0.73 J	0.73	0.48 J	-	3.2	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	0.546	2.17	ND (0.10)	0.973	0.452	0.332	0.351	0.258	0.332	1.6 J
		20-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	4	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	0.1 J	4	0.2 J	0.4 J	0.4 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.082)
		26-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	1 J	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.5 J	3	ND (0.1)	0.9	0.5 J	0.3 J	0.3 J	0.2 J	0.2 J	ND (0.13)
		26-May-16		Field Duplicate	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	2 J	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	0.3 J	3	ND (0.1)	0.8	0.4 J	0.2 J	0.3 J	0.2 J	0.3 J	ND (0.13)
		24-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	3	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.1)	2	ND (0.1)	0.6	0.3 J	ND (0.1)	0.2 J	0.2 J	0.3 J	ND (0.090)
		2-Jul-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	ND (1.00)	-	4.85	0.278	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	3.65	ND (0.0500)	0.367	0.370	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	N-133	4-Jun-14			7,100	ND (25)	11.5 J	23.6 J	7,135.1	ND (25)	-	ND (25)	15.8	9.8 J	ND (50)	ND (25)	ND (0.020)	ND (0.10)	0.609	1.27	0.273	0.113	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	5.4
		29-Jun-18			11,500	5.41	17.4	35.9	11,558.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		29-Jun-18		Hydra Sleeve	11,000	5.43	18.4	38.1	11,061.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-156	19-Oct-16			3.51	ND (5.00)	ND (1.00)	4.07	7.58	ND (1.00)	-	8.97	9.20	10.3	8.64	ND (1.00)	ND (1.00)*	0.495	64.8	52.1	3.64	9.52	0.576	0.210	0.227	0.0805	ND (2.00)
		17-Jan-17			6.95	ND (1.00)	2.70	11.3	20.95	ND (1.00)	-	26.3	31.1*	29.1	19.5	ND (1.00)	ND (0.0100)	0.283	64.3	82.6	4.14	12.3	0.452	0.0839	0.118	ND (0.0500)	ND (2.00)
		24-May-17			8	0.7 J	2	10	20.7	ND (0.5)	-	29	13	29	20	ND (0.5)	ND (0.0095)	0.3 J	55	54	3	8	0.3 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		3-Jul-18			5.26	ND (1.00)	1.05	6.03	12.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE µg/L	TOLUENE µg/L	ETHYLBENZENE µg/L	XYLENES, TOTAL (DIMETHYLBENZENE) µg/L	TOTAL BTEX µg/L	METHYL TERTIARY BUTYL ETHER µg/L	TERT-BUTYL ALCOHOL µg/L	ISOPROPYLBENZENE (CUMENE) µg/L	NAPHTHALENE µg/L	1,2,4-TRIMETHYLBENZENE µg/L	1,3,5-TRIMETHYLBENZENE µg/L	1,2-DICHLOROETHANE (EDC) µg/L	1,2-DIBROMOETHANE (EDB) µg/L	CHRYSENE µg/L	FLUORENE µg/L	PHENANTHRENE µg/L	PYRENE µg/L	ANTHRACENE µg/L	BENZO(A)ANTHRACENE µg/L	BENZO(A)PYRENE µg/L	BENZO(B)FLUORANTHENE µg/L	BENZO(G,H,I)PERYLENE µg/L	LEAD µg/L
AOI 9	S-74D2SRTF	8-Apr-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	0.6 J	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0099)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	ND (1.0)
		30-Jun-11			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	0.6 J	-	ND (0.5)	ND (0.9)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.9)	ND (0.9)	ND (0.9)	ND (0.9)	-	-	-	-	-	ND (1.0)
		29-May-12			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.09)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.09)	ND (0.09)	0.1 J	ND (0.09)	-	-	-	-	-	ND (1.0)
		20-Aug-12			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	0.7 J	-	ND (0.5)	ND (0.09)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (0.09)	ND (0.09)	ND (0.09)	ND (0.09)	ND (0.09)	ND (0.09)	ND (0.09)	ND (0.09)	ND (0.09)	ND (1.0)
		31-Oct-12			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	0.63 J	-	ND (5.0)	ND (0.10)	ND (5.0)	ND (5.0)	ND (1.0)	ND (2.0)*	ND (0.10)	ND (0.10)	0.066	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.10)	ND (0.050)	ND (0.10)	ND (5.0)
		28-Mar-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	1 ND	0.66 J	-	ND (2.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	4.2
		12-Mar-15			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	0.48 J	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020) ED	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		14-Aug-15			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	0.37 J	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.019)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	ND (3.0)
		3-Dec-15			ND (1.0)	ND (1.0)	ND (1.0)	ND (3.0)	ND	0.40 J	-	ND (1.0)	-	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	-	-	-	-	-	-
		19-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
	S-110DSRTF	12-Aug-15			0.35 J	ND (1.0)	ND (1.0)	ND (1.0)	0.35	31.7	-	ND (1.0)	ND (0.10)	0.34 J	ND (2.0)	5.4	ND (0.021)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	ND (3.0)
		11-Nov-15			0.30 J	ND (1.0)	ND (1.0)	ND (1.0)	0.3	43.9	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	5.7	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	ND (3.0)
		9-Nov-16			ND (1.0)	ND (1.0)	ND (1.0)	ND (3.0)	ND	47.7	-	ND (1.0)	ND (0.030)	ND (1.0)	ND (1.0)	5.1	ND (0.040) J	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	0.026 J	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (5.0)
		23-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	27	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	4	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		3-Jul-18			4.23	1.73	ND (1.00)	ND (3.00)	5.96	33.5	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	3.94	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		3-Jul-18		Hydra Sleeve	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	31.6	30.1	ND (1.00)	-	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100) HT	-	-	-	-	-	-	-	-	-	-
	S-112SRTF	11-Mar-15			993	215	256	924	2,388	21.7	-	98.4	69.2	258	75.1	ND (5.0)	ND (0.020) ED	ND (0.10)	2.46	1.68	0.0803 J	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		18-Aug-15			785	183	94.5	321	1,383.5	27.4	-	40.3	35.2	107	29.6	ND (5.0)	ND (0.053)	ND (0.10)	1.96	1.09	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	ND (3.0)
		5-Nov-15			1,080	337	140	495	2,052	31.1	-	51.3	16.8	148	46.6	ND (5.0)	ND (0.020)	ND (0.10)	1.70	1.07	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	ND (3.0)
		10-Nov-16			8,440	22,500	4,320	14,900	50,160	36.7	-	421	163,000	5,160	1,730	ND (10.0)	ND (0.040)	32.1 J	3,920	5,860	331	514	30.1 J	9.7 J	17.0 J	15.1 J	23.9
		18-May-17			820	1,600	410	1,600	4,430	23	-	72	46	450	150	ND (3)	ND (0.030)	ND (0.1)	2	1	ND (0.1)	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	3.4
		3-Jul-18			170 SL	119 SL	301 SL	1,590 SL	2,180 SL	ND (50.0) SL	-	56.4 SL	86.6 SL	674 SL	238 SL	ND (50.0) SL	ND (0.0100) SL	ND (0.0500) SL	4.30 SL	3.69 SL	0.211 SL	0.301 SL	ND (0.0500) SL	ND (0.0500) SL	ND (0.0500) SL	ND (0.0500) SL	ND (2.00) SL
	S-113SRTF	11-Aug-09			510	37	890	2,100	3,537	5	-	180	180	1,100	370	ND (2)	ND (0.029)	ND (5)	ND (5)	ND (5)	ND (5)	-	-	-	-	-	19.1
		10-Mar-15			137	5.0	94.3	66.6	302.9	1.7	-	29.6	4.75	37.3	24.1	ND (1.0)	ND (0.020) ED	ND (0.11)	0.161	0.110	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (3.0)
		11-Aug-15			344	4.0	7.2	4.3	359.5	12.1	-	45.9	1.34	0.89 J	1.5 J	ND (1.0)	ND (0.019)	ND (0.10)	0.249	0.161	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	ND (3.0)
		4-Nov-15			152	1.6	8.7	2.6	164.9	0.85 J	-	15.1	0.636	0.50 J	0.53 J	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	ND (3.0)
		9-Nov-16			332	17.0	14.5	16.0	379.5	6.7	-	90.5	2.0	8.6	4.3	ND (1.0)	0.36	0.019 J	0.20	0.12	0.049 J	0.028 J	0.028 J	0.019 J	0.036 J	0.052 J	ND (5.0)
		9-Nov-16		Field Duplicate	335	17.0	14.6	11.1	377.7	6.7	-	92.1	1.6	3.0	3.5	ND (1.0)	0.41	0.011 J	0.15	0.089 J	0.026 J	0.018 J	ND (0.10)	ND (0.10)	ND (0.10)	0.035 J	ND (5.0)
		18-May-17			94	2	28	13	137	2	-	16	5	5	10	ND (0.5)	ND (0.0099)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.37 J
		28-Jun-18			145	ND (10.0)	ND (10.0)	ND (30.0)	145	ND (10.0)	-	19.1	1.39	ND (10.0)	ND (10.0)	ND (10.0)	ND (0.0100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (2.00)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE µg/L	TOLUENE µg/L	ETHYLBENZENE µg/L	XYLENES, TOTAL (DIMETHYLBENZENE) µg/L	TOTAL BTEX µg/L	METHYL TERTIARY BUTYL ETHER µg/L	TERT-BUTYL ALCOHOL µg/L	ISOPROPYLBENZENE (CUMENE) µg/L	NAPHTHALENE µg/L	1,2,4-TRIMETHYLBENZENE µg/L	1,3,5-TRIMETHYLBENZENE µg/L	1,2-DICHLOROETHANE (EDC) µg/L	1,2-DIBROMOETHANE (EDB) µg/L	CHRYSENE µg/L	FLUORENE µg/L	PHENANTHRENE µg/L	PYRENE µg/L	ANTHRACENE µg/L	BENZO(A)ANTHRACENE µg/L	BENZO(A)PYRENE µg/L	BENZO(B)FLUORANTHENE µg/L	BENZO(G,H,I)PERYLENE µg/L	LEAD µg/L
AOI 9	S-114SRTF	11-Aug-09			3,200	12,000	2,300	19,000	36,500	66	-	320	880	6,100	1,900	ND (20)	0.057	ND (5)	ND (5)	6	ND (5)	-	-	-	-	-	13.2
		21-Oct-14			880	2,300	440	4,200	7,820	16 J	-	77	170	800	300	ND (10)	ND (0.0094)	ND (0.1)	1	0.9	0.1 J	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	2.2
		18-Nov-14			1,500	7,700	1,400	14,000	24,600	ND (5)	-	100	240	2,100	800	ND (5)	ND (0.0095)	0.2 J	3	4	0.7	0.5	0.1 J	ND (0.1)	0.1 J	0.2 J	8.6
		17-Dec-14			700	4,900	970	8,400	14,970	ND (10)	-	78	270	1,500	580	ND (10)	ND (0.0095)	0.1 J	2	3	0.4 J	0.4 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	4.3
		21-Jan-15			250	490	140	1,000	1,880	17	-	37	73	200	74	ND (3)	ND (0.0095)	ND (0.1)	0.8	0.6	ND (0.1)	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	1.1
		10-Mar-15			1,410	6,640	1,640	10,800	20,490	4.6 J	-	121	220	1,880	647	ND (10)	ND (0.020) ED	ND (0.10)	1.05	1.06	0.209	0.167	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	3.6
		11-Aug-15			654	2,160	471	3,110	6,395	19.1	-	44.4	53.5	539	176	ND (5.0)	ND (0.019)	ND (0.10)	0.344	0.313	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	ND (3.0)
		6-Nov-15			487	1,320	352	3,210	5,369	19.3	-	45.8	54.0	662	220	ND (5.0)	ND (0.019)	ND (0.10)	0.397	0.324	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	ND (3.0)
		8-Nov-16			52.7 SL	22.0 SL	7.9 SL	202 SL	284.6 SL	21.0 SL	-	18.8 SL	7.0 SL	127 SL	34.5 SL	ND (1.0) SL	ND (0.040) SL	0.035 J SL	0.27 SL	0.31 SL	0.093 J SL	0.062 J SL	0.019 J SL	0.0081 J SL	0.020 J SL	ND (0.10) SL	ND (5.0) SL
		23-May-17			1,800	5,100	1,100	12,000	20,000	ND (5)	-	89	380	2,200	790	ND (5)	ND (0.0096)	0.2 J	4	5	0.7	0.7	0.2 J	0.1 J	0.2 J	ND (0.1)	2.2
		28-Jun-18			241	703	131	1,810	2,885	15.7	-	22.5	97.0	532	184	ND (10.0)	ND (0.0100)	ND (0.100)	0.432	0.292	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (2.00)
	S-115DSRTF	12-Aug-15			0.63	0.21 J	ND (1.0)	0.73 J	1.57	59.4	-	0.25 J	ND (0.10)	0.67 J	0.57 J	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	ND (3.0)
		11-Nov-15			0.44 J	ND (1.0)	ND (1.0)	ND (1.0)	0.44	59.0	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.019)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	ND (3.0)
		9-Nov-16			0.55 J	0.19 J	ND (1.0)	ND (3.0)	0.74 J	61.2	-	ND (1.0)	ND (0.025)	ND (1.0)	ND (1.0)	0.38 J	ND (0.040) J	ND (0.10) J	ND (0.10) J	ND (0.10) J	ND (0.10) J	0.047 J	ND (0.10) J	ND (0.10) J	ND (0.10) J	ND (0.10) J	ND (5.0)
		23-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	43	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.010)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		5-Jul-18			ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	36.2	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
		5-Jul-18		Hydra Sleeve	ND (1.00)	ND (1.00)	ND (1.00)	ND (3.00)	ND	18.3	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-115SRTF	11-Aug-09			1,800	180	1,300	1,800	5,080	ND (20)	-	270	310	1,400	680	ND (20)	ND (0.029)	ND (5)	ND (5)	ND (5)	ND (5)	-	-	-	-	-	10.1
		11-Mar-15			421	34.3	71.8	83.9	611	ND (1.0)	-	38.9	56.2	2.9	79.8	ND (1.0)	ND (0.020) ED	ND (0.10)	0.299	0.194	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		14-Aug-15			1,070	131	159	265	1,625	1.9 J	-	172	42.2	1.1 J	98.3	ND (5.0)	ND (0.019)	ND (0.10)	0.363	0.300	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	2.3 J
		6-Nov-15			581	64.7	57.5	149	852.2	ND (2.0)	-	151	4.70	5.3	57.6	ND (2.0)	ND (0.020)	ND (0.10)	0.392	0.303	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	2.5 J
		10-Nov-16			644	73.5	50.0	120	887.5	3.2	-	153	19.9	1.5	41.2	ND (1.0)	ND (0.040)	ND (0.10)	0.44	0.31	0.033 J	0.029 J	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	4.3 J
		23-May-17			1,000	100	130	150	1,380	ND (3)	-	120	25	18	39	ND (3)	ND (0.0095)	ND (0.1)	0.6	0.6	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	3.6
		28-Jun-18			1,030	118	144	157	1,449	ND (50.0)	-	131	25.2	ND (50.0)	ND (50.0)	ND (50.0)	ND (0.0100)	ND (0.100)	0.378	0.195	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	3.84
	S-116SRTF	11-Aug-09			31	3	14	9	57	4	-	10	7	3	12	ND (1)	ND (0.03)	ND (5)	ND (5)	ND (5)	ND (5)	-	-	-	-	-	ND (1)
		11-Mar-15			ND (0.50)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (1.0)	ND (0.11)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020) ED	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (3.0)
		14-Aug-15			27.4	12.0	4.7	8.6	52.7	44.3	-	70.2	0.591	0.32 J	1.8 J	ND (1.0)	ND (0.019)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	ND (3.0)
		9-Nov-15			ND (0.50)	0.37 J	ND (1.0)	0.61 J	0.98	0.37 J	-	0.86 J	ND (0.11)	0.26 J	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.056)	ND (0.056)	ND (0.11)	ND (0.11)	ND (3.0)
		11-Nov-16			21.6	3.0	8.1	2.5 J	35.2	16.4	-	36.1	2.4	1.4	19.2	ND (1.0)	ND (0.040)	ND (0.10)	0.051 J	0.062 J	0.023 J	0.015 J	0.016 J	ND (0.10)	ND (0.10)	ND (0.10)	ND (5.0)
		18-May-17			ND (0.5)	0.5 J	ND (0.5)	ND (0.5)	0.5	ND (0.5)	-	ND (0.5)	0.2 J	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.29 J
		28-Jun-18			48.3	ND (10.0)	ND (10.0)	ND (30.0)	48.3	16.1	-	53.6	0.729	ND (10.0)	ND (10.0)	ND (10.0)	ND (0.0100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (2.00)

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Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AOI 9	S-120DSRTF	8-Apr-11			0.7 J	2	ND (0.5)	1	3.7	37	-	6	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	ND (1.0)
		30-Jun-11			0.6 J	0.7 J	ND (0.5)	0.6 J	1.9	30	-	4	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	ND (1.0)
		29-May-12			ND (0.5)	0.5 J	ND (0.5)	0.7 J	1.2	36	-	6	ND (0.09)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.09)	0.1 J	0.3 J	ND (0.09)	-	-	-	-	-	ND (1.0)
		20-Aug-12			ND (0.5)	0.7 J	ND (0.5)	1	1.7	39	-	6	ND (0.09)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.09)	ND (0.09)	0.3 J	ND (0.09)	ND (0.09)	ND (0.09)	ND (0.09)	ND (0.09)	ND (0.09)	ND (1.0)
		1-Nov-12			0.57	0.73 J	ND (1.0)	ND (1.0)	1.3	42.9	-	11.1	0.11	ND (5.0)	ND (5.0)	ND (1.0)	ND (2.0)*	ND (0.10)	ND (0.10)	0.15	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.10)	ND (0.050)	ND (0.10)	ND (5.0)
		28-Mar-13			0.87 J	1.1	0.36 J	1.9	4.23	47.1	-	24.6	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	0.314	0.280	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	1.8 J
		13-Mar-15			0.65	0.94 J	ND (1.0)	0.88 J	2.47	76.1	-	12.4	ND (0.10)	ND (2.0)	0.24 J	ND (1.0)	ND (0.020) ED	ND (0.10)	0.343	0.200	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (3.0)
		13-Aug-15			0.57	0.80 J	ND (1.0)	0.69 J	2.06	64.3	-	8.8	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.019)	ND (0.10)	0.169	0.132	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	ND (3.0)
		10-Nov-15			ND (0.50)	ND (1.0)	ND (1.0)	0.43 J	0.43	ND (1.0)	-	ND (1.0)	ND (0.10)	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.021)	ND (0.10)	0.237	0.170	ND (0.10)	ND (0.10)	ND (0.050)	ND (0.050)	ND (0.10)	ND (0.10)	ND (3.0)
		9-Nov-16			0.42 J	0.84 J	ND (1.0)	0.78 J	2.04	60.1	-	10.6	0.62	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.040) J	ND (0.10)	0.15	0.20	0.019 J	0.047 J	0.016 J	ND (0.10)	ND (0.10)	ND (0.10)	ND (5.0)
		18-May-17			ND (0.5)	0.7 J	ND (0.5)	0.5 J	1.2	45	-	8	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0099)	ND (0.1)	ND (0.1)	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		5-Jul-18			1.31	ND (1.00)	ND (1.00)	ND (3.00)	1.31	44.4	-	6.82	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	0.0579	0.220	ND (0.0500)	0.110	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-122SRTF	13-Aug-09			1,800	51	56	49	1,956	140	-	240	310	19	290	ND (5)	ND (0.029)	ND (5)	21	47	14	-	-	-	-	-	8.5
		10-Mar-15			120	39.0	27.2	30.8	217	39.5	-	171	27.2	5.0	119	ND (1.0)	ND (0.020) ED	0.442	6.07	7.47	1.36	1.06	0.395	0.204	0.237	0.110	12.8
		18-Aug-15			64.9	31.9	11.7	18.4	126.9	41.8	-	166	4.52	1.4 J	38.4	ND (1.0)	ND (0.024)	0.152	4.94	4.80	0.546	0.627	0.156	0.0811	ND (0.10)	ND (0.10)	6.2
		5-Nov-15			49.9	28.3	8.9	19.1	106.2	57.6	-	162	ND (0.10)	1.2 J	23.0	ND (1.0)	ND (0.020)	0.330	8.18	11.2	1.42	1.13	0.386	0.210	0.252	0.136	3.3
		8-Nov-16			214 SL	603 SL	47.8 SL	278 SL	1,142.8 SL	64.7 SL	-	164 SL	3.1 SL	45.9 SL	17.3 SL	ND (1.0) SL	ND (0.040) SL	0.076 J SL	3.6 SL	3.9 SL	0.33 SL	0.44 SL	0.071 J SL	0.034 J SL	0.038 J SL	0.051 J SL	ND (5.0) SL
		18-May-17			170	100	34	290	594	58	-	180	9	40	27	ND (0.5)	ND (0.0097)	0.2 J	5	5	0.7	0.8	0.2 J	0.1 J	0.1 J	ND (0.1)	7.6
	S-137SRTF	10-Nov-16			ND (1.0)	ND (1.0)	ND (1.0)	ND (3.0)	ND	0.18 J	-	ND (1.0)	0.087 J	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.040)	ND (0.10)	ND (0.10)	0.041 J	0.029 J	ND (0.10)	0.015 J	ND (0.10)	ND (0.10)	ND (0.10)	ND (5.0)
		19-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	0.3 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		3-Jul-18			5.23	1.98	ND (1.00)	ND (3.00)	7.21	ND (1.00)	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	0.233	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-139SRTF	10-Nov-16			5.6	16.3	9.1	34.1	65.1	27.6	-	1.8	4.7	17.1	5.5	ND (1.0)	ND (0.040)	ND (0.10)	0.13	1.3	0.37	0.15	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (5.0)
		19-May-17			ND (0.5)	0.9 J	ND (0.5)	2	2.9	21	-	ND (0.5)	ND (0.1)	0.8 J	ND (0.5)	ND (0.5)	ND (0.010)	ND (0.1)	ND (0.1)	1	0.3 J	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
		2-Jul-18			47.8	21.8	ND (1.00)	3.05	72.65	21.2	-	ND (1.00)	0.762	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	1.50	0.458	0.274	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-142SRTF	10-Nov-16			ND (1.0)	ND (1.0)	ND (1.0)	ND (3.0)	ND	36.4	-	ND (1.0)	0.38	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.040)	ND (0.10)	ND (0.10)	ND (0.10)	0.023 J	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (5.0)
		10-Nov-16		Field Duplicate	ND (1.0)	ND (1.0)	ND (1.0)	ND (3.0)	ND	62.7	-	ND (1.0)	0.17	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.040)	ND (0.10)	ND (0.10)	ND (0.10)	0.022 J	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (5.0)
		18-May-17			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	250	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0096)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.24 J
		3-Jul-18			2.45	1.15	ND (1.00)	ND (3.00)	3.6	150	-	ND (1.00)	ND (0.250)	ND (1.00)	ND (1.00)	ND (1.00)	ND (0.0100)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (2.00)
	S-144SRTF	9-Nov-16			ND (1.0)	ND (1.0)	ND (1.0)	0.61 J	0.61	106	-	ND (1.0)	ND (0.073)	2.2	0.56 J	0.36 J	ND (0.040) J	ND (0.10)	0.11	0.26	0.12	0.029 J	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (5.0)
		18-May-17			ND (0.5)	ND (0.5)	ND (0.5)	0.6 J	0.6	69	-	ND (0.5)	ND (0.1)	0.6 J	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.1)	ND (0.1)	ND (0.1)	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)
	S-145SRTF	9-Nov-16			300	38.4	291	1,150	1,779.4	32.5	-	59.4	41.4	568	201	ND (1.0)	ND (0.040)	ND (0.10)	0.74	0.83	0.045 J	0.14	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (5.0)
		18-May-17			80	4	22	52	158	45	-	9	4	68	23	ND (0.5)	ND (0.0097)	ND (0.1)	0.4 J	0.2 J	ND (0.1)	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.21 J

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BELMONT	MW-30	15-Oct-04			490	3.0	24	18	535	ND (1.8)	-	6.0	64	-	-	7.3	ND (0.020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	ND (10)	ND (10)	ND (10)	-	ND (5.0)
		18-Nov-09			300	5 J	24	15	344	ND (3)	-	9 J	180	8 J	3 J	ND (3)	ND (0.010)	48	-	93	110	-	-	-	-	-	0.17 J
		10-Nov-10			22	ND (3)	3 J	ND (3)	25	ND (3)	-	ND (3)	110	ND (3)	ND (3)	ND (3)	ND (0.0096)	70	13 J	52	90	-	-	-	-	-	0.30 J
		29-Nov-11			110	0.9 J	3	5	118.9	ND (0.5)	-	3	89	2	0.7 J	ND (0.5)	ND (0.0098)	ND (70)	11	43	66	-	-	-	-	-	0.61 J
		12-Jul-12			41	1	2	5	49	ND (0.5)	-	3	55	2	0.6 J	ND (0.5)	ND (0.0096)	10	19	29	21	7	6	6	10	5	0.32 J
		3-Apr-13			36.3	1.3	0.40 J	2.9	40.9	ND (1.0)	-	3.2	21.9	1.8 J	ND (2.0)	ND (1.0)	ND (0.020)	5.41	3.48	8.55	8.61	ND (1.0)	2.36	3.76	7.02	4.11	ND (1)
		28-May-14			21.5	3.6	ND (1.0)	3.0	28.1	ND (1.0)	-	2.7	6.32	1.5 J	0.41 J	ND (1.0)	ND (0.020)	12.2	1.15	10.4	20.7	0.794	5.38	8.87	16.2	8.02	ND (3.0)
		10-Dec-14			16.9	3.0	ND (1.0)	3.0	22.9	ND (1.0)	-	2.4	6.55	1.5 J	0.46 J	ND (1.0)	ND (0.020)	13.7	2.34	13.5	24.0	1.29	6.12	9.84	14.3	9.63	2.3 J
		19-May-15			27	2	ND (1)	5	34	ND (1)	-	3 J	11	2 J	ND (1)	ND (1)	ND (0.0096)	30	2	17	32	0.9	10	17	31	16	0.095 J
		16-May-16			61	2	ND (0.5)	2	65	ND (0.5)	-	1 J	14	1 J	ND (0.5)	ND (0.5)	0.022 J	48	6	34	57	2	21	30	56	28	ND (0.13)
		16-May-17			12	ND (5)	ND (5)	ND (5)	12	ND (5)	-	ND (5)	4	ND (5)	ND (5)	ND (5)	ND (0.0096)	10	0.8	7	13	0.5	4	7	12	7	ND (0.090)
	MW-32	28-May-14			7.6	0.79 J	34.2	89.1	131.69	7.5	-	6.4	12.6	91.0	36.6	ND (1.0)	ND (0.020)	2.89	0.984	3.00	3.84	0.373	1.22	1.71	4.00	1.93	ND (3.0)
		10-Dec-14			7.5	0.64 J	52.6	138	198.74	5.8	-	11.3	27.8	178	72.7	ND (1.0)	ND (0.020)	7.18	4.31	8.68	10.3	1.77	5.01	5.49	8.72	7.71	2.6 J
	MW-33	6-Nov-08			19	ND (0.5)	ND (0.5)	0.8 J	19.8	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	63	-	49	79	-	-	-	-	-	0.097 J
		12-Jul-12			1,800	9	22	4 J	1,835	ND (3)	-	ND (3)	ND (1)	ND (3)	ND (3)	ND (3)	ND (0.0096)	6	2 J	5	12	2 J	3 J	5	9	5 J	1.1
		30-May-14			24.5	0.32 J	ND (1.0)	0.35 J	25.15	ND (1.0)	-	0.33 J	1.70	0.49 J	ND (2.0)	ND (1.0)	ND (0.020)	0.400	0.684	0.262	0.521	ND (0.10)	0.148	0.321	0.583	0.373	3.2
		10-Dec-14			3.9	ND (1.0)	ND (1.0)	ND (1.0)	3.9	ND (1.0)	-	ND (1.0)	0.111	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	5.28	0.243	3.03	6.33	0.424	2.47	4.41	5.58	4.51	ND (3.0)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BELMONT	MW-37	18-Dec-07			15,000	300	37	130	15,467	-	-	97	63 J	-	-	ND (10)	ND (0.0094)	ND (1.0)	2.0 J	3.0 J	2.0 J	-	-	-	-	-	0.051 J
		7-Nov-08			130,000	640	ND (250)	ND (250)	130,640	ND (250)	-	ND (250)	ND (500)	ND (250)	ND (250)	ND (250)	ND (0.0098)	ND (1)	-	2 J	1 J	-	-	-	-	-	ND (0.050)
		18-Nov-09			79,000	800	44 J	150	79,994	ND (25)	-	120	ND (50)	ND (25)	ND (25)	ND (25)	ND (0.0098)	ND (0.25)	-	1.6	0.60 J	-	-	-	-	-	0.052 J
		10-Nov-10			29,000	390	ND (25)	31 J	29,421	ND (25)	-	67 J	3 J	ND (25)	ND (25)	ND (25)	ND (0.0095)	ND (1)	1 J	ND (1)	1 J	-	-	-	-	-	ND (0.052)
		29-Nov-11			130,000	1,400	32 J	120	131,552	ND (25)	-	62 J	11	ND (25)	ND (25)	ND (25)	ND (0.0099)	ND (0.079)	ND (0.50)	0.55	ND (0.098)	-	-	-	-	-	ND (0.080)
		17-Jul-12			200,000	1,200	ND (250)	ND (250)	201,200	ND (250)	-	ND (250)	10	ND (250)	ND (250)	ND (250)	ND (0.0099)	4	0.7	8	7	0.7	3	3	4	2	0.067 J
		3-Apr-13			96,600	1,250	ND (250)	70.7 J	97,920.7	ND (250)	-	ND (500)	2.91	ND (500)	ND (500)	ND (250)	ND (0.020)	ND (0.10)	0.409	0.248	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (1)
		30-May-14			236,000	3,040	ND (100)	197	239,237	ND (100)	-	58.9 J	4.52	ND (200)	ND (200)	ND (100)	ND (0.020)	0.173	0.615	0.767	0.485	0.244	0.126	0.140	0.227	0.138	17.5
		17-Dec-14			197,000	2,220	ND (1,000)	ND (1,000)	199,220	ND (1,000)	-	ND (1,000)	3.60	ND (2,000)	ND (2,000)	ND (1,000)	ND (0.020)	ND (0.10)	0.342	0.351	0.171	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	1.3 J
		19-May-15			90,000	1,400	ND (50)	91 J	91491	ND (50)	-	ND (50)	6	ND (50)	ND (50)	ND (50)	ND (0.0096)	0.3 J	0.4 J	0.6	0.6	0.1 J	0.2 J	0.2 J	0.3 J	0.2 J	ND (0.082)
		16-May-16			130,000	1,100	ND (100)	ND (100)	131,100	ND (100)	-	ND (100)	10	ND (100)	ND (100)	ND (100)	0.024 J	ND (0.1)	0.7	0.8	0.2 J	0.2 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
		16-May-17			160,000	1,200	ND (250)	ND (250)	161,200	ND (250)	-	ND (250)	5	ND (250)	ND (250)	ND (250)	ND (0.0095)	0.1 J	0.4 J	0.7	0.3 J	0.1 J	ND (0.1)	0.1 J	ND (0.1)	ND (0.1)	ND (0.090)
	MW-43	5-Dec-06			2,300	63	1,300	740	4,403	13 J	-	140	7,500	-	-	ND (5.0)	ND (0.0097)	88.0	170	320	190	-	-	-	-	-	0.16 J
		19-Dec-07			2,600	88	2,400	1,300	6,388	-	-	150	9,700	-	-	ND (25)	ND (0.0096)	8.0	65	79	24	-	-	-	-	-	ND (0.047)
		19-Jul-12			970	47	1,500	900	3,417	6	-	130	5,100	390	100	ND (3)	ND (0.0097)	0.8	51	54	4	10	0.6	0.4 J	0.6	0.3 J	ND (0.034)
		30-May-14			1,110	75.9	3,200	1,710	6,095.9	5.3 J	-	185	7,070	802	200	ND (20)	ND (0.020)	0.895	50.1	56.0	3.51	10.2	0.622	0.597	0.992	0.660	ND (3.0)
		18-Dec-14			681	22.5	63.2	73.7	840.4	5.2	-	100	124	14.4	6.7	ND (1.0)	ND (0.020)	0.964	15.9	15.9	1.91	2.20	0.701	0.555	0.960	0.482	ND (3.0)
	S-74	15-Oct-04			ND (1.0)	ND (5.0)	ND (5.0)	ND (10)	ND	ND (5.0)	-	ND (5.0)	ND (5.0)	-	-	ND (5.0)	ND (0.020)	ND (0.14)	ND (10)	ND (10)	ND (10)	-	-	-	-	-	ND (5.0)
		18-Dec-07			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	-	-	ND (0.5)	ND (1.0)	-	-	ND (0.5)	ND (0.0094)	ND (1.0)	ND (1.0)	ND (1.0)	3.0 J	-	-	-	-	-	0.064 J
		7-Nov-08			0.8 J	ND (0.5)	3	0.6 J	4.4	0.7 J	-	1 J	48	9	0.9 J	ND (0.5)	ND (0.0097)	ND (1)	-	1 J	2 J	-	-	-	-	-	ND (0.050)
		18-Nov-09			94	2	ND (0.5)	ND (0.5)	96	ND (0.5)	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (0.057)	-	0.066 J	0.46	-	-	-	-	-	ND (0.050)
		10-Nov-10			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	0.5 J	-	ND (0.5)	ND (1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	ND (1)	ND (1)	ND (1)	ND (1)	-	-	-	-	-	ND (0.052)
		29-Nov-11			0.6 J	ND (0.5)	ND (0.5)	ND (0.5)	0.6	ND (0.5)	-	ND (0.5)	ND (0.99)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0098)	0.75	ND (0.099)	0.64	1.3	-	-	-	-	-	ND (0.080)
		12-Jul-12			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	0.6 J	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	0.1 J	ND (0.1)	0.2 J	1	ND (0.1)	0.2 J	0.2 J	0.3 J	0.1 J	0.13 J
		3-Apr-13			ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND	ND (1.0)	-	ND (2.0)	1.20	ND (2.0)	ND (2.0)	ND (1.0)	ND (0.020)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (1)
		27-May-14			3.0	1.2	ND (1.0)	2.4	6.6	0.69 J	-	ND (1.0)	0.580	0.67 J	ND (2.0)	ND (1.0)	ND (0.020)	0.191	0.183	0.614	0.462	0.110	0.130	ND (0.10)	0.165	ND (0.10)	ND (3.0)
		8-Dec-14			ND (0.50)	ND (1.0)	ND (1.0)	0.72 J	0.72	0.37 J	-	ND (1.0)	0.138	0.54 J	0.34 J	ND (1.0)	ND (0.020)	0.244	ND (0.10)	0.250	0.412	ND (0.10)	0.141	0.167	0.317	0.164	1.8 J
		19-May-15			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	2	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	0.5	ND (0.1)	0.3 J	1	ND (0.1)	0.2 J	0.8	0.8	0.5	ND (0.082)
		16-May-16			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND	ND (0.5)	-	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0097)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.13)
		16-May-17			3	ND (0.5)	ND (0.5)	ND (0.5)	3	ND (0.5)	-	ND (0.5)	0.8	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.0095)	ND (0.1)	0.1 J	0.3 J	0.5	0.1 J	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.090)

See notes on last page.

Table 4
Historical Perimeter Groundwater Sampling Analytical Results
Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC

Area of Interest	Sample Location	Sample Date		Sample Type	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES, TOTAL (DIMETHYLBENZENE)	TOTAL BTEX	METHYL TERTIARY BUTYL ETHER	TERT-BUTYL ALCOHOL	ISOPROPYLBENZENE (CUMENE)	NAPHTHALENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1,2-DICHLOROETHANE (EDC)	1,2-DIBROMOETHANE (EDB)	CHRYSENE	FLUORENE	PHENANTHRENE	PYRENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	LEAD
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BELMONT	TW-8	15-Oct-04			1,500	ND (80)	2,100	1,800	5,400	290	-	210	14,000	-	-	ND (74)	ND (0.020)	270	800	1,800	740	-	-	-	-	-	ND (5.0)
		5-Dec-06			150	5.0	2,100	1,700	3,955	17	-	290	13,000	-	-	ND (1.0)	ND (0.0099)	580	2,100	4,300	1,700	-	-	-	-	-	0.15 J
		18-Dec-07			660	12 J	1,400	870	2942	-	-	190	12,000	-	-	ND (10)	ND (0.0094)	240	700	1,500	570	-	-	-	-	-	0.15 J
		7-Nov-08			240	ND (5)	1,600	790	2,630	31	-	170	13,000	1,100	140	ND (5)	ND (0.0097)	12	-	96	24	-	-	-	-	-	ND (0.050)
		18-Nov-09			240	ND (10)	1,000	510	1,750	ND (10)	-	230	9,100	1,200	130	ND (10)	ND (0.0097)	16	-	180	63	-	-	-	-	-	ND (0.050)
		10-Nov-10			84	2	1,300	430	1,816	8	-	180	9,200	1,200	91	ND (1)	ND (0.0097)	14 J	75	120	35 J	-	-	-	-	-	0.20 J
		29-Nov-11			37	ND (3)	1,100	280	1,417	8	-	200	11,000	960	78	ND (3)	ND (0.0097)	ND (29)	120	180	68	-	-	-	-	-	0.84 J
		18-Jul-12			80	ND (5)	1,900	330	2,310	6 J	-	270	16,000	1,800	120	ND (5)	ND (0.0098)	26	110	180	59	44	25	18	22	8	0.74 J
		3-Apr-13			224	ND (20)	874	192	1,290	ND (20)	-	216	2,400	902	52.8	ND (20)	ND (0.020)	1.92	37.8	43.2	8.63	8.65	2.08	1.39	1.52	0.592	ND (1)
		27-May-14			39.3	0.60 J	1,100	136	1,275.9	5.3	-	346	5,970	1,620	68.4	ND (1.0)	ND (0.020)	0.946	21.3	16.9	3.01	4.80	0.849	0.552	0.641	0.256	ND (3.0)
		11-Dec-14			8.4	ND (10)	184	18.8	211.2	ND (10)	-	61.8	3,150	269	15.4 J	ND (10)	ND (0.020)	4.43	40.9	62.1	17.0	13.7	6.39	3.62	5.02	1.55	ND (3.0)
		19-May-15			63	ND (3)	670	68	801	4 J	-	180	7,300	880	48	5	ND (0.0096)	5	56	57	11	12	4	3	3	1	0.089 J
		16-May-16			500	0.9 J	560	89	1,149.9	4	-	150	6,000	530	52	2	ND (0.0097)	9	56	67	18	15	7	5	6	3	ND (0.13)
		16-May-17			330	3 J	560	69	962	ND (3)	-	180	4,400	670	63	ND (3)	ND (0.0095)	18	83	140	41	32	17	12	14	7	ND (0.090)

Notes:

15.2	Concentration was detected.
ND (0.5)	Analyte was not detected at a concentration greater than the laboratory reporting limit.
B	Indicates the analyte is detected in the associated blank as well as in the sample.
D	Indicates an identified compound in an analysis that has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analyses.
DR	Dry
ED	EDB was analyzed under SW8011. Laboratory work order and laboratory sample ID may be different for this result.
DM	Date missing from original field records. Date of completion estimated. If only month and year are available, the default will be the first day of the month.
HT	Sample(s) received past/too close to holding time expiration
J	Indicates an estimated value above the method detection limit but below the laboratory reporting limit or limit of quantitation.
J-	Indicates an estimated value that is biased low.
SL	Sample was collected below LNAPL
ND	Not Detected
SL	Sample was collected below LNAPL
WI	Well Inaccessible
µg/L	Micrograms per liter
-	Not analyzed
*	Indicates that the analyte was reported by two different methods. The maximum value is shown.

APPENDIX 1
Remediation System Recovery Data

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
Groundwater and LNAPL Recovery Systems Operational Data
Belmont Terminal
Loading Rack Remediation System
First Half 2018

Date	Total Flow (gallons)	Period Total Flow (gallons)	Average Flow Rate (gpm)	LNAPL Recovered in Period (gallons)	Total LNAPL Recovered (gallons)
5-Jan-18	94,273,241	0	0.00	0.0	254,206
8-Jan-18	94,417,461	144,220	33.38	0.0	254,206
19-Jan-18	94,417,461	0	0.00	0.0	254,206
26-Jan-18	94,708,396	290,935	28.86	40.3	254,246
2-Feb-18	94,862,642	154,246	15.30	0.0	254,246
8-Feb-18	95,014,295	151,653	17.55	0.0	254,246
15-Feb-18	95,188,197	173,902	17.25	127.8	254,374
22-Feb-18	95,366,815	178,618	17.72	63.2	254,437
1-Mar-18	95,549,936	183,121	18.17	0.0	254,437
7-Mar-18	95,666,995	117,059	13.55	0.0	254,437
16-Mar-18	95,892,176	225,181	17.38	109.6	254,547
23-Mar-18	96,052,334	160,158	15.89	62.0	254,609
30-Mar-18	96,207,618	155,284	15.41	114.5	254,723
6-Apr-18	96,316,424	108,806	10.79	75.2	254,799
12-Apr-18	96,426,321	109,897	12.72	74.0	254,873
19-Apr-18	96,545,200	118,879	11.79	65.8	254,938
27-Apr-18	96,569,395	24,195	2.10	0.0	254,938
2-May-18	96,671,525	102,130	14.18	14.1	254,953
11-May-18	96,861,749	190,224	14.68	9.8	254,962
17-May-18	96,991,029	129,280	14.96	16.6	254,979
25-May-18	97,164,707	173,678	15.08	9.1	254,988
1-Jun-18	97,314,076	149,369	14.82	6.3	254,994
4-Jun-18	97,377,414	63,339	14.66	0.0	254,994
11-Jun-18	97,377,414	0	0.00	0.0	254,994
18-Jun-18	97,377,414	0	0.00	0.0	254,994
28-Jun-18	97,378,932	1,517	0.11	0.0	254,994

Notes:
gpm: gallons per minute
LNAPL: Light Non-Aqueous Phase Liquid

The Belmont Terminal Remediation System consist of the Loading Rack system (RW-4 and RW-21 through RW-25) and the Frontage Road system (RW-15 and RW-26 through RW-32). Both systems have a dedicated totalizer.

On August 30, 2012, the Frontage Road system was turned off and remained off for the reporting period. The system will remain offline unless there is a significant increase of LNAPL in the recovery wells. The recovery wells were routinely gauged, and no product was detected during the reporting period.

The Loading Rack system was operational during the reporting period with the following exceptions:

On April 24, RW-25 was not operational. The pump was reset and returned to service.

On April 19, the system was turned off for maintenance on the effluent line. The system was returned to service on April 20.

On June 4, the system was turned off to collect static groundwater gauging data. The system was retuned to operation on June 28.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
AOI 1: Shunk Street Sewer Ventilation System and Biofilter
pH Data

First Half 2018

Date	Leachate pH	Biofilter Treatment Cell - Soil pH		
		Cell 1	Cell 2	Cell 3
26-Jan-18	7.06	NM	NM	NM
22-Feb-18	NA	NM	NM	NM
30-Mar-18	NA	6.46	6.67	6.59
27-Apr-18	NA	NM	NM	NM
25-May-18	NA	NM	NM	NM
28-Jun-18	NA	6.72	7.01	6.60

NOTES:

Leachate pH readings are collected on a monthly basis.

Media pH readings are collected on a quarterly basis.

NA = No leachate was available to record pH.

NM = Not Measured

The system was operational for the reporting period.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
AOI 1: Shunk Street Sewer Ventilation System and Biofilter
Organic Vapor Concentrations

First Half 2018

Date	Flow Rate (CFM)	Sewer Air PID (ppm)	Total Flow PID (ppm)	Treatment Cell Effluent PID (ppm)			Treatment Cell Media Temperature (°F)		
				Cell #1	Cell #2	Cell #3	Cell #1	Cell #2	Cell #3
5-Jan-18	3,700	0	0	0	0	0	60	60	60
8-Jan-18	3,700	1	1	0	0	0	52	52	52
19-Jan-18	3,700	1	1	0	0	0	64	64	64
26-Jan-18	3,700	1	1	0	0	0	58	58	58
2-Feb-18	3,700	1	1	0	0	0	52	52	52
8-Feb-18	3,700	1	1	0	0	0	52	52	52
15-Feb-18	3,700	4	4	0	0	0	58	58	58
22-Feb-18	3,700	0	0	0	0	0	56	56	56
1-Mar-18	3,700	1	1	0	0	0	58	58	58
8-Mar-18	3,700	1	1	0	0	0	65	65	65
16-Mar-18	3,700	3	3	0	0	0	56	56	56
23-Mar-18	3,700	1	1	0	0	0	62	62	62
30-Mar-18	3,700	2	2	0	0	0	64	64	64
6-Apr-18	3,700	0	0	0	0	0	56	56	56
12-Apr-18	3,700	3	3	0	0	0	64	64	64
19-Apr-18	3,700	0	0	0	0	0	64	64	64
27-Apr-18	3,700	0	0	0	0	0	62	62	62
2-May-18	3,700	2	2	0	0	0	74	74	74
11-May-18	3,700	0	0	0	0	0	72	72	72
17-May-18	3,700	0	0	0	0	0	66	66	66
25-May-18	3,700	0	0	0	0	0	76	76	76
1-Jun-18	3,700	0	0	0	0	0	72	72	72
4-Jun-18	3,700	0	0	0	0	0	72	72	72
11-Jun-18	3,700	0	0	0	0	0	68	68	68
18-Jun-18	3,700	0	0	0	0	0	68	68	68
28-Jun-18	3,700	0	0	0	0	0	80	80	80

Notes:
CFM: cubic feet per minute
ppm: parts per million
°F: Degrees Fahrenheit
Vapor concentrations are collected using a MultiRAE Lite Photoionization Detector (PID).
The Sewer Air reading is collected from the Shunk Street sewer air stream only.
The air stripper was taken offline June 17, 2004; therefore, the Total Flow is equal to the Sewer Air reading.
The system was operational for the reporting period with the following exceptions:
On January 19, the data logger for the temperature and relative humidity meter was not operational. The data logger was removed and replacement was ordered. The meter display remained operational while the data logger was absent.
On March 8, a replacement data logger was installed and was operational for the remainder of the reporting period.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
Total Fluids Recovery System Operational Data
AOI 1: 26th Street North Remediation System

First Half 2018

Date	Total Flow (gallons)	Period Total Flow (gallons)	Calculated System Flow Rate (gpm)	LNAPL Recovered in Period (gallons)	Total LNAPL Recovered (gallons)
5-Jan-18	84,286,260	274,378	27.22	NA	9,148.60
11-Jan-18	84,286,260	0	0.00	NA	9,148.60
19-Jan-18	84,286,260	0	0.00	NA	9,148.60
25-Jan-18	84,286,260	0	0.00	NA	9,148.60
1-Feb-18	84,736,030	449,770	44.62	NA	9,148.60
8-Feb-18	85,071,089	335,059	33.24	NA	9,148.60
14-Feb-18	85,377,982	306,893	35.52	NA	9,148.60
21-Feb-18	85,706,186	328,205	32.56	NA	9,148.60
1-Mar-18	86,100,631	394,445	34.24	NA	9,148.60
9-Mar-18	86,495,076	394,445	34.24	NA	9,148.60
15-Mar-18	86,819,767	324,691	37.58	NA	9,148.60
23-Mar-18	87,271,121	451,354	39.18	NA	9,148.60
29-Mar-18	87,609,636	338,515	39.18	NA	9,148.60
4-Apr-18	87,609,636	0	0.00	NA	9,148.60
11-Apr-18	87,609,636	0	0.00	NA	9,148.60
17-Apr-18	87,609,636	0	0.00	NA	9,148.60
24-Apr-18	87,609,636	0	0.00	NA	9,148.60
30-Apr-18	88,126,481	516,845	59.82	NA	9,148.60
10-May-18	88,822,001	695,520	48.30	NA	9,148.60
18-May-18	89,331,646	509,645	44.24	NA	9,148.60
25-May-18	89,773,553	441,907	43.84	NA	9,148.60
31-May-18	90,139,889	366,336	42.40	NA	9,148.60
6-Jun-18	90,536,810	396,922	45.94	NA	9,148.60
13-Jun-18	90,999,886	463,075	45.94	NA	9,148.60
20-Jun-18	91,462,961	463,075	45.94	NA	9,148.60
27-Jun-18	91,926,036	463,075	45.94	NA	9,148.60

Notes:

gpm: gallons per minute

LNAPL: Light Non-Aqueous Phase Liquid

gpm: gallons per minute

The Total Flow and Total LNAPL Recovered includes historical totals from former recovery wells RW-400 through RW-406.

The 26th Street North Remediation system consists of 20 total fluids recovery wells [15 active wells on-site along 26th Street (S-180, S-181, S-182, S-183, S-184, S-185, S-186, S-187, S-188, S-189, S-190, S-191, S-192, RW-400 & RW-402) and five inactive wells offsite on CSX property (S-193, S-194, S-265, S-267, & S-268)]. The offsite wells on the CSX property have not been activated. The system discharges directly to a process sewer; therefore, the volume of recoverable LNAPL cannot be quantified.

The system was operational for the first half of 2018 with the following exceptions:

The system was off at the start of the reporting period due to the cold weather.

On January 11, the system was restarted and was shut off due to a malfunctioning air compressor.

January 25, a replacement compressor was installed on the system and returned to service.

On February 1, S-181 and S-186 were not operational. The pumps were reset and restarted. Additionally, the pump in S-192 was replaced.

On February 21, the pump and discharge hose was replaced on S-187.

On March 30, the air compressor was not operational. The system was turned off pending the installation of a new air compressor.

On April 30, the new air compressor was installed and the system was returned to service. The air compressor was installed in a trailer to protect it from inclement weather.

On May 10, S-184 and S-187 were not operational. S-184 was reset and returned to service. The pump for S-187 was removed from service.

On May 18, S-184 and S-185 were not operational. The pumps were reset and returned to service.

On June 6, the system was turned off to collect static groundwater gauging data. The system was retuned to operation on July 3.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
AOI 1: 26th Street & Packer Avenue Sewers Biofilter Remediation System
pH Data

First Half 2018

Date	Leachate pH	Biofilter Bed - Soil pH			
		Cell 1	Cell 2	Cell 3	Cell 4
23-Jan-18	NA	7.22	7.28	NM	NM
28-Feb-18	NA	NM	NM	NM	NM
28-Mar-18	7.23	7.36	7.19	NM	NM
26-Apr-18	8.24	NM	NM	NM	NM
31-May-18	7.63	NM	NM	NM	NM
22-Jun-18	7.72	7.55	7.32	NM	NM

Notes:

Media pH readings are collected on a quarterly basis.

NM: not measured

NA: no leachate was available to record pH

Cells 3 and 4 were shut off on June 18, 2010 and remained off for the reporting period as they are not currently needed for vapor treatment.

The system was operational during the reporting period with the following exceptions:

On March 14, the system was turned off to evaluate PID readings for the sewer manways. The system was restarted on March 19.
On May 7, the system was turned off to complete system upgrades that included rebedding Cell 1 and Cell 2.
On May 22, the system was restarted after completing system upgrades.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
AOI 1: 26th Street & Packer Avenue Sewers Biofilter Remediation System
Organic Vapor Concentrations

First Half 2018

Date	Biofilter Influent			Biofilter Effluent							
	Packer Ave. (ppm)	26th Street (ppm)	ST-1 (Combined Influent) (ppm)	Cell-1N	Cell-1S	Cell-2N	Cell-2S	Cell-3N	Cell-3S	Cell-4N	Cell-4S
1/3/2018	1.0	7.0	4	0.0	0.0	0.0	0.0	NA	NA	NA	NA
1/10/2018	0.0	8.0	5	0.0	0.0	0.0	0.0	NA	NA	NA	NA
1/18/2018	4.0	27.0	21	0.0	0.0	0.0	0.0	NA	NA	NA	NA
1/23/2018	86.0	87.0	42	0.0	0.0	0.0	0.0	NA	NA	NA	NA
1/30/2018	11.0	36.0	30	0.0	0.0	0.0	0.0	NA	NA	NA	NA
2/7/2018	11.0	36.0	16	0.0	0.0	0.0	0.0	NA	NA	NA	NA
2/13/2018	3.0	9.0	34	0.0	0.0	0.0	0.0	NA	NA	NA	NA
2/20/2018	57.0	35.0	45	0.0	0.0	0.0	0.0	NA	NA	NA	NA
2/28/2018	21.0	33.0	31	0.0	0.0	0.0	0.0	NA	NA	NA	NA
3/9/2018	52.0	52.0	48	0.0	0.0	0.0	0.0	NA	NA	NA	NA
3/14/2018	46.0	38.0	39	0.0	0.0	0.0	0.0	NA	NA	NA	NA
3/19/2018	77.0	86.0	59	6.0	6.0	6.0	6.0	NA	NA	NA	NA
3/26/2018	44.0	41.0	38	0.0	0.0	0.0	0.0	NA	NA	NA	NA
4/4/2018	37.0	39.0	29	0.0	0.0	0.0	0.0	NA	NA	NA	NA
4/13/2018	32.0	29.0	23	0.0	0.0	0.0	0.0	NA	NA	NA	NA
4/20/2018	8.0	29.0	10	0.0	0.0	0.0	0.0	NA	NA	NA	NA
4/26/2018	28.0	20.0	19	0.0	0.0	0.0	0.0	NA	NA	NA	NA
5/1/2018	41.0	28.0	26	0.0	0.0	0.0	0.0	NA	NA	NA	NA
5/7/2018	27.0	19.0	18	0.0	0.0	0.0	0.0	NA	NA	NA	NA
5/14/2018	NM	NM	NM	NM	NM	0.0	0.0	NA	NA	NA	NA
5/22/2018	2.0	6.0	2	0.0	0.0	0.0	0.0	NA	NA	NA	NA
5/31/2018	0.0	2.0	2	0.0	0.0	0.0	0.0	NA	NA	NA	NA
6/6/2018	9.0	7.0	8	0.0	0.0	0.0	0.0	NA	NA	NA	NA
6/11/2018	1.0	1.0	2	0.0	0.0	0.0	0.0	NA	NA	NA	NA
6/22/2018	4.0	8.0	6	0.0	0.0	0.0	0.0	NA	NA	NA	NA
6/28/2018	8.0	6.0	12	0.0	0.0	0.0	0.0	NA	NA	NA	NA

Notes:

ppm: parts per million

NA: Not applicable

NM: Field reading not measured due to system upgrades

Vapor concentrations are collected using a MultiRAE Lite Photoionization Detector (PID).

The system was operational for the first half of 2018 with the following exceptions:

On March 14, following weekly maintenance, the system was turned off to evaluate PID readings for the sewer manways. The system was restarted on March 19.
On May 7, the system was turned off to complete system upgrades that included rebedding Cell 1 and Cell 2.
On May 22, the system was restarted after completing system upgrades.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
Groundwater and LNAPL Recovery System Operational Data
AOI 2: Pollock Street West End Remediation System

First Half 2018

Date	Period Total Flow (gallons)	Total Flow (gallons)	LNAPL Recovered in Period (gallons)	Total LNAPL Recovered (gallons)
2-Jan-18	0	30,705,305	0.0	60,637
2-Jan-18	0	30,705,305	0.0	60,637
16-Jan-18	0	30,705,305	0.0	60,637
25-Jan-18	0	30,705,305	0.0	60,637
1-Feb-18	0	30,705,305	0.0	60,637
6-Feb-18	0	30,705,305	0.0	60,637
12-Feb-18	0	30,705,305	0.0	60,637
21-Feb-18	0	30,705,305	0.0	60,637
28-Feb-18	0	30,705,305	0.0	60,637
7-Mar-18	0	30,705,305	0.0	60,637
14-Mar-18	0	30,705,305	0.0	60,637
19-Mar-18	0	30,705,305	0.0	60,637
3-Apr-18	7,800	30,713,105	0.0	60,637
10-Apr-18	0	30,713,105	0.0	60,637
17-Apr-18	0	30,713,105	0.0	60,637
24-Apr-18	0	30,713,105	0.0	60,637
1-May-18	0	30,713,105	0.0	60,637
7-May-18	0	30,713,105	0.0	60,637
14-May-18	0	30,713,105	0.0	60,637
21-May-18	0	30,713,105	0.0	60,637
28-May-18	0	30,713,105	0.0	60,637
4-Jun-18	0	30,713,105	0.0	60,637
11-Jun-18	0	30,713,105	0.0	60,637
18-Jun-18	0	30,713,105	0.0	60,637
25-Jun-18	0	30,713,105	0.0	60,637

Notes:

LNAPL: Light Non-Aqueous Phase Liquid

The Pollock Street West End system was started on February 23, 2012. The groundwater and LNAPL recovery totals do not include historical totals from the former Pollock Street Vertical System recovery wells.

The system was off during the reporting period with the following exception:

From April 2 through April 3, RW-117 and RW-128 were activated to recover LNAPL in the wells. The system was turned off April 3.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
Total Fluids Recovery System Operational Data
AOI 2: Pollock Street Horizontal Wells

First Half 2018

Actual Dates in Period	Reporting Period (Internal)	Days in Period	HW-1 Days of Operation Within Period	HW-1 Water Recovered During Period (gallons)	HW-2 Days of Operation Within Period	HW-2 Water Recovered During Period (gallons)	HW-3 Days of Operation Within Period	HW-3 Water Recovered During Period (gallons)	Total Fluids Extracted During Period (gallons)	Total Fluids Extracted (gallons)	LNAPL Recovered During Period (gallons)
12/20/2017 - 1/25/2018	Jan2018	37	Totalizer	529,700	Totalizer	16,141	28	620,122	1,165,963	103,810,845	NA
1/26/2018 - 2/20/2018	Feb2018	26	Totalizer	337,200	Totalizer	14,600	18	398,650	750,450	104,561,294	NA
2/21/2018 - 3/19/2018	Mar2018	27	Totalizer	152,800	Totalizer	17,240	12	265,766	435,806	104,997,101	NA
3/20/2018 - 3/31/2018	end Q1 2018	12	Totalizer	123,100	Totalizer	5,608	2	44,294	173,002	105,170,103	NA
3/20/2018 - 4/24/2018	Apr 2018	36	Totalizer	495,600	Totalizer	21,476	36	797,299	1,314,375	106,311,476	NA
4/25/2018 - 5/21/2018	May 2018	27	Totalizer	362,100	Totalizer	17,040	27	597,974	977,114	107,288,590	NA
5/22/2018 - 6/19/2018	Jun 2018	29	Totalizer	119,700	Totalizer	5,524	29	642,269	767,493	108,056,083	NA
6/20/2018 - 6/30/2018	end Q2 2018	11	Totalizer	53,086	Totalizer	1,232	3	66,442	120,759	108,176,842	NA

Notes:

LNAPL: Light Non-Aqueous Phase Liquid

NA: Not Applicable

Pump tests were performed in March 2011 for the horizontal wells so that recovered volumes could be estimated based on flow rates and system up-time, beginning in the second quarter of 2011. A second pump test was completed following the installation of a new pump at HW-1 on May 13, 2013. The HW-1 flow rate was estimated at 10 gallons per minute (gpm), HW-2 at 3.73 gpm, and HW-3 at 15.38 gpm. Beginning May 25, 2013, HW-1 flow is measured and reported by a totalizer. HW-2 flow is measured and reported by a totalizer as of July 6, 2015.

The system was operational during the repotring period with the following exceptions:

On January 16, the pump from HW-3 was removed for repairs. The pump was repaired and returned to service on January 25.

On February 12, the pump from HW-3 was removed for repairs. On February 28, HW-3 was returned to service with a repaired pump.

On February 20, HW-1 was not operational due to a malfunctioning pump. The pump was repaired on March 8 and the well was returned to service.

On March 13, the pump for HW-3 was inoperable. The pump was removed for repairs. On March 28, the pump was reinstalled and the well was returned to service.

On June 5, the system was turned off for collection of static groundwater gauging data. The system was returned to service on June 28.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
Groundwater and LNAPL Recovery System Operational Data
AOI 4: Penrose Avenue Remediation System

First Half 2018

Date	Period Total Flow (gallons)	Total Flow (gallons)	Average Daily Flow (gpd)	LNAPL Recovered in Period (gallons)	Total LNAPL Recovered (gallons)
03-Jan-18	9,000	17,920,070	1,800	35.5	4437.9
08-Jan-18	9,150	17,929,220	1,830	32.3	4470.2
18-Jan-18	11,140	17,940,360	1,114	76.7	4546.9
23-Jan-18	4,820	17,945,180	964	69.5	4616.4
30-Jan-18	7,040	17,952,220	1,006	53.3	4669.7
07-Feb-18	10,510	17,962,730	1,314	59.2	4728.9
13-Feb-18	4,980	17,967,710	830	49.2	4778.1
20-Feb-18	4,980	17,972,690	711	15.0	4793.1
28-Feb-18	93,910	18,066,600	11,739	0.0	4793.1
09-Mar-18	106,950	18,173,550	11,883	309.1	5102.2
12-Mar-18	56,990	18,230,540	18,997	114.0	5216.2
20-Mar-18	146,990	18,377,530	18,374	97.0	5313.2
29-Mar-18	148,040	18,525,570	16,449	118.4	5431.6
03-Apr-18	116,270	18,641,840	23,254	30.3	5461.9
13-Apr-18	167,100	18,808,940	16,710	59.5	5521.4
20-Apr-18	51,410	18,860,350	7,344	33.1	5554.5
25-Apr-18	61,190	18,921,540	12,238	8.2	5562.7
01-May-18	71,750	18,993,290	11,958	0.0	5562.7
10-May-18	161,280	19,154,570	17,920	26.3	5589.0
17-May-18	0	19,154,570	0	0.0	5589.0
24-May-18	0	19,154,570	0	0.0	5589.0
31-May-18	0	19,154,570	0	0.0	5589.0
07-Jun-18	0	19,154,570	0	0.0	5589.0
14-Jun-18	0	19,154,570	0	0.0	5589.0
18-Jun-18	0	19,154,570	0	0.0	5589.0
25-Jun-18	0	19,154,570	0	0.0	5589.0

Note:

gpd: gallons per day

LNAPL: Light Non-Aqueous Phase Liquid

The Penrose Avenue Remediation System consisting of 18 recovery wells (RW-700 through RW-717) was started on March 20, 2013. On February 21, 2018, pumps were installed in S-221, S-236, and S-237 to address LNAPL in those wells. Groundwater and LNAPL are extracted using pneumatic pumps, and total fluids pass through an oil/water separator (OWS). The groundwater is discharged to the Philadelphia Water Department (PWD) sanitary sewer system along Penrose Avenue, and LNAPL is recovered in a 550-gallon storage tank.

The system was operational during the reporting period with the following exceptions:

On March 14, the system was not operational due to a high level alarm. The system was reset and restarted.

On March 20, the system was not operational due to a high level alarm. The system was reset and restarted.

On March 27, the system was not operational during OWS cleaning activities.

On May 10, the system was turned off for modifications. The system remained off for the remained of the reporting period.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
LNAPL Recovery System Operational Data
AOI 4: S-30 Remediation System

First Quarter 2018

	S-30	
Date	**LNAPL Recovered in Period (gallons)**	**Total LNAPL Recovered (gallons)**
28-Mar-18	0	39,658
2-Apr-18	111.6	39,769
11-Apr-18	0.0	39,769
18-Apr-18	9.9	39,779
26-Apr-18	9.6	39,789
1-May-18	6.6	39,795
9-May-18	4.1	39,799
16-May-18	3.3	39,803
21-May-18	8.4	39,811
30-May-18	5.9	39,817
8-Jun-18	3.3	39,820
11-Jun-18	0.0	39,820
18-Jun-18	0.0	39,820
28-Jun-18	0.0	39,820

NOTES:

LNAPL: Light Non-Aqueous Phase Liquid

The reported volume recovered for total fluids accounts for the historical recovery for the S-30 Remediation System.

There is no groundwater recovery at S-30; it is product skimming systems only.
During the first quarter of 2018, a replacement pump and probe assembly and control panel were installed at S-30. The S-30 Remediation System was restarted on March 28, 2018.

During the reporting period the S-30 Remediation System was operational with the following exception:

On June 8, the system was turned off for collection of static groundwater gauging data. The system was returned to service on June 18.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
Recovery System Operational Data
AOI 7: 3 Separator Remediation System

First Half 2018

Date	Total Flow (gallons)	Period Total Flow (gallons)	Calculated System Flow Rate (gpm)	LNAPL Recovered in Period (gallons)	Total LNAPL Recovered (gallons)
3-Jan-18	20,155,285	18,400	25.56	0.0	112,526.9
8-Jan-18	20,183,885	28,600	39.72	0.0	112,526.9
16-Jan-18	20,235,285	51,400	71.39	0.0	112,526.9
23-Jan-18	20,238,085	2,800	3.89	50.2	112,577.1
29-Jan-18	20,239,185	1,100	1.53	0.0	112,577.1
6-Feb-18	20,338,585	99,400	138.06	7.5	112,584.6
12-Feb-18	20,399,785	61,200	85.00	33.3	112,617.9
21-Feb-18	20,492,385	92,600	128.61	31.8	112,649.7
26-Feb-18	20,540,885	48,500	67.36	11.6	112,661.3
9-Mar-18	20,654,785	113,900	158.19	5.6	112,666.9
12-Mar-18	20,685,185	30,400	42.22	0.0	112,666.9
20-Mar-18	20,764,685	79,500	110.42	7.6	112,674.5
29-Mar-18	20,838,585	73,900	102.64	15.2	112,689.7
5-Apr-18	20,890,785	52,200	72.50	15.4	112,705.1
11-Apr-18	20,932,285	41,500	57.64	28.1	112,733.2
17-Apr-18	20,962,585	30,300	42.08	27.9	112,761.0
24-Apr-18	21,016,685	54,100	75.14	21.1	112,782.1
30-Apr-18	21,076,485	59,800	83.06	10.0	112,792.1
8-May-18	21,135,785	59,300	82.36	16.6	112,808.7
16-May-18	21,197,785	62,000	86.11	20.5	112,829.3
21-May-18	21,242,985	45,200	62.78	19.9	112,849.2
30-May-18	21,320,385	77,400	107.50	25.8	112,875.0
8-Jun-18	21,387,185	66,800	92.78	16.9	112,891.9
15-Jun-18	21,387,185	0	0.00	0.0	112,891.9
22-Jun-18	21,387,185	0	0.00	0.0	112,891.9
28-Jun-18	21,387,185	0	0.00	0.0	112,891.9

Notes:

gpm: gallons per minute

LNAPL: Light Non-Aqueous Phase Liquid

The 3 Separator Remediation System is a hydraulic control system constructed of ten recovery wells (RW-801 through RW-810) which was started on August 23, 2012. Groundwater and LNAPL are extracted using pneumatic submersible pumps, and total fluids pass through an oil/water separator (OWS). Water is discharged to an on-site process sewer, and LNAPL is recovered in a tank and recycled by the PES Complex.

The system was operational for the reporting period with the following exceptions:

On January 3, RW-802 was not operational due to the cold weather conditions. The pump for RW-807 was removed for repairs. RW-807 was replared and returned to service on January 16.

On January 22, the system was not operational due to a high tank alarm. The LNAPL was removed from the tank and the OWS was cleaned on January 22. The system was returned to service on January 29.
On March 12, the system was not operational during OWS cleaning activities. The OSW was cleaned and the system was returned to service.
On March 12, the OWS was cleaned and returned to service.
On June 8, the system was turn off for the collection of static groundwater gauging data. The system was returned to service on June 28.

Philadelphia Refinery Operations, a series of Evergreen Resources Group, LLC
AOI 8: Jackson Street Water Curtain
First Half 2018

Date	PID readings (ppm)			Comments
	Blower	Water Curtain	Interceptor Chamber	
05-Jan-18	NA	0.0	0.0	
12-Jan-18	NA	0.0	0.0	
19-Jan-18	NA	0.0	0.0	
25-Jan-18	NA	0.0	0.0	
02-Feb-18	NA	0.0	0.0	
08-Feb-18	NA	0.0	0.0	
14-Feb-18	NA	0.0	0.0	
22-Feb-18	NA	0.0	0.0	
02-Mar-18	NA	0.0	0.0	
09-Mar-18	NA	0.0	0.0	
16-Mar-18	NA	0.0	0.0	
23-Mar-18	NA	0.0	0.0	
29-Mar-18	NA	0.0	0.0	
06-Apr-18	NA	0.0	0.0	
12-Apr-18	NA	0.0	0.0	
20-Apr-18	NA	0.0	0.0	
02-May-18	NA	0.0	0.0	
10-May-18	NA	0.0	0.0	
17-May-18	NA	0.0	0.0	
21-May-18	NA	0.0	0.0	
01-Jun-18	NA	0.0	0.0	
08-Jun-18	NA	0.0	0.0	
11-Jun-18	NA	0.0	0.0	
18-Jun-18	NA	0.0	0.0	

NOTES:
PID: Photoionization detector
ppm: parts per million
NA: Not Available (PID readings are not collected at the blower.)
Vapor concentrations are collected using a MultiRAE Lite PID.
The totalizer was removed on December 11, 2009.
The system was operational for the reporting period.

