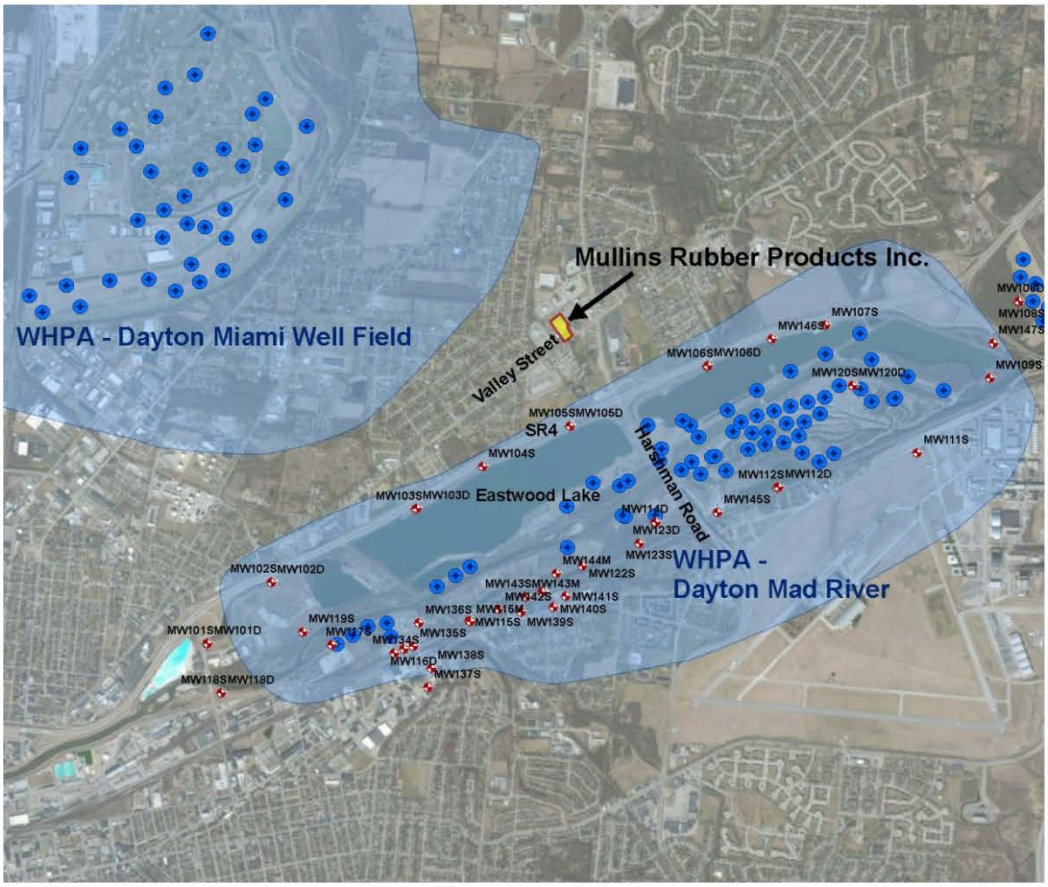
Mullins Rubber Products, Inc.
Site Reassessment Report



Division of Environmental Response and Revitalization (DERR)
Federal Site Reassessment
April 2015

SITE REASSESSMENT REPORT

For

Mullins Rubber Products, Inc.
Riverside, Montgomery County, Ohio
U.S. EPA ID: OHN000510489

OHIO ENVIRONMENTAL PROTECTION AGENCY
Division of Environmental Response and Revitalization
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April 2015

MULLINS RUBBER PRODUCTS, INC.
Riverside, Montgomery County, Ohio
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1.0 EXECUTIVE SUMMARY

The Ohio Environmental Protection Agency (Ohio EPA) Division of Environmental Response and Revitalization (DERR) entered into a cooperative agreement with the United States Environmental Protection Agency (U.S. EPA) Region V to conduct a Site Reassessment (SR) of the Mullins Rubber Products, Inc. (MRP) site, located in Riverside, Montgomery County, Ohio. The purpose of this report is to summarize the pre-remedial site assessment and U.S. EPA removal action work completed to date and to present analytical data documenting releases of volatile organic compounds (VOCs) to soil and groundwater at the MRP site.

On May 9, 2013, Ohio EPA requested assistance from U.S. EPA Region V Removal and Emergency Response Program regarding VOC contamination at Mullins Rubber Products. Site assessment work conducted by Ohio EPA in July 2013 identified migration of contaminated groundwater that may present potential hazards posed to nearby residences and businesses from subsurface migration of solvent vapors into indoor air. Chemicals of concern included tetrachloroethylene (PCE) and trichloroethylene (TCE). Further assessment conducted by Ohio EPA and U.S. EPA's Removal and Emergency Response Program in July 2013 confirmed that a time-critical removal action was necessary.

The U.S. EPA removal action, known as the Valley Pike VOC Site, was initiated in December 2013. The removal action included sampling residences for vapor intrusion and installing mitigation systems at residences exceeding Ohio Department of Health (ODH) screening levels for PCE and/or TCE. As of January 20, 2015, approximately 302 residences have been sampled for vapor intrusion (sub-slab or indoor air). Eighty-three residences exceeded the ODH screening level for PCE and/or TCE. Vapor intrusion mitigation systems have been installed at 75 residences to date.

During the week of March 24, 2014, U.S. EPA Removal and Emergency Response Program conducted a groundwater investigation in the residential neighborhood to the west of the MRP site. Fourteen temporary monitoring wells were installed to a depth of approximately 40 feet. The temporary wells were purged, sampled for VOCs, and removed. The lab analytical results indicated PCE was detected at two locations in the neighborhood at concentrations of 290 µg/L and 45.6 µg/L, respectively. Lower concentrations of TCE were also detected at several locations. Based on the March 2014 groundwater sampling results, U.S. EPA expanded the area of investigation for vapor intrusion further west to Prince Albert Boulevard.

During September and October 2014, U.S. EPA Removal and Emergency Response Program conducted a Contaminant Source Area Investigation. The investigation focused on Mullins Rubber Products, a suspected source of PCE

and TCE contamination at the Valley Pike VOC Site. Ohio EPA assisted U.S. EPA and the START contractor, Tetra Tech, with the investigation. The investigation included collection of sub-slab vapor samples from beneath the Mullins Rubber Products building, installation of eight new monitoring wells, collection of groundwater samples from new and existing monitoring wells, and collection of soil samples based on field screening.

Sub-slab vapor samples collected from inside the Mullins Rubber Products main building in September 2014 had high levels of PCE and TCE. The highest detection of PCE was 3,550,000 $\mu g/m^3$ in a sub-slab sample collected near the degreaser.

Significant detections of PCE and TCE were also found in soil samples collected adjacent to the main building on the west side of the MRP property in October 2014. The highest detections of PCE and TCE at this location were 2,040,000 µg/kg and 411,000 µg/kg, respectively, in a soil sample collected at 24-26 feet below ground surface (bgs). The sampling results indicated significant VOC soil contamination at depth at MRP.

October 2014 groundwater sampling results indicated high concentrations of PCE and lower, but still above MCL, concentrations of TCE in monitoring wells at and downgradient of MRP. The highest detection of PCE was 19,300 µg/L at a monitoring well located next to the main building on the west side of the MRP property. The next two highest detections of PCE were 2,500 µg/L at a monitoring well located approximately 50 feet west of MRP, and 1,600 µg/L at a monitoring well located 900 feet west of MRP on Hypathia Avenue in the residential neighborhood. Groundwater samples from upgradient locations along the north and east sides of the MRP property had either no detections or low levels of VOCs.

Of the various locations that have been sampled in the Valley Pike VOC site area, the highest concentrations of PCE and TCE in soil, groundwater, and sub-slab vapor have been detected in samples collected on the MRP property, adjacent to and immediately southwest/downgradient of the MRP vapor degreaser and dry well areas (Tetra Tech 2015).

Groundwater sampling results indicate that the VOC plume extends to at least Broadmead Boulevard, which is approximately 3,300 feet west of MRP. The VOC plume is also a potential threat to downgradient public water supply wells. MRP is located approximately 1,300 feet north of the Dayton Mad River Well Field wellhead protection area (WHPA) area five-year time of travel delineation and 1,500 feet southeast of the Dayton Miami Well Field WHPA area five-year time of travel delineation, which provide potable water to approximately 236,000 and 184,000 residents, respectively. These well fields draw water from the Great Miami Buried Valley Aquifer, a federally designated sole source aquifer. The closest production well is PW-06, located approximately 2,650 feet south of MRP in the Mad River Well Field.

The Ohio Department of Health has determined that a completed exposure pathway exists through vapor intrusion from groundwater to indoor air in the residential neighborhood downgradient of MRP. However, vapor intrusion is not currently a valid pathway for scoring under the CERCLA site assessment Hazard Ranking System. In November 2014, U.S. EPA expanded the area of investigation for the removal action to include the residential area between Hypathia Ave (east), Forest Home Ave (north), Warrendale Ave (south), and Sagamore Ave (west). Vapor intrusion sampling and mitigation activities are ongoing.

2.0 SITE BACKGROUND

2.1 Site Description

Mullins Rubber Products, Inc. is an active manufacturing facility located at 2949 Valley Pike in Riverside, Montgomery County, Ohio. See Figure 1, Site Location Map**,** located in Appendix A. MRP is located in a mixed industrial and residential area of Riverside. MRP is bordered to the west by Paul's Garage and Towing Inc., and to the east by a single residence and Harshman Self Storage. Old Dominion Freight Lines, Inc., is immediately north of the MRP facility. On the south side of Valley Pike, slightly west of MRP, is a mobile home park. A single family residential plat begins along Hypathia Avenue, approximately 500 feet west of MRP.

The MRP facility sits on a single parcel (Parcel I39002030048) and is comprised of 3.675 acres. Most of the parcel is covered with buildings and asphalt or concrete. There is a small grassy area in the front parking area and a vegetative swale across the northern fence line.

The primary product manufactured at MRP is molded heavy-duty truck/trailer suspension bushings. Currently, there is one main building and several storage sheds at MRP. There are four production wells on the MRP property. The active deep production well formerly produced about 300 gallons per minute for 8 hours a day. This non-contact cooling water previously discharged into a series of dry wells. MRP installed a closed loop chiller system in 2012 which eliminates the need to discharge non-contact cooling water to dry wells. Currently, the production well is only used infrequently to "top off" the closed loop system. There are two deep production wells on stand-by. A fourth shallow (50 foot depth) former production well is damaged and is no longer used but remains in place. This well was sampled and surveyed in the same manner as were the monitoring wells and is referred to as Old PW in this report. All production wells are located on the east side of the MRP property (Ohio EPA 2012).

Until the chiller system was operational, there were a series of five dry wells on the northern portion of the property which were used to return the non-contact

cooling water to the shallow sand and gravel formation. The five dry wells were interconnected and terminated at the man-made depression located at the northeast corner of the MRP property. The dry wells were considered Class V injection wells under the Ohio Underground Injection Control (UIC) Program. Permits were not issued, but the wells were registered with Ohio EPA. The dry wells received cooling water from the degreasing tanks along with storm water runoff. The 2010 Site Inspection (SI) sampling found that the water from the deep, active production well was contaminated with VOCs. Under UIC rules, MRP was required to find an alternative to disposal through the dry wells. Due to installation of the chiller system, the dry wells no longer receive water from cooling the degreasing tanks. Several dry wells have been removed. Storm water runoff still enters the shallow aquifer through the depression in the northeast corner of the MRP property. Runoff during significant rainfall or snow melt causes mounding in the shallow aquifer (Ohio EPA 2012).

MRP is located approximately 1,300 feet north of the Dayton Mad River Well Field WHPA five-year time of travel delineation and 1,500 feet southeast of the Dayton Miami Well Field WHPA five-year time of travel delineation (Figure 1). These well fields draw water from the Great Miami Buried Valley Aquifer, a federally designated sole source aquifer. The closest production well is PW-06, approximately 2,650 feet south of the facility in the Mad River Well Field. The nearest Dayton Mad River early warning monitoring wells, MW-105S and MW-105D, are located approximately 1,500 feet south of the site (Figure 1). The population served by the Dayton Mad River Well Field and Dayton Miami Well Field is approximately 236,000 and 184,000, respectively. Appendix B includes information on public water systems and census data.

2.2 Site History

MRP began operations in 1942 as the Mullins Tire and Rubber Company. The primary operation at that time was retreading used tires. Other names the company used during its history include The Yellow Front Tire Shop and Bill Mullins Co. Inc.

In 1955, the business expanded from tires into molding different types of rubber products. Beginning in the mid-1960s, the company focused on molding heavy-duty truck trailer suspension bushings, the product line that continues today.

MRP is required to report halogenated solvent usage annually to the Regional Air Pollution Control Agency (RAPCA). After an anonymous source alleged the company was under-reporting the amount of solvents used, the Ohio EPA and RAPCA performed an unannounced inspection on May 14, 2001.

RAPCA and Ohio EPA determined that MRP had under-reported their TCE usage, kept false records and knowingly reported false data from 1995 to 2000. From 1995 to 1999, the combined emissions permit limit was 10,000 pounds per year. Actual emissions were calculated and ranged from 17,679 pounds in 1996

to 38,556 pounds in 1997.

In January 2004, a seven-count criminal indictment was filed against MRP by the U.S. Attorney's Office in Dayton, Ohio. Later the same year, William R. Mullins, President of MRP, pled guilty to making false statements when reporting airborne discharges of TCE and failing to submit a Title V air permit by the October 1996 deadline. Mr. Mullins was fined, sentenced to home confinement followed by probation, and ordered to perform 100 hours of community service.

MRP now holds a Clean Air Act Title V operating permit that was issued January 16, 2008. TCE usage limit is a facility-wide rolling 12 month limit of 15.54 tons.

2.3 Previous Investigations

In October 2008, Ohio EPA conducted a Pre-CERCLIS Screening Assessment of Mullins Rubber Products. Ohio EPA then completed a Preliminary Assessment in April 2010. It was determined that past practices at the Mullins facility, including environmental violations, had potentially released TCE into soil and groundwater.

A Site Inspection of Mullins Rubber Products was conducted in November 2010. Six groundwater grab samples were collected using direct-push technology. The active deep production well was also sampled, along with dry well number DW-2, which received cooling water from the degreasing tanks. Sample results indicated significant levels of PCE and lower levels of TCE in groundwater. The PCE and TCE detections ranged from 58 µg/L to 156 µg/L and 2.2 µg/L to 11 µg/L, respectively.

An Expanded Site Inspection (ESI) was conducted in December 2011. Three Geoprobe® pre-packed monitoring wells were installed and designated as MW-1, MW-2, and MW-3. The monitoring well locations are shown on Figure 2. The well in the northwest corner (MW-1) did not reach the main shallow aquifer, making it unsuitable for water level measurements. ESI samples documented PCE and TCE in both shallow and deep aquifers but contamination was highest in MW-3, a shallow well located at the southwest corner of MRP property. PCE was detected at a concentration of 300 µg/L in MW-3 during this sampling event. Higher concentrations of PCE in the shallow aquifer pointed to a shallow rather than a deep source of PCE (Ohio EPA 2012).

A Supplemental Expanded Site Inspection (SESI) was conducted in March 2013. The primary objective of the SESI was to determine whether PCE, TCE, or other VOCs detected in deep and shallow groundwater samples were emanating from the MRP facility or from another off-property source(s). The SESI included installation of eighteen soil borings and four monitoring wells, MW-1R, MW-4, MW-5, and MW-6. These monitoring well locations are also shown on Figure 2, along with additional monitoring wells which were subsequently installed during Removal Site Assessment work.

SESI groundwater sampling results indicated significant concentrations of PCE and lower, but still above MCL, concentrations of TCE at locations along the west and southwest portions of the MRP property. Samples from locations along the north and east sides of the MRP property had either no detections or low levels of VOCs. The highest concentration of PCE, 14,000 µg/L, was detected in a boring located about 40 feet west of the MRP property line on the Paul's Garage and Towing Inc. property. PCE was also detected at MW-4 on Hypathia Avenue at a concentration of 1,500 µg/L, indicating that the VOC plume had moved into the residential neighborhood west of MRP (Ohio EPA 2013).

On May 9, 2013, Ohio EPA requested that U.S. EPA conduct a Time-Critical Removal (TCR) Action Assessment to determine if groundwater contaminated with VOCs was resulting in vapor intrusion into occupied structures. At the request of the U.S. EPA On-Scene Coordinator (OSC), Ohio EPA conducted a geoprobe investigation of the area west of MRP as part of the removal action assessment.

Ohio EPA mobilized its Geoprobe® and mobile laboratory in July 2013 to collect the additional samples requested by the OSC. The Geoprobe® was used to collect soil cores, soil gas, and groundwater samples from ten locations in the residential neighborhood west of MRP. The Ohio EPA mobile laboratory gas chromatograph was used to provide screening level data for samples collected. Based on mobile laboratory screening data, the U.S. EPA START contractors collected soil gas and groundwater samples for fixed laboratory analysis. The U.S. EPA contractor also collected sub-slab vapor samples and indoor air samples from several residences in the area of concern (Ohio EPA 2013).

Based on the removal action assessment sampling results, the ODH concluded that a completed exposure pathway exists for vapor intrusion in the residential neighborhood west of MRP. In December 2013, U.S. EPA initiated a removal action known as the Valley Pike VOC Site. The on-going removal action includes sampling residences for vapor Intrusion and installing mitigation systems at residences exceeding ODH screening levels for PCE and/or TCE. A summary of the removal action work completed to date is provided in Section 3.3.

2.4 Geology and Hydrogeology

Regional Geology & Hydrogeology

Regional geology consists of unconsolidated glacial deposits overlying consolidated bedrock. Most of the bedrock in the Dayton area consists of Ordovician shale with thin inter-bedded limestone. The unconsolidated deposits are glacial sediments consisting of fine-grained clay-rich tills and sand and gravel outwash deposits. The sand and gravel deposits produce high yields of groundwater throughout the region. The clay-rich tills have low permeability and yield little water. In the Mad River valley, the outwash deposits are generally

separated into upper and lower zones by a thick till layer which can be locally continuous but is discontinuous regionally (Norris and Speiker 1966). Ohio EPA review of regional well logs indicates that the till layer is not present at some locations within the valley near MRP. The absence of the clay-rich till layer provides localized interconnection between the upper and lower sand and gravel outwash deposits. Soil boring logs from previous investigations at MRP and vicinity indicate significant differences in lithology between one boring and another over short distances.

MRP is located over the Mad River buried valley aquifer system, one of the most productive aquifers in North America. It is part of the U.S. EPA designated Great Miami Buried Valley Sole Source Aquifer System. The groundwater resources map for Montgomery County indicates that regionally extensive, thick permeable deposits of sand and gravel occur in this area. The aquifer is comprised of sand and gravel outwash deposits ranging in thickness from 120 to 250 feet. In some locations, inter-bedded clay, silt, and clay-rich till aquitards at varying depths separate the aquifer into an upper and lower zone (Norris and Speiker 1966). One such clay-rich till aquitard is present in some areas beneath MRP but is not continuous.

The natural groundwater flow direction in the uppermost aquifer is southwest (Tetra Tech 2015).

Site-Specific Geology & Hydrogeology

Unconsolidated glacial outwash deposits vary significantly over short distances at the MRP site. All three federal site assessment efforts experienced difficulty in the use of direct-push drilling and sampling technology. Borings along the western MRP property line encountered shallow, hard clay-rich till above the sand and gravel shallow aquifer. At the northwest corner of the property where MW-1 and MW-1R are located, the hard clay-rich till extends from about fifteen feet bgs to thirty feet bgs. The clay-rich till terminates at thirty-two feet bgs where the shallow sand and gravel aquifer is encountered. Other borings along the west property line also encountered the clay-rich till but the till thins between MW-1R and MW-3 at the southwest corner of the MRP property. The clay and till layers do not act as continuous confining units throughout the area (Tetra Tech 2015).

Along the eastern side of the MRP property the shallow till is missing. Instead, this area is underlain by course sand and gravel deposits with large cobbles. This is the reason that the depression at the northeast corner of the MRP property is so effective in allowing runoff to sink into the shallow aquifer. At MW-4 on Hypathia Avenue, a thin clay layer was encountered between thirteen and sixteen feet bgs. The rest of the deposits were sand and gravel. More information on site geology, including boring logs, well construction diagrams, and geologic cross sections, is provided in the Tetra Tech Contaminant Source Area Investigation Report, Appendix C.

Groundwater elevation contours were determined based on October 2014 water level measurements from MW-1R, MW-2, Old PW, MW-3, MW-4, MW-5, MW-6, and MW-EPA-7 through MW-EPA-14. MW-1 was not used for flow determination because it is only partially screened in the shallow sand and gravel aquifer. A groundwater elevation contour map is provided in the Tetra Tech Contaminant Source Area Investigation Report, Appendix C. The natural groundwater flow direction in the uppermost aquifer is southwest (Tetra Tech 2015).

3.0 SAMPLING LOCATIONS & DISCUSSION OF RESULTS FROM EPA REMOVAL ASSESSMENT WORK

3.1 March 2014 Groundwater Sampling

During the week of March 24, 2014, U.S. EPA Removal and Emergency Response Program conducted a groundwater investigation in the residential neighborhood to the west of the MRP site. The purpose of the investigation was to determine the extent of VOC contamination in groundwater beneath the neighborhood and to identify areas for future vapor intrusion sampling. U.S. EPA used its contractor, EQM, to hire a drilling firm to install the wells. Fourteen temporary monitoring wells were installed to a depth of approximately 40 feet using a direct-push drill rig with augering capability. The temporary wells, designated as GP-1 through GP-14, were purged, sampled for VOCs, and removed. Due to equipment and schedule issues, groundwater samples were collected using hand bailers and a peristaltic pump. Therefore, the VOC sampling results from this event were screening level only and likely biased low.

The groundwater samples were shipped to Pace Analytical Services, Inc. laboratory for VOC analysis by Method 8260. PCE was detected at two locations, GP-4 and GP-9, at concentrations of 290 µg/L and 45.6 µg/L, respectively. Lower concentrations of TCE were detected at GP-4, GP-5, GP-6, GP-8, and GP-9. The highest detection of TCE was 12.4 µg/L at GP-9. The U.S. EPA maximum contaminant level (MCL) for PCE and TCE is 5 µg/L. PCE and TCE were not detected at temporary well locations GP-2, GP-3, GP-7, GP-10, GP-11, GP-12, GP-13, and GP-14. GP-1 was a dry hole and a groundwater sample could not be collected.

Significant groundwater sampling results from the March 2014 sampling event are provided in Table 1. The temporary well locations and sampling results for PCE and TCE are shown on Figure 3. The lab analytical report is provided in Appendix D.

Table 1
March 2014 Significant Groundwater Sampling Screening Results
(concentrations in µg/L)

	GP-4	GP-5	GP-6	GP-8	GP-9
PCE	290*	ND	ND	ND	45.6*
TCE	5.7*	4.3	2.6	5.3*	12.4*

Note: "ND" indicates below detection limit
* indicates parameter at or above MCL

Based on the March 2014 groundwater sampling results, U.S. EPA expanded the area of investigation for vapor intrusion further west to Prince Albert Boulevard. A summary of the U.S. EPA removal action work is provided in Section 3.3.

3.2 Contaminant Source Area Investigation

During September and October 2014, U.S. EPA conducted a Contaminant Source Area Investigation. The investigation focused on Mullins Rubber Products, a suspected source of PCE and TCE contamination at the Valley Pike VOC Site. Ohio EPA assisted U.S. EPA and the START contractor, Tetra Tech, with the investigation. The investigation included collection of sub-slab vapor samples from beneath the Mullins Rubber Products building, installation of eight new monitoring wells, collection of groundwater samples from new and existing monitoring wells, and collection of soil samples based on field screening. The sampling events and results are summarized below. More detailed information is provided in the Tetra Tech Contaminant Source Area Investigation Report, Appendix C.

3.2.1 Mullins Rubber Products Sub-Slab Sampling

During September 27-28, 2014, U.S. EPA conducted a sub-slab vapor investigation at the MRP site. Six sub-slab vapor probes were installed in the concrete floor inside the main production building. Sub-slab vapor samples were collected over a 24-hour period using SUMMA canisters. The SUMMA canisters were shipped to Pace Analytical Services, Inc. and analyzed for VOCs by Method TO-15. The lab analytical results indicated significant concentrations of PCE and TCE in soil vapor beneath the concrete floor of the Mullins Rubber

building. The sub-slab sampling results for PCE and TCE are provided in Table 2. The lab analytical report is provided in Appendix C. The sub-slab vapor probe locations and sampling results are shown on Figure 4.

The highest detection of PCE was 3,550,000 µg/m^3 in a sub-slab vapor sample collected at location VP-EPA-4 near the solvent degreaser. This indicates a PCE source likely exists in soil beneath the production building.

Table 2
Mullins Rubber Products Sub-Slab Vapor Sampling Results
September 2014
(concentrations in µg/m^3)

	VP-EPA-1	VP-EPA-2	VP-EPA-3	VP-EPA-4	VP-EPA-5	VP-EPA-6
PCE	44.1	141	61.7	3,550,000	65,000	8,380
TCE	104	894	199	25,500	44,400	2,170

Note: Sample locations are shown on Figure 4

3.2.2 October 2014 Groundwater and Soil Sampling

U.S. EPA installed eight monitoring wells in October 2014. U.S. EPA used its START contractor, Tetra Tech, to provide a rotosonic drill rig and a track mounted direct-push rig to install the wells. The locations of the new monitoring wells are shown on Figure 2. MW-EPA-7, MW-EPA-8, and MW-EPA-14 were installed to monitor groundwater quality at and downgradient of MRP. MW-EPA-9, MW-EPA-10, MW-EPA-11, MW-EPA-12 and MW-EPA-13 serve as upgradient sampling locations (Figure 2). Appendix C, Tetra Tech Contaminant Source Area Investigation Report, contains boring logs, well construction diagrams, and other information compiled by Tetra Tech staff during the October 2014 sampling event.

Soil samples were collected at selected monitoring well boring locations based on field observations and screening with a photoionization detector. The soil samples were collected using Encore™ samplers. The soil sample locations and depths are shown on Figure 5. The soil samples were shipped to Pace Analytical Services and analyzed for VOCs by Method 8260.

Significant soil sampling results from the October 2014 sampling event are provided in Table 3 and shown on Figure 5. The lab analytical reports for the soil samples are included in Appendix C. Significant detections of PCE and TCE

occurred in soil samples collected at MW-EPA-8, located next to the main building on the west side of the MRP property. The highest detections of PCE and TCE at this location were 2,040,000 µg/kg and 411,000 µg/kg, respectively, in a soil sample collected at 24-26 feet bgs. The sampling results indicate significant VOC soil contamination at depth at MRP.

Table 3
October 2014 Significant Soil Sampling Results

Location	Media	Parameter	Results	Units
MW-EPA-7	Soil (8-10 ft bgs)	PCE	43	µg/kg
		TCE	ND	µg/kg
MW-EPA-8	Soil (13-15 ft bgs)	PCE	32	µg/kg
		TCE	ND	µg/kg
	Soil (20-22 ft bgs)	PCE	17,100	µg/kg
		TCE	2,600	µg/kg
	Soil (24-26 ft bgs)	PCE	2,040,000	µg/kg
		TCE	411,000	µg/kg
MW-EPA-14	Soil (18-20 ft bgs)	PCE	14	µg/kg
		TCE	ND	µg/kg

Note: "ND" indicates below detection limit
bgs: below ground surface

Groundwater samples were collected from the eight newly installed monitoring wells, six existing monitoring wells, and a former production well at MRP, identified as Old PW. The existing monitoring wells included ESI wells MW-1, MW-2, MW-3 and SESI wells MW-1R, MW-4 and MW-5. The well locations are shown on Figure 2. The groundwater samples were collected using low-flow sampling techniques. Samples were sent by the START contractor to Pace Analytical Services for analysis by Method 8260.

Significant groundwater sampling results from the October 2014 sampling event are provided in Table 4 and shown on Figure 2. The lab analytical reports for the groundwater samples are included in Appendix C. PCE was detected at concentrations above the MCL in groundwater samples collected from monitoring wells MW-2, MW-3, MW-4, MW-EPA-8, MW-EPA-10, MW-EPA-14 and the former production well at MRP. The groundwater sampling results indicate high concentrations of PCE and lower, but still above MCL, concentrations of TCE in monitoring wells at and downgradient of MRP. Samples from locations along the north and east sides of the MRP property had either no detections or low levels of VOCs. The natural groundwater flow direction in the uppermost aquifer is southwest (Tetra Tech 2015).

The highest detection of PCE was at MW-EPA-8 (19,300 µg/L), located next to the main building on the west side of the MRP property. The next two highest detections of PCE were at MW-EPA-14 (2,500 µg/L), located approximately 50 feet west and downgradient of MRP, and MW-4 (1,600 µg/L), located about 900 feet west of MRP on Hypathia Avenue in the residential neighborhood. The only upgradient detection of PCE was 34 µg/L at MW-EPA-10, located about 60 feet east of the MRP property boundary. PCE was not detected at upgradient monitoring well locations MW-EPA-9, MW-EPA-11, MW-EPA-12 and MW-EPA-13. The upgradient PCE detection at MW-EPA-10 may be the result of groundwater mounding at MPR from past discharges to dry wells, or from storm water flow to the recharge basin where contaminated non-contact cooling water formerly discharged to the shallow aquifer. The only detection of TCE was 24 µg/L at MW-4. The MCL for PCE and TCE is 5 µg/L. PCE and TCE were not detected at MW-1, MW-1R, MW-5, MW-6, MW-EPA-9, MW-EPA-11, MW-EPA-12, or MW-EPA-13.

The groundwater sampling results indicate that MRP is the likely source of the groundwater contamination that has migrated beneath the residential neighborhood west of MRP.

Table 4
October 2014 Significant Groundwater Sampling Results

Location	Media	Parameter	Results	Units
MW-2	Groundwater	PCE	9.3*	µg/L
		TCE	ND	µg/L
MW-3	Groundwater	PCE	65*	µg/L
		TCE	ND	µg/L
MW-4	Groundwater	PCE	1,600*	µg/L
		TCE	24*	µg/L
MW-EPA-8	Groundwater	PCE	19,300*	µg/L
		TCE	ND	µg/L
MW-EPA-10	Groundwater	PCE	34*	µg/L
		TCE	ND	µg/L
MW-EPA-14	Groundwater	PCE	2,500*	µg/L
		TCE	ND	µg/L
Old PW	Groundwater	PCE	28*	µg/L
		TCE	ND	µg/L

Note: * indicates parameter at or above MCL; “ND” indicates below detection limit

3.3 U.S. EPA Time-Critical Removal Action Summary

The U.S. EPA removal action, known as the Valley Pike VOC Site, was initiated in December 2013. The removal action included sampling residences for vapor intrusion and installing mitigation systems at residences exceeding ODH screening levels for PCE and/or TCE. In November 2014, U.S. EPA expanded the area of investigation to include the residential area between Hypathia Ave (east), Forest Home Ave (north), Warrendale Ave (south), and Sagamore Ave (west).