APPENDIX 2
Laboratory Analytical Data Reports
(electronic copy only; provided on CD included with report)

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 26, 2018

Stantec - S/E

Sample Delivery Group:	L1003320
Samples Received:	06/21/2018
Project Number:	213402429
Description:	PHL GWS
Site:	PISAOI-1
Report To:	Jennifer Menges 1060 Andrew Drive, Suite 140 West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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S-42I_20180619 L1003320-01 GW

Collected by	Collected date/time	Received date/time
KM	06/19/18 09:50	06/21/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1128116	1	06/22/18 00:28	06/22/18 00:28	JCP
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 00:59	ADF

S-47I_20180619 L1003320-02 GW

Collected by	Collected date/time	Received date/time
KM	06/19/18 11:20	06/21/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1128116	1	06/22/18 00:49	06/22/18 00:49	JCP
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1128628	50	06/24/18 17:41	06/24/18 17:41	JAH
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 01:12	ADF

S-87I_20180619 L1003320-03 GW

Collected by	Collected date/time	Received date/time
KM	06/19/18 13:20	06/21/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1128116	1	06/22/18 01:11	06/22/18 01:11	JCP
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1129451	500	06/25/18 20:54	06/25/18 20:54	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1130604	5000	06/27/18 16:50	06/27/18 16:50	BMB
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 01:24	ADF

S-399_20180619 L1003320-04 GW

Collected by	Collected date/time	Received date/time
KM	06/19/18 14:50	06/21/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1128173	1	06/26/18 11:23	06/26/18 19:11	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1128116	1	06/22/18 01:32	06/22/18 01:32	GLN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1129451	50	06/25/18 21:14	06/25/18 21:14	DWR
EDB / DBCP by Method 8011	WG1127562	1	06/21/18 13:02	06/22/18 05:43	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1128111	1	06/23/18 07:23	06/23/18 14:57	KM

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Project Narrative

SV8011 was analyzed outside of the 14 day holding time due to lab error.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/22/2018 00:28	WG1128116
1,2-Dichloroethane	0.00101		0.00100	1	06/22/2018 00:28	WG1128116
Ethylbenzene	ND		0.00100	1	06/22/2018 00:28	WG1128116
Isopropylbenzene	ND		0.00100	1	06/22/2018 00:28	WG1128116
Toluene	ND		0.00100	1	06/22/2018 00:28	WG1128116
1,2,4-Trimethylbenzene	ND		0.00100	1	06/22/2018 00:28	WG1128116
1,3,5-Trimethylbenzene	ND		0.00100	1	06/22/2018 00:28	WG1128116
Xylenes, Total	ND		0.00300	1	06/22/2018 00:28	WG1128116
Methyl tert-butyl ether	0.0135		0.00100	1	06/22/2018 00:28	WG1128116
tert-Butyl alcohol	ND		0.00500	1	06/22/2018 00:28	WG1128116
(S) Toluene-d8	*107*		*80.0-120*		*06/22/2018 00:28*	WG1128116
(S) Dibromofluoromethane	*86.6*		*76.0-123*		*06/22/2018 00:28*	WG1128116
(S) 4-Bromofluorobenzene	*113*		*80.0-120*		*06/22/2018 00:28*	WG1128116

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 00:59	WG1140686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/22/2018 00:49	WG1128116
1,2-Dichloroethane	ND		0.00100	1	06/22/2018 00:49	WG1128116
Ethylbenzene	ND		0.00100	1	06/22/2018 00:49	WG1128116
Isopropylbenzene	0.0495		0.00100	1	06/22/2018 00:49	WG1128116
Toluene	0.00226		0.00100	1	06/22/2018 00:49	WG1128116
1,2,4-Trimethylbenzene	ND		0.00100	1	06/22/2018 00:49	WG1128116
1,3,5-Trimethylbenzene	ND		0.00100	1	06/22/2018 00:49	WG1128116
Xylenes, Total	0.00339		0.00300	1	06/22/2018 00:49	WG1128116
Methyl tert-butyl ether	0.0193		0.00100	1	06/22/2018 00:49	WG1128116
tert-Butyl alcohol	0.743		0.250	50	06/24/2018 17:41	WG1128628
(S) Toluene-d8	*99.5*		*80.0-120*		*06/22/2018 00:49*	WG1128116
(S) Toluene-d8	*103*		*80.0-120*		*06/24/2018 17:41*	WG1128628
(S) Dibromofluoromethane	*83.7*		*76.0-123*		*06/22/2018 00:49*	WG1128116
(S) Dibromofluoromethane	*97.4*		*76.0-123*		*06/24/2018 17:41*	WG1128628
(S) 4-Bromofluorobenzene	*117*		*80.0-120*		*06/22/2018 00:49*	WG1128116
(S) 4-Bromofluorobenzene	*104*		*80.0-120*		*06/24/2018 17:41*	WG1128628

EDB / DBCP by Method 8011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 01:12	WG1140686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/22/2018 01:11	WG1128116
1,2-Dichloroethane	0.0105		0.00100	1	06/22/2018 01:11	WG1128116
Ethylbenzene	ND		0.00100	1	06/22/2018 01:11	WG1128116
Isopropylbenzene	ND		0.00100	1	06/22/2018 01:11	WG1128116
Toluene	ND		0.00100	1	06/22/2018 01:11	WG1128116
1,2,4-Trimethylbenzene	ND		0.00100	1	06/22/2018 01:11	WG1128116
1,3,5-Trimethylbenzene	ND		0.00100	1	06/22/2018 01:11	WG1128116
Xylenes, Total	ND		0.00300	1	06/22/2018 01:11	WG1128116
Methyl tert-butyl ether	0.937		0.500	500	06/25/2018 20:54	WG1129451
tert-Butyl alcohol	229		25.0	5000	06/27/2018 16:50	WG1130604
(S) Toluene-d8	*107*		*80.0-120*		*06/22/2018 01:11*	WG1128116
(S) Toluene-d8	*103*		*80.0-120*		*06/25/2018 20:54*	WG1129451
(S) Toluene-d8	*95.8*		*80.0-120*		*06/27/2018 16:50*	WG1130604
(S) Dibromofluoromethane	*85.6*		*76.0-123*		*06/22/2018 01:11*	WG1128116
(S) Dibromofluoromethane	*98.3*		*76.0-123*		*06/25/2018 20:54*	WG1129451
(S) Dibromofluoromethane	*105*		*76.0-123*		*06/27/2018 16:50*	WG1130604
(S) 4-Bromofluorobenzene	*112*		*80.0-120*		*06/22/2018 01:11*	WG1128116
(S) 4-Bromofluorobenzene	*101*		*80.0-120*		*06/25/2018 20:54*	WG1129451
(S) 4-Bromofluorobenzene	*98.3*		*80.0-120*		*06/27/2018 16:50*	WG1130604

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 01:24	WG1140686

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/26/2018 19:11	WG1128173

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/22/2018 01:32	WG1128116
1,2-Dichloroethane	ND		0.00100	1	06/22/2018 01:32	WG1128116
Ethylbenzene	ND		0.00100	1	06/22/2018 01:32	WG1128116
Isopropylbenzene	ND		0.00100	1	06/22/2018 01:32	WG1128116
Toluene	ND		0.00100	1	06/22/2018 01:32	WG1128116
1,2,4-Trimethylbenzene	ND		0.00100	1	06/22/2018 01:32	WG1128116
1,3,5-Trimethylbenzene	ND		0.00100	1	06/22/2018 01:32	WG1128116
Xylenes, Total	ND		0.00300	1	06/22/2018 01:32	WG1128116
Methyl tert-butyl ether	0.0229		0.00100	1	06/22/2018 01:32	WG1128116
tert-Butyl alcohol	2.62		0.250	50	06/25/2018 21:14	WG1129451
(S) Toluene-d8	*106*		*80.0-120*		*06/22/2018 01:32*	WG1128116
(S) Toluene-d8	*106*		*80.0-120*		*06/25/2018 21:14*	WG1129451
(S) Dibromofluoromethane	*83.8*		*76.0-123*		*06/22/2018 01:32*	WG1128116
(S) Dibromofluoromethane	*97.1*		*76.0-123*		*06/25/2018 21:14*	WG1129451
(S) 4-Bromofluorobenzene	*113*		*80.0-120*		*06/22/2018 01:32*	WG1128116
(S) 4-Bromofluorobenzene	*99.3*		*80.0-120*		*06/25/2018 21:14*	WG1129451

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	06/22/2018 05:43	WG1127562

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.0000654		0.0000500	1	06/23/2018 14:57	WG1128111
Benzo(a)anthracene	ND		0.0000500	1	06/23/2018 14:57	WG1128111
Benzo(a)pyrene	ND		0.0000500	1	06/23/2018 14:57	WG1128111
Benzo(b)fluoranthene	ND		0.0000500	1	06/23/2018 14:57	WG1128111
Benzo(g,h,i)perylene	ND		0.0000500	1	06/23/2018 14:57	WG1128111
Chrysene	ND		0.0000500	1	06/23/2018 14:57	WG1128111
Fluorene	0.000119		0.0000500	1	06/23/2018 14:57	WG1128111
Naphthalene	ND		0.000250	1	06/23/2018 14:57	WG1128111
Phenanthrene	0.000234		0.0000500	1	06/23/2018 14:57	WG1128111
Pyrene	ND		0.0000500	1	06/23/2018 14:57	WG1128111
(S) Nitrobenzene-d5	*81.0*		*31.0-160*		*06/23/2018 14:57*	WG1128111
(S) 2-Fluorobiphenyl	*111*		*48.0-148*		*06/23/2018 14:57*	WG1128111
(S) p-Terphenyl-d14	*112*		*37.0-146*		*06/23/2018 14:57*	WG1128111

Method Blank (MB)

(MB) R3321087-1 06/26/18 18:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead,Dissolved	0.000352	J	0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3321087-2 06/26/18 18:43 • (LCSD) R3321087-3 06/26/18 18:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0488	0.0484	97.7	96.7	80.0-120			1.01	20

L1003571-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1003571-01 06/26/18 18:52 • (MS) R3321087-5 06/26/18 19:02 • (MSD) R3321087-6 06/26/18 19:06

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0189	0.0671	0.0676	96.5	97.4	1	75.0-125			0.705	20

Method Blank (MB)

(MB) R3320230-4 06/21/18 20:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*87.1*			*76.0-123*
(S) 4-Bromofluorobenzene	*113*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3320230-1 06/21/18 19:28 • (LCSD) R3320230-2 06/21/18 19:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0225	0.0221	89.8	88.3	69.0-123			1.69	20
1,2-Dichloroethane	0.0250	0.0226	0.0223	90.4	89.0	67.0-126			1.53	20
Isopropylbenzene	0.0250	0.0266	0.0262	106	105	75.0-120			1.72	20
Ethylbenzene	0.0250	0.0261	0.0255	104	102	77.0-120			2.10	20
Methyl tert-butyl ether	0.0250	0.0215	0.0206	86.1	82.5	64.0-123			4.26	20
1,2,4-Trimethylbenzene	0.0250	0.0246	0.0243	98.3	97.4	75.0-120			0.985	20
1,3,5-Trimethylbenzene	0.0250	0.0252	0.0248	101	99.4	75.0-120			1.42	20
Toluene	0.0250	0.0252	0.0249	101	99.4	77.0-120			1.31	20
Xylenes, Total	0.0750	0.0777	0.0765	104	102	77.0-120			1.56	20
(S) Toluene-d8				*106*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*86.8*	*84.6*	*76.0-123*				
(S) 4-Bromofluorobenzene				*109*	*108*	*80.0-120*				

Method Blank (MB)

(MB) R3320642-4 06/24/18 16:16

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*102*			*80.0-120*
(S) Dibromofluoromethane	*97.5*			*76.0-123*
(S) 4-Bromofluorobenzene	*106*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3320642-3 06/24/18 15:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0635	127	50.0-150	
(S) Toluene-d8			*103*	*80.0-120*	
(S) Dibromofluoromethane			*99.4*	*76.0-123*	
(S) 4-Bromofluorobenzene			*104*	*80.0-120*	

Method Blank (MB)

(MB) R3321271-4 06/25/18 20:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl tert-butyl ether	U		0.000367	0.00100
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*102*			*80.0-120*
(S) Dibromofluoromethane	*97.9*			*76.0-123*
(S) 4-Bromofluorobenzene	*102*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3321271-1 06/25/18 18:21 • (LCSD) R3321271-2 06/25/18 18:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	0.0250	0.0227	0.0230	91.0	92.1	64.0-123			1.23	20
(S) Toluene-d8				*104*	*102*	*80.0-120*				
(S) Dibromofluoromethane				*96.3*	*97.6*	*76.0-123*				
(S) 4-Bromofluorobenzene				*103*	*102*	*80.0-120*				

Laboratory Control Sample (LCS)

(LCS) R3321271-3 06/25/18 19:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0540	108	50.0-150	
(S) Toluene-d8			*103*	*80.0-120*	
(S) Dibromofluoromethane			*98.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*103*	*80.0-120*	

Method Blank (MB)

(MB) R3321460-3 06/27/18 10:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*95.6*			*80.0-120*
(S) Dibromofluoromethane	*105*			*76.0-123*
(S) 4-Bromofluorobenzene	*97.4*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3321460-2 06/27/18 09:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0487	97.4	50.0-150	
(S) Toluene-d8			*92.3*	*80.0-120*	
(S) Dibromofluoromethane			*102*	*76.0-123*	
(S) 4-Bromofluorobenzene			*94.6*	*80.0-120*	

Method Blank (MB)

(MB) R3320087-1 06/22/18 02:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1003188-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1003188-08 06/22/18 03:29 • (DUP) R3320087-3 06/22/18 03:17

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	1.01			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3320087-4 06/22/18 05:31 • (LCSD) R3320087-5 06/22/18 06:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000243	0.000236	97.2	94.4	60.0-140			2.92	20

L1003188-09 Original Sample (OS) • Matrix Spike (MS)

(OS) L1003188-09 06/22/18 03:04 • (MS) R3320087-2 06/22/18 02:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.000101	ND	0.000117	116	1.01	72.0-146	

Method Blank (MB)

(MB) R3327677-1 07/20/18 23:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1009704-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1009704-01 07/21/18 00:47 • (DUP) R3327677-3 07/21/18 00:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3327677-4 07/21/18 02:50 • (LCSD) R3327677-5 07/21/18 05:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000239	0.000229	95.6	91.6	60.0-140			4.27	20

L1009704-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1009704-03 07/21/18 00:22 • (MS) R3327677-2 07/21/18 00:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	U	0.0000955	95.7	1	72.0-146	

Method Blank (MB)

(MB) R3320567-3 06/23/18 12:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	0.0000209	J	0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*95.2*			*31.0-160*
(S) 2-Fluorobiphenyl	*137*			*48.0-148*
(S) p-Terphenyl-d14	*126*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3320567-1 06/23/18 11:25 • (LCSD) R3320567-2 06/23/18 11:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00215	0.00204	107	102	64.0-142			5.16	20
Benzo(a)anthracene	0.00200	0.00201	0.00193	100	96.5	59.0-134			4.03	20
Benzo(a)pyrene	0.00200	0.00213	0.00208	106	104	61.0-145			2.31	20
Benzo(b)fluoranthene	0.00200	0.00214	0.00201	107	100	57.0-136			6.40	20
Benzo(g,h,i)perylene	0.00200	0.00228	0.00229	114	114	54.0-140			0.528	20
Chrysene	0.00200	0.00215	0.00208	107	104	63.0-140			3.21	20
Fluorene	0.00200	0.00205	0.00192	102	95.8	64.0-129			6.61	20
Naphthalene	0.00200	0.00200	0.00190	100	95.1	68.0-129			5.18	20
Phenanthrene	0.00200	0.00191	0.00180	95.7	89.9	62.0-132			6.28	20
Pyrene	0.00200	0.00197	0.00191	98.7	95.5	58.0-156			3.23	20
(S) Nitrobenzene-d5				*89.4*	*81.5*	*31.0-160*				
(S) 2-Fluorobiphenyl				*129*	*118*	*48.0-148*				
(S) p-Terphenyl-d14				*118*	*111*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
T8	Sample(s) received past/too close to holding time expiration.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

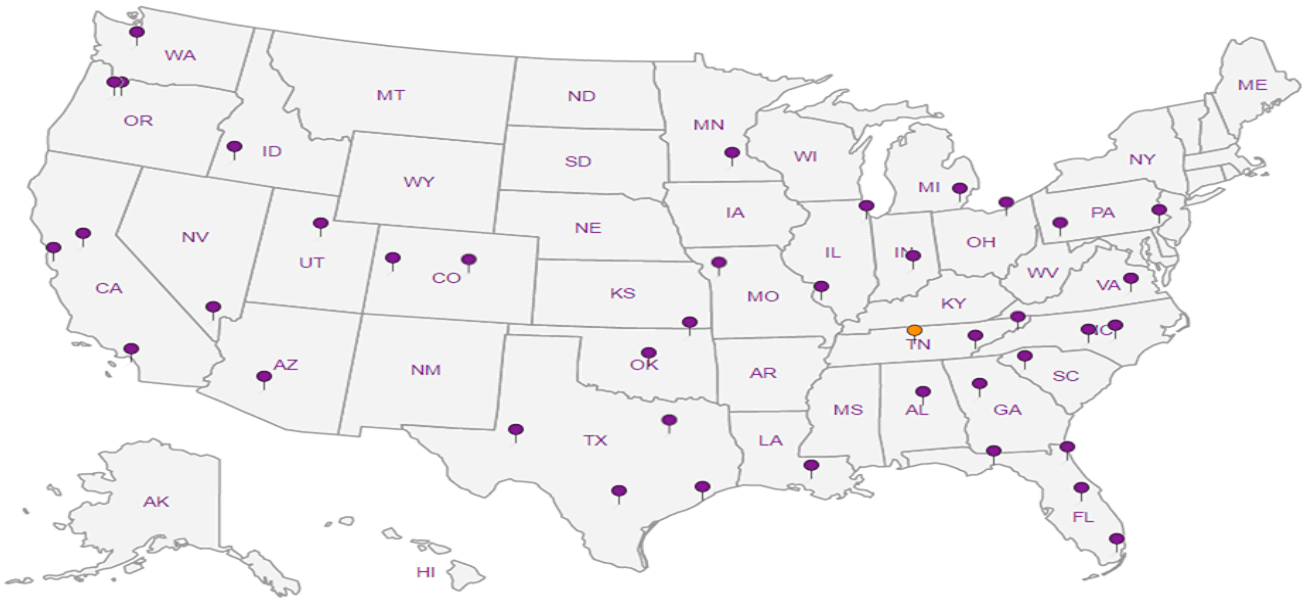
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: Jennifer Menges

Email To: Jennifer.Menges@stantec.com

Project Description: Evergreen - AOI-1 GWS

City/State Collected: Philadelphia PA

Phone: 267-240-3415
Fax:

Client Project # 213402429

Lab Project # SUNSTANTEC-PHL

Collected by (print): Kat McCorry

Site/Facility ID # PGAOI-1

P.O. # Sunoco Cost

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard TAT

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP	V8260OXY - 3 - 40ml vials w/ HCL	TBA	Remarks	Sample # (lab only)
S-42I-20180619	G	GW		6.19.18	950	3			X	X		01
S-47I-20180619	G	GW		6.19.18	1920	3			X	X		02
S-87I-20180619	G	GW		6.19.18	1320	3			X	X		03
S-399-20180619	G	GW		6.19.18	1450	9	X	X	X	X		04
		GW										
		GW										
		GW										
		GW										
		GW										
		GW										

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP *See attached List*

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Relinquished by : (Signature) Date: 6.19.18 Time: 1600 Received by: (Signature) 6/19/18 1648

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 0.6 °C Bottles Received: 18

If preservation required by Login: Date/Time

Relinquished by : (Signature) Date: Time: Received by: (Signature)

Relinquished by : (Signature) Date: Time: Received for lab by: (Signature) Date: 6/21/18 Time: 0845

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Chain of Custody Page 1 of 1

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 160370

Table G248

Acctnum: SUNSTANTEC

Template: T137388

Prelogin: P658899

TSR: 134 - Mark Beasley

PB: 6/15-18

Shipped Via:

Table 1
Evergreen Petroleum Short List of Constituents of Concern

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Stantec

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 26, 2018

Stantec - S/E

Sample Delivery Group:	L1004128
Samples Received:	06/23/2018
Project Number:	213402429
Description:	Evergreen-AOI 1-9-GWS
Site:	PES-AOI-1-9
Report To:	Jennifer Menges
	1060 Andrew Drive, Suite 140
	West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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S-397_20180621 L1004128-01 GW

Collected by	Collected date/time	Received date/time
Karl Mclorry	06/21/18 09:20	06/23/18 08:54

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1129564	1	06/25/18 22:54	06/25/18 22:54	DWR
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 01:37	ADF

S-41_20180621 L1004128-02 GW

Collected by	Collected date/time	Received date/time
Karl Mclorry	06/21/18 10:35	06/23/18 08:54

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1129621	1	06/26/18 14:01	06/27/18 14:18	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1129731	1	06/26/18 12:35	06/26/18 12:35	JCP
EDB / DBCP by Method 8011	WG1129301	.995	06/25/18 08:59	06/26/18 12:01	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1130758	1	06/27/18 23:49	06/28/18 10:18	KM

S-143SRTF_HS_20180621 L1004128-03 GW

Collected by	Collected date/time	Received date/time
Karl Mclorry	06/21/18 13:15	06/23/18 08:54

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1129621	1	06/26/18 14:01	06/27/18 14:22	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1129731	1	06/26/18 13:00	06/26/18 13:00	JCP
EDB / DBCP by Method 8011	WG1129301	.998	06/25/18 08:59	06/26/18 12:14	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1130758	1	06/27/18 23:49	06/28/18 10:40	KM

S-143SRTF_20180621 L1004128-04 GW

Collected by	Collected date/time	Received date/time
Karl Mclorry	06/21/18 15:20	06/23/18 08:54

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1129621	1	06/26/18 14:01	06/27/18 14:26	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1129731	1	06/26/18 13:25	06/26/18 13:25	JCP
EDB / DBCP by Method 8011	WG1129301	1	06/25/18 08:59	06/26/18 12:26	ADF
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1130758	1	06/27/18 23:49	06/28/18 11:01	KM

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Project Narrative

SV8011 was analyzed outside of the 14 day holding time due to lab error.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/25/2018 22:54	WG1129564
1,2-Dichloroethane	ND		0.00100	1	06/25/2018 22:54	WG1129564
Ethylbenzene	ND		0.00100	1	06/25/2018 22:54	WG1129564
Isopropylbenzene	ND		0.00100	1	06/25/2018 22:54	WG1129564
Toluene	ND		0.00100	1	06/25/2018 22:54	WG1129564
1,2,4-Trimethylbenzene	ND		0.00100	1	06/25/2018 22:54	WG1129564
1,3,5-Trimethylbenzene	ND		0.00100	1	06/25/2018 22:54	WG1129564
Xylenes, Total	ND		0.00300	1	06/25/2018 22:54	WG1129564
Methyl tert-butyl ether	0.00778		0.00100	1	06/25/2018 22:54	WG1129564
tert-Butyl alcohol	ND		0.00500	1	06/25/2018 22:54	WG1129564
(S) Toluene-d8	*102*		*80.0-120*		*06/25/2018 22:54*	WG1129564
(S) Dibromofluoromethane	*98.5*		*76.0-123*		*06/25/2018 22:54*	WG1129564
(S) 4-Bromofluorobenzene	*101*		*80.0-120*		*06/25/2018 22:54*	WG1129564

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	0.0000122	T8	0.0000100	1	07/21/2018 01:37	WG1140686

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/27/2018 14:18	WG1129621

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/26/2018 12:35	WG1129731
Isopropylbenzene	0.106		0.00100	1	06/26/2018 12:35	WG1129731
1,2-Dichloroethane	ND		0.00100	1	06/26/2018 12:35	WG1129731
Ethylbenzene	ND		0.00100	1	06/26/2018 12:35	WG1129731
Methyl tert-butyl ether	ND		0.00100	1	06/26/2018 12:35	WG1129731
Toluene	0.00148		0.00100	1	06/26/2018 12:35	WG1129731
1,2,4-Trimethylbenzene	ND		0.00100	1	06/26/2018 12:35	WG1129731
1,3,5-Trimethylbenzene	ND		0.00100	1	06/26/2018 12:35	WG1129731
Xylenes, Total	ND		0.00300	1	06/26/2018 12:35	WG1129731
(S) Toluene-d8	*84.1*		*80.0-120*		*06/26/2018 12:35*	WG1129731
(S) Dibromofluoromethane	*96.9*		*76.0-123*		*06/26/2018 12:35*	WG1129731
(S) 4-Bromofluorobenzene	*105*		*80.0-120*		*06/26/2018 12:35*	WG1129731

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.995	06/26/2018 12:01	WG1129301

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000178		0.0000500	1	06/28/2018 10:18	WG1130758
Benzo(a)anthracene	ND		0.0000500	1	06/28/2018 10:18	WG1130758
Benzo(a)pyrene	ND		0.0000500	1	06/28/2018 10:18	WG1130758
Benzo(b)fluoranthene	ND		0.0000500	1	06/28/2018 10:18	WG1130758
Benzo(g,h,i)perylene	ND		0.0000500	1	06/28/2018 10:18	WG1130758
Chrysene	ND		0.0000500	1	06/28/2018 10:18	WG1130758
Fluorene	0.00249		0.0000500	1	06/28/2018 10:18	WG1130758
Naphthalene	0.00138		0.000250	1	06/28/2018 10:18	WG1130758
Phenanthrene	0.000314		0.0000500	1	06/28/2018 10:18	WG1130758
Pyrene	0.0000519		0.0000500	1	06/28/2018 10:18	WG1130758
(S) Nitrobenzene-d5	*93.2*		*31.0-160*		*06/28/2018 10:18*	WG1130758
(S) 2-Fluorobiphenyl	*106*		*48.0-148*		*06/28/2018 10:18*	WG1130758
(S) p-Terphenyl-d14	*122*		*37.0-146*		*06/28/2018 10:18*	WG1130758

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/27/2018 14:22	WG1129621

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/26/2018 13:00	WG1129731
Isopropylbenzene	ND		0.00100	1	06/26/2018 13:00	WG1129731
1,2-Dichloroethane	ND		0.00100	1	06/26/2018 13:00	WG1129731
Ethylbenzene	ND		0.00100	1	06/26/2018 13:00	WG1129731
Methyl tert-butyl ether	0.149		0.00100	1	06/26/2018 13:00	WG1129731
Toluene	ND		0.00100	1	06/26/2018 13:00	WG1129731
1,2,4-Trimethylbenzene	ND		0.00100	1	06/26/2018 13:00	WG1129731
1,3,5-Trimethylbenzene	ND		0.00100	1	06/26/2018 13:00	WG1129731
Xylenes, Total	ND		0.00300	1	06/26/2018 13:00	WG1129731
(S) Toluene-d8	*101*		*80.0-120*		*06/26/2018 13:00*	WG1129731
(S) Dibromofluoromethane	*95.1*		*76.0-123*		*06/26/2018 13:00*	WG1129731
(S) 4-Bromofluorobenzene	*103*		*80.0-120*		*06/26/2018 13:00*	WG1129731

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	06/26/2018 12:14	WG1129301

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	06/28/2018 10:40	WG1130758
Benzo(a)anthracene	ND		0.0000500	1	06/28/2018 10:40	WG1130758
Benzo(a)pyrene	ND		0.0000500	1	06/28/2018 10:40	WG1130758
Benzo(b)fluoranthene	ND		0.0000500	1	06/28/2018 10:40	WG1130758
Benzo(g,h,i)perylene	ND		0.0000500	1	06/28/2018 10:40	WG1130758
Chrysene	ND		0.0000500	1	06/28/2018 10:40	WG1130758
Fluorene	ND		0.0000500	1	06/28/2018 10:40	WG1130758
Naphthalene	ND		0.000250	1	06/28/2018 10:40	WG1130758
Phenanthrene	ND		0.0000500	1	06/28/2018 10:40	WG1130758
Pyrene	ND		0.0000500	1	06/28/2018 10:40	WG1130758
(S) Nitrobenzene-d5	*81.3*		*31.0-160*		*06/28/2018 10:40*	WG1130758
(S) 2-Fluorobiphenyl	*115*		*48.0-148*		*06/28/2018 10:40*	WG1130758
(S) p-Terphenyl-d14	*125*		*37.0-146*		*06/28/2018 10:40*	WG1130758

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/27/2018 14:26	WG1129621

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/26/2018 13:25	WG1129731
Isopropylbenzene	ND		0.00100	1	06/26/2018 13:25	WG1129731
1,2-Dichloroethane	ND		0.00100	1	06/26/2018 13:25	WG1129731
Ethylbenzene	ND		0.00100	1	06/26/2018 13:25	WG1129731
Methyl tert-butyl ether	0.172		0.00100	1	06/26/2018 13:25	WG1129731
Toluene	ND		0.00100	1	06/26/2018 13:25	WG1129731
1,2,4-Trimethylbenzene	ND		0.00100	1	06/26/2018 13:25	WG1129731
1,3,5-Trimethylbenzene	ND		0.00100	1	06/26/2018 13:25	WG1129731
Xylenes, Total	ND		0.00300	1	06/26/2018 13:25	WG1129731
(S) Toluene-d8	*101*		*80.0-120*		*06/26/2018 13:25*	WG1129731
(S) Dibromofluoromethane	*94.4*		*76.0-123*		*06/26/2018 13:25*	WG1129731
(S) 4-Bromofluorobenzene	*102*		*80.0-120*		*06/26/2018 13:25*	WG1129731

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	06/26/2018 12:26	WG1129301

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	06/28/2018 11:01	WG1130758
Benzo(a)anthracene	ND		0.0000500	1	06/28/2018 11:01	WG1130758
Benzo(a)pyrene	ND		0.0000500	1	06/28/2018 11:01	WG1130758
Benzo(b)fluoranthene	ND		0.0000500	1	06/28/2018 11:01	WG1130758
Benzo(g,h,i)perylene	ND		0.0000500	1	06/28/2018 11:01	WG1130758
Chrysene	ND		0.0000500	1	06/28/2018 11:01	WG1130758
Fluorene	ND		0.0000500	1	06/28/2018 11:01	WG1130758
Naphthalene	ND		0.000250	1	06/28/2018 11:01	WG1130758
Phenanthrene	ND		0.0000500	1	06/28/2018 11:01	WG1130758
Pyrene	ND		0.0000500	1	06/28/2018 11:01	WG1130758
(S) Nitrobenzene-d5	*81.1*		*31.0-160*		*06/28/2018 11:01*	WG1130758
(S) 2-Fluorobiphenyl	*113*		*48.0-148*		*06/28/2018 11:01*	WG1130758
(S) p-Terphenyl-d14	*121*		*37.0-146*		*06/28/2018 11:01*	WG1130758

Method Blank (MB)

(MB) R3321357-1 06/27/18 12:39

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3321357-2 06/27/18 12:43 • (LCSD) R3321357-3 06/27/18 12:47

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Lead,Dissolved	0.0500	0.0481	0.0488	96.1	97.7	80.0-120			1.59	20

L1003696-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1003696-01 06/27/18 12:51 • (MS) R3321357-5 06/27/18 12:59 • (MSD) R3321357-6 06/27/18 13:03

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Lead,Dissolved	0.0500	U	0.0484	0.0494	96.9	98.7	1	75.0-125			1.88	20

Method Blank (MB)

(MB) R3321272-4 06/25/18 20:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*102*			*80.0-120*
(S) Dibromofluoromethane	*97.9*			*76.0-123*
(S) 4-Bromofluorobenzene	*102*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3321272-1 06/25/18 18:21 • (LCSD) R3321272-2 06/25/18 18:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0220	0.0222	87.9	88.9	69.0-123			1.09	20
1,2-Dichloroethane	0.0250	0.0258	0.0259	103	104	67.0-126			0.276	20
Ethylbenzene	0.0250	0.0239	0.0233	95.5	93.1	77.0-120			2.56	20
Isopropylbenzene	0.0250	0.0274	0.0279	110	112	75.0-120			1.92	20
Methyl tert-butyl ether	0.0250	0.0227	0.0230	91.0	92.1	64.0-123			1.23	20
Toluene	0.0250	0.0231	0.0229	92.5	91.4	77.0-120			1.13	20
1,2,4-Trimethylbenzene	0.0250	0.0245	0.0256	98.0	102	75.0-120			4.21	20
1,3,5-Trimethylbenzene	0.0250	0.0262	0.0275	105	110	75.0-120			4.82	20
Xylenes, Total	0.0750	0.0710	0.0697	94.7	92.9	77.0-120			1.85	20
(S) Toluene-d8				*104*	*102*	*80.0-120*				
(S) Dibromofluoromethane				*96.3*	*97.6*	*76.0-123*				
(S) 4-Bromofluorobenzene				*103*	*102*	*80.0-120*				

Laboratory Control Sample (LCS)

(LCS) R3321272-3 06/25/18 19:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0540	108	50.0-150	
(S) Toluene-d8			*103*	*80.0-120*	

Laboratory Control Sample (LCS)

(LCS) R3321272-3 06/25/18 19:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) Dibromofluoromethane			*98.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*103*	*80.0-120*	

Method Blank (MB)

(MB) R3321974-4 06/26/18 12:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*103*			*80.0-120*
(S) Dibromofluoromethane	*94.9*			*76.0-123*
(S) 4-Bromofluorobenzene	*105*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3321974-1 06/26/18 10:28 • (LCSD) R3321974-2 06/26/18 10:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0239	0.0240	95.5	96.1	69.0-123			0.616	20
1,2-Dichloroethane	0.0250	0.0244	0.0246	97.7	98.4	67.0-126			0.671	20
Ethylbenzene	0.0250	0.0255	0.0253	102	101	77.0-120			0.839	20
Isopropylbenzene	0.0250	0.0267	0.0269	107	108	75.0-120			0.859	20
Methyl tert-butyl ether	0.0250	0.0231	0.0235	92.5	94.1	64.0-123			1.71	20
Toluene	0.0250	0.0252	0.0254	101	101	77.0-120			0.733	20
1,2,4-Trimethylbenzene	0.0250	0.0260	0.0258	104	103	75.0-120			0.724	20
1,3,5-Trimethylbenzene	0.0250	0.0263	0.0263	105	105	75.0-120			0.216	20
Xylenes, Total	0.0750	0.0762	0.0760	102	101	77.0-120			0.263	20
(S) Toluene-d8				*100*	*101*	*80.0-120*				
(S) Dibromofluoromethane				*95.0*	*95.2*	*76.0-123*				
(S) 4-Bromofluorobenzene				*105*	*104*	*80.0-120*				

Method Blank (MB)

(MB) R3320983-1 06/26/18 08:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000239	0.00000995

L1003911-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1003911-05 06/26/18 09:43 • (DUP) R3320983-3 06/26/18 09:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3320983-4 06/26/18 11:48 • (LCSD) R3320983-5 06/26/18 14:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000249	0.000229	0.000246	92.0	98.4	60.0-140			7.16	20

L1003911-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1003911-06 06/26/18 09:18 • (MS) R3320983-2 06/26/18 09:05

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	ND	0.0000965	96.7	.998	72.0-146	

Method Blank (MB)

(MB) R3327677-1 07/20/18 23:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1009704-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1009704-01 07/21/18 00:47 • (DUP) R3327677-3 07/21/18 00:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3327677-4 07/21/18 02:50 • (LCSD) R3327677-5 07/21/18 05:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000239	0.000229	95.6	91.6	60.0-140			4.27	20

L1009704-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1009704-03 07/21/18 00:22 • (MS) R3327677-2 07/21/18 00:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	U	0.0000955	95.7	1	72.0-146	

Method Blank (MB)

(MB) R3321709-3 06/28/18 09:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	0.0000387	J	0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*80.3*			*31.0-160*
(S) 2-Fluorobiphenyl	*111*			*48.0-148*
(S) p-Terphenyl-d14	*119*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3321709-1 06/28/18 09:12 • (LCSD) R3321709-2 06/28/18 09:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00227	0.00235	114	117	64.0-142			3.29	20
Benzo(a)anthracene	0.00200	0.00199	0.00202	99.6	101	59.0-134			1.43	20
Benzo(a)pyrene	0.00200	0.00205	0.00202	103	101	61.0-145			1.70	20
Benzo(b)fluoranthene	0.00200	0.00190	0.00202	95.1	101	57.0-136			6.11	20
Benzo(g,h,i)perylene	0.00200	0.00213	0.00204	106	102	54.0-140			4.30	20
Chrysene	0.00200	0.00217	0.00217	108	109	63.0-140			0.259	20
Fluorene	0.00200	0.00206	0.00207	103	104	64.0-129			0.765	20
Naphthalene	0.00200	0.00194	0.00196	96.8	98.1	68.0-129			1.33	20
Phenanthrene	0.00200	0.00210	0.00208	105	104	62.0-132			0.978	20
Pyrene	0.00200	0.00198	0.00202	98.8	101	58.0-156			2.16	20
(S) Nitrobenzene-d5				*79.5*	*80.3*	*31.0-160*				
(S) 2-Fluorobiphenyl				*114*	*113*	*48.0-148*				
(S) p-Terphenyl-d14				*118*	*115*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
T8	Sample(s) received past/too close to holding time expiration.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

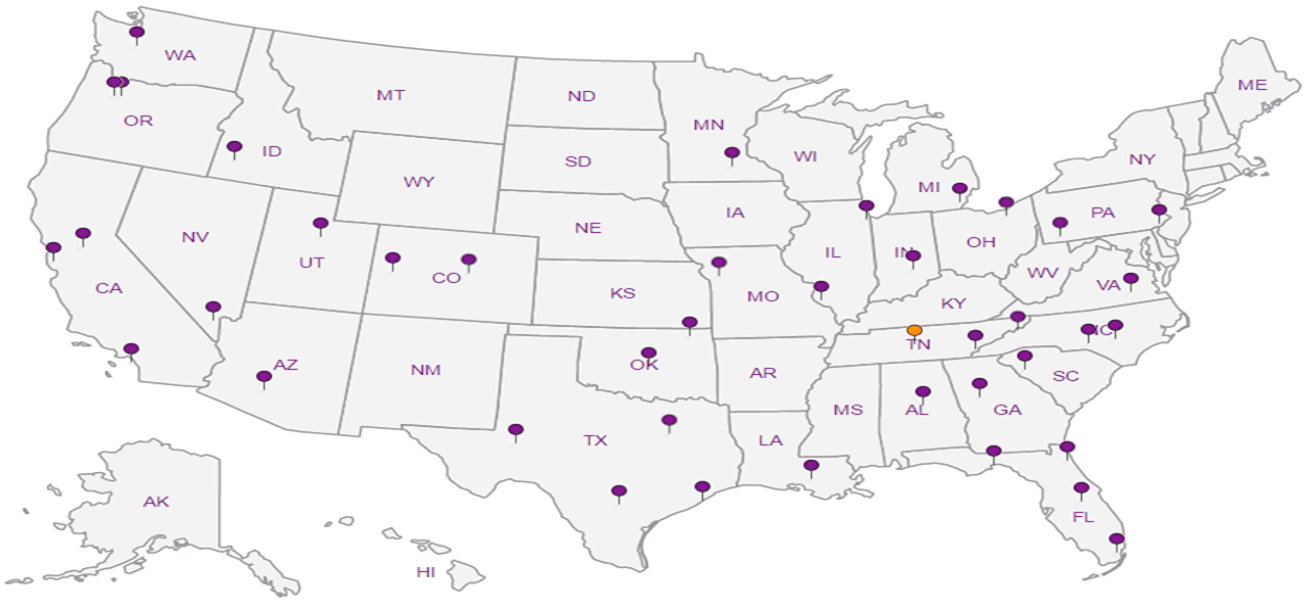
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen - AOI-1+9-GWS

City/State Collected: Phila, PA

Phone: **267-240-3415**
Fax:

Client Project # 21340249

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Karl McGirk

Site/Facility ID # PES-AOI-1+9

P.O. # Sunoco Cost

Collected by (signature):

Quote #

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: Standard TAT

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP	V8260OXY - 3 - 40ml vials w/ HCL + TBA								Remarks	Sample # (lab only)
S_397_20180621	G	GW		6.21.18	920	3			X	X								-01
S_41_20180621	G	GW		6.21.18	1035	9	X	X	X	X								-02
S_143SRTF_HS_20180621	G	GW	63'-65'	6.21.18	1315	9	X	X	X	X								-03
S_143SRTF_20180621	G	GW		6.21.18	1520	9	X	X	X	X								-04
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier CLIENT

Tracking #

Chain of Custody Page ___ of ___

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12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1004128
B096

Acctnum: **SUNSTANTEC**
Template: **T137388**
Prelogin: **P658899**
TSR: **134 - Mark Beasley**
PB: 6-15-18

Shipped Via:

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	6.21.18	1730	ESCPA lockout room	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.8 °C Bottles Received: 30
ESCPA lockout room	6/22/18	8:30		
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/23/18 Time: 0854

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Andy Vann

From: Mark Beasley
Sent: Monday, June 25, 2018 8:27 AM
To: Login
Cc: Olivia Studebaker
Subject: L1004128 *SUNSTANTEC*

Change V8260OXY to V8260UGPA on L1004128-02 thru -04 per client.

Mark Beasley
National Account Manager

ESC Lab Sciences-a subsidiary of Pace Analytical
12065 Lebanon Road | Mt. Juliet, TN 37122
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Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 25, 2018

Stantec - S/E

Sample Delivery Group:	L1004235
Samples Received:	06/23/2018
Project Number:	213402429
Description:	Evergreen PES PAL Annual GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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FB_20180622 L1004235-01 GW

Collected by: Dane Hopkins | Collected date/time: 06/22/18 08:30 | Received date/time: 06/23/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1129622	1	06/27/18 14:20	06/27/18 20:17	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1129731	1	06/26/18 16:22	06/26/18 16:22	JCP
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131862	1	06/29/18 17:02	06/29/18 17:02	RAS
EDB / DBCP by Method 8011	WG1129303	1	06/25/18 09:00	06/26/18 15:59	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1130758	1	06/27/18 23:49	06/28/18 13:34	KM

S-249_20180622 L1004235-02 GW

Collected by: Dane Hopkins | Collected date/time: 06/22/18 10:30 | Received date/time: 06/23/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1129622	1	06/27/18 14:20	06/27/18 20:21	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1129731	1	06/26/18 16:48	06/26/18 16:48	JCP
EDB / DBCP by Method 8011	WG1129303	1.01	06/25/18 09:00	06/26/18 16:11	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1130758	1	06/27/18 23:49	06/28/18 13:55	KM

RW-108_20180622 L1004235-03 GW

Collected by: Dane Hopkins | Collected date/time: 06/22/18 11:20 | Received date/time: 06/23/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1129622	1	06/27/18 14:20	06/27/18 20:26	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1129731	1	06/26/18 17:13	06/26/18 17:13	JCP
EDB / DBCP by Method 8011	WG1129303	.998	06/25/18 09:00	06/26/18 16:23	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1130758	1	06/27/18 23:49	06/28/18 14:17	KM

S-354_20180622 L1004235-04 GW

Collected by: Dane Hopkins | Collected date/time: 06/22/18 12:30 | Received date/time: 06/23/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1129622	1	06/27/18 14:20	06/27/18 20:30	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1129731	1	06/26/18 17:39	06/26/18 17:39	JCP
EDB / DBCP by Method 8011	WG1129303	.998	06/25/18 09:00	06/26/18 16:36	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1130758	1	06/27/18 23:49	06/28/18 14:39	KM

S-273_20180622 L1004235-05 GW

Collected by: Dane Hopkins | Collected date/time: 06/22/18 10:50 | Received date/time: 06/23/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1129585	1	06/26/18 01:20	06/26/18 01:20	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1130712	20	06/27/18 20:58	06/27/18 20:58	LRL
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 01:49	JNS

S-44_20180622 L1004235-06 GW

Collected by: Dane Hopkins | Collected date/time: 06/22/18 12:10 | Received date/time: 06/23/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1129622	1	06/27/18 14:20	06/27/18 20:35	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1129731	1	06/26/18 18:04	06/26/18 18:04	JCP
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131862	5	06/29/18 17:21	06/29/18 17:21	RAS
EDB / DBCP by Method 8011	WG1129303	1	06/25/18 09:00	06/26/18 16:47	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1130758	1	06/27/18 23:49	06/28/18 15:01	JNS

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Project Narrative

SV8011 was analyzed outside of the 14 day holding time dueto lab error.

Sample Handling and Receiving

VOC pH outside of method requirement.

Lab Sample ID	Project Sample ID	Method
L1004235-06	S-44_20180622	8260B

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/27/2018 20:17	WG1129622

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/26/2018 16:22	WG1129731
Isopropylbenzene	ND		0.00100	1	06/26/2018 16:22	WG1129731
1,2-Dichloroethane	ND		0.00100	1	06/26/2018 16:22	WG1129731
Ethylbenzene	ND		0.00100	1	06/26/2018 16:22	WG1129731
Methyl tert-butyl ether	ND		0.00100	1	06/26/2018 16:22	WG1129731
Toluene	ND		0.00100	1	06/26/2018 16:22	WG1129731
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 17:02	WG1131862
1,3,5-Trimethylbenzene	ND		0.00100	1	06/26/2018 16:22	WG1129731
Xylenes, Total	ND		0.00300	1	06/29/2018 17:02	WG1131862
(S) Toluene-d8	*101*		*80.0-120*		*06/26/2018 16:22*	WG1129731
(S) Toluene-d8	*109*		*80.0-120*		*06/29/2018 17:02*	WG1131862
(S) Dibromofluoromethane	*97.0*		*76.0-123*		*06/26/2018 16:22*	WG1129731
(S) Dibromofluoromethane	*91.1*		*76.0-123*		*06/29/2018 17:02*	WG1131862
(S) 4-Bromofluorobenzene	*103*		*80.0-120*		*06/26/2018 16:22*	WG1129731
(S) 4-Bromofluorobenzene	*103*		*80.0-120*		*06/29/2018 17:02*	WG1131862

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	06/26/2018 15:59	WG1129303

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	06/28/2018 13:34	WG1130758
Benzo(a)anthracene	ND		0.0000500	1	06/28/2018 13:34	WG1130758
Benzo(a)pyrene	ND		0.0000500	1	06/28/2018 13:34	WG1130758
Benzo(b)fluoranthene	ND		0.0000500	1	06/28/2018 13:34	WG1130758
Benzo(g,h,i)perylene	ND		0.0000500	1	06/28/2018 13:34	WG1130758
Chrysene	ND		0.0000500	1	06/28/2018 13:34	WG1130758
Fluorene	ND		0.0000500	1	06/28/2018 13:34	WG1130758
Naphthalene	ND		0.000250	1	06/28/2018 13:34	WG1130758
Phenanthrene	ND		0.0000500	1	06/28/2018 13:34	WG1130758
Pyrene	ND		0.0000500	1	06/28/2018 13:34	WG1130758
(S) Nitrobenzene-d5	*83.8*		*31.0-160*		*06/28/2018 13:34*	WG1130758
(S) 2-Fluorobiphenyl	*123*		*48.0-148*		*06/28/2018 13:34*	WG1130758
(S) p-Terphenyl-d14	*126*		*37.0-146*		*06/28/2018 13:34*	WG1130758

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/27/2018 20:21	WG1129622

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/26/2018 16:48	WG1129731
Isopropylbenzene	ND		0.00100	1	06/26/2018 16:48	WG1129731
1,2-Dichloroethane	ND		0.00100	1	06/26/2018 16:48	WG1129731
Ethylbenzene	ND		0.00100	1	06/26/2018 16:48	WG1129731
Methyl tert-butyl ether	ND		0.00100	1	06/26/2018 16:48	WG1129731
Toluene	ND		0.00100	1	06/26/2018 16:48	WG1129731
1,2,4-Trimethylbenzene	ND		0.00100	1	06/26/2018 16:48	WG1129731
1,3,5-Trimethylbenzene	ND		0.00100	1	06/26/2018 16:48	WG1129731
Xylenes, Total	ND		0.00300	1	06/26/2018 16:48	WG1129731
(S) Toluene-d8	*102*		*80.0-120*		*06/26/2018 16:48*	WG1129731
(S) Dibromofluoromethane	*95.2*		*76.0-123*		*06/26/2018 16:48*	WG1129731
(S) 4-Bromofluorobenzene	*106*		*80.0-120*		*06/26/2018 16:48*	WG1129731

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000101	1.01	06/26/2018 16:11	WG1129303

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	06/28/2018 13:55	WG1130758
Benzo(a)anthracene	ND		0.0000500	1	06/28/2018 13:55	WG1130758
Benzo(a)pyrene	ND		0.0000500	1	06/28/2018 13:55	WG1130758
Benzo(b)fluoranthene	ND		0.0000500	1	06/28/2018 13:55	WG1130758
Benzo(g,h,i)perylene	ND		0.0000500	1	06/28/2018 13:55	WG1130758
Chrysene	ND		0.0000500	1	06/28/2018 13:55	WG1130758
Fluorene	ND		0.0000500	1	06/28/2018 13:55	WG1130758
Naphthalene	ND		0.000250	1	06/28/2018 13:55	WG1130758
Phenanthrene	ND		0.0000500	1	06/28/2018 13:55	WG1130758
Pyrene	ND		0.0000500	1	06/28/2018 13:55	WG1130758
(S) Nitrobenzene-d5	*83.3*		*31.0-160*		*06/28/2018 13:55*	WG1130758
(S) 2-Fluorobiphenyl	*116*		*48.0-148*		*06/28/2018 13:55*	WG1130758
(S) p-Terphenyl-d14	*123*		*37.0-146*		*06/28/2018 13:55*	WG1130758

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/27/2018 20:26	WG1129622

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/26/2018 17:13	WG1129731
Isopropylbenzene	0.00142		0.00100	1	06/26/2018 17:13	WG1129731
1,2-Dichloroethane	ND		0.00100	1	06/26/2018 17:13	WG1129731
Ethylbenzene	ND		0.00100	1	06/26/2018 17:13	WG1129731
Methyl tert-butyl ether	ND		0.00100	1	06/26/2018 17:13	WG1129731
Toluene	ND		0.00100	1	06/26/2018 17:13	WG1129731
1,2,4-Trimethylbenzene	ND		0.00100	1	06/26/2018 17:13	WG1129731
1,3,5-Trimethylbenzene	ND		0.00100	1	06/26/2018 17:13	WG1129731
Xylenes, Total	ND		0.00300	1	06/26/2018 17:13	WG1129731
(S) Toluene-d8	*104*		*80.0-120*		*06/26/2018 17:13*	WG1129731
(S) Dibromofluoromethane	*97.1*		*76.0-123*		*06/26/2018 17:13*	WG1129731
(S) 4-Bromofluorobenzene	*106*		*80.0-120*		*06/26/2018 17:13*	WG1129731

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	06/26/2018 16:23	WG1129303

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	06/28/2018 14:17	WG1130758
Benzo(a)anthracene	ND		0.0000500	1	06/28/2018 14:17	WG1130758
Benzo(a)pyrene	ND		0.0000500	1	06/28/2018 14:17	WG1130758
Benzo(b)fluoranthene	ND		0.0000500	1	06/28/2018 14:17	WG1130758
Benzo(g,h,i)perylene	ND		0.0000500	1	06/28/2018 14:17	WG1130758
Chrysene	ND		0.0000500	1	06/28/2018 14:17	WG1130758
Fluorene	ND		0.0000500	1	06/28/2018 14:17	WG1130758
Naphthalene	ND		0.000250	1	06/28/2018 14:17	WG1130758
Phenanthrene	ND		0.0000500	1	06/28/2018 14:17	WG1130758
Pyrene	ND		0.0000500	1	06/28/2018 14:17	WG1130758
(S) Nitrobenzene-d5	*82.2*		*31.0-160*		*06/28/2018 14:17*	WG1130758
(S) 2-Fluorobiphenyl	*116*		*48.0-148*		*06/28/2018 14:17*	WG1130758
(S) p-Terphenyl-d14	*113*		*37.0-146*		*06/28/2018 14:17*	WG1130758

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/27/2018 20:30	WG1129622

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/26/2018 17:39	WG1129731
Isopropylbenzene	ND		0.00100	1	06/26/2018 17:39	WG1129731
1,2-Dichloroethane	ND		0.00100	1	06/26/2018 17:39	WG1129731
Ethylbenzene	ND		0.00100	1	06/26/2018 17:39	WG1129731
Methyl tert-butyl ether	ND		0.00100	1	06/26/2018 17:39	WG1129731
Toluene	ND		0.00100	1	06/26/2018 17:39	WG1129731
1,2,4-Trimethylbenzene	ND		0.00100	1	06/26/2018 17:39	WG1129731
1,3,5-Trimethylbenzene	ND		0.00100	1	06/26/2018 17:39	WG1129731
Xylenes, Total	ND		0.00300	1	06/26/2018 17:39	WG1129731
(S) Toluene-d8	*100*		*80.0-120*		*06/26/2018 17:39*	WG1129731
(S) Dibromofluoromethane	*93.5*		*76.0-123*		*06/26/2018 17:39*	WG1129731
(S) 4-Bromofluorobenzene	*103*		*80.0-120*		*06/26/2018 17:39*	WG1129731

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	06/26/2018 16:36	WG1129303

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	06/28/2018 14:39	WG1130758
Benzo(a)anthracene	ND		0.0000500	1	06/28/2018 14:39	WG1130758
Benzo(a)pyrene	ND		0.0000500	1	06/28/2018 14:39	WG1130758
Benzo(b)fluoranthene	ND		0.0000500	1	06/28/2018 14:39	WG1130758
Benzo(g,h,i)perylene	ND		0.0000500	1	06/28/2018 14:39	WG1130758
Chrysene	ND		0.0000500	1	06/28/2018 14:39	WG1130758
Fluorene	ND		0.0000500	1	06/28/2018 14:39	WG1130758
Naphthalene	ND		0.000250	1	06/28/2018 14:39	WG1130758
Phenanthrene	ND		0.0000500	1	06/28/2018 14:39	WG1130758
Pyrene	ND		0.0000500	1	06/28/2018 14:39	WG1130758
(S) Nitrobenzene-d5	*82.2*		*31.0-160*		*06/28/2018 14:39*	WG1130758
(S) 2-Fluorobiphenyl	*115*		*48.0-148*		*06/28/2018 14:39*	WG1130758
(S) p-Terphenyl-d14	*110*		*37.0-146*		*06/28/2018 14:39*	WG1130758

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00988		0.00100	1	06/26/2018 01:20	WG1129585
1,2-Dichloroethane	ND		0.00100	1	06/26/2018 01:20	WG1129585
Ethylbenzene	0.00249		0.00100	1	06/26/2018 01:20	WG1129585
Isopropylbenzene	0.0541		0.00100	1	06/26/2018 01:20	WG1129585
Toluene	0.00257		0.00100	1	06/26/2018 01:20	WG1129585
1,2,4-Trimethylbenzene	0.0186		0.00100	1	06/26/2018 01:20	WG1129585
1,3,5-Trimethylbenzene	0.00979		0.00100	1	06/26/2018 01:20	WG1129585
Xylenes, Total	0.0166		0.00300	1	06/26/2018 01:20	WG1129585
Methyl tert-butyl ether	0.0918		0.00100	1	06/26/2018 01:20	WG1129585
tert-Butyl alcohol	1.32		0.100	20	06/27/2018 20:58	WG1130712
(S) Toluene-d8	*68.3*	J2	*80.0-120*		*06/26/2018 01:20*	WG1129585
(S) Toluene-d8	*107*		*80.0-120*		*06/27/2018 20:58*	WG1130712
(S) Dibromofluoromethane	*101*		*76.0-123*		*06/26/2018 01:20*	WG1129585
(S) Dibromofluoromethane	*83.2*		*76.0-123*		*06/27/2018 20:58*	WG1130712
(S) 4-Bromofluorobenzene	*112*		*80.0-120*		*06/26/2018 01:20*	WG1129585
(S) 4-Bromofluorobenzene	*112*		*80.0-120*		*06/27/2018 20:58*	WG1130712

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/21/2018 01:49	WG1140686

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/27/2018 20:35	WG1129622

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.231		0.00500	5	06/29/2018 17:21	WG1131862
Isopropylbenzene	0.0513		0.00100	1	06/26/2018 18:04	WG1129731
1,2-Dichloroethane	ND		0.00100	1	06/26/2018 18:04	WG1129731
Ethylbenzene	0.00434		0.00100	1	06/26/2018 18:04	WG1129731
Methyl tert-butyl ether	0.0943		0.00100	1	06/26/2018 18:04	WG1129731
Toluene	0.0112		0.00100	1	06/26/2018 18:04	WG1129731
1,2,4-Trimethylbenzene	ND		0.00100	1	06/26/2018 18:04	WG1129731
1,3,5-Trimethylbenzene	0.00164		0.00100	1	06/26/2018 18:04	WG1129731
Xylenes, Total	0.0166		0.00300	1	06/26/2018 18:04	WG1129731
(S) Toluene-d8	*88.2*		*80.0-120*		*06/26/2018 18:04*	WG1129731
(S) Toluene-d8	*107*		*80.0-120*		*06/29/2018 17:21*	WG1131862
(S) Dibromofluoromethane	*94.5*		*76.0-123*		*06/26/2018 18:04*	WG1129731
(S) Dibromofluoromethane	*90.9*		*76.0-123*		*06/29/2018 17:21*	WG1131862
(S) 4-Bromofluorobenzene	*106*		*80.0-120*		*06/26/2018 18:04*	WG1129731
(S) 4-Bromofluorobenzene	*106*		*80.0-120*		*06/29/2018 17:21*	WG1131862

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	06/26/2018 16:47	WG1129303

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.0000841		0.0000500	1	06/28/2018 15:01	WG1130758
Benzo(a)anthracene	ND		0.0000500	1	06/28/2018 15:01	WG1130758
Benzo(a)pyrene	ND		0.0000500	1	06/28/2018 15:01	WG1130758
Benzo(b)fluoranthene	ND		0.0000500	1	06/28/2018 15:01	WG1130758
Benzo(g,h,i)perylene	ND		0.0000500	1	06/28/2018 15:01	WG1130758
Chrysene	ND		0.0000500	1	06/28/2018 15:01	WG1130758
Fluorene	0.00208		0.0000500	1	06/28/2018 15:01	WG1130758
Naphthalene	0.000794		0.000250	1	06/28/2018 15:01	WG1130758
Phenanthrene	0.00142		0.0000500	1	06/28/2018 15:01	WG1130758
Pyrene	ND		0.0000500	1	06/28/2018 15:01	WG1130758
(S) Nitrobenzene-d5	*94.6*		*31.0-160*		*06/28/2018 15:01*	WG1130758
(S) 2-Fluorobiphenyl	*100*		*48.0-148*		*06/28/2018 15:01*	WG1130758
(S) p-Terphenyl-d14	*116*		*37.0-146*		*06/28/2018 15:01*	WG1130758

Method Blank (MB)

(MB) R3321455-1 06/27/18 18:15

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3321455-2 06/27/18 18:20 • (LCSD) R3321455-3 06/27/18 18:24

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Lead,Dissolved	0.0500	0.0478	0.0477	95.6	95.5	80.0-120			0.178	20

L1003917-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1003917-01 06/27/18 18:29 • (MS) R3321455-5 06/27/18 18:38 • (MSD) R3321455-6 06/27/18 18:42

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Lead,Dissolved	0.0500	ND	0.0471	0.0483	93.8	96.0	1	75.0-125			2.37	20

Method Blank (MB)

(MB) R3321344-4 06/25/18 21:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*101*			*80.0-120*
(S) Dibromofluoromethane	*99.0*			*76.0-123*
(S) 4-Bromofluorobenzene	*109*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3321344-1 06/25/18 19:53 • (LCSD) R3321344-2 06/25/18 20:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0236	0.0220	94.6	87.9	69.0-123			7.36	20
1,2-Dichloroethane	0.0250	0.0250	0.0232	99.9	92.9	67.0-126			7.27	20
Ethylbenzene	0.0250	0.0249	0.0239	99.5	95.5	77.0-120			4.10	20
Isopropylbenzene	0.0250	0.0284	0.0253	114	101	75.0-120			11.6	20
Methyl tert-butyl ether	0.0250	0.0250	0.0234	100	93.7	64.0-123			6.67	20
Toluene	0.0250	0.0240	0.0235	96.1	93.9	77.0-120			2.30	20
1,2,4-Trimethylbenzene	0.0250	0.0247	0.0225	98.7	89.9	75.0-120			9.24	20
1,3,5-Trimethylbenzene	0.0250	0.0266	0.0233	106	93.3	75.0-120			12.9	20
Xylenes, Total	0.0750	0.0751	0.0712	100	94.9	77.0-120			5.33	20
(S) Toluene-d8				*100*	*103*	*80.0-120*				
(S) Dibromofluoromethane				*99.2*	*97.6*	*76.0-123*				
(S) 4-Bromofluorobenzene				*109*	*107*	*80.0-120*				

Method Blank (MB)

(MB) R3321974-4 06/26/18 12:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*103*			*80.0-120*
(S) Dibromofluoromethane	*94.9*			*76.0-123*
(S) 4-Bromofluorobenzene	*105*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3321974-1 06/26/18 10:28 • (LCSD) R3321974-2 06/26/18 10:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0239	0.0240	95.5	96.1	69.0-123			0.616	20
1,2-Dichloroethane	0.0250	0.0244	0.0246	97.7	98.4	67.0-126			0.671	20
Ethylbenzene	0.0250	0.0255	0.0253	102	101	77.0-120			0.839	20
Isopropylbenzene	0.0250	0.0267	0.0269	107	108	75.0-120			0.859	20
Methyl tert-butyl ether	0.0250	0.0231	0.0235	92.5	94.1	64.0-123			1.71	20
Toluene	0.0250	0.0252	0.0254	101	101	77.0-120			0.733	20
1,2,4-Trimethylbenzene	0.0250	0.0260	0.0258	104	103	75.0-120			0.724	20
1,3,5-Trimethylbenzene	0.0250	0.0263	0.0263	105	105	75.0-120			0.216	20
Xylenes, Total	0.0750	0.0762	0.0760	102	101	77.0-120			0.263	20
(S) Toluene-d8				*100*	*101*	*80.0-120*				
(S) Dibromofluoromethane				*95.0*	*95.2*	*76.0-123*				
(S) 4-Bromofluorobenzene				*105*	*104*	*80.0-120*				

Method Blank (MB)

(MB) R3322058-3 06/27/18 20:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*110*			*80.0-120*
(S) Dibromofluoromethane	*83.3*			*76.0-123*
(S) 4-Bromofluorobenzene	*110*			*80.0-120*

Method Blank (MB)

(MB) R3322097-3 06/29/18 14:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*109*			*80.0-120*
(S) Dibromofluoromethane	*89.2*			*76.0-123*
(S) 4-Bromofluorobenzene	*103*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322097-1 06/29/18 13:02 • (LCSD) R3322097-2 06/29/18 13:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0216	0.0216	86.3	86.2	69.0-123			0.114	20
1,2,4-Trimethylbenzene	0.0250	0.0259	0.0259	104	104	75.0-120			0.0698	20
Xylenes, Total	0.0750	0.0783	0.0756	104	101	77.0-120			3.51	20
(S) Toluene-d8				*107*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*91.3*	*92.7*	*76.0-123*				
(S) 4-Bromofluorobenzene				*103*	*104*	*80.0-120*				

Method Blank (MB)

(MB) R3321067-1 06/26/18 14:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000239	0.00000995

L1004132-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1004132-08 06/26/18 15:34 • (DUP) R3321067-3 06/26/18 15:22

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	.998			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3321067-4 06/26/18 17:11 • (LCSD) R3321067-5 06/26/18 17:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000249	0.000241	0.000275	96.8	110	60.0-140			13.2	20

L1004133-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1004133-01 06/26/18 15:09 • (MS) R3321067-2 06/26/18 14:57

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.000101	ND	0.000117	116	1.01	72.0-146	

Method Blank (MB)

(MB) R3327677-1 07/20/18 23:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1009704-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1009704-01 07/21/18 00:47 • (DUP) R3327677-3 07/21/18 00:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3327677-4 07/21/18 02:50 • (LCSD) R3327677-5 07/21/18 05:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000239	0.000229	95.6	91.6	60.0-140			4.27	20

L1009704-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1009704-03 07/21/18 00:22 • (MS) R3327677-2 07/21/18 00:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	U	0.0000955	95.7	1	72.0-146	

Method Blank (MB)

(MB) R3321709-3 06/28/18 09:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	0.0000387	J	0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*80.3*			*31.0-160*
(S) 2-Fluorobiphenyl	*111*			*48.0-148*
(S) p-Terphenyl-d14	*119*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3321709-1 06/28/18 09:12 • (LCSD) R3321709-2 06/28/18 09:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00227	0.00235	114	117	64.0-142			3.29	20
Benzo(a)anthracene	0.00200	0.00199	0.00202	99.6	101	59.0-134			1.43	20
Benzo(a)pyrene	0.00200	0.00205	0.00202	103	101	61.0-145			1.70	20
Benzo(b)fluoranthene	0.00200	0.00190	0.00202	95.1	101	57.0-136			6.11	20
Benzo(g,h,i)perylene	0.00200	0.00213	0.00204	106	102	54.0-140			4.30	20
Chrysene	0.00200	0.00217	0.00217	108	109	63.0-140			0.259	20
Fluorene	0.00200	0.00206	0.00207	103	104	64.0-129			0.765	20
Naphthalene	0.00200	0.00194	0.00196	96.8	98.1	68.0-129			1.33	20
Phenanthrene	0.00200	0.00210	0.00208	105	104	62.0-132			0.978	20
Pyrene	0.00200	0.00198	0.00202	98.8	101	58.0-156			2.16	20
(S) Nitrobenzene-d5				*79.5*	*80.3*	*31.0-160*				
(S) 2-Fluorobiphenyl				*114*	*113*	*48.0-148*				
(S) p-Terphenyl-d14				*118*	*115*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.

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* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

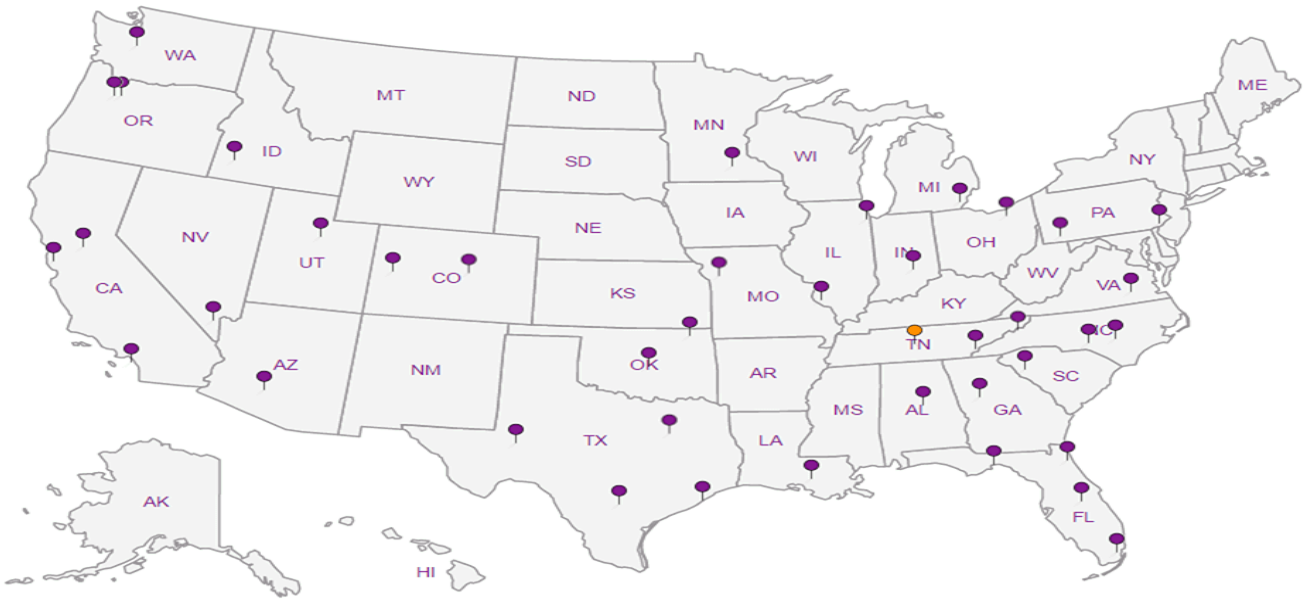
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen PES PAL Annual GWS

City/State Collected:

Phone: **267-240-3415**
Fax:

Client Project # 213402429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Dave Hopkins

Site/Facility ID #

P.O. #

Collected by (signature): Dave

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various * lab filter dissolved metals	Dissolved Pb (Lab) - 250ml plastic NP	V8260OXY - 3 - 40ml vials w/ HCL	TBA								Remarks	Sample # (lab only)
FB_20180622	G	GW	—	6/22/18	0830	9	X	X	X										-01
S-249_20180622	G	GW	19'	6/22/18	1030	9	X	X	X										-02
RW-108_20180622	G	GW	13'	6/22/18	1120	9	X	X	X										-03
S-354_20180622	G	GW	18.5'	6/22/18	1230	9	X	X	X										-04
S-273-20180622	G	GW		6/22/18	1090	3			X	X									-05
S-49-20180622	G	GW		6/22/2018	1210	9	X	X	X										-06
		GW																	
		GW																	
		GW																	
		GW																	

TBA

Chain of Custody Page 1 of 1

ESC LABS
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1004235

Table G048

Acctnum: **SUNSTANTEC**
Template: **T137388**
Prelogin: **P658899**
TSR: **134 - Mark Beasley**
PB: 6-15-18

Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1- 250ml plastic NP

* EQuIS EDD Format
* Refer to attached short list for analytes

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 4380 6879 0101

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Dave	6/22/18	1600		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.2 °C Bottles Received: 48
				If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/23/18 Time: 0843
				Hold: Condition: NCF / OK

Table 1
Evergreen Petroleum Short List of Constituents of Concern

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 22, 2018

Stantec - S/E

Sample Delivery Group:	L1004864
Samples Received:	06/27/2018
Project Number:	213402429
Description:	Evergreen-GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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FB_20180625 L1004864-01 GW

Collected by: DH/KM | Collected date/time: 06/25/18 09:00 | Received date/time: 06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130984	1	06/28/18 14:52	06/29/18 20:57	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	1	06/29/18 05:44	06/29/18 05:44	BMB
EDB / DBCP by Method 8011	WG1131066	1	07/02/18 08:28	07/02/18 23:29	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1131574	1	06/29/18 07:48	06/29/18 14:32	DMG

TB_20180625 L1004864-02 GW

Collected by: DH/KM | Collected date/time: 06/25/18 00:00 | Received date/time: 06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1130961	1	06/28/18 01:59	06/28/18 01:59	JAH

S-351_20180625 L1004864-03 GW

Collected by: DH/KM | Collected date/time: 06/25/18 10:40 | Received date/time: 06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130984	1	06/28/18 14:52	06/29/18 21:02	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	1	06/29/18 06:22	06/29/18 06:22	BMB
EDB / DBCP by Method 8011	WG1131066	.998	07/02/18 08:28	07/02/18 23:41	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1131574	1	06/29/18 07:48	06/29/18 14:54	DMG

S-3_20180625 L1004864-04 GW

Collected by: DH/KM | Collected date/time: 06/25/18 12:00 | Received date/time: 06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130984	1	06/28/18 14:52	06/29/18 21:17	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	1	06/29/18 06:40	06/29/18 06:40	BMB
EDB / DBCP by Method 8011	WG1131066	1	07/02/18 08:28	07/02/18 23:54	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1131574	1	06/29/18 07:48	06/29/18 15:16	DMG

S-280_20180625 L1004864-05 GW

Collected by: DH/KM | Collected date/time: 06/25/18 13:25 | Received date/time: 06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130984	1	06/28/18 14:52	06/29/18 21:23	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	50	06/29/18 06:59	06/29/18 06:59	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133088	500	07/04/18 03:48	07/04/18 03:48	BMB
EDB / DBCP by Method 8011	WG1131066	1.02	07/02/18 08:28	07/03/18 00:06	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1131574	1.03	06/29/18 07:48	06/29/18 19:54	DMG

S-280DUP_20180625 L1004864-06 GW

Collected by: DH/KM | Collected date/time: 06/25/18 13:25 | Received date/time: 06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130984	1	06/28/18 14:52	06/29/18 21:28	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	50	06/29/18 07:18	06/29/18 07:18	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133088	500	07/04/18 04:08	07/04/18 04:08	BMB
EDB / DBCP by Method 8011	WG1131066	1	07/02/18 08:28	07/03/18 00:18	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1131576	1	07/01/18 22:33	07/02/18 10:28	KM

ARCO_2_20180625 L1004864-07 GW

Collected by	Collected date/time	Received date/time
DH/KM	06/25/18 11:00	06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130984	1	06/28/18 14:52	06/29/18 21:33	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	1	06/29/18 07:37	06/29/18 07:37	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133088	10	07/04/18 04:28	07/04/18 04:28	BMB
EDB / DBCP by Method 8011	WG1131066	1.01	07/02/18 08:28	07/03/18 00:31	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1131576	1	07/01/18 22:33	07/02/18 10:50	KM

ARCO_1D_20180625 L1004864-08 GW

Collected by	Collected date/time	Received date/time
DH/KM	06/25/18 12:15	06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130984	1	06/28/18 14:52	06/29/18 21:38	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	1	06/29/18 07:56	06/29/18 07:56	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133088	10	07/04/18 04:48	07/04/18 04:48	BMB
EDB / DBCP by Method 8011	WG1131066	1	07/02/18 08:28	07/03/18 00:43	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1131576	1	07/01/18 22:33	07/02/18 11:12	KM

ARCO_1_20180625 L1004864-09 GW

Collected by	Collected date/time	Received date/time
DH/KM	06/25/18 14:25	06/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130984	1	06/28/18 14:52	06/29/18 21:43	JPD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	1	06/29/18 08:14	06/29/18 08:14	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133088	10	07/04/18 05:07	07/04/18 05:07	BMB
EDB / DBCP by Method 8011	WG1131066	1	07/02/18 08:28	07/03/18 00:56	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1131576	2	07/01/18 22:33	07/02/18 11:34	KM

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/29/2018 20:57	WG1130984

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 05:44	WG1131592
Isopropylbenzene	ND		0.00100	1	06/29/2018 05:44	WG1131592
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 05:44	WG1131592
Ethylbenzene	ND		0.00100	1	06/29/2018 05:44	WG1131592
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 05:44	WG1131592
Toluene	ND		0.00100	1	06/29/2018 05:44	WG1131592
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 05:44	WG1131592
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 05:44	WG1131592
Xylenes, Total	ND		0.00300	1	06/29/2018 05:44	WG1131592
(S) Toluene-d8	*106*		*80.0-120*		*06/29/2018 05:44*	WG1131592
(S) Dibromofluoromethane	*94.9*		*76.0-123*		*06/29/2018 05:44*	WG1131592
(S) 4-Bromofluorobenzene	*108*		*80.0-120*		*06/29/2018 05:44*	WG1131592

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/02/2018 23:29	WG1131066

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
Benzo(a)anthracene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
Benzo(a)pyrene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
Benzo(b)fluoranthene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
Benzo(g,h,i)perylene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
Chrysene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
Fluorene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
Naphthalene	ND		0.000250	1	06/29/2018 14:32	WG1131574
Phenanthrene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
Pyrene	ND		0.0000500	1	06/29/2018 14:32	WG1131574
(S) Nitrobenzene-d5	*66.2*		*31.0-160*		*06/29/2018 14:32*	WG1131574
(S) 2-Fluorobiphenyl	*105*		*48.0-148*		*06/29/2018 14:32*	WG1131574
(S) p-Terphenyl-d14	*90.3*		*37.0-146*		*06/29/2018 14:32*	WG1131574

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/28/2018 01:59	WG1130961
1,2-Dichloroethane	ND		0.00100	1	06/28/2018 01:59	WG1130961
Ethylbenzene	ND		0.00100	1	06/28/2018 01:59	WG1130961
1,2-Dibromoethane	ND		0.00100	1	06/28/2018 01:59	WG1130961
Isopropylbenzene	ND		0.00100	1	06/28/2018 01:59	WG1130961
Toluene	ND		0.00100	1	06/28/2018 01:59	WG1130961
1,2,4-Trimethylbenzene	ND		0.00100	1	06/28/2018 01:59	WG1130961
1,3,5-Trimethylbenzene	ND		0.00100	1	06/28/2018 01:59	WG1130961
Xylenes, Total	ND		0.00300	1	06/28/2018 01:59	WG1130961
Methyl tert-butyl ether	ND		0.00100	1	06/28/2018 01:59	WG1130961
tert-Butyl alcohol	ND		0.00500	1	06/28/2018 01:59	WG1130961
(S) Toluene-d8	*97.6*		*80.0-120*		*06/28/2018 01:59*	WG1130961
(S) Dibromofluoromethane	*98.2*		*76.0-123*		*06/28/2018 01:59*	WG1130961
(S) 4-Bromofluorobenzene	*102*		*80.0-120*		*06/28/2018 01:59*	WG1130961

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/29/2018 21:02	WG1130984

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 06:22	WG1131592
Isopropylbenzene	0.00187		0.00100	1	06/29/2018 06:22	WG1131592
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 06:22	WG1131592
Ethylbenzene	ND		0.00100	1	06/29/2018 06:22	WG1131592
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 06:22	WG1131592
Toluene	ND		0.00100	1	06/29/2018 06:22	WG1131592
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 06:22	WG1131592
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 06:22	WG1131592
Xylenes, Total	ND		0.00300	1	06/29/2018 06:22	WG1131592
(S) Toluene-d8	*107*		*80.0-120*		*06/29/2018 06:22*	WG1131592
(S) Dibromofluoromethane	*92.0*		*76.0-123*		*06/29/2018 06:22*	WG1131592
(S) 4-Bromofluorobenzene	*108*		*80.0-120*		*06/29/2018 06:22*	WG1131592

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/02/2018 23:41	WG1131066

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	06/29/2018 14:54	WG1131574
Benzo(a)anthracene	ND		0.0000500	1	06/29/2018 14:54	WG1131574
Benzo(a)pyrene	ND		0.0000500	1	06/29/2018 14:54	WG1131574
Benzo(b)fluoranthene	ND		0.0000500	1	06/29/2018 14:54	WG1131574
Benzo(g,h,i)perylene	ND		0.0000500	1	06/29/2018 14:54	WG1131574
Chrysene	ND		0.0000500	1	06/29/2018 14:54	WG1131574
Fluorene	0.000161		0.0000500	1	06/29/2018 14:54	WG1131574
Naphthalene	ND		0.000250	1	06/29/2018 14:54	WG1131574
Phenanthrene	ND		0.0000500	1	06/29/2018 14:54	WG1131574
Pyrene	ND		0.0000500	1	06/29/2018 14:54	WG1131574
(S) Nitrobenzene-d5	*101*		*31.0-160*		*06/29/2018 14:54*	WG1131574
(S) 2-Fluorobiphenyl	*103*		*48.0-148*		*06/29/2018 14:54*	WG1131574
(S) p-Terphenyl-d14	*97.7*		*37.0-146*		*06/29/2018 14:54*	WG1131574

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/29/2018 21:17	WG1130984

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 06:40	WG1131592
Isopropylbenzene	ND		0.00100	1	06/29/2018 06:40	WG1131592
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 06:40	WG1131592
Ethylbenzene	ND		0.00100	1	06/29/2018 06:40	WG1131592
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 06:40	WG1131592
Toluene	ND		0.00100	1	06/29/2018 06:40	WG1131592
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 06:40	WG1131592
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 06:40	WG1131592
Xylenes, Total	ND		0.00300	1	06/29/2018 06:40	WG1131592
(S) Toluene-d8	*105*		*80.0-120*		*06/29/2018 06:40*	WG1131592
(S) Dibromofluoromethane	*92.7*		*76.0-123*		*06/29/2018 06:40*	WG1131592
(S) 4-Bromofluorobenzene	*107*		*80.0-120*		*06/29/2018 06:40*	WG1131592

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/02/2018 23:54	WG1131066

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
Benzo(a)anthracene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
Benzo(a)pyrene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
Benzo(b)fluoranthene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
Benzo(g,h,i)perylene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
Chrysene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
Fluorene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
Naphthalene	ND		0.000250	1	06/29/2018 15:16	WG1131574
Phenanthrene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
Pyrene	ND		0.0000500	1	06/29/2018 15:16	WG1131574
(S) Nitrobenzene-d5	*70.4*		*31.0-160*		*06/29/2018 15:16*	WG1131574
(S) 2-Fluorobiphenyl	*109*		*48.0-148*		*06/29/2018 15:16*	WG1131574
(S) p-Terphenyl-d14	*95.4*		*37.0-146*		*06/29/2018 15:16*	WG1131574

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/29/2018 21:23	WG1130984

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	37.2		0.500	500	07/04/2018 03:48	WG1133088
Isopropylbenzene	ND		0.0500	50	06/29/2018 06:59	WG1131592
1,2-Dichloroethane	ND		0.0500	50	06/29/2018 06:59	WG1131592
Ethylbenzene	ND		0.0500	50	06/29/2018 06:59	WG1131592
Methyl tert-butyl ether	ND		0.0500	50	06/29/2018 06:59	WG1131592
Toluene	ND		0.0500	50	06/29/2018 06:59	WG1131592
1,2,4-Trimethylbenzene	ND		0.0500	50	06/29/2018 06:59	WG1131592
1,3,5-Trimethylbenzene	ND		0.0500	50	06/29/2018 06:59	WG1131592
Xylenes, Total	ND		0.150	50	06/29/2018 06:59	WG1131592
(S) Toluene-d8	*106*		*80.0-120*		*06/29/2018 06:59*	WG1131592
(S) Toluene-d8	*111*		*80.0-120*		*07/04/2018 03:48*	WG1133088
(S) Dibromofluoromethane	*96.0*		*76.0-123*		*06/29/2018 06:59*	WG1131592
(S) Dibromofluoromethane	*92.6*		*76.0-123*		*07/04/2018 03:48*	WG1133088
(S) 4-Bromofluorobenzene	*107*		*80.0-120*		*06/29/2018 06:59*	WG1131592
(S) 4-Bromofluorobenzene	*99.8*		*80.0-120*		*07/04/2018 03:48*	WG1133088

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000102	1.02	07/03/2018 00:06	WG1131066

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
Benzo(a)anthracene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
Benzo(a)pyrene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
Benzo(b)fluoranthene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
Benzo(g,h,i)perylene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
Chrysene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
Fluorene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
Naphthalene	ND		0.000258	1.03	06/29/2018 19:54	WG1131574
Phenanthrene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
Pyrene	ND		0.0000515	1.03	06/29/2018 19:54	WG1131574
(S) Nitrobenzene-d5	*143*		*31.0-160*		*06/29/2018 19:54*	WG1131574
(S) 2-Fluorobiphenyl	*97.6*		*48.0-148*		*06/29/2018 19:54*	WG1131574
(S) p-Terphenyl-d14	*82.1*		*37.0-146*		*06/29/2018 19:54*	WG1131574

Sample Narrative:

L1004864-05 WG1131574: Dilution due to sample volume

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/29/2018 21:28	WG1130984

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	39.9		0.500	500	07/04/2018 04:08	WG1133088
Isopropylbenzene	ND		0.0500	50	06/29/2018 07:18	WG1131592
1,2-Dichloroethane	ND		0.0500	50	06/29/2018 07:18	WG1131592
Ethylbenzene	ND		0.0500	50	06/29/2018 07:18	WG1131592
Methyl tert-butyl ether	ND		0.0500	50	06/29/2018 07:18	WG1131592
Toluene	ND		0.0500	50	06/29/2018 07:18	WG1131592
1,2,4-Trimethylbenzene	ND		0.0500	50	06/29/2018 07:18	WG1131592
1,3,5-Trimethylbenzene	ND		0.0500	50	06/29/2018 07:18	WG1131592
Xylenes, Total	ND		0.150	50	06/29/2018 07:18	WG1131592
(S) Toluene-d8	*107*		*80.0-120*		*06/29/2018 07:18*	WG1131592
(S) Toluene-d8	*106*		*80.0-120*		*07/04/2018 04:08*	WG1133088
(S) Dibromofluoromethane	*95.8*		*76.0-123*		*06/29/2018 07:18*	WG1131592
(S) Dibromofluoromethane	*103*		*76.0-123*		*07/04/2018 04:08*	WG1133088
(S) 4-Bromofluorobenzene	*108*		*80.0-120*		*06/29/2018 07:18*	WG1131592
(S) 4-Bromofluorobenzene	*103*		*80.0-120*		*07/04/2018 04:08*	WG1133088

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/03/2018 00:18	WG1131066

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/02/2018 10:28	WG1131576
Benzo(a)anthracene	ND		0.0000500	1	07/02/2018 10:28	WG1131576
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 10:28	WG1131576
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 10:28	WG1131576
Benzo(g,h,i)perylene	0.0000563		0.0000500	1	07/02/2018 10:28	WG1131576
Chrysene	ND		0.0000500	1	07/02/2018 10:28	WG1131576
Fluorene	ND		0.0000500	1	07/02/2018 10:28	WG1131576
Naphthalene	ND		0.000250	1	07/02/2018 10:28	WG1131576
Phenanthrene	0.000106		0.0000500	1	07/02/2018 10:28	WG1131576
Pyrene	ND		0.0000500	1	07/02/2018 10:28	WG1131576
(S) Nitrobenzene-d5	*112*		*31.0-160*		*07/02/2018 10:28*	WG1131576
(S) 2-Fluorobiphenyl	*88.2*		*48.0-148*		*07/02/2018 10:28*	WG1131576
(S) p-Terphenyl-d14	*58.3*		*37.0-146*		*07/02/2018 10:28*	WG1131576

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/29/2018 21:33	WG1130984

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.301		0.0100	10	07/04/2018 04:28	WG1133088
Isopropylbenzene	0.0605		0.00100	1	06/29/2018 07:37	WG1131592
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 07:37	WG1131592
Ethylbenzene	0.0667		0.00100	1	06/29/2018 07:37	WG1131592
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 07:37	WG1131592
Toluene	0.0369		0.00100	1	06/29/2018 07:37	WG1131592
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 07:37	WG1131592
1,3,5-Trimethylbenzene	0.00382		0.00100	1	06/29/2018 07:37	WG1131592
Xylenes, Total	0.0582		0.00300	1	06/29/2018 07:37	WG1131592
(S) Toluene-d8	*96.4*		*80.0-120*		*06/29/2018 07:37*	WG1131592
(S) Toluene-d8	*98.6*		*80.0-120*		*07/04/2018 04:28*	WG1133088
(S) Dibromofluoromethane	*90.4*		*76.0-123*		*06/29/2018 07:37*	WG1131592
(S) Dibromofluoromethane	*86.9*		*76.0-123*		*07/04/2018 04:28*	WG1133088
(S) 4-Bromofluorobenzene	*107*		*80.0-120*		*06/29/2018 07:37*	WG1131592
(S) 4-Bromofluorobenzene	*103*		*80.0-120*		*07/04/2018 04:28*	WG1133088

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000101	1.01	07/03/2018 00:31	WG1131066

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000143		0.0000500	1	07/02/2018 10:50	WG1131576
Benzo(a)anthracene	ND		0.0000500	1	07/02/2018 10:50	WG1131576
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 10:50	WG1131576
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 10:50	WG1131576
Benzo(g,h,i)perylene	ND		0.0000500	1	07/02/2018 10:50	WG1131576
Chrysene	ND		0.0000500	1	07/02/2018 10:50	WG1131576
Fluorene	0.00210		0.0000500	1	07/02/2018 10:50	WG1131576
Naphthalene	0.0106		0.000250	1	07/02/2018 10:50	WG1131576
Phenanthrene	0.00156		0.0000500	1	07/02/2018 10:50	WG1131576
Pyrene	ND		0.0000500	1	07/02/2018 10:50	WG1131576
(S) Nitrobenzene-d5	*119*		*31.0-160*		*07/02/2018 10:50*	WG1131576
(S) 2-Fluorobiphenyl	*92.5*		*48.0-148*		*07/02/2018 10:50*	WG1131576
(S) p-Terphenyl-d14	*108*		*37.0-146*		*07/02/2018 10:50*	WG1131576

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/29/2018 21:38	WG1130984

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.276		0.0100	10	07/04/2018 04:48	WG1133088
Isopropylbenzene	0.00161		0.00100	1	06/29/2018 07:56	WG1131592
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 07:56	WG1131592
Ethylbenzene	ND		0.00100	1	06/29/2018 07:56	WG1131592
Methyl tert-butyl ether	0.0304		0.00100	1	06/29/2018 07:56	WG1131592
Toluene	0.00122		0.00100	1	06/29/2018 07:56	WG1131592
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 07:56	WG1131592
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 07:56	WG1131592
Xylenes, Total	ND		0.00300	1	06/29/2018 07:56	WG1131592
(S) Toluene-d8	*103*		*80.0-120*		*06/29/2018 07:56*	WG1131592
(S) Toluene-d8	*106*		*80.0-120*		*07/04/2018 04:48*	WG1133088
(S) Dibromofluoromethane	*91.3*		*76.0-123*		*06/29/2018 07:56*	WG1131592
(S) Dibromofluoromethane	*98.4*		*76.0-123*		*07/04/2018 04:48*	WG1133088
(S) 4-Bromofluorobenzene	*104*		*80.0-120*		*06/29/2018 07:56*	WG1131592
(S) 4-Bromofluorobenzene	*95.7*		*80.0-120*		*07/04/2018 04:48*	WG1133088

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/03/2018 00:43	WG1131066

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
Benzo(a)anthracene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
Benzo(g,h,i)perylene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
Chrysene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
Fluorene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
Naphthalene	ND		0.000250	1	07/02/2018 11:12	WG1131576
Phenanthrene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
Pyrene	ND		0.0000500	1	07/02/2018 11:12	WG1131576
(S) Nitrobenzene-d5	*109*		*31.0-160*		*07/02/2018 11:12*	WG1131576
(S) 2-Fluorobiphenyl	*103*		*48.0-148*		*07/02/2018 11:12*	WG1131576
(S) p-Terphenyl-d14	*100*		*37.0-146*		*07/02/2018 11:12*	WG1131576

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	06/29/2018 21:43	WG1130984

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.327		0.0100	10	07/04/2018 05:07	WG1133088
Isopropylbenzene	0.0547		0.00100	1	06/29/2018 08:14	WG1131592
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 08:14	WG1131592
Ethylbenzene	0.00781		0.00100	1	06/29/2018 08:14	WG1131592
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 08:14	WG1131592
Toluene	0.0216		0.00100	1	06/29/2018 08:14	WG1131592
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 08:14	WG1131592
1,3,5-Trimethylbenzene	0.00269		0.00100	1	06/29/2018 08:14	WG1131592
Xylenes, Total	0.0276		0.00300	1	06/29/2018 08:14	WG1131592
(S) Toluene-d8	*95.5*		*80.0-120*		*06/29/2018 08:14*	WG1131592
(S) Toluene-d8	*99.6*		*80.0-120*		*07/04/2018 05:07*	WG1133088
(S) Dibromofluoromethane	*90.2*		*76.0-123*		*06/29/2018 08:14*	WG1131592
(S) Dibromofluoromethane	*85.8*		*76.0-123*		*07/04/2018 05:07*	WG1133088
(S) 4-Bromofluorobenzene	*105*		*80.0-120*		*06/29/2018 08:14*	WG1131592
(S) 4-Bromofluorobenzene	*95.8*		*80.0-120*		*07/04/2018 05:07*	WG1133088

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/03/2018 00:56	WG1131066

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000160		0.000100	2	07/02/2018 11:34	WG1131576
Benzo(a)anthracene	ND		0.000100	2	07/02/2018 11:34	WG1131576
Benzo(a)pyrene	ND		0.000100	2	07/02/2018 11:34	WG1131576
Benzo(b)fluoranthene	ND		0.000100	2	07/02/2018 11:34	WG1131576
Benzo(g,h,i)perylene	ND		0.000100	2	07/02/2018 11:34	WG1131576
Chrysene	ND		0.000100	2	07/02/2018 11:34	WG1131576
Fluorene	0.00167		0.000100	2	07/02/2018 11:34	WG1131576
Naphthalene	0.00347		0.000500	2	07/02/2018 11:34	WG1131576
Phenanthrene	0.00146		0.000100	2	07/02/2018 11:34	WG1131576
Pyrene	ND		0.000100	2	07/02/2018 11:34	WG1131576
(S) Nitrobenzene-d5	*83.0*		*31.0-160*		*07/02/2018 11:34*	WG1131576
(S) 2-Fluorobiphenyl	*83.2*		*48.0-148*		*07/02/2018 11:34*	WG1131576
(S) p-Terphenyl-d14	*81.4*		*37.0-146*		*07/02/2018 11:34*	WG1131576

Sample Narrative:

L1004864-09 WG1131576: Dilution due to matrix impact during extraction procedure

Method Blank (MB)

(MB) R3322122-1 06/29/18 20:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322122-2 06/29/18 20:22 • (LCSD) R3322122-3 06/29/18 20:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0493	0.0497	98.7	99.3	80.0-120			0.658	20

L1005012-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1005012-01 06/29/18 20:32 • (MS) R3322122-5 06/29/18 20:42 • (MSD) R3322122-6 06/29/18 20:47

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	ND	0.0496	0.0497	99.2	99.4	1	75.0-125			0.162	20

Method Blank (MB)

(MB) R3321614-4 06/27/18 22:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dibromoethane	U		0.000381	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*98.1*			*80.0-120*
(S) Dibromofluoromethane	*96.5*			*76.0-123*
(S) 4-Bromofluorobenzene	*102*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3321614-1 06/27/18 20:50 • (LCSD) R3321614-2 06/27/18 21:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0274	0.0284	110	114	69.0-123			3.48	20
1,2-Dibromoethane	0.0250	0.0262	0.0262	105	105	77.0-123			0.0274	20
1,2-Dichloroethane	0.0250	0.0257	0.0265	103	106	67.0-126			2.87	20
Ethylbenzene	0.0250	0.0248	0.0252	99.2	101	77.0-120			1.60	20
Isopropylbenzene	0.0250	0.0257	0.0264	103	105	75.0-120			2.51	20
Methyl tert-butyl ether	0.0250	0.0260	0.0265	104	106	64.0-123			1.56	20
Toluene	0.0250	0.0252	0.0258	101	103	77.0-120			2.34	20
1,2,4-Trimethylbenzene	0.0250	0.0256	0.0265	103	106	75.0-120			3.48	20
1,3,5-Trimethylbenzene	0.0250	0.0244	0.0256	97.4	102	75.0-120			5.03	20
Xylenes, Total	0.0750	0.0743	0.0756	99.1	101	77.0-120			1.73	20
(S) Toluene-d8				*97.6*	*95.2*	*80.0-120*				
(S) Dibromofluoromethane				*95.1*	*94.8*	*76.0-123*				
(S) 4-Bromofluorobenzene				*101*	*100*	*80.0-120*				

Laboratory Control Sample (LCS)

(LCS) R3321614-3 06/27/18 21:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0267	53.4	50.0-150	
(S) Toluene-d8			*97.7*	*80.0-120*	
(S) Dibromofluoromethane			*96.5*	*76.0-123*	
(S) 4-Bromofluorobenzene			*101*	*80.0-120*	

Method Blank (MB)

(MB) R3322583-3 06/29/18 05:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*106*			*80.0-120*
(S) Dibromofluoromethane	*94.4*			*76.0-123*
(S) 4-Bromofluorobenzene	*109*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322583-1 06/29/18 04:29 • (LCSD) R3322583-2 06/29/18 04:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0230	0.0222	92.2	88.6	69.0-123			3.88	20
1,2-Dichloroethane	0.0250	0.0226	0.0223	90.6	89.2	67.0-126			1.51	20
Ethylbenzene	0.0250	0.0272	0.0272	109	109	77.0-120			0.0468	20
Isopropylbenzene	0.0250	0.0282	0.0279	113	111	75.0-120			1.27	20
Methyl tert-butyl ether	0.0250	0.0223	0.0224	89.3	89.5	64.0-123			0.186	20
Toluene	0.0250	0.0255	0.0255	102	102	77.0-120			0.117	20
1,2,4-Trimethylbenzene	0.0250	0.0273	0.0273	109	109	75.0-120			0.112	20
1,3,5-Trimethylbenzene	0.0250	0.0276	0.0276	111	110	75.0-120			0.0463	20
Xylenes, Total	0.0750	0.0807	0.0790	108	105	77.0-120			2.13	20
(S) Toluene-d8				*106*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*94.3*	*91.8*	*76.0-123*				
(S) 4-Bromofluorobenzene				*106*	*107*	*80.0-120*				

Method Blank (MB)

(MB) R3323000-3 07/03/18 22:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
(S) Toluene-d8	*107*			*80.0-120*
(S) Dibromofluoromethane	*98.7*			*76.0-123*
(S) 4-Bromofluorobenzene	*95.3*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323000-1 07/03/18 21:10 • (LCSD) R3323000-2 07/03/18 21:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0200	0.0216	80.2	86.2	69.0-123			7.25	20
(S) Toluene-d8				*108*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*84.5*	*88.1*	*76.0-123*				
(S) 4-Bromofluorobenzene				*89.0*	*99.7*	*80.0-120*				

Method Blank (MB)

(MB) R3322840-1 07/02/18 20:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1004767-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1004767-01 07/02/18 21:13 • (DUP) R3322840-3 07/02/18 21:01

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	0.000	1.01			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322840-4 07/02/18 23:16 • (LCSD) R3322840-5 07/03/18 01:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000226	0.000222	90.4	88.8	60.0-140			1.79	20

Method Blank (MB)

(MB) R3322009-3 06/29/18 14:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*146*			*31.0-160*
(S) 2-Fluorobiphenyl	*103*			*48.0-148*
(S) p-Terphenyl-d14	*112*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322009-1 06/29/18 13:26 • (LCSD) R3322009-2 06/29/18 13:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00208	0.00205	104	102	64.0-142			1.44	20
Benzo(a)anthracene	0.00200	0.00216	0.00212	108	106	59.0-134			1.83	20
Benzo(a)pyrene	0.00200	0.00215	0.00211	108	106	61.0-145			1.78	20
Benzo(b)fluoranthene	0.00200	0.00204	0.00210	102	105	57.0-136			2.66	20
Benzo(g,h,i)perylene	0.00200	0.00195	0.00194	97.7	97.0	54.0-140			0.746	20
Chrysene	0.00200	0.00204	0.00203	102	101	63.0-140			0.645	20
Fluorene	0.00200	0.00186	0.00181	93.0	90.4	64.0-129			2.75	20
Naphthalene	0.00200	0.00182	0.00182	90.8	91.2	68.0-129			0.390	20
Phenanthrene	0.00200	0.00186	0.00183	93.2	91.5	62.0-132			1.77	20
Pyrene	0.00200	0.00176	0.00175	88.2	87.7	58.0-156			0.469	20
(S) Nitrobenzene-d5				*139*	*133*	*31.0-160*				
(S) 2-Fluorobiphenyl				*93.9*	*96.4*	*48.0-148*				
(S) p-Terphenyl-d14				*98.2*	*97.9*	*37.0-146*				

Method Blank (MB)

(MB) R3322495-3 07/02/18 10:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	0.0000223	J	0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*106*			*31.0-160*
(S) 2-Fluorobiphenyl	*106*			*48.0-148*
(S) p-Terphenyl-d14	*106*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322495-1 07/02/18 09:22 • (LCSD) R3322495-2 07/02/18 09:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00210	0.00214	105	107	64.0-142			1.87	20
Benzo(a)anthracene	0.00200	0.00215	0.00216	107	108	59.0-134			0.548	20
Benzo(a)pyrene	0.00200	0.00209	0.00208	105	104	61.0-145			0.824	20
Benzo(b)fluoranthene	0.00200	0.00223	0.00199	112	99.6	57.0-136			11.4	20
Benzo(g,h,i)perylene	0.00200	0.00218	0.00216	109	108	54.0-140			1.22	20
Chrysene	0.00200	0.00212	0.00213	106	107	63.0-140			0.601	20
Fluorene	0.00200	0.00206	0.00212	103	106	64.0-129			2.63	20
Naphthalene	0.00200	0.00206	0.00203	103	101	68.0-129			1.74	20
Phenanthrene	0.00200	0.00212	0.00213	106	107	62.0-132			0.650	20
Pyrene	0.00200	0.00212	0.00216	106	108	58.0-156			1.68	20
(S) Nitrobenzene-d5				*107*	*105*	*31.0-160*				
(S) 2-Fluorobiphenyl				*101*	*96.9*	*48.0-148*				
(S) p-Terphenyl-d14				*104*	*103*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

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* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

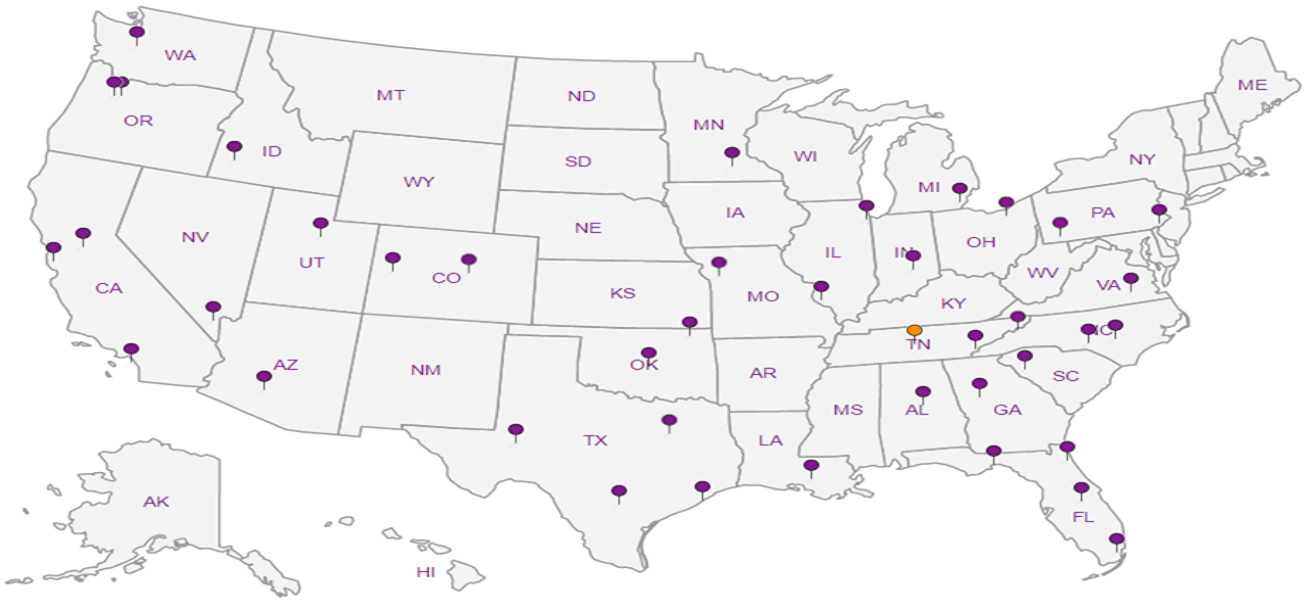
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen - GWS

City/State Collected: Philadelphia, PA

Phone: ~~267-240-3415~~ Fax: 610-425-9311

Client Project # 213402429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Dane Hopkins/Karl Muhly

Site/Facility ID #

P.O. # 213402429

Collected by (signature): Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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L # L004864
Tab A186

Acctnum: **SUNSTANTEC**
Template: **T137388**
Prelogin: **P659137**
TSR: **134 - Mark Beasley**
PB: 6-18-18
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP (Lab to Filter)	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
FB-20180625	G	GW	—	6/25/18	0900	9	X	X					-01
TB-20180625	—	GW	—	6/25/18	—	1			X				-02
S-351-20180625	G	GW	30'	6/25/18	1040	9	X	X					-03
S-3-20180625	G	GW	10'	6/25/18	1200	9	X	X					-04
S-280-20180625	G	GW	17.5'	6/25/18	1325	9	X	X					-05
S-280DUP-20180625	G	GW	24.5'	6/25/18	1325	9	X	X					-06
ARCO-2-20180625	G	GW	29'	6/25/18	1100	9	X	X					-07
ARCO-1D-20180625	G	GW	70'	6/25/18	1215	9	X	X					-08
ARCO-1-20180625	G	GW	30	6/25/18	1425	9	X	X					-09
		GW											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: See attached List
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP
*EQuIS EDD Format
*Standard TAT

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4380 6879 4872

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	6/25/18	1615	ESCPA lookout	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.3 °C Bottles Received: 72
ESCPA lookout	6/26/18	8:30		If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/27/18 Time: 0814

Hold: Condition: NCF / OK

L1004864

Table 1
Evergreen Petroleum Short List of Constituents of Concern

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Stantec

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 26, 2018

Stantec - S/E

Sample Delivery Group:	L1005209
Samples Received:	06/28/2018
Project Number:	213402429
Description:	Evergreen-Phil GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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ARCO_3_20180626 L1005209-01 GW

Collected by: KM/DH | Collected date/time: 06/26/18 09:20 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 12:17	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	1	06/29/18 10:44	06/29/18 10:44	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133088	50	07/04/18 05:28	07/04/18 05:28	BMB
EDB / DBCP by Method 8011	WG1133223	1.01	07/03/18 09:29	07/03/18 22:24	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/02/18 22:01	KM

S_398_20180626 L1005209-02 GW

Collected by: KM/DH | Collected date/time: 06/26/18 11:10 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131595	1	06/29/18 02:15	06/29/18 02:15	BMB
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 02:01	ADF

S_230_20180626 L1005209-03 GW

Collected by: KM/DH | Collected date/time: 06/26/18 13:45 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131592	1	06/29/18 11:03	06/29/18 11:03	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133088	50	07/04/18 05:47	07/04/18 05:47	BMB

S_50_20180626 L1005209-04 GW

Collected by: KM/DH | Collected date/time: 06/26/18 14:20 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 12:22	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 11:23	06/29/18 11:23	JCP
EDB / DBCP by Method 8011	WG1133223	1	07/03/18 09:29	07/03/18 23:00	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/02/18 22:23	KM

S_25_20180626 L1005209-05 GW

Collected by: KM/DH | Collected date/time: 06/26/18 09:15 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 12:36	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 11:42	06/29/18 11:42	JCP
EDB / DBCP by Method 8011	WG1133223	1	07/03/18 09:29	07/03/18 23:12	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/02/18 22:44	KM

C-62_20180626 L1005209-06 GW

Collected by: KM/DH | Collected date/time: 06/26/18 10:30 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 12:40	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 12:02	06/29/18 12:02	JCP
EDB / DBCP by Method 8011	WG1133223	.995	07/03/18 09:29	07/03/18 23:25	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/02/18 23:06	KM

C-104_20180626 L1005209-07 GW

Collected by: KM/DH | Collected date/time: 06/26/18 11:30 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 12:45	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 12:21	06/29/18 12:21	JCP
EDB / DBCP by Method 8011	WG1133223	.998	07/03/18 09:29	07/03/18 23:36	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/02/18 23:28	KM

C-127_20180626 L1005209-08 GW

Collected by: KM/DH | Collected date/time: 06/26/18 12:20 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 12:49	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 12:40	06/29/18 12:40	JCP
EDB / DBCP by Method 8011	WG1133223	.995	07/03/18 09:29	07/03/18 23:49	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/02/18 23:50	KM

C-129_20180626 L1005209-09 GW

Collected by: KM/DH | Collected date/time: 06/26/18 13:30 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 12:54	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 13:00	06/29/18 13:00	JCP
EDB / DBCP by Method 8011	WG1133223	1	07/03/18 09:29	07/04/18 00:00	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/03/18 00:11	KM

S-25 DUP_20180626 L1005209-10 GW

Collected by: KM/DH | Collected date/time: 06/26/18 09:15 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 11:54	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 13:19	06/29/18 13:19	JCP
EDB / DBCP by Method 8011	WG1133223	1	07/03/18 09:29	07/04/18 00:12	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/03/18 00:33	KM

S-380_20180626 L1005209-11 GW

Collected by: KM/DH | Collected date/time: 06/26/18 10:31 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 12:59	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 13:38	06/29/18 13:38	JCP
EDB / DBCP by Method 8011	WG1133223	1	07/03/18 09:29	07/04/18 00:25	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/03/18 00:55	KM

S-38_20180626 L1005209-12 GW

Collected by: KM/DH | Collected date/time: 06/26/18 12:33 | Received date/time: 06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 13:03	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 13:58	06/29/18 13:58	JCP
EDB / DBCP by Method 8011	WG1133223	1.01	07/03/18 09:29	07/04/18 00:37	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/03/18 01:17	KM

RW-715_20180626 L1005209-13 GW

Collected by	Collected date/time	Received date/time
KM/DH	06/26/18 13:15	06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1130986	1	07/02/18 16:46	07/03/18 13:08	LAT
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131593	1	06/29/18 14:17	06/29/18 14:17	JCP
EDB / DBCP by Method 8011	WG1133223	1	07/03/18 09:29	07/04/18 00:49	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1132636	1	07/02/18 16:15	07/03/18 01:39	KM

TB_20180626 L1005209-14 GW

Collected by	Collected date/time	Received date/time
KM/DH	06/26/18 00:00	06/28/18 09:57

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1131595	1	06/28/18 23:48	06/28/18 23:48	BMB

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Project Narrative

SV8011 was analyzed outside of the 14 day holding time due to lab error.

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 12:17	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	2.08		0.0500	50	07/04/2018 05:28	WG1133088
Isopropylbenzene	0.0680		0.00100	1	06/29/2018 10:44	WG1131592
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 10:44	WG1131592
Ethylbenzene	0.0460		0.00100	1	06/29/2018 10:44	WG1131592
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 10:44	WG1131592
Toluene	0.108		0.00100	1	06/29/2018 10:44	WG1131592
1,2,4-Trimethylbenzene	0.0110		0.00100	1	06/29/2018 10:44	WG1131592
1,3,5-Trimethylbenzene	0.0148		0.00100	1	06/29/2018 10:44	WG1131592
Xylenes, Total	0.122		0.00300	1	06/29/2018 10:44	WG1131592
(S) Toluene-d8	*96.2*		*80.0-120*		*06/29/2018 10:44*	WG1131592
(S) Toluene-d8	*105*		*80.0-120*		*07/04/2018 05:28*	WG1133088
(S) Dibromofluoromethane	*104*		*76.0-123*		*06/29/2018 10:44*	WG1131592
(S) Dibromofluoromethane	*90.6*		*76.0-123*		*07/04/2018 05:28*	WG1133088
(S) 4-Bromofluorobenzene	*106*		*80.0-120*		*06/29/2018 10:44*	WG1131592
(S) 4-Bromofluorobenzene	*97.5*		*80.0-120*		*07/04/2018 05:28*	WG1133088

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000101	1.01	07/03/2018 22:24	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000153		0.0000500	1	07/02/2018 22:01	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/02/2018 22:01	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 22:01	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 22:01	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/02/2018 22:01	WG1132636
Chrysene	ND		0.0000500	1	07/02/2018 22:01	WG1132636
Fluorene	0.00161		0.0000500	1	07/02/2018 22:01	WG1132636
Naphthalene	0.00123		0.000250	1	07/02/2018 22:01	WG1132636
Phenanthrene	0.000827		0.0000500	1	07/02/2018 22:01	WG1132636
Pyrene	ND		0.0000500	1	07/02/2018 22:01	WG1132636
(S) Nitrobenzene-d5	*92.8*		*31.0-160*		*07/02/2018 22:01*	WG1132636
(S) 2-Fluorobiphenyl	*106*		*48.0-148*		*07/02/2018 22:01*	WG1132636
(S) p-Terphenyl-d14	*102*		*37.0-146*		*07/02/2018 22:01*	WG1132636

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 02:15	WG1131595
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 02:15	WG1131595
Ethylbenzene	ND		0.00100	1	06/29/2018 02:15	WG1131595
Isopropylbenzene	ND		0.00100	1	06/29/2018 02:15	WG1131595
Toluene	ND		0.00100	1	06/29/2018 02:15	WG1131595
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 02:15	WG1131595
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 02:15	WG1131595
Xylenes, Total	ND		0.00300	1	06/29/2018 02:15	WG1131595
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 02:15	WG1131595
tert-Butyl alcohol	0.0247		0.00500	1	06/29/2018 02:15	WG1131595
(S) Toluene-d8	*107*		*80.0-120*		*06/29/2018 02:15*	WG1131595
(S) Dibromofluoromethane	*96.0*		*76.0-123*		*06/29/2018 02:15*	WG1131595
(S) 4-Bromofluorobenzene	*95.1*		*80.0-120*		*06/29/2018 02:15*	WG1131595

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 02:01	WG1140686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	3.38		0.0500	50	07/04/2018 05:47	WG1133088
Toluene	0.00424		0.00100	1	06/29/2018 11:03	WG1131592
Ethylbenzene	0.0180		0.00100	1	06/29/2018 11:03	WG1131592
Total Xylenes	0.0120		0.00300	1	06/29/2018 11:03	WG1131592
(S) Toluene-d8	*112*		*80.0-120*		*06/29/2018 11:03*	WG1131592
(S) Toluene-d8	*105*		*80.0-120*		*07/04/2018 05:47*	WG1133088
(S) Dibromofluoromethane	*104*		*76.0-123*		*06/29/2018 11:03*	WG1131592
(S) Dibromofluoromethane	*89.8*		*76.0-123*		*07/04/2018 05:47*	WG1133088
(S) a,a,a-Trifluorotoluene	*98.2*		*80.0-120*		*06/29/2018 11:03*	WG1131592
(S) a,a,a-Trifluorotoluene	*103*		*80.0-120*		*07/04/2018 05:47*	WG1133088
(S) 4-Bromofluorobenzene	*104*		*80.0-120*		*06/29/2018 11:03*	WG1131592
(S) 4-Bromofluorobenzene	*99.5*		*80.0-120*		*07/04/2018 05:47*	WG1133088

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 12:22	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 11:23	WG1131593
Isopropylbenzene	ND		0.00100	1	06/29/2018 11:23	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 11:23	WG1131593
Ethylbenzene	ND		0.00100	1	06/29/2018 11:23	WG1131593
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 11:23	WG1131593
Toluene	ND		0.00100	1	06/29/2018 11:23	WG1131593
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 11:23	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 11:23	WG1131593
Xylenes, Total	ND		0.00300	1	06/29/2018 11:23	WG1131593
(S) Toluene-d8	*97.8*		*80.0-120*		*06/29/2018 11:23*	WG1131593
(S) Dibromofluoromethane	*94.6*		*76.0-123*		*06/29/2018 11:23*	WG1131593
(S) 4-Bromofluorobenzene	*95.8*		*80.0-120*		*06/29/2018 11:23*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/03/2018 23:00	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/02/2018 22:23	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/02/2018 22:23	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 22:23	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 22:23	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/02/2018 22:23	WG1132636
Chrysene	ND		0.0000500	1	07/02/2018 22:23	WG1132636
Fluorene	0.0000590		0.0000500	1	07/02/2018 22:23	WG1132636
Naphthalene	ND		0.000250	1	07/02/2018 22:23	WG1132636
Phenanthrene	ND		0.0000500	1	07/02/2018 22:23	WG1132636
Pyrene	ND		0.0000500	1	07/02/2018 22:23	WG1132636
(S) Nitrobenzene-d5	*91.3*		*31.0-160*		*07/02/2018 22:23*	WG1132636
(S) 2-Fluorobiphenyl	*102*		*48.0-148*		*07/02/2018 22:23*	WG1132636
(S) p-Terphenyl-d14	*81.0*		*37.0-146*		*07/02/2018 22:23*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 12:36	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 11:42	WG1131593
Isopropylbenzene	ND		0.00100	1	06/29/2018 11:42	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 11:42	WG1131593
Ethylbenzene	ND		0.00100	1	06/29/2018 11:42	WG1131593
Methyl tert-butyl ether	0.00209		0.00100	1	06/29/2018 11:42	WG1131593
Toluene	ND		0.00100	1	06/29/2018 11:42	WG1131593
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 11:42	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 11:42	WG1131593
Xylenes, Total	ND		0.00300	1	06/29/2018 11:42	WG1131593
(S) Toluene-d8	*98.7*		*80.0-120*		*06/29/2018 11:42*	WG1131593
(S) Dibromofluoromethane	*95.0*		*76.0-123*		*06/29/2018 11:42*	WG1131593
(S) 4-Bromofluorobenzene	*99.1*		*80.0-120*		*06/29/2018 11:42*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/03/2018 23:12	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
Chrysene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
Fluorene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
Naphthalene	ND		0.000250	1	07/02/2018 22:44	WG1132636
Phenanthrene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
Pyrene	ND		0.0000500	1	07/02/2018 22:44	WG1132636
(S) Nitrobenzene-d5	*92.2*		*31.0-160*		*07/02/2018 22:44*	WG1132636
(S) 2-Fluorobiphenyl	*108*		*48.0-148*		*07/02/2018 22:44*	WG1132636
(S) p-Terphenyl-d14	*94.3*		*37.0-146*		*07/02/2018 22:44*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 12:40	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 12:02	WG1131593
Isopropylbenzene	ND		0.00100	1	06/29/2018 12:02	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 12:02	WG1131593
Ethylbenzene	ND		0.00100	1	06/29/2018 12:02	WG1131593
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 12:02	WG1131593
Toluene	ND		0.00100	1	06/29/2018 12:02	WG1131593
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 12:02	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 12:02	WG1131593
Xylenes, Total	ND		0.00300	1	06/29/2018 12:02	WG1131593
(S) Toluene-d8	*97.9*		*80.0-120*		*06/29/2018 12:02*	WG1131593
(S) Dibromofluoromethane	*94.7*		*76.0-123*		*06/29/2018 12:02*	WG1131593
(S) 4-Bromofluorobenzene	*95.3*		*80.0-120*		*06/29/2018 12:02*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.995	07/03/2018 23:25	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000113		0.0000500	1	07/02/2018 23:06	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/02/2018 23:06	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 23:06	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 23:06	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/02/2018 23:06	WG1132636
Chrysene	ND		0.0000500	1	07/02/2018 23:06	WG1132636
Fluorene	0.000515		0.0000500	1	07/02/2018 23:06	WG1132636
Naphthalene	0.00658		0.000250	1	07/02/2018 23:06	WG1132636
Phenanthrene	0.000344		0.0000500	1	07/02/2018 23:06	WG1132636
Pyrene	0.0000542		0.0000500	1	07/02/2018 23:06	WG1132636
(S) Nitrobenzene-d5	*107*		*31.0-160*		*07/02/2018 23:06*	WG1132636
(S) 2-Fluorobiphenyl	*95.9*		*48.0-148*		*07/02/2018 23:06*	WG1132636
(S) p-Terphenyl-d14	*97.3*		*37.0-146*		*07/02/2018 23:06*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 12:45	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 12:21	WG1131593
Isopropylbenzene	ND		0.00100	1	06/29/2018 12:21	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 12:21	WG1131593
Ethylbenzene	ND		0.00100	1	06/29/2018 12:21	WG1131593
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 12:21	WG1131593
Toluene	ND		0.00100	1	06/29/2018 12:21	WG1131593
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 12:21	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 12:21	WG1131593
Xylenes, Total	ND		0.00300	1	06/29/2018 12:21	WG1131593
(S) Toluene-d8	*97.2*		*80.0-120*		*06/29/2018 12:21*	WG1131593
(S) Dibromofluoromethane	*94.3*		*76.0-123*		*06/29/2018 12:21*	WG1131593
(S) 4-Bromofluorobenzene	*97.0*		*80.0-120*		*06/29/2018 12:21*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/03/2018 23:36	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000480		0.0000500	1	07/02/2018 23:28	WG1132636
Benzo(a)anthracene	0.0000909		0.0000500	1	07/02/2018 23:28	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 23:28	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 23:28	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/02/2018 23:28	WG1132636
Chrysene	0.000103		0.0000500	1	07/02/2018 23:28	WG1132636
Fluorene	0.00339		0.0000500	1	07/02/2018 23:28	WG1132636
Naphthalene	ND		0.000250	1	07/02/2018 23:28	WG1132636
Phenanthrene	0.000285		0.0000500	1	07/02/2018 23:28	WG1132636
Pyrene	0.00156		0.0000500	1	07/02/2018 23:28	WG1132636
(S) Nitrobenzene-d5	*121*		*31.0-160*		*07/02/2018 23:28*	WG1132636
(S) 2-Fluorobiphenyl	*85.6*		*48.0-148*		*07/02/2018 23:28*	WG1132636
(S) p-Terphenyl-d14	*97.0*		*37.0-146*		*07/02/2018 23:28*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 12:49	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 12:40	WG1131593
Isopropylbenzene	0.00137		0.00100	1	06/29/2018 12:40	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 12:40	WG1131593
Ethylbenzene	ND		0.00100	1	06/29/2018 12:40	WG1131593
Methyl tert-butyl ether	0.00411		0.00100	1	06/29/2018 12:40	WG1131593
Toluene	ND		0.00100	1	06/29/2018 12:40	WG1131593
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 12:40	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 12:40	WG1131593
Xylenes, Total	ND		0.00300	1	06/29/2018 12:40	WG1131593
(S) Toluene-d8	*98.2*		*80.0-120*		*06/29/2018 12:40*	WG1131593
(S) Dibromofluoromethane	*94.7*		*76.0-123*		*06/29/2018 12:40*	WG1131593
(S) 4-Bromofluorobenzene	*97.8*		*80.0-120*		*06/29/2018 12:40*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.995	07/03/2018 23:49	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000456		0.0000500	1	07/02/2018 23:50	WG1132636
Benzo(a)anthracene	0.0000591		0.0000500	1	07/02/2018 23:50	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/02/2018 23:50	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/02/2018 23:50	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/02/2018 23:50	WG1132636
Chrysene	0.0000880		0.0000500	1	07/02/2018 23:50	WG1132636
Fluorene	0.00314		0.0000500	1	07/02/2018 23:50	WG1132636
Naphthalene	ND		0.000250	1	07/02/2018 23:50	WG1132636
Phenanthrene	ND		0.0000500	1	07/02/2018 23:50	WG1132636
Pyrene	0.00107		0.0000500	1	07/02/2018 23:50	WG1132636
(S) Nitrobenzene-d5	*86.6*		*31.0-160*		*07/02/2018 23:50*	WG1132636
(S) 2-Fluorobiphenyl	*84.3*		*48.0-148*		*07/02/2018 23:50*	WG1132636
(S) p-Terphenyl-d14	*95.2*		*37.0-146*		*07/02/2018 23:50*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 12:54	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 13:00	WG1131593
Isopropylbenzene	ND		0.00100	1	06/29/2018 13:00	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 13:00	WG1131593
Ethylbenzene	ND		0.00100	1	06/29/2018 13:00	WG1131593
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 13:00	WG1131593
Toluene	ND		0.00100	1	06/29/2018 13:00	WG1131593
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 13:00	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 13:00	WG1131593
Xylenes, Total	ND		0.00300	1	06/29/2018 13:00	WG1131593
(S) Toluene-d8	*96.8*		*80.0-120*		*06/29/2018 13:00*	WG1131593
(S) Dibromofluoromethane	*94.9*		*76.0-123*		*06/29/2018 13:00*	WG1131593
(S) 4-Bromofluorobenzene	*97.6*		*80.0-120*		*06/29/2018 13:00*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/04/2018 00:00	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
Chrysene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
Fluorene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
Naphthalene	ND		0.000250	1	07/03/2018 00:11	WG1132636
Phenanthrene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
Pyrene	ND		0.0000500	1	07/03/2018 00:11	WG1132636
(S) Nitrobenzene-d5	*86.2*		*31.0-160*		*07/03/2018 00:11*	WG1132636
(S) 2-Fluorobiphenyl	*104*		*48.0-148*		*07/03/2018 00:11*	WG1132636
(S) p-Terphenyl-d14	*94.0*		*37.0-146*		*07/03/2018 00:11*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 11:54	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 13:19	WG1131593
Isopropylbenzene	ND		0.00100	1	06/29/2018 13:19	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 13:19	WG1131593
Ethylbenzene	ND		0.00100	1	06/29/2018 13:19	WG1131593
Methyl tert-butyl ether	0.00209		0.00100	1	06/29/2018 13:19	WG1131593
Toluene	ND		0.00100	1	06/29/2018 13:19	WG1131593
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 13:19	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 13:19	WG1131593
Xylenes, Total	ND		0.00300	1	06/29/2018 13:19	WG1131593
(S) Toluene-d8	*97.9*		*80.0-120*		*06/29/2018 13:19*	WG1131593
(S) Dibromofluoromethane	*94.7*		*76.0-123*		*06/29/2018 13:19*	WG1131593
(S) 4-Bromofluorobenzene	*93.6*		*80.0-120*		*06/29/2018 13:19*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/04/2018 00:12	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
Chrysene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
Fluorene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
Naphthalene	ND		0.000250	1	07/03/2018 00:33	WG1132636
Phenanthrene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
Pyrene	ND		0.0000500	1	07/03/2018 00:33	WG1132636
(S) Nitrobenzene-d5	*90.0*		*31.0-160*		*07/03/2018 00:33*	WG1132636
(S) 2-Fluorobiphenyl	*107*		*48.0-148*		*07/03/2018 00:33*	WG1132636
(S) p-Terphenyl-d14	*99.3*		*37.0-146*		*07/03/2018 00:33*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 12:59	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/29/2018 13:38	WG1131593
Isopropylbenzene	ND		0.00100	1	06/29/2018 13:38	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 13:38	WG1131593
Ethylbenzene	ND		0.00100	1	06/29/2018 13:38	WG1131593
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 13:38	WG1131593
Toluene	ND		0.00100	1	06/29/2018 13:38	WG1131593
1,2,4-Trimethylbenzene	ND		0.00100	1	06/29/2018 13:38	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 13:38	WG1131593
Xylenes, Total	ND		0.00300	1	06/29/2018 13:38	WG1131593
(S) Toluene-d8	*95.7*		*80.0-120*		*06/29/2018 13:38*	WG1131593
(S) Dibromofluoromethane	*94.6*		*76.0-123*		*06/29/2018 13:38*	WG1131593
(S) 4-Bromofluorobenzene	*98.7*		*80.0-120*		*06/29/2018 13:38*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/04/2018 00:25	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/03/2018 00:55	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/03/2018 00:55	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/03/2018 00:55	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/03/2018 00:55	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/03/2018 00:55	WG1132636
Chrysene	ND		0.0000500	1	07/03/2018 00:55	WG1132636
Fluorene	ND		0.0000500	1	07/03/2018 00:55	WG1132636
Naphthalene	ND		0.000250	1	07/03/2018 00:55	WG1132636
Phenanthrene	ND		0.0000500	1	07/03/2018 00:55	WG1132636
Pyrene	0.0000625		0.0000500	1	07/03/2018 00:55	WG1132636
(S) Nitrobenzene-d5	*88.7*		*31.0-160*		*07/03/2018 00:55*	WG1132636
(S) 2-Fluorobiphenyl	*105*		*48.0-148*		*07/03/2018 00:55*	WG1132636
(S) p-Terphenyl-d14	*84.9*		*37.0-146*		*07/03/2018 00:55*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 13:03	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0723		0.00100	1	06/29/2018 13:58	WG1131593
Isopropylbenzene	0.00468		0.00100	1	06/29/2018 13:58	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 13:58	WG1131593
Ethylbenzene	0.0309		0.00100	1	06/29/2018 13:58	WG1131593
Methyl tert-butyl ether	ND		0.00100	1	06/29/2018 13:58	WG1131593
Toluene	0.0454		0.00100	1	06/29/2018 13:58	WG1131593
1,2,4-Trimethylbenzene	0.00722		0.00100	1	06/29/2018 13:58	WG1131593
1,3,5-Trimethylbenzene	0.00346		0.00100	1	06/29/2018 13:58	WG1131593
Xylenes, Total	0.0304		0.00300	1	06/29/2018 13:58	WG1131593
(S) Toluene-d8	*94.1*		*80.0-120*		*06/29/2018 13:58*	WG1131593
(S) Dibromofluoromethane	*91.4*		*76.0-123*		*06/29/2018 13:58*	WG1131593
(S) 4-Bromofluorobenzene	*97.4*		*80.0-120*		*06/29/2018 13:58*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000101	1.01	07/04/2018 00:37	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
Chrysene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
Fluorene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
Naphthalene	0.00648		0.000250	1	07/03/2018 01:17	WG1132636
Phenanthrene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
Pyrene	ND		0.0000500	1	07/03/2018 01:17	WG1132636
(S) Nitrobenzene-d5	*83.1*		*31.0-160*		*07/03/2018 01:17*	WG1132636
(S) 2-Fluorobiphenyl	*108*		*48.0-148*		*07/03/2018 01:17*	WG1132636
(S) p-Terphenyl-d14	*94.1*		*37.0-146*		*07/03/2018 01:17*	WG1132636

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/03/2018 13:08	WG1130986

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0478		0.00100	1	06/29/2018 14:17	WG1131593
Isopropylbenzene	0.00181		0.00100	1	06/29/2018 14:17	WG1131593
1,2-Dichloroethane	ND		0.00100	1	06/29/2018 14:17	WG1131593
Ethylbenzene	0.00223		0.00100	1	06/29/2018 14:17	WG1131593
Methyl tert-butyl ether	0.00158		0.00100	1	06/29/2018 14:17	WG1131593
Toluene	0.00306		0.00100	1	06/29/2018 14:17	WG1131593
1,2,4-Trimethylbenzene	0.00153		0.00100	1	06/29/2018 14:17	WG1131593
1,3,5-Trimethylbenzene	ND		0.00100	1	06/29/2018 14:17	WG1131593
Xylenes, Total	0.00408		0.00300	1	06/29/2018 14:17	WG1131593
(S) Toluene-d8	*94.7*		*80.0-120*		*06/29/2018 14:17*	WG1131593
(S) Dibromofluoromethane	*91.1*		*76.0-123*		*06/29/2018 14:17*	WG1131593
(S) 4-Bromofluorobenzene	*96.8*		*80.0-120*		*06/29/2018 14:17*	WG1131593

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/04/2018 00:49	WG1133223

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
Benzo(a)anthracene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
Benzo(a)pyrene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
Benzo(b)fluoranthene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
Benzo(g,h,i)perylene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
Chrysene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
Fluorene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
Naphthalene	0.00145		0.000250	1	07/03/2018 01:39	WG1132636
Phenanthrene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
Pyrene	ND		0.0000500	1	07/03/2018 01:39	WG1132636
(S) Nitrobenzene-d5	*91.9*		*31.0-160*		*07/03/2018 01:39*	WG1132636
(S) 2-Fluorobiphenyl	*104*		*48.0-148*		*07/03/2018 01:39*	WG1132636
(S) p-Terphenyl-d14	*96.8*		*37.0-146*		*07/03/2018 01:39*	WG1132636

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/28/2018 23:48	WG1131595
1,2-Dichloroethane	ND		0.00100	1	06/28/2018 23:48	WG1131595
Ethylbenzene	ND		0.00100	1	06/28/2018 23:48	WG1131595
1,2-Dibromoethane	ND		0.00100	1	06/28/2018 23:48	WG1131595
Isopropylbenzene	ND		0.00100	1	06/28/2018 23:48	WG1131595
Toluene	ND		0.00100	1	06/28/2018 23:48	WG1131595
1,2,4-Trimethylbenzene	ND		0.00100	1	06/28/2018 23:48	WG1131595
1,3,5-Trimethylbenzene	ND		0.00100	1	06/28/2018 23:48	WG1131595
Xylenes, Total	ND		0.00300	1	06/28/2018 23:48	WG1131595
Methyl tert-butyl ether	ND		0.00100	1	06/28/2018 23:48	WG1131595
tert-Butyl alcohol	ND		0.00500	1	06/28/2018 23:48	WG1131595
(S) Toluene-d8	*107*		*80.0-120*		*06/28/2018 23:48*	WG1131595
(S) Dibromofluoromethane	*94.7*		*76.0-123*		*06/28/2018 23:48*	WG1131595
(S) 4-Bromofluorobenzene	*88.8*		*80.0-120*		*06/28/2018 23:48*	WG1131595

Method Blank (MB)

(MB) R3322819-1 07/03/18 11:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322819-2 07/03/18 11:45 • (LCSD) R3322819-3 07/03/18 11:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0479	0.0473	95.7	94.6	80.0-120			1.18	20

L1005209-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1005209-10 07/03/18 11:54 • (MS) R3322819-5 07/03/18 12:03 • (MSD) R3322819-6 07/03/18 12:08

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	ND	0.0478	0.0485	94.4	95.8	1	75.0-125			1.42	20

Method Blank (MB)

(MB) R3322583-3 06/29/18 05:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*106*			*80.0-120*
(S) Dibromofluoromethane	*94.4*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*95.4*			*80.0-120*
(S) 4-Bromofluorobenzene	*109*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322583-1 06/29/18 04:29 • (LCSD) R3322583-2 06/29/18 04:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	0.0250	0.0226	0.0223	90.6	89.2	67.0-126			1.51	20
Ethylbenzene	0.0250	0.0272	0.0272	109	109	77.0-120			0.0468	20
Isopropylbenzene	0.0250	0.0282	0.0279	113	111	75.0-120			1.27	20
Methyl tert-butyl ether	0.0250	0.0223	0.0224	89.3	89.5	64.0-123			0.186	20
Toluene	0.0250	0.0255	0.0255	102	102	77.0-120			0.117	20
1,2,4-Trimethylbenzene	0.0250	0.0273	0.0273	109	109	75.0-120			0.112	20
1,3,5-Trimethylbenzene	0.0250	0.0276	0.0276	111	110	75.0-120			0.0463	20
Xylenes, Total	0.0750	0.0807	0.0790	108	105	77.0-120			2.13	20
(S) Toluene-d8				*106*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*94.3*	*91.8*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*97.3*	*98.0*	*80.0-120*				
(S) 4-Bromofluorobenzene				*106*	*107*	*80.0-120*				

Method Blank (MB)

(MB) R3322832-3 06/29/18 07:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*98.6*			*80.0-120*
(S) Dibromofluoromethane	*94.9*			*76.0-123*
(S) 4-Bromofluorobenzene	*98.1*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322832-1 06/29/18 06:51 • (LCSD) R3322832-2 06/29/18 07:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0279	0.0277	112	111	69.0-123			0.970	20
1,2-Dichloroethane	0.0250	0.0256	0.0256	102	103	67.0-126			0.167	20
Ethylbenzene	0.0250	0.0259	0.0259	103	104	77.0-120			0.135	20
Isopropylbenzene	0.0250	0.0268	0.0266	107	107	75.0-120			0.447	20
Methyl tert-butyl ether	0.0250	0.0256	0.0254	102	102	64.0-123			0.591	20
Toluene	0.0250	0.0262	0.0265	105	106	77.0-120			0.968	20
1,2,4-Trimethylbenzene	0.0250	0.0265	0.0262	106	105	75.0-120			1.14	20
1,3,5-Trimethylbenzene	0.0250	0.0258	0.0254	103	102	75.0-120			1.45	20
Xylenes, Total	0.0750	0.0783	0.0786	104	105	77.0-120			0.382	20
(S) Toluene-d8				*96.3*	*97.9*	*80.0-120*				
(S) Dibromofluoromethane				*92.3*	*92.7*	*76.0-123*				
(S) 4-Bromofluorobenzene				*96.9*	*99.9*	*80.0-120*				

Method Blank (MB)

(MB) R3322566-5 06/28/18 22:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dibromoethane	U		0.000381	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*109*			*80.0-120*
(S) Dibromofluoromethane	*95.4*			*76.0-123*
(S) 4-Bromofluorobenzene	*94.0*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322566-1 06/28/18 21:01 • (LCSD) R3322566-2 06/28/18 21:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0253	0.0251	101	100	69.0-123			0.817	20
1,2-Dibromoethane	0.0250	0.0244	0.0260	97.5	104	77.0-123			6.39	20
1,2-Dichloroethane	0.0250	0.0270	0.0262	108	105	67.0-126			2.93	20
Ethylbenzene	0.0250	0.0257	0.0276	103	110	77.0-120			7.04	20
Isopropylbenzene	0.0250	0.0261	0.0264	105	106	75.0-120			1.07	20
Methyl tert-butyl ether	0.0250	0.0245	0.0243	98.1	97.4	64.0-123			0.747	20
Toluene	0.0250	0.0260	0.0276	104	110	77.0-120			5.90	20
1,2,4-Trimethylbenzene	0.0250	0.0259	0.0265	104	106	75.0-120			2.22	20
1,3,5-Trimethylbenzene	0.0250	0.0253	0.0261	101	105	75.0-120			3.11	20
Xylenes, Total	0.0750	0.0768	0.0822	102	110	77.0-120			6.79	20
(S) Toluene-d8				*103*	*109*	*80.0-120*				
(S) Dibromofluoromethane				*94.1*	*92.8*	*76.0-123*				
(S) 4-Bromofluorobenzene				*92.5*	*94.3*	*80.0-120*				

Laboratory Control Sample (LCS)

(LCS) R3322566-4 06/28/18 22:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0744	149	50.0-150	
(S) Toluene-d8			*107*	*80.0-120*	
(S) Dibromofluoromethane			*93.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*94.1*	*80.0-120*	

Method Blank (MB)

(MB) R3323000-3 07/03/18 22:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
(S) Toluene-d8	*107*			*80.0-120*
(S) Dibromofluoromethane	*98.7*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*95.3*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323000-1 07/03/18 21:10 • (LCSD) R3323000-2 07/03/18 21:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0200	0.0216	80.2	86.2	69.0-123			7.25	20
(S) Toluene-d8				*108*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*84.5*	*88.1*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*104*	*101*	*80.0-120*				
(S) 4-Bromofluorobenzene				*89.0*	*99.7*	*80.0-120*				

Method Blank (MB)

(MB) R3323029-1 07/03/18 19:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1005134-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1005134-01 07/03/18 20:45 • (DUP) R3323029-3 07/03/18 20:33

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	0.000	.998			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323029-4 07/03/18 22:47 • (LCSD) R3323029-5 07/04/18 01:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000227	0.000218	90.8	87.2	60.0-140			4.04	20

L1005134-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1005134-02 07/03/18 20:21 • (MS) R3323029-2 07/03/18 20:08

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.000100	U	0.0000920	92.0	1	72.0-146	

Method Blank (MB)

(MB) R3327677-1 07/20/18 23:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1009704-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1009704-01 07/21/18 00:47 • (DUP) R3327677-3 07/21/18 00:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3327677-4 07/21/18 02:50 • (LCSD) R3327677-5 07/21/18 05:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000239	0.000229	95.6	91.6	60.0-140			4.27	20

L1009704-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1009704-03 07/21/18 00:22 • (MS) R3327677-2 07/21/18 00:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	U	0.0000955	95.7	1	72.0-146	

Method Blank (MB)

(MB) R3322851-3 07/02/18 21:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*90.0*			*31.0-160*
(S) 2-Fluorobiphenyl	*107*			*48.0-148*
(S) p-Terphenyl-d14	*98.7*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322851-1 07/02/18 20:55 • (LCSD) R3322851-2 07/02/18 21:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00239	0.00231	120	116	64.0-142			3.34	20
Benzo(a)anthracene	0.00200	0.00192	0.00192	96.2	96.1	59.0-134			0.0981	20
Benzo(a)pyrene	0.00200	0.00184	0.00202	92.2	101	61.0-145			9.10	20
Benzo(b)fluoranthene	0.00200	0.00171	0.00198	85.5	98.9	57.0-136			14.5	20
Benzo(g,h,i)perylene	0.00200	0.00178	0.00215	89.1	108	54.0-140			18.8	20
Chrysene	0.00200	0.00210	0.00216	105	108	63.0-140			2.80	20
Fluorene	0.00200	0.00198	0.00189	99.2	94.7	64.0-129			4.71	20
Naphthalene	0.00200	0.00192	0.00181	96.0	90.7	68.0-129			5.58	20
Phenanthrene	0.00200	0.00201	0.00195	101	97.6	62.0-132			3.14	20
Pyrene	0.00200	0.00194	0.00189	96.9	94.5	58.0-156			2.53	20
(S) Nitrobenzene-d5				*90.8*	*89.5*	*31.0-160*				
(S) 2-Fluorobiphenyl				*106*	*102*	*48.0-148*				
(S) p-Terphenyl-d14				*92.5*	*99.9*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
T8	Sample(s) received past/too close to holding time expiration.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

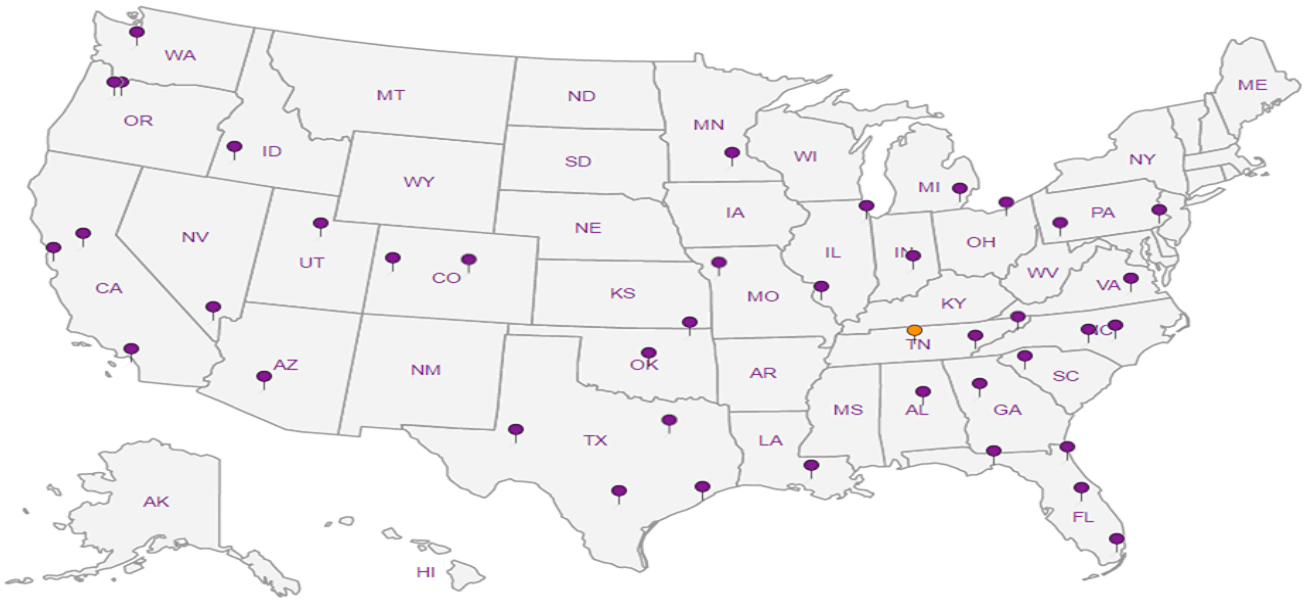
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen - Phil GWS

City/State Collected:

Phone: ~~267-240-3415~~
Fax: 610-425-8311

Client Project # 213402429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Karl Myers / Dave Hopkins

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1005209
D146

Acctnum: **SUNSTANTEC**
Template: **T137388**
Prelogin: **P659137**
TSR: **134 - Mark Beasley**
PB: 6-18-18

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP (* lab filter)	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
Arco.3_20180626	G	GW	30'	6.26.18	920	9	X	X					-01
S_398_20180626	G	GW	51'	6.26.18	1110	3			X				-02
S_230_20180626	G	GW	17'	6.26.18	1345	3				X			-03
S_50_20180626	G	GW	22'	6.26.18	1420	9	X	X					-04
S-25_20180626	G	GW	13'		0915	9	X	X					-05
C-62_20180626	G	GW	8'		1030	9	X	X					-06
C-104_20180626	G	GW	16'		1130	9	X	X					-07
C-127_20180626	G	GW	12'		1220	9	X	X					-08
C-129_20180626	G	GW	7'		1330	9	X	X					-09
C-25DUP_20180626	G	GW	13'	↓	0915	9	X	X					-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP
* EQuIS EDD format
* refer to attached Short list
* standard TAT

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ~~__~~ FedEx __ Courier __ SWA

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: (Yes) No HCL / MeoH TBR
	6.26.18	1415	ESCPA lockout	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
ESCPA lockout	6/27/18	10:30		0.6 105
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time: Hold: Condition: NCF / OK
				6/28/18 0745 VC

If preservation required by Login: Date/Time

Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen : PHL GWS

City/State Collected:

Phone: ~~267-240-3415~~
Fax: 610-425-8311

Client Project # 21302429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): IAN ANDREE

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP (+ field)	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
S-380_20180626	G	GW	22.5	6/26/18	1031	9	X	X					-11
S-38_20180626	G	GW	18	6/26/18	1233	9	X	X					-12
RW-715_20180626	G	GW	22.5	6/26/18	1315	9	X	X					-13
TB-20180626	—	GW	—	↓	—	1			X				-14
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											