As of January 20, 2015, approximately 302 residences have been sampled for vapor intrusion (sub-slab or indoor air). Eighty-three residences exceeded the ODH screening level for PCE and/or TCE. Vapor intrusion mitigation systems have been installed at 75 residences to date (EPA 2015). See Figure 6, Removal Action Summary Map**,** located in Appendix A. Vapor intrusion sampling and mitigation activities are on-going.

4.0 MIGRATION PATHWAYS

4.1 Soil Exposure Pathway

The soil exposure pathway has not been fully evaluated but may pose a threat to on-site workers via vapor intrusion and potential direct contact by a utility worker or construction worker. A limited number of subsurface soil samples were collected by U.S. EPA during the October 2014 sampling event. PCE and TCE exceeded their respective U.S. EPA Regional Screening Levels of 100,000 µg/kg and 6,000 µg/kg for industrial soil in one sample collected at MW-EPA-8, located next to the main building on the west side of the MRP property. PCE and TCE were detected at 2,040,000 µg/kg and 411,000 µg/kg, respectively, in a soil sample collected at 24-26 feet bgs at this location. Due to the depth of this soil sample, it is unlikely to pose a direct contact threat at this location. However, the high concentrations of PCE and TCE in subsurface soil indicate that a source is likely located beneath the slab of the main building at MRP.

4.2 Groundwater Pathway

The groundwater pathway is the main pathway of concern. There are four community drinking water systems within the four-mile radius target distance. MRP is located approximately 1,350 feet from the Dayton Mad River Well Field wellhead protection area and 1,600 feet from the Dayton Miami Well Field wellhead protection area. The closest production well is approximately 2,650 feet from MRP in the Dayton Mad River Well Field.

Dayton's two well fields have a total of 162 production wells and serve a population of 420,000. According to Dayton, each well serves approximately the same percentage of the population. Therefore, each well serves approximately

2600 individuals. Appendix B includes information on public water systems and census data.

The Dayton Mad River Well Field, located 0.36 miles southwest of MRP, is the water system most likely to be impacted by releases of VOCs from MRP. During the 2011 ESI, samples were collected from nine Dayton Mad River Well Field production wells located generally down-gradient of MRP. PCE and TCE were detected in five of the wells at concentrations below their respective MCL of 5 µg/L.

Groundwater sampling conducted in March 2014 indicates that the VOC plume extends to at least Broadmead Boulevard, which is approximately 3,300 feet west of MRP. PCE was detected at two locations, GP-4 and GP-9, at concentrations of 290 µg/L and 45.6 µg/L, respectively. The highest detection of TCE during the March 2014 sampling event was 12.4 µg/L at GP-9. U.S. EPA expanded the area of investigation for vapor intrusion further west to Prince Albert Boulevard based on the March 2014 groundwater sample results.

The October 2014 groundwater sampling results indicate high concentrations of PCE and lower, but still above MCL, concentrations of TCE in monitoring wells at and downgradient of MRP. The highest detection of PCE was 19,300 µg/L at MW-EPA-8, located next to the main building on the west side of the MRP property. The next two highest detections of PCE were at MW-EPA-14 (2,500 µg/L), located approximately 50 feet west and downgradient of MRP, and MW-4 (1,600 µg/L), located about 900 feet west of MRP on Hypathia Avenue in the residential neighborhood.

The VOC plume is a potential threat to downgradient public water supply wells. The ODH has also determined that a completed exposure pathway exists through vapor intrusion from groundwater to indoor air in the residential neighborhood downgradient of MRP. However, vapor intrusion is not a current pathway under the Hazard Ranking System.

4.3 Surface Water Pathway

The surface water pathway was not evaluated during the SR. However, Eastwood Lake and the Mad River are potential end points for storm water discharges from MRP.

4.4 Air Pathway

The air pathway was not evaluated during the SR. Vapor intrusion is not a current pathway under the Hazard Ranking System. However, the ODH has determined that a completed exposure pathway exists for vapor intrusion at the Valley Pike VOC Site. In December 2013, U.S. EPA initiated a removal action that includes sampling residences for vapor Intrusion and installing mitigation systems at residences exceeding ODH screening levels for PCE and/or TCE.

5.0 SUMMARY

Mullins Rubber Products is a rubber products manufacturing facility that has been active since 1942. The company uses TCE in its manufacturing processes. No past or current use of PCE has been reported by the company. In 2004, William R. Mullins, the company president, pled guilty to four counts of making false statements when reporting airborne discharges of TCE. Mr. Mullins also pled guilty to one count of failing to submit a Title V air permit by the October 1996 deadline.

During September and October 2014, U.S. EPA conducted a Contaminant Source Area Investigation. The investigation focused on Mullins Rubber Products, a suspected source of PCE and TCE contamination at the U.S. EPA removal action known as the Valley Pike VOC Site.

Sub-slab vapor samples collected from inside the Mullins Rubber Products main building in September 2014 had high levels of PCE and TCE. The highest detection of PCE was 3,550,000 µg/m^3 in a sub-slab sample collected near the degreaser. The sub-slab vapor sampling results indicate a source of PCE likely exists in soil beneath the MRP building.

Significant detections of PCE and TCE occurred in soil samples collected adjacent to the main building on the west side of the MRP property in October 2014. The highest detections of PCE and TCE at this location were 2,040,000 µg/kg and 411,000 µg/kg, respectively, in a soil sample collected at 24-26 feet bgs. Due to the depth of this soil sample, it is unlikely to pose a direct contact threat. However, the high concentrations of PCE and TCE in subsurface soil indicate that a source is likely located beneath the slab of the main building at MRP.

Groundwater sampling conducted by U.S. EPA in October 2014 indicates high concentrations of PCE and lower, but still above MCL, concentrations of TCE in monitoring wells at and downgradient of MRP. The highest detection of PCE was 19,300 µg/L at a monitoring well located next to the main building on the west side of the MRP property. The next two highest detections of PCE were 2,500 µg/L at a monitoring well located approximately 50 feet west of MRP, and 1,600 µg/L at a monitoring well located 900 feet west of MRP on Hypathia Avenue in the residential neighborhood.

Of the various locations that have been sampled in the Valley Pike VOC site area, the highest concentrations of PCE and TCE in soil, groundwater, and sub-slab vapor have been detected in samples collected on the MRP property, adjacent to and immediately southwest/downgradient of the MRP vapor degreaser and dry well areas (Tetra Tech 2015).

MRP is located approximately 1,300 feet north of the Dayton Mad River Well

Field WHPA area five-year time of travel delineation and 1,500 feet southeast of the Dayton Miami Well Field WHPA area five-year time of travel delineation. These well fields draw water from a federally designated sole source aquifer. The closest production well is PW-06, approximately 2,650 feet south of MRP in the Mad River Well Field. Five Dayton production wells located southwest of MRP had detections of PCE or TCE at concentrations below MCLs during a 2011 ESI sampling event.

Groundwater sampling conducted in 2014 indicates that the VOC plume extends to at least Broadmead Boulevard, which is approximately 3,300 feet west of MRP. The VOC plume is a potential threat to downgradient public water supply wells. ODH has also determined that a completed exposure pathway exists through vapor intrusion from groundwater to indoor air in the residential neighborhood downgradient of MRP. However, vapor intrusion is not currently a valid pathway for scoring under the CERCLA site assessment Hazard Ranking System.

The U.S. EPA removal action, known as the Valley Pike VOC Site, was initiated in December 2013. The removal action included sampling residences for vapor Intrusion and installing mitigation systems at residences exceeding ODH screening levels for PCE and/or TCE. Based on the 2014 groundwater sampling results, U.S. EPA expanded the area of investigation for vapor intrusion to include the residential area between Hypathia Ave (east), Forest Home Ave (north), Warrendale Ave (south), and Sagamore Ave (west).

As of January 20, 2015, approximately 302 residences have been sampled for vapor intrusion (sub-slab or Indoor air). Eighty-three residences exceeded the ODH screening level for PCE and/or TCE. Vapor intrusion mitigation systems have been installed at 75 residences to date (EPA 2015). Vapor intrusion sampling and mitigation activities are on-going.

6.0 REFERENCES

Norris, S.E., Speiker, A.M. 1966. Ground-Water Resources Of The Dayton Area, Ohio. U.S. Geological Survey Water-Supply Paper # 1808. 167 pp. http://pubs.usgs.gov/wsp/1808/report.pdf

Ohio Environmental Protection Agency (Ohio EPA). 2012. Expanded Site Inspection Report. Mullins Rubber Products, Riverside, Ohio.

Ohio Environmental Protection Agency (Ohio EPA). 2013. Supplemental Expanded Site Inspection Report. Mullins Rubber Products, Riverside, Ohio.

Tetra Tech, Inc. (Tetra Tech). 2015. Contaminant Source Area Investigation Report for the Valley Pike VOC Site. Riverside, Montgomery County, Ohio.

United States Environmental Protection Agency (EPA). 2015. Pollution/Situation Report for Valley Pike VOC Site.

Appendix A

Figures

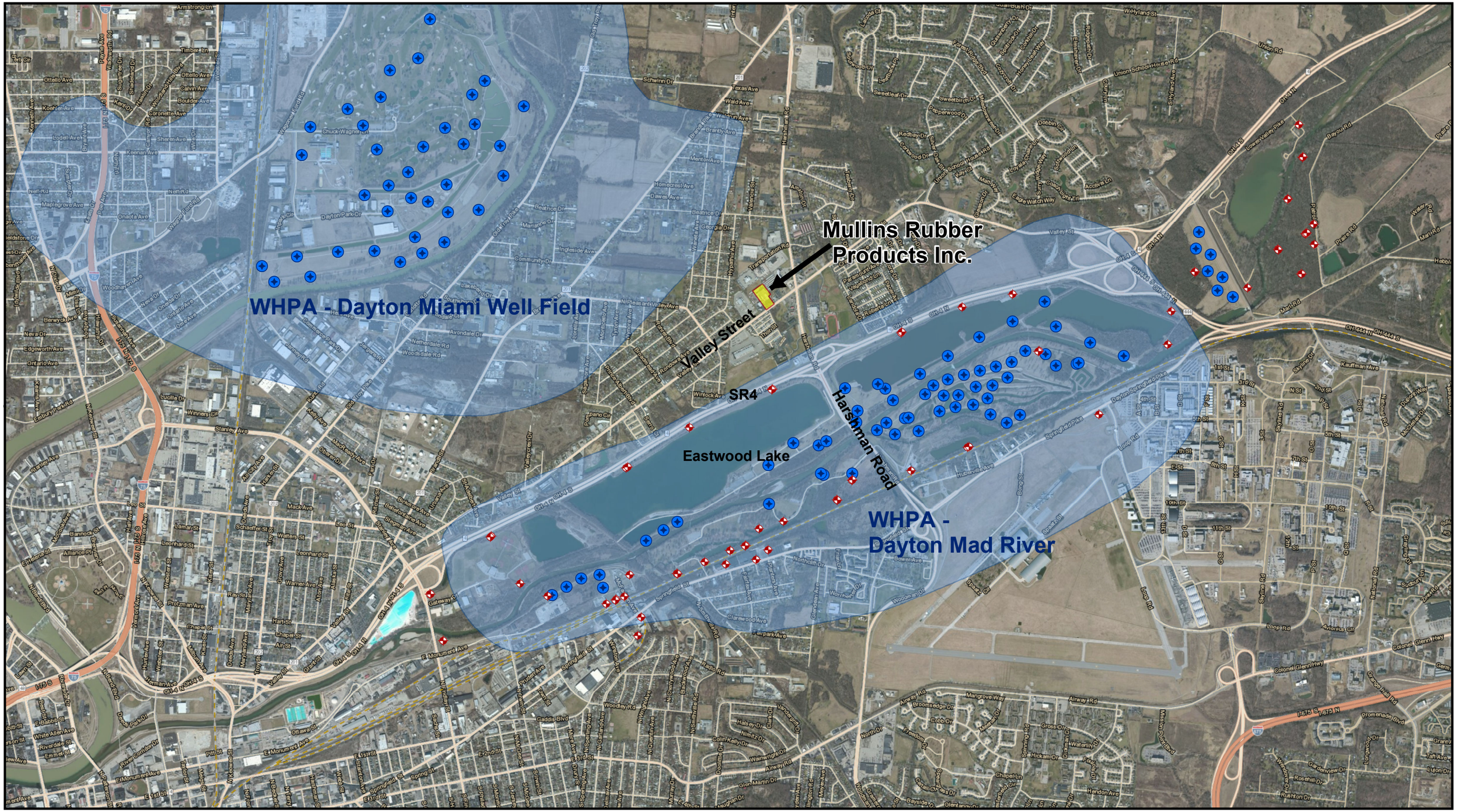


Figure 1. Site Location Map

Mullins Rubber Products, Inc.
Site Reassessment

0 0.25 0.5 1
Miles

N

LEGEND

- Mullins Rubber Products Property Boundary
- Dayton Mad River Early Warning Monitoring Wells
- Dayton Public Water Production Wells
- WHPA five-year time of travel delineation

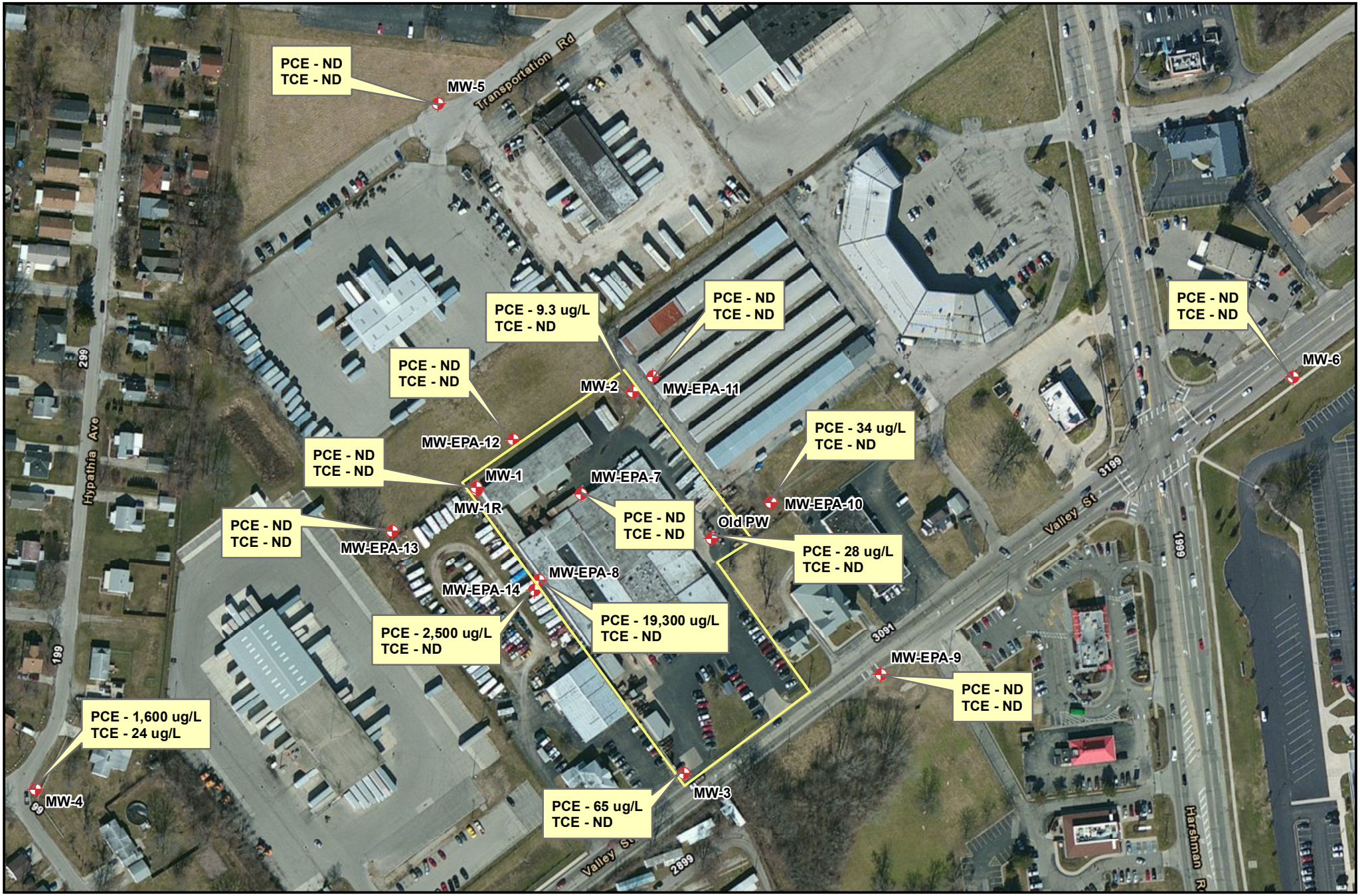


Figure 2. Monitoring Well Locations and October 2014 Sampling Results

Mullins Rubber Products, Inc.
Site Reassessment

N

0 200 400 Feet

LEGEND

Monitoring Well Location

Mullins Rubber Products, Inc.

ND = Not Detected

Figure 3. March 2014 Groundwater Sampling Results

Mullins Rubber Products, Inc.
Site Reassessment

LEGEND

Temporary Well Location

ND = Not Detected

NS = Not Sampled

N

0 500 1,000 Feet

OhioEPA

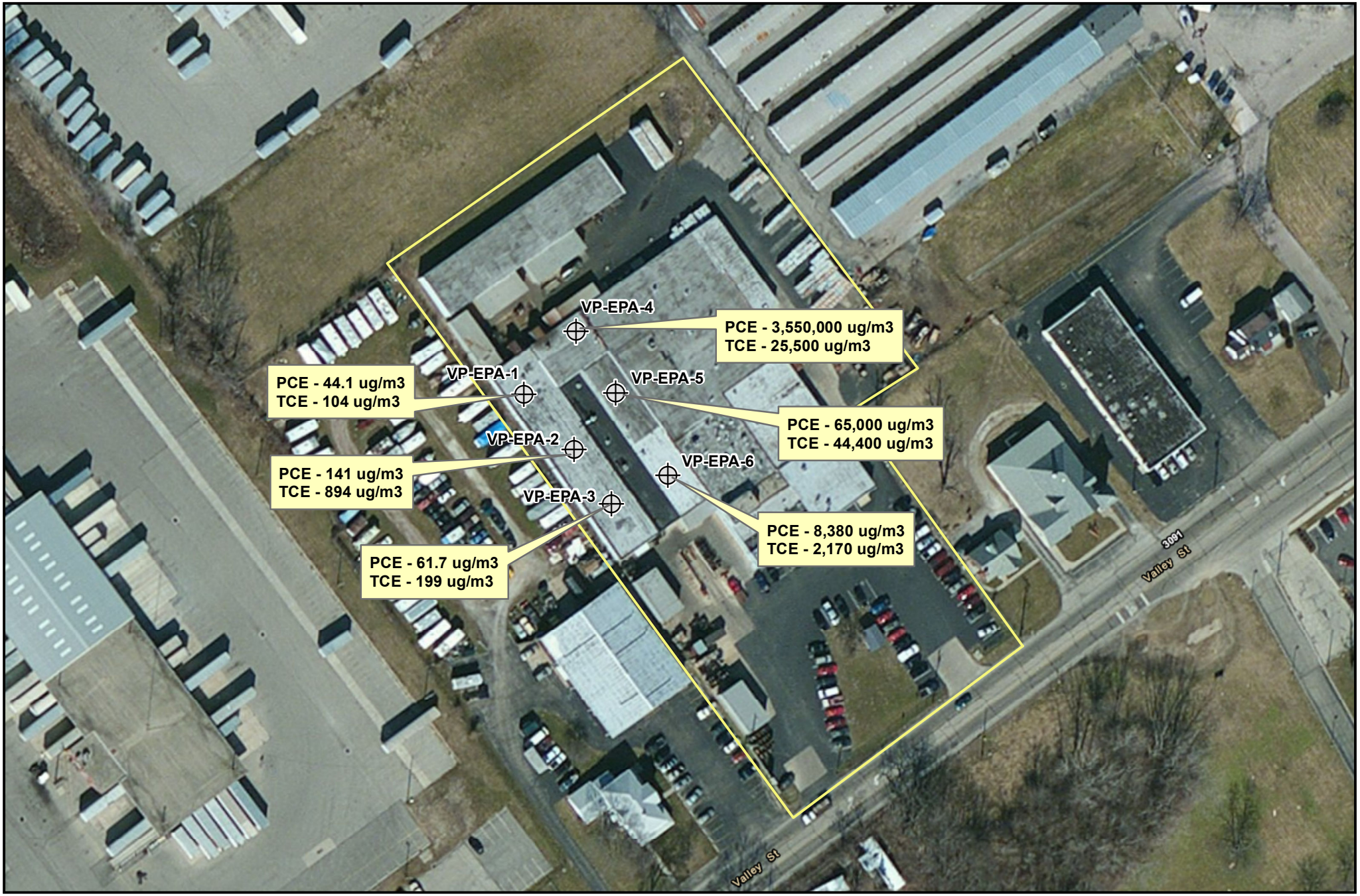


Figure 4. September 2014 Sub-Slab Vapor Sampling Results

Mullins Rubber Products, Inc.
Site Reassessment

N

0 125 250 Feet

LEGEND

Sub-Slab Vapor Probe Location

Mullins Rubber Products, Inc.

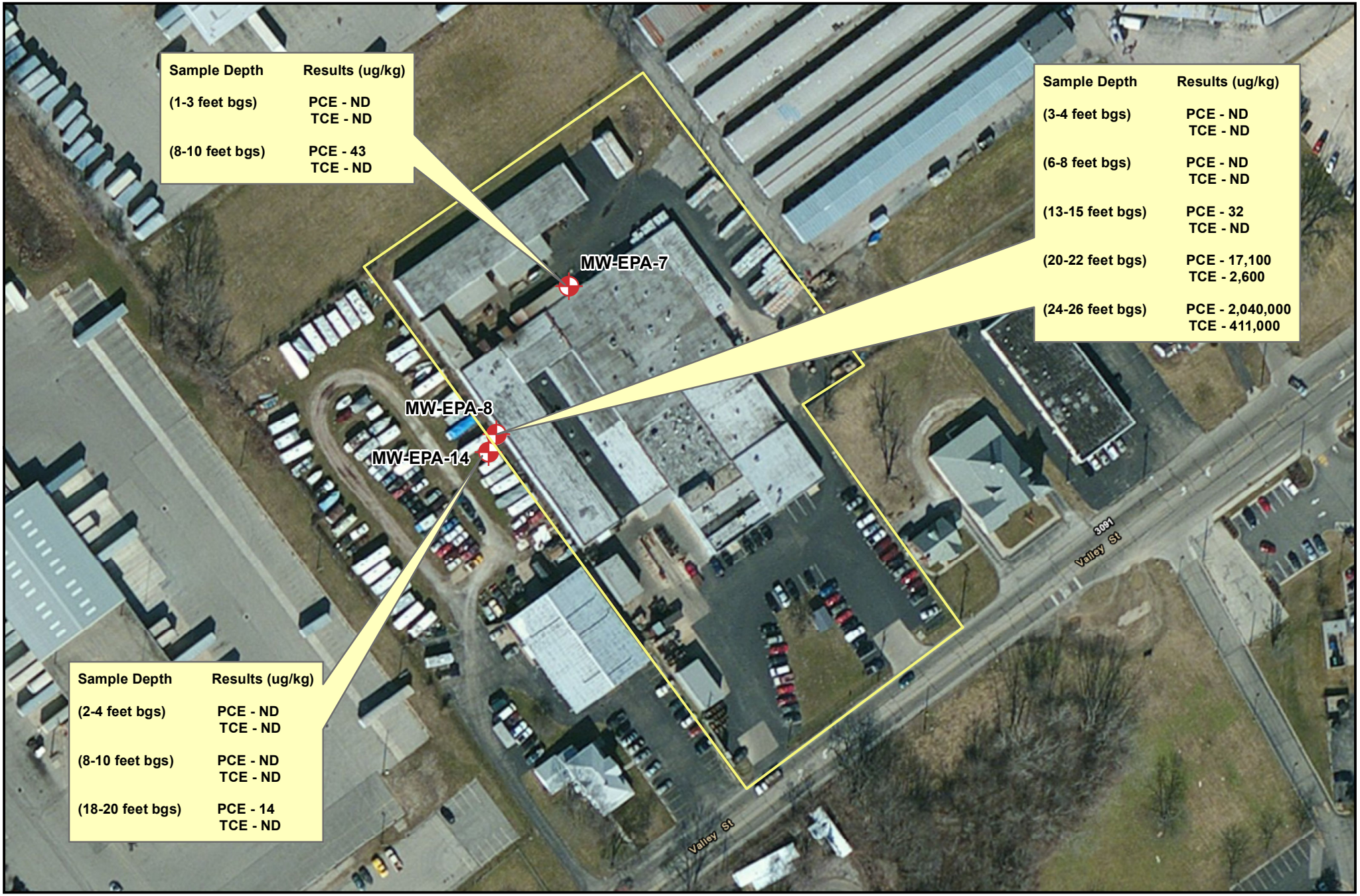


Figure 5. October 2014 Soil Sampling Locations and Results

Mullins Rubber Products, Inc.
Site Reassessment

N

0 125 250 Feet

LEGEND

Monitoring Well / Soil Sampling Location

Mullins Rubber Products, Inc.

ND = Not Detected

Legend

- Area of Concern
- Properties with Access Agreements
- Sample Results Greater Than Screening Levels
- Sample Results Less Than Screening Levels
- Homes Eligible for Resampling
- Resample Results Less Than Screening Levels
- Commercial Properties

Figure 6. Removal Action Summary Map
Valley Pike VOC Site

N

0 250 500 Feet

VALLEY PIKE VOC SITE
RIVERSIDE, MONTGOMERY COUNTY, OHIO

PROJECT SUMMARY MAP
10/14/2014

10/17/2014 G:\GIS\9026-START IV\Valley Pike VI Skelmed\Fig1-SampleResults-101414.mxd m.barh

Appendix B

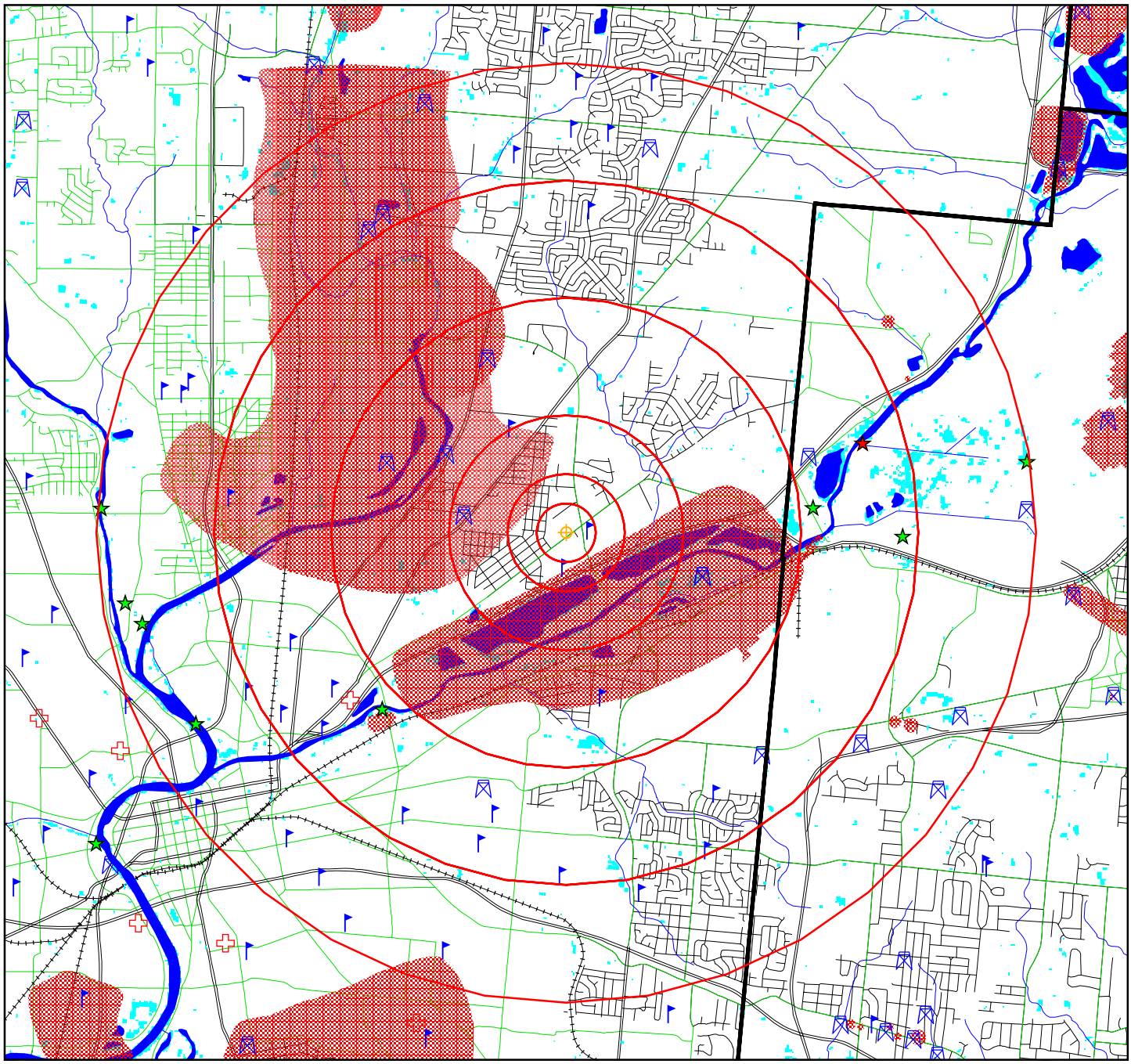
GIS Maps and Tables

Division of Emergency & Remedial Response

GEOGRAPHIC INFORMATION SYSTEM 4-MILE RADIUS MAP

Montgomery County

Mullins Rubber Products



- Site
- School
- Hospital
- Public Surface Water Systems
- Public Ground Water Systems
- US Endangered/Threatened Species
- Ohio Endangered/Threatened Species
- Wetland Area
- Lakes & Ponds
- Wellhead Protection Area
- Limit of Radius From Site
- County Boundaries
- Rivers & Streams
- Railroad
- State and Federal Highways
- Local Roads
- Municipal Roads