Chain of Custody Page ___ of ___

ESC LABORATORIES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L005209

Table #

Acctnum: **SUNSTANTEC**

Template: **T137388**

Prelogin: **P659137**

TSR: **134 - Mark Beasley**

PB: 6-18-18

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1- 250ml plastic NP

* ESdat EDD format
* refer to attached Short List
* Standard TAT

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier X SNA

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: (Yes / No) HCL / MeoH TBR	If preservation required by Login: Date/Time
	6/26/18	1415	ESCPA lockout		
Relinquished by : (Signature) ESCPA lockout	6/27/18	10:30	Received by: (Signature)	Temp: °C Bottles Received: 105	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/28/18 Time: 0951 KC0815	Hold: / Condition: NCF / OK

4005209

Table 1
Evergreen Petroleum Short List of Constituents of Concern

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Stantec

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 22, 2018

Stantec - S/E

Sample Delivery Group:	L1005890
Samples Received:	06/29/2018
Project Number:	213402429
Description:	PHL Annual Groundwater Sampling

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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TB_20180627 L1005890-01 GW

Collected by: DH/KM | Collected date/time: 06/27/18 00:00 | Received date/time: 06/29/18 10:42

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1132674	1	07/02/18 21:12	07/02/18 21:12	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133424	1	07/03/18 19:56	07/03/18 19:56	ACG

A-137_20180627 L1005890-02 GW

Collected by: DH/KM | Collected date/time: 06/27/18 09:55 | Received date/time: 06/29/18 10:42

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1132466	1	07/07/18 14:31	07/08/18 19:13	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1132572	1	07/02/18 16:33	07/02/18 16:33	PP
EDB / DBCP by Method 8011	WG1133539	.993	07/05/18 09:11	07/07/18 09:36	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133003	1	07/03/18 14:53	07/04/18 02:26	KM

A-47_20180627 L1005890-03 GW

Collected by: DH/KM | Collected date/time: 06/27/18 11:05 | Received date/time: 06/29/18 10:42

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1132466	1	07/07/18 14:31	07/08/18 19:17	LD

WP-14_20180627 L1005890-04 GW

Collected by: DH/KM | Collected date/time: 06/27/18 11:55 | Received date/time: 06/29/18 10:42

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1132466	1	07/07/18 14:31	07/08/18 19:21	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1132572	1	07/02/18 16:53	07/02/18 16:53	PP
EDB / DBCP by Method 8011	WG1133539	.998	07/05/18 09:11	07/07/18 09:49	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133003	1	07/03/18 14:53	07/04/18 02:49	KM

A-134_20180627 L1005890-05 GW

Collected by: DH/KM | Collected date/time: 06/27/18 12:55 | Received date/time: 06/29/18 10:42

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1132566	1	07/01/18 13:25	07/01/18 13:25	JAH

A-133_20180627 L1005890-06 GW

Collected by: DH/KM | Collected date/time: 06/27/18 13:35 | Received date/time: 06/29/18 10:42

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1132466	1	07/07/18 14:31	07/08/18 19:48	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1132572	1	07/02/18 17:13	07/02/18 17:13	PP
EDB / DBCP by Method 8011	WG1133539	.995	07/05/18 09:11	07/07/18 10:01	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133003	10	07/03/18 14:53	07/04/18 06:18	KM

B-43_20180627 L1005890-07 GW

Collected by: DH/KM | Collected date/time: 06/27/18 12:05 | Received date/time: 06/29/18 10:42

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1132466	1	07/07/18 14:31	07/08/18 19:52	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1132572	1	07/02/18 17:33	07/02/18 17:33	PP
EDB / DBCP by Method 8011	WG1133539	.995	07/05/18 09:11	07/07/18 10:13	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133003	1	07/03/18 14:53	07/04/18 05:55	KM

N-37_20180627 L1005890-08 GW

Collected by	Collected date/time	Received date/time
DH/KM	06/27/18 14:10	06/29/18 10:42

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1132466	1	07/07/18 14:31	07/08/18 19:56	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1132572	1	07/02/18 17:53	07/02/18 17:53	PP
EDB / DBCP by Method 8011	WG1133539	.995	07/05/18 09:11	07/07/18 10:26	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133003	1	07/03/18 14:53	07/04/18 03:12	KM

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/02/2018 21:12	WG1132674
1,2-Dichloroethane	ND		0.00100	1	07/02/2018 21:12	WG1132674
Ethylbenzene	ND		0.00100	1	07/02/2018 21:12	WG1132674
1,2-Dibromoethane	ND		0.00100	1	07/02/2018 21:12	WG1132674
Isopropylbenzene	ND		0.00100	1	07/02/2018 21:12	WG1132674
Toluene	ND		0.00100	1	07/02/2018 21:12	WG1132674
1,2,4-Trimethylbenzene	ND		0.00100	1	07/02/2018 21:12	WG1132674
1,3,5-Trimethylbenzene	ND		0.00100	1	07/02/2018 21:12	WG1132674
Xylenes, Total	ND		0.00300	1	07/02/2018 21:12	WG1132674
Methyl tert-butyl ether	ND		0.00100	1	07/02/2018 21:12	WG1132674
tert-Butyl alcohol	ND		0.00500	1	07/03/2018 19:56	WG1133424
(S) Toluene-d8	*105*		*80.0-120*		*07/02/2018 21:12*	WG1132674
(S) Toluene-d8	*100*		*80.0-120*		*07/03/2018 19:56*	WG1133424
(S) Dibromofluoromethane	*85.9*		*76.0-123*		*07/02/2018 21:12*	WG1132674
(S) Dibromofluoromethane	*93.0*		*76.0-123*		*07/03/2018 19:56*	WG1133424
(S) 4-Bromofluorobenzene	*111*		*80.0-120*		*07/02/2018 21:12*	WG1132674
(S) 4-Bromofluorobenzene	*94.2*		*80.0-120*		*07/03/2018 19:56*	WG1133424

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/08/2018 19:13	WG1132466

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/02/2018 16:33	WG1132572
Isopropylbenzene	ND		0.00100	1	07/02/2018 16:33	WG1132572
1,2-Dichloroethane	ND		0.00100	1	07/02/2018 16:33	WG1132572
Ethylbenzene	ND		0.00100	1	07/02/2018 16:33	WG1132572
Methyl tert-butyl ether	ND		0.00100	1	07/02/2018 16:33	WG1132572
Toluene	0.00197		0.00100	1	07/02/2018 16:33	WG1132572
1,2,4-Trimethylbenzene	ND		0.00100	1	07/02/2018 16:33	WG1132572
1,3,5-Trimethylbenzene	ND		0.00100	1	07/02/2018 16:33	WG1132572
Xylenes, Total	ND		0.00300	1	07/02/2018 16:33	WG1132572
(S) Toluene-d8	*104*		*80.0-120*		*07/02/2018 16:33*	WG1132572
(S) Dibromofluoromethane	*89.4*		*76.0-123*		*07/02/2018 16:33*	WG1132572
(S) 4-Bromofluorobenzene	*91.8*		*80.0-120*		*07/02/2018 16:33*	WG1132572

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.993	07/07/2018 09:36	WG1133539

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000123		0.0000500	1	07/04/2018 02:26	WG1133003
Benzo(a)anthracene	ND		0.0000500	1	07/04/2018 02:26	WG1133003
Benzo(a)pyrene	ND		0.0000500	1	07/04/2018 02:26	WG1133003
Benzo(b)fluoranthene	ND		0.0000500	1	07/04/2018 02:26	WG1133003
Benzo(g,h,i)perylene	ND		0.0000500	1	07/04/2018 02:26	WG1133003
Chrysene	ND		0.0000500	1	07/04/2018 02:26	WG1133003
Fluorene	0.000231		0.0000500	1	07/04/2018 02:26	WG1133003
Naphthalene	0.000663		0.000250	1	07/04/2018 02:26	WG1133003
Phenanthrene	0.000629		0.0000500	1	07/04/2018 02:26	WG1133003
Pyrene	0.000226		0.0000500	1	07/04/2018 02:26	WG1133003
(S) Nitrobenzene-d5	*66.4*		*31.0-160*		*07/04/2018 02:26*	WG1133003
(S) 2-Fluorobiphenyl	*88.7*		*48.0-148*		*07/04/2018 02:26*	WG1133003
(S) p-Terphenyl-d14	*96.2*		*37.0-146*		*07/04/2018 02:26*	WG1133003

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/08/2018 19:17	WG1132466

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/08/2018 19:21	WG1132466

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/02/2018 16:53	WG1132572
Isopropylbenzene	ND		0.00100	1	07/02/2018 16:53	WG1132572
1,2-Dichloroethane	ND		0.00100	1	07/02/2018 16:53	WG1132572
Ethylbenzene	ND		0.00100	1	07/02/2018 16:53	WG1132572
Methyl tert-butyl ether	ND		0.00100	1	07/02/2018 16:53	WG1132572
Toluene	ND		0.00100	1	07/02/2018 16:53	WG1132572
1,2,4-Trimethylbenzene	ND		0.00100	1	07/02/2018 16:53	WG1132572
1,3,5-Trimethylbenzene	ND		0.00100	1	07/02/2018 16:53	WG1132572
Xylenes, Total	ND		0.00300	1	07/02/2018 16:53	WG1132572
(S) Toluene-d8	*103*		*80.0-120*		*07/02/2018 16:53*	WG1132572
(S) Dibromofluoromethane	*99.7*		*76.0-123*		*07/02/2018 16:53*	WG1132572
(S) 4-Bromofluorobenzene	*97.9*		*80.0-120*		*07/02/2018 16:53*	WG1132572

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/07/2018 09:49	WG1133539

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000109		0.0000500	1	07/04/2018 02:49	WG1133003
Benzo(a)anthracene	ND		0.0000500	1	07/04/2018 02:49	WG1133003
Benzo(a)pyrene	ND		0.0000500	1	07/04/2018 02:49	WG1133003
Benzo(b)fluoranthene	ND		0.0000500	1	07/04/2018 02:49	WG1133003
Benzo(g,h,i)perylene	ND		0.0000500	1	07/04/2018 02:49	WG1133003
Chrysene	ND		0.0000500	1	07/04/2018 02:49	WG1133003
Fluorene	0.000724		0.0000500	1	07/04/2018 02:49	WG1133003
Naphthalene	ND		0.000250	1	07/04/2018 02:49	WG1133003
Phenanthrene	0.000767		0.0000500	1	07/04/2018 02:49	WG1133003
Pyrene	0.000245		0.0000500	1	07/04/2018 02:49	WG1133003
(S) Nitrobenzene-d5	*72.1*		*31.0-160*		*07/04/2018 02:49*	WG1133003
(S) 2-Fluorobiphenyl	*100*		*48.0-148*		*07/04/2018 02:49*	WG1133003
(S) p-Terphenyl-d14	*106*		*37.0-146*		*07/04/2018 02:49*	WG1133003

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0107		0.00100	1	07/01/2018 13:25	WG1132566
Toluene	0.00626		0.00100	1	07/01/2018 13:25	WG1132566
Ethylbenzene	ND		0.00100	1	07/01/2018 13:25	WG1132566
Total Xylenes	0.0113		0.00300	1	07/01/2018 13:25	WG1132566
(S) Toluene-d8	*89.5*		*80.0-120*		*07/01/2018 13:25*	WG1132566
(S) Dibromofluoromethane	*101*		*76.0-123*		*07/01/2018 13:25*	WG1132566
(S) a,a,a-Trifluorotoluene	*105*		*80.0-120*		*07/01/2018 13:25*	WG1132566
(S) 4-Bromofluorobenzene	*93.5*		*80.0-120*		*07/01/2018 13:25*	WG1132566

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/08/2018 19:48	WG1132466

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/02/2018 17:13	WG1132572
Isopropylbenzene	ND		0.00100	1	07/02/2018 17:13	WG1132572
1,2-Dichloroethane	ND		0.00100	1	07/02/2018 17:13	WG1132572
Ethylbenzene	ND		0.00100	1	07/02/2018 17:13	WG1132572
Methyl tert-butyl ether	ND		0.00100	1	07/02/2018 17:13	WG1132572
Toluene	ND		0.00100	1	07/02/2018 17:13	WG1132572
1,2,4-Trimethylbenzene	ND		0.00100	1	07/02/2018 17:13	WG1132572
1,3,5-Trimethylbenzene	ND		0.00100	1	07/02/2018 17:13	WG1132572
Xylenes, Total	ND		0.00300	1	07/02/2018 17:13	WG1132572
(S) Toluene-d8	*106*		*80.0-120*		*07/02/2018 17:13*	WG1132572
(S) Dibromofluoromethane	*92.5*		*76.0-123*		*07/02/2018 17:13*	WG1132572
(S) 4-Bromofluorobenzene	*93.4*		*80.0-120*		*07/02/2018 17:13*	WG1132572

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.995	07/07/2018 10:01	WG1133539

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.000500	10	07/04/2018 06:18	WG1133003
Benzo(a)anthracene	0.00249		0.000500	10	07/04/2018 06:18	WG1133003
Benzo(a)pyrene	0.00238		0.000500	10	07/04/2018 06:18	WG1133003
Benzo(b)fluoranthene	0.00150		0.000500	10	07/04/2018 06:18	WG1133003
Benzo(g,h,i)perylene	0.00214		0.000500	10	07/04/2018 06:18	WG1133003
Chrysene	0.00655		0.000500	10	07/04/2018 06:18	WG1133003
Fluorene	0.00143		0.000500	10	07/04/2018 06:18	WG1133003
Naphthalene	ND		0.00250	10	07/04/2018 06:18	WG1133003
Phenanthrene	ND		0.000500	10	07/04/2018 06:18	WG1133003
Pyrene	0.00983		0.000500	10	07/04/2018 06:18	WG1133003
(S) Nitrobenzene-d5	*67.9*		*31.0-160*		*07/04/2018 06:18*	WG1133003
(S) 2-Fluorobiphenyl	*108*		*48.0-148*		*07/04/2018 06:18*	WG1133003
(S) p-Terphenyl-d14	*96.8*		*37.0-146*		*07/04/2018 06:18*	WG1133003

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/08/2018 19:52	WG1132466

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/02/2018 17:33	WG1132572
Isopropylbenzene	0.00235		0.00100	1	07/02/2018 17:33	WG1132572
1,2-Dichloroethane	ND		0.00100	1	07/02/2018 17:33	WG1132572
Ethylbenzene	ND		0.00100	1	07/02/2018 17:33	WG1132572
Methyl tert-butyl ether	ND		0.00100	1	07/02/2018 17:33	WG1132572
Toluene	ND		0.00100	1	07/02/2018 17:33	WG1132572
1,2,4-Trimethylbenzene	ND		0.00100	1	07/02/2018 17:33	WG1132572
1,3,5-Trimethylbenzene	ND		0.00100	1	07/02/2018 17:33	WG1132572
Xylenes, Total	ND		0.00300	1	07/02/2018 17:33	WG1132572
(S) Toluene-d8	*102*		*80.0-120*		*07/02/2018 17:33*	WG1132572
(S) Dibromofluoromethane	*89.9*		*76.0-123*		*07/02/2018 17:33*	WG1132572
(S) 4-Bromofluorobenzene	*96.2*		*80.0-120*		*07/02/2018 17:33*	WG1132572

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.995	07/07/2018 10:13	WG1133539

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/04/2018 05:55	WG1133003
Benzo(a)anthracene	0.000327		0.0000500	1	07/04/2018 05:55	WG1133003
Benzo(a)pyrene	0.000253		0.0000500	1	07/04/2018 05:55	WG1133003
Benzo(b)fluoranthene	0.000311		0.0000500	1	07/04/2018 05:55	WG1133003
Benzo(g,h,i)perylene	0.000160		0.0000500	1	07/04/2018 05:55	WG1133003
Chrysene	0.000326		0.0000500	1	07/04/2018 05:55	WG1133003
Fluorene	ND		0.0000500	1	07/04/2018 05:55	WG1133003
Naphthalene	ND		0.000250	1	07/04/2018 05:55	WG1133003
Phenanthrene	ND		0.0000500	1	07/04/2018 05:55	WG1133003
Pyrene	0.00152		0.0000500	1	07/04/2018 05:55	WG1133003
(S) Nitrobenzene-d5	*68.9*		*31.0-160*		*07/04/2018 05:55*	WG1133003
(S) 2-Fluorobiphenyl	*101*		*48.0-148*		*07/04/2018 05:55*	WG1133003
(S) p-Terphenyl-d14	*108*		*37.0-146*		*07/04/2018 05:55*	WG1133003

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/08/2018 19:56	WG1132466

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/02/2018 17:53	WG1132572
Isopropylbenzene	ND		0.00100	1	07/02/2018 17:53	WG1132572
1,2-Dichloroethane	ND		0.00100	1	07/02/2018 17:53	WG1132572
Ethylbenzene	ND		0.00100	1	07/02/2018 17:53	WG1132572
Methyl tert-butyl ether	ND		0.00100	1	07/02/2018 17:53	WG1132572
Toluene	ND		0.00100	1	07/02/2018 17:53	WG1132572
1,2,4-Trimethylbenzene	ND		0.00100	1	07/02/2018 17:53	WG1132572
1,3,5-Trimethylbenzene	ND		0.00100	1	07/02/2018 17:53	WG1132572
Xylenes, Total	ND		0.00300	1	07/02/2018 17:53	WG1132572
(S) Toluene-d8	*103*		*80.0-120*		*07/02/2018 17:53*	WG1132572
(S) Dibromofluoromethane	*90.4*		*76.0-123*		*07/02/2018 17:53*	WG1132572
(S) 4-Bromofluorobenzene	*93.2*		*80.0-120*		*07/02/2018 17:53*	WG1132572

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.995	07/07/2018 10:26	WG1133539

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/04/2018 03:12	WG1133003
Benzo(a)anthracene	ND		0.0000500	1	07/04/2018 03:12	WG1133003
Benzo(a)pyrene	ND		0.0000500	1	07/04/2018 03:12	WG1133003
Benzo(b)fluoranthene	ND		0.0000500	1	07/04/2018 03:12	WG1133003
Benzo(g,h,i)perylene	ND		0.0000500	1	07/04/2018 03:12	WG1133003
Chrysene	ND		0.0000500	1	07/04/2018 03:12	WG1133003
Fluorene	ND		0.0000500	1	07/04/2018 03:12	WG1133003
Naphthalene	ND		0.000250	1	07/04/2018 03:12	WG1133003
Phenanthrene	ND		0.0000500	1	07/04/2018 03:12	WG1133003
Pyrene	ND		0.0000500	1	07/04/2018 03:12	WG1133003
(S) Nitrobenzene-d5	*73.5*		*31.0-160*		*07/04/2018 03:12*	WG1133003
(S) 2-Fluorobiphenyl	*112*		*48.0-148*		*07/04/2018 03:12*	WG1133003
(S) p-Terphenyl-d14	*108*		*37.0-146*		*07/04/2018 03:12*	WG1133003

Method Blank (MB)

(MB) R3323924-1 07/08/18 18:42

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323924-2 07/08/18 18:47 • (LCSD) R3323924-3 07/08/18 18:51

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Lead,Dissolved	0.0500	0.0470	0.0470	94.0	94.0	80.0-120			0.0316	20

L1006072-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1006072-05 07/08/18 18:55 • (MS) R3323924-5 07/08/18 19:04 • (MSD) R3323924-6 07/08/18 19:08

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Lead,Dissolved	0.0500	0.000872	0.0469	0.0477	92.1	93.6	1	75.0-125			1.61	20

Method Blank (MB)

(MB) R3322432-3 07/01/18 09:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*103*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.1*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322432-1 07/01/18 08:34 • (LCSD) R3322432-2 07/01/18 08:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0244	0.0237	97.6	94.6	69.0-123			3.14	20
Ethylbenzene	0.0250	0.0260	0.0260	104	104	77.0-120			0.0301	20
Toluene	0.0250	0.0251	0.0249	100	99.7	77.0-120			0.631	20
Xylenes, Total	0.0750	0.0804	0.0805	107	107	77.0-120			0.124	20
(S) Toluene-d8				*105*	*107*	*80.0-120*				
(S) Dibromofluoromethane				*98.5*	*100*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*106*	*107*	*80.0-120*				
(S) 4-Bromofluorobenzene				*96.7*	*98.0*	*80.0-120*				

Method Blank (MB)

(MB) R3322908-2 07/02/18 10:53

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*104*			*80.0-120*
(S) Dibromofluoromethane	*92.2*			*76.0-123*
(S) 4-Bromofluorobenzene	*97.4*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3322908-1 07/02/18 10:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0212	85.0	69.0-123	
1,2-Dichloroethane	0.0250	0.0242	96.6	67.0-126	
Ethylbenzene	0.0250	0.0252	101	77.0-120	
Isopropylbenzene	0.0250	0.0242	97.0	75.0-120	
Methyl tert-butyl ether	0.0250	0.0199	79.6	64.0-123	
Toluene	0.0250	0.0260	104	77.0-120	
1,2,4-Trimethylbenzene	0.0250	0.0224	89.7	75.0-120	
1,3,5-Trimethylbenzene	0.0250	0.0235	94.1	75.0-120	
Xylenes, Total	0.0750	0.0754	101	77.0-120	
(S) Toluene-d8			*104*	*80.0-120*	
(S) Dibromofluoromethane			*88.1*	*76.0-123*	
(S) 4-Bromofluorobenzene			*96.8*	*80.0-120*	

Method Blank (MB)

(MB) R3322780-4 07/02/18 19:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dibromoethane	U		0.000381	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*106*			*80.0-120*
(S) Dibromofluoromethane	*91.3*			*76.0-123*
(S) 4-Bromofluorobenzene	*114*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3322780-2 07/02/18 18:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0218	87.1	69.0-123	
1,2-Dibromoethane	0.0250	0.0246	98.5	77.0-123	
1,2-Dichloroethane	0.0250	0.0215	85.8	67.0-126	
Ethylbenzene	0.0250	0.0249	99.6	77.0-120	
Isopropylbenzene	0.0250	0.0274	110	75.0-120	
Methyl tert-butyl ether	0.0250	0.0208	83.3	64.0-123	
Toluene	0.0250	0.0237	94.9	77.0-120	
1,2,4-Trimethylbenzene	0.0250	0.0267	107	75.0-120	
1,3,5-Trimethylbenzene	0.0250	0.0273	109	75.0-120	
Xylenes, Total	0.0750	0.0756	101	77.0-120	
(S) Toluene-d8			*104*	*80.0-120*	
(S) Dibromofluoromethane			*91.3*	*76.0-123*	
(S) 4-Bromofluorobenzene			*109*	*80.0-120*	

Method Blank (MB)

(MB) R3323279-4 07/03/18 16:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*100*			*80.0-120*
(S) Dibromofluoromethane	*92.2*			*76.0-123*
(S) 4-Bromofluorobenzene	*95.2*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3323279-3 07/03/18 16:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0267	53.3	50.0-150	
(S) Toluene-d8			*97.8*	*80.0-120*	
(S) Dibromofluoromethane			*92.0*	*76.0-123*	
(S) 4-Bromofluorobenzene			*95.2*	*80.0-120*	

Method Blank (MB)

(MB) R3324214-1 07/07/18 07:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1005749-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1005749-01 07/07/18 08:47 • (DUP) R3324214-3 07/07/18 08:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	.995			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324214-4 07/07/18 10:51 • (LCSD) R3324214-6 07/07/18 13:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000198	0.000208	79.2	83.2	60.0-140			4.93	20

Laboratory Control Sample (LCS)

(LCS) R3324214-5 07/07/18 13:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylene Dibromide	0.000250	0.000208	83.2	60.0-140	

L1005749-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1005749-02 07/07/18 08:22 • (MS) R3324214-2 07/07/18 08:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	ND	0.0000967	96.9	.998	72.0-146	

Method Blank (MB)

(MB) R3323014-3 07/03/18 22:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	0.0000222	J	0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*78.1*			*31.0-160*
(S) 2-Fluorobiphenyl	*119*			*48.0-148*
(S) p-Terphenyl-d14	*111*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323014-1 07/03/18 21:48 • (LCSD) R3323014-2 07/03/18 22:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00192	0.00222	95.8	111	64.0-142			14.6	20
Benzo(a)anthracene	0.00200	0.00208	0.00233	104	117	59.0-134			11.6	20
Benzo(a)pyrene	0.00200	0.00204	0.00230	102	115	61.0-145			11.7	20
Benzo(b)fluoranthene	0.00200	0.00206	0.00222	103	111	57.0-136			7.71	20
Benzo(g,h,i)perylene	0.00200	0.00218	0.00246	109	123	54.0-140			12.1	20
Chrysene	0.00200	0.00195	0.00224	97.6	112	63.0-140			13.6	20
Fluorene	0.00200	0.00203	0.00225	101	113	64.0-129			10.5	20
Naphthalene	0.00200	0.00144	0.00164	72.2	82.1	68.0-129			12.8	20
Phenanthrene	0.00200	0.00183	0.00215	91.5	107	62.0-132			16.0	20
Pyrene	0.00200	0.00190	0.00212	94.8	106	58.0-156			11.1	20
(S) Nitrobenzene-d5				*70.3*	*77.2*	*31.0-160*				
(S) 2-Fluorobiphenyl				*108*	*117*	*48.0-148*				
(S) p-Terphenyl-d14				*102*	*113*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

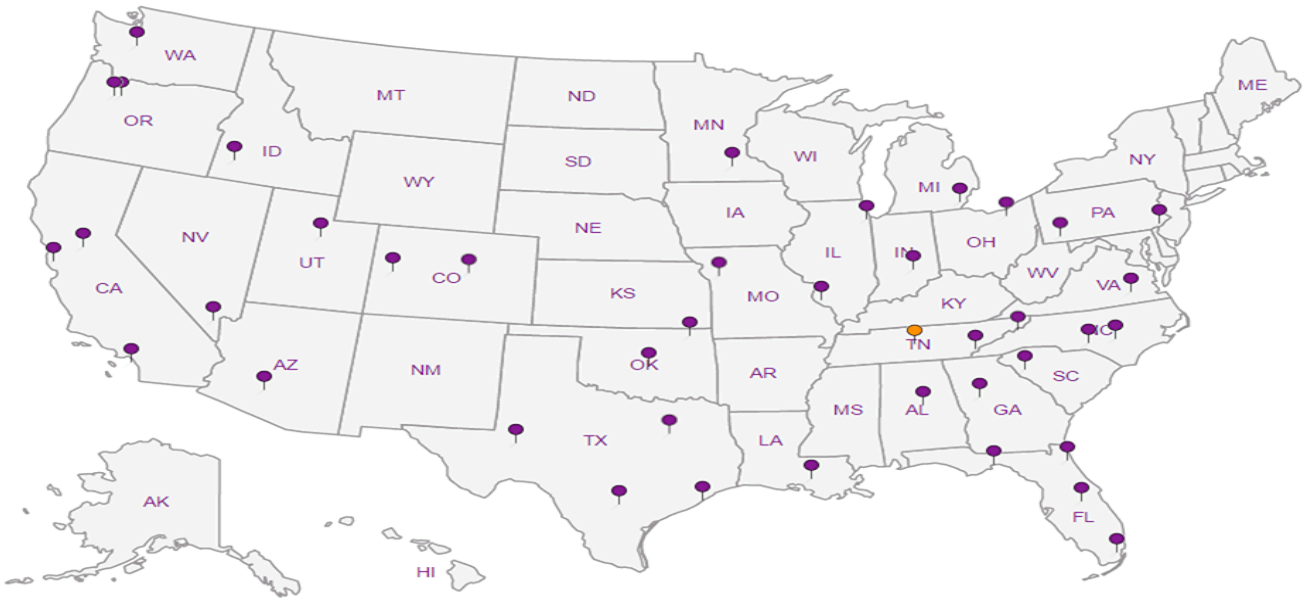
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: PHL Annual Groundwater Sampling

City/State Collected:

Phone: ~~267-240-3415~~
Fax: 610-425-8311

Client Project # 213402429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Dave Hopkins/Kevin Mc

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP* (lab filtered)	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
TB-20180627	G	GW	—	6/27/18	—	1			X				-01
A-137-20180627	G	GW	8.0'	6/27/18	0955	9	X	X					-02
A-47-20180627	G	GW	5.0'	6/27/18	1105	1		X					-03
WP-14-20180627	G	GW	8.0'	6/27/18	1155	9	X	X					-04
A-134-20180627	G	GW	10.0'	6/27/18	1255	3				X			-05
A-133-20180627	G	GW	10.0'	6/27/18	1335	9	X	X					-06
B-43-20180627	G	GW	8'	6/27/18	1205	9	X	X					-07
N.37-20180627	G	GW	12'	6/27/18	1410	9	X	X					-08
		GW											
		GW											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1- 250ml plastic NP

*for analytes refer to short list
*EDDIS EDD format
*standard TAT

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	6.27.18	1620	ESCPA lockat
ESCPA lockat	6/28/18	10:15	
			Received for lab by: (Signature)

Trip Blank Received: (Yes / No) HCL / MeoH TBR

Temp: 0.5°C Bottles Received: 49

Date: 6/29/18 Time: 1042

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1005890
A081
Acctnum: SUNSTANTEC
Template: T137388
Prelogin: P659137
TSR: 134 - Mark Beasley
PB: 6-18-186
Shipped Via:

L1005810

Table 1
Evergreen Petroleum Short List of Constituents of Concern

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Stantec

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 22, 2018

Stantec - S/E

Sample Delivery Group:	L1005894
Samples Received:	06/29/2018
Project Number:	213402429
Description:	PES

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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S-369_20180627_L1005894-01_GW

Collected by: Ian Andree | Collected date/time: 06/27/18 11:41 | Received date/time: 06/29/18 10:42

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1132466	1	07/07/18 14:31	07/08/18 20:01	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133306	1	07/04/18 22:35	07/04/18 22:35	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133946	20	07/05/18 12:58	07/05/18 12:58	LRL
EDB / DBCP by Method 8011	WG1133539	.998	07/05/18 09:11	07/07/18 11:03	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133003	1	07/03/18 14:53	07/04/18 03:35	KM

S-223_20180627_L1005894-02_GW

Collected by: Ian Andree | Collected date/time: 06/27/18 12:35 | Received date/time: 06/29/18 10:42

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1132466	1	07/07/18 14:31	07/08/18 20:05	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133306	1	07/04/18 22:56	07/04/18 22:56	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133946	25	07/05/18 13:18	07/05/18 13:18	LRL
EDB / DBCP by Method 8011	WG1133539	.995	07/05/18 09:11	07/07/18 11:15	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133003	1	07/03/18 14:53	07/04/18 03:58	KM

S-223_DUP_20180627_L1005894-03_GW

Collected by: Ian Andree | Collected date/time: 06/27/18 00:00 | Received date/time: 06/29/18 10:42

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1132466	1	07/07/18 14:31	07/08/18 20:09	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133306	1	07/04/18 23:17	07/04/18 23:17	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133946	25	07/05/18 13:37	07/05/18 13:37	LRL
EDB / DBCP by Method 8011	WG1133539	.998	07/05/18 09:11	07/07/18 11:28	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133003	1	07/03/18 14:53	07/04/18 04:21	KM

S-411_20180627_L1005894-04_GW

Collected by: Ian Andree | Collected date/time: 06/27/18 14:53 | Received date/time: 06/29/18 10:42

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1132566	1	07/01/18 13:45	07/01/18 13:45	JAH

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/08/2018 20:01	WG1132466

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	1.46		0.0200	20	07/05/2018 12:58	WG1133946
Isopropylbenzene	0.0728		0.00100	1	07/04/2018 22:35	WG1133306
1,2-Dichloroethane	ND		0.00100	1	07/04/2018 22:35	WG1133306
Ethylbenzene	0.0133		0.00100	1	07/04/2018 22:35	WG1133306
Methyl tert-butyl ether	0.0623		0.00100	1	07/04/2018 22:35	WG1133306
Toluene	0.0545		0.00100	1	07/04/2018 22:35	WG1133306
1,2,4-Trimethylbenzene	ND		0.00100	1	07/04/2018 22:35	WG1133306
1,3,5-Trimethylbenzene	0.00373		0.00100	1	07/04/2018 22:35	WG1133306
Xylenes, Total	0.0332		0.00300	1	07/04/2018 22:35	WG1133306
(S) Toluene-d8	*99.9*		*80.0-120*		*07/04/2018 22:35*	WG1133306
(S) Toluene-d8	*102*		*80.0-120*		*07/05/2018 12:58*	WG1133946
(S) Dibromofluoromethane	*88.4*		*76.0-123*		*07/04/2018 22:35*	WG1133306
(S) Dibromofluoromethane	*90.4*		*76.0-123*		*07/05/2018 12:58*	WG1133946
(S) 4-Bromofluorobenzene	*100*		*80.0-120*		*07/04/2018 22:35*	WG1133306
(S) 4-Bromofluorobenzene	*99.1*		*80.0-120*		*07/05/2018 12:58*	WG1133946

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/07/2018 11:03	WG1133539

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000236		0.0000500	1	07/04/2018 03:35	WG1133003
Benzo(a)anthracene	ND		0.0000500	1	07/04/2018 03:35	WG1133003
Benzo(a)pyrene	ND		0.0000500	1	07/04/2018 03:35	WG1133003
Benzo(b)fluoranthene	ND		0.0000500	1	07/04/2018 03:35	WG1133003
Benzo(g,h,i)perylene	ND		0.0000500	1	07/04/2018 03:35	WG1133003
Chrysene	ND		0.0000500	1	07/04/2018 03:35	WG1133003
Fluorene	0.00208		0.0000500	1	07/04/2018 03:35	WG1133003
Naphthalene	0.00313		0.000250	1	07/04/2018 03:35	WG1133003
Phenanthrene	0.00126		0.0000500	1	07/04/2018 03:35	WG1133003
Pyrene	0.0000772		0.0000500	1	07/04/2018 03:35	WG1133003
(S) Nitrobenzene-d5	*72.3*		*31.0-160*		*07/04/2018 03:35*	WG1133003
(S) 2-Fluorobiphenyl	*99.4*		*48.0-148*		*07/04/2018 03:35*	WG1133003
(S) p-Terphenyl-d14	*113*		*37.0-146*		*07/04/2018 03:35*	WG1133003

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/08/2018 20:05	WG1132466

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	1.83		0.0250	25	07/05/2018 13:18	WG1133946
Isopropylbenzene	0.0255		0.00100	1	07/04/2018 22:56	WG1133306
1,2-Dichloroethane	ND		0.00100	1	07/04/2018 22:56	WG1133306
Ethylbenzene	0.739		0.0250	25	07/05/2018 13:18	WG1133946
Methyl tert-butyl ether	ND		0.00100	1	07/04/2018 22:56	WG1133306
Toluene	0.136		0.00100	1	07/04/2018 22:56	WG1133306
1,2,4-Trimethylbenzene	0.822		0.0250	25	07/05/2018 13:18	WG1133946
1,3,5-Trimethylbenzene	0.241		0.0250	25	07/05/2018 13:18	WG1133946
Xylenes, Total	1.74		0.0750	25	07/05/2018 13:18	WG1133946
(S) Toluene-d8	*92.2*		*80.0-120*		*07/04/2018 22:56*	WG1133306
(S) Toluene-d8	*100*		*80.0-120*		*07/05/2018 13:18*	WG1133946
(S) Dibromofluoromethane	*92.2*		*76.0-123*		*07/04/2018 22:56*	WG1133306
(S) Dibromofluoromethane	*91.5*		*76.0-123*		*07/05/2018 13:18*	WG1133946
(S) 4-Bromofluorobenzene	*108*		*80.0-120*		*07/04/2018 22:56*	WG1133306
(S) 4-Bromofluorobenzene	*94.1*		*80.0-120*		*07/05/2018 13:18*	WG1133946

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.995	07/07/2018 11:15	WG1133539

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.0000826		0.0000500	1	07/04/2018 03:58	WG1133003
Benzo(a)anthracene	ND		0.0000500	1	07/04/2018 03:58	WG1133003
Benzo(a)pyrene	ND		0.0000500	1	07/04/2018 03:58	WG1133003
Benzo(b)fluoranthene	ND		0.0000500	1	07/04/2018 03:58	WG1133003
Benzo(g,h,i)perylene	ND		0.0000500	1	07/04/2018 03:58	WG1133003
Chrysene	ND		0.0000500	1	07/04/2018 03:58	WG1133003
Fluorene	0.000701		0.0000500	1	07/04/2018 03:58	WG1133003
Naphthalene	0.0566		0.000250	1	07/04/2018 03:58	WG1133003
Phenanthrene	ND		0.0000500	1	07/04/2018 03:58	WG1133003
Pyrene	ND		0.0000500	1	07/04/2018 03:58	WG1133003
(S) Nitrobenzene-d5	*79.9*		*31.0-160*		*07/04/2018 03:58*	WG1133003
(S) 2-Fluorobiphenyl	*95.9*		*48.0-148*		*07/04/2018 03:58*	WG1133003
(S) p-Terphenyl-d14	*102*		*37.0-146*		*07/04/2018 03:58*	WG1133003

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/08/2018 20:09	WG1132466

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	1.85		0.0250	25	07/05/2018 13:37	WG1133946
Isopropylbenzene	0.0271		0.00100	1	07/04/2018 23:17	WG1133306
1,2-Dichloroethane	ND		0.00100	1	07/04/2018 23:17	WG1133306
Ethylbenzene	0.764		0.0250	25	07/05/2018 13:37	WG1133946
Methyl tert-butyl ether	ND		0.00100	1	07/04/2018 23:17	WG1133306
Toluene	0.145		0.00100	1	07/04/2018 23:17	WG1133306
1,2,4-Trimethylbenzene	0.807		0.0250	25	07/05/2018 13:37	WG1133946
1,3,5-Trimethylbenzene	0.245		0.0250	25	07/05/2018 13:37	WG1133946
Xylenes, Total	1.79		0.0750	25	07/05/2018 13:37	WG1133946
(S) Toluene-d8	*92.5*		*80.0-120*		*07/04/2018 23:17*	WG1133306
(S) Toluene-d8	*104*		*80.0-120*		*07/05/2018 13:37*	WG1133946
(S) Dibromofluoromethane	*92.2*		*76.0-123*		*07/04/2018 23:17*	WG1133306
(S) Dibromofluoromethane	*90.6*		*76.0-123*		*07/05/2018 13:37*	WG1133946
(S) 4-Bromofluorobenzene	*110*		*80.0-120*		*07/04/2018 23:17*	WG1133306
(S) 4-Bromofluorobenzene	*96.2*		*80.0-120*		*07/05/2018 13:37*	WG1133946

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/07/2018 11:28	WG1133539

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.0000799		0.0000500	1	07/04/2018 04:21	WG1133003
Benzo(a)anthracene	ND		0.0000500	1	07/04/2018 04:21	WG1133003
Benzo(a)pyrene	ND		0.0000500	1	07/04/2018 04:21	WG1133003
Benzo(b)fluoranthene	ND		0.0000500	1	07/04/2018 04:21	WG1133003
Benzo(g,h,i)perylene	ND		0.0000500	1	07/04/2018 04:21	WG1133003
Chrysene	ND		0.0000500	1	07/04/2018 04:21	WG1133003
Fluorene	0.000707		0.0000500	1	07/04/2018 04:21	WG1133003
Naphthalene	0.0781		0.000250	1	07/04/2018 04:21	WG1133003
Phenanthrene	0.0000986		0.0000500	1	07/04/2018 04:21	WG1133003
Pyrene	ND		0.0000500	1	07/04/2018 04:21	WG1133003
(S) Nitrobenzene-d5	*76.6*		*31.0-160*		*07/04/2018 04:21*	WG1133003
(S) 2-Fluorobiphenyl	*96.3*		*48.0-148*		*07/04/2018 04:21*	WG1133003
(S) p-Terphenyl-d14	*102*		*37.0-146*		*07/04/2018 04:21*	WG1133003

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00314		0.00100	1	07/01/2018 13:45	WG1132566
Toluene	ND		0.00100	1	07/01/2018 13:45	WG1132566
Ethylbenzene	ND		0.00100	1	07/01/2018 13:45	WG1132566
Total Xylenes	ND		0.00300	1	07/01/2018 13:45	WG1132566
(S) Toluene-d8	*107*		*80.0-120*		*07/01/2018 13:45*	WG1132566
(S) Dibromofluoromethane	*101*		*76.0-123*		*07/01/2018 13:45*	WG1132566
(S) a,a,a-Trifluorotoluene	*106*		*80.0-120*		*07/01/2018 13:45*	WG1132566
(S) 4-Bromofluorobenzene	*94.0*		*80.0-120*		*07/01/2018 13:45*	WG1132566

Method Blank (MB)

(MB) R3323924-1 07/08/18 18:42

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323924-2 07/08/18 18:47 • (LCSD) R3323924-3 07/08/18 18:51

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Lead,Dissolved	0.0500	0.0470	0.0470	94.0	94.0	80.0-120			0.0316	20

L1006072-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1006072-05 07/08/18 18:55 • (MS) R3323924-5 07/08/18 19:04 • (MSD) R3323924-6 07/08/18 19:08

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Lead,Dissolved	0.0500	0.000872	0.0469	0.0477	92.1	93.6	1	75.0-125			1.61	20

Method Blank (MB)

(MB) R3322432-3 07/01/18 09:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*103*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.1*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3322432-1 07/01/18 08:34 • (LCSD) R3322432-2 07/01/18 08:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0244	0.0237	97.6	94.6	69.0-123			3.14	20
Ethylbenzene	0.0250	0.0260	0.0260	104	104	77.0-120			0.0301	20
Toluene	0.0250	0.0251	0.0249	100	99.7	77.0-120			0.631	20
Xylenes, Total	0.0750	0.0804	0.0805	107	107	77.0-120			0.124	20
(S) Toluene-d8				*105*	*107*	*80.0-120*				
(S) Dibromofluoromethane				*98.5*	*100*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*106*	*107*	*80.0-120*				
(S) 4-Bromofluorobenzene				*96.7*	*98.0*	*80.0-120*				

Method Blank (MB)

(MB) R3323139-4 07/04/18 14:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*94.6*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.9*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323139-1 07/04/18 13:06 • (LCSD) R3323139-2 07/04/18 13:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	0.0250	0.0262	0.0256	105	102	67.0-126			2.53	20
Ethylbenzene	0.0250	0.0255	0.0245	102	98.0	77.0-120			4.10	20
Isopropylbenzene	0.0250	0.0251	0.0244	100	97.5	75.0-120			2.82	20
Methyl tert-butyl ether	0.0250	0.0240	0.0236	96.2	94.5	64.0-123			1.76	20
Toluene	0.0250	0.0253	0.0246	101	98.4	77.0-120			2.79	20
1,2,4-Trimethylbenzene	0.0250	0.0260	0.0253	104	101	75.0-120			2.84	20
1,3,5-Trimethylbenzene	0.0250	0.0247	0.0242	98.7	97.0	75.0-120			1.78	20
Xylenes, Total	0.0750	0.0759	0.0740	101	98.7	77.0-120			2.54	20
(S) Toluene-d8				*105*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*93.8*	*95.0*	*76.0-123*				
(S) 4-Bromofluorobenzene				*94.0*	*95.5*	*80.0-120*				

Method Blank (MB)

(MB) R3323735-4 07/05/18 10:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*103*			*80.0-120*
(S) Dibromofluoromethane	*91.1*			*76.0-123*
(S) 4-Bromofluorobenzene	*95.4*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323735-1 07/05/18 09:26 • (LCSD) R3323735-2 07/05/18 09:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0266	0.0263	106	105	69.0-123			1.19	20
Ethylbenzene	0.0250	0.0267	0.0271	107	108	77.0-120			1.37	20
1,2,4-Trimethylbenzene	0.0250	0.0277	0.0268	111	107	75.0-120			3.21	20
1,3,5-Trimethylbenzene	0.0250	0.0265	0.0251	106	101	75.0-120			5.24	20
Xylenes, Total	0.0750	0.0828	0.0810	110	108	77.0-120			2.20	20
(S) Toluene-d8				*101*	*99.9*	*80.0-120*				
(S) Dibromofluoromethane				*89.3*	*89.5*	*76.0-123*				
(S) 4-Bromofluorobenzene				*96.2*	*94.9*	*80.0-120*				

Method Blank (MB)

(MB) R3324214-1 07/07/18 07:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1005749-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1005749-01 07/07/18 08:47 • (DUP) R3324214-3 07/07/18 08:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	.995			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324214-4 07/07/18 10:51 • (LCSD) R3324214-6 07/07/18 13:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000198	0.000208	79.2	83.2	60.0-140			4.93	20

Laboratory Control Sample (LCS)

(LCS) R3324214-5 07/07/18 13:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylene Dibromide	0.000250	0.000208	83.2	60.0-140	

L1005749-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1005749-02 07/07/18 08:22 • (MS) R3324214-2 07/07/18 08:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	ND	0.0000967	96.9	.998	72.0-146	

Method Blank (MB)

(MB) R3323014-3 07/03/18 22:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	0.0000222	J	0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*78.1*			*31.0-160*
(S) 2-Fluorobiphenyl	*119*			*48.0-148*
(S) p-Terphenyl-d14	*111*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323014-1 07/03/18 21:48 • (LCSD) R3323014-2 07/03/18 22:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00192	0.00222	95.8	111	64.0-142			14.6	20
Benzo(a)anthracene	0.00200	0.00208	0.00233	104	117	59.0-134			11.6	20
Benzo(a)pyrene	0.00200	0.00204	0.00230	102	115	61.0-145			11.7	20
Benzo(b)fluoranthene	0.00200	0.00206	0.00222	103	111	57.0-136			7.71	20
Benzo(g,h,i)perylene	0.00200	0.00218	0.00246	109	123	54.0-140			12.1	20
Chrysene	0.00200	0.00195	0.00224	97.6	112	63.0-140			13.6	20
Fluorene	0.00200	0.00203	0.00225	101	113	64.0-129			10.5	20
Naphthalene	0.00200	0.00144	0.00164	72.2	82.1	68.0-129			12.8	20
Phenanthrene	0.00200	0.00183	0.00215	91.5	107	62.0-132			16.0	20
Pyrene	0.00200	0.00190	0.00212	94.8	106	58.0-156			11.1	20
(S) Nitrobenzene-d5				*70.3*	*77.2*	*31.0-160*				
(S) 2-Fluorobiphenyl				*108*	*117*	*48.0-148*				
(S) p-Terphenyl-d14				*102*	*113*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

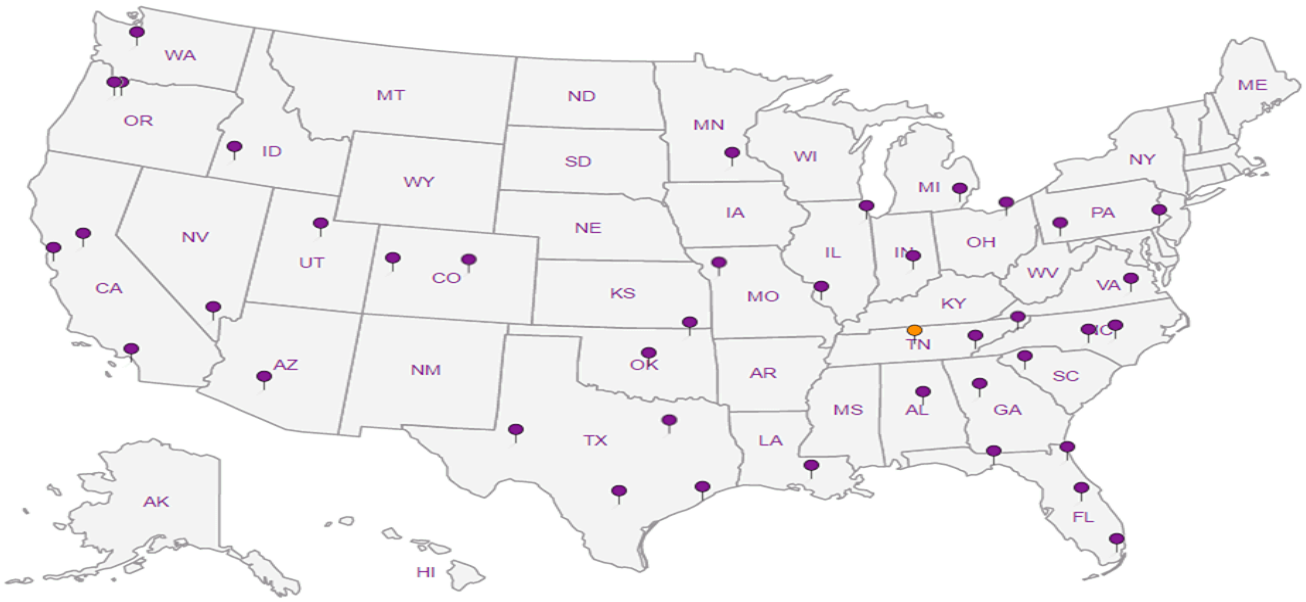
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: PES

City/State Collected: PHILA., PA

Phone: 267-240-3415
Fax: 610-428-8311

Client Project # 213402429

Lab Project # SUNSTANTEC-PHL

Collected by (print): IAN ANDREE

Site/Facility ID #

P.O. #

Collected by (signature):

Quote #

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: STANDARD

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP (LAB FILTERED)	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL							
S-369_20180627	G	GW	30'	6/27/18	1141	9	X	X										-01
S-223_20180627	G	GW	22.5'	6/27/18	1235	9	X	X										-02
S-223_DUP_20180627	G	GW	22.5'	6/27/18		9	X	X										-03
S-411_20180627	G	GW	28'	6/27/18	1453	3				X								-04
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																

S-223

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP

★ FOR ANALYTES REFER TO SHORT LIST
★ EQUIS EDD FORMAT
★ STANDARD DRAFT

pH ___ Temp ___
Flow ___ Other ___

Samples returned via:
__ UPS __ FedEx __ Courier __ ___

Tracking #

	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	6/27/18	1620	ESCPA lockout
Relinquished by: (Signature) ESCPA lockout	6/28/18	10:15	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Date: 6/29/18 Time: 1042

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 0.3 °C Bottles Received: 30

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1005894
A080
Tab

Acctnum: SUNSTANTEC
Template: T137388
Prelogin: P659137
TSR: 134 - Mark Beasley
PB: 6-18-18

Shipped Via:

Remarks | Sample # (lab only)

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 27, 2018

Stantec - S/E

Sample Delivery Group:	L1006118
Samples Received:	06/30/2018
Project Number:	213402429
Description:	Evergreen - PHL GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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TB_20180628 L1006118-01 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 00:00 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133744	1	07/04/18 02:27	07/04/18 02:27	ACG

S-116SRTF_20180628 L1006118-02 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 10:20 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 01:14	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	10	07/04/18 05:56	07/04/18 05:56	LRL
EDB / DBCP by Method 8011	WG1134323	1	07/06/18 08:55	07/10/18 04:43	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133547	2	07/05/18 11:39	07/06/18 04:15	KM

S-113SRTF_20180628 L1006118-03 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 11:10 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 01:19	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	10	07/04/18 06:17	07/04/18 06:17	LRL
EDB / DBCP by Method 8011	WG1134323	1	07/06/18 08:55	07/10/18 03:29	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133547	2	07/05/18 11:39	07/06/18 04:37	KM

S-115SRTF_20180628 L1006118-04 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 12:05 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 01:23	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	50	07/04/18 06:38	07/04/18 06:38	LRL
EDB / DBCP by Method 8011	WG1134323	1	07/06/18 08:55	07/10/18 04:56	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133547	2	07/05/18 11:39	07/06/18 04:59	KM

S-114SRTF_20180628 L1006118-05 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 13:00 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 01:27	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	10	07/04/18 07:00	07/04/18 07:00	LRL
EDB / DBCP by Method 8011	WG1134323	1	07/06/18 08:55	07/10/18 05:08	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133547	2	07/05/18 11:39	07/06/18 05:21	KM

S-39D-HS_20180628 L1006118-06 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 08:40 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	1	07/04/18 07:21	07/04/18 07:21	LRL

S-39D_20180628 L1006118-07 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 09:33 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	1	07/04/18 07:42	07/04/18 07:42	LRL

S-218D-HS_20180628 L1006118-08 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 10:15 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	1	07/04/18 08:03	07/04/18 08:03	LRL

S-218D_20180628 L1006118-09 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 11:08 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	1	07/04/18 08:24	07/04/18 08:24	LRL

S-154-HS_20180628 L1006118-10 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 12:50 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 01:31	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133656	1	07/04/18 11:20	07/04/18 11:20	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135278	1	07/09/18 13:56	07/09/18 13:56	RAS
EDB / DBCP by Method 8011	WG1134323	1	07/06/18 08:55	07/10/18 05:45	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133547	1	07/05/18 11:39	07/06/18 05:43	KM

S-154_20180628 L1006118-11 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 13:23 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 01:35	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135278	1	07/09/18 14:18	07/09/18 14:18	RAS
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135479	1	07/09/18 16:04	07/09/18 16:04	RAS
EDB / DBCP by Method 8011	WG1134323	1	07/06/18 08:55	07/10/18 05:57	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133547	1	07/05/18 11:39	07/06/18 06:05	KM

S-271-HS_20180628 L1006118-12 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 08:30 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	50	07/04/18 08:45	07/04/18 08:45	LRL
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 02:13	ADF

S-271_20180628 L1006118-13 GW

Collected by: Dane Hopkins | Collected date/time: 06/28/18 09:40 | Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	50	07/04/18 09:06	07/04/18 09:06	LRL
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 02:26	ADF

S-396_20180628 L1006118-14 GW

Collected by: Dane Hopkins
Collected date/time: 06/28/18 11:10
Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	1	07/04/18 09:27	07/04/18 09:27	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135333	2000	07/10/18 03:39	07/10/18 03:39	LRL
EDB / DBCP by Method 8011	WG1143228	.998	07/26/18 06:59	07/27/18 00:19	HMH

S-396_HS_20180628 L1006118-15 GW

Collected by: Dane Hopkins
Collected date/time: 06/28/18 09:50
Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	1	07/04/18 09:48	07/04/18 09:48	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135333	2000	07/10/18 03:59	07/10/18 03:59	LRL
EDB / DBCP by Method 8011	WG1143228	1	07/26/18 06:59	07/27/18 00:30	HMH

S-418-HS_20180628 L1006118-16 GW

Collected by: Dane Hopkins
Collected date/time: 06/28/18 12:00
Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	50	07/04/18 10:09	07/04/18 10:09	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135123	250	07/09/18 00:45	07/09/18 00:45	DWR
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 03:27	ADF

S-418_20180628 L1006118-17 GW

Collected by: Dane Hopkins
Collected date/time: 06/28/18 13:35
Received date/time: 06/30/18 09:22

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1133713	10	07/04/18 10:31	07/04/18 10:31	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135123	100	07/09/18 01:05	07/09/18 01:05	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135333	500	07/10/18 04:19	07/10/18 04:19	LRL
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 03:40	ADF

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Project Narrative

SV8011 was analyzed outside of the 14 day holding time dueto lab error.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/04/2018 02:27	WG1133744
1,2-Dichloroethane	ND		0.00100	1	07/04/2018 02:27	WG1133744
Ethylbenzene	ND		0.00100	1	07/04/2018 02:27	WG1133744
1,2-Dibromoethane	ND		0.00100	1	07/04/2018 02:27	WG1133744
Isopropylbenzene	ND		0.00100	1	07/04/2018 02:27	WG1133744
Toluene	ND		0.00100	1	07/04/2018 02:27	WG1133744
1,2,4-Trimethylbenzene	ND		0.00100	1	07/04/2018 02:27	WG1133744
1,3,5-Trimethylbenzene	ND		0.00100	1	07/04/2018 02:27	WG1133744
Xylenes, Total	ND		0.00300	1	07/04/2018 02:27	WG1133744
Methyl tert-butyl ether	ND		0.00100	1	07/04/2018 02:27	WG1133744
tert-Butyl alcohol	ND	J4	0.00500	1	07/04/2018 02:27	WG1133744
(S) Toluene-d8	*100*		*80.0-120*		*07/04/2018 02:27*	WG1133744
(S) Dibromofluoromethane	*90.5*		*76.0-123*		*07/04/2018 02:27*	WG1133744
(S) 4-Bromofluorobenzene	*95.9*		*80.0-120*		*07/04/2018 02:27*	WG1133744

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 01:14	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0483		0.0100	10	07/04/2018 05:56	WG1133713
Isopropylbenzene	0.0536		0.0100	10	07/04/2018 05:56	WG1133713
1,2-Dichloroethane	ND		0.0100	10	07/04/2018 05:56	WG1133713
Ethylbenzene	ND		0.0100	10	07/04/2018 05:56	WG1133713
Methyl tert-butyl ether	0.0161		0.0100	10	07/04/2018 05:56	WG1133713
Toluene	ND		0.0100	10	07/04/2018 05:56	WG1133713
1,2,4-Trimethylbenzene	ND		0.0100	10	07/04/2018 05:56	WG1133713
1,3,5-Trimethylbenzene	ND		0.0100	10	07/04/2018 05:56	WG1133713
Xylenes, Total	ND		0.0300	10	07/04/2018 05:56	WG1133713
(S) Toluene-d8	*107*		*80.0-120*		*07/04/2018 05:56*	WG1133713
(S) Dibromofluoromethane	*92.6*		*76.0-123*		*07/04/2018 05:56*	WG1133713
(S) 4-Bromofluorobenzene	*95.0*		*80.0-120*		*07/04/2018 05:56*	WG1133713

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 04:43	WG1134323

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.000100	2	07/06/2018 04:15	WG1133547
Benzo(a)anthracene	ND		0.000100	2	07/06/2018 04:15	WG1133547
Benzo(a)pyrene	ND		0.000100	2	07/06/2018 04:15	WG1133547
Benzo(b)fluoranthene	ND		0.000100	2	07/06/2018 04:15	WG1133547
Benzo(g,h,i)perylene	ND		0.000100	2	07/06/2018 04:15	WG1133547
Chrysene	ND		0.000100	2	07/06/2018 04:15	WG1133547
Fluorene	ND		0.000100	2	07/06/2018 04:15	WG1133547
Naphthalene	0.000729		0.000500	2	07/06/2018 04:15	WG1133547
Phenanthrene	ND		0.000100	2	07/06/2018 04:15	WG1133547
Pyrene	ND		0.000100	2	07/06/2018 04:15	WG1133547
(S) Nitrobenzene-d5	*77.4*		*31.0-160*		*07/06/2018 04:15*	WG1133547
(S) 2-Fluorobiphenyl	*92.6*		*48.0-148*		*07/06/2018 04:15*	WG1133547
(S) p-Terphenyl-d14	*80.4*		*37.0-146*		*07/06/2018 04:15*	WG1133547

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 01:19	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.145		0.0100	10	07/04/2018 06:17	WG1133713
Isopropylbenzene	0.0191		0.0100	10	07/04/2018 06:17	WG1133713
1,2-Dichloroethane	ND		0.0100	10	07/04/2018 06:17	WG1133713
Ethylbenzene	ND		0.0100	10	07/04/2018 06:17	WG1133713
Methyl tert-butyl ether	ND		0.0100	10	07/04/2018 06:17	WG1133713
Toluene	ND		0.0100	10	07/04/2018 06:17	WG1133713
1,2,4-Trimethylbenzene	ND		0.0100	10	07/04/2018 06:17	WG1133713
1,3,5-Trimethylbenzene	ND		0.0100	10	07/04/2018 06:17	WG1133713
Xylenes, Total	ND		0.0300	10	07/04/2018 06:17	WG1133713
(S) Toluene-d8	*106*		*80.0-120*		*07/04/2018 06:17*	WG1133713
(S) Dibromofluoromethane	*95.5*		*76.0-123*		*07/04/2018 06:17*	WG1133713
(S) 4-Bromofluorobenzene	*92.3*		*80.0-120*		*07/04/2018 06:17*	WG1133713

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 03:29	WG1134323

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.000100	2	07/06/2018 04:37	WG1133547
Benzo(a)anthracene	ND		0.000100	2	07/06/2018 04:37	WG1133547
Benzo(a)pyrene	ND		0.000100	2	07/06/2018 04:37	WG1133547
Benzo(b)fluoranthene	ND		0.000100	2	07/06/2018 04:37	WG1133547
Benzo(g,h,i)perylene	ND		0.000100	2	07/06/2018 04:37	WG1133547
Chrysene	ND		0.000100	2	07/06/2018 04:37	WG1133547
Fluorene	ND		0.000100	2	07/06/2018 04:37	WG1133547
Naphthalene	0.00139		0.000500	2	07/06/2018 04:37	WG1133547
Phenanthrene	ND		0.000100	2	07/06/2018 04:37	WG1133547
Pyrene	ND		0.000100	2	07/06/2018 04:37	WG1133547
(S) Nitrobenzene-d5	*78.0*		*31.0-160*		*07/06/2018 04:37*	WG1133547
(S) 2-Fluorobiphenyl	*97.0*		*48.0-148*		*07/06/2018 04:37*	WG1133547
(S) p-Terphenyl-d14	*84.0*		*37.0-146*		*07/06/2018 04:37*	WG1133547

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	0.00384		0.00200	1	07/10/2018 01:23	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	1.03		0.0500	50	07/04/2018 06:38	WG1133713
Isopropylbenzene	0.131		0.0500	50	07/04/2018 06:38	WG1133713
1,2-Dichloroethane	ND		0.0500	50	07/04/2018 06:38	WG1133713
Ethylbenzene	0.144		0.0500	50	07/04/2018 06:38	WG1133713
Methyl tert-butyl ether	ND		0.0500	50	07/04/2018 06:38	WG1133713
Toluene	0.118		0.0500	50	07/04/2018 06:38	WG1133713
1,2,4-Trimethylbenzene	ND		0.0500	50	07/04/2018 06:38	WG1133713
1,3,5-Trimethylbenzene	ND		0.0500	50	07/04/2018 06:38	WG1133713
Xylenes, Total	0.157		0.150	50	07/04/2018 06:38	WG1133713
(S) Toluene-d8	*107*		*80.0-120*		*07/04/2018 06:38*	WG1133713
(S) Dibromofluoromethane	*93.7*		*76.0-123*		*07/04/2018 06:38*	WG1133713
(S) 4-Bromofluorobenzene	*92.6*		*80.0-120*		*07/04/2018 06:38*	WG1133713

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 04:56	WG1134323

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.000100	2	07/06/2018 04:59	WG1133547
Benzo(a)anthracene	ND		0.000100	2	07/06/2018 04:59	WG1133547
Benzo(a)pyrene	ND		0.000100	2	07/06/2018 04:59	WG1133547
Benzo(b)fluoranthene	ND		0.000100	2	07/06/2018 04:59	WG1133547
Benzo(g,h,i)perylene	ND		0.000100	2	07/06/2018 04:59	WG1133547
Chrysene	ND		0.000100	2	07/06/2018 04:59	WG1133547
Fluorene	0.000378		0.000100	2	07/06/2018 04:59	WG1133547
Naphthalene	0.0252		0.000500	2	07/06/2018 04:59	WG1133547
Phenanthrene	0.000195		0.000100	2	07/06/2018 04:59	WG1133547
Pyrene	ND		0.000100	2	07/06/2018 04:59	WG1133547
(S) Nitrobenzene-d5	*72.0*		*31.0-160*		*07/06/2018 04:59*	WG1133547
(S) 2-Fluorobiphenyl	*90.0*		*48.0-148*		*07/06/2018 04:59*	WG1133547
(S) p-Terphenyl-d14	*81.0*		*37.0-146*		*07/06/2018 04:59*	WG1133547

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 01:27	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.241		0.0100	10	07/04/2018 07:00	WG1133713
Isopropylbenzene	0.0225		0.0100	10	07/04/2018 07:00	WG1133713
1,2-Dichloroethane	ND		0.0100	10	07/04/2018 07:00	WG1133713
Ethylbenzene	0.131		0.0100	10	07/04/2018 07:00	WG1133713
Methyl tert-butyl ether	0.0157		0.0100	10	07/04/2018 07:00	WG1133713
Toluene	0.703		0.0100	10	07/04/2018 07:00	WG1133713
1,2,4-Trimethylbenzene	0.532		0.0100	10	07/04/2018 07:00	WG1133713
1,3,5-Trimethylbenzene	0.184		0.0100	10	07/04/2018 07:00	WG1133713
Xylenes, Total	1.81		0.0300	10	07/04/2018 07:00	WG1133713
(S) Toluene-d8	*107*		*80.0-120*		*07/04/2018 07:00*	WG1133713
(S) Dibromofluoromethane	*94.8*		*76.0-123*		*07/04/2018 07:00*	WG1133713
(S) 4-Bromofluorobenzene	*94.8*		*80.0-120*		*07/04/2018 07:00*	WG1133713

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 05:08	WG1134323

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.000100	2	07/06/2018 05:21	WG1133547
Benzo(a)anthracene	ND		0.000100	2	07/06/2018 05:21	WG1133547
Benzo(a)pyrene	ND		0.000100	2	07/06/2018 05:21	WG1133547
Benzo(b)fluoranthene	ND		0.000100	2	07/06/2018 05:21	WG1133547
Benzo(g,h,i)perylene	ND		0.000100	2	07/06/2018 05:21	WG1133547
Chrysene	ND		0.000100	2	07/06/2018 05:21	WG1133547
Fluorene	0.000432		0.000100	2	07/06/2018 05:21	WG1133547
Naphthalene	0.0970		0.000500	2	07/06/2018 05:21	WG1133547
Phenanthrene	0.000292		0.000100	2	07/06/2018 05:21	WG1133547
Pyrene	ND		0.000100	2	07/06/2018 05:21	WG1133547
(S) Nitrobenzene-d5	*81.8*		*31.0-160*		*07/06/2018 05:21*	WG1133547
(S) 2-Fluorobiphenyl	*89.8*		*48.0-148*		*07/06/2018 05:21*	WG1133547
(S) p-Terphenyl-d14	*87.0*		*37.0-146*		*07/06/2018 05:21*	WG1133547

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methyl tert-butyl ether	0.0282		0.00100	1	07/04/2018 07:21	WG1133713
tert-Butyl alcohol	ND	J4	0.00500	1	07/04/2018 07:21	WG1133713
(S) Toluene-d8	*105*		*80.0-120*		*07/04/2018 07:21*	WG1133713
(S) Dibromofluoromethane	*96.8*		*76.0-123*		*07/04/2018 07:21*	WG1133713
(S) 4-Bromofluorobenzene	*94.7*		*80.0-120*		*07/04/2018 07:21*	WG1133713

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methyl tert-butyl ether	0.0551		0.00100	1	07/04/2018 07:42	WG1133713
tert-Butyl alcohol	ND	J4	0.00500	1	07/04/2018 07:42	WG1133713
(S) Toluene-d8	*107*		*80.0-120*		*07/04/2018 07:42*	WG1133713
(S) Dibromofluoromethane	*97.2*		*76.0-123*		*07/04/2018 07:42*	WG1133713
(S) 4-Bromofluorobenzene	*94.0*		*80.0-120*		*07/04/2018 07:42*	WG1133713

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methyl tert-butyl ether	0.0506		0.00100	1	07/04/2018 08:03	WG1133713
tert-Butyl alcohol	ND	J4	0.00500	1	07/04/2018 08:03	WG1133713
(S) Toluene-d8	*102*		*80.0-120*		*07/04/2018 08:03*	WG1133713
(S) Dibromofluoromethane	*97.7*		*76.0-123*		*07/04/2018 08:03*	WG1133713
(S) 4-Bromofluorobenzene	*93.9*		*80.0-120*		*07/04/2018 08:03*	WG1133713

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methyl tert-butyl ether	0.0486		0.00100	1	07/04/2018 08:24	WG1133713
tert-Butyl alcohol	ND	J4	0.00500	1	07/04/2018 08:24	WG1133713
(S) Toluene-d8	*106*		*80.0-120*		*07/04/2018 08:24*	WG1133713
(S) Dibromofluoromethane	*97.1*		*76.0-123*		*07/04/2018 08:24*	WG1133713
(S) 4-Bromofluorobenzene	*93.5*		*80.0-120*		*07/04/2018 08:24*	WG1133713

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 01:31	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00135		0.00100	1	07/04/2018 11:20	WG1133656
Isopropylbenzene	ND		0.00100	1	07/04/2018 11:20	WG1133656
1,2-Dichloroethane	ND		0.00100	1	07/04/2018 11:20	WG1133656
Ethylbenzene	ND		0.00100	1	07/09/2018 13:56	WG1135278
Methyl tert-butyl ether	0.0124		0.00100	1	07/04/2018 11:20	WG1133656
Toluene	ND		0.00100	1	07/09/2018 13:56	WG1135278
1,2,4-Trimethylbenzene	ND		0.00100	1	07/09/2018 13:56	WG1135278
1,3,5-Trimethylbenzene	ND		0.00100	1	07/09/2018 13:56	WG1135278
Xylenes, Total	ND		0.00300	1	07/09/2018 13:56	WG1135278
(S) Toluene-d8	*102*		*80.0-120*		*07/04/2018 11:20*	WG1133656
(S) Toluene-d8	*102*		*80.0-120*		*07/09/2018 13:56*	WG1135278
(S) Dibromofluoromethane	*96.1*		*76.0-123*		*07/04/2018 11:20*	WG1133656
(S) Dibromofluoromethane	*91.1*		*76.0-123*		*07/09/2018 13:56*	WG1135278
(S) 4-Bromofluorobenzene	*107*		*80.0-120*		*07/04/2018 11:20*	WG1133656
(S) 4-Bromofluorobenzene	*91.6*		*80.0-120*		*07/09/2018 13:56*	WG1135278

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 05:45	WG1134323

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.0000807		0.0000500	1	07/06/2018 05:43	WG1133547
Benzo(a)anthracene	ND		0.0000500	1	07/06/2018 05:43	WG1133547
Benzo(a)pyrene	ND		0.0000500	1	07/06/2018 05:43	WG1133547
Benzo(b)fluoranthene	ND		0.0000500	1	07/06/2018 05:43	WG1133547
Benzo(g,h,i)perylene	ND		0.0000500	1	07/06/2018 05:43	WG1133547
Chrysene	ND		0.0000500	1	07/06/2018 05:43	WG1133547
Fluorene	0.000367		0.0000500	1	07/06/2018 05:43	WG1133547
Naphthalene	ND		0.000250	1	07/06/2018 05:43	WG1133547
Phenanthrene	0.0000809		0.0000500	1	07/06/2018 05:43	WG1133547
Pyrene	ND		0.0000500	1	07/06/2018 05:43	WG1133547
(S) Nitrobenzene-d5	*84.9*		*31.0-160*		*07/06/2018 05:43*	WG1133547
(S) 2-Fluorobiphenyl	*97.5*		*48.0-148*		*07/06/2018 05:43*	WG1133547
(S) p-Terphenyl-d14	*90.5*		*37.0-146*		*07/06/2018 05:43*	WG1133547

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 01:35	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00130		0.00100	1	07/09/2018 14:18	WG1135278
Isopropylbenzene	ND		0.00100	1	07/09/2018 14:18	WG1135278
1,2-Dichloroethane	ND		0.00100	1	07/09/2018 16:04	WG1135479
Ethylbenzene	ND		0.00100	1	07/09/2018 14:18	WG1135278
Methyl tert-butyl ether	0.0117		0.00100	1	07/09/2018 14:18	WG1135278
Toluene	ND		0.00100	1	07/09/2018 14:18	WG1135278
1,2,4-Trimethylbenzene	ND		0.00100	1	07/09/2018 14:18	WG1135278
1,3,5-Trimethylbenzene	ND		0.00100	1	07/09/2018 14:18	WG1135278
Xylenes, Total	ND		0.00300	1	07/09/2018 14:18	WG1135278
(S) Toluene-d8	*103*		*80.0-120*		*07/09/2018 14:18*	WG1135278
(S) Toluene-d8	*112*		*80.0-120*		*07/09/2018 16:04*	WG1135479
(S) Dibromofluoromethane	*89.8*		*76.0-123*		*07/09/2018 14:18*	WG1135278
(S) Dibromofluoromethane	*94.3*		*76.0-123*		*07/09/2018 16:04*	WG1135479
(S) 4-Bromofluorobenzene	*90.6*		*80.0-120*		*07/09/2018 14:18*	WG1135278
(S) 4-Bromofluorobenzene	*91.7*		*80.0-120*		*07/09/2018 16:04*	WG1135479

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 05:57	WG1134323

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000106		0.0000500	1	07/06/2018 06:05	WG1133547
Benzo(a)anthracene	ND		0.0000500	1	07/06/2018 06:05	WG1133547
Benzo(a)pyrene	ND		0.0000500	1	07/06/2018 06:05	WG1133547
Benzo(b)fluoranthene	ND		0.0000500	1	07/06/2018 06:05	WG1133547
Benzo(g,h,i)perylene	ND		0.0000500	1	07/06/2018 06:05	WG1133547
Chrysene	ND		0.0000500	1	07/06/2018 06:05	WG1133547
Fluorene	0.000457		0.0000500	1	07/06/2018 06:05	WG1133547
Naphthalene	ND		0.000250	1	07/06/2018 06:05	WG1133547
Phenanthrene	0.000145		0.0000500	1	07/06/2018 06:05	WG1133547
Pyrene	ND		0.0000500	1	07/06/2018 06:05	WG1133547
(S) Nitrobenzene-d5	*85.6*		*31.0-160*		*07/06/2018 06:05*	WG1133547
(S) 2-Fluorobiphenyl	*96.4*		*48.0-148*		*07/06/2018 06:05*	WG1133547
(S) p-Terphenyl-d14	*94.1*		*37.0-146*		*07/06/2018 06:05*	WG1133547

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0671		0.0500	50	07/04/2018 08:45	WG1133713
1,2-Dichloroethane	ND		0.0500	50	07/04/2018 08:45	WG1133713
Ethylbenzene	ND		0.0500	50	07/04/2018 08:45	WG1133713
Isopropylbenzene	ND		0.0500	50	07/04/2018 08:45	WG1133713
Toluene	ND		0.0500	50	07/04/2018 08:45	WG1133713
1,2,4-Trimethylbenzene	ND		0.0500	50	07/04/2018 08:45	WG1133713
1,3,5-Trimethylbenzene	ND		0.0500	50	07/04/2018 08:45	WG1133713
Xylenes, Total	ND		0.150	50	07/04/2018 08:45	WG1133713
Methyl tert-butyl ether	ND		0.0500	50	07/04/2018 08:45	WG1133713
tert-Butyl alcohol	1.16	J4	0.250	50	07/04/2018 08:45	WG1133713
(S) Toluene-d8	*105*		*80.0-120*		*07/04/2018 08:45*	WG1133713
(S) Dibromofluoromethane	*96.5*		*76.0-123*		*07/04/2018 08:45*	WG1133713
(S) 4-Bromofluorobenzene	*90.9*		*80.0-120*		*07/04/2018 08:45*	WG1133713

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 02:13	WG1140686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0867		0.0500	50	07/04/2018 09:06	WG1133713
1,2-Dichloroethane	ND		0.0500	50	07/04/2018 09:06	WG1133713
Ethylbenzene	ND		0.0500	50	07/04/2018 09:06	WG1133713
Isopropylbenzene	0.0742		0.0500	50	07/04/2018 09:06	WG1133713
Toluene	ND		0.0500	50	07/04/2018 09:06	WG1133713
1,2,4-Trimethylbenzene	ND		0.0500	50	07/04/2018 09:06	WG1133713
1,3,5-Trimethylbenzene	ND		0.0500	50	07/04/2018 09:06	WG1133713
Xylenes, Total	ND		0.150	50	07/04/2018 09:06	WG1133713
Methyl tert-butyl ether	ND		0.0500	50	07/04/2018 09:06	WG1133713
tert-Butyl alcohol	1.01	J4	0.250	50	07/04/2018 09:06	WG1133713
(S) Toluene-d8	*106*		*80.0-120*		*07/04/2018 09:06*	WG1133713
(S) Dibromofluoromethane	*95.6*		*76.0-123*		*07/04/2018 09:06*	WG1133713
(S) 4-Bromofluorobenzene	*90.7*		*80.0-120*		*07/04/2018 09:06*	WG1133713

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 02:26	WG1140686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	4.65		2.00	2000	07/10/2018 03:39	WG1135333
1,2-Dichloroethane	ND		0.00100	1	07/04/2018 09:27	WG1133713
Ethylbenzene	0.0203		0.00100	1	07/04/2018 09:27	WG1133713
Isopropylbenzene	0.0149		0.00100	1	07/04/2018 09:27	WG1133713
Toluene	0.00101		0.00100	1	07/04/2018 09:27	WG1133713
1,2,4-Trimethylbenzene	0.00419		0.00100	1	07/04/2018 09:27	WG1133713
1,3,5-Trimethylbenzene	ND		0.00100	1	07/04/2018 09:27	WG1133713
Xylenes, Total	0.0221		0.00300	1	07/04/2018 09:27	WG1133713
Methyl tert-butyl ether	2.12		2.00	2000	07/10/2018 03:39	WG1135333
tert-Butyl alcohol	72.8		10.0	2000	07/10/2018 03:39	WG1135333
(S) Toluene-d8	*106*		*80.0-120*		*07/04/2018 09:27*	WG1133713
(S) Toluene-d8	*106*		*80.0-120*		*07/10/2018 03:39*	WG1135333
(S) Dibromofluoromethane	*94.2*		*76.0-123*		*07/04/2018 09:27*	WG1133713
(S) Dibromofluoromethane	*96.7*		*76.0-123*		*07/10/2018 03:39*	WG1135333
(S) 4-Bromofluorobenzene	*97.5*		*80.0-120*		*07/04/2018 09:27*	WG1133713
(S) 4-Bromofluorobenzene	*96.9*		*80.0-120*		*07/10/2018 03:39*	WG1135333

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	.998	07/27/2018 00:19	WG1143228

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	5.20		2.00	2000	07/10/2018 03:59	WG1135333
1,2-Dichloroethane	ND		0.00100	1	07/04/2018 09:48	WG1133713
Ethylbenzene	0.0239		0.00100	1	07/04/2018 09:48	WG1133713
Isopropylbenzene	0.0201		0.00100	1	07/04/2018 09:48	WG1133713
Toluene	0.00113		0.00100	1	07/04/2018 09:48	WG1133713
1,2,4-Trimethylbenzene	0.00532		0.00100	1	07/04/2018 09:48	WG1133713
1,3,5-Trimethylbenzene	ND		0.00100	1	07/04/2018 09:48	WG1133713
Xylenes, Total	0.0250		0.00300	1	07/04/2018 09:48	WG1133713
Methyl tert-butyl ether	2.29		2.00	2000	07/10/2018 03:59	WG1135333
tert-Butyl alcohol	75.4		10.0	2000	07/10/2018 03:59	WG1135333
(S) Toluene-d8	*106*		*80.0-120*		*07/04/2018 09:48*	WG1133713
(S) Toluene-d8	*106*		*80.0-120*		*07/10/2018 03:59*	WG1135333
(S) Dibromofluoromethane	*94.8*		*76.0-123*		*07/04/2018 09:48*	WG1133713
(S) Dibromofluoromethane	*95.9*		*76.0-123*		*07/10/2018 03:59*	WG1135333
(S) 4-Bromofluorobenzene	*97.5*		*80.0-120*		*07/04/2018 09:48*	WG1133713
(S) 4-Bromofluorobenzene	*94.8*		*80.0-120*		*07/10/2018 03:59*	WG1135333

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/27/2018 00:30	WG1143228

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	7.62		0.0500	50	07/04/2018 10:09	WG1133713
1,2-Dichloroethane	ND		0.0500	50	07/04/2018 10:09	WG1133713
Ethylbenzene	0.282		0.0500	50	07/04/2018 10:09	WG1133713
Isopropylbenzene	0.0505		0.0500	50	07/04/2018 10:09	WG1133713
Toluene	ND		0.0500	50	07/04/2018 10:09	WG1133713
1,2,4-Trimethylbenzene	0.519		0.0500	50	07/04/2018 10:09	WG1133713
1,3,5-Trimethylbenzene	0.124		0.0500	50	07/04/2018 10:09	WG1133713
Xylenes, Total	0.502		0.150	50	07/04/2018 10:09	WG1133713
Methyl tert-butyl ether	0.195		0.0500	50	07/04/2018 10:09	WG1133713
tert-Butyl alcohol	3.07		1.25	250	07/09/2018 00:45	WG1135123
(S) Toluene-d8	*107*		*80.0-120*		*07/04/2018 10:09*	WG1133713
(S) Toluene-d8	*97.9*		*80.0-120*		*07/09/2018 00:45*	WG1135123
(S) Dibromofluoromethane	*89.6*		*76.0-123*		*07/04/2018 10:09*	WG1133713
(S) Dibromofluoromethane	*97.2*		*76.0-123*		*07/09/2018 00:45*	WG1135123
(S) 4-Bromofluorobenzene	*95.2*		*80.0-120*		*07/04/2018 10:09*	WG1133713
(S) 4-Bromofluorobenzene	*94.0*		*80.0-120*		*07/09/2018 00:45*	WG1135123

EDB / DBCP by Method 8011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 03:27	WG1140686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	30.2		0.500	500	07/10/2018 04:19	WG1135333
1,2-Dichloroethane	ND		0.0100	10	07/04/2018 10:31	WG1133713
Ethylbenzene	0.249		0.0100	10	07/04/2018 10:31	WG1133713
Isopropylbenzene	0.0833		0.0100	10	07/04/2018 10:31	WG1133713
Toluene	0.131		0.0100	10	07/04/2018 10:31	WG1133713
1,2,4-Trimethylbenzene	0.149		0.0100	10	07/04/2018 10:31	WG1133713
1,3,5-Trimethylbenzene	0.0671		0.0100	10	07/04/2018 10:31	WG1133713
Xylenes, Total	0.273		0.0300	10	07/04/2018 10:31	WG1133713
Methyl tert-butyl ether	0.0647		0.0100	10	07/04/2018 10:31	WG1133713
tert-Butyl alcohol	1.48		0.500	100	07/09/2018 01:05	WG1135123
(S) Toluene-d8	*105*		*80.0-120*		*07/04/2018 10:31*	WG1133713
(S) Toluene-d8	*98.0*		*80.0-120*		*07/09/2018 01:05*	WG1135123
(S) Toluene-d8	*106*		*80.0-120*		*07/10/2018 04:19*	WG1135333
(S) Dibromofluoromethane	*95.8*		*76.0-123*		*07/04/2018 10:31*	WG1133713
(S) Dibromofluoromethane	*98.2*		*76.0-123*		*07/09/2018 01:05*	WG1135123
(S) Dibromofluoromethane	*98.0*		*76.0-123*		*07/10/2018 04:19*	WG1135333
(S) 4-Bromofluorobenzene	*95.9*		*80.0-120*		*07/04/2018 10:31*	WG1133713
(S) 4-Bromofluorobenzene	*90.4*		*80.0-120*		*07/09/2018 01:05*	WG1135123
(S) 4-Bromofluorobenzene	*94.1*		*80.0-120*		*07/10/2018 04:19*	WG1135333

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 03:40	WG1140686

Method Blank (MB)

(MB) R3324217-1 07/10/18 00:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324217-2 07/10/18 00:23 • (LCSD) R3324217-3 07/10/18 00:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0477	0.0474	95.4	94.8	80.0-120			0.633	20

L1006563-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1006563-05 07/10/18 00:31 • (MS) R3324217-5 07/10/18 00:39 • (MSD) R3324217-6 07/10/18 00:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	ND	0.0467	0.0478	93.3	95.6	1	75.0-125			2.40	20

Method Blank (MB)

(MB) R3323969-3 07/04/18 05:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
(S) Toluene-d8	*105*			*80.0-120*
(S) Dibromofluoromethane	*98.2*			*76.0-123*
(S) 4-Bromofluorobenzene	*103*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323969-1 07/04/18 04:01 • (LCSD) R3323969-2 07/04/18 04:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0231	0.0232	92.6	92.8	69.0-123			0.224	20
1,2-Dichloroethane	0.0250	0.0266	0.0267	107	107	67.0-126			0.163	20
Isopropylbenzene	0.0250	0.0286	0.0265	114	106	75.0-120			7.70	20
Methyl tert-butyl ether	0.0250	0.0242	0.0247	96.9	98.6	64.0-123			1.76	20
(S) Toluene-d8				*99.9*	*102*	*80.0-120*				
(S) Dibromofluoromethane				*95.7*	*97.4*	*76.0-123*				
(S) 4-Bromofluorobenzene				*105*	*103*	*80.0-120*				

L1006109-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1006109-09 07/04/18 08:40 • (MS) R3323969-4 07/04/18 12:00 • (MSD) R3323969-5 07/04/18 12:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	ND	0.0244	0.0244	97.4	97.5	1	34.0-147			0.104	20
1,2-Dichloroethane	0.0250	ND	0.0265	0.0264	106	105	1	47.0-141			0.387	20
Isopropylbenzene	0.0250	ND	0.0291	0.0287	116	115	1	48.0-141			1.28	20
Methyl tert-butyl ether	0.0250	ND	0.0239	0.0236	95.7	94.6	1	42.0-142			1.20	20
(S) Toluene-d8					*104*	*104*		*80.0-120*				
(S) Dibromofluoromethane					*96.8*	*96.9*		*76.0-123*				
(S) 4-Bromofluorobenzene					*107*	*103*		*80.0-120*				

Method Blank (MB)

(MB) R3323875-4 07/04/18 05:14

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*110*			*80.0-120*
(S) Dibromofluoromethane	*91.6*			*76.0-123*
(S) 4-Bromofluorobenzene	*93.1*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323875-1 07/04/18 03:51 • (LCSD) R3323875-2 07/04/18 04:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0244	0.0241	97.5	96.4	69.0-123			1.18	20
1,2-Dichloroethane	0.0250	0.0254	0.0256	102	102	67.0-126			0.719	20
Ethylbenzene	0.0250	0.0272	0.0271	109	109	77.0-120			0.312	20
Isopropylbenzene	0.0250	0.0265	0.0263	106	105	75.0-120			0.554	20
Methyl tert-butyl ether	0.0250	0.0237	0.0240	94.8	96.0	64.0-123			1.22	20
Toluene	0.0250	0.0266	0.0266	106	107	77.0-120			0.258	20
1,2,4-Trimethylbenzene	0.0250	0.0265	0.0273	106	109	75.0-120			3.07	20
1,3,5-Trimethylbenzene	0.0250	0.0264	0.0262	106	105	75.0-120			0.703	20
Xylenes, Total	0.0750	0.0802	0.0806	107	107	77.0-120			0.498	20
(S) Toluene-d8				*107*	*107*	*80.0-120*				
(S) Dibromofluoromethane				*91.1*	*91.7*	*76.0-123*				
(S) 4-Bromofluorobenzene				*96.4*	*97.1*	*80.0-120*				

Laboratory Control Sample (LCS)

(LCS) R3323875-3 07/04/18 04:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0838	168	50.0-150	J4
(S) Toluene-d8			*110*	*80.0-120*	

Laboratory Control Sample (LCS)

(LCS) R3323875-3 07/04/18 04:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) Dibromofluoromethane			*89.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*97.9*	*80.0-120*	

Method Blank (MB)

(MB) R3324109-4 07/04/18 01:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dibromoethane	U		0.000381	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*100*			*80.0-120*
(S) Dibromofluoromethane	*91.2*			*76.0-123*
(S) 4-Bromofluorobenzene	*95.7*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324109-1 07/04/18 00:30 • (LCSD) R3324109-2 07/04/18 00:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0277	0.0281	111	112	69.0-123			1.49	20
1,2-Dibromoethane	0.0250	0.0269	0.0282	108	113	77.0-123			4.87	20
1,2-Dichloroethane	0.0250	0.0269	0.0276	107	110	67.0-126			2.75	20
Ethylbenzene	0.0250	0.0267	0.0277	107	111	77.0-120			3.93	20
Isopropylbenzene	0.0250	0.0256	0.0263	103	105	75.0-120			2.73	20
Methyl tert-butyl ether	0.0250	0.0268	0.0270	107	108	64.0-123			0.607	20
Toluene	0.0250	0.0275	0.0282	110	113	77.0-120			2.26	20
1,2,4-Trimethylbenzene	0.0250	0.0260	0.0269	104	107	75.0-120			3.23	20
1,3,5-Trimethylbenzene	0.0250	0.0248	0.0258	99.2	103	75.0-120			4.08	20
Xylenes, Total	0.0750	0.0809	0.0838	108	112	77.0-120			3.52	20
(S) Toluene-d8				*98.1*	*99.0*	*80.0-120*				
(S) Dibromofluoromethane				*91.3*	*90.2*	*76.0-123*				
(S) 4-Bromofluorobenzene				*95.0*	*94.8*	*80.0-120*				

Laboratory Control Sample (LCS)

(LCS) R3324109-3 07/04/18 01:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0237	47.3	50.0-150	J4
(S) Toluene-d8			*101*	*80.0-120*	
(S) Dibromofluoromethane			*91.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*93.3*	*80.0-120*	

Method Blank (MB)

(MB) R3324003-4 07/08/18 14:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*101*			*80.0-120*
(S) Dibromofluoromethane	*96.5*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.9*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324003-3 07/08/18 14:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0527	105	50.0-150	
(S) Toluene-d8			*98.6*	*80.0-120*	
(S) Dibromofluoromethane			*98.1*	*76.0-123*	
(S) 4-Bromofluorobenzene			*93.6*	*80.0-120*	

Method Blank (MB)

(MB) R3324104-3 07/09/18 11:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*104*			*80.0-120*
(S) Dibromofluoromethane	*90.6*			*76.0-123*
(S) 4-Bromofluorobenzene	*90.0*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324104-1 07/09/18 09:35 • (LCSD) R3324104-2 07/09/18 09:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0205	0.0208	82.2	83.3	69.0-123			1.40	20
Ethylbenzene	0.0250	0.0258	0.0264	103	106	77.0-120			2.40	20
Isopropylbenzene	0.0250	0.0240	0.0244	96.2	97.4	75.0-120			1.30	20
Methyl tert-butyl ether	0.0250	0.0204	0.0210	81.5	83.8	64.0-123			2.76	20
Toluene	0.0250	0.0236	0.0246	94.4	98.4	77.0-120			4.09	20
1,2,4-Trimethylbenzene	0.0250	0.0238	0.0240	95.1	95.9	75.0-120			0.890	20
1,3,5-Trimethylbenzene	0.0250	0.0238	0.0240	95.3	96.2	75.0-120			0.919	20
Xylenes, Total	0.0750	0.0770	0.0798	103	106	77.0-120			3.57	20
(S) Toluene-d8				*102*	*103*	*80.0-120*				
(S) Dibromofluoromethane				*90.3*	*89.9*	*76.0-123*				
(S) 4-Bromofluorobenzene				*90.1*	*88.4*	*80.0-120*				

Method Blank (MB)

(MB) R3324243-4 07/10/18 01:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*97.1*			*76.0-123*
(S) 4-Bromofluorobenzene	*95.3*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324243-1 07/09/18 23:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0231	92.4	69.0-123	
Methyl tert-butyl ether	0.0250	0.0239	95.6	64.0-123	
(S) Toluene-d8			*104*	*80.0-120*	
(S) Dibromofluoromethane			*91.8*	*76.0-123*	
(S) 4-Bromofluorobenzene			*96.0*	*80.0-120*	

Laboratory Control Sample (LCS)

(LCS) R3324243-3 07/10/18 00:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0555	111	50.0-150	
(S) Toluene-d8			*105*	*80.0-120*	
(S) Dibromofluoromethane			*93.1*	*76.0-123*	
(S) 4-Bromofluorobenzene			*103*	*80.0-120*	

Method Blank (MB)

(MB) R3324122-3 07/09/18 10:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,2-Dichloroethane	U		0.000361	0.00100
(S) Toluene-d8	*113*			*80.0-120*
(S) Dibromofluoromethane	*92.0*			*76.0-123*
(S) 4-Bromofluorobenzene	*90.2*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324122-1 07/09/18 09:56 • (LCSD) R3324122-2 07/09/18 10:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	0.0250	0.0231	0.0245	92.2	97.9	67.0-126			5.93	20
(S) Toluene-d8				*106*	*109*	*80.0-120*				
(S) Dibromofluoromethane				*92.9*	*94.3*	*76.0-123*				
(S) 4-Bromofluorobenzene				*95.8*	*99.4*	*80.0-120*				

Method Blank (MB)

(MB) R3324567-1 07/10/18 02:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

Method Blank (MB)

(MB) R3325014-1 07/11/18 23:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1006118-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1006118-03 07/10/18 03:29 • (DUP) R3324567-3 07/10/18 03:17

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324567-4 07/10/18 05:32 • (LCSD) R3324567-5 07/10/18 08:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000238	0.000236	95.2	94.4	60.0-140			0.844	20

L1006556-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1006556-02 07/10/18 03:05 • (MS) R3324567-2 07/10/18 02:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.000100	U	0.000111	111	1	72.0-146	

Method Blank (MB)

(MB) R3327677-1 07/20/18 23:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1009704-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1009704-01 07/21/18 00:47 • (DUP) R3327677-3 07/21/18 00:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3327677-4 07/21/18 02:50 • (LCSD) R3327677-5 07/21/18 05:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000239	0.000229	95.6	91.6	60.0-140			4.27	20

L1009704-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1009704-03 07/21/18 00:22 • (MS) R3327677-2 07/21/18 00:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	U	0.0000955	95.7	1	72.0-146	

Method Blank (MB)

(MB) R3328887-1 07/26/18 23:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1012111-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1012111-01 07/27/18 00:06 • (DUP) R3328887-3 07/26/18 23:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3328887-4 07/27/18 01:07 • (LCSD) R3328887-5 07/27/18 01:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000253	0.000256	101	102	60.0-140			1.18	20

L1012025-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1012025-04 07/26/18 23:42 • (MS) R3328887-2 07/26/18 23:29

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	ND	0.000120	120	.998	72.0-146	

Method Blank (MB)

(MB) R3323617-3 07/05/18 22:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*81.9*			*31.0-160*
(S) 2-Fluorobiphenyl	*99.0*			*48.0-148*
(S) p-Terphenyl-d14	*83.0*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323617-1 07/05/18 21:43 • (LCSD) R3323617-2 07/05/18 22:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00219	0.00218	109	109	64.0-142			0.470	20
Benzo(a)anthracene	0.00200	0.00174	0.00171	86.8	85.5	59.0-134			1.55	20
Benzo(a)pyrene	0.00200	0.00186	0.00183	92.8	91.4	61.0-145			1.57	20
Benzo(b)fluoranthene	0.00200	0.00172	0.00169	85.9	84.5	57.0-136			1.71	20
Benzo(g,h,i)perylene	0.00200	0.00203	0.00199	101	99.7	54.0-140			1.53	20
Chrysene	0.00200	0.00205	0.00203	102	102	63.0-140			0.864	20
Fluorene	0.00200	0.00176	0.00173	88.1	86.7	64.0-129			1.55	20
Naphthalene	0.00200	0.00175	0.00180	87.7	90.2	68.0-129			2.88	20
Phenanthrene	0.00200	0.00184	0.00182	91.9	91.1	62.0-132			0.944	20
Pyrene	0.00200	0.00174	0.00173	86.9	86.6	58.0-156			0.322	20
(S) Nitrobenzene-d5				*87.6*	*86.3*	*31.0-160*				
(S) 2-Fluorobiphenyl				*104*	*98.9*	*48.0-148*				
(S) p-Terphenyl-d14				*88.7*	*86.5*	*37.0-146*				

L1006078-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1006078-02 07/05/18 23:54 • (MS) R3323617-4 07/06/18 00:16 • (MSD) R3323617-5 07/06/18 00:38

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	U	0.00209	0.00195	104	97.5	1	60.0-142			6.87	20
Benzo(a)anthracene	0.00200	U	0.00180	0.00173	89.8	86.4	1	55.0-134			3.82	20
Benzo(a)pyrene	0.00200	U	0.00186	0.00177	92.8	88.5	1	58.0-136			4.69	20
Benzo(b)fluoranthene	0.00200	U	0.00167	0.00163	83.6	81.6	1	54.0-130			2.40	20
Benzo(g,h,i)perylene	0.00200	U	0.00196	0.00187	98.2	93.4	1	46.0-135			4.98	20
Chrysene	0.00200	U	0.00198	0.00186	99.2	92.9	1	55.0-137			6.61	20
Fluorene	0.00200	0.00165	0.00362	0.00338	98.0	86.1	1	49.0-142			6.80	20
Naphthalene	0.00200	0.00246	0.00430	0.00402	92.0	77.9	1	29.0-154			6.78	20
Phenanthrene	0.00200	0.0000421	0.00192	0.00185	93.8	90.2	1	44.0-145			3.80	20
Pyrene	0.00200	U	0.00179	0.00171	89.3	85.7	1	62.0-150			4.09	20
(S) Nitrobenzene-d5					*87.9*	*85.4*		*31.0-160*				
(S) 2-Fluorobiphenyl					*99.8*	*94.1*		*48.0-148*				
(S) p-Terphenyl-d14					*91.1*	*87.8*		*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J4	The associated batch QC was outside the established quality control range for accuracy.
T8	Sample(s) received past/too close to holding time expiration.

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* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

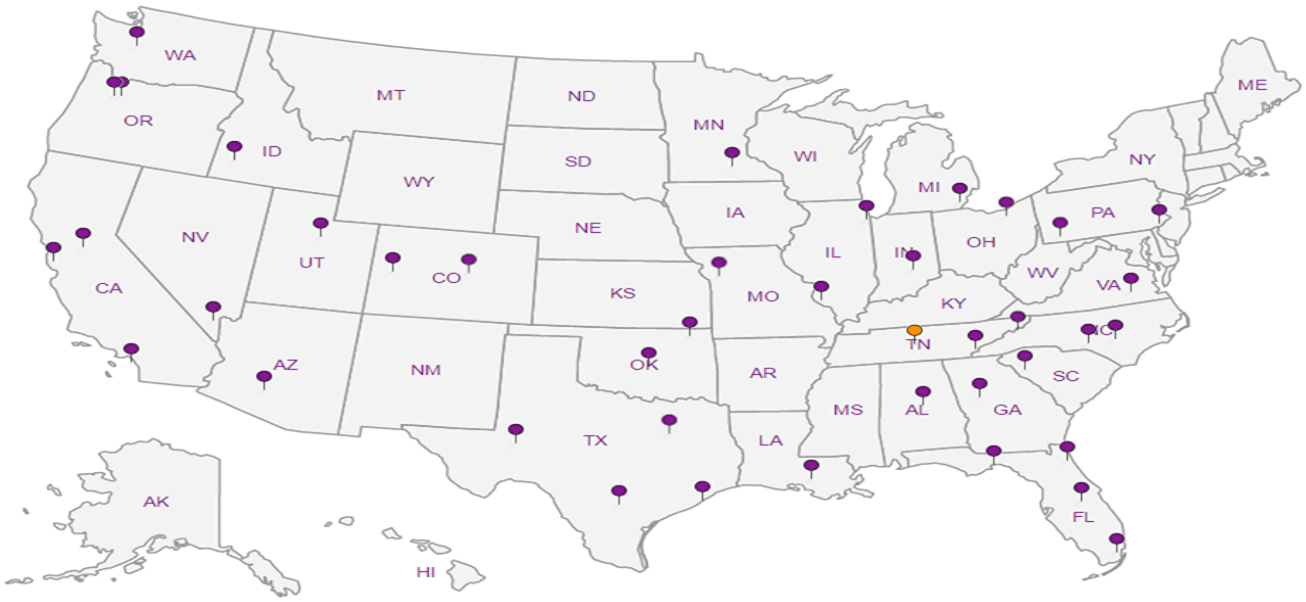
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen - PHL GWS

City/State Collected:

Phone: ~~267-240-3415~~ Fax: 610-425-8311

Client Project # 213402429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Dane Hopkins

Site/Facility ID #

P.O. #

Collected by (signature): Dane

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1006118
D013

Acctnum: **SUNSTANTEC**
Template: **T137388**
Prelogin: **P659137**
TSR: **134 - Mark Beasley**
PB: 6-18-18

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP * lab filtered	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
TB_20180628	G	GW	—	6/28/18	—	1			X				-01
S-116SRTF_20180628	G	GW	10.0'	6/28/18	1020	9	X	X					-02
S-113SRTF_20180628	G	GW	13.0	6/28/18	1110	9	X	X					-03
S-115SRTF_20180628	G	GW	13.0'	6/28/18	1205	9	X	X					-04
S-114SRTF_20180628	G	GW	12.0'	6/28/18	1300	9	X	X					-05
S-39D-HS_20180628	G	GW	127'	6/28/18	0840	3					X		-06
S-39D_20180628	G	GW	127'	6/28/18	0933	3					X		-07
S-218D-HS_20180628	G	GW	91'	6/28/18	1015	3					X		-08
S-218D_20180628	G	GW	91'	6/28/18	1108	3					X		-09
S-154-HS_20180628	G	GW	10'	6/28/18	1250	9	X	X					-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP
* EQuIS EDD Format
* refer to attached short list for analytes
* Standard TAT

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier X SWA

Tracking # N/A

Sample Receipt Checklist
COC Seal Present/Intact: __Y __NP __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: X __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Dane	6/28/18	1640	ESCPA lockout	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.7 °C Bottles Received: 84
ESCPA lockout	6/29/18	1205		If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/30/18 Time: 0922
				Hold:

Condition: NCF / OK

Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: EVERGREEN - PHL GWS

City/State Collected:

Phone: ~~267-240-3415~~
Fax: 610-425-8311

Client Project # 213402429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Karl McCarty IAN ANDREF

Site/Facility ID #

P.O. #

Collected by (signature): Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP * LAB FILTERED	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
S-154_20180628	G	GW	10'	6/29/18	1323	9	X	X					-11
S_271_20180628	G	GW	25'	6/28/18	830	3			X				-12
S-271_20180628	G	GW	25'	6/28/18	940	3			x				-13
S_396_20180628	G	GW	32'	6/28/18	1110	3			X				-14
S_396_HS_20180628	G	GW	32'	6/28/18	950	3			X				-15
S_418_HS_20180628	G	GW	25'	6/28/18	1200	3			X				-16
S_418_20180628	G	GW	25'	6/28/18	1335	3			X				-17
		GW											
		GW											
		GW											

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
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12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1006118

Table #

Acctnum: **SUNSTANTEC**

Template: **T137388**

Prelogin: **P659137**

TSR: **134 - Mark Beasley**

PB: 6-18-18

Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP
* EQUIS EDD FORMAT
* REFER TO ATTACHED SHORTLIST FOR ANALYTES
* STANDARD TAT

pH ___ Temp ___ Flow ___ Other ___

Samples returned via: ___ UPS ___ FedEx ___ Courier X SWA

Tracking # N/A

Sample Receipt Checklist
COC Seal Present/Intact: NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: (Yes) / No HCL / MeoH TBR	
	6/28/18	1640	ESCPA lockout		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.5 °C	Bottles Received: 84
ESCPA lockout	6/29/18	1205			If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/30/18	Time: 0922
				Hold:	Condition: NCF OK

L1006118

Table 1
Evergreen Petroleum Short List of Constituents of Concern

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Stantec

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 22, 2018

Stantec - S/E

Sample Delivery Group:	L1006563
Samples Received:	07/03/2018
Project Number:	213402429
Description:	Evergreen Phll GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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N-99_20180629 L1006563-01 GW

Collected by: Ian Andree | Collected date/time: 06/29/18 09:35 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 01:39	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134887	1	07/07/18 14:46	07/07/18 14:46	RAS
EDB / DBCP by Method 8011	WG1135246	.998	07/09/18 10:36	07/10/18 09:40	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133709	1	07/05/18 22:13	07/07/18 15:02	KM

N-8_20180629 L1006563-02 GW

Collected by: Ian Andree | Collected date/time: 06/29/18 10:59 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 01:43	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134887	1	07/07/18 15:08	07/07/18 15:08	RAS
EDB / DBCP by Method 8011	WG1135246	1	07/09/18 10:36	07/10/18 10:32	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133709	1	07/05/18 22:13	07/07/18 15:24	KM

N-3_20180629 L1006563-03 GW

Collected by: Ian Andree | Collected date/time: 06/29/18 13:27 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 01:47	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135515	1	07/10/18 16:37	07/10/18 16:37	BMB
EDB / DBCP by Method 8011	WG1135246	.995	07/09/18 10:36	07/10/18 10:45	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133709	1	07/05/18 22:13	07/07/18 15:46	KM

N-98_20180629 L1006563-04 GW

Collected by: Ian Andree | Collected date/time: 06/29/18 12:02 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 01:51	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134887	1	07/07/18 15:51	07/07/18 15:51	RAS
EDB / DBCP by Method 8011	WG1135246	.998	07/09/18 10:36	07/10/18 10:57	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1133709	1	07/05/18 22:13	07/07/18 16:08	KM

N-1_20180629 L1006563-05 GW

Collected by: Ian Andree | Collected date/time: 06/29/18 14:21 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 00:31	JDG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134887	1	07/07/18 16:14	07/07/18 16:14	RAS
EDB / DBCP by Method 8011	WG1135246	.998	07/09/18 10:36	07/10/18 11:09	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134478	1	07/06/18 13:27	07/07/18 13:31	DMG

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 01:39	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/07/2018 14:46	WG1134887
Isopropylbenzene	ND		0.00100	1	07/07/2018 14:46	WG1134887
1,2-Dichloroethane	ND		0.00100	1	07/07/2018 14:46	WG1134887
Ethylbenzene	ND		0.00100	1	07/07/2018 14:46	WG1134887
Methyl tert-butyl ether	ND		0.00100	1	07/07/2018 14:46	WG1134887
Toluene	ND		0.00100	1	07/07/2018 14:46	WG1134887
1,2,4-Trimethylbenzene	ND		0.00100	1	07/07/2018 14:46	WG1134887
1,3,5-Trimethylbenzene	ND		0.00100	1	07/07/2018 14:46	WG1134887
Xylenes, Total	ND		0.00300	1	07/07/2018 14:46	WG1134887
(S) Toluene-d8	*102*		*80.0-120*		*07/07/2018 14:46*	WG1134887
(S) Dibromofluoromethane	*94.9*		*76.0-123*		*07/07/2018 14:46*	WG1134887
(S) 4-Bromofluorobenzene	*91.2*		*80.0-120*		*07/07/2018 14:46*	WG1134887

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/10/2018 09:40	WG1135246

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/07/2018 15:02	WG1133709
Benzo(a)anthracene	ND		0.0000500	1	07/07/2018 15:02	WG1133709
Benzo(a)pyrene	ND		0.0000500	1	07/07/2018 15:02	WG1133709
Benzo(b)fluoranthene	ND		0.0000500	1	07/07/2018 15:02	WG1133709
Benzo(g,h,i)perylene	ND		0.0000500	1	07/07/2018 15:02	WG1133709
Chrysene	ND		0.0000500	1	07/07/2018 15:02	WG1133709
Fluorene	ND		0.0000500	1	07/07/2018 15:02	WG1133709
Naphthalene	ND		0.000250	1	07/07/2018 15:02	WG1133709
Phenanthrene	ND		0.0000500	1	07/07/2018 15:02	WG1133709
Pyrene	ND		0.0000500	1	07/07/2018 15:02	WG1133709
(S) Nitrobenzene-d5	*88.1*		*31.0-160*		*07/07/2018 15:02*	WG1133709
(S) 2-Fluorobiphenyl	*131*		*48.0-148*		*07/07/2018 15:02*	WG1133709
(S) p-Terphenyl-d14	*119*		*37.0-146*		*07/07/2018 15:02*	WG1133709

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 01:43	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/07/2018 15:08	WG1134887
Isopropylbenzene	ND		0.00100	1	07/07/2018 15:08	WG1134887
1,2-Dichloroethane	ND		0.00100	1	07/07/2018 15:08	WG1134887
Ethylbenzene	ND		0.00100	1	07/07/2018 15:08	WG1134887
Methyl tert-butyl ether	ND		0.00100	1	07/07/2018 15:08	WG1134887
Toluene	ND		0.00100	1	07/07/2018 15:08	WG1134887
1,2,4-Trimethylbenzene	ND		0.00100	1	07/07/2018 15:08	WG1134887
1,3,5-Trimethylbenzene	ND		0.00100	1	07/07/2018 15:08	WG1134887
Xylenes, Total	ND		0.00300	1	07/07/2018 15:08	WG1134887
(S) Toluene-d8	*104*		*80.0-120*		*07/07/2018 15:08*	WG1134887
(S) Dibromofluoromethane	*93.2*		*76.0-123*		*07/07/2018 15:08*	WG1134887
(S) 4-Bromofluorobenzene	*94.2*		*80.0-120*		*07/07/2018 15:08*	WG1134887

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 10:32	WG1135246

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/07/2018 15:24	WG1133709
Benzo(a)anthracene	ND		0.0000500	1	07/07/2018 15:24	WG1133709
Benzo(a)pyrene	ND		0.0000500	1	07/07/2018 15:24	WG1133709
Benzo(b)fluoranthene	ND		0.0000500	1	07/07/2018 15:24	WG1133709
Benzo(g,h,i)perylene	ND		0.0000500	1	07/07/2018 15:24	WG1133709
Chrysene	ND		0.0000500	1	07/07/2018 15:24	WG1133709
Fluorene	ND		0.0000500	1	07/07/2018 15:24	WG1133709
Naphthalene	0.00198		0.000250	1	07/07/2018 15:24	WG1133709
Phenanthrene	ND		0.0000500	1	07/07/2018 15:24	WG1133709
Pyrene	ND		0.0000500	1	07/07/2018 15:24	WG1133709
(S) Nitrobenzene-d5	*99.0*		*31.0-160*		*07/07/2018 15:24*	WG1133709
(S) 2-Fluorobiphenyl	*128*		*48.0-148*		*07/07/2018 15:24*	WG1133709
(S) p-Terphenyl-d14	*128*		*37.0-146*		*07/07/2018 15:24*	WG1133709

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 01:47	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00675		0.00100	1	07/10/2018 16:37	WG1135515
Isopropylbenzene	0.00442		0.00100	1	07/10/2018 16:37	WG1135515
1,2-Dichloroethane	ND		0.00100	1	07/10/2018 16:37	WG1135515
Ethylbenzene	0.00336		0.00100	1	07/10/2018 16:37	WG1135515
Methyl tert-butyl ether	ND		0.00100	1	07/10/2018 16:37	WG1135515
Toluene	0.00930		0.00100	1	07/10/2018 16:37	WG1135515
1,2,4-Trimethylbenzene	ND		0.00100	1	07/10/2018 16:37	WG1135515
1,3,5-Trimethylbenzene	ND		0.00100	1	07/10/2018 16:37	WG1135515
Xylenes, Total	0.00884		0.00300	1	07/10/2018 16:37	WG1135515
(S) Toluene-d8	*103*		*80.0-120*		*07/10/2018 16:37*	WG1135515
(S) Dibromofluoromethane	*97.1*		*76.0-123*		*07/10/2018 16:37*	WG1135515
(S) 4-Bromofluorobenzene	*110*		*80.0-120*		*07/10/2018 16:37*	WG1135515

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.995	07/10/2018 10:45	WG1135246

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/07/2018 15:46	WG1133709
Benzo(a)anthracene	ND		0.0000500	1	07/07/2018 15:46	WG1133709
Benzo(a)pyrene	ND		0.0000500	1	07/07/2018 15:46	WG1133709
Benzo(b)fluoranthene	ND		0.0000500	1	07/07/2018 15:46	WG1133709
Benzo(g,h,i)perylene	ND		0.0000500	1	07/07/2018 15:46	WG1133709
Chrysene	ND		0.0000500	1	07/07/2018 15:46	WG1133709
Fluorene	ND		0.0000500	1	07/07/2018 15:46	WG1133709
Naphthalene	ND		0.000250	1	07/07/2018 15:46	WG1133709
Phenanthrene	ND		0.0000500	1	07/07/2018 15:46	WG1133709
Pyrene	ND		0.0000500	1	07/07/2018 15:46	WG1133709
(S) Nitrobenzene-d5	*90.5*		*31.0-160*		*07/07/2018 15:46*	WG1133709
(S) 2-Fluorobiphenyl	*139*		*48.0-148*		*07/07/2018 15:46*	WG1133709
(S) p-Terphenyl-d14	*128*		*37.0-146*		*07/07/2018 15:46*	WG1133709

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 01:51	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/07/2018 15:51	WG1134887
Isopropylbenzene	ND		0.00100	1	07/07/2018 15:51	WG1134887
1,2-Dichloroethane	ND		0.00100	1	07/07/2018 15:51	WG1134887
Ethylbenzene	ND		0.00100	1	07/07/2018 15:51	WG1134887
Methyl tert-butyl ether	ND		0.00100	1	07/07/2018 15:51	WG1134887
Toluene	ND		0.00100	1	07/07/2018 15:51	WG1134887
1,2,4-Trimethylbenzene	ND		0.00100	1	07/07/2018 15:51	WG1134887
1,3,5-Trimethylbenzene	ND		0.00100	1	07/07/2018 15:51	WG1134887
Xylenes, Total	ND		0.00300	1	07/07/2018 15:51	WG1134887
(S) Toluene-d8	*102*		*80.0-120*		*07/07/2018 15:51*	WG1134887
(S) Dibromofluoromethane	*96.6*		*76.0-123*		*07/07/2018 15:51*	WG1134887
(S) 4-Bromofluorobenzene	*92.2*		*80.0-120*		*07/07/2018 15:51*	WG1134887

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/10/2018 10:57	WG1135246

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/07/2018 16:08	WG1133709
Benzo(a)anthracene	ND		0.0000500	1	07/07/2018 16:08	WG1133709
Benzo(a)pyrene	ND		0.0000500	1	07/07/2018 16:08	WG1133709
Benzo(b)fluoranthene	ND		0.0000500	1	07/07/2018 16:08	WG1133709
Benzo(g,h,i)perylene	ND		0.0000500	1	07/07/2018 16:08	WG1133709
Chrysene	ND		0.0000500	1	07/07/2018 16:08	WG1133709
Fluorene	ND		0.0000500	1	07/07/2018 16:08	WG1133709
Naphthalene	ND		0.000250	1	07/07/2018 16:08	WG1133709
Phenanthrene	ND		0.0000500	1	07/07/2018 16:08	WG1133709
Pyrene	ND		0.0000500	1	07/07/2018 16:08	WG1133709
(S) Nitrobenzene-d5	*85.1*		*31.0-160*		*07/07/2018 16:08*	WG1133709
(S) 2-Fluorobiphenyl	*133*		*48.0-148*		*07/07/2018 16:08*	WG1133709
(S) p-Terphenyl-d14	*121*		*37.0-146*		*07/07/2018 16:08*	WG1133709

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 00:31	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/07/2018 16:14	WG1134887
Isopropylbenzene	ND		0.00100	1	07/07/2018 16:14	WG1134887
1,2-Dichloroethane	ND		0.00100	1	07/07/2018 16:14	WG1134887
Ethylbenzene	ND		0.00100	1	07/07/2018 16:14	WG1134887
Methyl tert-butyl ether	ND		0.00100	1	07/07/2018 16:14	WG1134887
Toluene	ND		0.00100	1	07/07/2018 16:14	WG1134887
1,2,4-Trimethylbenzene	ND		0.00100	1	07/07/2018 16:14	WG1134887
1,3,5-Trimethylbenzene	ND		0.00100	1	07/07/2018 16:14	WG1134887
Xylenes, Total	ND		0.00300	1	07/07/2018 16:14	WG1134887
(S) Toluene-d8	*102*		*80.0-120*		*07/07/2018 16:14*	WG1134887
(S) Dibromofluoromethane	*97.1*		*76.0-123*		*07/07/2018 16:14*	WG1134887
(S) 4-Bromofluorobenzene	*92.8*		*80.0-120*		*07/07/2018 16:14*	WG1134887

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/10/2018 11:09	WG1135246

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/07/2018 13:31	WG1134478
Benzo(a)anthracene	ND		0.0000500	1	07/07/2018 13:31	WG1134478
Benzo(a)pyrene	ND		0.0000500	1	07/07/2018 13:31	WG1134478
Benzo(b)fluoranthene	ND		0.0000500	1	07/07/2018 13:31	WG1134478
Benzo(g,h,i)perylene	ND		0.0000500	1	07/07/2018 13:31	WG1134478
Chrysene	ND		0.0000500	1	07/07/2018 13:31	WG1134478
Fluorene	ND		0.0000500	1	07/07/2018 13:31	WG1134478
Naphthalene	ND		0.000250	1	07/07/2018 13:31	WG1134478
Phenanthrene	ND		0.0000500	1	07/07/2018 13:31	WG1134478
Pyrene	ND		0.0000500	1	07/07/2018 13:31	WG1134478
(S) Nitrobenzene-d5	*123*		*31.0-160*		*07/07/2018 13:31*	WG1134478
(S) 2-Fluorobiphenyl	*100*		*48.0-148*		*07/07/2018 13:31*	WG1134478
(S) p-Terphenyl-d14	*107*		*37.0-146*		*07/07/2018 13:31*	WG1134478

Method Blank (MB)

(MB) R3324217-1 07/10/18 00:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324217-2 07/10/18 00:23 • (LCSD) R3324217-3 07/10/18 00:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0477	0.0474	95.4	94.8	80.0-120			0.633	20

L1006563-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1006563-05 07/10/18 00:31 • (MS) R3324217-5 07/10/18 00:39 • (MSD) R3324217-6 07/10/18 00:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	ND	0.0467	0.0478	93.3	95.6	1	75.0-125			2.40	20

Method Blank (MB)

(MB) R3324148-2 07/07/18 14:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*103*			*80.0-120*
(S) Dibromofluoromethane	*94.7*			*76.0-123*
(S) 4-Bromofluorobenzene	*93.9*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324148-1 07/07/18 12:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0202	80.9	69.0-123	
1,2-Dichloroethane	0.0250	0.0204	81.7	67.0-126	
Ethylbenzene	0.0250	0.0250	100	77.0-120	
Isopropylbenzene	0.0250	0.0237	95.0	75.0-120	
Methyl tert-butyl ether	0.0250	0.0210	84.1	64.0-123	
Toluene	0.0250	0.0232	92.9	77.0-120	
1,2,4-Trimethylbenzene	0.0250	0.0232	92.7	75.0-120	
1,3,5-Trimethylbenzene	0.0250	0.0235	93.9	75.0-120	
Xylenes, Total	0.0750	0.0753	100	77.0-120	
(S) Toluene-d8			*104*	*80.0-120*	
(S) Dibromofluoromethane			*94.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*92.3*	*80.0-120*	

Method Blank (MB)

(MB) R3324552-3 07/10/18 10:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*103*			*80.0-120*
(S) Dibromofluoromethane	*99.9*			*76.0-123*
(S) 4-Bromofluorobenzene	*106*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324552-1 07/10/18 08:52 • (LCSD) R3324552-2 07/10/18 09:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0214	0.0219	85.7	87.7	69.0-123			2.27	20
1,2-Dichloroethane	0.0250	0.0228	0.0229	91.1	91.5	67.0-126			0.340	20
Ethylbenzene	0.0250	0.0246	0.0250	98.4	100	77.0-120			1.65	20
Isopropylbenzene	0.0250	0.0265	0.0266	106	107	75.0-120			0.566	20
Methyl tert-butyl ether	0.0250	0.0225	0.0219	90.0	87.4	64.0-123			2.87	20
Toluene	0.0250	0.0237	0.0242	94.7	96.6	77.0-120			2.01	20
1,2,4-Trimethylbenzene	0.0250	0.0260	0.0260	104	104	75.0-120			0.0860	20
1,3,5-Trimethylbenzene	0.0250	0.0265	0.0266	106	106	75.0-120			0.242	20
Xylenes, Total	0.0750	0.0736	0.0749	98.1	99.9	77.0-120			1.75	20
(S) Toluene-d8				*103*	*103*	*80.0-120*				
(S) Dibromofluoromethane				*96.8*	*98.1*	*76.0-123*				
(S) 4-Bromofluorobenzene				*109*	*107*	*80.0-120*				

Method Blank (MB)

(MB) R3324568-1 07/10/18 08:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

Method Blank (MB)

(MB) R3325015-1 07/12/18 00:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1006645-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1006645-07 07/10/18 09:15 • (DUP) R3324568-3 07/10/18 09:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324568-4 07/10/18 11:56 • (LCSD) R3324568-5 07/10/18 14:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000236	0.000241	94.4	96.4	60.0-140			2.10	20

L1006151-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1006151-01 07/10/18 08:50 • (MS) R3324568-2 07/10/18 08:37

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000995	U	0.0000980	98.5	.995	72.0-146	

Method Blank (MB)

(MB) R3323793-3 07/07/18 09:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*84.8*			*31.0-160*
(S) 2-Fluorobiphenyl	*120*			*48.0-148*
(S) p-Terphenyl-d14	*114*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323793-1 07/07/18 08:24 • (LCSD) R3323793-2 07/07/18 08:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00216	0.00216	108	108	64.0-142			0.0463	20
Benzo(a)anthracene	0.00200	0.00228	0.00220	114	110	59.0-134			3.36	20
Benzo(a)pyrene	0.00200	0.00225	0.00222	113	111	61.0-145			1.45	20
Benzo(b)fluoranthene	0.00200	0.00231	0.00226	116	113	57.0-136			2.03	20
Benzo(g,h,i)perylene	0.00200	0.00231	0.00222	115	111	54.0-140			4.00	20
Chrysene	0.00200	0.00233	0.00228	117	114	63.0-140			2.27	20
Fluorene	0.00200	0.00199	0.00197	99.3	98.5	64.0-129			0.822	20
Naphthalene	0.00200	0.00176	0.00183	87.9	91.5	68.0-129			3.98	20
Phenanthrene	0.00200	0.00194	0.00188	96.9	93.8	62.0-132			3.20	20
Pyrene	0.00200	0.00212	0.00212	106	106	58.0-156			0.326	20
(S) Nitrobenzene-d5				*98.4*	*85.2*	*31.0-160*				
(S) 2-Fluorobiphenyl				*122*	*118*	*48.0-148*				
(S) p-Terphenyl-d14				*113*	*111*	*37.0-146*				

Method Blank (MB)

(MB) R3323796-3 07/07/18 08:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*121*			*31.0-160*
(S) 2-Fluorobiphenyl	*90.3*			*48.0-148*
(S) p-Terphenyl-d14	*107*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323796-1 07/07/18 07:50 • (LCSD) R3323796-2 07/07/18 08:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00215	0.00212	108	106	64.0-142			1.79	20
Benzo(a)anthracene	0.00200	0.00222	0.00218	111	109	59.0-134			1.46	20
Benzo(a)pyrene	0.00200	0.00208	0.00211	104	106	61.0-145			1.56	20
Benzo(b)fluoranthene	0.00200	0.00198	0.00208	98.9	104	57.0-136			4.82	20
Benzo(g,h,i)perylene	0.00200	0.00190	0.00195	95.1	97.6	54.0-140			2.52	20
Chrysene	0.00200	0.00208	0.00210	104	105	63.0-140			0.721	20
Fluorene	0.00200	0.00204	0.00199	102	99.7	64.0-129			2.09	20
Naphthalene	0.00200	0.00163	0.00162	81.5	81.1	68.0-129			0.475	20
Phenanthrene	0.00200	0.00207	0.00205	104	102	62.0-132			1.19	20
Pyrene	0.00200	0.00216	0.00208	108	104	58.0-156			4.05	20
(S) Nitrobenzene-d5				*120*	*119*	*31.0-160*				
(S) 2-Fluorobiphenyl				*90.6*	*87.1*	*48.0-148*				
(S) p-Terphenyl-d14				*112*	*102*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

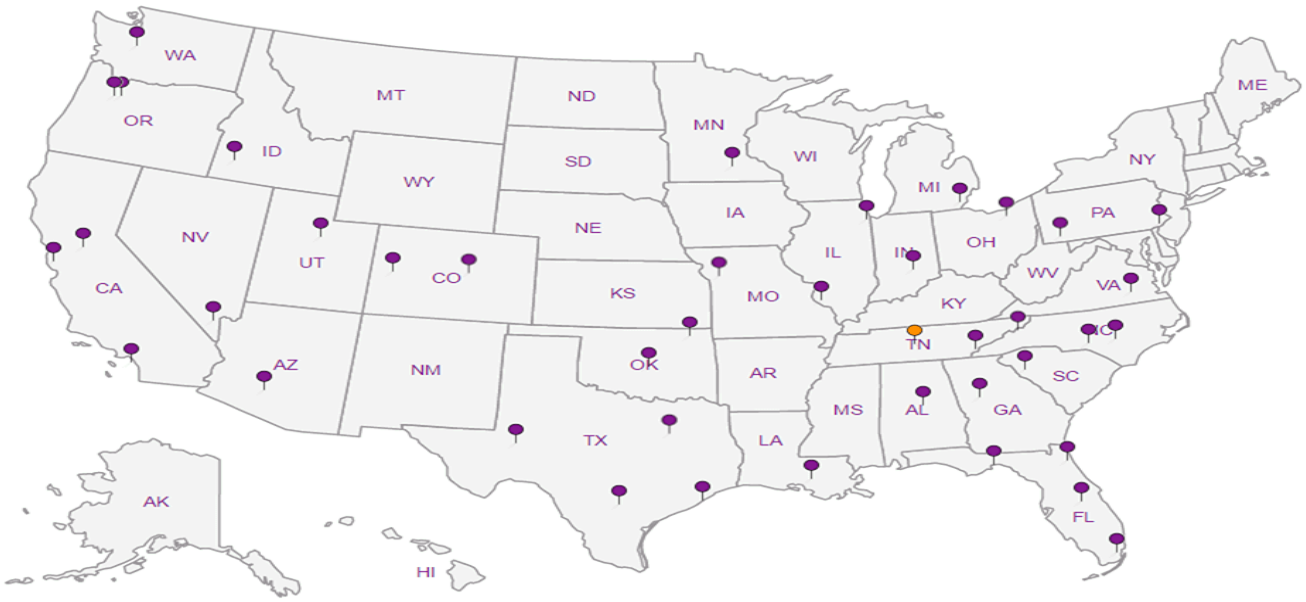
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: EVERGREEN PHL GWS

City/State Collected:

Phone: **267-240-3415**
Fax:

Client Project # 213402429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): JAN ANDREE

Site/Facility ID #

P.O. #

Collected by (Signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: STANDARD

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP (LAB FILTERED)	V8260OXY - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
N-99_20180629	G	GW	23'	6/29/18	0935	9	X	X			01
N-8_20180629		GW	28'		1059	9	X	X			02
N-3_20180629		GW	21'		1327	9	X	X			03
N-98_20180629		GW	25'		1202	9	X	X			04
N-L_20180629	↓	GW	16'	↓	1421	9	X	X			05
		GW									
		GW									
		GW									
		GW									
		GW									

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 106563
B090
Table #
Acctnum: SUNSTANTEC
Template: T137388
Prelogin: P658899
TSR: 134 - Mark Beasley
PB: 6/15/18
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP
★EQUIS EDD FORMAT
★REFER TO SHORTLIST FOR ANALYTES
★ALL STANDARD TAT

pH ___ Temp ___
Flow ___ Other ___

Samples returned via:
__ UPS __ FedEx __ Courier ___

Tracking # Southwest

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	6/29/18	1700	ESCPA lockout
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
ESCPA lockout	7/2/18	9:30	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 2.7°C Bottles Received: 45

Date: 7/3/18 Time: 1030

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 25, 2018

Stantec - S/E

Sample Delivery Group:	L1006568
Samples Received:	07/03/2018
Project Number:	213402429
Description:	Evergreen GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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URS-5_HS_20180629 L1006568-01 GW

Collected by: Karl Mclorry | Collected date/time: 06/29/18 08:45 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 02:13	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134279	100	07/06/18 14:04	07/06/18 14:04	LRL
EDB / DBCP by Method 8011	WG1135246	.995	07/09/18 10:36	07/10/18 11:20	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134478	1	07/06/18 13:22	07/07/18 14:35	DMG
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134478	20	07/06/18 13:22	07/07/18 18:44	KM

URS-5_20180629 L1006568-02 GW

Collected by: Karl Mclorry | Collected date/time: 06/29/18 10:05 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 02:17	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134279	1	07/06/18 14:24	07/06/18 14:24	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135308	25	07/09/18 14:40	07/09/18 14:40	RAS
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135478	50	07/09/18 16:25	07/09/18 16:25	RAS
EDB / DBCP by Method 8011	WG1135246	.998	07/09/18 10:36	07/10/18 11:32	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134478	1	07/06/18 13:22	07/07/18 14:56	KM
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134478	10	07/06/18 13:22	07/10/18 16:54	KM

URS-5_DUP_20180629 L1006568-03 GW

Collected by: Karl Mclorry | Collected date/time: 06/29/18 10:05 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 02:21	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134279	25	07/06/18 14:44	07/06/18 14:44	LRL
EDB / DBCP by Method 8011	WG1135246	.998	07/09/18 10:36	07/10/18 12:09	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134478	1	07/06/18 13:22	07/07/18 15:16	KM
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134478	10	07/06/18 13:22	07/10/18 17:16	KM

N-75_HS_20180629 L1006568-04 GW

Collected by: Karl Mclorry | Collected date/time: 06/29/18 10:50 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134228	1	07/06/18 10:33	07/06/18 10:33	LRL

N-75_20180629 L1006568-05 GW

Collected by: Karl Mclorry | Collected date/time: 06/29/18 12:15 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134228	1	07/06/18 10:54	07/06/18 10:54	LRL

N-133_HS_20180629 L1006568-06 GW

Collected by: Karl Mclorry | Collected date/time: 06/29/18 12:45 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134228	1	07/06/18 11:15	07/06/18 11:15	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135140	200	07/08/18 19:31	07/08/18 19:31	DWR

N-133_20180629 L1006568-07 GW

Collected by: Karl Mclorry
Collected date/time: 06/29/18 13:35
Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134228	1	07/06/18 11:36	07/06/18 11:36	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135140	200	07/08/18 19:52	07/08/18 19:52	DWR

N-2_20180629 L1006568-08 GW

Collected by: Karl Mclorry
Collected date/time: 06/29/18 14:55
Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 02:25	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134887	1	07/07/18 16:56	07/07/18 16:56	RAS
EDB / DBCP by Method 8011	WG1135246	.998	07/09/18 10:36	07/10/18 12:22	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134478	1	07/06/18 13:22	07/07/18 15:37	KM

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 02:13	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	3.43		0.100	100	07/06/2018 14:04	WG1134279
Isopropylbenzene	ND		0.100	100	07/06/2018 14:04	WG1134279
1,2-Dichloroethane	ND		0.100	100	07/06/2018 14:04	WG1134279
Ethylbenzene	0.539		0.100	100	07/06/2018 14:04	WG1134279
Methyl tert-butyl ether	ND		0.100	100	07/06/2018 14:04	WG1134279
Toluene	2.57		0.100	100	07/06/2018 14:04	WG1134279
1,2,4-Trimethylbenzene	0.186		0.100	100	07/06/2018 14:04	WG1134279
1,3,5-Trimethylbenzene	ND		0.100	100	07/06/2018 14:04	WG1134279
Xylenes, Total	2.36		0.300	100	07/06/2018 14:04	WG1134279
(S) Toluene-d8	*101*		*80.0-120*		*07/06/2018 14:04*	WG1134279
(S) Dibromofluoromethane	*98.1*		*76.0-123*		*07/06/2018 14:04*	WG1134279
(S) 4-Bromofluorobenzene	*104*		*80.0-120*		*07/06/2018 14:04*	WG1134279

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.995	07/10/2018 11:20	WG1135246

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.00663		0.0000500	1	07/07/2018 14:35	WG1134478
Benzo(a)anthracene	0.000168		0.0000500	1	07/07/2018 14:35	WG1134478
Benzo(a)pyrene	ND		0.0000500	1	07/07/2018 14:35	WG1134478
Benzo(b)fluoranthene	0.0000571		0.0000500	1	07/07/2018 14:35	WG1134478
Benzo(g,h,i)perylene	ND		0.0000500	1	07/07/2018 14:35	WG1134478
Chrysene	0.000107		0.0000500	1	07/07/2018 14:35	WG1134478
Fluorene	0.0213		0.0000500	1	07/07/2018 14:35	WG1134478
Naphthalene	0.414		0.00500	20	07/07/2018 18:44	WG1134478
Phenanthrene	0.0417		0.0000500	1	07/07/2018 14:35	WG1134478
Pyrene	0.00354		0.0000500	1	07/07/2018 14:35	WG1134478
(S) Nitrobenzene-d5	*22.6*	J7	*31.0-160*		*07/07/2018 18:44*	WG1134478
(S) Nitrobenzene-d5	*36.6*		*31.0-160*		*07/07/2018 14:35*	WG1134478
(S) 2-Fluorobiphenyl	*74.2*		*48.0-148*		*07/07/2018 14:35*	WG1134478
(S) 2-Fluorobiphenyl	*5.05*	J7	*48.0-148*		*07/07/2018 18:44*	WG1134478
(S) p-Terphenyl-d14	*113*		*37.0-146*		*07/07/2018 14:35*	WG1134478
(S) p-Terphenyl-d14	*5.67*	J7	*37.0-146*		*07/07/2018 18:44*	WG1134478



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 02:17	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	3.26		0.0250	25	07/09/2018 14:40	WG1135308
Isopropylbenzene	0.0273		0.00100	1	07/06/2018 14:24	WG1134279
1,2-Dichloroethane	ND		0.00100	1	07/06/2018 14:24	WG1134279
Ethylbenzene	0.664		0.0250	25	07/09/2018 14:40	WG1135308
Methyl tert-butyl ether	ND		0.00100	1	07/06/2018 14:24	WG1134279
Toluene	6.14		0.0500	50	07/09/2018 16:25	WG1135478
1,2,4-Trimethylbenzene	0.212		0.0250	25	07/09/2018 14:40	WG1135308
1,3,5-Trimethylbenzene	0.0649		0.00100	1	07/06/2018 14:24	WG1134279
Xylenes, Total	3.05		0.0750	25	07/09/2018 14:40	WG1135308
(S) Toluene-d8	*89.0*		*80.0-120*		*07/06/2018 14:24*	WG1134279
(S) Toluene-d8	*104*		*80.0-120*		*07/09/2018 14:40*	WG1135308
(S) Toluene-d8	*108*		*80.0-120*		*07/09/2018 16:25*	WG1135478
(S) Dibromofluoromethane	*143*	J1	*76.0-123*		*07/06/2018 14:24*	WG1134279
(S) Dibromofluoromethane	*88.8*		*76.0-123*		*07/09/2018 14:40*	WG1135308
(S) Dibromofluoromethane	*89.3*		*76.0-123*		*07/09/2018 16:25*	WG1135478
(S) 4-Bromofluorobenzene	*103*		*80.0-120*		*07/06/2018 14:24*	WG1134279
(S) 4-Bromofluorobenzene	*90.3*		*80.0-120*		*07/09/2018 14:40*	WG1135308
(S) 4-Bromofluorobenzene	*94.7*		*80.0-120*		*07/09/2018 16:25*	WG1135478

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/10/2018 11:32	WG1135246

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.00650		0.0000500	1	07/07/2018 14:56	WG1134478
Benzo(a)anthracene	0.000174		0.0000500	1	07/07/2018 14:56	WG1134478
Benzo(a)pyrene	ND		0.0000500	1	07/07/2018 14:56	WG1134478
Benzo(b)fluoranthene	0.0000716		0.0000500	1	07/07/2018 14:56	WG1134478
Benzo(g,h,i)perylene	ND		0.0000500	1	07/07/2018 14:56	WG1134478
Chrysene	0.000110		0.0000500	1	07/07/2018 14:56	WG1134478
Fluorene	0.0243		0.0000500	1	07/07/2018 14:56	WG1134478
Naphthalene	0.355		0.00250	10	07/10/2018 16:54	WG1134478
Phenanthrene	0.0387		0.0000500	1	07/07/2018 14:56	WG1134478
Pyrene	0.00321		0.0000500	1	07/07/2018 14:56	WG1134478
(S) Nitrobenzene-d5	*255*	J1	*31.0-160*		*07/10/2018 16:54*	WG1134478
(S) Nitrobenzene-d5	*39.3*		*31.0-160*		*07/07/2018 14:56*	WG1134478
(S) 2-Fluorobiphenyl	*95.3*		*48.0-148*		*07/10/2018 16:54*	WG1134478
(S) 2-Fluorobiphenyl	*72.5*		*48.0-148*		*07/07/2018 14:56*	WG1134478
(S) p-Terphenyl-d14	*99.9*		*37.0-146*		*07/10/2018 16:54*	WG1134478
(S) p-Terphenyl-d14	*109*		*37.0-146*		*07/07/2018 14:56*	WG1134478

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 02:21	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	3.98		0.0250	25	07/06/2018 14:44	WG1134279
Isopropylbenzene	0.0254		0.0250	25	07/06/2018 14:44	WG1134279
1,2-Dichloroethane	ND		0.0250	25	07/06/2018 14:44	WG1134279
Ethylbenzene	0.613		0.0250	25	07/06/2018 14:44	WG1134279
Methyl tert-butyl ether	ND		0.0250	25	07/06/2018 14:44	WG1134279
Toluene	4.96		0.0250	25	07/06/2018 14:44	WG1134279
1,2,4-Trimethylbenzene	0.219		0.0250	25	07/06/2018 14:44	WG1134279
1,3,5-Trimethylbenzene	0.0650		0.0250	25	07/06/2018 14:44	WG1134279
Xylenes, Total	2.77		0.0750	25	07/06/2018 14:44	WG1134279
(S) Toluene-d8	*99.1*		*80.0-120*		*07/06/2018 14:44*	WG1134279
(S) Dibromofluoromethane	*101*		*76.0-123*		*07/06/2018 14:44*	WG1134279
(S) 4-Bromofluorobenzene	*102*		*80.0-120*		*07/06/2018 14:44*	WG1134279

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/10/2018 12:09	WG1135246

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.00682		0.0000500	1	07/07/2018 15:16	WG1134478
Benzo(a)anthracene	0.000180		0.0000500	1	07/07/2018 15:16	WG1134478
Benzo(a)pyrene	ND		0.0000500	1	07/07/2018 15:16	WG1134478
Benzo(b)fluoranthene	0.0000693		0.0000500	1	07/07/2018 15:16	WG1134478
Benzo(g,h,i)perylene	ND		0.0000500	1	07/07/2018 15:16	WG1134478
Chrysene	0.000108		0.0000500	1	07/07/2018 15:16	WG1134478
Fluorene	0.0230		0.0000500	1	07/07/2018 15:16	WG1134478
Naphthalene	0.359		0.00250	10	07/10/2018 17:16	WG1134478
Phenanthrene	0.0406		0.0000500	1	07/07/2018 15:16	WG1134478
Pyrene	0.00346		0.0000500	1	07/07/2018 15:16	WG1134478
(S) Nitrobenzene-d5	*262*	J1	*31.0-160*		*07/10/2018 17:16*	WG1134478
(S) Nitrobenzene-d5	*39.8*		*31.0-160*		*07/07/2018 15:16*	WG1134478
(S) 2-Fluorobiphenyl	*67.9*		*48.0-148*		*07/07/2018 15:16*	WG1134478
(S) 2-Fluorobiphenyl	*92.7*		*48.0-148*		*07/10/2018 17:16*	WG1134478
(S) p-Terphenyl-d14	*95.5*		*37.0-146*		*07/10/2018 17:16*	WG1134478
(S) p-Terphenyl-d14	*114*		*37.0-146*		*07/07/2018 15:16*	WG1134478

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0204		0.00100	1	07/06/2018 10:33	WG1134228
Toluene	ND		0.00100	1	07/06/2018 10:33	WG1134228
Ethylbenzene	ND		0.00100	1	07/06/2018 10:33	WG1134228
Total Xylenes	ND		0.00300	1	07/06/2018 10:33	WG1134228
(S) Toluene-d8	*110*		*80.0-120*		*07/06/2018 10:33*	WG1134228
(S) Dibromofluoromethane	*95.2*		*76.0-123*		*07/06/2018 10:33*	WG1134228
(S) a,a,a-Trifluorotoluene	*97.0*		*80.0-120*		*07/06/2018 10:33*	WG1134228
(S) 4-Bromofluorobenzene	*90.8*		*80.0-120*		*07/06/2018 10:33*	WG1134228

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00962		0.00100	1	07/06/2018 10:54	WG1134228
Toluene	ND		0.00100	1	07/06/2018 10:54	WG1134228
Ethylbenzene	ND		0.00100	1	07/06/2018 10:54	WG1134228
Total Xylenes	ND		0.00300	1	07/06/2018 10:54	WG1134228
(S) Toluene-d8	*106*		*80.0-120*		*07/06/2018 10:54*	WG1134228
(S) Dibromofluoromethane	*95.6*		*76.0-123*		*07/06/2018 10:54*	WG1134228
(S) a,a,a-Trifluorotoluene	*100*		*80.0-120*		*07/06/2018 10:54*	WG1134228
(S) 4-Bromofluorobenzene	*87.3*		*80.0-120*		*07/06/2018 10:54*	WG1134228

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	11.0		0.200	200	07/08/2018 19:31	WG1135140
Toluene	0.00543		0.00100	1	07/06/2018 11:15	WG1134228
Ethylbenzene	0.0184		0.00100	1	07/06/2018 11:15	WG1134228
Total Xylenes	0.0381		0.00300	1	07/06/2018 11:15	WG1134228
(S) Toluene-d8	*109*		*80.0-120*		*07/06/2018 11:15*	WG1134228
(S) Toluene-d8	*107*		*80.0-120*		*07/08/2018 19:31*	WG1135140
(S) Dibromofluoromethane	*109*		*76.0-123*		*07/06/2018 11:15*	WG1134228
(S) Dibromofluoromethane	*96.3*		*76.0-123*		*07/08/2018 19:31*	WG1135140
(S) a,a,a-Trifluorotoluene	*95.2*		*80.0-120*		*07/06/2018 11:15*	WG1134228
(S) a,a,a-Trifluorotoluene	*98.7*		*80.0-120*		*07/08/2018 19:31*	WG1135140
(S) 4-Bromofluorobenzene	*93.4*		*80.0-120*		*07/06/2018 11:15*	WG1134228
(S) 4-Bromofluorobenzene	*88.1*		*80.0-120*		*07/08/2018 19:31*	WG1135140