N

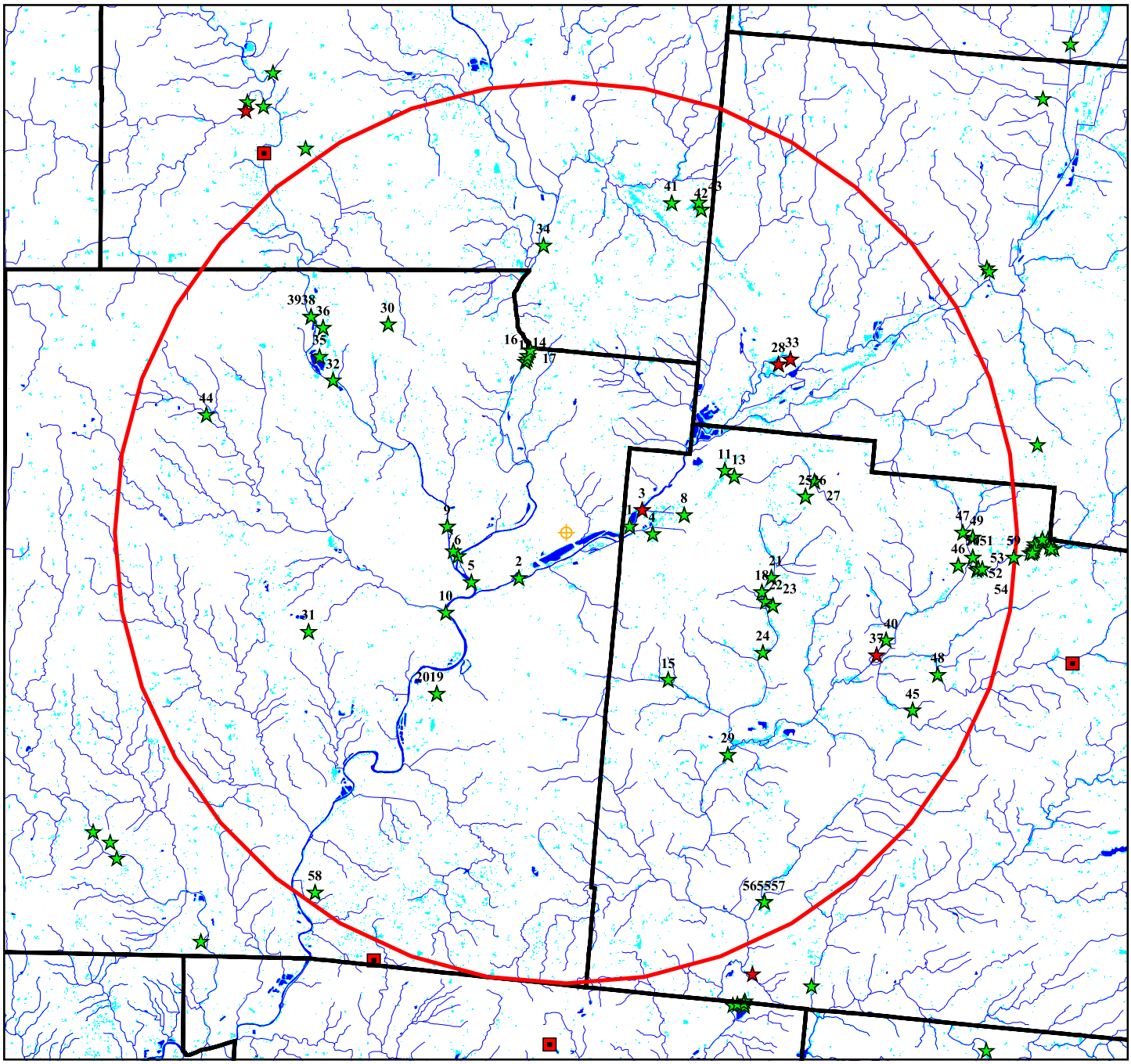
2 0 2 Miles

Division of Emergency & Remedial Response

GEOGRAPHIC INFORMATION SYSTEM 15-MILE RADIUS MAP

NATURAL HERITAGE DATA

Mullins Rubber Products



Site

US Endangered/Threatened Species

Ohio Endangered/Threatened Species

Public Surface Water Systems

Community

Non-Community/Transient

Non-Community/Non-Transient

Rivers & Streams

Wetland Area

Lakes & Ponds

Limit of Radius From Site

County Boundaries

4 0 4 8 Miles

N

Mullins Rubber Products

Ground Water Systems

ID	PWS_ID	SYS_TYPE	NAME	ADDRESS	CITY	STATE	DISTANCE	POPULATION
~~1~~	5746012	Non-Community/Transient	FIRST FREE WILL BAPTIST	1661 BRANDT PIKE	DAYTON	OH	0.8855	150
2	5700722	Community	DAYTON, CITY OF-OTTAWA P	3210 CHUCK WAGNER LANE	DAYTON	OH	1.2163	236,000
4	5702012	Community	HUBER HEIGHTS-PLANT #1	P.O. BOX 24099	HUBER HEIGHTS	OH	1.2213	29,250
~~5~~	5734812	Non-Community/Transient	HUNGARIAN E & R CHURCH	4457 TROY PIKE	DAYTON	OH	1.6236	250
6	5700712	Community	DAYTON, CITY OF-MIAMI PL	3210 CHUCK WAGNER LANE	DAYTON	OH	1.6421	184,000
7	2943512	Non-Community/Transient	DAYTON GYMNASTIC CLUB PA	4301 STATE ROUTE 4	DAYTON	OH	2.1597	300
8	5745612	Non-Community/Transient	BLESSED HOPE BAPTIST CH.	4461 FISHBURG ROAD	HUBER HEIGHTS	OH	2.2948	50
9	5736012	Non-Community/Transient	ORBIT INN/ANIMAL CASTLE	6030 AIRWAY ROAD	DAYTON	OH	2.5237	45
10	5737112	Non-Community/Transient	VOITURE 40-8, 34	4214 POWELL ROAD	DAYTON	OH	3.0740	30
11	2944912	Non-Community/Transient	W.O. WRIGHT'S	3979 COLONEL GLENN HWY.	FAIRBORN	OH	3.0856	75
12	5731212	Non-Community/Transient	CAPT JOHN C. POST LODGE	4275 POWELL ROAD	DAYTON	OH	3.1229	200
13	2902712	Community	HUBER HEIGHTS-PLANT #3	P.O. BOX 24099	HUBER HEIGHTS	OH	3.3449	400
14	2956203	Non-Community/Non-Transient	GREENE COUNTY - FAIRBORN	1122 BEAVER VALLEY ROAD	BEAVERCREEK	OH	3.7010	130
15	5746312	Non-Community/Transient	FELLOWSHIP ALLIANCE CHAP	4585 CHAMBERSBURG ROAD	HUBER HEIGHTS	OH	3.8483	35
16	2951112	Non-Community/Transient	SUBMARINE HOUSE	3899 GERMANY LANE	BEAVERCREEK	OH	3.8514	80
17	2955012	Non-Community/Transient	WPAFB MARKSMANSHIP FACIL	88 ABW/EM 5490 PEARSON ROAD	WRIGHT-PATTERSON	OH	3.9212	50

Mullins Rubber Products

2000 Census Data

RADIUS	TOTAL	WHITE	BLACK	INDIAN	ASIAN	HAWAII_PAC	OTHER
3.00 - 4.00	51,544	44,171	5,013	160	846	25	1,329
2.00 - 3.00	37,833	33,713	2,387	121	439	26	1,147
1.00 - 2.00	15,323	12,505	1,858	48	371	9	532
0.50 - 1.00	3,991	3,586	255	10	50	2	88
0.25 - 0.50	1,297	1,214	47	4	10	0	23
0.00 - 0.25	423	406	7	2	1	0	6
TOTALS	110,411	95,595	9,567	345	1,717	62	3,125

Mullins Rubber Products

Natural Heritage Data

ID	STATUS	DISTANCE	SCIENTIFIC NAME	COMMON NAME
1	State Endangered	2.1065	SISTRURUS CATENATUS	EASTERN MASSASAUGA
2	State Endangered	2.1735	GOMPHUS EXTERNUS	PLAINS CLUBTAIL
3	Federally Endangered	2.6325	MYOTIS SODALIS	INDIANA BAT
4	State Endangered	2.8599	SISTRURUS CATENATUS	EASTERN MASSASAUGA
5	State Threatened	3.5509	UNIOMERUS TETRALASMUS	PONDHORN
6	State Threatened	3.6966	DESCURAINIA PINNATA	TANSY MUSTARD
7	State Endangered	3.8067	PENSTEMON LAEVIGATUS	SMOOTH BEARD-TONGUE
8	State Endangered	3.9671	PAPAIPEMA BEERIANA	BEER'S NOCTUID
9	State Endangered	3.9719	EPIOBLASMA TRIQUETRA	SNUFFBOX
10	State Threatened	4.7987	NYCTANASSA VIOLACEA	YELLOW-CROWNED NIGHT-HERON
11	State Threatened	5.6567	BARTRAMIA LONGICAUDA	UPLAND SANDPIPER
12	State Threatened	5.8646	VIBURNUM MOLLE	SOFT-LEAVED ARROW-WOOD
13	State Threatened	5.8913	CAREX MESOCHOREA	MIDLAND SEDGE
14	State Threatened	5.9246	PENSTEMON PALLIDUS	DOWNY WHITE BEARD-TONGUE
15	State Threatened	5.9412	CLEMMYS GUTTATA	SPOTTED TURTLE
16	State Threatened	6.0294	VERATRUM WOODII	WOOD'S-HELLEBORE
17	State Threatened	6.2001	VERATRUM WOODII	WOOD'S-HELLEBORE
18	State Threatened	6.7853	CLONOPHIS KIRTLANDII	KIRTLAND'S SNAKE
19	State Endangered	6.8607	MUHLENBERGIA CUSPIDATA	PLAINS MUHLENBERGIA
20	State Threatened	6.8607	DRABA REPTANS	CAROLINA WHITLOW-GRASS
21	State Threatened	6.9703	CLONOPHIS KIRTLANDII	KIRTLAND'S SNAKE
22	State Threatened	7.0020	SELAGINELLA ECLIPES	MIDWEST SPIKE-MOSS
23	State Threatened	7.2828	CLONOPHIS KIRTLANDII	KIRTLAND'S SNAKE
24	State Threatened	7.6510	CLONOPHIS KIRTLANDII	KIRTLAND'S SNAKE
25	State Threatened	8.0425	SELAGINELLA ECLIPES	MIDWEST SPIKE-MOSS
26	State Threatened	8.0425	TRIGLOCHIN MARITIMUM	SEASIDE ARROW-GRASS
27	State Threatened	8.4327	SELAGINELLA ECLIPES	MIDWEST SPIKE-MOSS
28	Federally Threatened	9.0109	PLATANTHERA LEUCOPHAEA	PRAIRIE FRINGED ORCHID
29	State Endangered	9.1189	EPIOBLASMA TRIQUETRA	SNUFFBOX
30	State Threatened	9.1316	BARTRAMIA LONGICAUDA	UPLAND SANDPIPER
31	State Threatened	9.1814	CLONOPHIS KIRTLANDII	KIRTLAND'S SNAKE
32	State Endangered	9.2724	EPIOBLASMA TRIQUETRA	SNUFFBOX
33	Federally Threatened	9.4290	PLATANTHERA LEUCOPHAEA	PRAIRIE FRINGED ORCHID
34	State Threatened	9.5945	VERATRUM WOODII	WOOD'S-HELLEBORE
35	State Threatened	10.0863	LIPOCARPHA MICRANTHA	DWARF BULRUSH
36	State Threatened	10.5890	ARABIS HIRSUTA VAR ADPRESSIPILIS	SOUTHERN HAIRY ROCK CRESS
37	Federally Endangered	11.0910	PLEUROBEMA CLAVA	CLUBSHELL
38	State Endangered	11.1394	VILLOSA FABALIS	RAYED BEAN
39	State Endangered	11.1394	EPIOBLASMA TRIQUETRA	SNUFFBOX
40	State Threatened	11.2074	TRUNCILLA DONACIFORMIS	FAWNSFOOT
41	State Threatened	11.5257	TRIGLOCHIN MARITIMUM	SEASIDE ARROW-GRASS
42	State Threatened	11.6507	UTRICULARIA INTERMEDIA	FLAT-LEAVED BLADDERWORT
43	State Threatened	11.8330	CAREX RETROFLEXA VAR RETROFLEXA	REFLEXED SEDGE
44	State Threatened	12.6069	ORCONECTES SLOANII	SLOAN'S CRAYFISH
45	State Threatened	12.9433	SELAGINELLA ECLIPES	MIDWEST SPIKE-MOSS
46	State Threatened	13.0741	ORYZOPSIS RACEMOSA	MOUNTAIN-RICE
47	State Threatened	13.1795	ASPLENIUM RUTA-MURARIA	WALL-RUE
48	State Threatened	13.2187	EXOGLOSSUM LAURAE	TONGUETIED MINNOW
49	State Threatened	13.5031	TRIPHORA TRIANTHOPHORA	THREE-BIRDS ORCHID

Mullins Rubber Products

Natural Heritage Data

ID	STATUS	DISTANCE	SCIENTIFIC NAME	COMMON NAME
50	State Threatened	13.5314	ARABIS HIRSUTA VAR ADPRESSIPILIS	SOUTHERN HAIRY ROCK CRESS
51	State Threatened	13.5314	CAREX RETROFLEXA VAR RETROFLEXA	REFLEXED SEDGE
52	State Threatened	13.7044	EXOGLOSSUM LAURAE	TONGUETIED MINNOW
53	State Threatened	13.7444	CALAMINTHA ARKANSANA	LIMESTONE SAVORY
54	State Threatened	13.8785	MATELEA OBLIQUA	ANGLE-POD
55	State Threatened	13.9284	CLEMMYS GUTTATA	SPOTTED TURTLE
56	State Threatened	13.9284	SELAGINELLA ECLIPES	MIDWEST SPIKE-MOSS
57	State Threatened	13.9284	CALAMINTHA ARKANSANA	LIMESTONE SAVORY
58	State Endangered	14.5847	JUNCUS INTERIOR	INLAND RUSH
59	State Threatened	14.9043	ASPLENIUM RUTA-MURARIA	WALL-RUE

Appendix C

Tetra Tech Contaminant Source Area Investigation Report

7 April 2015

Mr. Steven Renninger
On-Scene Coordinator
U.S. Environmental Protection Agency
Region 5, Emergency Response Branch
26 W Martin Luther King Drive
Cincinnati, OH 45268

Subject: **Contaminant Source Area Investigation Report for the Valley Pike VOC Site**
Riverside, Montgomery County, Ohio
Superfund Technical Assessment Response Team (START) 4 No. EP-S5-13-01
Technical Direction Document No. S05-0001-1404-011
Document Tracking Number (DTN): 143

Dear Mr. Renninger:

Tetra Tech is submitting the electronic copy of the Contaminant Source Area Investigation Report for the above-referenced project. The attached report summarizes activities completed, data acquired, and results of the source area investigation completed between September and October 2014.
If you have any questions regarding this submittal, please call me at (937) 238-6743.

Sincerely,

Lauren Foster

Lauren Foster
Tetra Tech Project Manager

Enclosure

cc: Kevin Scott, Tetra Tech START IV Program Manager
TDD File

250 W Court Street, Suite 200W, Cincinnati, OH 45202
Tel 513.333.4813 Fax 513.251.0200

CONTAMINANT SOURCE AREA INVESTIGATION

Valley Pike VOC Site
Riverside, Montgomery County, Ohio
April 7, 2015

Prepared for:

Steve Renninger – On-Scene Coordinator
U.S Environmental Protection Agency Region 5

Prepared by:

Tetra Tech, Inc.
250 West Court Street, 200W
Cincinnati, Ohio 45202

Document Tracking Number: 143

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APPENDICES

Appendix

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B Boring Logs and Monitoring Well Construction Details
C Sub-Slab Vapor Sample Analytical Data
D Soil and Groundwater Analytical Data

FIGURES (follow text)

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1 Site Location

2 Site Features

3 Sampling Locations and Cross Section Lines

4 Geologic Cross Section A-A'

5 Geologic Cross Section B-B'

6 Piezometric Elevations and Groundwater Flow Direction

7 Sub-Slab Vapor Sample PCE and TCE Results

8 Soil Sample PCE and TCE Results

9 Grab Groundwater Sample PCE and TCE Results

10 Groundwater Monitoring Well Sample PCE and TCE Results

11 PCE in Vapor, Soil, Water - Conceptual Site Model

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1 Summary of Monitoring Well and Piezometric Elevations

2 Summary of Sub-Slab Vapor Analytical Data

3 Summary of Soil and Groundwater Analytical Data

1.0 INTRODUCTION

Tetra Tech, Inc. (Tetra Tech) completed an investigation of potential source areas of volatile organic compound (VOC) contamination in the vicinity of the Valley Pike VOC Site in Riverside, Montgomery County, Ohio (the site). The work was completed for U.S. Environmental Protection Agency (EPA) Region 5 under the Superfund Technical Assistance and Response Team (START) IV contract. Project activities, including acquisition of site access agreements, were coordinated by the EPA On-scene Coordinator (OSC) Steven Renninger. EPA's Emergency and Rapid Response Services (ERRS) contractor, Environmental Quality Management (EQM), provided logistical and technical support for various components of the project.

The primary objective of the investigation was to identify possible sources or source areas of VOC contamination impacting groundwater and subsequently indoor air quality via vapor intrusion (VI) in the vicinity of Valley Pike. The investigation included installing and sampling sub-slab vapor probes; advancing soil borings with collection and analysis of soil and groundwater samples; installing, surveying, and sampling groundwater monitoring wells; and measuring groundwater elevations. The investigation was completed between September and October 2014.

This report summarizes activities completed, data acquired, and results of the investigation. This report includes the following sections:

- 1.0 Introduction
- 2.0 Site and Project Background
- 3.0 Source Area Investigation Activities
- 4.0 Sample Analysis and Quality Assurance (QA)
- 5.0 Summary of Field Observations and Analytical Data
- 6.0 Investigation Summary and Conclusions
- 7.0 References

Figures supporting the report appear immediately following the text. Tables supporting the report appear immediately following the figures. Additional information regarding pertinent site features; boring logs and well construction diagrams; and analytical data validation reports appear in Appendices A through D.

2.0 SITE AND PROJECT BACKGROUND

This section describes the location, features, and setting of the site; identifies potential source areas found to date; and recounts past investigations of the site.

2.1 SITE DESCRIPTION

The Valley Pike VOC site is an area of groundwater contamination within the City of Riverside, Montgomery County, Ohio (Figure 1). The area is primarily north of Valley Pike (also known as Valley Street), and approximately 0.5 mile north of the Mad River, which flows from northeast to southwest through the area. The area of contamination is bordered on the north by Forest Home Avenue, south by Valley Pike, and west by Sagamore Avenue (Figure 1). The source of contamination is believed to be located within a mixed commercial and industrial area located east of Hypathia Avenue, west of Harshman Road, south of Transportation Drive and north of Valley Pike; this area generally comprised the study area for the source area investigation that is the subject of this report (Figures 1 and 2).

The contamination consists of chlorinated VOCs—primarily tetrachloroethene (PCE) and lesser amounts of trichloroethene (TCE). The contamination has migrated beneath a residential neighborhood extending westward from Hypathia Avenue where vapor intrusion (VI) from the PCE- and TCE-contaminated, shallow groundwater plume has been documented (United States Environmental Protection Agency [EPA] 2014). VI occurs when volatile chemicals are released onto the ground or into groundwater, migrate, volatilize, and infiltrate a building. Migration typically occurs via gravity to either a low-permeability layer (clays or silts) or groundwater, and then proceeds laterally via groundwater flow or preferential pathways (utility lines) to beneath a building. Once beneath the building, VOC vapors infiltrate the building through cracks in the foundation, cracks in a concrete slab, or directly through a dirt floor. VOCs such as PCE and TCE volatilize under normal atmospheric conditions.

Figure 3 shows locations of geologic cross sections in the site vicinity, and these cross sections are depicted on Figures 4 and 5. Subsurface materials in the area consist of highly permeable sand and gravel with interbedded clay and silt layers. Groundwater contamination is present primarily within, and moving through, the sand and gravel layers. Depth to groundwater in the area is approximately 19 to 26 feet below ground surface (bgs). The prevailing natural groundwater flow direction is southwest, roughly parallel to Valley Pike and the Mad River Valley, which is part of a highly productive sole-source aquifer system in the region. Groundwater contamination appears to have migrated primarily southwestward through the site area.

Figures 2 and 3 depict the various structures, roads, and businesses in the area. The groundwater contaminant plume appears to originate within a mixed industrial and commercial area west of Harshman Road and east of the aforementioned residential neighborhood. Businesses along Harshman Road include retail operations, restaurants, and gas stations. Moving west, the area includes a trucking/transfer facility (Old Dominion Freight [ODF]) along Transportation Drive, a storage rental facility (Rockcastle Storage), a church, and a small retail/office center. West of the church and Rockcastle Storage is an industrial facility (Mullins Rubber Products [MRP]), and farther west is an automotive repair shop (Paul's Garage). Another trucking/transfer facility (YRC Freight) is west of Paul's Garage. Moving southwest, the plume then passes beneath an area that transitions to mostly single-family residential use,

along and west of Hypathia Avenue. The neighborhood is approximately 900 feet southwest of the MRP facility. Data acquired by the Ohio Environmental Protection Agency (Ohio EPA) and EPA have indicated that VI from the groundwater VOC contamination is a concern in structures above the plume area, including residences (EPA 2014).

Local terrain is flat at elevations ranging from approximately 780 to 783 feet above mean sea level (amsl). The area is served by a public water system (from a source outside the area of the plume), and sanitary and storm sewer systems. However, stormwater on many individual properties is managed by in-site infiltration, in some cases through use of constructed dry wells. Ohio Department of Natural Resources (ODNR) logs also identify private water supply wells throughout the area; local municipal ordinances forbid use of these as potable water sources, although some local residents reportedly use water from these wells for non-potable purposes including watering lawns and other activities. (Ohio EPA 2012, 2013).

2.2 SITE HISTORY, OPERATIONS, AND PAST INVESTIGATIONS

The following sections recount the site history and briefly summarize previous investigations completed at the site.

2.2.1 Site History and Operations

The area in the site vicinity underwent extensive development between 1900 and the 1950s. Primary uses of land in the area transitioned gradually from agricultural to a mixture of primarily commercial and residential. Several reported former auto garages and gas stations, and one possible dry cleaner, formerly operated in the area. However, data acquired during prior investigations (or the 2014 Source Area Investigation) have not indicated that the contaminant plume is present within areas associated with these former operations, and thus these former operations are not suspected currently to have been sources of PCE or TCE.

Within the site vicinity, VOC groundwater contamination has been detected at three non-residential properties. Relatively high concentrations have been detected in samples collected at MRP, at adjacent portions of the Paul's Garage property (directly southwest of MRP), and downgradient (regarding groundwater flow) of MRP. Low concentrations of PCE have been detected in one well on the Rockcastle Storage property, northeast and upgradient of MRP, within an area close to MRP's production well area. Each of these areas and results from sampling at each are discussed in more detail throughout this report. Properties where VOC contamination has been detected are discussed as follows:

MRP

Data acquired from sampling at the MRP property have indicated presence of both PCE and TCE in soil, groundwater, and sub-slab vapor. Reportedly, MRP historically used chlorinated solvents in its operations. Information provided by MRP states that MRP has historically used and currently uses TCE, and has not used PCE in its processes (Dinsmore and Shohl, LLP 2013).

MRP began operations in 1942 as the Mullins Tire and Rubber Company. The primary operation at that time was retreading used tires. In 1955, the business expanded from tires into molding different types of rubber products. Beginning in the mid-1960s, the company has

focused on molding heavy-duty truck trailer suspension bushings. The MRP property is owned by Mullins Land Company, Inc. (Ohio EPA 2012, 2013).

Historical aerial photographs indicate that site operations began at the approximate center of the area within the present property boundaries. Two small barns were present along what is now the western property line. As the business expanded, the buildings housing site operations were rebuilt and expanded generally northward and westward. Today, most of the northern two-thirds of the property is covered by structures. On the west side of the property, these structures extend to within 6 feet of the fence that separates MRP from the neighboring Paul's Garage property. Most of the southern portion of the MRP property, between the plant operations buildings and Valley Pike, is used as a parking area (Ohio EPA 2012).

MRP is connected to the municipal sanitary sewer system; however, a septic system located between the front of the building and Valley Pike was used prior to the sewer connection (see Appendix A).

As part of MRP's current manufacturing process, metal parts are degreased with chlorinated solvent in two vapor degreasers, prior to bonding with rubber parts. The vapor degreasers are in the northwest part of the manufacturing area, near the north end of the building. According to MRP, the process uses, and has historically used, TCE since 1968 (Dinsmore and Shohl, LLP. 2013). Non-contact cooling water from degreasing tanks associated with the manufacturing process previously discharged into the series of "dry" wells on the northern portion of the MRP facility (see below for descriptions, and Appendix A for a log of one such well). In 2012, MRP installed a closed loop chiller system that eliminated the need to discharge cooling water to the injection wells. Until the chiller system was operational, the wells were used to return the cooling water to the shallow sand and gravel formation (Ohio EPA 2012, 2013).

Currently on the MRP property are the main building (including the series of attached expansions completed over the past 40+ years), several storage sheds, and four production wells. The active deep production well, at the east/central part of the property, formerly produced about 300 gallons per minute for 8 hours a day. Currently, the production well is used only infrequently to "top off" the closed loop system. Two deep production wells are on stand-by. A fourth shallow well (50 feet deep) is damaged and is no longer used but remains in place. All production wells are on the east side of the MRP facility (Ohio EPA 2012, 2013).

MRP reportedly utilized a total of seven wells (referred to as "dry" wells) for management of non-contact cooling water, storm drainage, and boiler blow-down water. These are underground structures that formerly disposed of water used in facility operations by discharging it into the ground, where it merged with local groundwater (Ohio EPA 2012, 2013). Although all of these structures are referred to by MRP as "dry wells," a log for one of these wells (included in Appendix A and available at ODNR's website) indicates that this well extended to 50 feet bgs, through an upper clay/glacial till layer and into the sand and gravel aquifer below, and thus discharged water directly into the local aquifer (ODNR 1972). This type of well (commonly referred to as an injection well) differs in construction from other wells referred to as "dry" wells in the site area that are used solely for stormwater management, and which collect and allow surface drainage to infiltrate directly into the shallow subsurface through the vadose zone. Some of the MRP injection wells were reportedly interconnected. The MRP wells were considered Class V injection wells under the Ohio Underground Injection Control (UIC) Program. Permits were not issued, but the wells were registered with Ohio EPA. In 2012, Ohio

EPA required MRP to terminate use of the wells due to presence of PCE in local groundwater (Ohio EPA 2012, 2013).

Paul's Garage

Paul's Garage is an automotive service facility that includes a metal building, a residence, and area in back used by lessees for long-term storage of large recreational vehicles (RV), campers, and boats (Figure 2). Paul's Garage began operations in the 1960s. The property was originally part of the same property as MRP but does not appear to have been used for MRP operations. Chlorinated solvents are sometimes used in automotive repair facilities to degrease various metal parts. A 500-gallon underground storage tank (UST) that reportedly formerly contained waste oil was present off the northwest corner of the building. Information provided by Paul's Garage indicates that the UST was used from 1973 to 1985, and was subsequently removed with State of Ohio oversight. According to the information provided, a groundwater monitoring well was installed directly downgradient of the UST site and was sampled, and no further action was required. Available information has not indicated presence of any dry wells or production wells at the Paul's Garage property. The northeastern border of the Paul's Garage property is separated from the MRP property by a chain-link fence (Paul's Garage 2013).

Rockcastle Storage

Rockcastle Storage was constructed in the 1980s. Historical aerial photographs show that the land was undeveloped prior to that time. The facility includes a front office at the east end of the property that is also used as a residence by the site manager. Six rows of storage structures are west of the office, and together with the access driveways, cover most of the property. A large, dry, well/stormwater basin is within the only unpaved area, at the southern end of the property (Figure 2).

2.2.2 Previous Investigations

In November 2010, Ohio EPA conducted a Site Inspection at MRP (EPA ID# OHN000510489), and determined that groundwater flow is to the southwest of the MRP facility. Six groundwater samples were collected by use of Geoprobe direct-push technology (DPT). The active deep production well was sampled, along with dry well number DW-2, which reportedly had received cooling water from the degreasing tanks. Sample results indicated significant levels of PCE and lower levels of TCE in three of the samples. PCE was detected at 156 micrograms per liter (µg/L) or parts per billion (ppb), and TCE was detected at 6.18 ppb in the active production well sample. At the time of sampling, water from this production well entered the cooling water system and was discharged to either dry well DW-2 or DW-3. The sample collected from DW-2 also contained PCE and TCE, but at lower concentrations (77 and 2.2 ppb, respectively) than in the production well sample. PCE and TCE concentrations (58 and 11 ppb, respectively) were also detected in a shallow Geoprobe groundwater sample collected at the southwest corner of the MRP facility (downgradient location). In summary, Ohio EPA's 2010 sampling activities documented PCE and TCE contamination in the active production well and dry wells at the MRP facility (Ohio EPA 2012, 2013).

Ohio EPA conducted an Expanded Site Inspection (ESI) during December 2011. Three Geoprobe™ pre-packed monitoring wells were installed. The well at the northwest corner of the MRP property (location MW-1) did not reach the main shallow aquifer, rendering it unsuitable for

water level measurements. PCE was detected at 300 ppb at location MW-3, at the southwest corner of the MRP property (Ohio EPA 2012, 2013).

Ohio EPA completed a Supplemental ESI (SESI) at and around MRP in February and March 2013. The investigation included advancements of 18 direct-push borings, collection of groundwater samples, and installation of 4 additional monitoring wells, including a well on Hypathia Avenue, within the off-property residential area downgradient of MRP. SESI sampling results indicated significant detections of PCE and TCE in the shallow sand and gravel aquifer. In addition, Ohio EPA detected PCE concentrations ranging from 5 to 14,000 ppb along the southwestern perimeter (downgradient) of the MRP facility, and from nondetect to 31 ppb along the northeastern perimeter (upgradient) of the MRP facility. The highest concentration (14,000 ppb) was detected in a sample collected from a Geoprobe boring advanced on the Paul's Garage property, approximately 30 feet west (downgradient) of the Mullins property line, in an area that Paul's Garage reportedly uses only for parking/storing RVs. Based on these groundwater sample results, the 2013 Ohio EPA SESI report concluded that the PCE source is east of sample location GW-14 (Ohio EPA 2013).

Additionally, PCE was detected in groundwater at 1,500 ppb at MW-4 on Hypathia Avenue in the residential area 900 feet southwest of the MRP facility. Detection of VOCs in the groundwater underlying this residential area, downgradient of the MRP facility, prompted Ohio EPA to request EPA removal assistance in May 2013 to investigate potential VI at the site (EPA 2014).

On June 14, 2013, the Health Assessment Section of the Ohio Department of Health (ODH) provided health-based guidance to evaluate results from VI sub-slab vapor and indoor air sampling for contaminants of concern at the site. ODH specified residential and nonresidential sub-slab vapor and indoor air screening and action levels (EPA 2014).

In July and August 2013, EPA conducted a Removal Site Investigation at the site including sampling of groundwater, soil gas, and residential VI sub-slab vapor and indoor air. Ohio EPA's Site Investigation Field Unit (SIFU) provided a Geoprobe unit, and installed 16 soil gas probes at nine locations southwest of the MRP facility. At each soil gas probe location, if water was encountered, a groundwater sample was collected. EPA analyzed four groundwater samples during the investigation. Groundwater samples SG-2-GW, GW-7, and GW-8 were collected within the neighborhood southwest of the MRP facility between Hypathia Ave and Pleasant Valley Ave. Groundwater sample GW-9 was collected adjacent to the southwest side of the MRP facility (downgradient of the facility). Sample GW-9 contained the highest PCE concentration at 20,000 ppb. The groundwater sample collected at SG-8 (sample GW-8) showed the highest TCE concentration at 47 ppb. The highest PCE groundwater concentrations detected under the neighborhood southwest of the MRP facility ranged from 240 to 800 ppb. (EPA 2014).