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	11.5		0.200	200	07/08/2018 19:52	WG1135140
Toluene	0.00541		0.00100	1	07/06/2018 11:36	WG1134228
Ethylbenzene	0.0174		0.00100	1	07/06/2018 11:36	WG1134228
Total Xylenes	0.0359		0.00300	1	07/06/2018 11:36	WG1134228
(S) Toluene-d8	*107*		*80.0-120*		*07/06/2018 11:36*	WG1134228
(S) Toluene-d8	*109*		*80.0-120*		*07/08/2018 19:52*	WG1135140
(S) Dibromofluoromethane	*120*		*76.0-123*		*07/06/2018 11:36*	WG1134228
(S) Dibromofluoromethane	*94.5*		*76.0-123*		*07/08/2018 19:52*	WG1135140
(S) a,a,a-Trifluorotoluene	*99.4*		*80.0-120*		*07/06/2018 11:36*	WG1134228
(S) a,a,a-Trifluorotoluene	*98.7*		*80.0-120*		*07/08/2018 19:52*	WG1135140
(S) 4-Bromofluorobenzene	*84.6*		*80.0-120*		*07/06/2018 11:36*	WG1134228
(S) 4-Bromofluorobenzene	*88.1*		*80.0-120*		*07/08/2018 19:52*	WG1135140

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 02:25	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/07/2018 16:56	WG1134887
Isopropylbenzene	ND		0.00100	1	07/07/2018 16:56	WG1134887
1,2-Dichloroethane	ND		0.00100	1	07/07/2018 16:56	WG1134887
Ethylbenzene	ND		0.00100	1	07/07/2018 16:56	WG1134887
Methyl tert-butyl ether	ND		0.00100	1	07/07/2018 16:56	WG1134887
Toluene	ND		0.00100	1	07/07/2018 16:56	WG1134887
1,2,4-Trimethylbenzene	ND		0.00100	1	07/07/2018 16:56	WG1134887
1,3,5-Trimethylbenzene	ND		0.00100	1	07/07/2018 16:56	WG1134887
Xylenes, Total	ND		0.00300	1	07/07/2018 16:56	WG1134887
(S) Toluene-d8	*102*		*80.0-120*		*07/07/2018 16:56*	WG1134887
(S) Dibromofluoromethane	*95.5*		*76.0-123*		*07/07/2018 16:56*	WG1134887
(S) 4-Bromofluorobenzene	*93.9*		*80.0-120*		*07/07/2018 16:56*	WG1134887

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/10/2018 12:22	WG1135246

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000218		0.0000500	1	07/07/2018 15:37	WG1134478
Benzo(a)anthracene	ND		0.0000500	1	07/07/2018 15:37	WG1134478
Benzo(a)pyrene	ND		0.0000500	1	07/07/2018 15:37	WG1134478
Benzo(b)fluoranthene	ND		0.0000500	1	07/07/2018 15:37	WG1134478
Benzo(g,h,i)perylene	ND		0.0000500	1	07/07/2018 15:37	WG1134478
Chrysene	ND		0.0000500	1	07/07/2018 15:37	WG1134478
Fluorene	0.000526		0.0000500	1	07/07/2018 15:37	WG1134478
Naphthalene	ND		0.000250	1	07/07/2018 15:37	WG1134478
Phenanthrene	0.000115		0.0000500	1	07/07/2018 15:37	WG1134478
Pyrene	0.000509		0.0000500	1	07/07/2018 15:37	WG1134478
(S) Nitrobenzene-d5	*139*		*31.0-160*		*07/07/2018 15:37*	WG1134478
(S) 2-Fluorobiphenyl	*95.1*		*48.0-148*		*07/07/2018 15:37*	WG1134478
(S) p-Terphenyl-d14	*113*		*37.0-146*		*07/07/2018 15:37*	WG1134478

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3324217-1 07/10/18 00:19

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324217-2 07/10/18 00:23 • (LCSD) R3324217-3 07/10/18 00:27

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Lead,Dissolved	0.0500	0.0477	0.0474	95.4	94.8	80.0-120			0.633	20

L1006563-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1006563-05 07/10/18 00:31 • (MS) R3324217-5 07/10/18 00:39 • (MSD) R3324217-6 07/10/18 00:44

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Lead,Dissolved	0.0500	ND	0.0467	0.0478	93.3	95.6	1	75.0-125			2.40	20

Method Blank (MB)

(MB) R3323633-3 07/06/18 05:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*109*			*80.0-120*
(S) Dibromofluoromethane	*94.6*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*99.2*			*80.0-120*
(S) 4-Bromofluorobenzene	*91.3*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323633-1 07/06/18 03:58 • (LCSD) R3323633-2 07/06/18 04:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0240	0.0241	95.8	96.3	69.0-123			0.428	20
Ethylbenzene	0.0250	0.0256	0.0275	103	110	77.0-120			6.87	20
Toluene	0.0250	0.0252	0.0273	101	109	77.0-120			7.92	20
Xylenes, Total	0.0750	0.0760	0.0818	101	109	77.0-120			7.35	20
(S) Toluene-d8				*104*	*111*	*80.0-120*				
(S) Dibromofluoromethane				*94.2*	*89.4*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*98.2*	*99.3*	*80.0-120*				
(S) 4-Bromofluorobenzene				*93.8*	*96.1*	*80.0-120*				

L1006429-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1006429-01 07/06/18 10:12 • (MS) R3323633-4 07/06/18 12:17 • (MSD) R3323633-5 07/06/18 12:38

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	U	0.0322	0.0289	129	115	1	34.0-147			10.8	20
Ethylbenzene	0.0250	U	0.0288	0.0283	115	113	1	42.0-147			1.64	20
Toluene	0.0250	U	0.0286	0.0282	114	113	1	42.0-141			1.41	20
Xylenes, Total	0.0750	U	0.0861	0.0842	115	112	1	41.0-148			2.23	20
(S) Toluene-d8					*105*	*107*		*80.0-120*				
(S) Dibromofluoromethane					*96.0*	*94.3*		*76.0-123*				
(S) a,a,a-Trifluorotoluene					*96.6*	*99.0*		*80.0-120*				
(S) 4-Bromofluorobenzene					*90.2*	*90.6*		*80.0-120*				

Method Blank (MB)

(MB) R3323978-3 07/06/18 08:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*101*			*80.0-120*
(S) Dibromofluoromethane	*96.7*			*76.0-123*
(S) 4-Bromofluorobenzene	*101*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323978-1 07/06/18 07:05 • (LCSD) R3323978-2 07/06/18 07:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0222	0.0228	88.6	91.2	69.0-123			2.85	20
1,2-Dichloroethane	0.0250	0.0243	0.0246	97.2	98.6	67.0-126			1.47	20
Ethylbenzene	0.0250	0.0228	0.0242	91.2	97.0	77.0-120			6.19	20
Isopropylbenzene	0.0250	0.0260	0.0272	104	109	75.0-120			4.57	20
Methyl tert-butyl ether	0.0250	0.0224	0.0233	89.6	93.4	64.0-123			4.06	20
Toluene	0.0250	0.0218	0.0229	87.1	91.5	77.0-120			4.86	20
1,2,4-Trimethylbenzene	0.0250	0.0226	0.0242	90.4	97.0	75.0-120			6.99	20
1,3,5-Trimethylbenzene	0.0250	0.0249	0.0260	99.5	104	75.0-120			4.55	20
Xylenes, Total	0.0750	0.0668	0.0705	89.1	94.0	77.0-120			5.39	20
(S) Toluene-d8				*101*	*101*	*80.0-120*				
(S) Dibromofluoromethane				*98.5*	*97.3*	*76.0-123*				
(S) 4-Bromofluorobenzene				*104*	*104*	*80.0-120*				

Method Blank (MB)

(MB) R3324148-2 07/07/18 14:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*103*			*80.0-120*
(S) Dibromofluoromethane	*94.7*			*76.0-123*
(S) 4-Bromofluorobenzene	*93.9*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324148-1 07/07/18 12:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0202	80.9	69.0-123	
1,2-Dichloroethane	0.0250	0.0204	81.7	67.0-126	
Ethylbenzene	0.0250	0.0250	100	77.0-120	
Isopropylbenzene	0.0250	0.0237	95.0	75.0-120	
Methyl tert-butyl ether	0.0250	0.0210	84.1	64.0-123	
Toluene	0.0250	0.0232	92.9	77.0-120	
1,2,4-Trimethylbenzene	0.0250	0.0232	92.7	75.0-120	
1,3,5-Trimethylbenzene	0.0250	0.0235	93.9	75.0-120	
Xylenes, Total	0.0750	0.0753	100	77.0-120	
(S) Toluene-d8			*104*	*80.0-120*	
(S) Dibromofluoromethane			*94.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*92.3*	*80.0-120*	

Method Blank (MB)

(MB) R3324412-3 07/08/18 11:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*95.4*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*99.0*			*80.0-120*
(S) 4-Bromofluorobenzene	*88.9*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324412-1 07/08/18 10:11 • (LCSD) R3324412-2 07/08/18 10:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0244	0.0248	97.5	99.1	69.0-123			1.59	20
(S) Toluene-d8				*104*	*108*	*80.0-120*				
(S) Dibromofluoromethane				*92.0*	*91.4*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*99.5*	*100*	*80.0-120*				
(S) 4-Bromofluorobenzene				*94.7*	*94.5*	*80.0-120*				

Method Blank (MB)

(MB) R3324105-3 07/09/18 11:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*104*			*80.0-120*
(S) Dibromofluoromethane	*90.6*			*76.0-123*
(S) 4-Bromofluorobenzene	*90.0*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324105-1 07/09/18 09:35 • (LCSD) R3324105-2 07/09/18 09:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0205	0.0208	82.2	83.3	69.0-123			1.40	20
Ethylbenzene	0.0250	0.0258	0.0264	103	106	77.0-120			2.40	20
1,2,4-Trimethylbenzene	0.0250	0.0238	0.0240	95.1	95.9	75.0-120			0.890	20
Xylenes, Total	0.0750	0.0770	0.0798	103	106	77.0-120			3.57	20
(S) Toluene-d8				*102*	*103*	*80.0-120*				
(S) Dibromofluoromethane				*90.3*	*89.9*	*76.0-123*				
(S) 4-Bromofluorobenzene				*90.1*	*88.4*	*80.0-120*				

Method Blank (MB)

(MB) R3324129-3 07/09/18 10:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Toluene	U		0.000412	0.00100
(S) Toluene-d8	*113*			*80.0-120*
(S) Dibromofluoromethane	*92.0*			*76.0-123*
(S) 4-Bromofluorobenzene	*90.2*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324129-1 07/09/18 09:56 • (LCSD) R3324129-2 07/09/18 10:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Toluene	0.0250	0.0262	0.0267	105	107	77.0-120			2.07	20
(S) Toluene-d8				*106*	*109*	*80.0-120*				
(S) Dibromofluoromethane				*92.9*	*94.3*	*76.0-123*				
(S) 4-Bromofluorobenzene				*95.8*	*99.4*	*80.0-120*				

Method Blank (MB)

(MB) R3324568-1 07/10/18 08:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

Method Blank (MB)

(MB) R3325015-1 07/12/18 00:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1006645-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1006645-07 07/10/18 09:15 • (DUP) R3324568-3 07/10/18 09:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324568-4 07/10/18 11:56 • (LCSD) R3324568-5 07/10/18 14:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000236	0.000241	94.4	96.4	60.0-140			2.10	20

L1006151-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1006151-01 07/10/18 08:50 • (MS) R3324568-2 07/10/18 08:37

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000995	U	0.0000980	98.5	.995	72.0-146	

Method Blank (MB)

(MB) R3323796-3 07/07/18 08:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*121*			*31.0-160*
(S) 2-Fluorobiphenyl	*90.3*			*48.0-148*
(S) p-Terphenyl-d14	*107*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323796-1 07/07/18 07:50 • (LCSD) R3323796-2 07/07/18 08:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00215	0.00212	108	106	64.0-142			1.79	20
Benzo(a)anthracene	0.00200	0.00222	0.00218	111	109	59.0-134			1.46	20
Benzo(a)pyrene	0.00200	0.00208	0.00211	104	106	61.0-145			1.56	20
Benzo(b)fluoranthene	0.00200	0.00198	0.00208	98.9	104	57.0-136			4.82	20
Benzo(g,h,i)perylene	0.00200	0.00190	0.00195	95.1	97.6	54.0-140			2.52	20
Chrysene	0.00200	0.00208	0.00210	104	105	63.0-140			0.721	20
Fluorene	0.00200	0.00204	0.00199	102	99.7	64.0-129			2.09	20
Naphthalene	0.00200	0.00163	0.00162	81.5	81.1	68.0-129			0.475	20
Phenanthrene	0.00200	0.00207	0.00205	104	102	62.0-132			1.19	20
Pyrene	0.00200	0.00216	0.00208	108	104	58.0-156			4.05	20
(S) Nitrobenzene-d5				*120*	*119*	*31.0-160*				
(S) 2-Fluorobiphenyl				*90.6*	*87.1*	*48.0-148*				
(S) p-Terphenyl-d14				*112*	*102*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

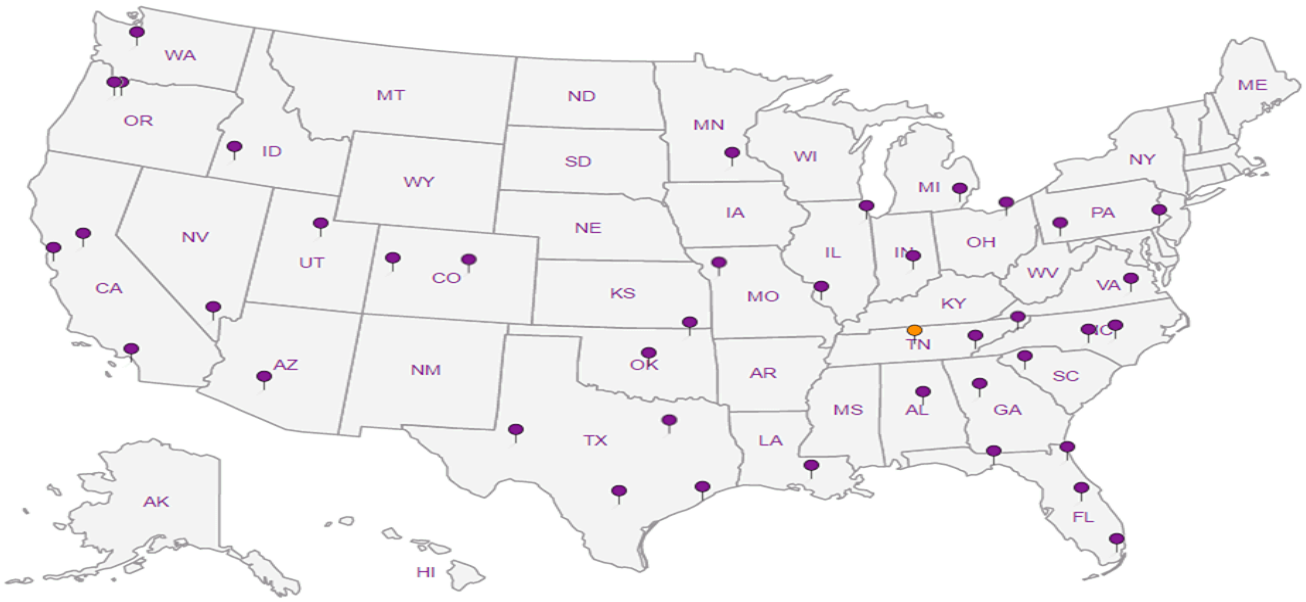
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen - GWS

City/State Collected: Phila, PA

Phone: ~~267-240-3415~~

Fax: 610-425-9311

Client Project # 213402429

Lab Project # SUNSTANTEC-PHL

Collected by (print): Karl McGorry

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABORATORIES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 106569

B089

Acctnum: SUNSTANTEC
Template: T137388
Prelogin: P659137
TSR: 134 - Mark Beasley
PB: 6-18-18

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP (Lab Filtered)	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
URS-5_HS_20180629	G	GW	7'	6.29.18	845	9	X	X					01
URS_5_20180629	G	GW	7'	6.29.18	1005	9	X	X					02
URS_5_Dup_20180629	G	GW	7'	6.29.18	1005	9	X	X					03
N_75_HS_20180629	G	GW	35'	6.29.18	1050	3				X			04
N_75_20180629	G	GW	35'	6.29.18	1215	3				X			05
N_133_HS_20180629	G	GW	7'	6.29.18	1245	3				X			06
N_133_20180629	G	GW	7'	6.29.18	1335	3				X			07
N_2_20180629	G	GW	20'	6.29.18	1455	9	X	X					08
		GW											
		GW											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: See attached List for Equis EDD Format
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP
pH _____ Temp _____
Flow _____ Other _____
Standard TAT

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # Southwest

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: X Y N
Bottles arrive intact: Y N
Correct bottles used: X Y N
Sufficient volume sent: X Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	6/29/18	1700	ESCPA lockout	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
ESCPA lockout	7/2/18	9:30		2.7 78
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
				7/3/18 CL 1030

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Table 1
Evergreen Petroleum Short List of Constituents of Concern

VOCs by EPA Method 8260	CAS No.
Benzene	71-43-2
Cumene	98-82-8
Dichloroethane, 1,2-	107-06-2
Ethylbenzene	100-41-4
Ethylene Dibromide*	106-93-4
Methyl tert butyl ether	1634-04-4
Toluene	108-88-3
Trimethylbenzene, 1,2,4-	95-63-6
Trimethylbenzene, 1,3,5-	108-67-8
Xylenes	1330-20-7

SVOCs by EPA Method 8270	CAS No.
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Benzo(g,h,i)perylene	191-24-2
Chrysene	218-01-9
Fluorene	86-73-7
Naphthalene**	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Metals by Method 6010/6020	CAS No.
Lead***	7439-92-1

*Ethylene Dibromide (EDB) should be analyzed by Method 8011 instead of 8260 in soil for tank investigations and in **all groundwater samples**. EDB in all trip blank samples should be analyzed by 8260 regardless of method used for primary samples.

**Naphthalene should be analyzed by EPA Method 8260 instead of 8270 for tank investigations.

***Metals analysis should be total in soil and dissolved in groundwater.

This list is comprised of the combined PADEP Short List of Petroleum Products (leaded and unleaded gasoline and No. 1, 2, 4, 5, 6 Fuel Oils).

Stantec

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 26, 2018

Stantec - S/E

Sample Delivery Group:	L1006569
Samples Received:	07/03/2018
Project Number:	
Description:	Evergreen PHL GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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TB_20180629 L1006569-01 GW

Collected by: Dane Hopkins | Collected date/time: 06/29/18 00:00 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134531	1	07/06/18 15:27	07/06/18 15:27	BMB

S-276-20180629 L1006569-02 GW

Collected by: Dane Hopkins | Collected date/time: 06/29/18 09:30 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134531	200	07/06/18 20:39	07/06/18 20:39	BMB
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 03:52	ADF

S-277_20180629 L1006569-03 GW

Collected by: Dane Hopkins | Collected date/time: 06/29/18 10:40 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134531	50	07/06/18 20:58	07/06/18 20:58	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135067	5000	07/08/18 23:47	07/08/18 23:47	DWR
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 04:05	ADF

RW-701_20180629 L1006569-04 GW

Collected by: Dane Hopkins | Collected date/time: 06/29/18 12:30 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 02:29	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134887	200	07/07/18 17:18	07/07/18 17:18	RAS
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1138924	200	07/17/18 10:41	07/17/18 10:41	LRL
EDB / DBCP by Method 8011	WG1135246	.995	07/09/18 10:36	07/10/18 12:34	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134478	1.03	07/06/18 13:22	07/07/18 11:25	DMG
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134478	20.6	07/06/18 13:22	07/07/18 18:23	KM

RW-701_HS_20180629 L1006569-05 GW

Collected by: Dane Hopkins | Collected date/time: 06/29/18 11:45 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134555	1	07/09/18 14:17	07/10/18 02:33	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134887	200	07/07/18 17:40	07/07/18 17:40	RAS
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1138924	200	07/17/18 11:01	07/17/18 11:01	LRL
EDB / DBCP by Method 8011	WG1135246	.995	07/09/18 10:36	07/10/18 12:46	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134478	2	07/06/18 13:22	07/07/18 11:45	DMG

S-382_20180629 L1006569-06 GW

Collected by: Dane Hopkins | Collected date/time: 06/29/18 14:00 | Received date/time: 07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134870	1000	07/07/18 21:40	07/07/18 21:40	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135097	25000	07/08/18 20:34	07/08/18 20:34	JCP

S-382_DUP_20180629 L1006569-07 GW

Collected by	Collected date/time	Received date/time
Dane Hopkins	06/29/18 14:00	07/03/18 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134564	500	07/06/18 18:46	07/06/18 18:46	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135141	5000	07/09/18 17:10	07/09/18 17:10	ACG

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Project Narrative

SV8011 was analyzed outside of the 14 day holding time due to lab error.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/06/2018 15:27	WG1134531
1,2-Dichloroethane	ND		0.00100	1	07/06/2018 15:27	WG1134531
Ethylbenzene	ND		0.00100	1	07/06/2018 15:27	WG1134531
1,2-Dibromoethane	ND		0.00100	1	07/06/2018 15:27	WG1134531
Isopropylbenzene	ND		0.00100	1	07/06/2018 15:27	WG1134531
Toluene	ND		0.00100	1	07/06/2018 15:27	WG1134531
1,2,4-Trimethylbenzene	ND		0.00100	1	07/06/2018 15:27	WG1134531
1,3,5-Trimethylbenzene	ND		0.00100	1	07/06/2018 15:27	WG1134531
Xylenes, Total	ND		0.00300	1	07/06/2018 15:27	WG1134531
Methyl tert-butyl ether	ND		0.00100	1	07/06/2018 15:27	WG1134531
tert-Butyl alcohol	ND		0.00500	1	07/06/2018 15:27	WG1134531
(S) Toluene-d8	*97.8*		*80.0-120*		*07/06/2018 15:27*	WG1134531
(S) Dibromofluoromethane	*95.3*		*76.0-123*		*07/06/2018 15:27*	WG1134531
(S) 4-Bromofluorobenzene	*94.6*		*80.0-120*		*07/06/2018 15:27*	WG1134531

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	6.04		0.200	200	07/06/2018 20:39	WG1134531
1,2-Dichloroethane	ND		0.200	200	07/06/2018 20:39	WG1134531
Ethylbenzene	0.373		0.200	200	07/06/2018 20:39	WG1134531
Isopropylbenzene	ND		0.200	200	07/06/2018 20:39	WG1134531
Toluene	ND		0.200	200	07/06/2018 20:39	WG1134531
1,2,4-Trimethylbenzene	0.454		0.200	200	07/06/2018 20:39	WG1134531
1,3,5-Trimethylbenzene	0.243		0.200	200	07/06/2018 20:39	WG1134531
Xylenes, Total	1.50		0.600	200	07/06/2018 20:39	WG1134531
Methyl tert-butyl ether	ND		0.200	200	07/06/2018 20:39	WG1134531
tert-Butyl alcohol	ND		1.00	200	07/06/2018 20:39	WG1134531
(S) Toluene-d8	*101*		*80.0-120*		*07/06/2018 20:39*	WG1134531
(S) Dibromofluoromethane	*96.3*		*76.0-123*		*07/06/2018 20:39*	WG1134531
(S) 4-Bromofluorobenzene	*92.9*		*80.0-120*		*07/06/2018 20:39*	WG1134531

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 03:52	WG1140686

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	4.02		0.0500	50	07/06/2018 20:58	WG1134531
1,2-Dichloroethane	ND		0.0500	50	07/06/2018 20:58	WG1134531
Ethylbenzene	0.139		0.0500	50	07/06/2018 20:58	WG1134531
Isopropylbenzene	ND		0.0500	50	07/06/2018 20:58	WG1134531
Toluene	1.05		0.0500	50	07/06/2018 20:58	WG1134531
1,2,4-Trimethylbenzene	0.614		0.0500	50	07/06/2018 20:58	WG1134531
1,3,5-Trimethylbenzene	0.323		0.0500	50	07/06/2018 20:58	WG1134531
Xylenes, Total	2.91		0.150	50	07/06/2018 20:58	WG1134531
Methyl tert-butyl ether	4.32		0.0500	50	07/06/2018 20:58	WG1134531
tert-Butyl alcohol	120		25.0	5000	07/08/2018 23:47	WG1135067
(S) Toluene-d8	*97.5*		*80.0-120*		*07/06/2018 20:58*	WG1134531
(S) Toluene-d8	*99.5*		*80.0-120*		*07/08/2018 23:47*	WG1135067
(S) Dibromofluoromethane	*95.8*		*76.0-123*		*07/06/2018 20:58*	WG1134531
(S) Dibromofluoromethane	*96.8*		*76.0-123*		*07/08/2018 23:47*	WG1135067
(S) 4-Bromofluorobenzene	*96.0*		*80.0-120*		*07/06/2018 20:58*	WG1134531
(S) 4-Bromofluorobenzene	*93.6*		*80.0-120*		*07/08/2018 23:47*	WG1135067

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 04:05	WG1140686

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 02:29	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	4.57		0.200	200	07/07/2018 17:18	WG1134887
Isopropylbenzene	ND		0.200	200	07/07/2018 17:18	WG1134887
1,2-Dichloroethane	ND		0.200	200	07/07/2018 17:18	WG1134887
Ethylbenzene	0.554		0.200	200	07/07/2018 17:18	WG1134887
Methyl tert-butyl ether	ND		0.200	200	07/07/2018 17:18	WG1134887
Toluene	2.12		0.200	200	07/07/2018 17:18	WG1134887
1,2,4-Trimethylbenzene	0.615		0.200	200	07/07/2018 17:18	WG1134887
1,3,5-Trimethylbenzene	0.201		0.200	200	07/07/2018 17:18	WG1134887
Xylenes, Total	3.58		0.600	200	07/07/2018 17:18	WG1134887
tert-Butyl alcohol	ND	T8	1.00	200	07/17/2018 10:41	WG1138924
(S) Toluene-d8	*103*		*80.0-120*		*07/07/2018 17:18*	WG1134887
(S) Toluene-d8	*97.3*		*80.0-120*		*07/17/2018 10:41*	WG1138924
(S) Dibromofluoromethane	*96.3*		*76.0-123*		*07/07/2018 17:18*	WG1134887
(S) Dibromofluoromethane	*100*		*76.0-123*		*07/17/2018 10:41*	WG1138924
(S) 4-Bromofluorobenzene	*91.0*		*80.0-120*		*07/07/2018 17:18*	WG1134887
(S) 4-Bromofluorobenzene	*91.6*		*80.0-120*		*07/17/2018 10:41*	WG1138924

Sample Narrative:

L1006569-04 WG1138924: Target and Non-target compounds too high to run at a lower dilution.

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.995	07/10/2018 12:34	WG1135246

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.0306		0.0000515	1.03	07/07/2018 11:25	WG1134478
Benzo(a)anthracene	0.0000935		0.0000515	1.03	07/07/2018 11:25	WG1134478
Benzo(a)pyrene	ND		0.0000515	1.03	07/07/2018 11:25	WG1134478
Benzo(b)fluoranthene	ND		0.0000515	1.03	07/07/2018 11:25	WG1134478
Benzo(g,h,i)perylene	ND		0.0000515	1.03	07/07/2018 11:25	WG1134478
Chrysene	0.000149		0.0000515	1.03	07/07/2018 11:25	WG1134478
Fluorene	0.0487		0.00103	20.6	07/07/2018 18:23	WG1134478
Naphthalene	0.271		0.00515	20.6	07/07/2018 18:23	WG1134478
Phenanthrene	0.126		0.00103	20.6	07/07/2018 18:23	WG1134478
Pyrene	0.00699		0.0000515	1.03	07/07/2018 11:25	WG1134478
(S) Nitrobenzene-d5	*335*	J1	*31.0-160*		*07/07/2018 11:25*	WG1134478
(S) Nitrobenzene-d5	*6.21*	J7	*31.0-160*		*07/07/2018 18:23*	WG1134478
(S) 2-Fluorobiphenyl	*8.94*	J7	*48.0-148*		*07/07/2018 18:23*	WG1134478
(S) 2-Fluorobiphenyl	*75.6*		*48.0-148*		*07/07/2018 11:25*	WG1134478
(S) p-Terphenyl-d14	*5.62*	J7	*37.0-146*		*07/07/2018 18:23*	WG1134478
(S) p-Terphenyl-d14	*95.1*		*37.0-146*		*07/07/2018 11:25*	WG1134478

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 02:33	WG1134555

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	4.25		0.200	200	07/07/2018 17:40	WG1134887
Isopropylbenzene	ND		0.200	200	07/07/2018 17:40	WG1134887
1,2-Dichloroethane	ND		0.200	200	07/07/2018 17:40	WG1134887
Ethylbenzene	0.489		0.200	200	07/07/2018 17:40	WG1134887
Methyl tert-butyl ether	ND		0.200	200	07/07/2018 17:40	WG1134887
Toluene	1.38		0.200	200	07/07/2018 17:40	WG1134887
1,2,4-Trimethylbenzene	0.515		0.200	200	07/07/2018 17:40	WG1134887
1,3,5-Trimethylbenzene	ND		0.200	200	07/07/2018 17:40	WG1134887
Xylenes, Total	3.16		0.600	200	07/07/2018 17:40	WG1134887
tert-Butyl alcohol	ND	T8	1.00	200	07/17/2018 11:01	WG1138924
(S) Toluene-d8	*101*		*80.0-120*		*07/07/2018 17:40*	WG1134887
(S) Toluene-d8	*99.8*		*80.0-120*		*07/17/2018 11:01*	WG1138924
(S) Dibromofluoromethane	*95.9*		*76.0-123*		*07/07/2018 17:40*	WG1134887
(S) Dibromofluoromethane	*100*		*76.0-123*		*07/17/2018 11:01*	WG1138924
(S) 4-Bromofluorobenzene	*93.5*		*80.0-120*		*07/07/2018 17:40*	WG1134887
(S) 4-Bromofluorobenzene	*91.1*		*80.0-120*		*07/17/2018 11:01*	WG1138924

Sample Narrative:

L1006569-05 WG1138924: Target and Non-target compounds too high to run at a lower dilution.

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.995	07/10/2018 12:46	WG1135246

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.000100	2	07/07/2018 11:45	WG1134478
Benzo(a)anthracene	ND		0.000100	2	07/07/2018 11:45	WG1134478
Benzo(a)pyrene	ND		0.000100	2	07/07/2018 11:45	WG1134478
Benzo(b)fluoranthene	ND		0.000100	2	07/07/2018 11:45	WG1134478
Benzo(g,h,i)perylene	ND		0.000100	2	07/07/2018 11:45	WG1134478
Chrysene	ND		0.000100	2	07/07/2018 11:45	WG1134478
Fluorene	0.000372		0.000100	2	07/07/2018 11:45	WG1134478
Naphthalene	0.0127		0.000500	2	07/07/2018 11:45	WG1134478
Phenanthrene	0.000560		0.000100	2	07/07/2018 11:45	WG1134478
Pyrene	0.000169		0.000100	2	07/07/2018 11:45	WG1134478
(S) Nitrobenzene-d5	*181*	J1	*31.0-160*		*07/07/2018 11:45*	WG1134478
(S) 2-Fluorobiphenyl	*84.4*		*48.0-148*		*07/07/2018 11:45*	WG1134478
(S) p-Terphenyl-d14	*79.4*		*37.0-146*		*07/07/2018 11:45*	WG1134478

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	478		25.0	25000	07/08/2018 20:34	WG1135097
Toluene	75.7		1.00	1000	07/07/2018 21:40	WG1134870
Ethylbenzene	ND		1.00	1000	07/07/2018 21:40	WG1134870
Total Xylenes	ND		3.00	1000	07/07/2018 21:40	WG1134870
(S) Toluene-d8	*109*		*80.0-120*		*07/07/2018 21:40*	WG1134870
(S) Toluene-d8	*106*		*80.0-120*		*07/08/2018 20:34*	WG1135097
(S) Dibromofluoromethane	*84.8*		*76.0-123*		*07/07/2018 21:40*	WG1134870
(S) Dibromofluoromethane	*96.4*		*76.0-123*		*07/08/2018 20:34*	WG1135097
(S) a,a,a-Trifluorotoluene	*97.7*		*80.0-120*		*07/07/2018 21:40*	WG1134870
(S) a,a,a-Trifluorotoluene	*107*		*80.0-120*		*07/08/2018 20:34*	WG1135097
(S) 4-Bromofluorobenzene	*88.0*		*80.0-120*		*07/07/2018 21:40*	WG1134870
(S) 4-Bromofluorobenzene	*99.2*		*80.0-120*		*07/08/2018 20:34*	WG1135097

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	515		5.00	5000	07/09/2018 17:10	WG1135141
Toluene	70.7		0.500	500	07/06/2018 18:46	WG1134564
Ethylbenzene	ND		0.500	500	07/06/2018 18:46	WG1134564
Total Xylenes	ND		1.50	500	07/06/2018 18:46	WG1134564
(S) Toluene-d8	*109*		*80.0-120*		*07/06/2018 18:46*	WG1134564
(S) Toluene-d8	*104*		*80.0-120*		*07/09/2018 17:10*	WG1135141
(S) Dibromofluoromethane	*82.7*		*76.0-123*		*07/06/2018 18:46*	WG1134564
(S) Dibromofluoromethane	*88.3*		*76.0-123*		*07/09/2018 17:10*	WG1135141
(S) a,a,a-Trifluorotoluene	*99.4*		*80.0-120*		*07/06/2018 18:46*	WG1134564
(S) a,a,a-Trifluorotoluene	*105*		*80.0-120*		*07/09/2018 17:10*	WG1135141
(S) 4-Bromofluorobenzene	*88.2*		*80.0-120*		*07/06/2018 18:46*	WG1134564
(S) 4-Bromofluorobenzene	*90.5*		*80.0-120*		*07/09/2018 17:10*	WG1135141

Method Blank (MB)

(MB) R3324217-1 07/10/18 00:19

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324217-2 07/10/18 00:23 • (LCSD) R3324217-3 07/10/18 00:27

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Lead,Dissolved	0.0500	0.0477	0.0474	95.4	94.8	80.0-120			0.633	20

L1006563-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1006563-05 07/10/18 00:31 • (MS) R3324217-5 07/10/18 00:39 • (MSD) R3324217-6 07/10/18 00:44

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Lead,Dissolved	0.0500	ND	0.0467	0.0478	93.3	95.6	1	75.0-125			2.40	20

Method Blank (MB)

(MB) R3323833-4 07/06/18 13:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dibromoethane	U		0.000381	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*98.8*			*80.0-120*
(S) Dibromofluoromethane	*94.7*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.7*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323833-1 07/06/18 12:21 • (LCSD) R3323833-2 07/06/18 12:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0232	0.0229	92.8	91.4	69.0-123			1.52	20
1,2-Dibromoethane	0.0250	0.0234	0.0234	93.7	93.8	77.0-123			0.0592	20
1,2-Dichloroethane	0.0250	0.0241	0.0240	96.5	96.1	67.0-126			0.423	20
Ethylbenzene	0.0250	0.0238	0.0237	95.0	94.7	77.0-120			0.359	20
Isopropylbenzene	0.0250	0.0235	0.0229	93.9	91.4	75.0-120			2.70	20
Methyl tert-butyl ether	0.0250	0.0225	0.0221	90.0	88.5	64.0-123			1.71	20
Toluene	0.0250	0.0235	0.0232	94.0	92.7	77.0-120			1.39	20
1,2,4-Trimethylbenzene	0.0250	0.0234	0.0227	93.4	91.0	75.0-120			2.64	20
1,3,5-Trimethylbenzene	0.0250	0.0237	0.0231	94.9	92.3	75.0-120			2.76	20
Xylenes, Total	0.0750	0.0717	0.0713	95.6	95.1	77.0-120			0.559	20
(S) Toluene-d8				*97.7*	*96.3*	*80.0-120*				
(S) Dibromofluoromethane				*96.7*	*96.3*	*76.0-123*				
(S) 4-Bromofluorobenzene				*93.6*	*92.1*	*80.0-120*				

Laboratory Control Sample (LCS)

(LCS) R3323833-3 07/06/18 13:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0489	97.8	50.0-150	
(S) Toluene-d8			*96.7*	*80.0-120*	
(S) Dibromofluoromethane			*96.8*	*76.0-123*	
(S) 4-Bromofluorobenzene			*93.4*	*80.0-120*	

Method Blank (MB)

(MB) R3323881-3 07/06/18 14:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*95.7*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*99.1*			*80.0-120*
(S) 4-Bromofluorobenzene	*88.0*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323881-1 07/06/18 13:33 • (LCSD) R3323881-2 07/06/18 13:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.0250	0.0259	0.0246	104	98.4	77.0-120			5.25	20
Toluene	0.0250	0.0263	0.0251	105	100	77.0-120			4.69	20
Xylenes, Total	0.0750	0.0776	0.0742	103	98.9	77.0-120			4.48	20
(S) Toluene-d8				*110*	*108*	*80.0-120*				
(S) Dibromofluoromethane				*90.0*	*91.5*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*98.7*	*98.1*	*80.0-120*				
(S) 4-Bromofluorobenzene				*90.0*	*94.1*	*80.0-120*				

Method Blank (MB)

(MB) R3323847-2 07/07/18 11:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*94.6*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*99.2*			*80.0-120*
(S) 4-Bromofluorobenzene	*86.6*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323847-1 07/07/18 11:18 • (LCSD) R3323847-3 07/07/18 12:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.0250	0.0269	0.0242	108	96.9	77.0-120			10.5	20
Toluene	0.0250	0.0266	0.0246	106	98.2	77.0-120			7.83	20
Xylenes, Total	0.0750	0.0789	0.0733	105	97.7	77.0-120			7.36	20
(S) Toluene-d8				*108*	*108*	*80.0-120*				
(S) Dibromofluoromethane				*90.5*	*91.6*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*99.8*	*100*	*80.0-120*				
(S) 4-Bromofluorobenzene				*91.9*	*93.1*	*80.0-120*				

Method Blank (MB)

(MB) R3324148-2 07/07/18 14:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*103*			*80.0-120*
(S) Dibromofluoromethane	*94.7*			*76.0-123*
(S) 4-Bromofluorobenzene	*93.9*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324148-1 07/07/18 12:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0202	80.9	69.0-123	
1,2-Dichloroethane	0.0250	0.0204	81.7	67.0-126	
Ethylbenzene	0.0250	0.0250	100	77.0-120	
Isopropylbenzene	0.0250	0.0237	95.0	75.0-120	
Methyl tert-butyl ether	0.0250	0.0210	84.1	64.0-123	
Toluene	0.0250	0.0232	92.9	77.0-120	
1,2,4-Trimethylbenzene	0.0250	0.0232	92.7	75.0-120	
1,3,5-Trimethylbenzene	0.0250	0.0235	93.9	75.0-120	
Xylenes, Total	0.0750	0.0753	100	77.0-120	
(S) Toluene-d8			*104*	*80.0-120*	
(S) Dibromofluoromethane			*94.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*92.3*	*80.0-120*	

Method Blank (MB)

(MB) R3324000-4 07/08/18 14:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*101*			*80.0-120*
(S) Dibromofluoromethane	*96.5*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.9*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324000-3 07/08/18 14:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0527	105	50.0-150	
(S) Toluene-d8			*98.6*	*80.0-120*	
(S) Dibromofluoromethane			*98.1*	*76.0-123*	
(S) 4-Bromofluorobenzene			*93.6*	*80.0-120*	

Method Blank (MB)

(MB) R3324174-2 07/08/18 11:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
(S) Toluene-d8	*105*			*80.0-120*
(S) Dibromofluoromethane	*98.8*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.2*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324174-1 07/08/18 10:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0242	96.6	69.0-123	
(S) Toluene-d8			*104*	*80.0-120*	
(S) Dibromofluoromethane			*98.0*	*76.0-123*	
(S) a,a,a-Trifluorotoluene			*104*	*80.0-120*	
(S) 4-Bromofluorobenzene			*96.5*	*80.0-120*	

Method Blank (MB)

(MB) R3324103-3 07/09/18 11:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
(S) Toluene-d8	*104*			*80.0-120*
(S) Dibromofluoromethane	*90.6*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*90.0*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324103-1 07/09/18 09:35 • (LCSD) R3324103-2 07/09/18 09:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0205	0.0208	82.2	83.3	69.0-123			1.40	20
(S) Toluene-d8				*102*	*103*	*80.0-120*				
(S) Dibromofluoromethane				*90.3*	*89.9*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*105*	*104*	*80.0-120*				
(S) 4-Bromofluorobenzene				*90.1*	*88.4*	*80.0-120*				

Method Blank (MB)

(MB) R3326107-4 07/17/18 10:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*100*			*80.0-120*
(S) Dibromofluoromethane	*98.6*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.9*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3326107-3 07/17/18 09:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0536	107	50.0-150	
(S) Toluene-d8			*98.7*	*80.0-120*	
(S) Dibromofluoromethane			*98.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*91.8*	*80.0-120*	

Method Blank (MB)

(MB) R3324568-1 07/10/18 08:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

Method Blank (MB)

(MB) R3325015-1 07/12/18 00:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1006645-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1006645-07 07/10/18 09:15 • (DUP) R3324568-3 07/10/18 09:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324568-4 07/10/18 11:56 • (LCSD) R3324568-5 07/10/18 14:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000236	0.000241	94.4	96.4	60.0-140			2.10	20

L1006151-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1006151-01 07/10/18 08:50 • (MS) R3324568-2 07/10/18 08:37

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000995	U	0.0000980	98.5	.995	72.0-146	

Method Blank (MB)

(MB) R3327677-1 07/20/18 23:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1009704-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1009704-01 07/21/18 00:47 • (DUP) R3327677-3 07/21/18 00:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3327677-4 07/21/18 02:50 • (LCSD) R3327677-5 07/21/18 05:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000239	0.000229	95.6	91.6	60.0-140			4.27	20

L1009704-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1009704-03 07/21/18 00:22 • (MS) R3327677-2 07/21/18 00:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	U	0.0000955	95.7	1	72.0-146	

Method Blank (MB)

(MB) R3323796-3 07/07/18 08:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*121*			*31.0-160*
(S) 2-Fluorobiphenyl	*90.3*			*48.0-148*
(S) p-Terphenyl-d14	*107*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323796-1 07/07/18 07:50 • (LCSD) R3323796-2 07/07/18 08:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00215	0.00212	108	106	64.0-142			1.79	20
Benzo(a)anthracene	0.00200	0.00222	0.00218	111	109	59.0-134			1.46	20
Benzo(a)pyrene	0.00200	0.00208	0.00211	104	106	61.0-145			1.56	20
Benzo(b)fluoranthene	0.00200	0.00198	0.00208	98.9	104	57.0-136			4.82	20
Benzo(g,h,i)perylene	0.00200	0.00190	0.00195	95.1	97.6	54.0-140			2.52	20
Chrysene	0.00200	0.00208	0.00210	104	105	63.0-140			0.721	20
Fluorene	0.00200	0.00204	0.00199	102	99.7	64.0-129			2.09	20
Naphthalene	0.00200	0.00163	0.00162	81.5	81.1	68.0-129			0.475	20
Phenanthrene	0.00200	0.00207	0.00205	104	102	62.0-132			1.19	20
Pyrene	0.00200	0.00216	0.00208	108	104	58.0-156			4.05	20
(S) Nitrobenzene-d5				*120*	*119*	*31.0-160*				
(S) 2-Fluorobiphenyl				*90.6*	*87.1*	*48.0-148*				
(S) p-Terphenyl-d14				*112*	*102*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
T8	Sample(s) received past/too close to holding time expiration.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

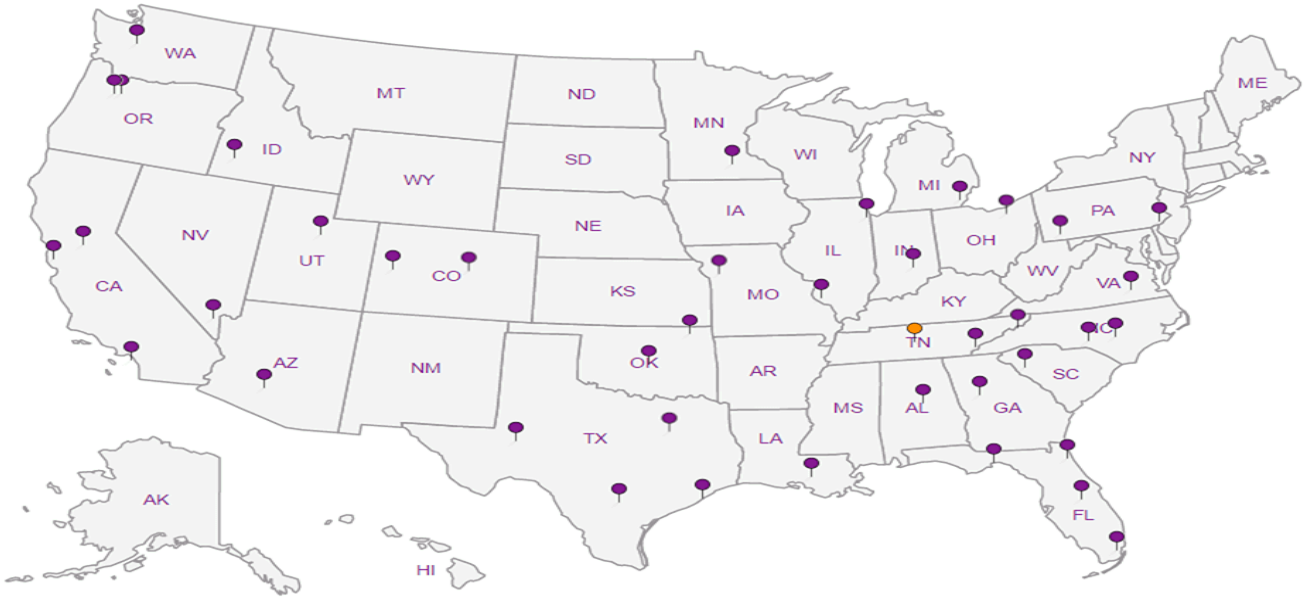
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen-PHL GWS

City/State Collected:

Phone: ~~267-240-3415~~

Fax: 610-425-8311

Client Project #

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Dane Hopkins

Site/Facility ID #

P.O. #

Collected by (signature): Dane

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP (Lab Filtered)	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
TB-20180629	G	GW	—	6/29/18	—	1			X				01
S-276-20180629	G	GW	26'	6/29/18	0930	3			X				02
S-277-20180629	G	GW	26'	6/29/18	1040	3			X				03
RW-701-20180629	G	GW	20'	6/29/18	1230	9	X	X	X				04
RW-701-HS-20180629	G	GW	20	6/29/18	1145	9	X	X	X				05
S-382-20180629	G	GW	22'	6/29/18	1400	3				X			06
S-382DUP-20180629	G	GW	22'	6/29/18	1400	3				X			07
		GW											
		GW											
		GW											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP

*EQuIS EDD format
*refer to attached short list for analytes
*Standard TAT

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Chain of Custody Page ___ of ___

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Mount Juliet, TN 37122
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Phone: 800-767-5859
Fax: 615-758-5859

L# 1006569

Table #

Acctnum: **SUNSTANTEC**

Template: **T137388**

Prelogin: **P659137**

TSR: **134 - Mark Beasley**

PB: 6-18-18

Shipped Via:

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Dane	6/29/18	1700	ESCPA lockout
ESCPA lockout	7/2/18	9:30	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 27 °C Bottles Received: 78

Date: 7/3/18 Time: 1020

If preservation required by Login: Date/Time

Hold:

Condition: NCF OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 22, 2018

Stantec - S/E

Sample Delivery Group:	L1006645
Samples Received:	07/03/2018
Project Number:	213402429
Description:	Evergreen-GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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S-414_HS-20180702 L1006645-01 GW

Collected by	Collected date/time	Received date/time
JC / KM	07/02/18 08:55	07/03/18 13:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134564	1000	07/06/18 19:06	07/06/18 19:06	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135141	5000	07/09/18 17:32	07/09/18 17:32	ACG

S-414_20180702 L1006645-02 GW

Collected by	Collected date/time	Received date/time
JC / KM	07/02/18 09:42	07/03/18 13:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134564	500	07/06/18 19:27	07/06/18 19:27	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135141	5000	07/09/18 17:54	07/09/18 17:54	ACG

S-139SRTF_20180702 L1006645-03 GW

Collected by	Collected date/time	Received date/time
JC / KM	07/02/18 13:10	07/03/18 13:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134556	1	07/10/18 10:24	07/10/18 22:29	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134929	1	07/08/18 09:29	07/08/18 09:29	ACE
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135972	1	07/11/18 04:21	07/11/18 04:21	ACG
EDB / DBCP by Method 8011	WG1135247	1	07/09/18 09:08	07/10/18 18:31	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134797	1	07/07/18 11:54	07/08/18 02:35	KM

N-157_HS_20180702 L1006645-04 GW

Collected by	Collected date/time	Received date/time
JC / KM	07/02/18 09:35	07/03/18 13:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134556	1	07/10/18 10:24	07/10/18 22:34	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134929	1	07/08/18 09:49	07/08/18 09:49	ACE
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135972	5	07/11/18 04:43	07/11/18 04:43	ACG
EDB / DBCP by Method 8011	WG1135247	1	07/09/18 09:08	07/10/18 18:43	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134140	1	07/08/18 16:30	07/09/18 14:07	KM

N-157_20180702 L1006645-05 GW

Collected by	Collected date/time	Received date/time
JC / KM	07/02/18 10:40	07/03/18 13:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134556	1	07/10/18 10:24	07/10/18 22:38	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134929	1	07/08/18 10:08	07/08/18 10:08	ACE
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135972	5	07/11/18 05:04	07/11/18 05:04	ACG
EDB / DBCP by Method 8011	WG1135247	1	07/09/18 09:08	07/10/18 18:56	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134140	1	07/08/18 16:30	07/09/18 14:30	KM

N-111_20180702 L1006645-06 GW

Collected by	Collected date/time	Received date/time
JC / KM	07/02/18 12:05	07/03/18 13:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134556	1	07/10/18 10:24	07/10/18 22:57	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134929	1	07/08/18 10:27	07/08/18 10:27	ACE
EDB / DBCP by Method 8011	WG1135247	1	07/09/18 09:08	07/10/18 19:07	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134140	1	07/08/18 16:30	07/09/18 00:26	KM

N-85_20180702 L1006645-07 GW

Collected by	Collected date/time	Received date/time
JC / KM	07/02/18 14:00	07/03/18 13:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1134556	1	07/10/18 10:24	07/10/18 23:01	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134929	1	07/08/18 10:47	07/08/18 10:47	ACE
EDB / DBCP by Method 8011	WG1135246	1.01	07/09/18 10:36	07/10/18 09:15	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134140	1	07/08/18 16:30	07/09/18 00:49	KM

TRIPBLANK L1006645-09 GW

Collected by	Collected date/time	Received date/time
JC / KM	07/02/18 14:00	07/03/18 13:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134929	1	07/08/18 05:50	07/08/18 05:50	GLN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135972	1	07/11/18 05:26	07/11/18 05:26	GLN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	249		5.00	5000	07/09/2018 17:32	WG1135141
Toluene	54.4		1.00	1000	07/06/2018 19:06	WG1134564
Ethylbenzene	ND		1.00	1000	07/06/2018 19:06	WG1134564
Total Xylenes	ND		3.00	1000	07/06/2018 19:06	WG1134564
(S) Toluene-d8	*108*		*80.0-120*		*07/06/2018 19:06*	WG1134564
(S) Toluene-d8	*105*		*80.0-120*		*07/09/2018 17:32*	WG1135141
(S) Dibromofluoromethane	*88.3*		*76.0-123*		*07/06/2018 19:06*	WG1134564
(S) Dibromofluoromethane	*91.4*		*76.0-123*		*07/09/2018 17:32*	WG1135141
(S) a,a,a-Trifluorotoluene	*97.9*		*80.0-120*		*07/06/2018 19:06*	WG1134564
(S) a,a,a-Trifluorotoluene	*104*		*80.0-120*		*07/09/2018 17:32*	WG1135141
(S) 4-Bromofluorobenzene	*88.4*		*80.0-120*		*07/06/2018 19:06*	WG1134564
(S) 4-Bromofluorobenzene	*88.1*		*80.0-120*		*07/09/2018 17:32*	WG1135141

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	255		5.00	5000	07/09/2018 17:54	WG1135141
Toluene	39.4		0.500	500	07/06/2018 19:27	WG1134564
Ethylbenzene	ND		0.500	500	07/06/2018 19:27	WG1134564
Total Xylenes	ND		1.50	500	07/06/2018 19:27	WG1134564
(S) Toluene-d8	*105*		*80.0-120*		*07/06/2018 19:27*	WG1134564
(S) Toluene-d8	*104*		*80.0-120*		*07/09/2018 17:54*	WG1135141
(S) Dibromofluoromethane	*83.3*		*76.0-123*		*07/06/2018 19:27*	WG1134564
(S) Dibromofluoromethane	*91.3*		*76.0-123*		*07/09/2018 17:54*	WG1135141
(S) a,a,a-Trifluorotoluene	*99.3*		*80.0-120*		*07/06/2018 19:27*	WG1134564
(S) a,a,a-Trifluorotoluene	*104*		*80.0-120*		*07/09/2018 17:54*	WG1135141
(S) 4-Bromofluorobenzene	*88.8*		*80.0-120*		*07/06/2018 19:27*	WG1134564
(S) 4-Bromofluorobenzene	*87.7*		*80.0-120*		*07/09/2018 17:54*	WG1135141

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 22:29	WG1134556

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0478		0.00100	1	07/08/2018 09:29	WG1134929
Isopropylbenzene	ND		0.00100	1	07/08/2018 09:29	WG1134929
1,2-Dichloroethane	ND		0.00100	1	07/08/2018 09:29	WG1134929
Ethylbenzene	ND		0.00100	1	07/08/2018 09:29	WG1134929
Methyl tert-butyl ether	0.0212		0.00100	1	07/08/2018 09:29	WG1134929
Toluene	0.0218		0.00100	1	07/08/2018 09:29	WG1134929
1,2,4-Trimethylbenzene	ND		0.00100	1	07/08/2018 09:29	WG1134929
1,3,5-Trimethylbenzene	ND		0.00100	1	07/08/2018 09:29	WG1134929
Xylenes, Total	0.00305		0.00300	1	07/11/2018 04:21	WG1135972
(S) Toluene-d8	*89.6*		*80.0-120*		*07/08/2018 09:29*	WG1134929
(S) Toluene-d8	*95.2*		*80.0-120*		*07/11/2018 04:21*	WG1135972
(S) Dibromofluoromethane	*97.4*		*76.0-123*		*07/08/2018 09:29*	WG1134929
(S) Dibromofluoromethane	*93.4*		*76.0-123*		*07/11/2018 04:21*	WG1135972
(S) 4-Bromofluorobenzene	*94.0*		*80.0-120*		*07/08/2018 09:29*	WG1134929
(S) 4-Bromofluorobenzene	*90.8*		*80.0-120*		*07/11/2018 04:21*	WG1135972

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 18:31	WG1135247

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000274		0.0000500	1	07/08/2018 02:35	WG1134797
Benzo(a)anthracene	ND		0.0000500	1	07/08/2018 02:35	WG1134797
Benzo(a)pyrene	ND		0.0000500	1	07/08/2018 02:35	WG1134797
Benzo(b)fluoranthene	ND		0.0000500	1	07/08/2018 02:35	WG1134797
Benzo(g,h,i)perylene	ND		0.0000500	1	07/08/2018 02:35	WG1134797
Chrysene	ND		0.0000500	1	07/08/2018 02:35	WG1134797
Fluorene	ND		0.0000500	1	07/08/2018 02:35	WG1134797
Naphthalene	0.000762		0.000250	1	07/08/2018 02:35	WG1134797
Phenanthrene	0.00150		0.0000500	1	07/08/2018 02:35	WG1134797
Pyrene	0.000458		0.0000500	1	07/08/2018 02:35	WG1134797
(S) Nitrobenzene-d5	*89.0*		*31.0-160*		*07/08/2018 02:35*	WG1134797
(S) 2-Fluorobiphenyl	*109*		*48.0-148*		*07/08/2018 02:35*	WG1134797
(S) p-Terphenyl-d14	*105*		*37.0-146*		*07/08/2018 02:35*	WG1134797

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 22:34	WG1134556

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.383		0.00500	5	07/11/2018 04:43	WG1135972
Isopropylbenzene	0.0193		0.00100	1	07/08/2018 09:49	WG1134929
1,2-Dichloroethane	0.00104		0.00100	1	07/08/2018 09:49	WG1134929
Ethylbenzene	0.0370		0.00100	1	07/08/2018 09:49	WG1134929
Methyl tert-butyl ether	0.00469		0.00100	1	07/08/2018 09:49	WG1134929
Toluene	0.0864		0.00100	1	07/08/2018 09:49	WG1134929
1,2,4-Trimethylbenzene	0.00155	B	0.00100	1	07/08/2018 09:49	WG1134929
1,3,5-Trimethylbenzene	0.0390		0.00100	1	07/08/2018 09:49	WG1134929
Xylenes, Total	0.106		0.00300	1	07/08/2018 09:49	WG1134929
(S) Toluene-d8	*81.3*		*80.0-120*		*07/08/2018 09:49*	WG1134929
(S) Toluene-d8	*102*		*80.0-120*		*07/11/2018 04:43*	WG1135972
(S) Dibromofluoromethane	*97.4*		*76.0-123*		*07/08/2018 09:49*	WG1134929
(S) Dibromofluoromethane	*92.9*		*76.0-123*		*07/11/2018 04:43*	WG1135972
(S) 4-Bromofluorobenzene	*99.0*		*80.0-120*		*07/08/2018 09:49*	WG1134929
(S) 4-Bromofluorobenzene	*87.9*		*80.0-120*		*07/11/2018 04:43*	WG1135972

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 18:43	WG1135247

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.0000711		0.0000500	1	07/09/2018 14:07	WG1134140
Benzo(a)anthracene	ND		0.0000500	1	07/09/2018 14:07	WG1134140
Benzo(a)pyrene	ND		0.0000500	1	07/09/2018 14:07	WG1134140
Benzo(b)fluoranthene	ND		0.0000500	1	07/09/2018 14:07	WG1134140
Benzo(g,h,i)perylene	ND		0.0000500	1	07/09/2018 14:07	WG1134140
Chrysene	ND		0.0000500	1	07/09/2018 14:07	WG1134140
Fluorene	0.000358		0.0000500	1	07/09/2018 14:07	WG1134140
Naphthalene	0.0633		0.000250	1	07/09/2018 14:07	WG1134140
Phenanthrene	0.000137		0.0000500	1	07/09/2018 14:07	WG1134140
Pyrene	ND		0.0000500	1	07/09/2018 14:07	WG1134140
(S) Nitrobenzene-d5	*141*		*31.0-160*		*07/09/2018 14:07*	WG1134140
(S) 2-Fluorobiphenyl	*104*		*48.0-148*		*07/09/2018 14:07*	WG1134140
(S) p-Terphenyl-d14	*109*		*37.0-146*		*07/09/2018 14:07*	WG1134140

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 22:38	WG1134556

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.262		0.00500	5	07/11/2018 05:04	WG1135972
Isopropylbenzene	0.0156		0.00100	1	07/08/2018 10:08	WG1134929
1,2-Dichloroethane	ND		0.00100	1	07/08/2018 10:08	WG1134929
Ethylbenzene	0.0282		0.00100	1	07/08/2018 10:08	WG1134929
Methyl tert-butyl ether	0.00268		0.00100	1	07/08/2018 10:08	WG1134929
Toluene	0.0640		0.00100	1	07/08/2018 10:08	WG1134929
1,2,4-Trimethylbenzene	0.00117	B	0.00100	1	07/08/2018 10:08	WG1134929
1,3,5-Trimethylbenzene	0.0297		0.00100	1	07/08/2018 10:08	WG1134929
Xylenes, Total	0.0796		0.00300	1	07/08/2018 10:08	WG1134929
(S) Toluene-d8	*78.8*	J2	*80.0-120*		*07/08/2018 10:08*	WG1134929
(S) Toluene-d8	*101*		*80.0-120*		*07/11/2018 05:04*	WG1135972
(S) Dibromofluoromethane	*96.4*		*76.0-123*		*07/08/2018 10:08*	WG1134929
(S) Dibromofluoromethane	*89.9*		*76.0-123*		*07/11/2018 05:04*	WG1135972
(S) 4-Bromofluorobenzene	*96.6*		*80.0-120*		*07/08/2018 10:08*	WG1134929
(S) 4-Bromofluorobenzene	*89.6*		*80.0-120*		*07/11/2018 05:04*	WG1135972

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 18:56	WG1135247

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.0000732		0.0000500	1	07/09/2018 14:30	WG1134140
Benzo(a)anthracene	ND		0.0000500	1	07/09/2018 14:30	WG1134140
Benzo(a)pyrene	ND		0.0000500	1	07/09/2018 14:30	WG1134140
Benzo(b)fluoranthene	ND		0.0000500	1	07/09/2018 14:30	WG1134140
Benzo(g,h,i)perylene	ND		0.0000500	1	07/09/2018 14:30	WG1134140
Chrysene	ND		0.0000500	1	07/09/2018 14:30	WG1134140
Fluorene	0.000258		0.0000500	1	07/09/2018 14:30	WG1134140
Naphthalene	0.0350		0.000250	1	07/09/2018 14:30	WG1134140
Phenanthrene	0.000110		0.0000500	1	07/09/2018 14:30	WG1134140
Pyrene	ND		0.0000500	1	07/09/2018 14:30	WG1134140
(S) Nitrobenzene-d5	*129*		*31.0-160*		*07/09/2018 14:30*	WG1134140
(S) 2-Fluorobiphenyl	*98.8*		*48.0-148*		*07/09/2018 14:30*	WG1134140
(S) p-Terphenyl-d14	*101*		*37.0-146*		*07/09/2018 14:30*	WG1134140

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 22:57	WG1134556

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/08/2018 10:27	WG1134929
Isopropylbenzene	0.00485		0.00100	1	07/08/2018 10:27	WG1134929
1,2-Dichloroethane	ND		0.00100	1	07/08/2018 10:27	WG1134929
Ethylbenzene	ND		0.00100	1	07/08/2018 10:27	WG1134929
Methyl tert-butyl ether	ND		0.00100	1	07/08/2018 10:27	WG1134929
Toluene	ND		0.00100	1	07/08/2018 10:27	WG1134929
1,2,4-Trimethylbenzene	ND		0.00100	1	07/08/2018 10:27	WG1134929
1,3,5-Trimethylbenzene	ND		0.00100	1	07/08/2018 10:27	WG1134929
Xylenes, Total	ND		0.00300	1	07/08/2018 10:27	WG1134929
(S) Toluene-d8	*96.0*		*80.0-120*		*07/08/2018 10:27*	WG1134929
(S) Dibromofluoromethane	*96.7*		*76.0-123*		*07/08/2018 10:27*	WG1134929
(S) 4-Bromofluorobenzene	*92.1*		*80.0-120*		*07/08/2018 10:27*	WG1134929

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/10/2018 19:07	WG1135247

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000370		0.0000500	1	07/09/2018 00:26	WG1134140
Benzo(a)anthracene	ND		0.0000500	1	07/09/2018 00:26	WG1134140
Benzo(a)pyrene	ND		0.0000500	1	07/09/2018 00:26	WG1134140
Benzo(b)fluoranthene	ND		0.0000500	1	07/09/2018 00:26	WG1134140
Benzo(g,h,i)perylene	ND		0.0000500	1	07/09/2018 00:26	WG1134140
Chrysene	ND		0.0000500	1	07/09/2018 00:26	WG1134140
Fluorene	0.00365		0.0000500	1	07/09/2018 00:26	WG1134140
Naphthalene	0.000278		0.000250	1	07/09/2018 00:26	WG1134140
Phenanthrene	ND		0.0000500	1	07/09/2018 00:26	WG1134140
Pyrene	0.000367		0.0000500	1	07/09/2018 00:26	WG1134140
(S) Nitrobenzene-d5	*192*	J1	*31.0-160*		*07/09/2018 00:26*	WG1134140
(S) 2-Fluorobiphenyl	*80.3*		*48.0-148*		*07/09/2018 00:26*	WG1134140
(S) p-Terphenyl-d14	*95.0*		*37.0-146*		*07/09/2018 00:26*	WG1134140

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/10/2018 23:01	WG1134556

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/08/2018 10:47	WG1134929
Isopropylbenzene	0.0113		0.00100	1	07/08/2018 10:47	WG1134929
1,2-Dichloroethane	ND		0.00100	1	07/08/2018 10:47	WG1134929
Ethylbenzene	ND		0.00100	1	07/08/2018 10:47	WG1134929
Methyl tert-butyl ether	ND		0.00100	1	07/08/2018 10:47	WG1134929
Toluene	ND		0.00100	1	07/08/2018 10:47	WG1134929
1,2,4-Trimethylbenzene	ND		0.00100	1	07/08/2018 10:47	WG1134929
1,3,5-Trimethylbenzene	ND		0.00100	1	07/08/2018 10:47	WG1134929
Xylenes, Total	ND		0.00300	1	07/08/2018 10:47	WG1134929
(S) Toluene-d8	*97.0*		*80.0-120*		*07/08/2018 10:47*	WG1134929
(S) Dibromofluoromethane	*97.5*		*76.0-123*		*07/08/2018 10:47*	WG1134929
(S) 4-Bromofluorobenzene	*94.0*		*80.0-120*		*07/08/2018 10:47*	WG1134929

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000101	1.01	07/10/2018 09:15	WG1135246

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.0000890		0.0000500	1	07/09/2018 00:49	WG1134140
Benzo(a)anthracene	ND		0.0000500	1	07/09/2018 00:49	WG1134140
Benzo(a)pyrene	ND		0.0000500	1	07/09/2018 00:49	WG1134140
Benzo(b)fluoranthene	ND		0.0000500	1	07/09/2018 00:49	WG1134140
Benzo(g,h,i)perylene	ND		0.0000500	1	07/09/2018 00:49	WG1134140
Chrysene	ND		0.0000500	1	07/09/2018 00:49	WG1134140
Fluorene	0.000537		0.0000500	1	07/09/2018 00:49	WG1134140
Naphthalene	0.000327		0.000250	1	07/09/2018 00:49	WG1134140
Phenanthrene	0.000283		0.0000500	1	07/09/2018 00:49	WG1134140
Pyrene	ND		0.0000500	1	07/09/2018 00:49	WG1134140
(S) Nitrobenzene-d5	*178*	J1	*31.0-160*		*07/09/2018 00:49*	WG1134140
(S) 2-Fluorobiphenyl	*92.2*		*48.0-148*		*07/09/2018 00:49*	WG1134140
(S) p-Terphenyl-d14	*104*		*37.0-146*		*07/09/2018 00:49*	WG1134140

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	07/08/2018 05:50	WG1134929
Isopropylbenzene	ND		0.00100	1	07/08/2018 05:50	WG1134929
1,2-Dibromoethane	ND		0.00100	1	07/08/2018 05:50	WG1134929
1,2-Dichloroethane	ND		0.00100	1	07/08/2018 05:50	WG1134929
Ethylbenzene	ND		0.00100	1	07/08/2018 05:50	WG1134929
Methyl tert-butyl ether	ND		0.00100	1	07/08/2018 05:50	WG1134929
Toluene	ND		0.00100	1	07/08/2018 05:50	WG1134929
1,2,4-Trimethylbenzene	ND		0.00100	1	07/08/2018 05:50	WG1134929
1,3,5-Trimethylbenzene	ND		0.00100	1	07/08/2018 05:50	WG1134929
Xylenes, Total	ND		0.00300	1	07/11/2018 05:26	WG1135972
(S) Toluene-d8	*99.4*		*80.0-120*		*07/08/2018 05:50*	WG1134929
(S) Toluene-d8	*105*		*80.0-120*		*07/11/2018 05:26*	WG1135972
(S) Dibromofluoromethane	*96.0*		*76.0-123*		*07/08/2018 05:50*	WG1134929
(S) Dibromofluoromethane	*95.4*		*76.0-123*		*07/11/2018 05:26*	WG1135972
(S) 4-Bromofluorobenzene	*93.2*		*80.0-120*		*07/08/2018 05:50*	WG1134929
(S) 4-Bromofluorobenzene	*88.0*		*80.0-120*		*07/11/2018 05:26*	WG1135972

Method Blank (MB)

(MB) R3324588-1 07/10/18 21:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324588-2 07/10/18 22:02 • (LCSD) R3324588-3 07/10/18 22:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0482	0.0486	96.4	97.1	80.0-120			0.769	20

L1006829-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1006829-03 07/10/18 22:11 • (MS) R3324588-5 07/10/18 22:20 • (MSD) R3324588-6 07/10/18 22:24

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	ND	0.0485	0.0479	96.9	95.8	1	75.0-125			1.17	20

Method Blank (MB)

(MB) R3323881-3 07/06/18 14:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*95.7*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*99.1*			*80.0-120*
(S) 4-Bromofluorobenzene	*88.0*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323881-1 07/06/18 13:33 • (LCSD) R3323881-2 07/06/18 13:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.0250	0.0259	0.0246	104	98.4	77.0-120			5.25	20
Toluene	0.0250	0.0263	0.0251	105	100	77.0-120			4.69	20
Xylenes, Total	0.0750	0.0776	0.0742	103	98.9	77.0-120			4.48	20
(S) Toluene-d8				*110*	*108*	*80.0-120*				
(S) Dibromofluoromethane				*90.0*	*91.5*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*98.7*	*98.1*	*80.0-120*				
(S) 4-Bromofluorobenzene				*90.0*	*94.1*	*80.0-120*				

Method Blank (MB)

(MB) R3324482-2 07/08/18 05:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dibromoethane	U		0.000381	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	0.000464	J	0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	0.000426	J	0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*99.5*			*80.0-120*
(S) Dibromofluoromethane	*95.2*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.6*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324482-1 07/08/18 04:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0248	99.0	69.0-123	
1,2-Dibromoethane	0.0250	0.0241	96.5	77.0-123	
1,2-Dichloroethane	0.0250	0.0253	101	67.0-126	
Ethylbenzene	0.0250	0.0261	104	77.0-120	
Isopropylbenzene	0.0250	0.0253	101	75.0-120	
Methyl tert-butyl ether	0.0250	0.0221	88.3	64.0-123	
Toluene	0.0250	0.0248	99.1	77.0-120	
1,2,4-Trimethylbenzene	0.0250	0.0257	103	75.0-120	
1,3,5-Trimethylbenzene	0.0250	0.0253	101	75.0-120	
Xylenes, Total	0.0750	0.0777	104	77.0-120	
(S) Toluene-d8			*97.5*	*80.0-120*	
(S) Dibromofluoromethane			*95.4*	*76.0-123*	
(S) 4-Bromofluorobenzene			*95.9*	*80.0-120*	

Method Blank (MB)

(MB) R3324103-3 07/09/18 11:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
(S) Toluene-d8	*104*			*80.0-120*
(S) Dibromofluoromethane	*90.6*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*90.0*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324103-1 07/09/18 09:35 • (LCSD) R3324103-2 07/09/18 09:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0205	0.0208	82.2	83.3	69.0-123			1.40	20
(S) Toluene-d8				*102*	*103*	*80.0-120*				
(S) Dibromofluoromethane				*90.3*	*89.9*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*105*	*104*	*80.0-120*				
(S) 4-Bromofluorobenzene				*90.1*	*88.4*	*80.0-120*				

Method Blank (MB)

(MB) R3324732-4 07/10/18 22:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*106*			*80.0-120*
(S) Dibromofluoromethane	*91.5*			*76.0-123*
(S) 4-Bromofluorobenzene	*89.5*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324732-1 07/10/18 21:25 • (LCSD) R3324732-2 07/10/18 21:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0201	0.0201	80.3	80.6	69.0-123			0.390	20
Xylenes, Total	0.0750	0.0801	0.0794	107	106	77.0-120			0.878	20
(S) Toluene-d8				*105*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*90.4*	*92.0*	*76.0-123*				
(S) 4-Bromofluorobenzene				*88.3*	*88.6*	*80.0-120*				

Method Blank (MB)

(MB) R3324568-1 07/10/18 08:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

Method Blank (MB)

(MB) R3325015-1 07/12/18 00:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1006645-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1006645-07 07/10/18 09:15 • (DUP) R3324568-3 07/10/18 09:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324568-4 07/10/18 11:56 • (LCSD) R3324568-5 07/10/18 14:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000236	0.000241	94.4	96.4	60.0-140			2.10	20

L1006151-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1006151-01 07/10/18 08:50 • (MS) R3324568-2 07/10/18 08:37

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000995	U	0.0000980	98.5	.995	72.0-146	

Method Blank (MB)

(MB) R3324569-1 07/10/18 14:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

Method Blank (MB)

(MB) R3326223-1 07/17/18 04:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1006453-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1006453-01 07/10/18 15:41 • (DUP) R3324569-3 07/10/18 15:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	0.000	.998			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324569-4 07/10/18 17:42 • (LCSD) R3324569-6 07/10/18 20:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000236	0.000249	94.4	99.6	60.0-140			5.36	20

Laboratory Control Sample (LCS)

(LCS) R3326223-2 07/17/18 04:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylene Dibromide	0.000250	0.000217	86.8	60.0-140	

L1006453-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L1006453-08 07/10/18 15:16 • (MS) R3324569-2 07/10/18 15:03

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	U	0.000106	106	.998	72.0-146	

Method Blank (MB)

(MB) R3323986-3 07/08/18 23:16

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*190*	J1		*31.0-160*
(S) 2-Fluorobiphenyl	*99.5*			*48.0-148*
(S) p-Terphenyl-d14	*104*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3323986-1 07/08/18 22:30 • (LCSD) R3323986-2 07/08/18 22:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00226	0.00218	113	109	64.0-142			3.72	20
Benzo(a)anthracene	0.00200	0.00208	0.00210	104	105	59.0-134			0.625	20
Benzo(a)pyrene	0.00200	0.00199	0.00207	99.3	103	61.0-145			4.16	20
Benzo(b)fluoranthene	0.00200	0.00187	0.00211	93.5	106	57.0-136			12.1	20
Benzo(g,h,i)perylene	0.00200	0.00199	0.00212	99.3	106	54.0-140			6.66	20
Chrysene	0.00200	0.00201	0.00205	100	103	63.0-140			2.04	20
Fluorene	0.00200	0.00199	0.00192	99.7	96.2	64.0-129			3.64	20
Naphthalene	0.00200	0.00174	0.00162	87.0	80.8	68.0-129			7.34	20
Phenanthrene	0.00200	0.00200	0.00199	99.8	99.6	62.0-132			0.214	20
Pyrene	0.00200	0.00201	0.00200	100	100	58.0-156			0.162	20
(S) Nitrobenzene-d5				*184*	*185*	*31.0-160*	J1	J1		
(S) 2-Fluorobiphenyl				*93.6*	*91.0*	*48.0-148*				
(S) p-Terphenyl-d14				*95.6*	*98.6*	*37.0-146*				

Method Blank (MB)

(MB) R3324021-3 07/08/18 01:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*87.1*			*31.0-160*
(S) 2-Fluorobiphenyl	*110*			*48.0-148*
(S) p-Terphenyl-d14	*92.3*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324021-1 07/08/18 01:07 • (LCSD) R3324021-2 07/08/18 01:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00245	0.00246	122	123	64.0-142			0.612	20
Benzo(a)anthracene	0.00200	0.00198	0.00199	99.1	99.3	59.0-134			0.175	20
Benzo(a)pyrene	0.00200	0.00215	0.00212	108	106	61.0-145			1.77	20
Benzo(b)fluoranthene	0.00200	0.00201	0.00188	101	94.1	57.0-136			6.58	20
Benzo(g,h,i)perylene	0.00200	0.00234	0.00229	117	115	54.0-140			1.89	20
Chrysene	0.00200	0.00234	0.00234	117	117	63.0-140			0.245	20
Fluorene	0.00200	0.00206	0.00205	103	102	64.0-129			0.478	20
Naphthalene	0.00200	0.00205	0.00203	103	101	68.0-129			1.08	20
Phenanthrene	0.00200	0.00210	0.00205	105	102	62.0-132			2.54	20
Pyrene	0.00200	0.00200	0.00199	99.9	99.7	58.0-156			0.181	20
(S) Nitrobenzene-d5				*92.6*	*92.9*	*31.0-160*				
(S) 2-Fluorobiphenyl				*113*	*111*	*48.0-148*				
(S) p-Terphenyl-d14				*98.6*	*98.6*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

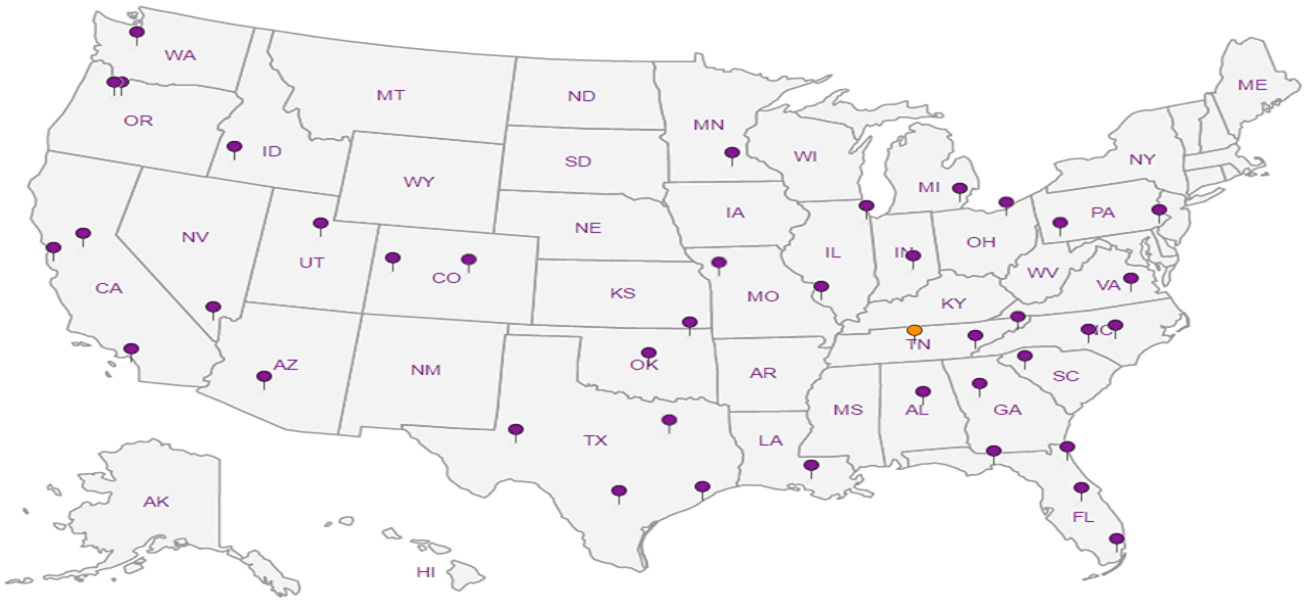
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen - GWS

City/State Collected:

Phone: ~~267-240-3415~~ Fax: 610-425-8311

Client Project # 213402429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Jim Craft / Karl Mahony

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
S-4/4_HS_20180702	X	GW		7/2/2018	0855	3				X			-01
S-4/4_~~20~~180702	X	GW		7/2/2018	0942	3				X			-02
S-139SRTF_20180702	X	GW		7/2/2018	1310	9	X	X					-03
N-157_HS_20180702	X	GW		7/2/2018	935	9	X	X					-04
N-157_~~D~~20180702	X	GW		7/2/2018	1040	9	X	X					-05
N.111_20180702	X	GW		7/2/2018	1205	9	X	X					-06
N.85_20180702	X	GW		7/2/2018	1400	9	X	X					-07
N-85_Dup_20180702	X	GW		7/2/2018	1400	9	X	X					-08
		GW											
		GW											

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

ESC LABORATORIES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1006045

Tab B097

Acctnum: SUNSTANTEC
Template: T137388
Prelogin: P659137
TSR: 134 - Mark Beasley
PB: 6-18-18

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: * Equis EDD Format
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP * standard TAT

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking # 4430 3422 9728

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	7/2/18	1600	7/2/18
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	7/2/18	1740	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No (HCL) / MeoH TBR

Temp: 20.5 °C Bottles Received: 60

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Date: 7/3/18 Time: 13:15

Andy Vann

From: Mark Beasley
Sent: Tuesday, July 03, 2018 5:07 PM
To: Login
Subject: L1006645 *SUNSTANTEC*

Cancel L1006645-08 per client. Add trip blank as -09 for V8260UGPA per client.

Mark Beasley
National Account Manager

ESC Lab Sciences-a subsidiary of Pace Analytical
12065 Lebanon Road | Mt. Juliet, TN 37122
615.773.9672 | Cell 615.330.1602
mbeasley@esclabsciences.com | www.esclabsciences.com

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Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 22, 2018

Stantec - S/E

Sample Delivery Group:	L1007059
Samples Received:	07/06/2018
Project Number:	213402429
Description:	PHL GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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TB_20180703 L1007059-01 GW

Collected by	Collected date/time	Received date/time
Dane Hopkins	07/03/18 00:00	07/06/18 10:37

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134708	1	07/06/18 21:52	07/06/18 21:52	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1136555	1	07/12/18 03:17	07/12/18 03:17	ACG

S-112SRTF_20180703 L1007059-02 GW

Collected by	Collected date/time	Received date/time
Dane Hopkins	07/03/18 10:15	07/06/18 10:37

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1135846	1	07/10/18 20:01	07/11/18 17:50	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134932	50	07/08/18 00:54	07/08/18 00:54	JSD
EDB / DBCP by Method 8011	WG1135566	1	07/10/18 07:54	07/11/18 08:06	TD
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134799	1	07/08/18 20:51	07/09/18 06:01	KM

S-423_20180703 L1007059-03 GW

Collected by	Collected date/time	Received date/time
Dane Hopkins	07/03/18 12:15	07/06/18 10:37

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1135846	1	07/10/18 20:01	07/11/18 17:54	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1136057	1	07/10/18 22:25	07/10/18 22:25	TJJ
EDB / DBCP by Method 8011	WG1135566	1	07/10/18 07:54	07/11/18 08:19	TD
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134799	1	07/08/18 20:51	07/09/18 06:23	KM

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Project Narrative

L1007059-02 & -03: Naphthalene failed low in the LCSD @ 67.3%, lower limit is 68.0%

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/06/2018 21:52	WG1134708
1,2-Dichloroethane	ND		0.00100	1	07/06/2018 21:52	WG1134708
Ethylbenzene	ND		0.00100	1	07/06/2018 21:52	WG1134708
1,2-Dibromoethane	ND		0.00100	1	07/06/2018 21:52	WG1134708
Isopropylbenzene	ND		0.00100	1	07/06/2018 21:52	WG1134708
Toluene	ND		0.00100	1	07/06/2018 21:52	WG1134708
1,2,4-Trimethylbenzene	ND		0.00100	1	07/06/2018 21:52	WG1134708
1,3,5-Trimethylbenzene	ND		0.00100	1	07/06/2018 21:52	WG1134708
Xylenes, Total	ND		0.00300	1	07/06/2018 21:52	WG1134708
Methyl tert-butyl ether	ND		0.00100	1	07/06/2018 21:52	WG1134708
tert-Butyl alcohol	ND		0.00500	1	07/12/2018 03:17	WG1136555
(S) Toluene-d8	*102*		*80.0-120*		*07/06/2018 21:52*	WG1134708
(S) Toluene-d8	*98.5*		*80.0-120*		*07/12/2018 03:17*	WG1136555
(S) Dibromofluoromethane	*91.5*		*76.0-123*		*07/06/2018 21:52*	WG1134708
(S) Dibromofluoromethane	*101*		*76.0-123*		*07/12/2018 03:17*	WG1136555
(S) 4-Bromofluorobenzene	*97.1*		*80.0-120*		*07/06/2018 21:52*	WG1134708
(S) 4-Bromofluorobenzene	*92.5*		*80.0-120*		*07/12/2018 03:17*	WG1136555

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/11/2018 17:50	WG1135846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.170		0.0500	50	07/08/2018 00:54	WG1134932
Isopropylbenzene	0.0564		0.0500	50	07/08/2018 00:54	WG1134932
1,2-Dichloroethane	ND		0.0500	50	07/08/2018 00:54	WG1134932
Ethylbenzene	0.301		0.0500	50	07/08/2018 00:54	WG1134932
Methyl tert-butyl ether	ND		0.0500	50	07/08/2018 00:54	WG1134932
Toluene	0.119		0.0500	50	07/08/2018 00:54	WG1134932
1,2,4-Trimethylbenzene	0.674		0.0500	50	07/08/2018 00:54	WG1134932
1,3,5-Trimethylbenzene	0.238		0.0500	50	07/08/2018 00:54	WG1134932
Xylenes, Total	1.59		0.150	50	07/08/2018 00:54	WG1134932
(S) Toluene-d8	*101*		*80.0-120*		*07/08/2018 00:54*	WG1134932
(S) Dibromofluoromethane	*95.8*		*76.0-123*		*07/08/2018 00:54*	WG1134932
(S) 4-Bromofluorobenzene	*91.3*		*80.0-120*		*07/08/2018 00:54*	WG1134932

Sample Narrative:

L1007059-02 WG1134932: Target and Non-target compounds too high to run at a lower dilution.

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/11/2018 08:06	WG1135566

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000301		0.0000500	1	07/09/2018 06:01	WG1134799
Benzo(a)anthracene	ND		0.0000500	1	07/09/2018 06:01	WG1134799
Benzo(a)pyrene	ND		0.0000500	1	07/09/2018 06:01	WG1134799
Benzo(b)fluoranthene	ND		0.0000500	1	07/09/2018 06:01	WG1134799
Benzo(g,h,i)perylene	ND		0.0000500	1	07/09/2018 06:01	WG1134799
Chrysene	ND		0.0000500	1	07/09/2018 06:01	WG1134799
Fluorene	0.00430		0.0000500	1	07/09/2018 06:01	WG1134799
Naphthalene	0.0866	J4	0.000250	1	07/09/2018 06:01	WG1134799
Phenanthrene	0.00369		0.0000500	1	07/09/2018 06:01	WG1134799
Pyrene	0.000211		0.0000500	1	07/09/2018 06:01	WG1134799
(S) Nitrobenzene-d5	*77.3*		*31.0-160*		*07/09/2018 06:01*	WG1134799
(S) 2-Fluorobiphenyl	*101*		*48.0-148*		*07/09/2018 06:01*	WG1134799
(S) p-Terphenyl-d14	*76.8*		*37.0-146*		*07/09/2018 06:01*	WG1134799

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/11/2018 17:54	WG1135846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/10/2018 22:25	WG1136057
Isopropylbenzene	0.0645		0.00100	1	07/10/2018 22:25	WG1136057
1,2-Dichloroethane	ND		0.00100	1	07/10/2018 22:25	WG1136057
Ethylbenzene	ND		0.00100	1	07/10/2018 22:25	WG1136057
Methyl tert-butyl ether	0.0344		0.00100	1	07/10/2018 22:25	WG1136057
Toluene	0.00160		0.00100	1	07/10/2018 22:25	WG1136057
1,2,4-Trimethylbenzene	0.00107		0.00100	1	07/10/2018 22:25	WG1136057
1,3,5-Trimethylbenzene	ND		0.00100	1	07/10/2018 22:25	WG1136057
Xylenes, Total	ND		0.00300	1	07/10/2018 22:25	WG1136057
(S) Toluene-d8	*98.5*		*80.0-120*		*07/10/2018 22:25*	WG1136057
(S) Dibromofluoromethane	*99.4*		*76.0-123*		*07/10/2018 22:25*	WG1136057
(S) 4-Bromofluorobenzene	*108*		*80.0-120*		*07/10/2018 22:25*	WG1136057

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/11/2018 08:19	WG1135566

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000206		0.0000500	1	07/09/2018 06:23	WG1134799
Benzo(a)anthracene	0.0000797		0.0000500	1	07/09/2018 06:23	WG1134799
Benzo(a)pyrene	ND		0.0000500	1	07/09/2018 06:23	WG1134799
Benzo(b)fluoranthene	ND		0.0000500	1	07/09/2018 06:23	WG1134799
Benzo(g,h,i)perylene	ND		0.0000500	1	07/09/2018 06:23	WG1134799
Chrysene	0.000155		0.0000500	1	07/09/2018 06:23	WG1134799
Fluorene	0.00460		0.0000500	1	07/09/2018 06:23	WG1134799
Naphthalene	0.00123	J4	0.000250	1	07/09/2018 06:23	WG1134799
Phenanthrene	0.00390		0.0000500	1	07/09/2018 06:23	WG1134799
Pyrene	0.000161		0.0000500	1	07/09/2018 06:23	WG1134799
(S) Nitrobenzene-d5	*152*		*31.0-160*		*07/09/2018 06:23*	WG1134799
(S) 2-Fluorobiphenyl	*99.8*		*48.0-148*		*07/09/2018 06:23*	WG1134799
(S) p-Terphenyl-d14	*116*		*37.0-146*		*07/09/2018 06:23*	WG1134799

Method Blank (MB)

(MB) R3324859-1 07/11/18 16:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324859-2 07/11/18 16:49 • (LCSD) R3324859-3 07/11/18 16:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0487	0.0473	97.5	94.5	80.0-120			3.11	20

L1007068-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1007068-01 07/11/18 16:57 • (MS) R3324859-5 07/11/18 17:05 • (MSD) R3324859-6 07/11/18 17:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	ND	0.0485	0.0485	96.2	96.3	1	75.0-125			0.0931	20

Method Blank (MB)

(MB) R3324808-2 07/06/18 20:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dibromoethane	U		0.000381	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*102*			*80.0-120*
(S) Dibromofluoromethane	*91.3*			*76.0-123*
(S) 4-Bromofluorobenzene	*94.3*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324808-1 07/06/18 20:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0240	96.0	69.0-123	
1,2-Dibromoethane	0.0250	0.0259	103	77.0-123	
1,2-Dichloroethane	0.0250	0.0240	96.1	67.0-126	
Ethylbenzene	0.0250	0.0266	106	77.0-120	
Isopropylbenzene	0.0250	0.0243	97.1	75.0-120	
Methyl tert-butyl ether	0.0250	0.0228	91.1	64.0-123	
Toluene	0.0250	0.0266	106	77.0-120	
1,2,4-Trimethylbenzene	0.0250	0.0257	103	75.0-120	
1,3,5-Trimethylbenzene	0.0250	0.0245	97.9	75.0-120	
Xylenes, Total	0.0750	0.0812	108	77.0-120	
(S) Toluene-d8			*104*	*80.0-120*	
(S) Dibromofluoromethane			*88.6*	*76.0-123*	
(S) 4-Bromofluorobenzene			*94.3*	*80.0-120*	

Method Blank (MB)

(MB) R3324539-2 07/07/18 23:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*105*			*80.0-120*
(S) Dibromofluoromethane	*95.4*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.7*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324539-1 07/07/18 22:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0210	83.9	69.0-123	
1,2-Dichloroethane	0.0250	0.0217	86.7	67.0-126	
Ethylbenzene	0.0250	0.0259	103	77.0-120	
Isopropylbenzene	0.0250	0.0247	99.0	75.0-120	
Methyl tert-butyl ether	0.0250	0.0219	87.5	64.0-123	
Toluene	0.0250	0.0240	96.1	77.0-120	
1,2,4-Trimethylbenzene	0.0250	0.0241	96.5	75.0-120	
1,3,5-Trimethylbenzene	0.0250	0.0247	98.8	75.0-120	
Xylenes, Total	0.0750	0.0777	104	77.0-120	
(S) Toluene-d8			*103*	*80.0-120*	
(S) Dibromofluoromethane			*93.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*92.2*	*80.0-120*	

Method Blank (MB)

(MB) R3324842-3 07/10/18 21:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*105*			*80.0-120*
(S) Dibromofluoromethane	*100*			*76.0-123*
(S) 4-Bromofluorobenzene	*108*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324842-1 07/10/18 20:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0223	89.3	69.0-123	
1,2-Dichloroethane	0.0250	0.0230	92.0	67.0-126	
Ethylbenzene	0.0250	0.0254	101	77.0-120	
Isopropylbenzene	0.0250	0.0273	109	75.0-120	
Methyl tert-butyl ether	0.0250	0.0231	92.5	64.0-123	
Toluene	0.0250	0.0241	96.2	77.0-120	
1,2,4-Trimethylbenzene	0.0250	0.0259	104	75.0-120	
1,3,5-Trimethylbenzene	0.0250	0.0268	107	75.0-120	
Xylenes, Total	0.0750	0.0749	99.9	77.0-120	
(S) Toluene-d8			*100*	*80.0-120*	
(S) Dibromofluoromethane			*98.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*107*	*80.0-120*	

Method Blank (MB)

(MB) R3324944-4 07/12/18 02:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*98.7*			*80.0-120*
(S) Dibromofluoromethane	*99.3*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.9*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324944-3 07/12/18 01:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0529	106	50.0-150	
(S) Toluene-d8			*96.0*	*80.0-120*	
(S) Dibromofluoromethane			*100*	*76.0-123*	
(S) 4-Bromofluorobenzene			*92.7*	*80.0-120*	

Method Blank (MB)

(MB) R3324800-1 07/11/18 04:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1007004-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1007004-02 07/11/18 05:15 • (DUP) R3324800-3 07/11/18 05:03

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	.998			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324800-4 07/11/18 07:17 • (LCSD) R3324800-5 07/11/18 09:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000244	0.000251	97.6	100	60.0-140			2.83	20

L1007242-12 Original Sample (OS) • Matrix Spike (MS)

(OS) L1007242-12 07/11/18 04:50 • (MS) R3324800-2 07/11/18 04:38

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.000100	U	0.000118	118	1	72.0-146	

Method Blank (MB)

(MB) R3324054-3 07/09/18 01:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*77.0*			*31.0-160*
(S) 2-Fluorobiphenyl	*103*			*48.0-148*
(S) p-Terphenyl-d14	*106*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324054-1 07/09/18 00:34 • (LCSD) R3324054-2 07/09/18 00:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00180	0.00194	90.0	96.9	64.0-142			7.43	20
Benzo(a)anthracene	0.00200	0.00208	0.00212	104	106	59.0-134			1.70	20
Benzo(a)pyrene	0.00200	0.00204	0.00209	102	104	61.0-145			2.61	20
Benzo(b)fluoranthene	0.00200	0.00217	0.00195	109	97.6	57.0-136			10.7	20
Benzo(g,h,i)perylene	0.00200	0.00209	0.00209	105	104	54.0-140			0.129	20
Chrysene	0.00200	0.00214	0.00220	107	110	63.0-140			2.94	20
Fluorene	0.00200	0.00180	0.00180	89.8	90.2	64.0-129			0.496	20
Naphthalene	0.00200	0.00151	0.00135	75.3	67.3	68.0-129		J4	11.3	20
Phenanthrene	0.00200	0.00183	0.00178	91.4	88.9	62.0-132			2.71	20
Pyrene	0.00200	0.00191	0.00195	95.5	97.6	58.0-156			2.22	20
(S) Nitrobenzene-d5				*82.5*	*75.3*	*31.0-160*				
(S) 2-Fluorobiphenyl				*95.8*	*86.8*	*48.0-148*				
(S) p-Terphenyl-d14				*105*	*106*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J4	The associated batch QC was outside the established quality control range for accuracy.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

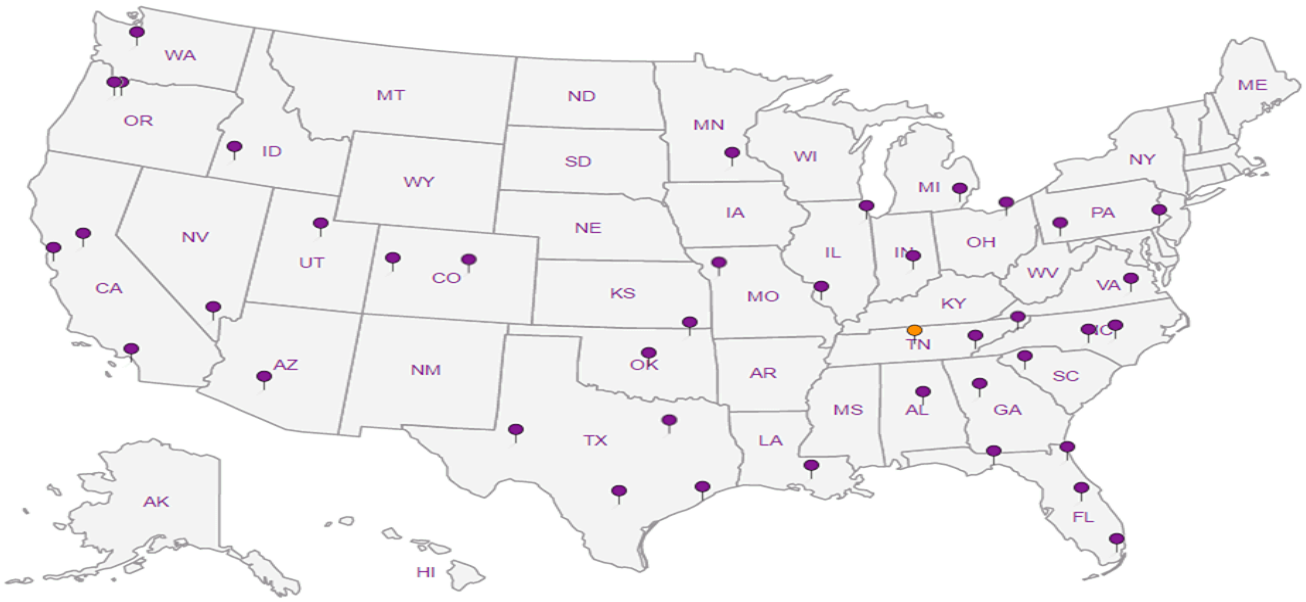
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen Annual GWS

City/State Collected:

Phone: ~~267-240-3415~~
Fax: 610-425-8811

Client Project # 213402429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Dave Hopkins

Site/Facility ID #

P.O. #

Collected by (signature): Dave

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP * lab filter	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
TB_20180703	X	GW	NA	7/3/18	DW	1			X				-01
S-112SRTF-20180703	X	GW	11'	7/3/18	1015	9	X	X					-02
S-423-20180703	X	GW	30'	7/3/18	1215	9	X	X					-03
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1007059

Table G031

Acctnum: SUNSTANTEC

Template: T137388

Prelogin: P659137

TSR: 134 - Mark Beasley

PB: 6-19-18

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP

*EQuIS EDD format
*Standard TAT
*refer to attached "Short list" for analytes

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Dave	7.3.18	1545	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Ed

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 4.4 °C Bottles Received: 19

Date: 7/6/18 Time: 1037

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 26, 2018

Stantec - S/E

Sample Delivery Group:	L1007064
Samples Received:	07/06/2018
Project Number:	
Description:	Evergreen GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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S-137SRTF_20180703 L1007064-01 GW

Collected by	Collected date/time	Received date/time
Jim C.	07/03/18 09:42	07/06/18 10:37

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1135846	1	07/10/18 20:01	07/11/18 17:58	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134932	1	07/08/18 01:36	07/08/18 01:36	JSD
EDB / DBCP by Method 8011	WG1135566	.998	07/10/18 07:54	07/11/18 08:31	TD
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134800	1	07/10/18 12:01	07/10/18 17:21	KM

S-142SRTF_20180703 L1007064-02 GW

Collected by	Collected date/time	Received date/time
Jim C.	07/03/18 10:54	07/06/18 10:37

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1135846	1	07/10/18 20:01	07/11/18 18:02	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134932	1	07/08/18 01:58	07/08/18 01:58	JSD
EDB / DBCP by Method 8011	WG1135566	1	07/10/18 07:54	07/11/18 08:44	TD
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134800	1	07/10/18 12:01	07/10/18 17:44	KM

S-110DSRTF_HS_20180703 L1007064-03 GW

Collected by	Collected date/time	Received date/time
Jim C.	07/03/18 11:20	07/06/18 10:37

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134708	1	07/07/18 02:02	07/07/18 02:02	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1136555	1	07/12/18 07:31	07/12/18 07:31	ACG
EDB / DBCP by Method 8011	WG1140686	1	07/20/18 08:51	07/21/18 04:17	ADF

S-110DSRTF_20180703 L1007064-04 GW

Collected by	Collected date/time	Received date/time
Jim C.	07/03/18 13:10	07/06/18 10:37

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1135846	1	07/10/18 20:01	07/11/18 18:06	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134932	1	07/08/18 02:20	07/08/18 02:20	JSD
EDB / DBCP by Method 8011	WG1135566	.998	07/10/18 07:54	07/11/18 08:57	TD
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134800	1	07/10/18 12:01	07/10/18 18:07	KM

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Project Narrative

SV8011 was analyzed outside of the 14 day holding time due to lab error.

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/11/2018 17:58	WG1135846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00523		0.00100	1	07/08/2018 01:36	WG1134932
Isopropylbenzene	ND		0.00100	1	07/08/2018 01:36	WG1134932
1,2-Dichloroethane	ND		0.00100	1	07/08/2018 01:36	WG1134932
Ethylbenzene	ND		0.00100	1	07/08/2018 01:36	WG1134932
Methyl tert-butyl ether	ND		0.00100	1	07/08/2018 01:36	WG1134932
Toluene	0.00198		0.00100	1	07/08/2018 01:36	WG1134932
1,2,4-Trimethylbenzene	ND		0.00100	1	07/08/2018 01:36	WG1134932
1,3,5-Trimethylbenzene	ND		0.00100	1	07/08/2018 01:36	WG1134932
Xylenes, Total	ND		0.00300	1	07/08/2018 01:36	WG1134932
(S) Toluene-d8	*104*		*80.0-120*		*07/08/2018 01:36*	WG1134932
(S) Dibromofluoromethane	*96.5*		*76.0-123*		*07/08/2018 01:36*	WG1134932
(S) 4-Bromofluorobenzene	*91.9*		*80.0-120*		*07/08/2018 01:36*	WG1134932

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/11/2018 08:31	WG1135566

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/10/2018 17:21	WG1134800
Benzo(a)anthracene	ND		0.0000500	1	07/10/2018 17:21	WG1134800
Benzo(a)pyrene	ND		0.0000500	1	07/10/2018 17:21	WG1134800
Benzo(b)fluoranthene	ND		0.0000500	1	07/10/2018 17:21	WG1134800
Benzo(g,h,i)perylene	ND		0.0000500	1	07/10/2018 17:21	WG1134800
Chrysene	ND		0.0000500	1	07/10/2018 17:21	WG1134800
Fluorene	ND		0.0000500	1	07/10/2018 17:21	WG1134800
Naphthalene	ND		0.000250	1	07/10/2018 17:21	WG1134800
Phenanthrene	ND		0.0000500	1	07/10/2018 17:21	WG1134800
Pyrene	0.000233		0.0000500	1	07/10/2018 17:21	WG1134800
(S) Nitrobenzene-d5	*127*		*31.0-160*		*07/10/2018 17:21*	WG1134800
(S) 2-Fluorobiphenyl	*103*		*48.0-148*		*07/10/2018 17:21*	WG1134800
(S) p-Terphenyl-d14	*102*		*37.0-146*		*07/10/2018 17:21*	WG1134800

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/11/2018 18:02	WG1135846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00245		0.00100	1	07/08/2018 01:58	WG1134932
Isopropylbenzene	ND		0.00100	1	07/08/2018 01:58	WG1134932
1,2-Dichloroethane	ND		0.00100	1	07/08/2018 01:58	WG1134932
Ethylbenzene	ND		0.00100	1	07/08/2018 01:58	WG1134932
Methyl tert-butyl ether	0.150		0.00100	1	07/08/2018 01:58	WG1134932
Toluene	0.00115		0.00100	1	07/08/2018 01:58	WG1134932
1,2,4-Trimethylbenzene	ND		0.00100	1	07/08/2018 01:58	WG1134932
1,3,5-Trimethylbenzene	ND		0.00100	1	07/08/2018 01:58	WG1134932
Xylenes, Total	ND		0.00300	1	07/08/2018 01:58	WG1134932
(S) Toluene-d8	*103*		*80.0-120*		*07/08/2018 01:58*	WG1134932
(S) Dibromofluoromethane	*95.4*		*76.0-123*		*07/08/2018 01:58*	WG1134932
(S) 4-Bromofluorobenzene	*93.8*		*80.0-120*		*07/08/2018 01:58*	WG1134932

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/11/2018 08:44	WG1135566

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/10/2018 17:44	WG1134800
Benzo(a)anthracene	ND		0.0000500	1	07/10/2018 17:44	WG1134800
Benzo(a)pyrene	ND		0.0000500	1	07/10/2018 17:44	WG1134800
Benzo(b)fluoranthene	ND		0.0000500	1	07/10/2018 17:44	WG1134800
Benzo(g,h,i)perylene	ND		0.0000500	1	07/10/2018 17:44	WG1134800
Chrysene	ND		0.0000500	1	07/10/2018 17:44	WG1134800
Fluorene	ND		0.0000500	1	07/10/2018 17:44	WG1134800
Naphthalene	ND		0.000250	1	07/10/2018 17:44	WG1134800
Phenanthrene	ND		0.0000500	1	07/10/2018 17:44	WG1134800
Pyrene	ND		0.0000500	1	07/10/2018 17:44	WG1134800
(S) Nitrobenzene-d5	*128*		*31.0-160*		*07/10/2018 17:44*	WG1134800
(S) 2-Fluorobiphenyl	*103*		*48.0-148*		*07/10/2018 17:44*	WG1134800
(S) p-Terphenyl-d14	*103*		*37.0-146*		*07/10/2018 17:44*	WG1134800

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/07/2018 02:02	WG1134708
1,2-Dichloroethane	ND		0.00100	1	07/07/2018 02:02	WG1134708
Ethylbenzene	ND		0.00100	1	07/07/2018 02:02	WG1134708
Isopropylbenzene	ND		0.00100	1	07/07/2018 02:02	WG1134708
Toluene	ND		0.00100	1	07/07/2018 02:02	WG1134708
1,2,4-Trimethylbenzene	ND		0.00100	1	07/07/2018 02:02	WG1134708
1,3,5-Trimethylbenzene	ND		0.00100	1	07/07/2018 02:02	WG1134708
Xylenes, Total	ND		0.00300	1	07/07/2018 02:02	WG1134708
Methyl tert-butyl ether	0.0316		0.00100	1	07/07/2018 02:02	WG1134708
tert-Butyl alcohol	0.0301		0.00500	1	07/12/2018 07:31	WG1136555
(S) Toluene-d8	*104*		*80.0-120*		*07/07/2018 02:02*	WG1134708
(S) Toluene-d8	*97.6*		*80.0-120*		*07/12/2018 07:31*	WG1136555
(S) Dibromofluoromethane	*88.7*		*76.0-123*		*07/07/2018 02:02*	WG1134708
(S) Dibromofluoromethane	*101*		*76.0-123*		*07/12/2018 07:31*	WG1136555
(S) 4-Bromofluorobenzene	*94.8*		*80.0-120*		*07/07/2018 02:02*	WG1134708
(S) 4-Bromofluorobenzene	*92.5*		*80.0-120*		*07/12/2018 07:31*	WG1136555

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND	T8	0.0000100	1	07/21/2018 04:17	WG1140686

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/11/2018 18:06	WG1135846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00423		0.00100	1	07/08/2018 02:20	WG1134932
Isopropylbenzene	ND		0.00100	1	07/08/2018 02:20	WG1134932
1,2-Dichloroethane	0.00394		0.00100	1	07/08/2018 02:20	WG1134932
Ethylbenzene	ND		0.00100	1	07/08/2018 02:20	WG1134932
Methyl tert-butyl ether	0.0335		0.00100	1	07/08/2018 02:20	WG1134932
Toluene	0.00173		0.00100	1	07/08/2018 02:20	WG1134932
1,2,4-Trimethylbenzene	ND		0.00100	1	07/08/2018 02:20	WG1134932
1,3,5-Trimethylbenzene	ND		0.00100	1	07/08/2018 02:20	WG1134932
Xylenes, Total	ND		0.00300	1	07/08/2018 02:20	WG1134932
(S) Toluene-d8	*103*		*80.0-120*		*07/08/2018 02:20*	WG1134932
(S) Dibromofluoromethane	*97.6*		*76.0-123*		*07/08/2018 02:20*	WG1134932
(S) 4-Bromofluorobenzene	*94.3*		*80.0-120*		*07/08/2018 02:20*	WG1134932

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/11/2018 08:57	WG1135566

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/10/2018 18:07	WG1134800
Benzo(a)anthracene	ND		0.0000500	1	07/10/2018 18:07	WG1134800
Benzo(a)pyrene	ND		0.0000500	1	07/10/2018 18:07	WG1134800
Benzo(b)fluoranthene	ND		0.0000500	1	07/10/2018 18:07	WG1134800
Benzo(g,h,i)perylene	ND		0.0000500	1	07/10/2018 18:07	WG1134800
Chrysene	ND		0.0000500	1	07/10/2018 18:07	WG1134800
Fluorene	ND		0.0000500	1	07/10/2018 18:07	WG1134800
Naphthalene	ND		0.000250	1	07/10/2018 18:07	WG1134800
Phenanthrene	ND		0.0000500	1	07/10/2018 18:07	WG1134800
Pyrene	ND		0.0000500	1	07/10/2018 18:07	WG1134800
(S) Nitrobenzene-d5	*121*		*31.0-160*		*07/10/2018 18:07*	WG1134800
(S) 2-Fluorobiphenyl	*102*		*48.0-148*		*07/10/2018 18:07*	WG1134800
(S) p-Terphenyl-d14	*103*		*37.0-146*		*07/10/2018 18:07*	WG1134800

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3324859-1 07/11/18 16:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324859-2 07/11/18 16:49 • (LCSD) R3324859-3 07/11/18 16:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0487	0.0473	97.5	94.5	80.0-120			3.11	20

L1007068-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1007068-01 07/11/18 16:57 • (MS) R3324859-5 07/11/18 17:05 • (MSD) R3324859-6 07/11/18 17:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	ND	0.0485	0.0485	96.2	96.3	1	75.0-125			0.0931	20

Method Blank (MB)

(MB) R3324808-2 07/06/18 20:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*102*			*80.0-120*
(S) Dibromofluoromethane	*91.3*			*76.0-123*
(S) 4-Bromofluorobenzene	*94.3*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324808-1 07/06/18 20:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0240	96.0	69.0-123	
1,2-Dichloroethane	0.0250	0.0240	96.1	67.0-126	
Ethylbenzene	0.0250	0.0266	106	77.0-120	
Isopropylbenzene	0.0250	0.0243	97.1	75.0-120	
Methyl tert-butyl ether	0.0250	0.0228	91.1	64.0-123	
Toluene	0.0250	0.0266	106	77.0-120	
1,2,4-Trimethylbenzene	0.0250	0.0257	103	75.0-120	
1,3,5-Trimethylbenzene	0.0250	0.0245	97.9	75.0-120	
Xylenes, Total	0.0750	0.0812	108	77.0-120	
(S) Toluene-d8			*104*	*80.0-120*	
(S) Dibromofluoromethane			*88.6*	*76.0-123*	
(S) 4-Bromofluorobenzene			*94.3*	*80.0-120*	

Method Blank (MB)

(MB) R3324539-2 07/07/18 23:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*105*			*80.0-120*
(S) Dibromofluoromethane	*95.4*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.7*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324539-1 07/07/18 22:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0210	83.9	69.0-123	
1,2-Dichloroethane	0.0250	0.0217	86.7	67.0-126	
Ethylbenzene	0.0250	0.0259	103	77.0-120	
Isopropylbenzene	0.0250	0.0247	99.0	75.0-120	
Methyl tert-butyl ether	0.0250	0.0219	87.5	64.0-123	
Toluene	0.0250	0.0240	96.1	77.0-120	
1,2,4-Trimethylbenzene	0.0250	0.0241	96.5	75.0-120	
1,3,5-Trimethylbenzene	0.0250	0.0247	98.8	75.0-120	
Xylenes, Total	0.0750	0.0777	104	77.0-120	
(S) Toluene-d8			*103*	*80.0-120*	
(S) Dibromofluoromethane			*93.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*92.2*	*80.0-120*	

Method Blank (MB)

(MB) R3324944-4 07/12/18 02:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
tert-Butyl alcohol	U		0.00240	0.00500
(S) Toluene-d8	*98.7*			*80.0-120*
(S) Dibromofluoromethane	*99.3*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.9*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324944-3 07/12/18 01:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butyl alcohol	0.0500	0.0529	106	50.0-150	
(S) Toluene-d8			*96.0*	*80.0-120*	
(S) Dibromofluoromethane			*100*	*76.0-123*	
(S) 4-Bromofluorobenzene			*92.7*	*80.0-120*	

Method Blank (MB)

(MB) R3324800-1 07/11/18 04:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1007004-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1007004-02 07/11/18 05:15 • (DUP) R3324800-3 07/11/18 05:03

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	.998			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324800-4 07/11/18 07:17 • (LCSD) R3324800-5 07/11/18 09:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000244	0.000251	97.6	100	60.0-140			2.83	20

L1007242-12 Original Sample (OS) • Matrix Spike (MS)

(OS) L1007242-12 07/11/18 04:50 • (MS) R3324800-2 07/11/18 04:38

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.000100	U	0.000118	118	1	72.0-146	

Method Blank (MB)

(MB) R3327677-1 07/20/18 23:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1009704-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1009704-01 07/21/18 00:47 • (DUP) R3327677-3 07/21/18 00:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3327677-4 07/21/18 02:50 • (LCSD) R3327677-5 07/21/18 05:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000239	0.000229	95.6	91.6	60.0-140			4.27	20

L1009704-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1009704-03 07/21/18 00:22 • (MS) R3327677-2 07/21/18 00:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.0000998	U	0.0000955	95.7	1	72.0-146	

Method Blank (MB)

(MB) R3324671-3 07/10/18 16:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*136*			*31.0-160*
(S) 2-Fluorobiphenyl	*111*			*48.0-148*
(S) p-Terphenyl-d14	*108*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324671-1 07/10/18 16:11 • (LCSD) R3324671-2 07/10/18 16:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00218	0.00219	109	109	64.0-142			0.458	20
Benzo(a)anthracene	0.00200	0.00223	0.00219	111	109	59.0-134			1.81	20
Benzo(a)pyrene	0.00200	0.00218	0.00216	109	108	61.0-145			0.922	20
Benzo(b)fluoranthene	0.00200	0.00211	0.00209	105	105	57.0-136			0.952	20
Benzo(g,h,i)perylene	0.00200	0.00236	0.00233	118	117	54.0-140			1.28	20
Chrysene	0.00200	0.00212	0.00210	106	105	63.0-140			0.948	20
Fluorene	0.00200	0.00214	0.00211	107	105	64.0-129			1.41	20
Naphthalene	0.00200	0.00204	0.00200	102	100	68.0-129			1.98	20
Phenanthrene	0.00200	0.00212	0.00211	106	105	62.0-132			0.473	20
Pyrene	0.00200	0.00207	0.00202	103	101	58.0-156			2.44	20
(S) Nitrobenzene-d5				*136*	*135*	*31.0-160*				
(S) 2-Fluorobiphenyl				*111*	*109*	*48.0-148*				
(S) p-Terphenyl-d14				*105*	*102*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
T8	Sample(s) received past/too close to holding time expiration.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

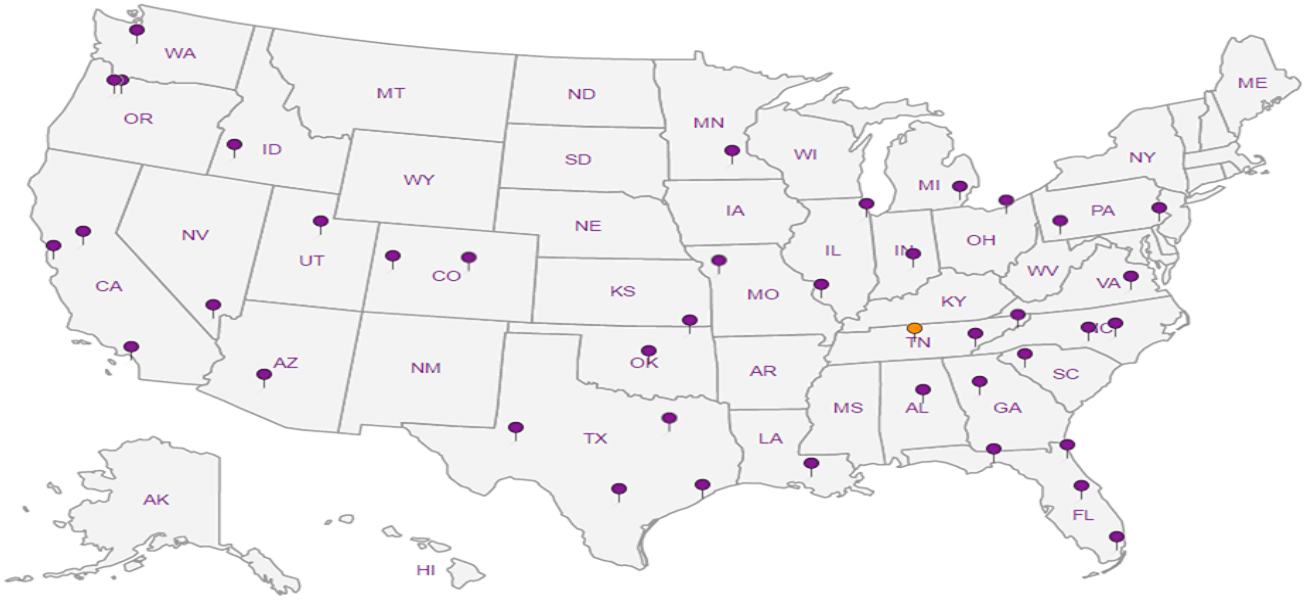
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen GWS

City/State Collected:

Phone: **267-240-3415**
Fax:

Client Project #

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Jim Craft

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
S-137SRTF_20180703	✓	GW		7/3/2018	0942	9	X	X					-01
S-H2SRTF_20180703	✓	GW		7/3/2018	1054	9	X	X					-02
S-110DSRTF_HS_20180703	✓	GW		7/3/2018	1120	3			X				-03
S-110DSRTF_20180703	✓	GW		7/3/2018	1310	9	X	X					-04
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1007064

T G030

Acctnum: **SUNSTANTEC**
Template: **T137388**
Prelogin: **P659137**
TSR: **134 - Mark Beasley**
PB: 6-18-18

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	7.3.18	1545	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 4.4 °C Bottles Received: 30

Date: 7/6/18 Time: 1037

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 22, 2018

Stantec - S/E

Sample Delivery Group:	L1007068
Samples Received:	07/06/2018
Project Number:	2134429
Description:	Evergreen-GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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FB_20180703 L1007068-01 GW

Collected by	Collected date/time	Received date/time
Karl Mclorry	07/03/18 07:45	07/06/18 10:37

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1135846	1	07/10/18 20:01	07/11/18 16:57	RDS
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134932	1	07/08/18 02:42	07/08/18 02:42	JSD
EDB / DBCP by Method 8011	WG1135566	1.01	07/10/18 07:54	07/11/18 09:09	TD
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1134799	1	07/08/18 20:51	07/09/18 06:45	KM

N-156_20180703 L1007068-02 GW

Collected by	Collected date/time	Received date/time
Karl Mclorry	07/03/18 09:40	07/06/18 10:37

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134714	1	07/07/18 07:47	07/07/18 07:47	TJJ
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135749	1	07/10/18 23:44	07/10/18 23:44	ACG

C-168_20180703 L1007068-03 GW

Collected by	Collected date/time	Received date/time
Karl Mclorry	07/03/18 11:40	07/06/18 10:37

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1134714	1	07/07/18 08:07	07/07/18 08:07	TJJ
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135749	5	07/11/18 00:04	07/11/18 00:04	ACG

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/11/2018 16:57	WG1135846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/08/2018 02:42	WG1134932
Isopropylbenzene	ND		0.00100	1	07/08/2018 02:42	WG1134932
1,2-Dichloroethane	ND		0.00100	1	07/08/2018 02:42	WG1134932
Ethylbenzene	ND		0.00100	1	07/08/2018 02:42	WG1134932
Methyl tert-butyl ether	ND		0.00100	1	07/08/2018 02:42	WG1134932
Toluene	ND		0.00100	1	07/08/2018 02:42	WG1134932
1,2,4-Trimethylbenzene	ND		0.00100	1	07/08/2018 02:42	WG1134932
1,3,5-Trimethylbenzene	ND		0.00100	1	07/08/2018 02:42	WG1134932
Xylenes, Total	ND		0.00300	1	07/08/2018 02:42	WG1134932
(S) Toluene-d8	*103*		*80.0-120*		*07/08/2018 02:42*	WG1134932
(S) Dibromofluoromethane	*96.6*		*76.0-123*		*07/08/2018 02:42*	WG1134932
(S) 4-Bromofluorobenzene	*92.3*		*80.0-120*		*07/08/2018 02:42*	WG1134932

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000101	1.01	07/11/2018 09:09	WG1135566

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/09/2018 06:45	WG1134799
Benzo(a)anthracene	ND		0.0000500	1	07/09/2018 06:45	WG1134799
Benzo(a)pyrene	ND		0.0000500	1	07/09/2018 06:45	WG1134799
Benzo(b)fluoranthene	ND		0.0000500	1	07/09/2018 06:45	WG1134799
Benzo(g,h,i)perylene	ND		0.0000500	1	07/09/2018 06:45	WG1134799
Chrysene	ND		0.0000500	1	07/09/2018 06:45	WG1134799
Fluorene	ND		0.0000500	1	07/09/2018 06:45	WG1134799
Naphthalene	ND	J4	0.000250	1	07/09/2018 06:45	WG1134799
Phenanthrene	ND		0.0000500	1	07/09/2018 06:45	WG1134799
Pyrene	ND		0.0000500	1	07/09/2018 06:45	WG1134799
(S) Nitrobenzene-d5	*75.3*		*31.0-160*		*07/09/2018 06:45*	WG1134799
(S) 2-Fluorobiphenyl	*117*		*48.0-148*		*07/09/2018 06:45*	WG1134799
(S) p-Terphenyl-d14	*109*		*37.0-146*		*07/09/2018 06:45*	WG1134799

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00526		0.00100	1	07/07/2018 07:47	WG1134714
Toluene	ND		0.00100	1	07/07/2018 07:47	WG1134714
Ethylbenzene	0.00105		0.00100	1	07/10/2018 23:44	WG1135749
Total Xylenes	0.00603		0.00300	1	07/07/2018 07:47	WG1134714
(S) Toluene-d8	*103*		*80.0-120*		*07/07/2018 07:47*	WG1134714
(S) Toluene-d8	*97.6*		*80.0-120*		*07/10/2018 23:44*	WG1135749
(S) Dibromofluoromethane	*87.3*		*76.0-123*		*07/07/2018 07:47*	WG1134714
(S) Dibromofluoromethane	*102*		*76.0-123*		*07/10/2018 23:44*	WG1135749
(S) a,a,a-Trifluorotoluene	*106*		*80.0-120*		*07/07/2018 07:47*	WG1134714
(S) a,a,a-Trifluorotoluene	*100*		*80.0-120*		*07/10/2018 23:44*	WG1135749
(S) 4-Bromofluorobenzene	*97.5*		*80.0-120*		*07/07/2018 07:47*	WG1134714
(S) 4-Bromofluorobenzene	*111*		*80.0-120*		*07/10/2018 23:44*	WG1135749

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.730		0.00500	5	07/11/2018 00:04	WG1135749
Toluene	0.0366		0.00100	1	07/07/2018 08:07	WG1134714
Ethylbenzene	0.0103		0.00100	1	07/07/2018 08:07	WG1134714
Total Xylenes	0.0320		0.00300	1	07/07/2018 08:07	WG1134714
(S) Toluene-d8	*101*		*80.0-120*		*07/07/2018 08:07*	WG1134714
(S) Toluene-d8	*98.4*		*80.0-120*		*07/11/2018 00:04*	WG1135749
(S) Dibromofluoromethane	*92.7*		*76.0-123*		*07/07/2018 08:07*	WG1134714
(S) Dibromofluoromethane	*102*		*76.0-123*		*07/11/2018 00:04*	WG1135749
(S) a,a,a-Trifluorotoluene	*105*		*80.0-120*		*07/07/2018 08:07*	WG1134714
(S) a,a,a-Trifluorotoluene	*99.7*		*80.0-120*		*07/11/2018 00:04*	WG1135749
(S) 4-Bromofluorobenzene	*97.4*		*80.0-120*		*07/07/2018 08:07*	WG1134714
(S) 4-Bromofluorobenzene	*109*		*80.0-120*		*07/11/2018 00:04*	WG1135749

Method Blank (MB)

(MB) R3324859-1 07/11/18 16:45

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324859-2 07/11/18 16:49 • (LCSD) R3324859-3 07/11/18 16:53

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Lead,Dissolved	0.0500	0.0487	0.0473	97.5	94.5	80.0-120			3.11	20

L1007068-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1007068-01 07/11/18 16:57 • (MS) R3324859-5 07/11/18 17:05 • (MSD) R3324859-6 07/11/18 17:09

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Lead,Dissolved	0.0500	ND	0.0485	0.0485	96.2	96.3	1	75.0-125			0.0931	20

Method Blank (MB)

(MB) R3324347-3 07/07/18 04:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*104*			*80.0-120*
(S) Dibromofluoromethane	*90.4*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*96.1*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324347-1 07/07/18 03:57 • (LCSD) R3324347-2 07/07/18 04:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0240	0.0238	95.9	95.4	69.0-123			0.529	20
Ethylbenzene	0.0250	0.0261	0.0266	105	106	77.0-120			1.64	20
Toluene	0.0250	0.0268	0.0268	107	107	77.0-120			0.114	20
Xylenes, Total	0.0750	0.0796	0.0808	106	108	77.0-120			1.50	20
(S) Toluene-d8				*104*	*103*	*80.0-120*				
(S) Dibromofluoromethane				*88.1*	*87.5*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*107*	*108*	*80.0-120*				
(S) 4-Bromofluorobenzene				*93.4*	*94.0*	*80.0-120*				

Method Blank (MB)

(MB) R3324539-2 07/07/18 23:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*105*			*80.0-120*
(S) Dibromofluoromethane	*95.4*			*76.0-123*
(S) 4-Bromofluorobenzene	*92.7*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324539-1 07/07/18 22:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0210	83.9	69.0-123	
1,2-Dichloroethane	0.0250	0.0217	86.7	67.0-126	
Ethylbenzene	0.0250	0.0259	103	77.0-120	
Isopropylbenzene	0.0250	0.0247	99.0	75.0-120	
Methyl tert-butyl ether	0.0250	0.0219	87.5	64.0-123	
Toluene	0.0250	0.0240	96.1	77.0-120	
1,2,4-Trimethylbenzene	0.0250	0.0241	96.5	75.0-120	
1,3,5-Trimethylbenzene	0.0250	0.0247	98.8	75.0-120	
Xylenes, Total	0.0750	0.0777	104	77.0-120	
(S) Toluene-d8			*103*	*80.0-120*	
(S) Dibromofluoromethane			*93.9*	*76.0-123*	
(S) 4-Bromofluorobenzene			*92.2*	*80.0-120*	

Method Blank (MB)

(MB) R3324612-3 07/10/18 16:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
(S) Toluene-d8	*100*			*80.0-120*
(S) Dibromofluoromethane	*100*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*101*			*80.0-120*
(S) 4-Bromofluorobenzene	*106*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324612-1 07/10/18 15:45 • (LCSD) R3324612-2 07/10/18 16:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0243	0.0247	97.2	98.7	69.0-123			1.62	20
Ethylbenzene	0.0250	0.0235	0.0235	94.0	94.1	77.0-120			0.0487	20
(S) Toluene-d8				*101*	*100*	*80.0-120*				
(S) Dibromofluoromethane				*100*	*101*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*101*	*102*	*80.0-120*				
(S) 4-Bromofluorobenzene				*112*	*115*	*80.0-120*				

Method Blank (MB)

(MB) R3324800-1 07/11/18 04:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1007004-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1007004-02 07/11/18 05:15 • (DUP) R3324800-3 07/11/18 05:03

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	.998			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324800-4 07/11/18 07:17 • (LCSD) R3324800-5 07/11/18 09:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000244	0.000251	97.6	100	60.0-140			2.83	20

L1007242-12 Original Sample (OS) • Matrix Spike (MS)

(OS) L1007242-12 07/11/18 04:50 • (MS) R3324800-2 07/11/18 04:38

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.000100	U	0.000118	118	1	72.0-146	

Method Blank (MB)

(MB) R3324054-3 07/09/18 01:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*77.0*			*31.0-160*
(S) 2-Fluorobiphenyl	*103*			*48.0-148*
(S) p-Terphenyl-d14	*106*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324054-1 07/09/18 00:34 • (LCSD) R3324054-2 07/09/18 00:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00180	0.00194	90.0	96.9	64.0-142			7.43	20
Benzo(a)anthracene	0.00200	0.00208	0.00212	104	106	59.0-134			1.70	20
Benzo(a)pyrene	0.00200	0.00204	0.00209	102	104	61.0-145			2.61	20
Benzo(b)fluoranthene	0.00200	0.00217	0.00195	109	97.6	57.0-136			10.7	20
Benzo(g,h,i)perylene	0.00200	0.00209	0.00209	105	104	54.0-140			0.129	20
Chrysene	0.00200	0.00214	0.00220	107	110	63.0-140			2.94	20
Fluorene	0.00200	0.00180	0.00180	89.8	90.2	64.0-129			0.496	20
Naphthalene	0.00200	0.00151	0.00135	75.3	67.3	68.0-129		J4	11.3	20
Phenanthrene	0.00200	0.00183	0.00178	91.4	88.9	62.0-132			2.71	20
Pyrene	0.00200	0.00191	0.00195	95.5	97.6	58.0-156			2.22	20
(S) Nitrobenzene-d5				*82.5*	*75.3*	*31.0-160*				
(S) 2-Fluorobiphenyl				*95.8*	*86.8*	*48.0-148*				
(S) p-Terphenyl-d14				*105*	*106*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J4	The associated batch QC was outside the established quality control range for accuracy.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

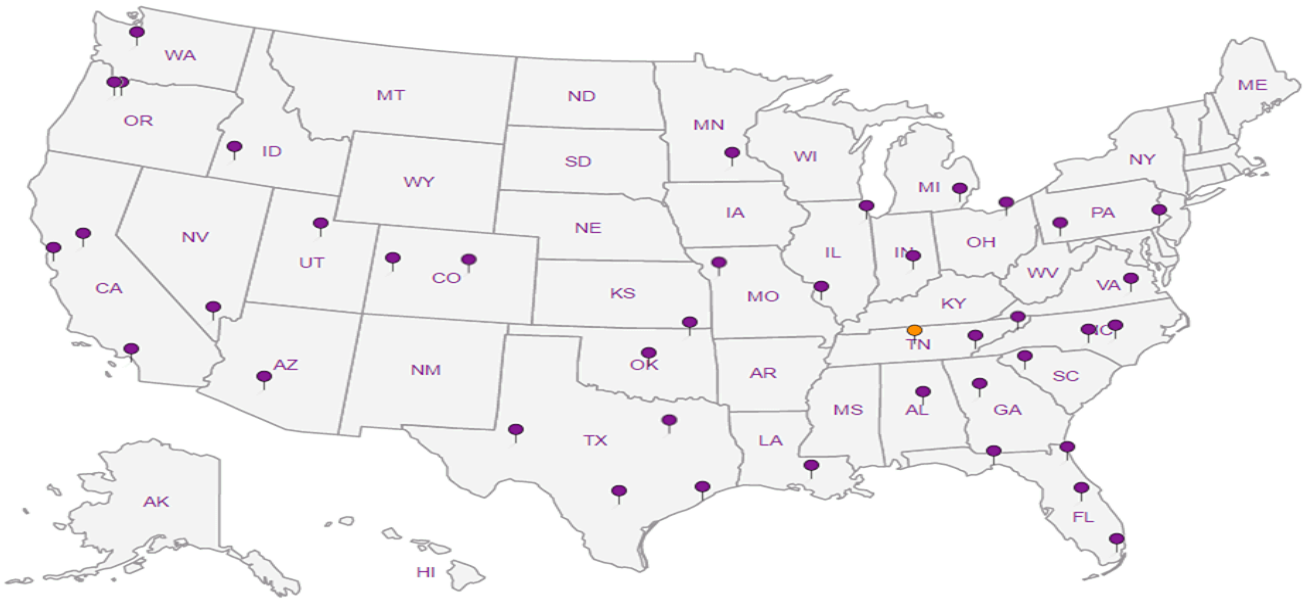
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen - GWS

City/State Collected:

Phone: ~~267-240-3415~~
Fax: 610-425-8311

Client Project # 213[illegible]29

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Karl McGinn

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
FB_20180703	G	GW	N/A	7.3.18	745	9	X	X					-01
N-156_20180703	G	GW	30	7.3.18	940	3				X			-02
[illegible]	[illegible]	GW	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]			[illegible]
C_168_20180703	G	GW	7	7.3.18	1140	3				X			-03-04 TD
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											

Chain of Custody Page ___ of ___

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L # 4007068

Table G029

Acctnum: **SUNSTANTEC**
Template: **T137388**
Prelogin: **P659137**
TSR: **134 - Mark Beasley**
PB: 6-18-18

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: * Equis EDD format *
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1- 250ml plastic NP * Stanlad TAT * pH _____ Temp _____ Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: (Yes) / No HCL / MeoH TBR
	7.3.18	1548		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.4 °C Bottles Received: 15 — If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 7/6/18 Time: 1037 — Hold: — Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 22, 2018

Stantec - S/E

Sample Delivery Group:	L1007506
Samples Received:	07/07/2018
Project Number:	213402429
Description:	Evergreen-GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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S-115DSRTF_HS_20180705 L1007506-01 GW

Collected by: Karl Mclorry | Collected date/time: 07/05/18 09:30 | Received date/time: 07/07/18 09:05

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1136159	1	07/11/18 09:15	07/12/18 19:27	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135109	1	07/08/18 15:37	07/08/18 15:37	DWR
EDB / DBCP by Method 8011	WG1136144	1	07/11/18 08:00	07/13/18 01:12	KLM
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1135911	1	07/11/18 11:06	07/11/18 17:46	KM

S-115DSRTF_20180705 L1007506-02 GW

Collected by: Karl Mclorry | Collected date/time: 07/05/18 10:25 | Received date/time: 07/07/18 09:05

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1136159	1	07/11/18 09:15	07/12/18 19:31	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135109	1	07/08/18 15:58	07/08/18 15:58	DWR
EDB / DBCP by Method 8011	WG1136144	.998	07/11/18 08:00	07/13/18 01:24	KLM
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1135911	1	07/11/18 11:06	07/11/18 18:07	KM

S-118DSRTF_HS_20180705 L1007506-03 GW

Collected by: Karl Mclorry | Collected date/time: 07/05/18 10:35 | Received date/time: 07/07/18 09:05

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1136159	1	07/11/18 09:15	07/12/18 19:35	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135109	1	07/08/18 16:18	07/08/18 16:18	DWR
EDB / DBCP by Method 8011	WG1136144	1	07/11/18 08:00	07/13/18 01:36	KLM
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1135911	1	07/11/18 11:06	07/11/18 18:29	KM

S-118DSRTF_20180705 L1007506-04 GW

Collected by: Karl Mclorry | Collected date/time: 07/05/18 11:35 | Received date/time: 07/07/18 09:05

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1136159	1	07/11/18 09:15	07/12/18 20:01	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135109	1	07/08/18 16:38	07/08/18 16:38	DWR
EDB / DBCP by Method 8011	WG1136144	.998	07/11/18 08:00	07/13/18 01:49	KLM
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1135911	1	07/11/18 11:06	07/11/18 18:51	KM

S-120DSRTF_20180705 L1007506-05 GW

Collected by: Karl Mclorry | Collected date/time: 07/05/18 12:55 | Received date/time: 07/07/18 09:05

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1136159	1	07/11/18 09:15	07/12/18 20:05	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135109	1	07/08/18 16:58	07/08/18 16:58	DWR
EDB / DBCP by Method 8011	WG1136144	1	07/11/18 08:00	07/13/18 02:01	KLM
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1135911	1	07/11/18 11:06	07/11/18 19:13	KM

PGW-MW-21_HS_20180705 L1007506-06 GW

Collected by: Karl Mclorry | Collected date/time: 07/05/18 13:40 | Received date/time: 07/07/18 09:05

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1136159	1	07/11/18 09:15	07/12/18 20:10	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135109	1	07/08/18 17:17	07/08/18 17:17	DWR
EDB / DBCP by Method 8011	WG1136144	1	07/11/18 08:00	07/13/18 02:38	KLM
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1135911	10	07/11/18 11:06	07/11/18 21:23	KM

PGW-MW-21-20180705 L1007506-07 GW

Collected by: Karl Mclorry | Collected date/time: 07/05/18 14:35 | Received date/time: 07/07/18 09:05

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1136159	1	07/11/18 09:15	07/12/18 20:14	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135109	1	07/08/18 17:38	07/08/18 17:38	DWR
EDB / DBCP by Method 8011	WG1136144	.998	07/11/18 08:00	07/13/18 02:50	KLM
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1135911	20	07/11/18 11:06	07/11/18 20:40	KM

N-142_20180705 L1007506-08 GW

Collected by: Karl Mclorry | Collected date/time: 07/05/18 12:58 | Received date/time: 07/07/18 09:05

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1136159	1	07/11/18 09:15	07/12/18 20:18	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135109	1	07/08/18 17:58	07/08/18 17:58	DWR
EDB / DBCP by Method 8011	WG1136144	.998	07/11/18 08:00	07/13/18 03:02	KLM
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1135911	10.5	07/11/18 11:06	07/11/18 20:18	KM

B-150_20180705 L1007506-09 GW

Collected by: Karl Mclorry | Collected date/time: 07/05/18 10:39 | Received date/time: 07/07/18 09:05

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1136159	1	07/11/18 09:15	07/12/18 20:23	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135967	1000	07/11/18 03:43	07/11/18 03:43	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1136221	5000	07/11/18 12:11	07/11/18 12:11	LRL
EDB / DBCP by Method 8011	WG1136144	.998	07/11/18 08:00	07/13/18 03:15	KLM
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1135911	21	07/11/18 11:06	07/11/18 21:02	KM

TB_20180705 L1007506-10 GW

Collected by: Karl Mclorry | Collected date/time: 07/05/18 09:30 | Received date/time: 07/07/18 09:05

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1135109	1	07/08/18 12:37	07/08/18 12:37	GLN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/12/2018 19:27	WG1136159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/08/2018 15:37	WG1135109
Isopropylbenzene	ND		0.00100	1	07/08/2018 15:37	WG1135109
1,2-Dichloroethane	ND		0.00100	1	07/08/2018 15:37	WG1135109
Ethylbenzene	ND		0.00100	1	07/08/2018 15:37	WG1135109
Methyl tert-butyl ether	0.0183		0.00100	1	07/08/2018 15:37	WG1135109
Toluene	ND		0.00100	1	07/08/2018 15:37	WG1135109
1,2,4-Trimethylbenzene	ND		0.00100	1	07/08/2018 15:37	WG1135109
1,3,5-Trimethylbenzene	ND		0.00100	1	07/08/2018 15:37	WG1135109
Xylenes, Total	ND		0.00300	1	07/08/2018 15:37	WG1135109
(S) Toluene-d8	*107*		*80.0-120*		*07/08/2018 15:37*	WG1135109
(S) Dibromofluoromethane	*92.5*		*76.0-123*		*07/08/2018 15:37*	WG1135109
(S) 4-Bromofluorobenzene	*96.9*		*80.0-120*		*07/08/2018 15:37*	WG1135109

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/13/2018 01:12	WG1136144

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/11/2018 17:46	WG1135911
Benzo(a)anthracene	ND		0.0000500	1	07/11/2018 17:46	WG1135911
Benzo(a)pyrene	ND		0.0000500	1	07/11/2018 17:46	WG1135911
Benzo(b)fluoranthene	ND		0.0000500	1	07/11/2018 17:46	WG1135911
Benzo(g,h,i)perylene	ND		0.0000500	1	07/11/2018 17:46	WG1135911
Chrysene	ND		0.0000500	1	07/11/2018 17:46	WG1135911
Fluorene	ND		0.0000500	1	07/11/2018 17:46	WG1135911
Naphthalene	ND		0.000250	1	07/11/2018 17:46	WG1135911
Phenanthrene	ND		0.0000500	1	07/11/2018 17:46	WG1135911
Pyrene	ND		0.0000500	1	07/11/2018 17:46	WG1135911
(S) Nitrobenzene-d5	*71.5*		*31.0-160*		*07/11/2018 17:46*	WG1135911
(S) 2-Fluorobiphenyl	*93.5*		*48.0-148*		*07/11/2018 17:46*	WG1135911
(S) p-Terphenyl-d14	*88.5*		*37.0-146*		*07/11/2018 17:46*	WG1135911

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/12/2018 19:31	WG1136159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/08/2018 15:58	WG1135109
Isopropylbenzene	ND		0.00100	1	07/08/2018 15:58	WG1135109
1,2-Dichloroethane	ND		0.00100	1	07/08/2018 15:58	WG1135109
Ethylbenzene	ND		0.00100	1	07/08/2018 15:58	WG1135109
Methyl tert-butyl ether	0.0362		0.00100	1	07/08/2018 15:58	WG1135109
Toluene	ND		0.00100	1	07/08/2018 15:58	WG1135109
1,2,4-Trimethylbenzene	ND		0.00100	1	07/08/2018 15:58	WG1135109
1,3,5-Trimethylbenzene	ND		0.00100	1	07/08/2018 15:58	WG1135109
Xylenes, Total	ND		0.00300	1	07/08/2018 15:58	WG1135109
(S) Toluene-d8	*105*		*80.0-120*		*07/08/2018 15:58*	WG1135109
(S) Dibromofluoromethane	*91.8*		*76.0-123*		*07/08/2018 15:58*	WG1135109
(S) 4-Bromofluorobenzene	*102*		*80.0-120*		*07/08/2018 15:58*	WG1135109

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/13/2018 01:24	WG1136144

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/11/2018 18:07	WG1135911
Benzo(a)anthracene	ND		0.0000500	1	07/11/2018 18:07	WG1135911
Benzo(a)pyrene	ND		0.0000500	1	07/11/2018 18:07	WG1135911
Benzo(b)fluoranthene	ND		0.0000500	1	07/11/2018 18:07	WG1135911
Benzo(g,h,i)perylene	ND		0.0000500	1	07/11/2018 18:07	WG1135911
Chrysene	ND		0.0000500	1	07/11/2018 18:07	WG1135911
Fluorene	ND		0.0000500	1	07/11/2018 18:07	WG1135911
Naphthalene	ND		0.000250	1	07/11/2018 18:07	WG1135911
Phenanthrene	ND		0.0000500	1	07/11/2018 18:07	WG1135911
Pyrene	ND		0.0000500	1	07/11/2018 18:07	WG1135911
(S) Nitrobenzene-d5	*74.5*		*31.0-160*		*07/11/2018 18:07*	WG1135911
(S) 2-Fluorobiphenyl	*96.5*		*48.0-148*		*07/11/2018 18:07*	WG1135911
(S) p-Terphenyl-d14	*89.0*		*37.0-146*		*07/11/2018 18:07*	WG1135911