Based on results from these investigations, EPA initiated a time-critical removal action at the site in December 2013. Between December 2013 and October 2014, EPA documented a completed exposure pathway for VI at the site, as PCE was documented in groundwater (highest level of 20,000 µg/L), in soil gas (highest level of 30,000 ppbv), in residential sub-slab vapor (highest level of 8,200 ppbv), and in residential indoor air (highest level of 32 ppbv). Moreover, a second complete exposure pathway for VI was documented at the site, as TCE was documented in the groundwater (highest level of 47 µg/L), in soil gas (highest level of

5,600 ppbv), in residential sub-slab vapor (highest level of 160 ppbv), and in residential indoor air (highest level of 0.92 ppbv) (EPA 2014).

Between December 2013 and October 2014, EPA completed VI removal activities as summarized below:

- Sampled 277 residential properties (sub-slab vapor or indoor air), at 80 of which PCE and/or TCE concentrations exceeded Agency for Toxic Substances and Disease (ATSDR) and ODH screening levels
- Completed installation of residential Vapor Abatement Systems at 75 of 80 residences.

The following range and frequency of detections were identified in the 2013-2014 EPA residential baseline sample results:

- PCE was detected in 88% of residential sub-slab vapor sample results. PCE was detected within a range of 0.13-27,300 ppbv in residential sub-slab vapor sample results—up to 450 times the ATSDR/ODH screening level.
- TCE was detected in 60% of residential sub-slab vapor sample results. TCE was detected within a range of 0.13-1,120 ppbv in residential sub-slab vapor sample results—up to 280 times the ATSDR/ODH screening level (EPA 2014; ODH 2014).

3.0 SOURCE AREA INVESTIGATION ACTIVITIES

Based on results from previous investigations, the need to locate a source area of the contamination, and the possible need for permanent remediation of the source or sources, EPA completed a Source Area Investigation in 2014. The investigation centered on the area in the vicinity of the highest detected groundwater concentrations of PCE, which previous investigations had indicated as near the MRP/Paul's Garage property border and included multiple properties and areas both directly upgradient and and lateral to the MRP and Paul's Garage properties. The locations were selected based on review of historical documentation including past history and previous investigations, knowledge of the local groundwater flow direction, and accessibility. Investigation locations were selected via collaboration between EPA and Ohio EPA, and were cleared with the respective property owners. Figure 3 shows the sampling locations.

Sampling locations and field and analytical procedures complied with a site-specific Sampling and Analysis Plan (SAP) approved by EPA in September 2014 (Tetra Tech 2014). Samples were managed under appropriate chain of custody, and preservation and shipping procedures also specified in the SAP. The investigation included the following data acquisition activities:

- Field staking of proposed sampling locations and utilities clearance
- A round of groundwater elevation measurements at all existing site monitoring wells
- Collection and analysis of sub-slab vapor samples at six locations within the Mullins plant structure
- Advancement of seven Rotosonic borings and two DPT borings; collection of soil and groundwater samples within select depth intervals; and installation, development, and surveys of groundwater monitoring wells
- Collection of groundwater samples from all newly installed wells (at MW-EPA-7 through -14) and previously existing monitoring wells (MW-1 through MW-6) at the site.

The following sections describe field sampling activities.

3.1 SUB-SLAB SAMPLING

Most of the northern portion of the MRP site is covered with structures, and spatial constraints and work activities at MRP prevented conventional drilling and soil or groundwater sampling activities. Also for this reason, sub-slab vapor samples were collected at six locations (VP-EPA-1, -2, -3, -4, -5, and -6) beneath the floor slabs in the western portion of the MRP manufacturing building (see Figure 3). Prior to installation of the probes, to ensure lack of utilities within the area of sub-slab vapor sampling, sampling locations were cleared with MRP management and checked by a geophysics contractor (Bloodhound, Inc.). Three locations were parallel to and near the western wall of the structure (VP-EPA-1, -2, -3), and three additional locations were sampled in the next section of the structure to the east (VP-EPA-4, -5, -6), including one sample in the vapor degreaser room (VP-EPA-4).

EPA START personnel conducted sampling on September 27 and 28, 2014, conforming to the SAP and EPA and Ohio EPA guidance for collection of VI samples.

Sub-slab sample ports were assembled and installed at each of the six sampling locations. A shroud leak test was performed on the entire sample train. Sample collection began at each location following successful completion of the leak check. Leak checks and sample collection occurred in the same sequence as port installation: VP-EPA-3, VP-EPA-2, VP-EPA-1, VP-EPA-5, VP-EPA-6, and VP-EPA-4.

Samples were collected following assembly and installation of permanent sub-slab sample ports through the concrete floor of the building foundation. To install each sample port, a hammer drill was used to drill completely through the slab, extending several inches past the bottom of the slab. A stainless steel sample port was then assembled, using 0.25-inch stainless steel tubing and a connector consisting of Swagelok fittings. The length of each stainless steel sample port was determined at each location to ensure that the port would extend less than 1 inch beyond the bottom of the slab. Sample ports were sealed in place by use of quick-set hydraulic cement.

After installation of all six sub-slab sampling ports, a shroud leak check was performed at each location immediately prior to initiation of sampling. The shroud enclosed the entire sample train, including the sub-slab probe, the SUMMA canister, 3-way fitting and toggle valve, and all connections between. Laboratory-grade helium (99.99% helium) was used as a tracer gas, and an MGD-2002 was used to monitor helium concentrations. After concentration of helium in the shroud reached at least 50 percent saturation at each location, the toggle valve, an air sampling pump, lung box, and 1-liter tedlar bag were used to monitor the sampling train. The concentration of helium in the sampling train was confirmed to be less than 10 percent the concentration of helium in the shroud prior to sampling at each location. The sampling train was also monitored for organic vapors by use of a photoionization detector (PID) during the leak check. Sample collection began immediately after successful completion of the leak check at each location. Samples were collected by use of certified SUMMA vacuum canisters for a 24-hour period. EPA START documented vacuum pressure upon start and completion of the sampling period to ensure that vacuum pressure remained at termination of sampling. The samples were shipped under chain of custody to Pace Analytical Laboratories (Pace) in Minneapolis, Minnesota, for VOC analysis via Method TO-15.

3.2 SOIL BORINGS AND SOIL/GROUNDWATER GRAB SAMPLING

Eight boring locations were proposed based on the objectives of locating potential source areas within the plume area and evaluating background conditions for any potential source area identified (Figure 3). Boring locations were marked and cleared for utilities by a private contractor using ground penetrating radar (GPR), and also cleared through Ohio Utilities Protection Service (OUPS). Locations on private property (MRP, ODF, Paul's Garage, and Rockcastle Storage) were cleared via access agreements with their respective owners or property managers and via legal counsel where applicable. One location was within a City of Riverside right-of-way on Valley Pike, and was approved by the City.

Drilling at the Rockcastle property commenced on October 6, 2014, (locations MW-EPA-10 and -11). Drilling services were provided by Cascade Drilling, Inc. Drilling progressed in the general direction of upgradient to downgradient to avoid potential for cross contamination within any zones that might be highly contaminated.

A rotosonic drill rig provided by Cascade Drilling, Inc. was utilized to complete the six borings for installation of the following monitoring wells; MW-EPA-7, MW-EPA-10, MW-EPA-11, MW-EPA-12, MW-EPA-13, and MW-EPA-14. Because of spatial constraints, a DPT rig provided and

operated by Envirocore, Inc. was utilized to complete the two borings for installation of monitoring wells at MW-EPA-8 and MW-EPA-9. Boring logs are in Appendix B. Soil cores were collected at each boring location continuously until the boring reached the desired depth.

Immediately after each soil core was opened, it was inspected for staining or odors, and field-screened for organic vapors using a PID. A portion of each interval was also placed in a plastic bag, allowed to warm, and screened again for VOCs. PID readings are included on the boring logs in Appendix B. The core was observed and logged for lithology and moisture content.

Subsurface material consisted of varying thicknesses of glacial-derived, unconsolidated deposits as described in Section 5. The dense gray till layer was thickest (20 feet) on the ODF property at MW-EPA-13, and was absent at MW-EPA-9 on Valley Pike.

Typically, groundwater was not present above the till; however minor amounts of moisture indicative of a seasonal or “perched” zone were encountered above the till in the borings for wells MW-EPA-8, MW-EPA-11, and MW-EPA-14. At the other locations, visibly saturated material was encountered immediately below the dense till in coarse sands and gravels. At locations where till was encountered, water levels in the completed monitoring wells were measured several feet above the top of the till, to depths ranging from approximately 19 to 26 feet bgs.

Soil samples were collected from the two borings (MW-EPA-7 and MW-EPA-8) on MRP property and from the one boring (MW-EPA-14) on Paul’s Garage property. Three samples were collected from each of the three borings within the following intervals: the 0-5 foot bgs horizon, the 5-10 foot bgs horizon, and the 10-20 foot bgs horizon.

Additional samples were collected at the boring for well MW-EPA-8 (on the western portion of the MRP property) based on PID readings. PID readings from field screening of soil cores at this location were as high as 3,700 parts per million (ppm) or 3,700,000 ppb at 25 feet bgs (the bottom foot of the dense glacial till layer). Therefore, two additional soil samples were collected within the 20- to 26-foot bgs interval. No PID readings were noted above 2,000 ppb at any location upgradient of MRP property.

Soil samples were collected by use of Terra-Core sampling kits, consisting of three preserved and pre-weighed vials with a stir bar and a dry weight vial. Collection procedures minimized chemical volatilization to the extent possible.

A grab groundwater sample was collected from the boring at MW-EPA-8 by use of disposable tubing and a check valve. The purpose was to ensure collection of a groundwater sample before attempts to push the larger diameter rods (needed to set the monitoring well), because density of the till was high enough to possibly pose too much resistance to the larger rods. However, the larger diameter rods were successfully driven to the target depth for the well, and a permanent monitoring well was set (see Section 3.3).

Sample quality assurance (QA) protocols were followed per the approved project SAP. Grab water samples were collected in pre-preserved 40-milliliter vials. Samples were placed in ice-filled coolers, managed under chain-of-custody procedures, and submitted to Pace in Indianapolis, Indiana, for analysis for VOCs via SW-846 Methods 5035/8260 (soil) and 8260 (water).

3.3 MONITORING WELL INSTALLATION, DEVELOPMENT, AND SURVEYING

The monitoring wells installed by use of a rotosonic drill rig are constructed of 2-inch-diameter, 10-foot (schedule 40), 0.010 slot, polyvinyl chloride (PVC) screen, and PVC riser. The two monitoring wells (EPA-MW-8 and EPA-MW-9) installed via DPT are constructed of 1.5-inch-diameter, 10-foot (schedule 40), 0.010 slot, pre-packed PVC screen, and PVC riser. Bottom depths of the monitoring wells ranged from 39 to 48 feet bgs. Monitoring well construction details are on the logs in Appendix B and in Table 1.

A filter sand-pack consisting of silica sand was installed from the bottom of the screen to between 1 and 2 feet above the top of the screen. Care was taken to ensure that where till was encountered, neither the screen nor filter pack would straddle the separating layer. A 2-foot-thick (or greater) bentonite seal, consisting of bentonite pellets, was installed above the filter sand pack and was hydrated with clean potable water; the remainder of the annular space was sealed with a bentonite-cement grout introduced via tremie pipe. Each well was completed with installation of a flush mount steel protective casing over it, and was secured with an expandable plug and lock. The wells were finished with a concrete pad appropriately sloped to divert runoff.

Monitoring wells installed during October 2014 were developed after a minimum of 24 hours had elapsed post-well construction. Well development activities were conducted by Cascade Drilling, Inc. for the monitoring wells installed by use of a rotosonic rig. Envirocore, Inc. conducted well development activities for the two monitoring wells installed via DPT. Each well was developed via purging techniques that removed a minimum of 5 to 10 well volumes and continued until the water was relatively clear. Purged water was contained in 55-gallon drums for characterization and off-site disposal.

Monitoring wells were surveyed by a licensed surveyor (McDougall-Marsh Land Surveyors) to determine top of casing (TOC) elevations and location with respect to northing and easting State Plane coordinates. Each monitoring well was surveyed for vertical datum relative to an established United States Geological Survey (USGS) benchmark. Land-based survey methods were applied to link newly installed monitoring wells with existing USGS data.

3.4 GROUNDWATER MONITORING WELL SAMPLING

Groundwater samples were collected from 16 wells. Samples were collected from 15 of the wells via low flow sampling methodology. These included existing monitoring wells MW-1R, MW-2, MW-3, MW-4, MW-5, and MW-6; the shallow inactive production well (MW-PW), and newly installed monitoring wells MW-EPA-7, MW-EPA-8, MW-EPA-9, MW-EPA-10, MW-EPA-11, MW-EPA-12, MW-EPA-13, and MW-EPA-14. Review of past sampling data indicated likely presence of high concentrations of VOCs in groundwater at some of the proposed sampling locations. For this reason, sampling proceeded in the general order of upgradient to downgradient to the greatest extent possible, to reduce potential for cross contamination.

The methodology applied for low-flow sampling was as follows: measure the static water level in the well to the nearest 0.01 foot, lower a bladder pump (submersible pump with dedicated tubing) so that the intake is within the screened interval, purge the monitoring well using the adjustable rate pump, monitor the water level, and adjust the pumping rate so that drawdown is no greater than 0.3 foot. The pump and tubing were lowered so that they did not contact and disturb any sediment possibly present at the bottom of the well. Purging began at the lowest possible flow rate so that any sediment present in the well would not be disturbed. During

purging, groundwater was monitored for pH, temperature, conductivity, turbidity, dissolved oxygen, and oxidation-reduction potential until these parameters stabilized.

Field conditions and sampling information were recorded on sampling logs. Once the parameters had stabilized, groundwater samples were collected directly from the pump/tubing discharge into the sample containers provided by the laboratory.

Disposable tubing, bladders, and O-rings were used with the pump at each location. Also, the pump body was submerged and scrubbed in liquinox and rinsed with deionized water to decontaminate it after sampling at each location.

A groundwater sample was also collected from existing well MW-1 by use of a small dedicated bailer because the well was initially pumped dry during attempted micropurging, and required additional time to recharge. The sample was collected approximately 2 weeks after initial purging.

The groundwater samples were stored in ice-filled coolers and kept under chain of custody. The samples were shipped to Pace in Indianapolis, Indiana, for analysis for VOCs via EPA SW-846 Method 8260.

4.0 SAMPLE ANALYSIS AND QA

The following sections describe sample analyses, data validation, and any qualification of the data based on the validation. The analyte list included Target Compound List (TCL) VOCs; however, PCE and TCE and their associated degradation byproducts (*cis*-1 2-dichloroethene [cDCE] and vinyl chloride) were the primary contaminants of concern (COC) for this study. For this reason, presentation and discussion of the data in this report focus on these four COCs. Complete analytical results for all TCL compounds are in Appendices C and D.

Overall, QA review/validation of field and analytical procedures, and quality control (QC) assessment indicated that all results for the COCs of primary interest (PCE, TCE, cDCE, and vinyl chloride) are usable. Routine QC qualifications of various data outside of control limits for unqualified use but still within the "usable" range are indicated by the appropriate qualifier adjacent to those data listed in Tables 2 and 3. Several results for other TCL compounds were determined unusable because validation found that those results were outside of control limits; however, none of these compounds was detected in any sample.

4.1 SUB-SLAB VAPOR DATA

Pace Analytical Laboratories received the 24-hour sub-slab vapor samples in good condition on September 30, 2014. The samples were analyzed for TCL VOCs via EPA Method TO-15. Sample analyses were completed within required holding times. Data were validated between November 2014 and January 2015. The data validation report is in Appendix C.

Table 2 summarizes results from the sub-slab vapor sample analyses, and the full analytical data packages are in Appendix C. Validation and review of the data indicated that all data regarding the primary COCs of interest (PCE, TCE, cDCE, and vinyl chloride) are usable (qualified where appropriate—see Table 2). Results for several other compounds in samples collected at VP-EPA-4, -5, and -6 were determined unusable because calibration results were outside of acceptance criteria. However, this did not affect PCE, TCE, cDCE, or vinyl chloride data, and thus investigation objectives were not adversely impacted.

4.2 SOIL DATA

Pace received the soil samples collected between October 7 and 9, 2014, in good condition and within required holding times. The samples were analyzed for TCL VOCs via EPA SW-846 Methods 5035/8260. Sample analyses were completed within required holding times. Data were validated from November 2014 to January 2015. The data validation report is in Appendix D.

Table 3 summarizes results from the soil sample analyses, and the full analytical data packages are in Appendix D. Validation and review of the data indicated that all data regarding PCE, TCE, cDCE, and vinyl chloride are usable. Results for several other compounds in some samples were determined unusable because initial or continuing calibration results were outside of acceptance criteria. However, this did not affect PCE, TCE, cDCE, or vinyl chloride data, and thus investigation objectives were not adversely impacted.

4.3 GROUNDWATER DATA

Pace received the groundwater samples collected in October 2014 in good condition. The samples were analyzed for TCL VOCs via EPA SW-846 Method 8260. Sample analyses were completed within required holding times. Data were validated in November and December 2014. The data validation report is in Appendix D.

Table 3 summarizes results from the groundwater sample analyses, and the full analytical data packages are in Appendix D. Validation and review of the data indicated that all data regarding PCE, TCE, cDCE, and vinyl chloride are usable. Results for several other compounds in some samples were determined unusable because initial or continuing calibration results were outside of acceptance criteria. However, this did not affect PCE, TCE, cDCE, or vinyl chloride data, and thus investigation objectives were not adversely impacted.

5.0 SUMMARY OF FIELD OBSERVATIONS AND ANALYTICAL DATA

Tetra Tech reviewed the hydrogeologic and analytical data gathered during the source investigation in an effort to identify locations of potential source areas of the VOC contamination. The data were evaluated in conjunction with data gathered during previous investigations and other historical file information regarding site features and history, and operations at the site. The following sections summarize results from the 2014 investigation, as well as overall observations regarding potential source areas at the site.

5.1 SITE GEOLOGY AND HYDROGEOLOGY

To date, 15 monitoring wells, supplemented with additional soil borings, have been completed at the site. Observations in this section are based primarily on data obtained during the 2014 source investigation, as all borings during this investigation were logged continuously to the completing depth to describe stratigraphy in detail. Geologic logs and well construction diagrams of the borings completed during the 2014 source investigation are in Appendix B. Figures 4 and 5 show generalized geologic cross sections depicting the subsurface conditions in the site study area.

5.1.1 Site Geology and Drilling Observations

Subsurface materials were found to consist of varying thicknesses of fill materials overlying glacial-derived, unconsolidated deposits. The glacial-derived material consists of mixed and interbedded sand, gravel, silt, and clay.

In general, sands and gravels are the predominant deposits. Throughout much of the study area, a layer of dense glacial till (gray silty clay with varying amounts of fine to coarse gravel and cobbles) was encountered, separating the overlying silt, sand, and gravel from coarser sands and gravels below. Where present, this till layer was encountered at depths ranging from approximately 15 to 35 feet bgs. The greatest thickness of the material was encountered at the boring for well MW-EPA-13, where over 20 feet of this material was encountered. In general, within the area along and north of Valley Pike west of the MRP property, the till is present (as indicated by logs of water supply wells available from ODNR) at depths ranging from approximately 30 to 35 feet bgs, but thickness is highly variable. In the vicinity of the MRP and Rockcastle properties, thickness of the till appears to decrease from north to south, and is absent at MW-EPA-9 on the south side of Valley Pike. Below the till, fine to coarse sand and gravel were encountered at all locations.

Logs of remaining wells in the area (ODNR 1972; Various) indicate that numerous wells extend through the till and into the sand and gravel beneath. The log of the injection well at MRP indicates that the well extended through the till into the underlying sand and gravel.

At many boring locations, a layer of fill (generally silt or silty sand and gravel) was encountered. Slightly elevated PID readings (see boring logs in Appendix B) and a slight hydrocarbon odor were noted in this fill material at most boring locations. The odors and elevated PID readings generally dissipated at depths below 6 to 10 feet, and did not extend to the water table. However, PID readings from several soil samples collected from the boring for well MW-EPA-8 (at the western edge of the MRP property between the building and the fence) were two to three orders of magnitude greater than those observed at any other location, with the highest reading

from a sample collected at the lower foot of the above-mentioned till layer. The high PID reading corresponded with a zone of white staining/discoloration within the till at this location. The staining was not observed in the portion of the till above this zone, and PID readings were also much lower from the overlying zone. This observation suggests that the staining and high PID reading were caused by contact of the underside of the till with highly concentrated VOC contamination migrating through groundwater beneath the till.

5.1.2 Site Hydrogeology

Table 1 summarizes depths and TOC elevations of the monitoring wells at the site, and groundwater elevation data acquired during the 2014 source investigation. While drilling, noticeably saturated material was generally first encountered at depths ranging from approximately 24 to 30 feet bgs at most locations. Typically, saturated material was not present above the till; however minor amounts of moisture indicative of a low-yielding seasonal or "perched" zone were encountered in the borings for wells MW-EPA-8, MW-EPA-11, and MW-EPA-14. At the other locations, saturation was generally encountered immediately below the dense till in coarse sands and gravels. Water levels in completed monitoring wells were subsequently measured to depths ranging from approximately 19 to 26 feet bgs, several feet above the top of the till encountered at some locations.

Figure 6 shows groundwater elevation data acquired from the newly installed and pre-existing monitoring wells on October 16, 2014. The groundwater flow direction in the sand and gravel aquifer is southwestward. The horizontal gradient was extremely low (less than 0.001) within the eastern portion of the MRP property and areas to the east, and steepened to approximately 0.004 within the area west of MRP. Overall, groundwater flow direction appeared consistent with that determined during past investigations, indicating flow is roughly parallel to Valley Pike.

During the groundwater sampling program, field crews attempted to use low-flow techniques to collect a groundwater sample from shallow well MW-1, at the northwest corner of the MRP site. MW-1 is screened above the till. The well purged dry even at the low micropurging rate used for the sampling, and could not be sampled until given time to recharge. Field observations during the soil boring program suggest that the presence of groundwater above the till is sporadic and associated with localized conditions. The till was not observed at some boring locations and varied in thickness where it was encountered. At location MW-9, south of Valley Pike, where till was not encountered, the piezometric elevation is consistent with that at wells screened below the till, indicating that the till does not act as a continuous confining unit throughout the area.

5.2 SUMMARY OF ANALYTICAL RESULTS

The following sections summarize results from analyses of soil and groundwater samples collected during the investigation. These discussions focus on the two primary COCs for this source investigation: PCE and TCE. Tables 2 and 3 summarize analytical results for PCE and TCE. Full analytical reports are in Appendices C and D.

5.2.1 Sub-Slab Vapor

The six sub-slab vapor samples were collected at VP-EPA-1, -2, -3, -4, -5, and -6. Table 2 summarizes analytical results for PCE and TCE. Sample locations and results are shown on Figure 7. Full laboratory analytical reports are in Appendix C. TCE and PCE were detected at

all six sample locations. The highest concentrations of both PCE and TCE were detected at VP-EPA-4, -5, and -6. Lower concentrations were detected at VP-EPA-1, -2. and -3, farther west in the MRP structure between the Paul's Garage property line and the MRP degreaser area. PCE concentrations ranged from 6.4 parts per billion by volume (ppbv) at VP-EPA-1 (the northwestern-most sample location) to 515,000 ppbv at VP-EPA-4 (adjacent to the MRP vapor degreaser). TCE concentrations ranged from 19 ppbv at VP-EPA-1 to 8,130 ppbv at VP-EPA-5 (within the building area directly south of the MRP degreaser). Presence of high concentrations of PCE in these samples suggests proximity to a PCE source in the shallow unsaturated zone at MRP close to the degreaser. The reported concentrations in several samples significantly exceeded ODH/ATSDR commercial sub-slab screening levels for PCE (250 ppbv) and TCE (20 ppbv).

5.2.2 Soil

Soil samples were collected at three boring locations: MW-EPA-7 and MW-EPA-8 at MRP, and MW-EPA-14 on the Paul's Garage property. Table 3 summarizes soil sample depths and analytical results for the primary site COCs (PCE and TCE). Sample results are shown on Figure 8. Full analytical results are in Appendix D.

PCE and/or TCE were detected at the following locations and depth intervals: MW-EPA-7 (15-17 feet bgs), MW-EPA-8 (13-15, 20-22, and 24-26 feet bgs), and MW-EPA-14 (18-20 feet bgs). At the boring for well MW-EPA-7, PCE was detected at a concentration of 43 ppb in a sample collected at 15-17 feet bgs. At the boring for well MW-EPA-8, PCE was detected at 32 ppb in samples collected above the water table at 13-15 feet bgs, and also at 17,100 ppb within 20-22 feet bgs, which appears to be associated with the upper part of the zone of water table fluctuation. TCE was also detected at 2,600 ppb within 20-22 feet bgs. The highest concentrations of PCE and TCE in site soils were detected at MW-EPA-8 on the MRP property in the lower part of the sample interval (24 to 26 feet bgs) within the bottom portion of the dense gray till. This boring was between the western (downgradient) side of the MRP building and the boundary with Paul's Garage. PCE and TCE concentrations in this sample were 2,040,000 and 411,000 ppb, respectively. The presence of PCE and TCE both above and below the water table at this location suggests proximity to the same on-site source area at MRP from which the high concentrations of VOCs detected in the sub-slab vapor samples originate. Apparent absence of PCE and TCE in the shallowest soil samples collected at this location also suggests that the soil contamination is not originating from a surficial source such as dumping of used solvents near the fence.

In the boring for well MW-EPA-14 on the Paul's Garage property, soil samples were collected within the shallow subsurface (2-4 feet bgs), mid-vadose zone (8-10 feet bgs), and zone above the dense gray till (18-20 feet). PCE and TCE were not detected in the samples from the upper two horizons. These observations do not indicate presence at the Paul's Garage property of a source such as soil contaminated by dumping of used solvents on the surface.

Low concentrations of PCE (14 ppb) were detected in the sample collected from MW-EPA-14 within 18-20 feet bgs, associated with the top of the semi-saturated zone. This location is downgradient of MW-EPA-8.

5.2.3 Groundwater

During the source investigation, one “grab” groundwater sample was collected from the boring for well MW-EPA-8 (see Figure 9), and 16 samples were collected from the site monitoring well network and inactive production well (see Figure 10). Table 3 summarizes groundwater analytical results for the primary site COCs (PCE and TCE). Sample locations and results are shown on Figures 9 and 10. Full analytical results are in Appendx D.

PCE and/or TCE were detected in the samples from monitoring wells at MW-2, MW-3, MW-4, MW-EPA-8, MW-EPA-10, and MW-EPA-14; the MRP production well (at MW-PW); and the grab sample from the boring for well MW-EPA-8. All of these locations are on or downgradient of MRP except for MW-EPA-10, which is at the southwest corner of the Rockcastle Storage property near the MRP production wells. The reported concentration of PCE in well MW-EPA-10 was 34 ppb.

PCE and TCE were not detected at the following locations: MW-5, MW-6, MW-EPA-7, MW-EPA-9, MW-EPA-11, MW-EPA-12, and MW-EPA-13. All of these locations are upgradient or upgradient/lateral of the MRP vapor degreaser and its formerly connected dry well locations.

The highest concentrations of PCE and TCE detected were in the grab sample and micropurge groundwater sample from location MW-EPA-8 on the MRP property. PCE concentrations in the grab and micropurge samples were 13,400 and 19,300 ppb, respectively. TCE was detected in the grab sample at 180 ppb but was not detected in the micropurged sample from the finished well. TCE was detected at only one other location (MW-EPA-4 on Hypathia Avenue), at 24 ppb.

The reported PCE concentration in the monitoring well on the Paul’s Garage property (at MW-EPA-14) was 2,500 ppb. Overall, distribution of PCE in the groundwater appears consistent with a conceptual PCE migration pathway extending from a source area on MRP property off site toward the southwest.

6.0 INVESTIGATION SUMMARY AND CONCLUSIONS

This section presents observations and conclusions based on results from the source investigation. The investigation included sampling and analysis of of soil, groundwater and sub-slab vapor with the specific objective of locating the source areas of VOC contamination detected in previous studies. Figure 11 shows a conceptual site model (CSM) of the Valley Pike VOC site source area as indicated by the results of the source investigation.

- The natural groundwater flow direction in the uppermost aquifer is southwest. Of the various locations that have been sampled in the Valley Pike VOC site area, the highest concentrations of PCE and TCE in soil, groundwater, and sub-slab vapor have been detected in samples collected on the MRP property, adjacent to and immediately southwest/downgradient of the MRP vapor degreaser and dry well areas.

- Sub-slab vapor probe sample VP-EPA-4, collected next to the MRP vapor degreaser, contained PCE at 515,000 ppbv, as well as lower concentrations of TCE (4,670 ppbv) and cDCE (1,000 ppbv), indicating proximity to highly concentrated PCE.

- The highest concentrations of PCE and TCE detected in groundwater during the source investigation were reported in samples from boring/well MW-EPA-8, on the MRP property immediately downgradient of the MRP building, vapor degreasers, and dry well system. Concentrations of PCE in groundwater in this well were three orders of magnitude higher than the highest groundwater PCE concentrations detected upgradient of the MRP vapor degreaser/dry well area.

- Of the three sub-slab vapor probe locations in the westernmost part of the MRP building, the middle location (VP-EPA-2—the closest location to monitoring well MW-EPA-8 where significant PID readings and soil and groundwater contamination were detected) exhibited the highest PCE and TCE concentrations. These vapor sample results are consistent with a CSM of groundwater contamination migrating southwestward from the vicinity of the MRP degreaser/drywell area to the vicinity of well MW-EPA-8 and beyond.

- Although historical information indicates that several businesses such as gas stations, auto repair facilities, and at least one possible dry cleaner operated in the Site vicinity, data acquired during the current investigation do not indicate that significant amounts of VOCs are originating from areas close to Valley Street, Harshman Road, or Transportation Drive. PCE and TCE were not detected at the following monitoring well locations upgradient or upgradient/lateral of MRP: MW-5 (Transportation Drive), MW-6 (east of intersection of Harshman Road and Valley Pike), MW-EPA-9 (south side of Valley Pike), MW-EPA-11 (Rockcastle Storage), and MW-EPA-12 and-13 (both on ODF).

- Data from the eastern and southern portions of the MRP property further suggest a source area of PCE and TCE in the subsurface near or beneath the MRP main building. PCE and TCE were not detected in groundwater at location MW-EPA-7 on MRP, but upgradient/lateral of the vapor degreaser and formerly connected dry well discharge location. Relatively low concentrations (43 ppb) of PCE were detected in a soil sample collected at the top of the clay/till layer that underlies the upper silty sand and gravel. Overall, concentrations of VOCs detected at this location and other locations within the east and south portions of the MRP property were significantly lower than those detected

downgradient of the MRP building, vapor degreaser, and formerly connected dry well system.

- The dense clay/till layer that overlies the aquifer is not continuous - it thins southward in the area between ODF and Valley Pike, and is absent in some areas. This layer was not encountered at well MW-EPA-9. For these reasons the till should not be considered to be a barrier to vertical migration of contaminants in the site area.

- An available well log on file with ODNR indicates that the MRP injection/dry wells extend through the till layer to the underlying sand and gravel. Until 2012, MRP injected used cooling water directly into the underlying sand and gravel. Some of this water was associated with the MRP vapor degreasing process, although it was reportedly non-contact water. Various other forms of site drainage, such as stormwater, are disposed of via the injection wells. (ODNR 1972; Ohio EPA 2012, 2013).

- PCE concentrations in sub-slab vapor samples collected at VP-EPA-1, -2, and -3 (downgradient of the vapor degreaser and within the intervening areas between the degreasers and Paul's Garage) were significantly lower than those detected in the sample collected at VP-EPA-4—indicating low likelihood that the PCE detected at VP-EPA-4 originated on the Paul's Garage property and was being pulled back onto MRP via pumping.

- Soil data from the upper portions of the borings for wells MW-EPA-8 (on MRP) and MW-EPA-14 (on Paul's Garage property) did not indicate a surficial origin of contamination such as potential past surface dumping of used PCE in the vicinity of the property fence.

- In the boring for well MW-EPA-14 on the Paul's Garage property, no field observations or analytical data suggesting significant soil contamination in the vadose zone were noted. Groundwater concentrations in this well were less than those detected at MW-EPA-8 (on MRP property immediately upgradient of MW-EPA-14). These data and observations do not indicate presence of a PCE source on the Paul's Garage property.

- Groundwater samples from monitoring wells MW-1 and MW-1R were nondetect for PCE. Because these wells are located near the border with Paul's Garage and ODF, those results further support that contamination is not being pulled back onto the MRP property from neighboring properties.

- Field observations (detections of odors, PID readings) and analytical data collected at the boring for well MW-EPA-8 indicated that PCE concentrations within the subsurface materials were highest at the base of the till layer overlying the saturated sand and gravel. No staining, odors, or high PID readings were noted in the upper 4 feet of the till; they were only observed within the lower 1-foot directly overlying the saturated zone. This observation, and apparent absence of PCE or TCE in soil samples from the upper part of this boring, further suggest that PCE is not originating from surface dumping and migrating downward in the vicinity of the border between MRP and Paul's Garage properties, but instead is making its way into the sand and gravel aquifer at an upgradient location on the MRP property and migrating southwestward.

7.0 REFERENCES

Dinsmore and Shol, LLP. 2013. Response to CERCLA 104e Letter Regarding Mullins Rubber Products Site. From Timothy Hoffman, Counsel. To Grace Co, Enforcement Specialist, United States Environmental Protection Agency (EPA) Region 5. September 24.

Ohio Department of Health (ODH). 2014. Health Consultation. Valley Pike VOC Site. Riverside, Montgomery County, Ohio. October 29.

Ohio Department of Natural Resources (ODNR). 1972. Log for Injection Well on Mullins Rubber Products Property. Obtained on-line at: https://apps.ohiodnr.gov/water/maptechs/wellogs/app/

ODNR. Various. Water Well Logs for Water Supply Wells in Valley Pike Area. Obtained on-line at: https://apps.ohiodnr.gov/water/maptechs/wellogs/app/

Ohio Environmental Protection Agency (Ohio EPA). 2012. Excerpts from Expanded Site Inspection (ESI) Report – Mullins Rubber Products, Riverside, Ohio.

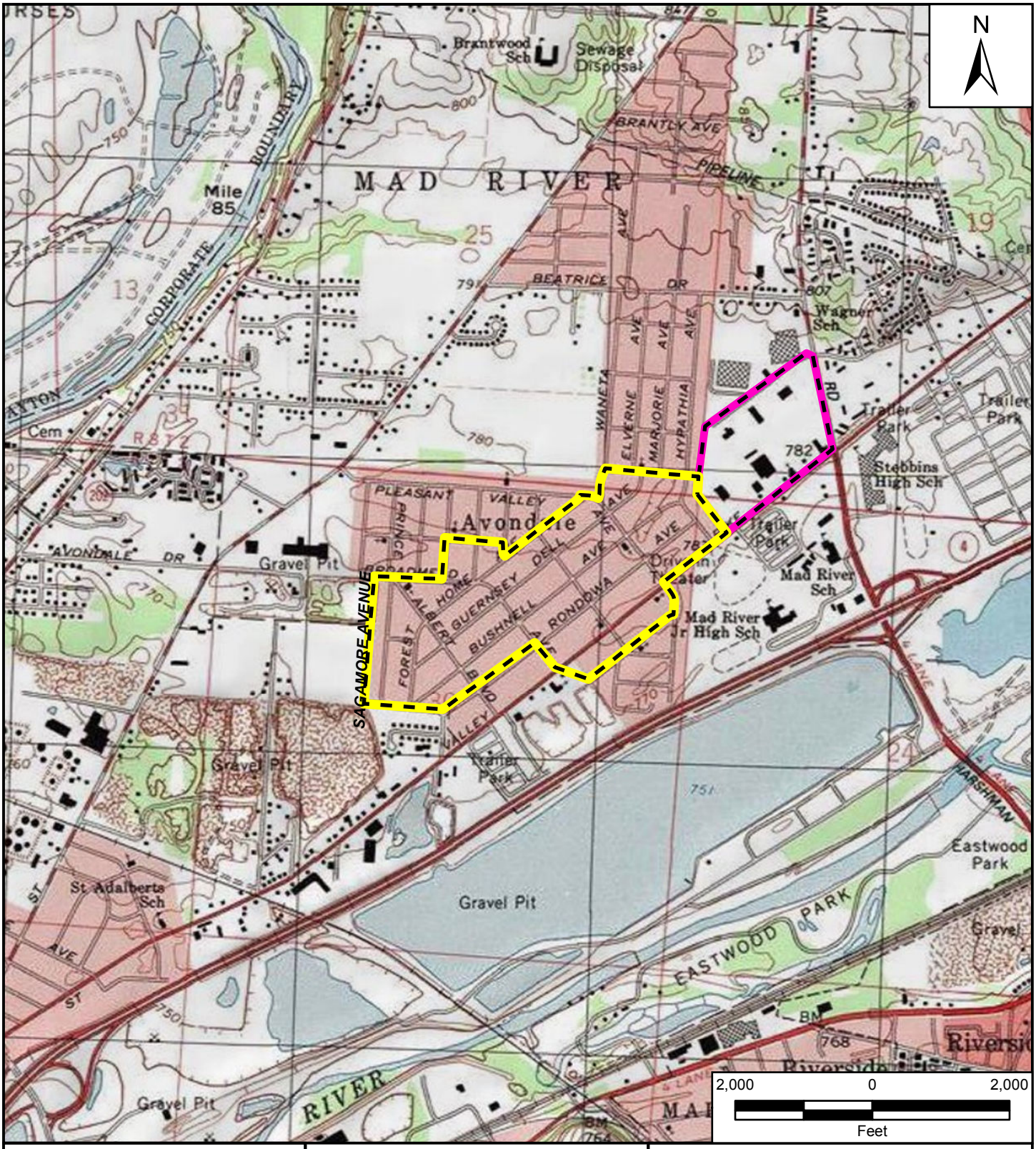
Ohio EPA. 2013. Supplemental Expanded Site Inspection Report. Mullins Rubber Products, Riverside, Ohio. September 3.

Paul's Garage. 2013. Response to CERCLA 104e Letter. From Charles Lovely, Vice President. To Grace Co, Enforcement Specialist, EPA Region 5. October 23.

Tetra Tech, Inc. (Tetra Tech). 2014. Sampling and Analysis Plan for Valley Pike VOC Site Source Area Investigation. September.

United States Environmental Protection Agency (EPA). 2014. Pollution/Situation Report for Valley Pike VOC Site. July 23.

Figures



Reference Map

Legend

Site Location

Source Investigation Study Area

VOC = Volatile Organic Compounds

Source: USGS 7.5 Minute Topographic Quadrangle Map
Dayton North, OH 1996

Valley Pike VOC Site
Riverside, Montgomery County, Ohio

Figure 1
Site Location Map

TETRA TECH

Prepared For: US EPA | Prepared By: Tetra Tech

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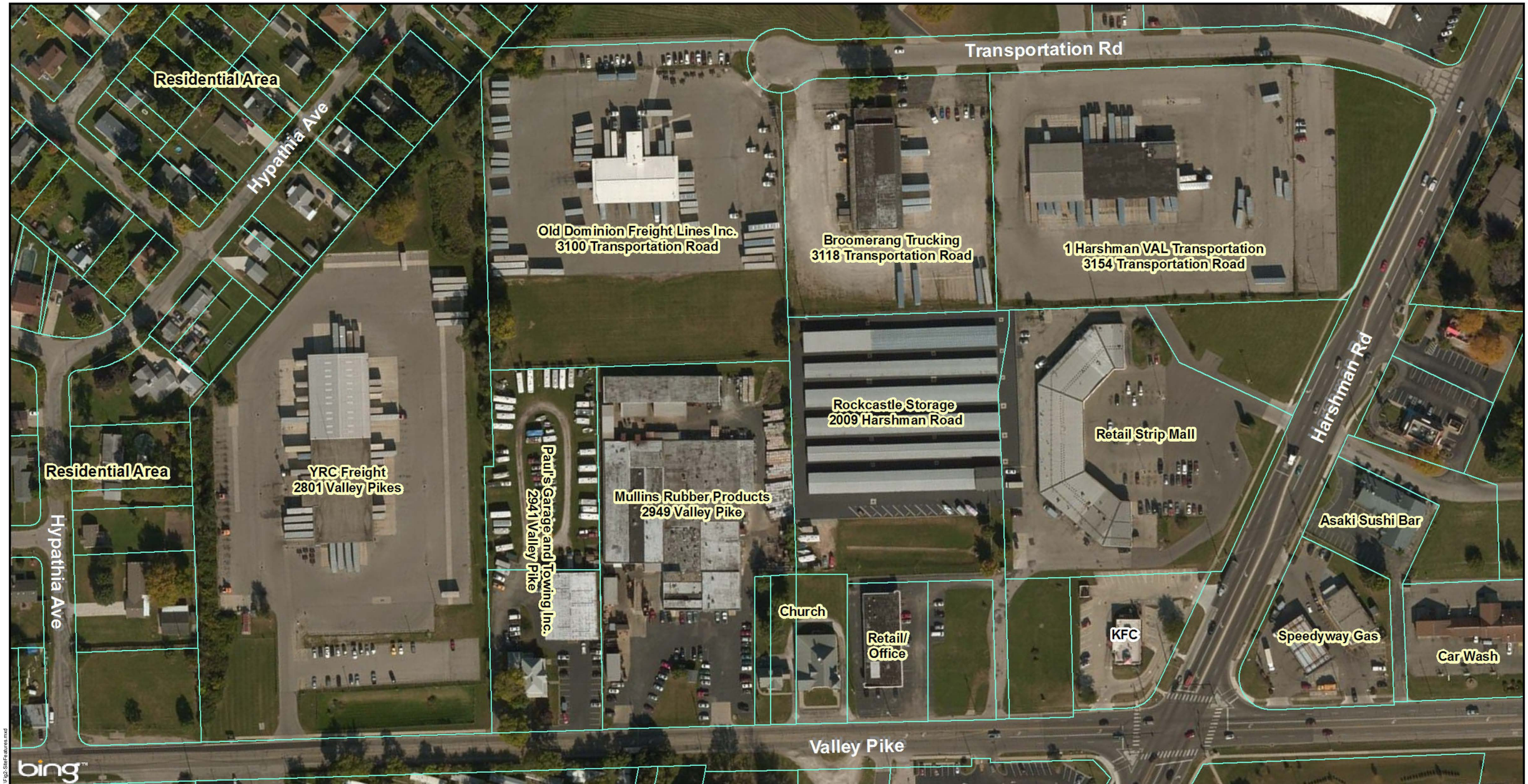
Date Saved: 3/5/2015 EPA Contract No.: EP-S5-13-01 TDD No.: 0001/S05-0001-1404-011 Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere Projection: Mercator Auxiliary Sphere Datum:WGS 1984 Units: Meter



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Parcel

VOC = Volatile Organic Compounds

Source: Aerial Imagery, Bing Maps 2010

N

100 0 100

Feet

Valley Pike VOC Site
Riverside, Montgomery County, Ohio

Figure 2
Source Investigation Study Area

TETRA TECH

Prepared For: US EPA | Prepared By: Tetra Tech

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Date Saved: 3/5/2015

EPA Contract No.: EP-S5-13-01

TDD No.: 0001/S05-0001-1404-011

Legend

- Existing Monitoring Well Location
- Monitoring Well Location – Installed Oct 2014
- Vapor Probe Location – Installed Sept 2014
- Geological Cross Section Line

VOC = Volatile Organic Compounds

Notes:
Soil samples were collected from the following locations: MW-EPA-7, MW-EPA-8, and MW-EPA-14.

Source: Aerial Imagery, Bing Maps 2010

N

100 0 100
Feet

Valley Pike VOC Site
Riverside, Montgomery County, Ohio

Figure 3
Sampling Locations and Cross Section Lines

TETRA TECH

Prepared For: US EPA | Prepared By: Tetra Tech

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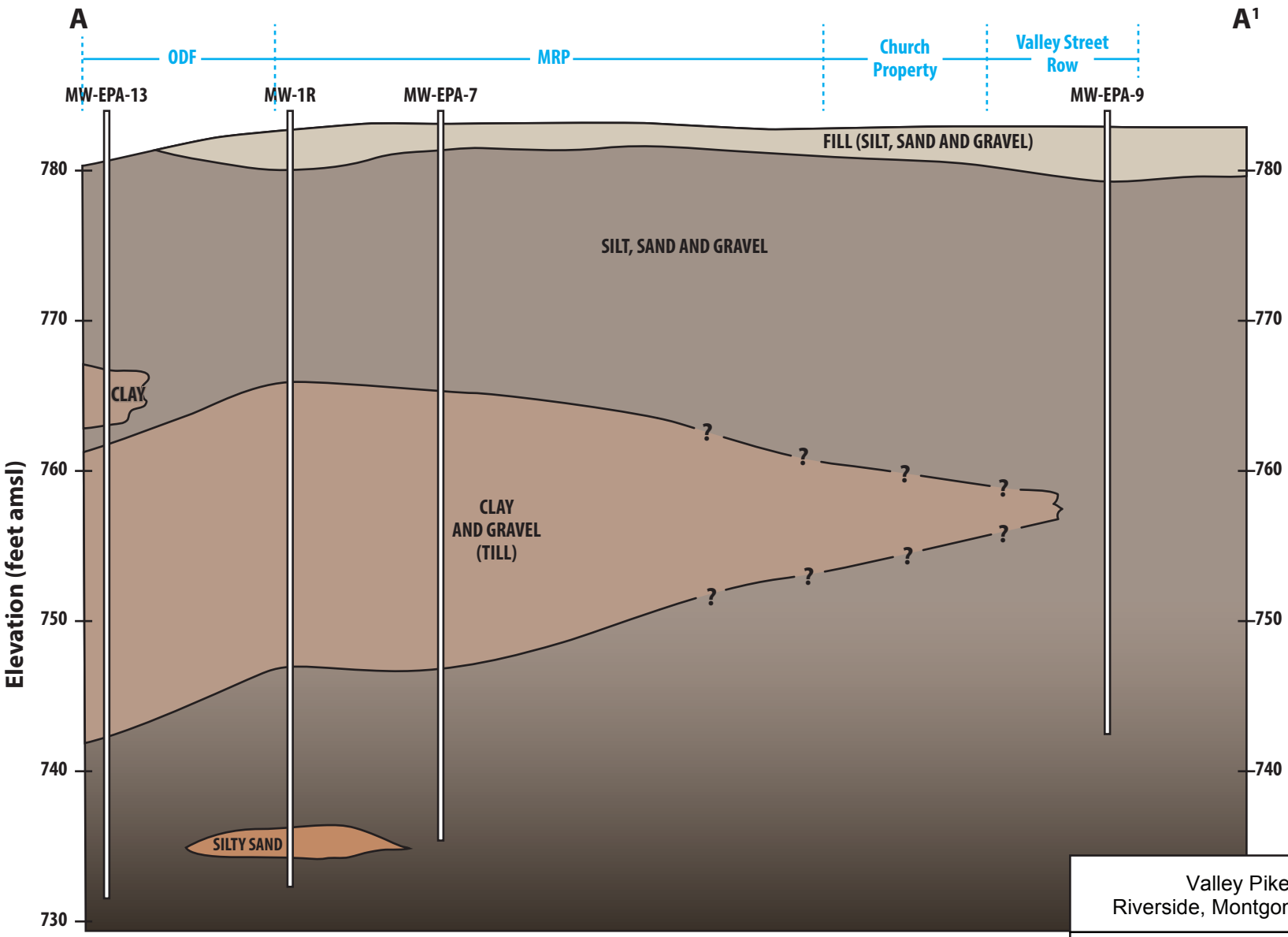
Date Saved: 3/6/2015 EPA Contract No.: EP-S5-13-01 TDD No.: 0001/S05-0001-1404-011



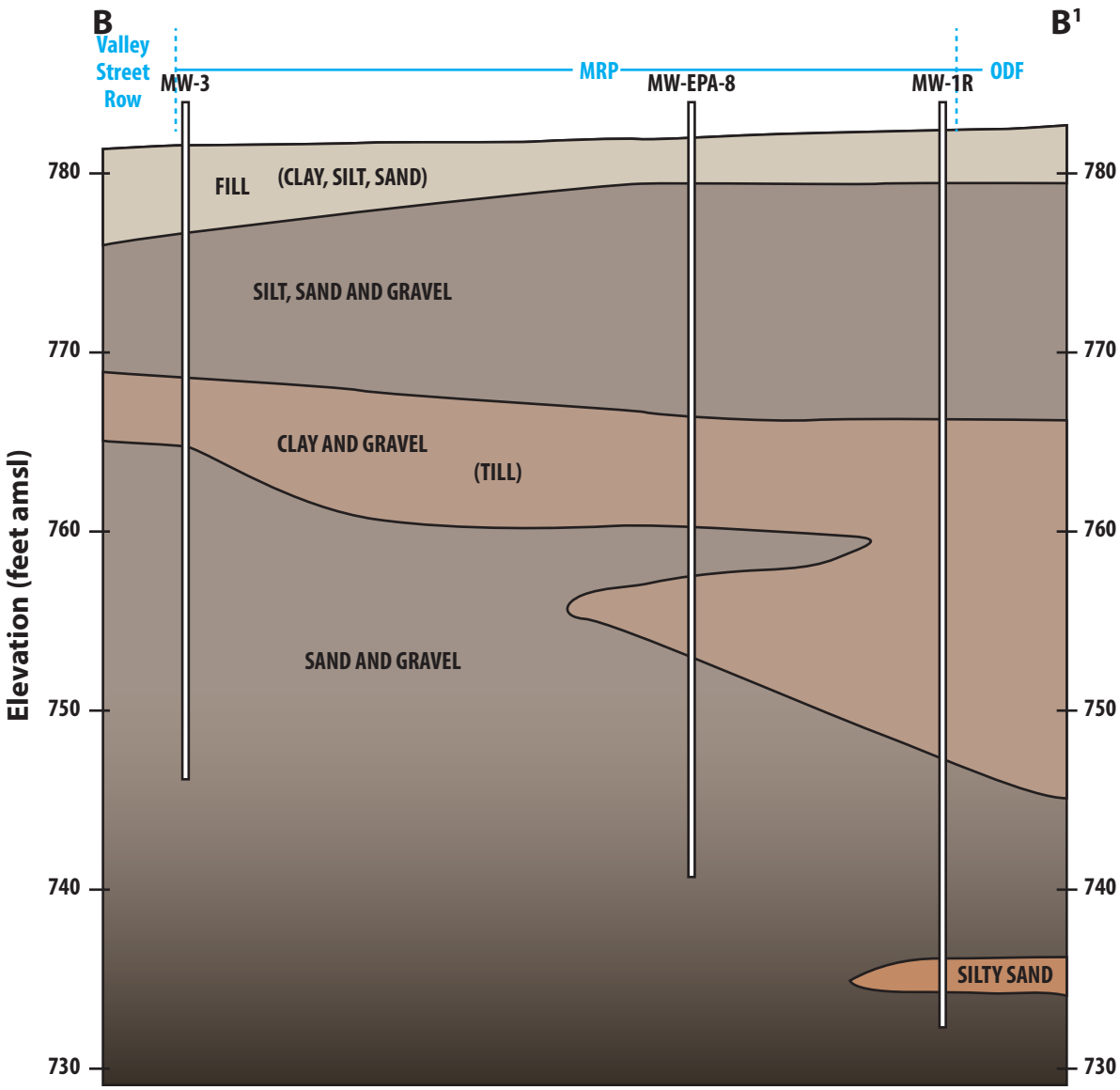
Legend:
ODF = Old Dominion Freight
MRP = Mullins Rubber Products
amsl = Above mean sea level

Valley Pike VOC Site
Riverside, Montgomery County, Ohio

Figure 4
Geologic Cross Section A-A¹

TETRA TECH

Prepared For: US EPA | Prepared By: Tetra Tech



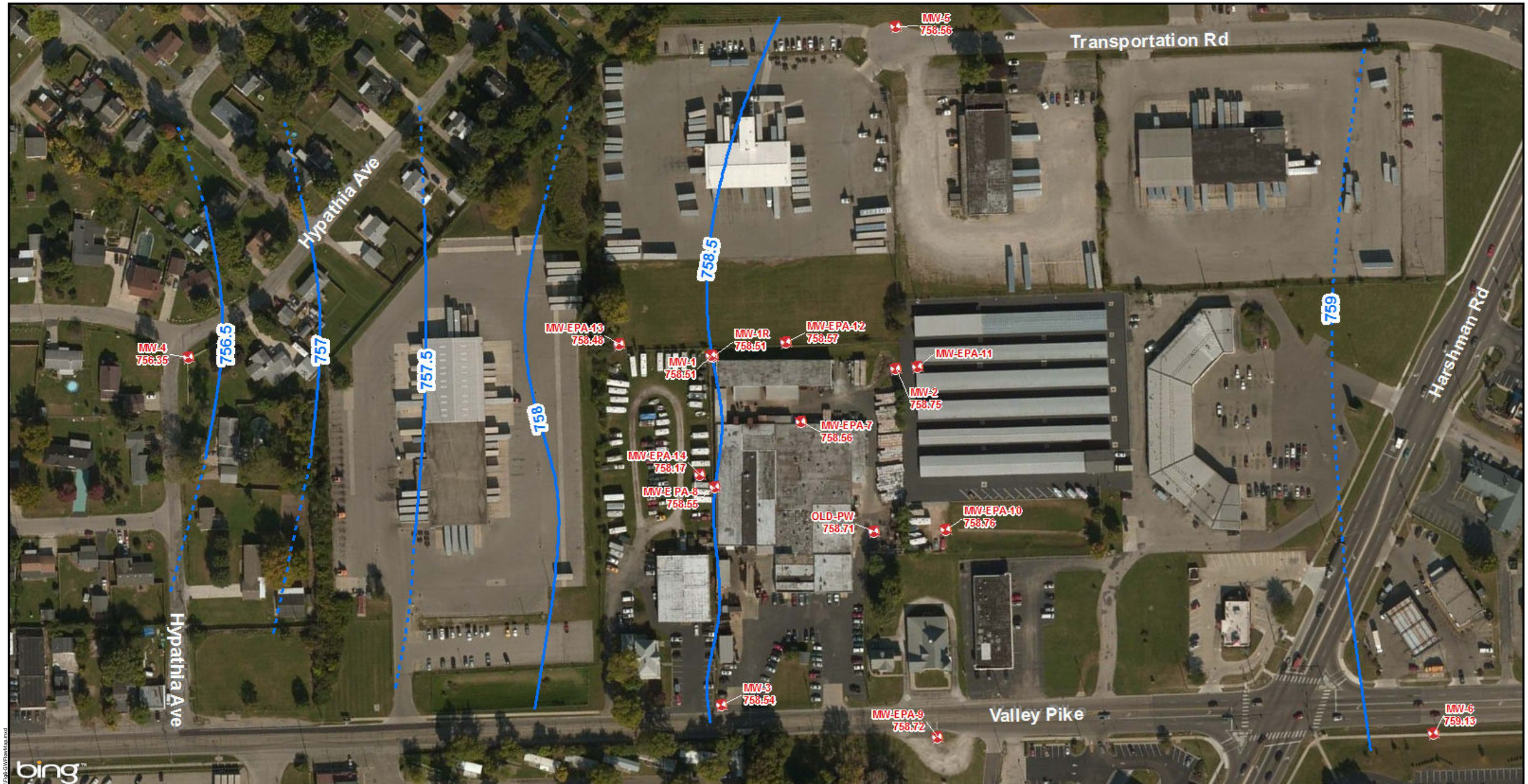
Legend:
ODF = Old Dominion Freight
MRP = Mullins Rubber Products
amsl = Above mean sea level

Valley Pike VOC Site
Riverside, Montgomery County, Ohio

Figure 5
Geologic Cross Section
B-B¹

TETRA TECH

Prepared For: US EPA | Prepared By: Tetra Tech



Legend

- Monitoring Well Location
- Groundwater Contour
- Inferred Groundwater Contour
- 576 Groundwater Elevation (feet amsl)

MW-1 758.51 Groundwater Elevation (feet amsl) measured on 10/16/14

VOC = Volatile Organic Compounds

amsl = Above mean sea level

Source: Aerial Imagery, Bing Maps 2010

N

100 0 100

Feet

Valley Pike VOC Site
Riverside, Montgomery County, Ohio

Figure 6
Piezometric Elevations and Groundwater Flow Direction

TETRA TECH

Prepared For: US EPA | Prepared By: Tetra Tech

File Path: G:\GIS\9026-START IV\Ohio\Valley Pike VI Site\mxd\2015-01\FigG-GWFlowMap.mxd

Date Saved: 3/6/2015 EPA Contract No.: EP-S5-13-01 TDD No.: 0001/S05-0001-1404-011

Legend

Vapor Probe Location – Installed Sept 2014

ppbv = Parts per billion by volume

J = Data qualified due to results being above upper range of calibration

TCE = Trichloroethene

PCE = Tetrachloroethene

VOC = Volatile Organic Compounds

Source: Aerial Imagery, Bing Maps 2010

N

25 0 25

Feet

Valley Pike VOC Site
Riverside, Montgomery County, Ohio

Figure 7
Sub-Slab Vapor Sample PCE and TCE Results

TETRA TECH

Prepared For: US EPA | Prepared By: Tetra Tech

File Path: G:\G\G9026-START IV\Ohio\Valley Pike VI Site\mxd\2015-01\Fig7-SubSlabSampleResults.mxd

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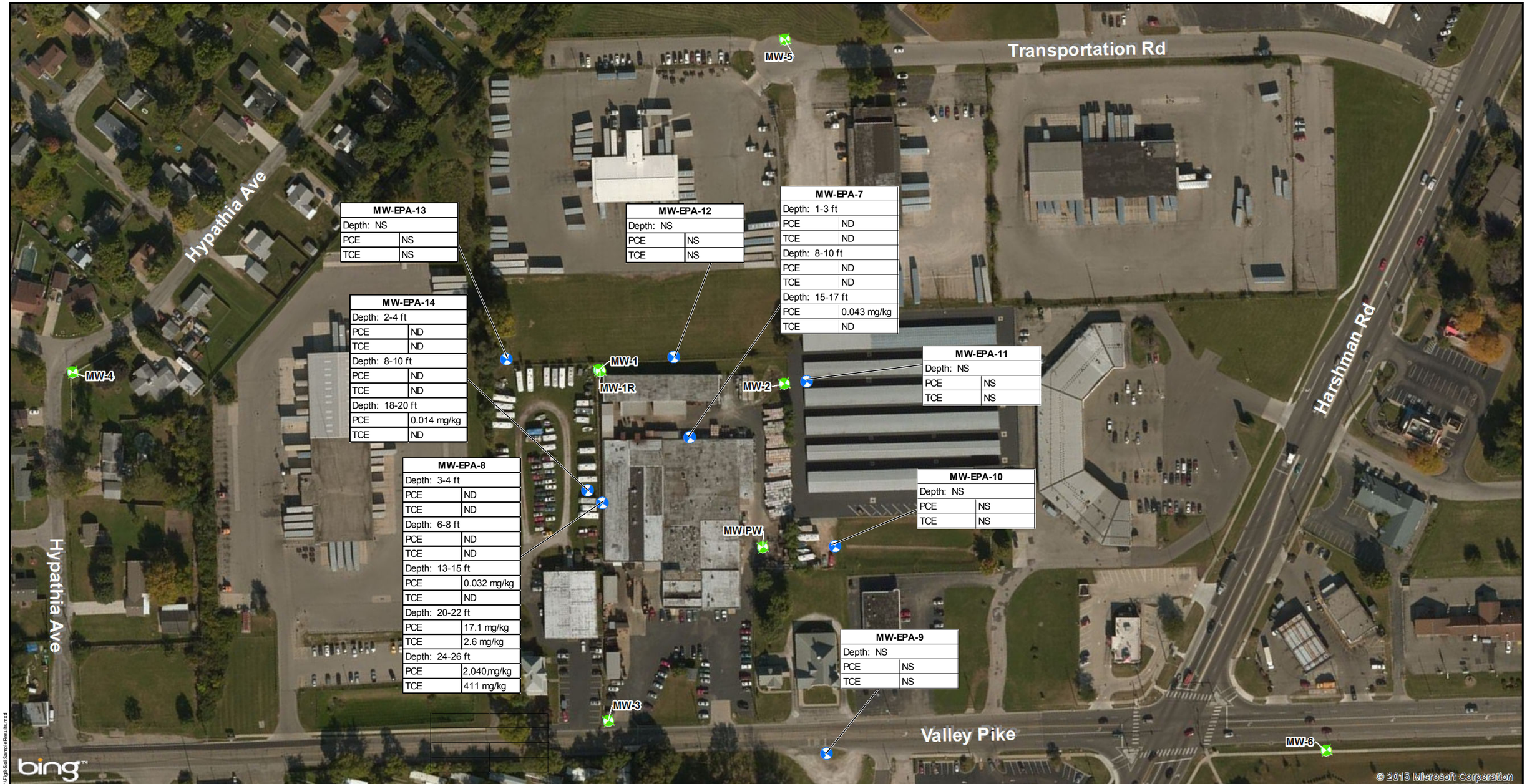

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- Existing Monitoring Well Location - No Sampling
- Monitoring Well Location – Installed Oct 2014

mg/kg = Milligrams per kilogram
ND = Not detected
NS = Not sampled
ft = Feet
TCE = Trichloroethene
PCE = Tetrachloroethene
VOC = Volatile Organic Compounds

Source: Aerial Imagery, Bing Maps 2010

N

100 0 100
Feet

Valley Pike VOC Site
Riverside, Montgomery County, Ohio

Figure 8
Soil Sample PCE and TCE Results

TETRA TECH

Prepared For: US EPA | Prepared By: Tetra Tech

File Path: G:\GIS\026-START IV\Ohio\Valley Pike VI\Site\mxd\2015-01\Fig8-SoilSampleResults.mxd

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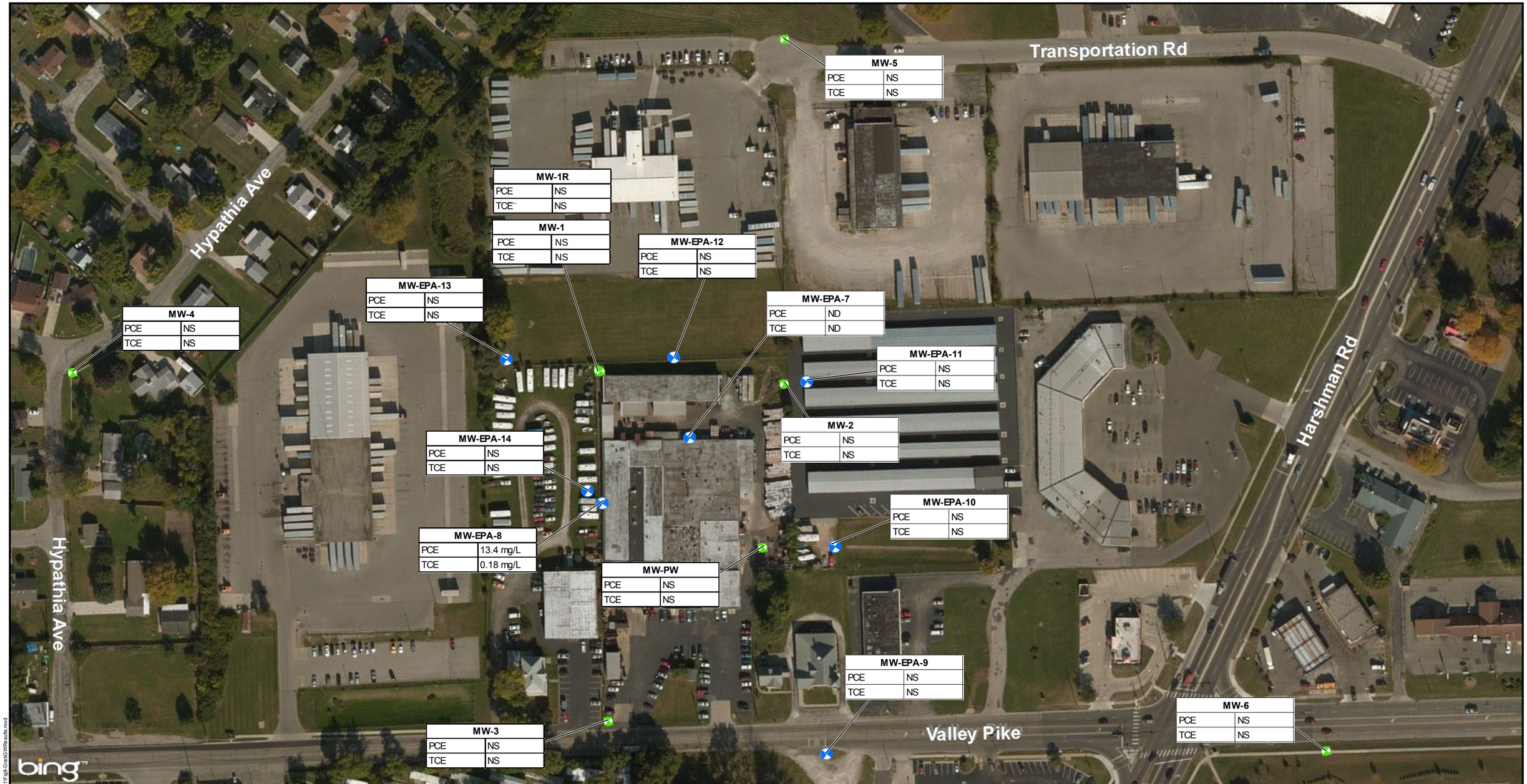


Legend

- Existing Monitoring Well Location
- Monitoring Well Location – Installed Oct 2014

mg/L = Milligrams per liter
ND = Not detected
NS = Not sampled
TCE = Trichloroethene
PCE = Tetrachloroethene
VOC = Volatile Organic Compounds

Source: Aerial Imagery, Bing Maps 2010

N

100 0 100
Feet

Valley Pike VOC Site
Riverside, Montgomery County, Ohio

Figure 9
Grab Groundwater Sample PCE and TCE Results

TETRA TECH

Prepared For: US EPA | Prepared By: Tetra Tech

File Path: G:\GIS\0928-START IV\Ohio\Valley Pike VI Site\mxd\2015-01\Fig9-GrabGWResults.mxd

Date Saved: 3/6/2015 EPA Contract No.: EP-S5-13-01 TDD No.: 0001/S05-0001-1404-011

Legend

- Existing Monitoring Well Location
- Monitoring Well Location – Installed Oct 2014

mg/L - Milligrams per liter
ND - Not detected
NS - Not sampled
TCE = Trichloroethene
PCE = Tetrachloroethene
VOC = Volatile Organic Compounds

Source: Aerial Imagery, Bing Maps 2010

N

100 0 100
Feet

Valley Pike VOC Site
Riverside, Montgomery County, Ohio

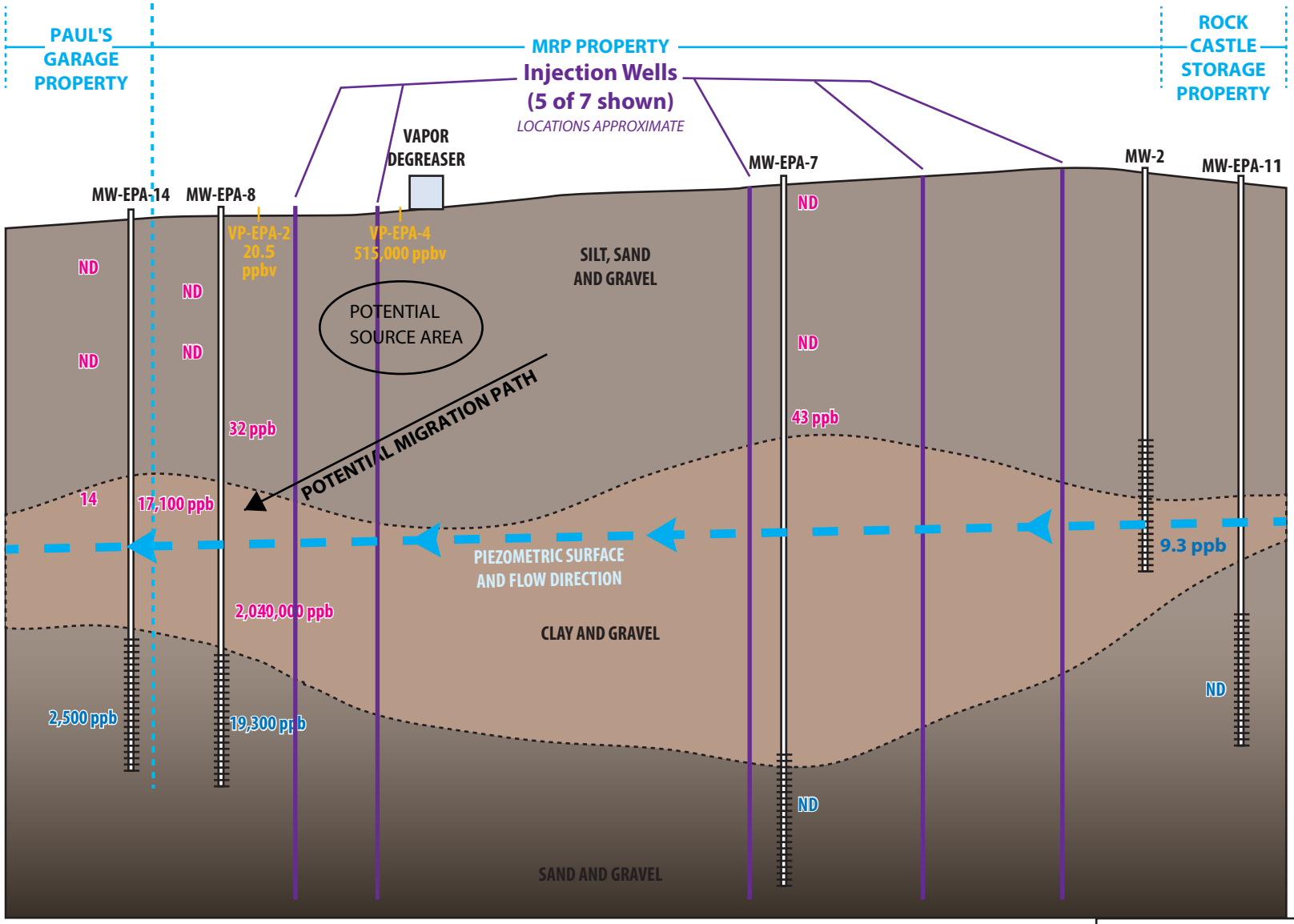
Figure 10
Groundwater Monitoring Well Sample PCE and TCE Results

TETRA TECH

Prepared For: US EPA | Prepared By: Tetra Tech

File Path: G:\GIS\0126-START IV\Ohio\Valley Pike VI Site\mxd\2015-01\Fig10-MWSampleResults.mxd

Date Saved: 3/6/2015 EPA Contract No.: EP-S5-13-01 TDD No.: 0001/S05-0001-1404-011



PCE Results Legend

MRP = Mullins Rubber Products

Yellow = sub-slab vapor PCE concentration; parts per billion by volume (ppbv)

Red = soil PCE-parts per billion (ppb)

Blue = groundwater PCE concentration ppb

VALLEY PIKE VOC SITE
RIVERSIDE, OHIO

FIGURE 11
PCE IN VAPOR, SOIL, WATER
CONCEPTUAL SITE MODEL

TETRA TECH

Tables

TABLE 1
SUMMARY OF MONITORING WELL AND PIEZOMETRIC ELEVATIONS
VALLEY PIKE VOC SITE
RIVERSIDE, MONTGOMERY COUNTY, OHIO

Well ID	Total Depth	TOC ELEVATION	10/13/2014			10/16/2014	
			DTW	GW-EL		DTW	GW-EL
MW-1	26.4	782.27	18.48	763.79		18.78	763.49
MW-1R	36.22	782.09	23.49	758.60		23.58	758.51
MW-2	27.14	783.57	22.32	761.25		22.36	761.21
MW-3	34	780.76	22.10	758.66		22.22	758.54
MW-4	34.61	781.74	25.32	756.42		25.39	756.35
MW-5	34.92	780.66	22.00	758.66		22.10	758.56
MW-6	36.5	779.48	19.74	759.74		20.35	759.13
MW-EPA-7	47.88	782.64	23.95	758.69		24.08	758.56
MW-EPA-8	39.7	781.5	22.86	758.64		22.95	758.55
MW-EPA-9	38.9	782.15	ND	ND		23.43	758.72
MW-EPA-10	39.79	781.76	23.00	758.76		23.00	758.76
MW-EPA-11	40.1	783.04	24.29	758.75		24.29	758.75
MW-EPA-12	41.1	782.22	23.58	758.64		23.65	758.57
MW-EPA-13	47.79	780.03	21.45	758.58		21.55	758.48
MW-EPA-14	39	780.57	21.91	758.66		22.40	758.17
Old PW (MW-PW)	48.97	784.32	25.54	758.78		25.61	758.71

Notes:
All values are in feet.
TOC - Top of Inner Casing
EL - Elevation relative to feet above mean sea level
DTW - Measured Depth to Groundwater on Date Indicated
GW EL - Groundwater Elevation on Date Indicated
ND - No Data; well not installed until 10/15/14
VOC - Volatile organic compound

TABLE 2
SUMMARY OF SUB-SLAB VAPOR ANALYTICAL DATA
VALLEY PIKE VOC SITE
RIVERSIDE, MONTGOMERY COUNTY, OHIO

			ANALYTICAL RESULTS BY LOCATION (units shown adjacent to parameter at left)					
		Vapor Probe:	**VP-EPA-1**	**VP-EPA-2**	**VP-EPA-3**	**VP-EPA-4**	**VP-EPA-5**	**VP-EPA-6**
		Date Sampled:	**9/27 - 9/28/2014**	**9/27 - 9/28/2014**	**9/27 - 9/28/2014**	**9/27 - 9/28/2014**	**9/27 - 9/28/2014**	**9/27 - 9/28/2014**
SUB-SLAB DATA:								
	Method	**Units**						
PCE	TO-15	ppbv	**6.4 J**	**20.5 J**	**8.95 J**	**515,000**	**9,430**	**1,220**
		µg/m^3	**44.1 J**	**141 J**	**61.7 J**	**3,550,000**	**65,000**	**8,380**
TCE	TO-15	ppbv	**19 J**	**164**	**36.4 J**	**4,670**	**8,130**	**397**
		µg/m^3	**104 J**	**894**	**199 J**	**25,500**	**44,400**	**2,170**
cDCE	TO-15	ppbv	**0.397**	**ND**	**ND**	**1,000**	**ND**	**ND**
		µg/m^3	**1.6**	**ND**	**ND**	**4,040**	**ND**	**ND**
Vinyl Chloride	TO-15	ppbv	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
		µg/m^3	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Notes:
ppbv - Parts per billion by volume
µg/m^3 - Micrograms per cubic meter
J - Data qualified due to quality assurance/quality control results outside of control range; see laboratory analytical reports
cDCE - *cis*-1,2-Dichloroethene
ND - Not detected
PCE - Tetrachloroethene
TCE - Trichloroethene
VOC - Volatile organic compound
Method TO-15 analyses completed by Pace Analytical Laboratories, Minneapolis, Minnesota
Analysis Completed September - October 2014

TABLE 3
SUMMARY OF SOIL AND GROUNDWATER ANALYTICAL DATA
VALLEY PIKE VOC SITE
RIVERSIDE, MONTGOMERY COUNTY, OHIO

			ANALYTICAL RESULTS BY LOCATION (units shown adjacent to parameter at left)							
		Boring/Well:	**MW-1**	**MW-1R**	**MW-2**	**MW-3**	**MW-4**	**MW-5**	**MW-6**	**MW-PW**
		Depth (feet bgs):	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
		Date Sampled:	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
SOIL DATA:										
	Method	**Units**								
PCE	EPA 8260	mg/kg	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
		µg/kg	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
TCE	EPA 8260	mg/kg	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
		µg/kg	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
cDCE	EPA 8260	mg/kg	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
		µg/kg	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
Vinyl Chloride	EPA 8260	mg/kg	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
		µg/kg	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**

		Boring/Well:	**MW-1**	**MW-1R**	**MW-2**	**MW-3**	**MW-4**	**MW-5**	**MW-6**	**MW-PW**
		Date Sampled:	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
GRAB GROUNDWATER DATA (collected during drilling):										
PCE	EPA 8260	mg/L	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
		µg/L	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
TCE	EPA 8260	mg/L	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
		µg/L	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
cDCE	EPA 8260	mg/L	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
		µg/L	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
Vinyl Chloride	EPA 8260	mg/L	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
		µg/L	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**

		Boring/Well:	**MW-1**	**MW-1R**	**MW-2**	**MW-3**	**MW-4**	**MW-5**	**MW-6**	**MW-PW**
		Date Sampled:	**10/30/2014**	**10/15/2014**	**10/14/2014**	**10/16/2014**	**10/16/2014**	**10/14/2014**	**10/14/2014**	**10/15/2014**
MONITORING WELL (GROUNDWATER) DATA:										
PCE	EPA 8260	mg/L	**ND**	**ND**	**0.0093**	**0.065**	**1.6**	**ND**	**ND**	**0.028**
		µg/L	**ND**	**ND**	**9.3**	**65**	**1,600**	**ND**	**ND**	**28**
TCE	EPA 8260	mg/L	**ND**	**ND**	**ND**	**ND**	**0.024**	**ND**	**ND**	**ND**
		µg/L	**ND**	**ND**	**ND**	**ND**	**24**	**ND**	**ND**	**ND**
cDCE	EPA 8260	mg/L	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
		µg/L	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Vinyl Chloride	EPA 8260	mg/L	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
		µg/L	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Notes:

mg/kg - Milligrams per kilogram
µg/kg - Micrograms per kilogram
mg/L - Milligrams per liter
µg/L- Micrograms per liter
bgs - Below ground surface
cDCE - *cis*-1,2-Dichloroethene
PCE - Tetrachloroethene
TCE - Trichloroethene
ND - Not detected
NA - Not analyzed
NS - Not sampled
VOC - Volatile organic compound
Method 8260 analyses completed by Pace Analytical Laboratories, Indianapolis, Indiana
Analysis Completed October-November 2014

TABLE 3
SUMMARY OF SOIL AND GROUNDWATER ANALYTICAL DATA
VALLEY PIKE VOC SITE
RIVERSIDE, MONTGOMERY COUNTY, OHIO

ANALYTICAL RESULTS BY LOCATION (units shown adjacent to parameter at left)															
		Boring/Well:	**MW-EPA-7**			**MW-EPA-8**					**MW-EPA-9**	**MW-EPA-10**	**MW-EPA-11**
		Depth (feet bgs):	**1-3**	**8-10**	**15-17**	**3-4**	**6-8**	**13-15**	**20-22**	**24-26**	**NS**	**NS**	**NS**
		Date Sampled:	**10/09/2014**			**10/07/2014**					**NS**	**NS**	**NS**
SOIL DATA:													
	Method	**Units**											
PCE	EPA 8260	mg/kg	**ND**	**ND**	**0.043**	**ND**	**ND**	**0.032**	**17.1**	**2,040**	**NS**	**NS**	**NS**
		µg/kg	**ND**	**ND**	**43**	**ND**	**ND**	**32**	**17,100**	**2,040,000**	**NS**	**NS**	**NS**
TCE	EPA 8260	mg/kg	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**2.6**	**411**	**NS**	**NS**	**NS**
		µg/kg	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**2,600**	**411,000**	**NS**	**NS**	**NS**
cDCE	EPA 8260	mg/kg	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**NS**	**NS**	**NS**
		µg/kg	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**NS**	**NS**	**NS**
Vinyl Chloride	EPA 8260	mg/kg	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**NS**	**NS**	**NS**
		µg/kg	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**NS**	**NS**	**NS**

		Boring/Well:	**MW-EPA-7**	**MW-EPA-8**	**MW-EPA-9**	**MW-EPA-10**	**MW-EPA-11**
		Date Sampled:	**10/10/2014**	**10/7/2014**	**NS**	**NS**	**NS**
GRAB GROUNDWATER DATA (collected during drilling):							
PCE	EPA 8260	mg/L	**ND**	**13.4**	**NS**	**NS**	**NS**
		µg/L	**ND**	**13,400**	**NS**	**NS**	**NS**
TCE	EPA 8260	mg/L	**ND**	**0.18**	**NS**	**NS**	**NS**
		µg/L	**ND**	**180**	**NS**	**NS**	**NS**
cDCE	EPA 8260	mg/L	**ND**	**ND**	**NS**	**NS**	**NS**
		µg/L	**ND**	**ND**	**NS**	**NS**	**NS**
Vinyl Chloride	EPA 8260	mg/L	**ND**	**ND**	**NS**	**NS**	**NS**
		µg/L	**ND**	**ND**	**NS**	**NS**	**NS**

		Boring/Well:	**MW-EPA-7**	**MW-EPA-8**	**MW-EPA-9**	**MW-EPA-10**	**MW-EPA-11**
		Date Sampled:	**10/15/2014**	**10/15/2014**	**10/16/2014**	**10/13/2014**	**10/13/2014**
MONITORING WELL (GROUNDWATER) DATA:							
PCE	EPA 8260	mg/L	**ND**	**19.3**	**ND**	**0.034**	**ND**
		µg/L	**ND**	**19,300**	**ND**	**34**	**ND**
TCE	EPA 8260	mg/L	**ND**	**ND**	**ND**	**ND**	**ND**
		µg/L	**ND**	**ND**	**ND**	**ND**	**ND**
cDCE	EPA 8260	mg/L	**ND**	**ND**	**ND**	**ND**	**ND**
		µg/L	**ND**	**ND**	**ND**	**ND**	**ND**
Vinyl Chloride	EPA 8260	mg/L	**ND**	**ND**	**ND**	**ND**	**ND**
		µg/L	**ND**	**ND**	**ND**	**ND**	**ND**

Notes:

mg/kg - Milligrams per kilogram
µg/kg - Micrograms per kilogram
mg/L - Milligrams per liter
µg/L- Micrograms per liter
bgs - Below ground surface
cDCE - *cis* -1,2-Dichloroethene
PCE - Tetrachloroethene
TCE - Trichloroethene
ND - Not detected
NA - Not analyzed
NS - Not sampled
VOC - Volatile organic compound
Method 8260 analyses completed by Pace Analytical Laboratories, Indianapolis, Indiana
Analysis Completed October-November 2014

TABLE 3
SUMMARY OF SOIL AND GROUNDWATER ANALYTICAL DATA
VALLEY PIKE VOC SITE
RIVERSIDE, MONTGOMERY COUNTY, OHIO

			ANALYTICAL RESULTS BY LOCATION (units shown adjacent to parameter at left)					
		Boring/Well:	**MW-EPA-12**	**MW-EPA-13**	**MW-EPA-14**			
		Depth (feet bgs):	**NS**	**NS**	**2-4**	**8-10**	**18-20**
		Date Sampled:	**NS**	**NS**	**10/09/2014**		
SOIL DATA:							
	Method	**Units**					
PCE	EPA 8260	mg/kg	**NS**	**NS**	**ND**	**ND**	**0.014**
		µg/kg	**NS**	**NS**	**ND**	**ND**	**14**
TCE	EPA 8260	mg/kg	**NS**	**NS**	**ND**	**ND**	**ND**
		µg/kg	**NS**	**NS**	**ND**	**ND**	**ND**
cDCE	EPA 8260	mg/kg	**NS**	**NS**	**ND**	**ND**	**ND**
		µg/kg	**NS**	**NS**	**ND**	**ND**	**ND**
Vinyl Chloride	EPA 8260	mg/kg	**NS**	**NS**	**ND**	**ND**	**ND**
		µg/kg	**NS**	**NS**	**ND**	**ND**	**ND**

		Boring/Well:	**MW-EPA-12**	**MW-EPA-13**	**MW-EPA-14**
		Date Sampled:	**NS**	**NS**	**NS**
GRAB GROUNDWATER DATA (collected during drilling):					
PCE	EPA 8260	mg/L	**NS**	**NS**	**NS**
		µg/L	**NS**	**NS**	**NS**
TCE	EPA 8260	mg/L	**NS**	**NS**	**NS**
		µg/L	**NS**	**NS**	**NS**
cDCE	EPA 8260	mg/L	**NS**	**NS**	**NS**
		µg/L	**NS**	**NS**	**NS**
Vinyl Chloride	EPA 8260	mg/L	**NS**	**NS**	**NS**
		µg/L	**NS**	**NS**	**NS**

		Boring/Well:	**MW-EPA-12**	**MW-EPA-13**	**MW-EPA-14**
		Date Sampled:	**10/14/2014**	**10/14/2014**	**10/16/2014**
MONITORING WELL (GROUNDWATER) DATA:					
PCE	EPA 8260	mg/L	**ND**	**ND**	**2.5**
		µg/L	**ND**	**ND**	**2,500**
TCE	EPA 8260	mg/L	**ND**	**ND**	**ND**
		µg/L	**ND**	**ND**	**ND**
cDCE	EPA 8260	mg/L	**ND**	**ND**	**ND**
		µg/L	**ND**	**ND**	**ND**
Vinyl Chloride	EPA 8260	mg/L	**ND**	**ND**	**ND**
		µg/L	**ND**	**ND**	**ND**

Notes:

mg/kg - Milligrams per kilogram
µg/kg - Micrograms per kilogram
mg/L - Milligrams per liter
µg/L- Micrograms per liter
bgs - Below ground surface
cDCE - *cis* -1,2-Dichloroethene
PCE - Tetrachloroethene
TCE - Trichloroethene
ND - Not detected
NA - Not analyzed
NS - Not sampled
VOC - Volatile organic compound
Method 8260 analyses completed by Pace Analytical Laboratories, Indianapolis, Indiana
Analysis Completed October-November 2014

Appendix A

Mullins Rubber Products Inc. Site Drainage System Details

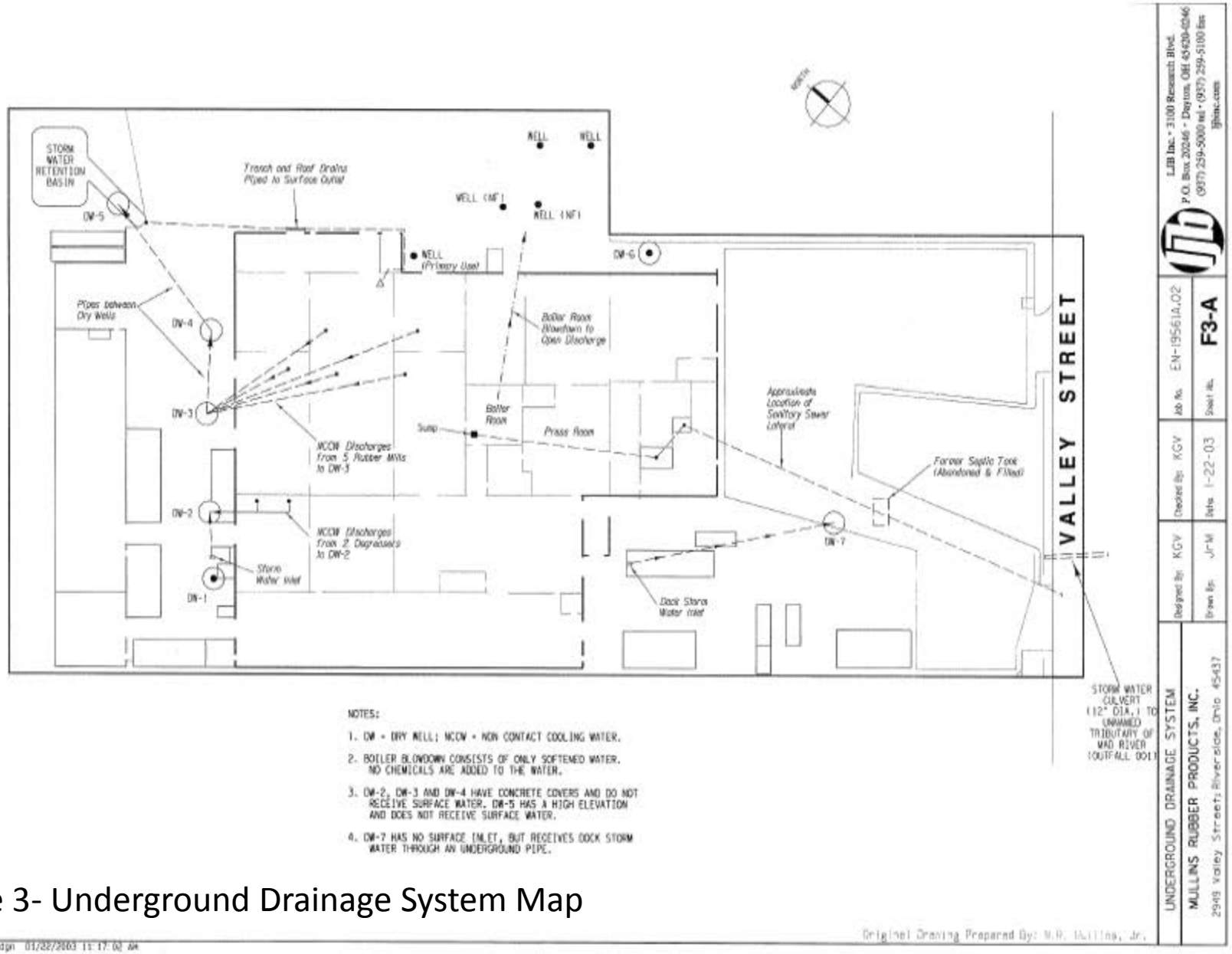


Figure 3- Underground Drainage System Map

WELL LOG AND DRILLING REPORT

ORIGINAL

NO CARBON PAPER NECESSARY— SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

438258

County Montg. Township Mad River Section of Township Rohrers Little Farms

Owner Mullin Rubber Co Address 2949 Valley Pike

Location of property Same

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 50

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST
(Specify one by circling)

Test Rate 50 G.P.M. Duration of test hrs

Drawdown ft. Date

Static level-depth to water ft.

Quality (clear, cloudy, taste, odor)

Pump installed by

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Top Soil	0 Feet	5 Ft.
Dry Gravel	5	25
Blue Clay	25	37
Watered Gravel	37	50
Return Dry Well		
Used for Returning		
Water Back To Ground		
1448		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.

N.

W. E.

S.

Drilling Firm P.E Letts & Son Date 7-11-72

Address 2413 Valley St Signed Tom Letts

*If additional space is needed to complete well log, use next consecutive numbered form.

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Appendix B

Boring Logs and Monitoring Well Construction Details

Tetra Tech Inc.
250 W. Court St., Suite 200W
Cincinnati, Ohio 45202

PROJECT NAME: Valley Pike	**DRILLING COMPANY: Cascade**	**BOREHOLE #: MW-EPA-7**	**SHEET: 1 of 2**
PROJECT NUMBER: 103I90260001S1404011	**RIG TYPE: Rotosonic**	**ELEVATION: 782.64**	
SITE NAME: Mullins	**BORING TYPE:** MW ☑ PIEZO ☐ SB ☐	**TOTAL DEPTH: 48**	
COUNTY: Montgomery	**DRILLER: Ray**	**STATIC WATER LEVEL: Not Measured**	
CITY, STATE: Dayton, OH	**LOGGED BY: Kevin Losekamp**	**BOREHOLE DIAMETER: 6"**	
PROJECT MANAGER: Guy Montfort	**SAMPLING METHOD: Sonic**	**START DATE: 10/9/14**	**FINISH DATE: 10/9/14**

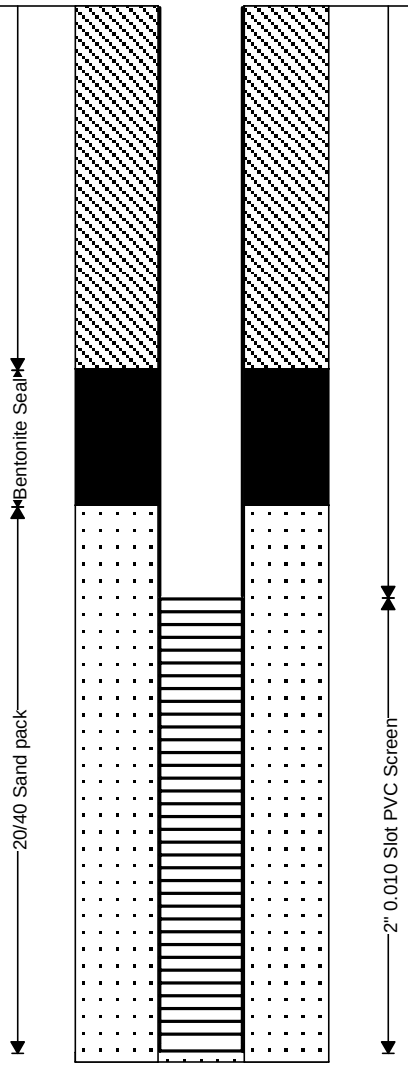
SUBSURFACE PROFILE			SAMPLE			WELL CONSTRUCTION
DEPTH (FT)	LITHOLOGY	DESCRIPTION	SAMPLE ID	PID (ppm) "bagged"	RECOVERY (%)	
		ASPHALT Asphalt & concrete paving material		0	100	Bentonite Grout; 2" PVC Riser
		SILTY CLAY Brown stiff silty clay with some gravel	S-1	1.0	100	
				0	100	
		SAND and GRAVEL Brown sand & gravel, moist		0.7	100	
5				0.9	100	
				8.2	100	
		Petroleum odor from 8-10' bgs		12.3	100	
			S-2	15.1	100	
10				0.3	100	
				0.3	100	
				4.4	100	
				8.5	100	
15				8.8	100	
				13.1	100	
				15.9	100	
		CLAY and GRAVEL Grey very dense clay and gravel till		0.0	100	
				0.0	100	
				0.0	100	
20				0.0	100	
				0.0	100	
25				0.0	100	

NOTES: ft or '= feet bgs = below ground surface * = Indicates Sample Submitted for Laboratory Analysis

Tetra Tech EM Inc.
250 W. Court St., Suite 200W
Cincinnati, Ohio 45202

PROJECT NAME: Valley Pike	**DRILLING COMPANY: Cascade**	**BOREHOLE #: MW-EPA-7**	**SHEET: 2 of 2**
PROJECT NUMBER: 103I90260001S1404011	**RIG TYPE: Rotosonic**	**ELEVATION: 782.64**	
SITE NAME: Mullins	**BORING TYPE:** MW ☑ PIEZO ☐ SB ☐	**TOTAL DEPTH: 48**	
COUNTY: Montgomery	**DRILLER: Ray**	**STATIC WATER LEVEL: Not Measured**	
CITY, STATE: Dayton, OH	**LOGGED BY: Kevin Losekamp**	**BOREHOLE DIAMETER: 6"**	
PROJECT MANAGER: Guy Montfort	**SAMPLING METHOD: Sonic**	**START DATE: 10/9/14**	**FINISH DATE: 10/9/14**

SUBSURFACE PROFILE			SAMPLE			WELL CONSTRUCTION
DEPTH (FT)	LITHOLOGY	DESCRIPTION	SAMPLE ID	PID (ppm) "bagged"	RECOVERY (%)	
				0.0	100	
				0.0	100	
30				0.0	100	
				0.0	100	
35				0.0	100	
		SAND and GRAVEL Brown loose sand & gravel, wet		0.0	100	
				0.0	100	
40				0.0	100	
				0.0	100	
45		**SAND** Brown loose fine sand				
				0.0	100	
50						



NOTES: ft or '= feet bgs = below ground surface * = Indicates Sample Submitted for Laboratory Analysis

Tetra Tech Inc.
250 W. Court St., Suite 200W
Cincinnati, Ohio 45202

PROJECT NAME: Valley Pike VOC	**DRILLING COMPANY: Envirocore**	**BOREHOLE #: MW-EPA-8**	**SHEET: 1 of 2**
PROJECT NUMBER: 103I90260001S1404011	**RIG TYPE: Rotosonic**	**ELEVATION: 781.5**	
SITE NAME: Valley Street	**BORING TYPE:** MW ☑ PIEZO ☐ SB ☐	**TOTAL DEPTH: 40**	
COUNTY: Montgomery	**DRILLER: Adam**	**STATIC WATER LEVEL: 22'**	
CITY, STATE: Dayton, OH	**LOGGED BY: Kevin Losekamp**	**BOREHOLE DIAMETER: 6"**	
PROJECT MANAGER: Guy Montfort	**SAMPLING METHOD: DPT**	**START DATE: 10/7/14**	**FINISH DATE: 10/7/14**

SUBSURFACE PROFILE			SAMPLE			WELL CONSTRUCTION
DEPTH (FT)	LITHOLOGY	DESCRIPTION	SAMPLE ID	PID (ppm) "bagged"	RECOVERY (%)	
		GRAVEL Light brown loose gravel Some clayat 3.5' bgs Slight petroleum odor at 4' bgs	0-1	0.0	100	Bentonite Grout 1.5" PVC Riser
			1-2	0.0	100	
			2-3	0.0	100	
			3-4*	0.0	100	
		SAND and GRAVEL Brown loose sand & gravel	4-5	0.0	100	
5			5-6	0.0	100	
			6-8*	0.0	100	
			8-9	0.0	100	
			9-10	0.0	100	
10			10-11	0.7	100	
			11-12	0.9	100	
			12-13	0.8	100	
			13-15*	0.9	100	
15		**CLAY and GRAVEL** Brown stiff clay and gravel till Fine to coarse gravel	15-16	0.0	100	
			16-17	0.0	100	
			17-18	0.0	100	
			18-19	3.1	100	
20			19-20	4.2	100	

NOTES: ft or '= feet bgs = below ground surface * = Indicates Sample Submitted for Laboratory Analysis

Tetra Tech EM Inc.
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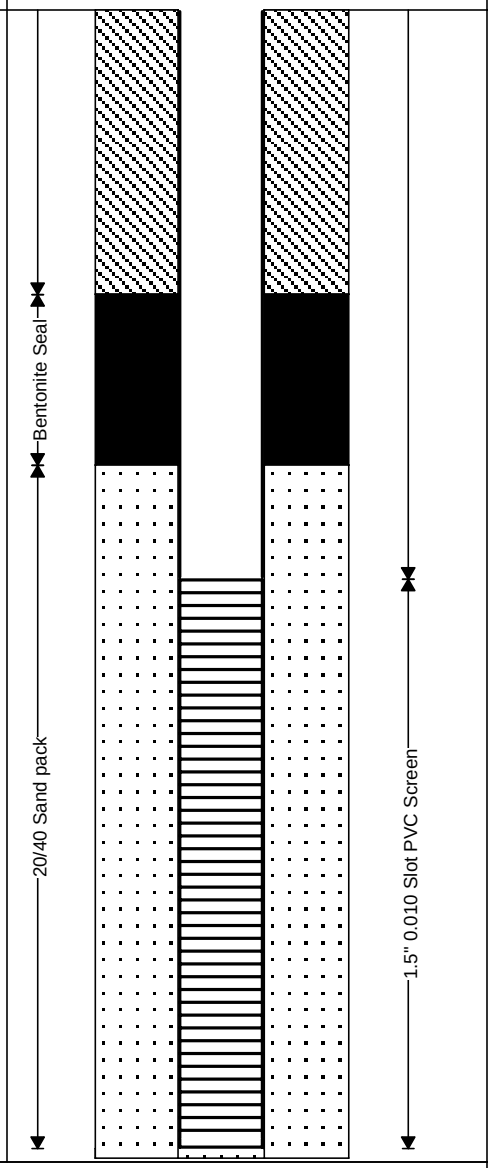
Cincinnati, Ohio 45202

PROJECT NAME: Valley Pike VOC	**DRILLING COMPANY: Envirocore**	**BOREHOLE #: MW-EPA-8**	**SHEET: 2 of 2**
PROJECT NUMBER: 103I90260001S1404011	**RIG TYPE: Rotosonic**	**ELEVATION: 781.5**	
SITE NAME: Valley Street	**BORING TYPE:** MW ☑ PIEZO ☐ SB ☐	**TOTAL DEPTH: 40**	
COUNTY: Montgomery	**DRILLER: Adam**	**STATIC WATER LEVEL: 22'**	
CITY, STATE: Dayton, OH	**LOGGED BY: Kevin Losekamp**	**BOREHOLE DIAMETER: 6"**	
PROJECT MANAGER: Guy Montfort	**SAMPLING METHOD: DPT**	**START DATE: 10/7/14**	**FINISH DATE: 10/7/14**

SUBSURFACE PROFILE			SAMPLE		
DEPTH (FT)	LITHOLOGY	DESCRIPTION	SAMPLE ID	PID (ppm) "bagged"	RECOVERY (%)
		SAND and GRAVEL Brown loose coarse gravel with some sand Wet	20-22*	8.7	100
		CLAY and GRAVEL Grey very stiff & tight clay & gravel till	22-23	10.8	100
			23-24	6.0	100
		Strong solvent odor at 25' bgs	24-25	10.4	100
25			25-26	3700	100
			26-27	3000	100
		SAND and GRAVEL Brown loose sand & gravel	27-28	600	100
		Wet	28-29	0.0	100
			29-30	1.7	100
30			30-31	1.6	100
			31-32	0.3	100
			32-33	0.1	100
			33-34	0.1	100
			34-35	0.1	100
35			35-36	0.0	100
			36-37	0.0	100
			37-38	0.0	100
			38-39	0.0	100
40			39-40	0.0	100

WELL CONSTRUCTION



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PROJECT NAME: Valley Pike VOC	**DRILLING COMPANY: Envirocore**	**BOREHOLE #: MW-EPA-9**	**SHEET: 1 of 2**
PROJECT NUMBER: 103I90260001S1404011	**RIG TYPE: Rotosonic**	**ELEVATION: 781.5**	
SITE NAME: Valley Street	**BORING TYPE:** MW ☑ PIEZO ☐ SB ☐	**TOTAL DEPTH: 40**	
COUNTY: Montgomery	**DRILLER: Adam**	**STATIC WATER LEVEL: 23.6**	
CITY, STATE: Dayton, OH	**LOGGED BY: Guy Montfort**	**BOREHOLE DIAMETER: 6"**	
PROJECT MANAGER: Guy Montfort	**SAMPLING METHOD: DPT**	**START DATE: 10/15/14**	**FINISH DATE: 10/15/14**

SUBSURFACE PROFILE			SAMPLE			WELL CONSTRUCTION
DEPTH (FT)	LITHOLOGY	DESCRIPTION	SAMPLE ID	PID (ppm) "bagged"	RECOVERY (%)	
		FILL Fill, gravel and misc trash	0-1	0.0	100	Bentonite Chips; 1.5" PVC Riser
			1-2	0.0	100	
			2-3	0.0	100	
		SILTY SAND and GRAVEL Brown silty sand & gravel	3-4	0.0	100	
		Grades to clayey silt with fine & coarse sand & gravel	4-5	0.0	100	
5			5-6	0.0	100	
		SILTY SAND Brown fine sand with silt and fine gravel	6-8	0.0	100	
			8-9	0.0	100	
			9-10	0.0	100	
10			10-11	0.0	100	
		Grades to more coarse sand Lighter brown	11-12	0.0	100	
			12-13	0.0	100	
		More silt	13-15	0.0	100	
15			15-16	0.0	100	
		Orange oxidation at 20-21' bgs	16-17	0.0	100	
			17-18	0.0	100	
		slight petroleum odor at 24' bgs	18-19	0.0	100	
20			19-20	0.0	100	

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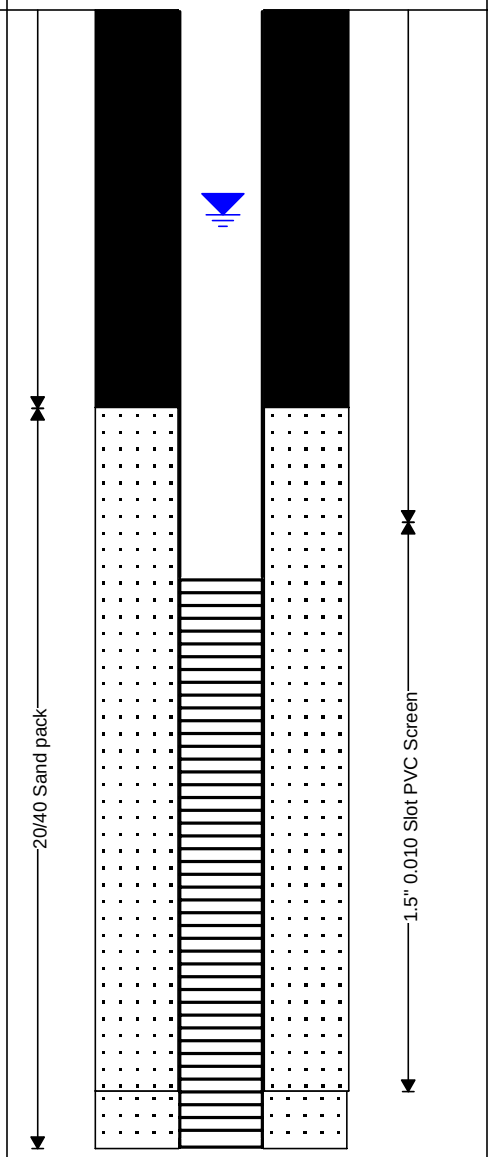
PROJECT NAME: Valley Pike VOC	**DRILLING COMPANY: Envirocore**	**BOREHOLE #: MW-EPA-9**	**SHEET: 2 of 2**
PROJECT NUMBER: 103I90260001S1404011	**RIG TYPE: Rotosonic**	**ELEVATION: 781.5**	
SITE NAME: Valley Street	**BORING TYPE:** MW ☑ PIEZO ☐ SB ☐	**TOTAL DEPTH: 40**	
COUNTY: Montgomery	**DRILLER: Adam**	**STATIC WATER LEVEL: 23.6**	
CITY, STATE: Dayton, OH	**LOGGED BY: Guy Montfort**	**BOREHOLE DIAMETER: 6"**	
PROJECT MANAGER: Guy Montfort	**SAMPLING METHOD: DPT**	**START DATE: 10/15/14**	**FINISH DATE: 10/15/14**

SUBSURFACE PROFILE			SAMPLE		
DEPTH (FT)	LITHOLOGY	DESCRIPTION	SAMPLE ID	PID (ppm) "bagged"	RECOVERY (%)
			20-22*	0.0	100
			22-23	0.0	100
			23-24	0.0	100
		CLAYEY SILT Brown hard clayey silt with trace of fine gravel	24-25	0.0	100
25		**SILTY SAND and GRAVEL** Brown fine to coarse sand & gravel with silt	25-26	0.0	100
			26-27	0.0	100
			27-28	0.0	100
			28-29	0.0	100
			29-30	0.0	100
30			30-31	0.0	100
		Sand grades to medium & coarse with more coarse gravel at 33-35' bgs	31-32	0.0	100
			32-33	0.0	100
			33-34	0.0	100
		Grades to mostly gravel	34-35	0.0	100
35			35-36	0.0	100
			36-37	0.0	100
			37-38	0.0	100
			38-39	0.0	100
40			39-40	0.0	100

WELL CONSTRUCTION



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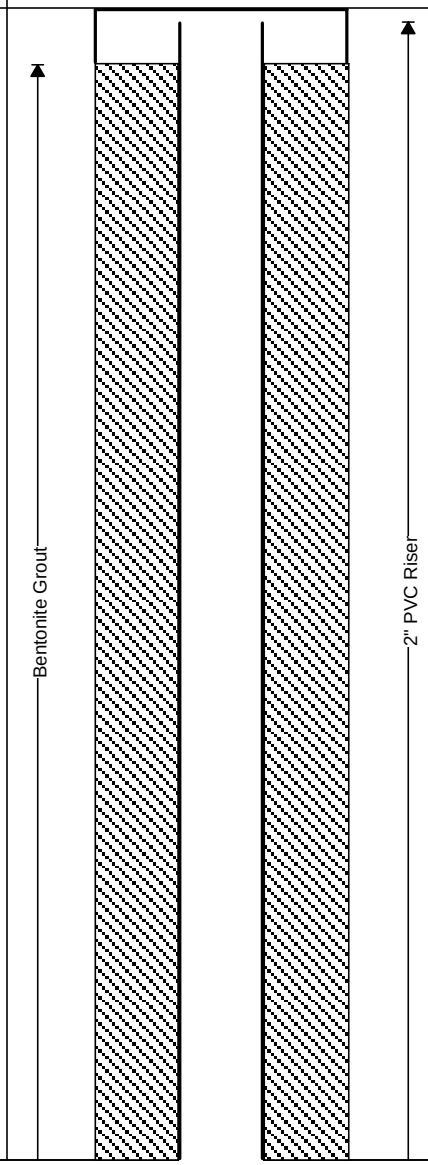
PROJECT NAME: Valley Pike VOC	**DRILLING COMPANY: Cascade**	**BOREHOLE #: MW-EPA-10**	**SHEET: 1 of 2**
PROJECT NUMBER: 103I90260001S1404011	**RIG TYPE: Rotosonic**	**ELEVATION: 781.76**	
SITE NAME: Valley Pike	**BORING TYPE:** MW ☑ PIEZO ☐ SB ☐	**TOTAL DEPTH: 40**	
COUNTY: Montgomery	**DRILLER: Ray**	**STATIC WATER LEVEL: Not Measured**	
CITY, STATE: Dayton, OH	**LOGGED BY: Guy Montfort**	**BOREHOLE DIAMETER: 6"**	
PROJECT MANAGER: Guy Montfort	**SAMPLING METHOD: Sonic**	**START DATE: 10/7/14**	**FINISH DATE: 10/7/14**

SUBSURFACE PROFILE			SAMPLE			WELL CONSTRUCTION
DEPTH (FT)	LITHOLOGY	DESCRIPTION	SAMPLE ID	PID (ppm) "bagged"	RECOVERY (%)	
		SILTY CLAY and GRAVEL Brown Clayey silt with gravel	0-1	0.0	50	
			1-2	0.0	50	
			2-3	0.0	50	
		SILTY SAND and GRAVEL Brown silty fine to coarse sand & gravel	3-4	0.0	50	
			4-5	0.0	50	
5		Odor at 7-9' bgs	5-6	0.0	50	
			6-8	0.0	50	
		Grades to less silt at 15' bgs	7-9	1.0	50	
		More coarse gravel with cobbles	8-9	1.0	50	
			9-10	1.0	50	
10			10-11	1.0	50	
			11-12	1.0	50	
			12-13	1.0	50	
			13-15	1.0	50	
15			15-16	1.0	50	
			16-17	1.0	50	
			17-18	1.0	50	
			18-19	1.0	50	
20			19-20	1.0	50	



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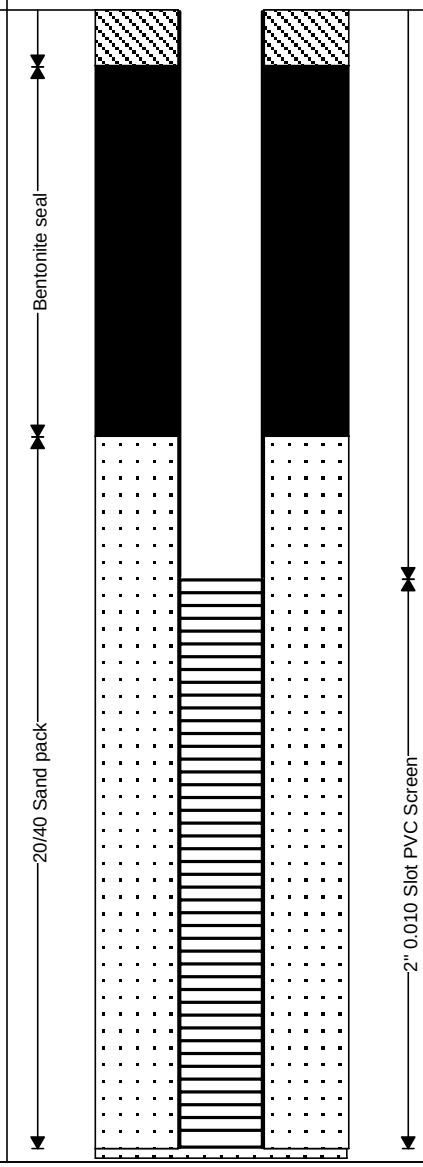
PROJECT NAME: Valley Pike VOC	**DRILLING COMPANY: Cascade**	**BOREHOLE #: MW-EPA-10**	**SHEET: 2 of 2**
PROJECT NUMBER: 103I90260001S1404011	**RIG TYPE: Rotosonic**	**ELEVATION: 781.76**	
SITE NAME: Valley Pike	**BORING TYPE:** MW ☑ PIEZO ☐ SB ☐	**TOTAL DEPTH: 40**	
COUNTY: Montgomery	**DRILLER: Ray**	**STATIC WATER LEVEL: Not Measured**	
CITY, STATE: Dayton, OH	**LOGGED BY: Guy Montfort**	**BOREHOLE DIAMETER: 6"**	
PROJECT MANAGER: Guy Montfort	**SAMPLING METHOD: Sonic**	**START DATE: 10/7/14**	**FINISH DATE: 10/7/14**

SUBSURFACE PROFILE			SAMPLE		
DEPTH (FT)	LITHOLOGY	DESCRIPTION	SAMPLE ID	PID (ppm) "bagged"	RECOVERY (%)
		CLAY Brown hard clay till with fine gravel slightly moist	20-22	0.5	100
			22-23	0.5	100
			23-24	0.5	100
25		**SAND and GRAVEL** Brown fine to coarse gravel with coarse sand	24-25	0.5	100
			25-26	0.5	100
			26-27	0.5	100
30		**SAND and GRAVEL** Brown fine to coarse sand & gravel	27-28	0.5	100
			28-29	0.5	100
			29-30	0.8	100
			30-31	0.8	100
			31-32	0.8	100
		Sand grades to medium & coarse with more coarse gravel at 33-35' bgs	32-33	0.8	100
			33-34	0.8	100
35		Grades to mostly gravel	34-35	0.8	100
			35-36	0.6	100
			36-37	0.6	100
			37-38	1.2	100
			38-39	1.2	100
40			39-40	1.2	100

WELL CONSTRUCTION



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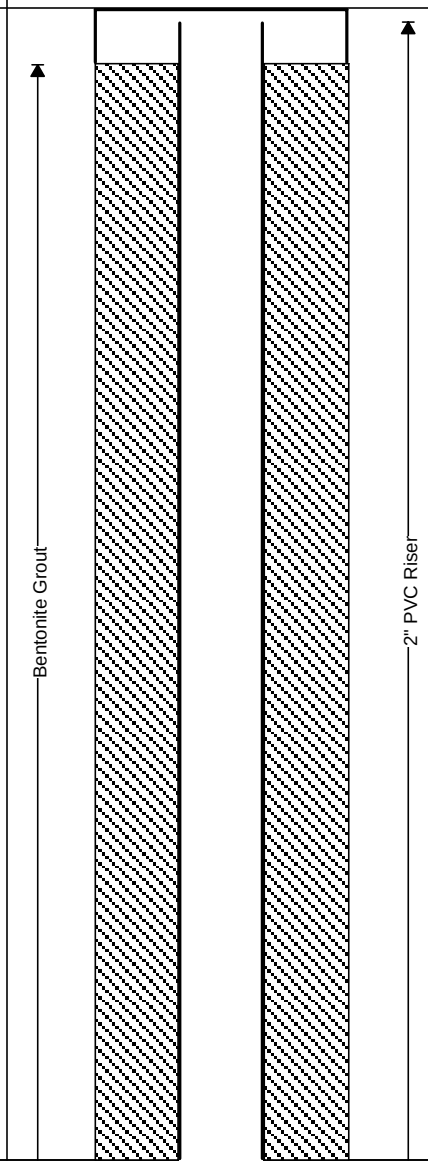
PROJECT NAME: Valley Pike VOC	**DRILLING COMPANY: Cascade**	**BOREHOLE #: MW-EPA-11**	**SHEET: 1 of 2**
PROJECT NUMBER: 103I90260001S1404011	**RIG TYPE: Rotosonic**	**ELEVATION: 783.04**	
SITE NAME: Valley Pike	**BORING TYPE:** MW ☑ PIEZO ☐ SB ☐	**TOTAL DEPTH: 39**	
COUNTY: Montgomery	**DRILLER: Ray**	**STATIC WATER LEVEL: Not Measured**	
CITY, STATE: Dayton, OH	**LOGGED BY: Kevin Losekamp**	**BOREHOLE DIAMETER: 6"**	
PROJECT MANAGER: Guy Montfort	**SAMPLING METHOD: Sonic**	**START DATE: 10/6/14**	**FINISH DATE: 10/6/14**

SUBSURFACE PROFILE			SAMPLE			WELL CONSTRUCTION
DEPTH (FT)	LITHOLOGY	DESCRIPTION	SAMPLE ID	PID (ppm) "bagged"	RECOVERY (%)	
		ASPHALT Asphalt paving material	0-1	0.0	90	
		GRAVEL Grey loose gravel fill	1-2	0.0	90	
		CLAYEY GRAVEL Dark tan loose clayey gravel	2-3	0.0	90	
			3-4	0.0	90	
		SAND and GRAVEL Brown sand & gravel	4-5	0.0	90	
5			5-6	0.0	90	
			6-8	0.0	90	
			7-9	0.0	90	
			8-9	0.0	90	
			9-10	0.0	90	
10		**SAND** Light brown loose medium sand with some medium gravel	10-11	0.0	90	
			11-12	0.0	90	
		SILTY CLAY Brown medium stiff silty clay till with some fine to coarse gravel	12-13	0.0	90	
		SILTY CLAY Grey very stiff silty clay till with some fine to coarse gravel	13-15	0.0	90	
15			15-16	0.0	90	
			16-17	0.0	90	
			17-18	0.0	90	
		GRAVEL Light brown loose coarse gravel	18-19	0.0	90	
		Wet at 20' bgs	19-20	0.0	90	
20						



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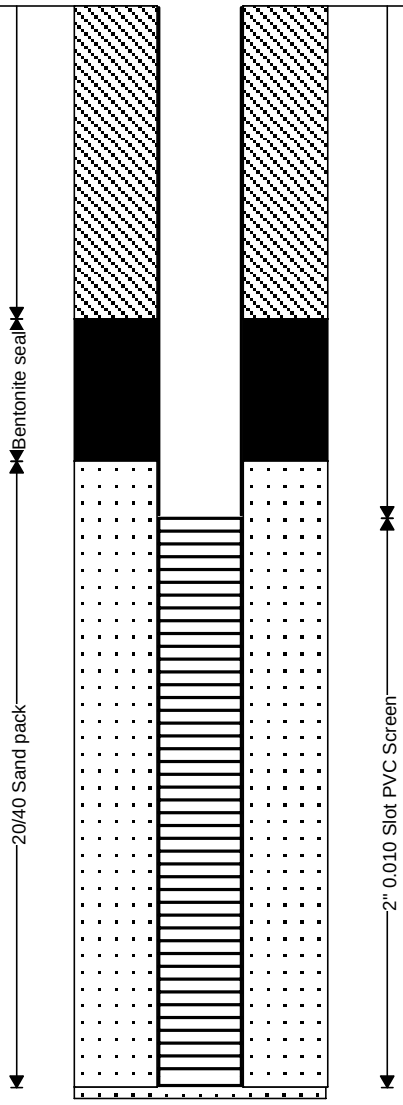
PROJECT NAME: Valley Pike VOC	**DRILLING COMPANY: Cascade**	**BOREHOLE #: MW-EPA-11**	**SHEET: 2 of 2**
PROJECT NUMBER: 103I90260001S1404011	**RIG TYPE: Rotosonic**	**ELEVATION: 783.04**	
SITE NAME: Valley Pike	**BORING TYPE:** MW ☑ PIEZO ☐ SB ☐	**TOTAL DEPTH: 39**	
COUNTY: Montgomery	**DRILLER: Ray**	**STATIC WATER LEVEL: Not Measured**	
CITY, STATE: Dayton, OH	**LOGGED BY: Kevin Losekamp**	**BOREHOLE DIAMETER: 6"**	
PROJECT MANAGER: Guy Montfort	**SAMPLING METHOD: Sonic**	**START DATE: 10/6/14**	**FINISH DATE: 10/6/14**

SUBSURFACE PROFILE			SAMPLE		
DEPTH (FT)	LITHOLOGY	DESCRIPTION	SAMPLE ID	PID (ppm) "bagged"	RECOVERY (%)
		SILTY CLAY Grey very stiff silty clay till with fine to coarse gravel	20-22	0.0	100
			22-23	0.0	100
			23-24	0.0	100
			24-25	0.0	100
25			25-26	0.0	100
		SAND and GRAVEL Light grey loose fine to coarse sand & gravel	26-27	0.0	100
			27-28	0.0	100
		SILTY CLAY Grey stiff silty clay till with fine to coarse gravel	28-29	0.0	100
			29-30	0.0	100
30		**SAND and GRAVEL** Light brown fine to coarse sand & gravel with some clay	30-31	0.0	100
			31-32	0.0	100
			32-33	0.0	100
			33-34	0.0	100
			34-35	0.0	100
35			35-36	0.0	100
			36-37	0.0	100
			37-38	0.0	100
			38-39	0.0	100
			39-40	0.0	100
40					

WELL CONSTRUCTION



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PROJECT NAME: Valley Pike VOC	**DRILLING COMPANY: Cascade**	**BOREHOLE #: MW-EPA-12**	**SHEET: 1 of 2**
PROJECT NUMBER: 103I90260001S1404011	**RIG TYPE: Rotosonic**	**ELEVATION: 782.22**	
SITE NAME: Valley Pike	**BORING TYPE:** MW ☑ PIEZO ☐ SB ☐	**TOTAL DEPTH: 41.5**	
COUNTY: Montgomery	**DRILLER: Ray**	**STATIC WATER LEVEL: Not Measured**	
CITY, STATE: Dayton, OH	**LOGGED BY: Guy Montfort**	**BOREHOLE DIAMETER: 6"**	
PROJECT MANAGER: Guy Montfort	**SAMPLING METHOD: Sonic**	**START DATE: 10/7/14**	**FINISH DATE: 10/7/14**

SUBSURFACE PROFILE			SAMPLE			WELL CONSTRUCTION
DEPTH (FT)	LITHOLOGY	DESCRIPTION	SAMPLE ID	PID (ppm) "bagged"	RECOVERY (%)	
		TOPSOIL Brown topsoil to 6" bgs	0-1	0.0	100	Bentonite Grout; 2" PVC Riser
		SILT Brown silt, slightly moist, Grades to gravely silt	1-2	0.0	100	
			2-3	0.0	100	
			3-4	0.0	0	
			4-5	0.0	20	
5			5-6	0.0	100	
			6-8	0.0	100	
		SILTY SAND and GRAVEL Grey-brown silty fine sand & gravel, Pertorleum odor at 7-9' bgs	7-9	0.0	100	
			8-9	0.9	100	
		Grades more silt & gravel	9-10	1.8	100	
10		More coarse gravel & cobble fragments	10-11	0.0	100	
			11-12	0.0	100	
			12-13	1.1	100	
			13-15	0.0	100	
15			15-16	0.0	100	
			16-17	0.0	100	
			17-18	2.2	100	
		SILTY CLAY Grey dense silty clay till with trace gravel	18-19	0.0	100	
20		**SILTY SAND** Brown silty fine to coarse sand with fine to coarse gravel, Moist, trace clay & cobbles	19-20	0.0	100	
			20-22	0.0	100	

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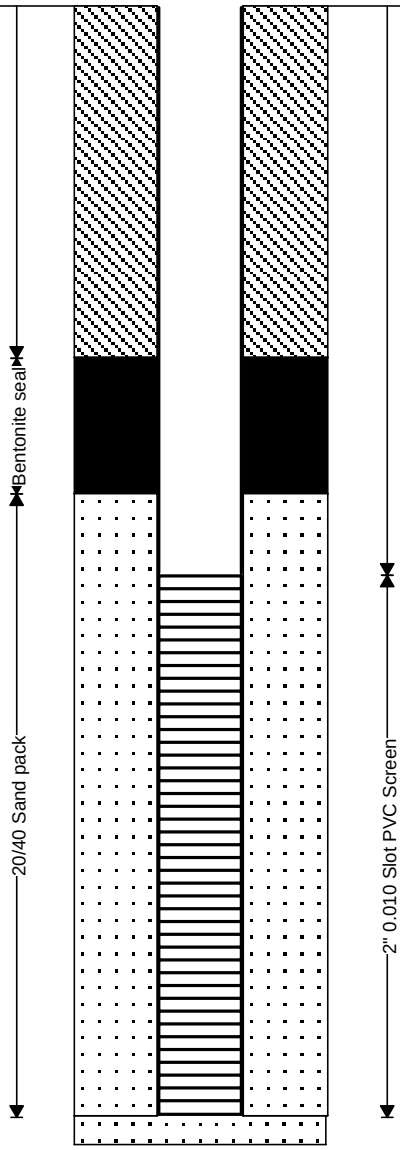
PROJECT NAME: Valley Pike VOC	**DRILLING COMPANY: Cascade**	**BOREHOLE #: MW-EPA-12**	**SHEET: 2 of 2**
PROJECT NUMBER: 103I90260001S1404011	**RIG TYPE: Rotosonic**	**ELEVATION: 782.22**	
SITE NAME: Valley Pike	**BORING TYPE:** MW ☑ PIEZO ☐ SB ☐	**TOTAL DEPTH: 41.5**	
COUNTY: Montgomery	**DRILLER: Ray**	**STATIC WATER LEVEL: Not Measured**	
CITY, STATE: Dayton, OH	**LOGGED BY: Guy Montfort**	**BOREHOLE DIAMETER: 6"**	
PROJECT MANAGER: Guy Montfort	**SAMPLING METHOD: Sonic**	**START DATE: 10/7/14**	**FINISH DATE: 10/7/14**

SUBSURFACE PROFILE			SAMPLE		
DEPTH (FT)	LITHOLOGY	DESCRIPTION	SAMPLE ID	PID (ppm) "bagged"	RECOVERY (%)
		SILTY CLAY Grey dense silty clay till with cobbles	20-22		
			22-23	0.0	100
			23-24	0.0	100
			24-25	0.0	100
		SILTY CLAY and GRAVEL Grey dense silty clay till with fine gravel	25-26	0.0	100
26			26-27	0.0	100
		Grades more silty	27-28	0.1	100
			28-29	0.0	100
			29-30	0.0	100
		SAND and GRAVEL Brown sand & gravel, wet	30-31	0.0	100
31			31-32	0.0	100
			32-33	0.0	100
			33-34	0.0	100
			34-35	0.0	100
			35-36	0.0	100
36			36-37	0.0	100
			37-38	0.0	100
			38-39	0.0	100
			39-40	0.0	100
41					

WELL CONSTRUCTION



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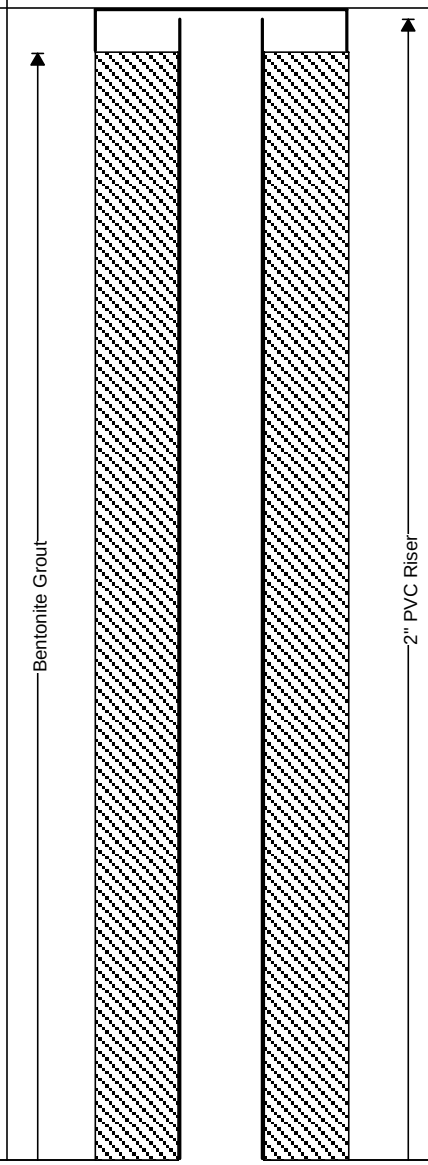
PROJECT NAME: Valley Pike VOC	**DRILLING COMPANY: Cascade**	**BOREHOLE #: MW-EPA-13**	**SHEET: 1 of 2**
PROJECT NUMBER: 103I90260001S1404011	**RIG TYPE: Rotosonic**	**ELEVATION: 780.03**	
SITE NAME: Valley Pike	**BORING TYPE:** MW ☑ PIEZO ☐ SB ☐	**TOTAL DEPTH: 48**	
COUNTY: Montgomery	**DRILLER: Ray**	**STATIC WATER LEVEL: Not Measured**	
CITY, STATE: Dayton, OH	**LOGGED BY: Kevin Losekamp**	**BOREHOLE DIAMETER: 6"**	
PROJECT MANAGER: Guy Montfort	**SAMPLING METHOD: Sonic**	**START DATE: 10/8/14**	**FINISH DATE: 10/8/14**

SUBSURFACE PROFILE			SAMPLE			WELL CONSTRUCTION
DEPTH (FT)	LITHOLOGY	DESCRIPTION	SAMPLE ID	PID (ppm) "bagged"	RECOVERY (%)	
		TOPSOIL Brown topsoil to 6" bgs	0-1	0.0	100	
		SAND and GRAVEL Brown loose fine to coarse sand & gravel	1-2	0.0	100	
			2-3	0.0	100	
			3-4	0.0	100	
			4-5	0.0	100	
5		Slight petroleum odor at 9-10' bgs	5-6	0.0	100	
			6-8	0.0	100	
			7-9	0.0	100	
			8-9	0.6	100	
			9-10	0.8	100	
10			10-11	0.0	100	
			11-12	0.0	100	
			12-13	0.0	100	
			13-15	0.0	100	
15		**CLAY and GRAVEL** Grey-brown clay and gravel till, moist	15-16	0.0	100	
			16-17	0.0	100	
		SAND and GRAVEL Brown loose sand & gravel with some clay	17-18	0.0	100	
			18-19	0.5	100	
			19-20	0.3	100	
20		**CLAY and GRAVEL** Grey very hard & tight clay & gravel till	20-22	0.0	100	
			22-23	0.0	100	
			23-24	0.0	100	
25			24-25	0.0	100	



NOTES: ft or '= feet bgs = below ground surface * = Indicates Sample Submitted for Laboratory Analysis

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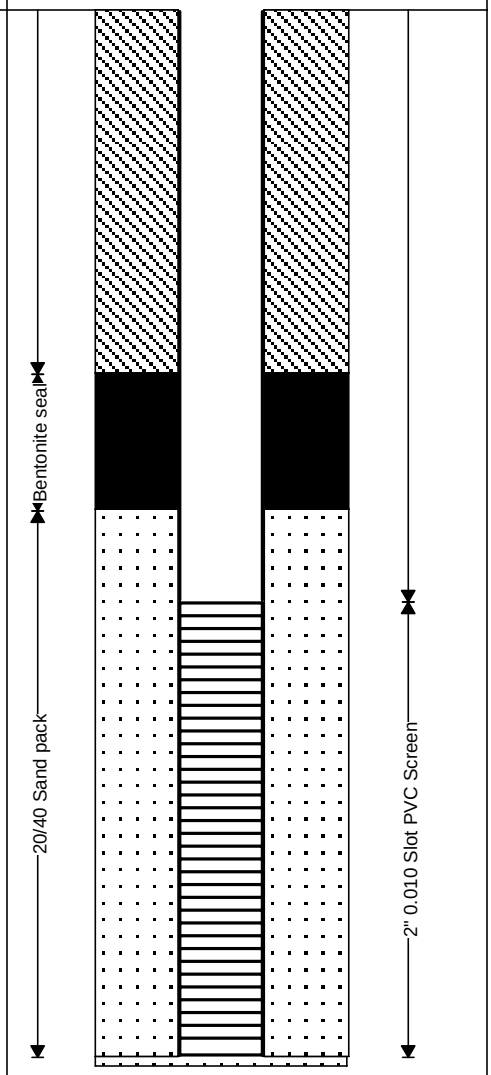
Cincinnati, Ohio 45202

PROJECT NAME: Valley Pike VOC	**DRILLING COMPANY: Cascade**	**BOREHOLE #: MW-EPA-13**	**SHEET: 2 of 2**
PROJECT NUMBER: 103I90260001S1404011	**RIG TYPE: Rotosonic**	**ELEVATION: 780.03**	
SITE NAME: Valley Pike	**BORING TYPE:** MW ☑ PIEZO ☐ SB ☐	**TOTAL DEPTH: 48**	
COUNTY: Montgomery	**DRILLER: Ray**	**STATIC WATER LEVEL: Not Measured**	
CITY, STATE: Dayton, OH	**LOGGED BY: Kevin Losekamp**	**BOREHOLE DIAMETER: 6"**	
PROJECT MANAGER: Guy Montfort	**SAMPLING METHOD: Sonic**	**START DATE: 10/8/14**	**FINISH DATE: 10/8/14**

SUBSURFACE PROFILE			SAMPLE			WELL CONSTRUCTION
DEPTH (FT)	LITHOLOGY	DESCRIPTION	SAMPLE ID	PID (ppm) "bagged"	RECOVERY (%)	
			25-26	0.0	100	
			26-27	0.0	100	
			27-28	0.0	100	
			28-29	0.0	100	
			29-30	0.0	100	
30			30-31	0.0	100	
			31-32	0.0	100	
			32-33	0.0	100	
			33-34	0.0	100	
			34-35	0.0	100	
35			35-36	0.0	100	
			36-37	0.0	100	
			37-38	0.0	100	
		SAND and GRAVEL Brown loose sand & gravel	38-39	0.0	100	
			39-40	0.0	100	
40		**SAND** Grey loose fine sand	40-41	0.0	100	
			41-42	0.0	100	
			42-43	0.0	100	
			43-44	0.0	100	
			44-45	0.0	100	
45			45-46	0.0	100	
			46-47	0.0	100	
			47-48	0.0	100	
50						



NOTES: ft or '= feet bgs = below ground surface * = Indicates Sample Submitted for Laboratory Analysis

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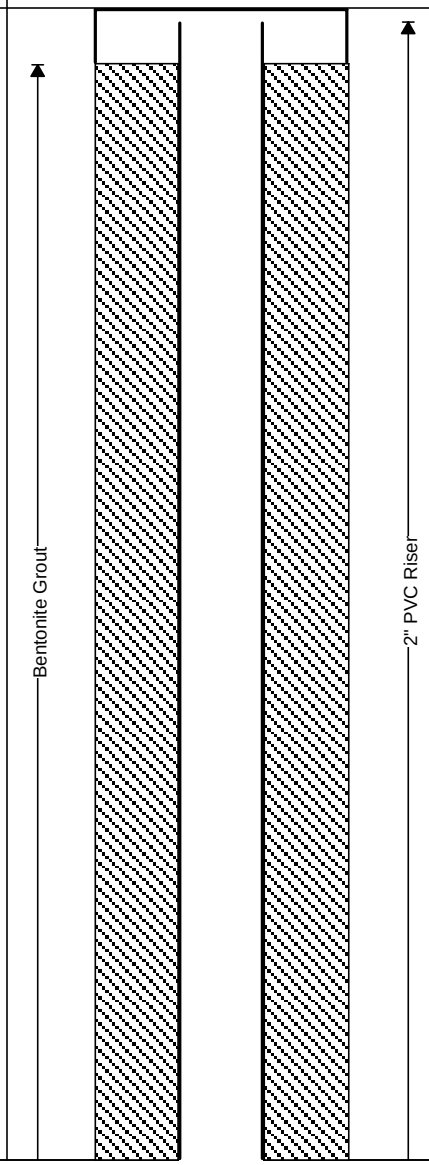
Cincinnati, Ohio 45202

PROJECT NAME: Valley Pike VOC	**DRILLING COMPANY: Cascade**	**BOREHOLE #: MW-EPA-14**	**SHEET: 1 of 2**
PROJECT NUMBER: 103I90260001S1404011	**RIG TYPE: Rotosonic**	**ELEVATION: 780.57**	
SITE NAME: Valley Pike	**BORING TYPE:** MW ☑ PIEZO ☐ SB ☐	**TOTAL DEPTH: 39.5**	
COUNTY: Montgomery	**DRILLER: Ray**	**STATIC WATER LEVEL: Not Measured**	
CITY, STATE: Dayton, OH	**LOGGED BY: Kevin Losekamp**	**BOREHOLE DIAMETER: 6"**	
PROJECT MANAGER: Guy Montfort	**SAMPLING METHOD: Sonic**	**START DATE: 10/9/14**	**FINISH DATE: 10/9/14**

SUBSURFACE PROFILE			SAMPLE			WELL CONSTRUCTION
DEPTH (FT)	LITHOLOGY	DESCRIPTION	SAMPLE ID	PID (ppm) "bagged"	RECOVERY (%)	
		TOPSOIL Brown topsoil & gravel to 6" bgs	0-1	0.0	100	
		CLAYEY GRAVEL Light brown clayey gravel with some sand	1-2	0.0	100	
			2-4*	0.0	100	
			4-5	0.0	100	
5		**SAND and GRAVEL** Light brown loose sand & gravel	5-6	8.3	100	
			6-7	8.0	100	
		Some clay at 11' bgs	7-9	8.1	100	
			8-10*	18.1	100	
10			10-11	1.3	100	
			11-12	2.1	100	
			12-13	2.2	100	
			13-15	0.8	100	
			14-15	0.7	100	
15			15-16	0.3	100	
			16-17	0.3	100	
			17-18	1.9	100	
			18-20*	11.1	100	
20						



NOTES: ft or '= feet bgs = below ground surface * = Indicates Sample Submitted for Laboratory Analysis

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PROJECT NAME: Valley Pike VOC	**DRILLING COMPANY: Cascade**	**BOREHOLE #: MW-EPA-14**	**SHEET: 2 of 2**
PROJECT NUMBER: 103I90260001S1404011	**RIG TYPE: Rotosonic**	**ELEVATION: 780.57**	
SITE NAME: Valley Pike	**BORING TYPE:** MW ☑ PIEZO ☐ SB ☐	**TOTAL DEPTH: 39.5**	
COUNTY: Montgomery	**DRILLER: Ray**	**STATIC WATER LEVEL: Not Measured**	
CITY, STATE: Dayton, OH	**LOGGED BY: Kevin Losekamp**	**BOREHOLE DIAMETER: 6"**	
PROJECT MANAGER: Guy Montfort	**SAMPLING METHOD: Sonic**	**START DATE: 10/9/14**	**FINISH DATE: 10/9/14**

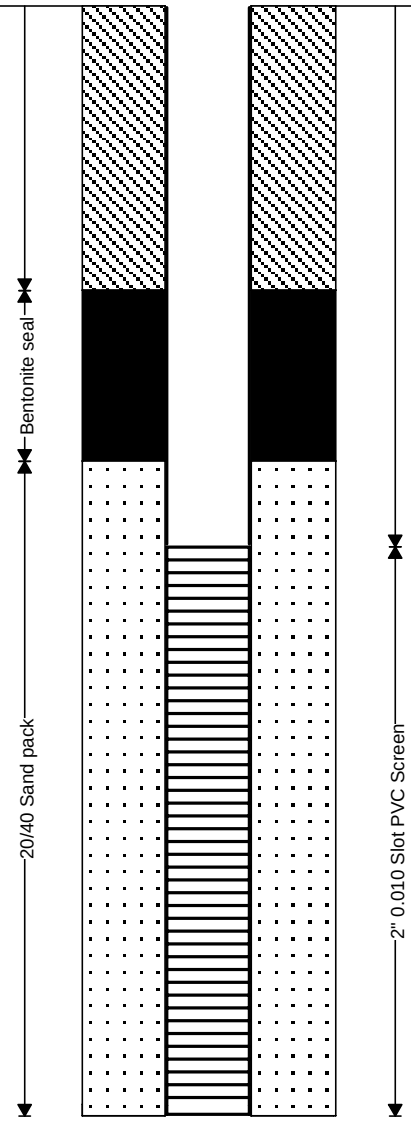
SUBSURFACE PROFILE

DEPTH (FT)	LITHOLOGY	DESCRIPTION
		GRAVEL Brown coarse gravel wet
		CLAY and GRAVEL Grey very hard & tight clay & gravel till
25		
		SAND and GRAVEL Brown loose sand & gravel
30		
35		
40		

SAMPLE

SAMPLE ID	PID (ppm) "bagged"	RECOVERY (%)
20-21	10.8	100
21-22	2.2	100
22-23	1.1	100
23-24	2.1	100
24-25	8.8	100
25-26	6.6	100
26-27	0.0	100
27-28	0.0	100
28-29	2.1	100
29-30	3.3	100
30-31	10.1	100
31-32	2.1	100
32-33	1.9	100
33-34	1.9	100
34-35	1.0	100
35-36	1.0	100
36-37	1.3	100
37-38	2.3	100
38-39	1.8	100
39-40	1.3	100

WELL CONSTRUCTION



NOTES: ft or '= feet bgs = below ground surface * = Indicates Sample Submitted for Laboratory Analysis

Appendix C

Sub-Slab Vapor Analytical Data Validation Report

Note: Project file contains full laboratory data reports.

TETRA TECH

DATA VALIDATION CHECKLIST – STAGE 4

Site Name	Valley Pike VOC Site	**Project No.**	0001-1404-011
Data Reviewer (signature and date)	Jessica A. Vickers 01/19/2015	**Technical Reviewer (signature and date)**	
Laboratory Report No.	10283276	**Laboratory**	Pace - Indianapolis
Analyses	Volatile Organic Compounds (VOCs) – TO-15		
Samples	VP-EPA-1-092714, VP-EPA-2-092714, VP-EPA-3-092714, VP-EPA-4-092714, VP-EPA-5-092714, and VP-EPA-6-092714		
Field Blanks	VP-EPA-6-092714 and VP-EPA-FD-092714		

This checklist summarizes the Stage 4 validation performed on the subject laboratory report, in accordance with the Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Organic Methods Data Review* (August 2014) data validation guidance document, as well as the above referenced methods.

Data completeness:

Within Criteria	Exceedance/Notes
X	

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
	Received a can (1282103013) not listed on the COC – lab instructed not to analyze

Instrument Performance Checks:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

Initial Calibration:

Within Criteria	Exceedance/Notes
	09/30/14 (11:10-16:26): RRF and %RSD exceeded criteria for trans-1,2-dichloroethene – flag "R" for non-detects for EPA-4-092714, VP-EPA-5-092714, and VP-EPA-6-092714 RRF exceeded criteria for 1,1-dichloroethane; 1,2-dichloropropane; bromodichloromethane; cis-1,3-dichloropropene; toluene; ethylbenzene; m,p-xylenes; o-xylene; 1,3-dichlorobenzene; 1,4-dichlorobenzene – flag "R" for non-detects for EPA-4-092714, VP-EPA-5-092714, and VP-EPA-6-092714 09/30/14 (11:17-14:41): %RSD exceeded criteria for trichloroethene and tetrachloroethene – flag trichloroethene "J" for VP-EPA-1-092714 and VP-EPA-3-092714and tetrachloroethene "J" for VP-EPA-1-092714, VP-EPA-2-092714, and VP-EPA-3-092714

Continuing Calibration:

Within Criteria	Exceedance/Notes
	%D exceeded criteria for trans-1,2-dichloroethene – associated results already flagged "R"

Calibration Verification:

Within Criteria	Exceedance/Notes
X	

Method blanks:

Within Criteria	Exceedance/Notes
X	

Field blanks:

Within Criteria	Exceedance/Notes
	None included in data package.

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
	Not required for air samples.

MS/MSD:

Within Criteria	Exceedance/Notes
	Not required for air samples.

Field duplicates:

Within Criteria	Exceedance/Notes
X	

Laboratory duplicates:

Within Criteria	Exceedance/Notes
X	

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
X	

Sample dilutions:

Within Criteria	Exceedance/Notes	
	1.55x: VOCs for VP-EPA-1-092714 1.61x: VOCs except trichloroethene for VP-EPA-2-092714 77.5x: Trichloroethene for VP-EPA-2-092714 1.61x: VOCs for VP-EPA-3-092714	537.6x: VOCs except tetrachloroethene for VP-EPA-4-092714 17203.2x: Tetrachloroethene for VP-EPA-4-092714 992x: VOCs for VP-EPA-5-092714 84x: VOCs for VP-EPA-6-092714 74.5x: VOCs for VP-EPA-FD-092714

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
	None were required

Internal Standards:

Within Criteria	Exceedance/Notes
X	

Target analyte identification:

Within Criteria	Exceedance/Notes
X	Manual integrations required: VP-EPA-1-092714 – benzene VP-EPA-2-092714 – benzene; ethylbenzene; n-hexane; 4-methyl-2-pentanone; vinyl acetate; m,p-xylenes; and o-xylene VP-EPA-3-092714 – benzene and ethanol

Analyte quantitation and MDLs/RLs:

Within Criteria	Exceedance/Notes
	No indication that results were reported down to the MDL – no action

System performance and instrument stability:

Within Criteria	Exceedance/Notes
X	

DATA VALIDATION CHECKLIST – STAGE 4

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

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ANALYTICAL RESULTS

Project: 30281-134 Valley Pike VOC Site
Pace Project No.: 10283276

Sample: VP-EPA-1-092714 **Lab ID: 10283276003** Collected: 09/28/14 14:32 Received: 09/30/14 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**6.0**	ug/m3	3.7	1.55		09/30/14 19:03	67-64-1	
Benzene	**0.52**	ug/m3	0.50	1.55		09/30/14 19:03	71-43-2	
Benzyl chloride	ND	ug/m3	4.1	1.55		09/30/14 19:03	100-44-7	
Bromodichloromethane	ND	ug/m3	2.1	1.55		09/30/14 19:03	75-27-4	
Bromoform	ND	ug/m3	3.3	1.55		09/30/14 19:03	75-25-2	
Bromomethane	ND	ug/m3	1.2	1.55		09/30/14 19:03	74-83-9	
1,3-Butadiene	ND	ug/m3	0.70	1.55		09/30/14 19:03	106-99-0	
2-Butanone (MEK)	**1.4**	ug/m3	0.93	1.55		09/30/14 19:03	78-93-3	
Carbon disulfide	ND	ug/m3	0.98	1.55		09/30/14 19:03	75-15-0	
Carbon tetrachloride	ND	ug/m3	2.0	1.55		09/30/14 19:03	56-23-5	
Chlorobenzene	ND	ug/m3	1.5	1.55		09/30/14 19:03	108-90-7	
Chloroethane	ND	ug/m3	0.84	1.55		09/30/14 19:03	75-00-3	
Chloroform	ND	ug/m3	0.77	1.55		09/30/14 19:03	67-66-3	
Chloromethane	ND	ug/m3	0.65	1.55		09/30/14 19:03	74-87-3	
Cyclohexane	ND	ug/m3	1.1	1.55		09/30/14 19:03	110-82-7	
Dibromochloromethane	ND	ug/m3	2.7	1.55		09/30/14 19:03	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.4	1.55		09/30/14 19:03	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.9	1.55		09/30/14 19:03	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.9	1.55		09/30/14 19:03	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.9	1.55		09/30/14 19:03	106-46-7	
Dichlorodifluoromethane	**3.0**	ug/m3	1.6	1.55		09/30/14 19:03	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.3	1.55		09/30/14 19:03	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.64	1.55		09/30/14 19:03	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.3	1.55		09/30/14 19:03	75-35-4	
cis-1,2-Dichloroethene	**1.6**	ug/m3	1.3	1.55		09/30/14 19:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		09/30/14 19:03	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.5	1.55		09/30/14 19:03	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.4	1.55		09/30/14 19:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.4	1.55		09/30/14 19:03	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.2	1.55		09/30/14 19:03	76-14-2	
Ethanol	ND	ug/m3	1.5	1.55		09/30/14 19:03	64-17-5	
Ethyl acetate	ND	ug/m3	1.1	1.55		09/30/14 19:03	141-78-6	
Ethylbenzene	ND	ug/m3	1.4	1.55		09/30/14 19:03	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.6	1.55		09/30/14 19:03	622-96-8	
n-Heptane	ND	ug/m3	1.3	1.55		09/30/14 19:03	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.4	1.55		09/30/14 19:03	87-68-3	
n-Hexane	ND	ug/m3	1.1	1.55		09/30/14 19:03	110-54-3	
2-Hexanone	ND	ug/m3	1.3	1.55		09/30/14 19:03	591-78-6	
Methylene Chloride	ND	ug/m3	5.5	1.55		09/30/14 19:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	3.2	1.55		09/30/14 19:03	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.1	1.55		09/30/14 19:03	1634-04-4	
Naphthalene	ND	ug/m3	4.1	1.55		09/30/14 19:03	91-20-3	
2-Propanol	ND	ug/m3	1.9	1.55		09/30/14 19:03	67-63-0	
Propylene	**0.54**	ug/m3	0.54	1.55		09/30/14 19:03	115-07-1	
Styrene	ND	ug/m3	1.3	1.55		09/30/14 19:03	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.1	1.55		09/30/14 19:03	79-34-5	
Tetrachloroethene	**44.1**	ug/m3	1.1	1.55		09/30/14 19:03	127-18-4	

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ANALYTICAL RESULTS

Project: 30281-134 Valley Pike VOC Site
Pace Project No.: 10283276

Sample: VP-EPA-1-092714 **Lab ID: 10283276003** Collected: 09/28/14 14:32 Received: 09/30/14 10:00 Matrix: Air

Parameters	Results	Units		Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Tetrahydrofuran	ND	ug/m3	U	0.93	1.55		09/30/14 19:03	109-99-9	
Toluene	**1.9**	ug/m3		1.2	1.55		09/30/14 19:03	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	U	2.3	1.55		09/30/14 19:03	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3		1.7	1.55		09/30/14 19:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3		0.85	1.55		09/30/14 19:03	79-00-5	
Trichloroethene	**104**	ug/m3	J	0.85	1.55		09/30/14 19:03	79-01-6	
Trichlorofluoromethane	**1.9**	ug/m3		1.8	1.55		09/30/14 19:03	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	U	2.5	1.55		09/30/14 19:03	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3		1.5	1.55		09/30/14 19:03	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3		1.5	1.55		09/30/14 19:03	108-67-8	
Vinyl acetate	ND	ug/m3		1.1	1.55		09/30/14 19:03	108-05-4	
Vinyl chloride	ND	ug/m3		0.40	1.55		09/30/14 19:03	75-01-4	
m&p-Xylene	ND	ug/m3		2.7	1.55		09/30/14 19:03	179601-23-1	
o-Xylene	ND	ug/m3		1.4	1.55		09/30/14 19:03	95-47-6	

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Date: 10/01/2014 05:03 PM

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ANALYTICAL RESULTS

Project: 30281-134 Valley Pike VOC Site
Pace Project No.: 10283276

Sample: VP-EPA-2-092714 **Lab ID: 10283276002** Collected: 09/28/14 13:56 Received: 09/30/14 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**17.0**	ug/m3	3.9	1.61		09/30/14 18:38	67-64-1	
Benzene	**1.4**	ug/m3	0.52	1.61		09/30/14 18:38	71-43-2	
Benzyl chloride	ND	ug/m3	4.2	1.61		09/30/14 18:38	100-44-7	
Bromodichloromethane	ND	ug/m3	2.2	1.61		09/30/14 18:38	75-27-4	
Bromoform	ND	ug/m3	3.4	1.61		09/30/14 18:38	75-25-2	
Bromomethane	ND	ug/m3	1.3	1.61		09/30/14 18:38	74-83-9	
1,3-Butadiene	ND	ug/m3	0.72	1.61		09/30/14 18:38	106-99-0	
2-Butanone (MEK)	**2.0**	ug/m3	0.97	1.61		09/30/14 18:38	78-93-3	
Carbon disulfide	**1.0**	ug/m3	1.0	1.61		09/30/14 18:38	75-15-0	
Carbon tetrachloride	ND	ug/m3	2.1	1.61		09/30/14 18:38	56-23-5	
Chlorobenzene	ND	ug/m3	1.5	1.61		09/30/14 18:38	108-90-7	
Chloroethane	ND	ug/m3	0.87	1.61		09/30/14 18:38	75-00-3	
Chloroform	ND	ug/m3	0.80	1.61		09/30/14 18:38	67-66-3	
Chloromethane	ND	ug/m3	0.68	1.61		09/30/14 18:38	74-87-3	
Cyclohexane	ND	ug/m3	1.1	1.61		09/30/14 18:38	110-82-7	
Dibromochloromethane	ND	ug/m3	2.8	1.61		09/30/14 18:38	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.5	1.61		09/30/14 18:38	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	2.0	1.61		09/30/14 18:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	2.0	1.61		09/30/14 18:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	2.0	1.61		09/30/14 18:38	106-46-7	
Dichlorodifluoromethane	**3.3**	ug/m3	1.6	1.61		09/30/14 18:38	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.3	1.61		09/30/14 18:38	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.66	1.61		09/30/14 18:38	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.3	1.61		09/30/14 18:38	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/30/14 18:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/30/14 18:38	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.5	1.61		09/30/14 18:38	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.5	1.61		09/30/14 18:38	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.5	1.61		09/30/14 18:38	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.3	1.61		09/30/14 18:38	76-14-2	
Ethanol	ND	ug/m3	1.5	1.61		09/30/14 18:38	64-17-5	
Ethyl acetate	ND	ug/m3	1.2	1.61		09/30/14 18:38	141-78-6	
Ethylbenzene	**3.0**	ug/m3	1.4	1.61		09/30/14 18:38	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.6	1.61		09/30/14 18:38	622-96-8	
n-Heptane	ND	ug/m3	1.3	1.61		09/30/14 18:38	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.5	1.61		09/30/14 18:38	87-68-3	
n-Hexane	**1.5**	ug/m3	1.2	1.61		09/30/14 18:38	110-54