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/12/2018 19:35	WG1136159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/08/2018 16:18	WG1135109
Isopropylbenzene	ND		0.00100	1	07/08/2018 16:18	WG1135109
1,2-Dichloroethane	ND		0.00100	1	07/08/2018 16:18	WG1135109
Ethylbenzene	ND		0.00100	1	07/08/2018 16:18	WG1135109
Methyl tert-butyl ether	ND		0.00100	1	07/08/2018 16:18	WG1135109
Toluene	ND		0.00100	1	07/08/2018 16:18	WG1135109
1,2,4-Trimethylbenzene	ND		0.00100	1	07/08/2018 16:18	WG1135109
1,3,5-Trimethylbenzene	ND		0.00100	1	07/08/2018 16:18	WG1135109
Xylenes, Total	ND		0.00300	1	07/08/2018 16:18	WG1135109
(S) Toluene-d8	*105*		*80.0-120*		*07/08/2018 16:18*	WG1135109
(S) Dibromofluoromethane	*93.5*		*76.0-123*		*07/08/2018 16:18*	WG1135109
(S) 4-Bromofluorobenzene	*99.5*		*80.0-120*		*07/08/2018 16:18*	WG1135109

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/13/2018 01:36	WG1136144

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/11/2018 18:29	WG1135911
Benzo(a)anthracene	ND		0.0000500	1	07/11/2018 18:29	WG1135911
Benzo(a)pyrene	ND		0.0000500	1	07/11/2018 18:29	WG1135911
Benzo(b)fluoranthene	ND		0.0000500	1	07/11/2018 18:29	WG1135911
Benzo(g,h,i)perylene	ND		0.0000500	1	07/11/2018 18:29	WG1135911
Chrysene	ND		0.0000500	1	07/11/2018 18:29	WG1135911
Fluorene	ND		0.0000500	1	07/11/2018 18:29	WG1135911
Naphthalene	ND		0.000250	1	07/11/2018 18:29	WG1135911
Phenanthrene	ND		0.0000500	1	07/11/2018 18:29	WG1135911
Pyrene	ND		0.0000500	1	07/11/2018 18:29	WG1135911
(S) Nitrobenzene-d5	*73.5*		*31.0-160*		*07/11/2018 18:29*	WG1135911
(S) 2-Fluorobiphenyl	*97.5*		*48.0-148*		*07/11/2018 18:29*	WG1135911
(S) p-Terphenyl-d14	*84.5*		*37.0-146*		*07/11/2018 18:29*	WG1135911

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/12/2018 20:01	WG1136159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/08/2018 16:38	WG1135109
Isopropylbenzene	ND		0.00100	1	07/08/2018 16:38	WG1135109
1,2-Dichloroethane	ND		0.00100	1	07/08/2018 16:38	WG1135109
Ethylbenzene	ND		0.00100	1	07/08/2018 16:38	WG1135109
Methyl tert-butyl ether	0.134		0.00100	1	07/08/2018 16:38	WG1135109
Toluene	ND		0.00100	1	07/08/2018 16:38	WG1135109
1,2,4-Trimethylbenzene	ND		0.00100	1	07/08/2018 16:38	WG1135109
1,3,5-Trimethylbenzene	ND		0.00100	1	07/08/2018 16:38	WG1135109
Xylenes, Total	ND		0.00300	1	07/08/2018 16:38	WG1135109
(S) Toluene-d8	*105*		*80.0-120*		*07/08/2018 16:38*	WG1135109
(S) Dibromofluoromethane	*92.7*		*76.0-123*		*07/08/2018 16:38*	WG1135109
(S) 4-Bromofluorobenzene	*112*		*80.0-120*		*07/08/2018 16:38*	WG1135109

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/13/2018 01:49	WG1136144

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/11/2018 18:51	WG1135911
Benzo(a)anthracene	ND		0.0000500	1	07/11/2018 18:51	WG1135911
Benzo(a)pyrene	ND		0.0000500	1	07/11/2018 18:51	WG1135911
Benzo(b)fluoranthene	ND		0.0000500	1	07/11/2018 18:51	WG1135911
Benzo(g,h,i)perylene	ND		0.0000500	1	07/11/2018 18:51	WG1135911
Chrysene	ND		0.0000500	1	07/11/2018 18:51	WG1135911
Fluorene	ND		0.0000500	1	07/11/2018 18:51	WG1135911
Naphthalene	ND		0.000250	1	07/11/2018 18:51	WG1135911
Phenanthrene	ND		0.0000500	1	07/11/2018 18:51	WG1135911
Pyrene	ND		0.0000500	1	07/11/2018 18:51	WG1135911
(S) Nitrobenzene-d5	*74.5*		*31.0-160*		*07/11/2018 18:51*	WG1135911
(S) 2-Fluorobiphenyl	*96.0*		*48.0-148*		*07/11/2018 18:51*	WG1135911
(S) p-Terphenyl-d14	*93.5*		*37.0-146*		*07/11/2018 18:51*	WG1135911

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/12/2018 20:05	WG1136159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00131		0.00100	1	07/08/2018 16:58	WG1135109
Isopropylbenzene	0.00682		0.00100	1	07/08/2018 16:58	WG1135109
1,2-Dichloroethane	ND		0.00100	1	07/08/2018 16:58	WG1135109
Ethylbenzene	ND		0.00100	1	07/08/2018 16:58	WG1135109
Methyl tert-butyl ether	0.0444		0.00100	1	07/08/2018 16:58	WG1135109
Toluene	ND		0.00100	1	07/08/2018 16:58	WG1135109
1,2,4-Trimethylbenzene	ND		0.00100	1	07/08/2018 16:58	WG1135109
1,3,5-Trimethylbenzene	ND		0.00100	1	07/08/2018 16:58	WG1135109
Xylenes, Total	ND		0.00300	1	07/08/2018 16:58	WG1135109
(S) Toluene-d8	*101*		*80.0-120*		*07/08/2018 16:58*	WG1135109
(S) Dibromofluoromethane	*95.7*		*76.0-123*		*07/08/2018 16:58*	WG1135109
(S) 4-Bromofluorobenzene	*102*		*80.0-120*		*07/08/2018 16:58*	WG1135109

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/13/2018 02:01	WG1136144

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000110		0.0000500	1	07/11/2018 19:13	WG1135911
Benzo(a)anthracene	ND		0.0000500	1	07/11/2018 19:13	WG1135911
Benzo(a)pyrene	ND		0.0000500	1	07/11/2018 19:13	WG1135911
Benzo(b)fluoranthene	ND		0.0000500	1	07/11/2018 19:13	WG1135911
Benzo(g,h,i)perylene	ND		0.0000500	1	07/11/2018 19:13	WG1135911
Chrysene	ND		0.0000500	1	07/11/2018 19:13	WG1135911
Fluorene	0.0000579		0.0000500	1	07/11/2018 19:13	WG1135911
Naphthalene	ND		0.000250	1	07/11/2018 19:13	WG1135911
Phenanthrene	0.000220		0.0000500	1	07/11/2018 19:13	WG1135911
Pyrene	ND		0.0000500	1	07/11/2018 19:13	WG1135911
(S) Nitrobenzene-d5	*74.0*		*31.0-160*		*07/11/2018 19:13*	WG1135911
(S) 2-Fluorobiphenyl	*94.0*		*48.0-148*		*07/11/2018 19:13*	WG1135911
(S) p-Terphenyl-d14	*91.0*		*37.0-146*		*07/11/2018 19:13*	WG1135911

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/12/2018 20:10	WG1136159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.106		0.00100	1	07/08/2018 17:17	WG1135109
Isopropylbenzene	0.0397		0.00100	1	07/08/2018 17:17	WG1135109
1,2-Dichloroethane	ND		0.00100	1	07/08/2018 17:17	WG1135109
Ethylbenzene	0.200		0.00100	1	07/08/2018 17:17	WG1135109
Methyl tert-butyl ether	ND		0.00100	1	07/08/2018 17:17	WG1135109
Toluene	0.0148		0.00100	1	07/08/2018 17:17	WG1135109
1,2,4-Trimethylbenzene	0.0655		0.00100	1	07/08/2018 17:17	WG1135109
1,3,5-Trimethylbenzene	0.0224		0.00100	1	07/08/2018 17:17	WG1135109
Xylenes, Total	0.160		0.00300	1	07/08/2018 17:17	WG1135109
(S) Toluene-d8	*109*		*80.0-120*		*07/08/2018 17:17*	WG1135109
(S) Dibromofluoromethane	*92.1*		*76.0-123*		*07/08/2018 17:17*	WG1135109
(S) 4-Bromofluorobenzene	*96.6*		*80.0-120*		*07/08/2018 17:17*	WG1135109

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/13/2018 02:38	WG1136144

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.0166		0.000500	10	07/11/2018 21:23	WG1135911
Benzo(a)anthracene	0.00103		0.000500	10	07/11/2018 21:23	WG1135911
Benzo(a)pyrene	0.000854		0.000500	10	07/11/2018 21:23	WG1135911
Benzo(b)fluoranthene	0.000906		0.000500	10	07/11/2018 21:23	WG1135911
Benzo(g,h,i)perylene	0.000522		0.000500	10	07/11/2018 21:23	WG1135911
Chrysene	0.000752		0.000500	10	07/11/2018 21:23	WG1135911
Fluorene	0.106		0.000500	10	07/11/2018 21:23	WG1135911
Naphthalene	0.604		0.00250	10	07/11/2018 21:23	WG1135911
Phenanthrene	0.0857		0.000500	10	07/11/2018 21:23	WG1135911
Pyrene	0.00680		0.000500	10	07/11/2018 21:23	WG1135911
(S) Nitrobenzene-d5	*60.0*		*31.0-160*		*07/11/2018 21:23*	WG1135911
(S) 2-Fluorobiphenyl	*92.5*		*48.0-148*		*07/11/2018 21:23*	WG1135911
(S) p-Terphenyl-d14	*86.0*		*37.0-146*		*07/11/2018 21:23*	WG1135911

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/12/2018 20:14	WG1136159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0775		0.00100	1	07/08/2018 17:38	WG1135109
Isopropylbenzene	0.00205		0.00100	1	07/08/2018 17:38	WG1135109
1,2-Dichloroethane	ND		0.00100	1	07/08/2018 17:38	WG1135109
Ethylbenzene	0.0112		0.00100	1	07/08/2018 17:38	WG1135109
Methyl tert-butyl ether	ND		0.00100	1	07/08/2018 17:38	WG1135109
Toluene	0.00866		0.00100	1	07/08/2018 17:38	WG1135109
1,2,4-Trimethylbenzene	0.0490		0.00100	1	07/08/2018 17:38	WG1135109
1,3,5-Trimethylbenzene	0.0193		0.00100	1	07/08/2018 17:38	WG1135109
Xylenes, Total	0.103		0.00300	1	07/08/2018 17:38	WG1135109
(S) Toluene-d8	*108*		*80.0-120*		*07/08/2018 17:38*	WG1135109
(S) Dibromofluoromethane	*84.3*		*76.0-123*		*07/08/2018 17:38*	WG1135109
(S) 4-Bromofluorobenzene	*99.8*		*80.0-120*		*07/08/2018 17:38*	WG1135109

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/13/2018 02:50	WG1136144

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.0195		0.00100	20	07/11/2018 20:40	WG1135911
Benzo(a)anthracene	0.00463		0.00100	20	07/11/2018 20:40	WG1135911
Benzo(a)pyrene	0.00466		0.00100	20	07/11/2018 20:40	WG1135911
Benzo(b)fluoranthene	0.00501		0.00100	20	07/11/2018 20:40	WG1135911
Benzo(g,h,i)perylene	0.00289		0.00100	20	07/11/2018 20:40	WG1135911
Chrysene	0.00400		0.00100	20	07/11/2018 20:40	WG1135911
Fluorene	0.0959		0.00100	20	07/11/2018 20:40	WG1135911
Naphthalene	ND		0.00500	20	07/11/2018 20:40	WG1135911
Phenanthrene	0.0150		0.00100	20	07/11/2018 20:40	WG1135911
Pyrene	0.0137		0.00100	20	07/11/2018 20:40	WG1135911
(S) Nitrobenzene-d5	*55.5*		*31.0-160*		*07/11/2018 20:40*	WG1135911
(S) 2-Fluorobiphenyl	*90.0*		*48.0-148*		*07/11/2018 20:40*	WG1135911
(S) p-Terphenyl-d14	*80.5*		*37.0-146*		*07/11/2018 20:40*	WG1135911

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/12/2018 20:18	WG1136159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.124		0.00100	1	07/08/2018 17:58	WG1135109
Isopropylbenzene	0.0221		0.00100	1	07/08/2018 17:58	WG1135109
1,2-Dichloroethane	0.00191		0.00100	1	07/08/2018 17:58	WG1135109
Ethylbenzene	0.0127		0.00100	1	07/08/2018 17:58	WG1135109
Methyl tert-butyl ether	ND		0.00100	1	07/08/2018 17:58	WG1135109
Toluene	0.0403		0.00100	1	07/08/2018 17:58	WG1135109
1,2,4-Trimethylbenzene	0.0170		0.00100	1	07/08/2018 17:58	WG1135109
1,3,5-Trimethylbenzene	0.0781		0.00100	1	07/08/2018 17:58	WG1135109
Xylenes, Total	0.0600		0.00300	1	07/08/2018 17:58	WG1135109
(S) Toluene-d8	*106*		*80.0-120*		*07/08/2018 17:58*	WG1135109
(S) Dibromofluoromethane	*85.3*		*76.0-123*		*07/08/2018 17:58*	WG1135109
(S) 4-Bromofluorobenzene	*99.8*		*80.0-120*		*07/08/2018 17:58*	WG1135109

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/13/2018 03:02	WG1136144

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.00114		0.000525	10.5	07/11/2018 20:18	WG1135911
Benzo(a)anthracene	ND		0.000525	10.5	07/11/2018 20:18	WG1135911
Benzo(a)pyrene	ND		0.000525	10.5	07/11/2018 20:18	WG1135911
Benzo(b)fluoranthene	ND		0.000525	10.5	07/11/2018 20:18	WG1135911
Benzo(g,h,i)perylene	ND		0.000525	10.5	07/11/2018 20:18	WG1135911
Chrysene	ND		0.000525	10.5	07/11/2018 20:18	WG1135911
Fluorene	0.00135		0.000525	10.5	07/11/2018 20:18	WG1135911
Naphthalene	0.0206		0.00263	10.5	07/11/2018 20:18	WG1135911
Phenanthrene	0.00181		0.000525	10.5	07/11/2018 20:18	WG1135911
Pyrene	0.00146		0.000525	10.5	07/11/2018 20:18	WG1135911
(S) Nitrobenzene-d5	*52.9*		*31.0-160*		*07/11/2018 20:18*	WG1135911
(S) 2-Fluorobiphenyl	*91.9*		*48.0-148*		*07/11/2018 20:18*	WG1135911
(S) p-Terphenyl-d14	*72.9*		*37.0-146*		*07/11/2018 20:18*	WG1135911

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/12/2018 20:23	WG1136159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	436		5.00	5000	07/11/2018 12:11	WG1136221
Isopropylbenzene	10.6		1.00	1000	07/11/2018 03:43	WG1135967
1,2-Dichloroethane	ND		1.00	1000	07/11/2018 03:43	WG1135967
Ethylbenzene	ND		1.00	1000	07/11/2018 03:43	WG1135967
Methyl tert-butyl ether	ND		1.00	1000	07/11/2018 03:43	WG1135967
Toluene	55.6		1.00	1000	07/11/2018 03:43	WG1135967
1,2,4-Trimethylbenzene	ND		1.00	1000	07/11/2018 03:43	WG1135967
1,3,5-Trimethylbenzene	ND		1.00	1000	07/11/2018 03:43	WG1135967
Xylenes, Total	ND		3.00	1000	07/11/2018 03:43	WG1135967
(S) Toluene-d8	*101*		*80.0-120*		*07/11/2018 03:43*	WG1135967
(S) Toluene-d8	*101*		*80.0-120*		*07/11/2018 12:11*	WG1136221
(S) Dibromofluoromethane	*90.8*		*76.0-123*		*07/11/2018 03:43*	WG1135967
(S) Dibromofluoromethane	*100*		*76.0-123*		*07/11/2018 12:11*	WG1136221
(S) 4-Bromofluorobenzene	*95.1*		*80.0-120*		*07/11/2018 03:43*	WG1135967
(S) 4-Bromofluorobenzene	*113*		*80.0-120*		*07/11/2018 12:11*	WG1136221

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/13/2018 03:15	WG1136144

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.00775		0.00105	21	07/11/2018 21:02	WG1135911
Benzo(a)anthracene	0.00631		0.00105	21	07/11/2018 21:02	WG1135911
Benzo(a)pyrene	0.00443		0.00105	21	07/11/2018 21:02	WG1135911
Benzo(b)fluoranthene	0.00553		0.00105	21	07/11/2018 21:02	WG1135911
Benzo(g,h,i)perylene	0.00234		0.00105	21	07/11/2018 21:02	WG1135911
Chrysene	0.00660		0.00105	21	07/11/2018 21:02	WG1135911
Fluorene	0.0237		0.00105	21	07/11/2018 21:02	WG1135911
Naphthalene	0.175		0.00525	21	07/11/2018 21:02	WG1135911
Phenanthrene	0.0445		0.00105	21	07/11/2018 21:02	WG1135911
Pyrene	0.0136		0.00105	21	07/11/2018 21:02	WG1135911
(S) Nitrobenzene-d5	*43.0*		*31.0-160*		*07/11/2018 21:02*	WG1135911
(S) 2-Fluorobiphenyl	*130*		*48.0-148*		*07/11/2018 21:02*	WG1135911
(S) p-Terphenyl-d14	*75.7*		*37.0-146*		*07/11/2018 21:02*	WG1135911

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/08/2018 12:37	WG1135109
Isopropylbenzene	ND		0.00100	1	07/08/2018 12:37	WG1135109
1,2-Dibromoethane	ND		0.00100	1	07/08/2018 12:37	WG1135109
1,2-Dichloroethane	ND		0.00100	1	07/08/2018 12:37	WG1135109
Ethylbenzene	ND		0.00100	1	07/08/2018 12:37	WG1135109
Methyl tert-butyl ether	ND		0.00100	1	07/08/2018 12:37	WG1135109
Toluene	ND		0.00100	1	07/08/2018 12:37	WG1135109
1,2,4-Trimethylbenzene	ND		0.00100	1	07/08/2018 12:37	WG1135109
1,3,5-Trimethylbenzene	ND		0.00100	1	07/08/2018 12:37	WG1135109
Xylenes, Total	ND		0.00300	1	07/08/2018 12:37	WG1135109
(S) Toluene-d8	*106*		*80.0-120*		*07/08/2018 12:37*	WG1135109
(S) Dibromofluoromethane	*91.3*		*76.0-123*		*07/08/2018 12:37*	WG1135109
(S) 4-Bromofluorobenzene	*95.5*		*80.0-120*		*07/08/2018 12:37*	WG1135109

Method Blank (MB)

(MB) R3325206-1 07/12/18 18:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3325206-2 07/12/18 19:01 • (LCSD) R3325206-3 07/12/18 19:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0501	0.0520	100	104	80.0-120			3.69	20

L1007958-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1007958-01 07/12/18 19:09 • (MS) R3325206-5 07/12/18 19:18 • (MSD) R3325206-6 07/12/18 19:22

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0577	0.107	0.107	99.1	98.4	1	75.0-125			0.342	20

Method Blank (MB)

(MB) R3324475-5 07/08/18 11:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dibromoethane	U		0.000381	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*111*			*80.0-120*
(S) Dibromofluoromethane	*91.0*			*76.0-123*
(S) 4-Bromofluorobenzene	*94.9*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324475-1 07/08/18 09:57 • (LCSD) R3324475-2 07/08/18 10:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0221	0.0219	88.6	87.6	69.0-123			1.11	20
1,2-Dibromoethane	0.0250	0.0262	0.0262	105	105	77.0-123			0.0557	20
1,2-Dichloroethane	0.0250	0.0205	0.0203	82.0	81.3	67.0-126			0.929	20
Ethylbenzene	0.0250	0.0272	0.0282	109	113	77.0-120			3.68	20
Isopropylbenzene	0.0250	0.0242	0.0264	96.7	105	75.0-120			8.63	20
Methyl tert-butyl ether	0.0250	0.0233	0.0220	93.3	88.0	64.0-123			5.89	20
Toluene	0.0250	0.0240	0.0254	96.2	101	77.0-120			5.29	20
1,2,4-Trimethylbenzene	0.0250	0.0238	0.0243	95.3	97.2	75.0-120			2.00	20
1,3,5-Trimethylbenzene	0.0250	0.0242	0.0255	97.0	102	75.0-120			5.04	20
Xylenes, Total	0.0750	0.0822	0.0828	110	110	77.0-120			0.727	20
(S) Toluene-d8				*102*	*106*	*80.0-120*				
(S) Dibromofluoromethane				*92.4*	*87.2*	*76.0-123*				
(S) 4-Bromofluorobenzene				*92.4*	*102*	*80.0-120*				

Method Blank (MB)

(MB) R3324616-5 07/11/18 02:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*105*			*80.0-120*
(S) Dibromofluoromethane	*97.8*			*76.0-123*
(S) 4-Bromofluorobenzene	*94.7*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324616-1 07/11/18 00:21 • (LCSD) R3324616-2 07/11/18 00:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	0.0250	0.0263	0.0269	105	108	67.0-126			2.13	20
Ethylbenzene	0.0250	0.0253	0.0252	101	101	77.0-120			0.462	20
Isopropylbenzene	0.0250	0.0242	0.0242	96.9	96.8	75.0-120			0.0957	20
Methyl tert-butyl ether	0.0250	0.0247	0.0256	98.7	103	64.0-123			3.84	20
Toluene	0.0250	0.0247	0.0245	98.8	98.2	77.0-120			0.636	20
1,2,4-Trimethylbenzene	0.0250	0.0255	0.0265	102	106	75.0-120			3.74	20
1,3,5-Trimethylbenzene	0.0250	0.0247	0.0251	98.9	101	75.0-120			1.63	20
Xylenes, Total	0.0750	0.0744	0.0758	99.2	101	77.0-120			1.86	20
(S) Toluene-d8				*102*	*102*	*80.0-120*				
(S) Dibromofluoromethane				*96.3*	*93.5*	*76.0-123*				
(S) 4-Bromofluorobenzene				*92.9*	*95.6*	*80.0-120*				

Method Blank (MB)

(MB) R3324746-4 07/11/18 10:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
(S) Toluene-d8	*106*			*80.0-120*
(S) Dibromofluoromethane	*95.8*			*76.0-123*
(S) 4-Bromofluorobenzene	*111*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324746-1 07/11/18 09:22 • (LCSD) R3324746-3 07/11/18 10:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0226	0.0212	90.3	84.7	69.0-123			6.43	20
(S) Toluene-d8				*103*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*98.0*	*95.5*	*76.0-123*				
(S) 4-Bromofluorobenzene				*108*	*109*	*80.0-120*				

Method Blank (MB)

(MB) R3325447-1 07/13/18 00:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1007499-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1007499-11 07/13/18 01:00 • (DUP) R3325447-3 07/13/18 00:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3325447-4 07/13/18 02:26 • (LCSD) R3325447-5 07/13/18 04:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000240	0.000230	96.0	92.0	60.0-140			4.26	20

L1006639-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1006639-02 07/13/18 00:35 • (MS) R3325447-2 07/13/18 00:24

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.000100	U	0.000109	109	1	72.0-146	

Method Blank (MB)

(MB) R3325096-3 07/11/18 17:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	0.0000599	J	0.0000198	0.000250
Phenanthrene	0.0000171	J	0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*73.0*			*31.0-160*
(S) 2-Fluorobiphenyl	*101*			*48.0-148*
(S) p-Terphenyl-d14	*84.5*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3325096-1 07/11/18 16:40 • (LCSD) R3325096-2 07/11/18 17:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00220	0.00214	110	107	64.0-142			2.76	20
Benzo(a)anthracene	0.00200	0.00168	0.00163	84.0	81.5	59.0-134			3.02	20
Benzo(a)pyrene	0.00200	0.00187	0.00184	93.5	92.0	61.0-145			1.62	20
Benzo(b)fluoranthene	0.00200	0.00166	0.00162	83.0	81.0	57.0-136			2.44	20
Benzo(g,h,i)perylene	0.00200	0.00203	0.00200	102	100	54.0-140			1.49	20
Chrysene	0.00200	0.00208	0.00213	104	106	63.0-140			2.38	20
Fluorene	0.00200	0.00180	0.00175	90.0	87.5	64.0-129			2.82	20
Naphthalene	0.00200	0.00190	0.00188	95.0	94.0	68.0-129			1.06	20
Phenanthrene	0.00200	0.00186	0.00185	93.0	92.5	62.0-132			0.539	20
Pyrene	0.00200	0.00179	0.00175	89.5	87.5	58.0-156			2.26	20
(S) Nitrobenzene-d5				*79.0*	*77.0*	*31.0-160*				
(S) 2-Fluorobiphenyl				*106*	*103*	*48.0-148*				
(S) p-Terphenyl-d14				*88.0*	*85.5*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

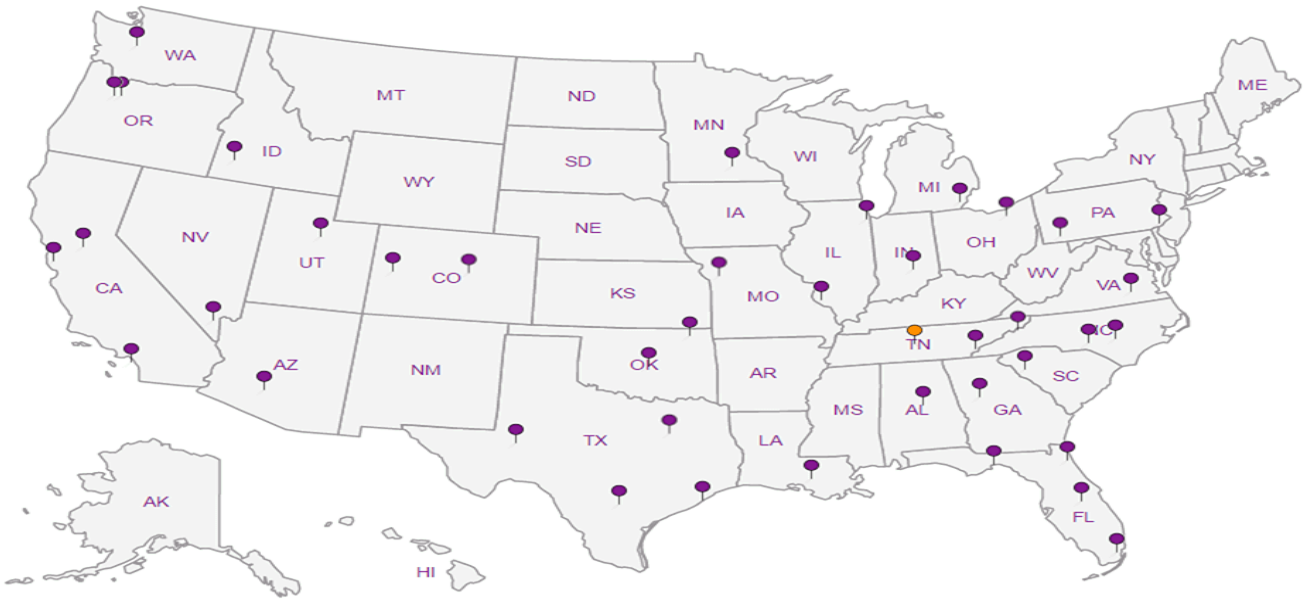
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: Evergreen – GWS

City/State Collected:

Phone: ~~267-240-3415~~
Fax: 610-425-9311

Client Project # 213402429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Karl McGarry

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP * Lab Filter	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
S-115DSRTF_HS_20190705	G	GW	48'	7.5.19	930	9	X	X					-01
S-115DSRTF_20180703	G	GW	48'	7.5.18	1025	9	X	X					02
S-118DSRTF_HS_2080705	G	GW	69'	7.5.18	1035	9	X	X					03
S-118DSRTF_20190705	G	GW	69'	7.5.18	1135	9	X	X					04
S-120DSRTF-20180705	G	GW	30'	7.5.18	1255	9	X	X					05
PGW-MW-21-HS-20185705	G	GW	17'	7.5.18	1340	9	X	X					06
PGW-MW-21-20180705	G	GW	17'	7.5.18	1435	9	X	X					07
MW-142_20180705	G	GW	29'	7-5-18	~~1039~~ 1258	9	X	X					08
~~B~~-150_2080705	G	GW	6.5'	7-5-18	~~1039~~ 1039	9	X	X					09
TB_20180705	–	GW	–	7-5-18	-	1	X						10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: * Equis EDD Format
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1 - 250ml plastic NP * Standard TAT * Refer to attached List

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __UPS __FedEx X Courier _____

Tracking #

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1007506

Tat 1141

Acctnum: **SUNSTANTEC**
Template: **T137388**
Prelogin: **P659137**
TSR: **134 - Mark Beasley**
PB: 6/18/18
Shipped Via:

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: X __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR
	7.5.18	1700	ESCPA lockout	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.6 °C Bottles Received: 8
ESCPA lockout	7/6/18	8:00		
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 7/7/18 Time: 0900

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 23, 2018

Stantec - S/E

Sample Delivery Group:	L1007958
Samples Received:	07/10/2018
Project Number:	213402429
Description:	Evergreen PHL GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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A-139-HS_20180706 L1007958-01 GW

Collected by	Collected date/time	Received date/time
IA/ KM	07/06/18 10:45	07/10/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1136159	1	07/11/18 09:15	07/12/18 19:09	LD

A-139_20180706 L1007958-02 GW

Collected by	Collected date/time	Received date/time
IA/ KM	07/06/18 11:22	07/10/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1136159	1	07/11/18 09:15	07/12/18 20:36	LD

N-33-HS_20180706 L1007958-03 GW

Collected by	Collected date/time	Received date/time
IA/ KM	07/06/18 12:35	07/10/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1136159	1	07/11/18 09:15	07/12/18 20:40	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1136399	1	07/11/18 13:59	07/11/18 13:59	DWR
EDB / DBCP by Method 8011	WG1136144	.998	07/11/18 08:00	07/13/18 05:05	KLM
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1136520	1	07/11/18 23:01	07/12/18 23:22	KM

N-33_20180706 L1007958-04 GW

Collected by	Collected date/time	Received date/time
IA/ KM	07/06/18 13:08	07/10/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1136159	1	07/11/18 09:15	07/12/18 21:07	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1136399	1	07/11/18 14:21	07/11/18 14:21	DWR
EDB / DBCP by Method 8011	WG1136144	1	07/11/18 08:00	07/13/18 05:17	KLM
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1136520	1	07/11/18 23:01	07/12/18 23:44	KM

RW-502_20180706 L1007958-05 GW

Collected by	Collected date/time	Received date/time
IA/ KM	07/06/18 13:40	07/10/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1136110	1	07/11/18 02:25	07/11/18 02:25	TJJ

N-112_20180706 L1007958-06 GW

Collected by	Collected date/time	Received date/time
IA/ KM	07/06/18 12:45	07/10/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1136110	1	07/11/18 02:47	07/11/18 02:47	TJJ

N-138_20180706 L1007958-07 GW

Collected by	Collected date/time	Received date/time
IA/ KM	07/06/18 10:30	07/10/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1136159	1	07/11/18 09:15	07/12/18 21:12	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1136401	10	07/12/18 14:14	07/12/18 14:14	RAS
EDB / DBCP by Method 8011	WG1136144	1	07/11/18 08:00	07/13/18 05:30	KLM
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1136520	1	07/11/18 23:01	07/13/18 00:05	KM
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1136520	10	07/11/18 23:01	07/16/18 23:58	KM

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

TB_20180706 L1007958-08 GW

Collected by	Collected date/time	Received date/time
IA/ KM	07/06/18 00:00	07/10/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1138594	1	07/16/18 12:43	07/16/18 12:43	GLN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	0.0577		0.00200	1	07/12/2018 19:09	WG1136159

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	0.0649		0.00200	1	07/12/2018 20:36	WG1136159

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/12/2018 20:40	WG1136159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/11/2018 13:59	WG1136399
Isopropylbenzene	ND		0.00100	1	07/11/2018 13:59	WG1136399
1,2-Dichloroethane	ND		0.00100	1	07/11/2018 13:59	WG1136399
Ethylbenzene	ND		0.00100	1	07/11/2018 13:59	WG1136399
Methyl tert-butyl ether	ND		0.00100	1	07/11/2018 13:59	WG1136399
Toluene	ND		0.00100	1	07/11/2018 13:59	WG1136399
1,2,4-Trimethylbenzene	ND		0.00100	1	07/11/2018 13:59	WG1136399
1,3,5-Trimethylbenzene	ND		0.00100	1	07/11/2018 13:59	WG1136399
Xylenes, Total	ND		0.00300	1	07/11/2018 13:59	WG1136399
(S) Toluene-d8	*105*		*80.0-120*		*07/11/2018 13:59*	WG1136399
(S) Dibromofluoromethane	*89.5*		*76.0-123*		*07/11/2018 13:59*	WG1136399
(S) 4-Bromofluorobenzene	*92.8*		*80.0-120*		*07/11/2018 13:59*	WG1136399

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	.998	07/13/2018 05:05	WG1136144

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000138		0.0000500	1	07/12/2018 23:22	WG1136520
Benzo(a)anthracene	ND		0.0000500	1	07/12/2018 23:22	WG1136520
Benzo(a)pyrene	ND		0.0000500	1	07/12/2018 23:22	WG1136520
Benzo(b)fluoranthene	ND		0.0000500	1	07/12/2018 23:22	WG1136520
Benzo(g,h,i)perylene	ND		0.0000500	1	07/12/2018 23:22	WG1136520
Chrysene	ND		0.0000500	1	07/12/2018 23:22	WG1136520
Fluorene	ND		0.0000500	1	07/12/2018 23:22	WG1136520
Naphthalene	ND		0.000250	1	07/12/2018 23:22	WG1136520
Phenanthrene	0.000145		0.0000500	1	07/12/2018 23:22	WG1136520
Pyrene	0.000123		0.0000500	1	07/12/2018 23:22	WG1136520
(S) Nitrobenzene-d5	*149*		*31.0-160*		*07/12/2018 23:22*	WG1136520
(S) 2-Fluorobiphenyl	*94.7*		*48.0-148*		*07/12/2018 23:22*	WG1136520
(S) p-Terphenyl-d14	*110*		*37.0-146*		*07/12/2018 23:22*	WG1136520

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/12/2018 21:07	WG1136159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00235		0.00100	1	07/11/2018 14:21	WG1136399
Isopropylbenzene	ND		0.00100	1	07/11/2018 14:21	WG1136399
1,2-Dichloroethane	ND		0.00100	1	07/11/2018 14:21	WG1136399
Ethylbenzene	ND		0.00100	1	07/11/2018 14:21	WG1136399
Methyl tert-butyl ether	ND		0.00100	1	07/11/2018 14:21	WG1136399
Toluene	0.00120		0.00100	1	07/11/2018 14:21	WG1136399
1,2,4-Trimethylbenzene	ND		0.00100	1	07/11/2018 14:21	WG1136399
1,3,5-Trimethylbenzene	ND		0.00100	1	07/11/2018 14:21	WG1136399
Xylenes, Total	ND		0.00300	1	07/11/2018 14:21	WG1136399
(S) Toluene-d8	*107*		*80.0-120*		*07/11/2018 14:21*	WG1136399
(S) Dibromofluoromethane	*86.4*		*76.0-123*		*07/11/2018 14:21*	WG1136399
(S) 4-Bromofluorobenzene	*89.5*		*80.0-120*		*07/11/2018 14:21*	WG1136399

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/13/2018 05:17	WG1136144

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000192		0.0000500	1	07/12/2018 23:44	WG1136520
Benzo(a)anthracene	ND		0.0000500	1	07/12/2018 23:44	WG1136520
Benzo(a)pyrene	ND		0.0000500	1	07/12/2018 23:44	WG1136520
Benzo(b)fluoranthene	ND		0.0000500	1	07/12/2018 23:44	WG1136520
Benzo(g,h,i)perylene	ND		0.0000500	1	07/12/2018 23:44	WG1136520
Chrysene	ND		0.0000500	1	07/12/2018 23:44	WG1136520
Fluorene	ND		0.0000500	1	07/12/2018 23:44	WG1136520
Naphthalene	ND		0.000250	1	07/12/2018 23:44	WG1136520
Phenanthrene	0.000241		0.0000500	1	07/12/2018 23:44	WG1136520
Pyrene	0.000250		0.0000500	1	07/12/2018 23:44	WG1136520
(S) Nitrobenzene-d5	*153*		*31.0-160*		*07/12/2018 23:44*	WG1136520
(S) 2-Fluorobiphenyl	*94.7*		*48.0-148*		*07/12/2018 23:44*	WG1136520
(S) p-Terphenyl-d14	*105*		*37.0-146*		*07/12/2018 23:44*	WG1136520

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/11/2018 02:25	WG1136110
Toluene	ND		0.00100	1	07/11/2018 02:25	WG1136110
Ethylbenzene	ND		0.00100	1	07/11/2018 02:25	WG1136110
Total Xylenes	ND		0.00300	1	07/11/2018 02:25	WG1136110
(S) Toluene-d8	*105*		*80.0-120*		*07/11/2018 02:25*	WG1136110
(S) Dibromofluoromethane	*84.1*		*76.0-123*		*07/11/2018 02:25*	WG1136110
(S) a,a,a-Trifluorotoluene	*101*		*80.0-120*		*07/11/2018 02:25*	WG1136110
(S) 4-Bromofluorobenzene	*102*		*80.0-120*		*07/11/2018 02:25*	WG1136110

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/11/2018 02:47	WG1136110
Toluene	ND		0.00100	1	07/11/2018 02:47	WG1136110
Ethylbenzene	ND		0.00100	1	07/11/2018 02:47	WG1136110
Total Xylenes	ND		0.00300	1	07/11/2018 02:47	WG1136110
(S) Toluene-d8	*105*		*80.0-120*		*07/11/2018 02:47*	WG1136110
(S) Dibromofluoromethane	*85.5*		*76.0-123*		*07/11/2018 02:47*	WG1136110
(S) a,a,a-Trifluorotoluene	*102*		*80.0-120*		*07/11/2018 02:47*	WG1136110
(S) 4-Bromofluorobenzene	*95.9*		*80.0-120*		*07/11/2018 02:47*	WG1136110

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/12/2018 21:12	WG1136159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.353		0.0100	10	07/12/2018 14:14	WG1136401
Isopropylbenzene	0.0504		0.0100	10	07/12/2018 14:14	WG1136401
1,2-Dichloroethane	ND		0.0100	10	07/12/2018 14:14	WG1136401
Ethylbenzene	0.109		0.0100	10	07/12/2018 14:14	WG1136401
Methyl tert-butyl ether	ND		0.0100	10	07/12/2018 14:14	WG1136401
Toluene	0.126		0.0100	10	07/12/2018 14:14	WG1136401
1,2,4-Trimethylbenzene	0.0465		0.0100	10	07/12/2018 14:14	WG1136401
1,3,5-Trimethylbenzene	0.196		0.0100	10	07/12/2018 14:14	WG1136401
Xylenes, Total	0.401		0.0300	10	07/12/2018 14:14	WG1136401
(S) Toluene-d8	*92.2*		*80.0-120*		*07/12/2018 14:14*	WG1136401
(S) Dibromofluoromethane	*101*		*76.0-123*		*07/12/2018 14:14*	WG1136401
(S) 4-Bromofluorobenzene	*91.4*		*80.0-120*		*07/12/2018 14:14*	WG1136401

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/13/2018 05:30	WG1136144

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.000925		0.0000500	1	07/13/2018 00:05	WG1136520
Benzo(a)anthracene	0.000295		0.0000500	1	07/13/2018 00:05	WG1136520
Benzo(a)pyrene	0.000149		0.0000500	1	07/13/2018 00:05	WG1136520
Benzo(b)fluoranthene	0.000183		0.0000500	1	07/13/2018 00:05	WG1136520
Benzo(g,h,i)perylene	0.0000969		0.0000500	1	07/13/2018 00:05	WG1136520
Chrysene	0.000329		0.0000500	1	07/13/2018 00:05	WG1136520
Fluorene	0.00219		0.000500	10	07/16/2018 23:58	WG1136520
Naphthalene	0.0167		0.000250	1	07/13/2018 00:05	WG1136520
Phenanthrene	0.00384		0.0000500	1	07/13/2018 00:05	WG1136520
Pyrene	0.00142		0.0000500	1	07/13/2018 00:05	WG1136520
(S) Nitrobenzene-d5	*141*		*31.0-160*		*07/13/2018 00:05*	WG1136520
(S) Nitrobenzene-d5	*62.6*		*31.0-160*		*07/16/2018 23:58*	WG1136520
(S) 2-Fluorobiphenyl	*106*		*48.0-148*		*07/13/2018 00:05*	WG1136520
(S) 2-Fluorobiphenyl	*103*		*48.0-148*		*07/16/2018 23:58*	WG1136520
(S) p-Terphenyl-d14	*83.7*		*37.0-146*		*07/16/2018 23:58*	WG1136520
(S) p-Terphenyl-d14	*119*		*37.0-146*		*07/13/2018 00:05*	WG1136520

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/16/2018 12:43	WG1138594
Isopropylbenzene	ND		0.00100	1	07/16/2018 12:43	WG1138594
1,2-Dibromoethane	ND		0.00100	1	07/16/2018 12:43	WG1138594
1,2-Dichloroethane	ND		0.00100	1	07/16/2018 12:43	WG1138594
Ethylbenzene	ND		0.00100	1	07/16/2018 12:43	WG1138594
Methyl tert-butyl ether	ND		0.00100	1	07/16/2018 12:43	WG1138594
Toluene	ND		0.00100	1	07/16/2018 12:43	WG1138594
1,2,4-Trimethylbenzene	ND		0.00100	1	07/16/2018 12:43	WG1138594
1,3,5-Trimethylbenzene	ND		0.00100	1	07/16/2018 12:43	WG1138594
Xylenes, Total	ND		0.00300	1	07/16/2018 12:43	WG1138594
(S) Toluene-d8	*103*		*80.0-120*		*07/16/2018 12:43*	WG1138594
(S) Dibromofluoromethane	*103*		*76.0-123*		*07/16/2018 12:43*	WG1138594
(S) 4-Bromofluorobenzene	*85.3*		*80.0-120*		*07/16/2018 12:43*	WG1138594

Method Blank (MB)

(MB) R3325206-1 07/12/18 18:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3325206-2 07/12/18 19:01 • (LCSD) R3325206-3 07/12/18 19:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0501	0.0520	100	104	80.0-120			3.69	20

L1007958-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1007958-01 07/12/18 19:09 • (MS) R3325206-5 07/12/18 19:18 • (MSD) R3325206-6 07/12/18 19:22

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead,Dissolved	0.0500	0.0577	0.107	0.107	99.1	98.4	1	75.0-125			0.342	20

Method Blank (MB)

(MB) R3324784-3 07/11/18 01:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*106*			*80.0-120*
(S) Dibromofluoromethane	*87.2*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*101*			*80.0-120*
(S) 4-Bromofluorobenzene	*93.9*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3324784-1 07/10/18 23:54 • (LCSD) R3324784-2 07/11/18 00:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0187	0.0204	74.8	81.7	69.0-123			8.80	20
Ethylbenzene	0.0250	0.0249	0.0252	99.6	101	77.0-120			1.14	20
Toluene	0.0250	0.0257	0.0245	103	98.1	77.0-120			4.82	20
Xylenes, Total	0.0750	0.0726	0.0711	96.8	94.8	77.0-120			2.09	20
(S) Toluene-d8				*115*	*104*	*80.0-120*				
(S) Dibromofluoromethane				*85.5*	*83.0*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*105*	*102*	*80.0-120*				
(S) 4-Bromofluorobenzene				*88.7*	*93.0*	*80.0-120*				

Method Blank (MB)

(MB) R3324829-2 07/11/18 13:22

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*105*			*80.0-120*
(S) Dibromofluoromethane	*87.0*			*76.0-123*
(S) 4-Bromofluorobenzene	*94.2*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3324829-1 07/11/18 12:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0204	81.8	69.0-123	
1,2-Dichloroethane	0.0250	0.0234	93.5	67.0-126	
Ethylbenzene	0.0250	0.0249	99.6	77.0-120	
Isopropylbenzene	0.0250	0.0212	84.7	75.0-120	
Methyl tert-butyl ether	0.0250	0.0208	83.3	64.0-123	
Toluene	0.0250	0.0259	103	77.0-120	
1,2,4-Trimethylbenzene	0.0250	0.0209	83.6	75.0-120	
1,3,5-Trimethylbenzene	0.0250	0.0217	86.7	75.0-120	
Xylenes, Total	0.0750	0.0718	95.7	77.0-120	
(S) Toluene-d8			*108*	*80.0-120*	
(S) Dibromofluoromethane			*88.0*	*76.0-123*	
(S) 4-Bromofluorobenzene			*94.4*	*80.0-120*	

Method Blank (MB)

(MB) R3325209-4 07/12/18 10:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*98.1*			*80.0-120*
(S) Dibromofluoromethane	*99.5*			*76.0-123*
(S) 4-Bromofluorobenzene	*91.9*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3325209-1 07/12/18 09:12 • (LCSD) R3325209-2 07/12/18 09:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0272	0.0267	109	107	69.0-123			1.66	20
1,2-Dichloroethane	0.0250	0.0295	0.0294	118	118	67.0-126			0.158	20
Ethylbenzene	0.0250	0.0262	0.0261	105	104	77.0-120			0.285	20
Isopropylbenzene	0.0250	0.0260	0.0253	104	101	75.0-120			2.70	20
Methyl tert-butyl ether	0.0250	0.0251	0.0238	100	95.1	64.0-123			5.40	20
Toluene	0.0250	0.0260	0.0257	104	103	77.0-120			1.36	20
1,2,4-Trimethylbenzene	0.0250	0.0260	0.0248	104	99.0	75.0-120			4.74	20
1,3,5-Trimethylbenzene	0.0250	0.0262	0.0253	105	101	75.0-120			3.37	20
Xylenes, Total	0.0750	0.0792	0.0786	106	105	77.0-120			0.760	20
(S) Toluene-d8				*97.6*	*96.8*	*80.0-120*				
(S) Dibromofluoromethane				*101*	*100*	*76.0-123*				
(S) 4-Bromofluorobenzene				*92.5*	*90.4*	*80.0-120*				

Method Blank (MB)

(MB) R3325902-3 07/16/18 11:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dibromoethane	U		0.000381	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*100*			*80.0-120*
(S) Dibromofluoromethane	*103*			*76.0-123*
(S) 4-Bromofluorobenzene	*90.5*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3325902-1 07/16/18 10:00 • (LCSD) R3325902-2 07/16/18 10:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0252	0.0251	101	100	69.0-123			0.671	20
1,2-Dibromoethane	0.0250	0.0255	0.0256	102	102	77.0-123			0.160	20
1,2-Dichloroethane	0.0250	0.0273	0.0271	109	108	67.0-126			0.688	20
Ethylbenzene	0.0250	0.0250	0.0249	100	99.5	77.0-120			0.587	20
Isopropylbenzene	0.0250	0.0227	0.0234	90.9	93.8	75.0-120			3.10	20
Methyl tert-butyl ether	0.0250	0.0261	0.0263	104	105	64.0-123			1.07	20
Toluene	0.0250	0.0244	0.0243	97.7	97.3	77.0-120			0.497	20
1,2,4-Trimethylbenzene	0.0250	0.0248	0.0256	99.1	102	75.0-120			3.19	20
1,3,5-Trimethylbenzene	0.0250	0.0243	0.0251	97.0	100	75.0-120			3.41	20
Xylenes, Total	0.0750	0.0729	0.0732	97.2	97.6	77.0-120			0.411	20
(S) Toluene-d8				*101*	*99.2*	*80.0-120*				
(S) Dibromofluoromethane				*99.2*	*98.4*	*76.0-123*				
(S) 4-Bromofluorobenzene				*93.1*	*90.5*	*80.0-120*				

Method Blank (MB)

(MB) R3325447-1 07/13/18 00:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1007499-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1007499-11 07/13/18 01:00 • (DUP) R3325447-3 07/13/18 00:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3325447-4 07/13/18 02:26 • (LCSD) R3325447-5 07/13/18 04:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000240	0.000230	96.0	92.0	60.0-140			4.26	20

L1006639-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1006639-02 07/13/18 00:35 • (MS) R3325447-2 07/13/18 00:24

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.000100	U	0.000109	109	1	72.0-146	

Method Blank (MB)

(MB) R3325752-3 07/12/18 16:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	0.0000291	J	0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*129*			*31.0-160*
(S) 2-Fluorobiphenyl	*108*			*48.0-148*
(S) p-Terphenyl-d14	*127*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3325752-1 07/12/18 16:01 • (LCSD) R3325752-2 07/12/18 16:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00215	0.00248	107	124	64.0-142			14.3	20
Benzo(a)anthracene	0.00200	0.00214	0.00248	107	124	59.0-134			14.7	20
Benzo(a)pyrene	0.00200	0.00221	0.00248	111	124	61.0-145			11.5	20
Benzo(b)fluoranthene	0.00200	0.00216	0.00255	108	128	57.0-136			16.6	20
Benzo(g,h,i)perylene	0.00200	0.00226	0.00253	113	126	54.0-140			11.3	20
Chrysene	0.00200	0.00220	0.00252	110	126	63.0-140			13.6	20
Fluorene	0.00200	0.00218	0.00251	109	126	64.0-129			14.1	20
Naphthalene	0.00200	0.00212	0.00241	106	120	68.0-129			12.8	20
Phenanthrene	0.00200	0.00216	0.00246	108	123	62.0-132			13.0	20
Pyrene	0.00200	0.00223	0.00260	111	130	58.0-156			15.3	20
(S) Nitrobenzene-d5				*122*	*114*	*31.0-160*				
(S) 2-Fluorobiphenyl				*102*	*96.5*	*48.0-148*				
(S) p-Terphenyl-d14				*112*	*109*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

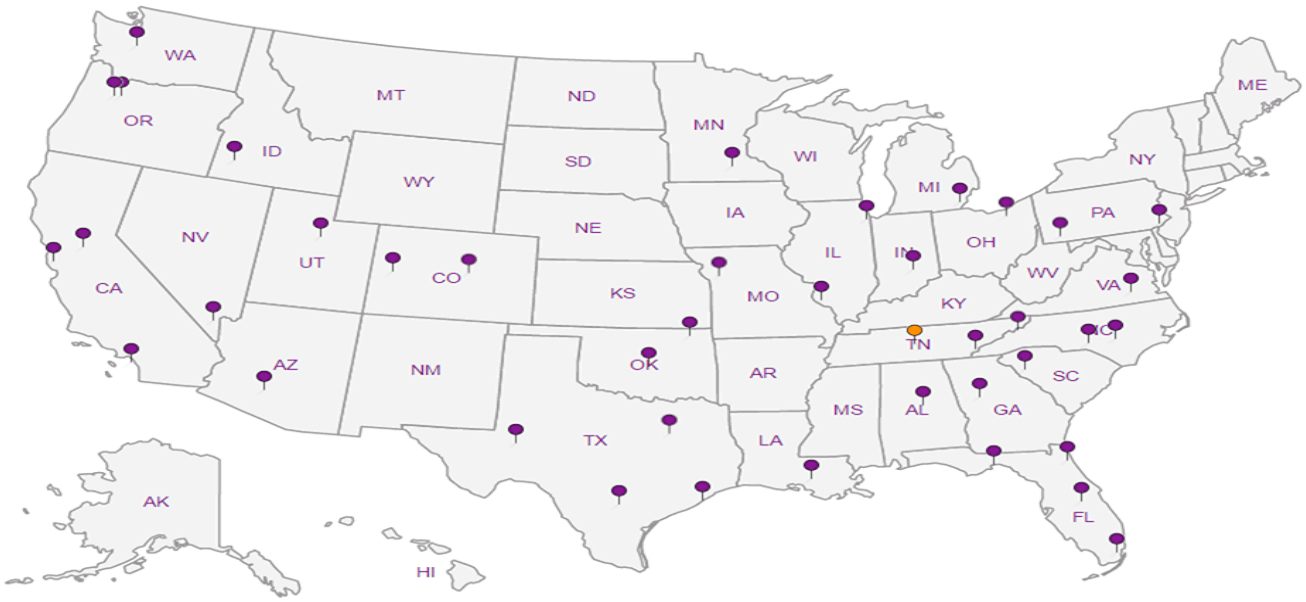
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description: EVERGREEN PHL GWS

City/State Collected:

Phone: **267-240-3415**
Fax:

Client Project # 213402429

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): JAN ANDREE/KARL MCCARTY

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: STANDARD

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP ★LAB FILTERED	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
A-139-HS_20180706	GRAB	GW		7/6/18	1045	1		X					01
A-139_20180706		GW			1122	1		X					02
N-33-HS_20180706		GW	68.5		1235	9	X	X					03
N-33_20180706		GW	68.5		1308	9	X	X					04
BN-502_20180706		GW			1340	3				X			05
N-112_20180706		GW			1245	3				X			06
N-138_20180706		GW			1030	9	X	X					07
TB_20180706		GW				1							
		GW											
		GW											

Chain of Custody Page ___ of ___

ESC LABORATORIES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1007958

Tat G064

Acctnum: **SUNSTANTEC**
Template: **T137388**
Prelogin: **P659137**
TSR: **134 - Mark Beasley**
PB: 6-18-18

Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ___

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1- 250ml plastic NP
★EQUIS FORMAT EDD
★ALL SAMPLES STANDARD TAT

pH ___ Temp ___
Flow ___ Other ___

Samples returned via:
__ UPS __ FedEx __ Courier ___

Tracking # 493034230557

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	7.6.18	1700	ESCPA lockout
ESCPA lockout	7/9/18	8:32	
			Received for lab by: (Signature)

Trip Blank Received: (Yes) / No
HCl / MeoH
TBR

Temp: 1.0/1.1 °C Bottles Received: 36

Date: 7/10/18 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Jeremy W. Watkins

ESC Lab Sciences
Non-Conformance Form

Login #:1007958	Client:SUNSTANTEC	Date:07/10/18	Evaluated by: Matthew Lockhart

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time		Login Clarification Needed		**If Broken Container:**
	Improper temperature		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	Improper preservation		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Courie
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container	X	Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments:Client did not x analysi for trip blank. Trip blank was put on hold.

Client informed by:		Call		Email		Voice Mail		Date: 7/16/18	Time: 0700
TSR Initials: MB	Client Contact:								

Login Instructions:

Log trip blank for V8260UGPA

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Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 23, 2018

Stantec - S/E

Sample Delivery Group:	L1009906
Samples Received:	07/17/2018
Project Number:	213402429.3008
Description:	PHL GWS

Report To: Jennifer Menges
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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N-57_20180713 L1009906-01 GW

Collected by	Collected date/time	Received date/time
Jim C.	07/13/18 10:55	07/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1138819	1	07/17/18 17:58	07/17/18 20:31	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1139731	1	07/18/18 15:57	07/18/18 15:57	JAH
EDB / DBCP by Method 8011	WG1140135	2	07/19/18 10:51	07/20/18 22:45	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1139184	1	07/18/18 14:59	07/19/18 01:41	KM

N-82_20180713 L1009906-02 GW

Collected by	Collected date/time	Received date/time
Jim C.	07/13/18 12:25	07/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 6020	WG1138819	1	07/17/18 17:58	07/17/18 20:53	LD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1139731	50	07/18/18 19:13	07/18/18 19:13	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1140276	200	07/19/18 17:48	07/19/18 17:48	RAS
EDB / DBCP by Method 8011	WG1140135	1	07/19/18 10:51	07/20/18 23:21	HMH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1139184	10	07/18/18 14:59	07/19/18 02:24	KM
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1139184	250	07/18/18 14:59	07/19/18 15:12	DMG

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/17/2018 20:31	WG1138819

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	07/18/2018 15:57	WG1139731
Isopropylbenzene	ND		0.00100	1	07/18/2018 15:57	WG1139731
1,2-Dichloroethane	ND		0.00100	1	07/18/2018 15:57	WG1139731
Ethylbenzene	ND		0.00100	1	07/18/2018 15:57	WG1139731
Methyl tert-butyl ether	ND		0.00100	1	07/18/2018 15:57	WG1139731
Toluene	ND		0.00100	1	07/18/2018 15:57	WG1139731
1,2,4-Trimethylbenzene	ND		0.00100	1	07/18/2018 15:57	WG1139731
1,3,5-Trimethylbenzene	ND		0.00100	1	07/18/2018 15:57	WG1139731
Xylenes, Total	0.0364		0.00300	1	07/18/2018 15:57	WG1139731
(S) Toluene-d8	*107*		*80.0-120*		*07/18/2018 15:57*	WG1139731
(S) Dibromofluoromethane	*88.3*		*76.0-123*		*07/18/2018 15:57*	WG1139731
(S) 4-Bromofluorobenzene	*92.1*		*80.0-120*		*07/18/2018 15:57*	WG1139731

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	0.0000684		0.0000200	2	07/20/2018 22:45	WG1140135

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	07/19/2018 01:41	WG1139184
Benzo(a)anthracene	ND		0.0000500	1	07/19/2018 01:41	WG1139184
Benzo(a)pyrene	ND		0.0000500	1	07/19/2018 01:41	WG1139184
Benzo(b)fluoranthene	ND		0.0000500	1	07/19/2018 01:41	WG1139184
Benzo(g,h,i)perylene	ND		0.0000500	1	07/19/2018 01:41	WG1139184
Chrysene	ND		0.0000500	1	07/19/2018 01:41	WG1139184
Fluorene	0.000201		0.0000500	1	07/19/2018 01:41	WG1139184
Naphthalene	ND		0.000250	1	07/19/2018 01:41	WG1139184
Phenanthrene	ND		0.0000500	1	07/19/2018 01:41	WG1139184
Pyrene	0.0000903		0.0000500	1	07/19/2018 01:41	WG1139184
(S) Nitrobenzene-d5	*70.0*		*31.0-160*		*07/19/2018 01:41*	WG1139184
(S) 2-Fluorobiphenyl	*96.5*		*48.0-148*		*07/19/2018 01:41*	WG1139184
(S) p-Terphenyl-d14	*94.5*		*37.0-146*		*07/19/2018 01:41*	WG1139184



Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Lead,Dissolved	ND		0.00200	1	07/17/2018 20:53	WG1138819

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	13.0		0.200	200	07/19/2018 17:48	WG1140276
Isopropylbenzene	0.153		0.0500	50	07/18/2018 19:13	WG1139731
1,2-Dichloroethane	ND		0.0500	50	07/18/2018 19:13	WG1139731
Ethylbenzene	4.55		0.0500	50	07/18/2018 19:13	WG1139731
Methyl tert-butyl ether	ND		0.0500	50	07/18/2018 19:13	WG1139731
Toluene	4.32		0.0500	50	07/18/2018 19:13	WG1139731
1,2,4-Trimethylbenzene	0.612		0.0500	50	07/18/2018 19:13	WG1139731
1,3,5-Trimethylbenzene	0.176		0.0500	50	07/18/2018 19:13	WG1139731
Xylenes, Total	3.57		0.150	50	07/18/2018 19:13	WG1139731
(S) Toluene-d8	*105*		*80.0-120*		*07/18/2018 19:13*	WG1139731
(S) Toluene-d8	*101*		*80.0-120*		*07/19/2018 17:48*	WG1140276
(S) Dibromofluoromethane	*95.1*		*76.0-123*		*07/18/2018 19:13*	WG1139731
(S) Dibromofluoromethane	*104*		*76.0-123*		*07/19/2018 17:48*	WG1140276
(S) 4-Bromofluorobenzene	*91.4*		*80.0-120*		*07/18/2018 19:13*	WG1139731
(S) 4-Bromofluorobenzene	*110*		*80.0-120*		*07/19/2018 17:48*	WG1140276

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Ethylene Dibromide	ND		0.0000100	1	07/20/2018 23:21	WG1140135

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	0.00651		0.000500	10	07/19/2018 02:24	WG1139184
Benzo(a)anthracene	0.000765		0.000500	10	07/19/2018 02:24	WG1139184
Benzo(a)pyrene	ND		0.000500	10	07/19/2018 02:24	WG1139184
Benzo(b)fluoranthene	0.000505		0.000500	10	07/19/2018 02:24	WG1139184
Benzo(g,h,i)perylene	ND		0.000500	10	07/19/2018 02:24	WG1139184
Chrysene	0.000787		0.000500	10	07/19/2018 02:24	WG1139184
Fluorene	0.0433		0.000500	10	07/19/2018 02:24	WG1139184
Naphthalene	9.82		0.0625	250	07/19/2018 15:12	WG1139184
Phenanthrene	0.0359		0.000500	10	07/19/2018 02:24	WG1139184
Pyrene	0.00372		0.000500	10	07/19/2018 02:24	WG1139184
(S) Nitrobenzene-d5	*0.000*	J7	*31.0-160*		*07/19/2018 15:12*	WG1139184
(S) Nitrobenzene-d5	*61.5*		*31.0-160*		*07/19/2018 02:24*	WG1139184
(S) 2-Fluorobiphenyl	*93.5*		*48.0-148*		*07/19/2018 02:24*	WG1139184
(S) 2-Fluorobiphenyl	*112*	J7	*48.0-148*		*07/19/2018 15:12*	WG1139184
(S) p-Terphenyl-d14	*109*	J7	*37.0-146*		*07/19/2018 15:12*	WG1139184
(S) p-Terphenyl-d14	*88.5*		*37.0-146*		*07/19/2018 02:24*	WG1139184

Method Blank (MB)

(MB) R3326320-1 07/17/18 20:18

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Lead,Dissolved	U		0.000240	0.00200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3326320-2 07/17/18 20:22 • (LCSD) R3326320-3 07/17/18 20:27

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Lead,Dissolved	0.0500	0.0463	0.0469	92.6	93.8	80.0-120			1.25	20

L1009906-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1009906-01 07/17/18 20:31 • (MS) R3326320-5 07/17/18 20:40 • (MSD) R3326320-6 07/17/18 20:44

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Lead,Dissolved	0.0500	ND	0.0467	0.0465	92.7	92.3	1	75.0-125			0.439	20

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3326843-3 07/18/18 13:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
Ethylbenzene	U		0.000384	0.00100
Isopropylbenzene	U		0.000326	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000412	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*105*			*80.0-120*
(S) Dibromofluoromethane	*94.8*			*76.0-123*
(S) 4-Bromofluorobenzene	*94.1*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3326843-1 07/18/18 12:35 • (LCSD) R3326843-2 07/18/18 12:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0214	0.0218	85.6	87.0	69.0-123			1.68	20
1,2-Dichloroethane	0.0250	0.0225	0.0227	90.1	91.0	67.0-126			0.978	20
Ethylbenzene	0.0250	0.0270	0.0274	108	110	77.0-120			1.66	20
Isopropylbenzene	0.0250	0.0256	0.0262	103	105	75.0-120			1.97	20
Methyl tert-butyl ether	0.0250	0.0225	0.0229	90.1	91.7	64.0-123			1.79	20
Toluene	0.0250	0.0250	0.0258	99.9	103	77.0-120			3.10	20
1,2,4-Trimethylbenzene	0.0250	0.0249	0.0253	99.6	101	75.0-120			1.74	20
1,3,5-Trimethylbenzene	0.0250	0.0257	0.0261	103	104	75.0-120			1.53	20
Xylenes, Total	0.0750	0.0815	0.0832	109	111	77.0-120			2.06	20
(S) Toluene-d8				*103*	*104*	*80.0-120*				
(S) Dibromofluoromethane				*93.4*	*93.4*	*76.0-123*				
(S) 4-Bromofluorobenzene				*92.7*	*92.9*	*80.0-120*				

Method Blank (MB)

(MB) R3327027-3 07/19/18 11:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
(S) Toluene-d8	*103*			*80.0-120*
(S) Dibromofluoromethane	*101*			*76.0-123*
(S) 4-Bromofluorobenzene	*109*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3327027-1 07/19/18 10:47 • (LCSD) R3327027-2 07/19/18 11:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0212	0.0221	84.9	88.3	69.0-123			3.87	20
(S) Toluene-d8				*103*	*102*	*80.0-120*				
(S) Dibromofluoromethane				*94.6*	*96.5*	*76.0-123*				
(S) 4-Bromofluorobenzene				*107*	*109*	*80.0-120*				

Method Blank (MB)

(MB) R3327318-1 07/20/18 12:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000240	0.0000100

L1009411-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1009411-01 07/20/18 12:59 • (DUP) R3327318-3 07/20/18 12:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	0.000	1			20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3327318-4 07/20/18 15:03 • (LCSD) R3327318-5 07/20/18 17:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000228	0.000242	91.2	96.8	60.0-140			5.96	20

Laboratory Control Sample (LCS)

(LCS) R3327318-6 07/20/18 23:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylene Dibromide	0.000250	0.000237	94.8	60.0-140	

Laboratory Control Sample (LCS)

(LCS) R3327318-7 07/20/18 23:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylene Dibromide	0.000250	0.000235	94.0	60.0-140	

L1009411-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1009411-02 07/20/18 12:34 • (MS) R3327318-2 07/20/18 12:22

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.000101	ND	0.000113	112	1.01	72.0-146	

Method Blank (MB)

(MB) R3326763-3 07/18/18 19:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Chrysene	U		0.0000108	0.0000500
Fluorene	U		0.00000850	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
(S) Nitrobenzene-d5	*64.0*			*31.0-160*
(S) 2-Fluorobiphenyl	*110*			*48.0-148*
(S) p-Terphenyl-d14	*93.0*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3326763-1 07/18/18 18:47 • (LCSD) R3326763-2 07/18/18 19:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00194	0.00207	97.0	103	64.0-142			6.48	20
Benzo(a)anthracene	0.00200	0.00165	0.00177	82.5	88.5	59.0-134			7.02	20
Benzo(a)pyrene	0.00200	0.00174	0.00187	87.0	93.5	61.0-145			7.20	20
Benzo(b)fluoranthene	0.00200	0.00156	0.00171	78.0	85.5	57.0-136			9.17	20
Benzo(g,h,i)perylene	0.00200	0.00187	0.00203	93.5	102	54.0-140			8.21	20
Chrysene	0.00200	0.00195	0.00206	97.5	103	63.0-140			5.49	20
Fluorene	0.00200	0.00169	0.00181	84.5	90.5	64.0-129			6.86	20
Naphthalene	0.00200	0.00166	0.00182	83.0	91.0	68.0-129			9.20	20
Phenanthrene	0.00200	0.00180	0.00192	90.0	96.0	62.0-132			6.45	20
Pyrene	0.00200	0.00170	0.00178	85.0	89.0	58.0-156			4.60	20
(S) Nitrobenzene-d5				*59.0*	*59.5*	*31.0-160*				
(S) 2-Fluorobiphenyl				*97.0*	*105*	*48.0-148*				
(S) p-Terphenyl-d14				*87.5*	*91.5*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

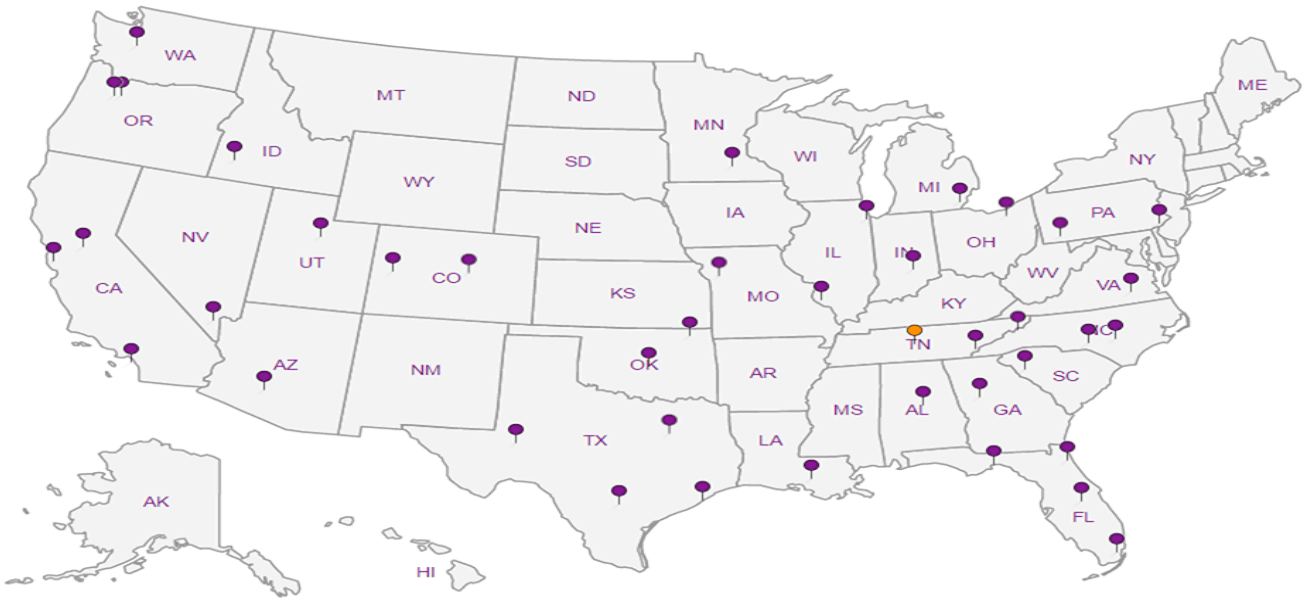
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Stantec - S/E

1060 Andrew Drive, Suite 140
West Chester, PA 19380

Billing Information:
Accounts Payable
1060 Andrew Drive, Suite 140
West Chester, PA 19380

Pres Chk

Report to: **Jennifer Menges**

Email To: **Jennifer.Menges@stantec.com**

Project Description:

City/State Collected:

Phone: ~~267-240-3415~~
Fax: 610-840-2540

Client Project # 213402429.3008

Lab Project # **SUNSTANTEC-PHL**

Collected by (print): Jim Craft

Site/Facility ID #

P.O. #

Collected by (signature): Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Evergreen Short List - Various	Dissolved Pb (Lab) - 250ml plastic NP	VOCs/TBA - 3 - 40ml vials w/ HCL	V8260BTEX only - 3 - 40ml vials w/ HCL	MTBE/TBA only - 3 - 40ml vials w/ HCL	Remarks	Sample # (lab only)
N-57_20180713	G	GW		7/13/2018	1055	9	X	X					-01
N-82_20180713	G	GW		7/13/2018	1225	9	X	X					02
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1009906
E176

Acctnum: **SUNSTANTEC**
Template: **T137388**
Prelogin: **P659137**
TSR: **134 - Mark Beasley**
PB: 6-18-18

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Various = 3 - 40ml vials w/ HCL, 3 - 40ml vials w/ NaThio, 2 - 40ml vials NP, and 1- 250ml plastic NP

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4430 3422 9831

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	7/13/2018	1755	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	7/16/2018	9:00	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
	7/16/18	1000	BCL

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 2.3 °C Bottles Received: 18

Date: 7/17/18 Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK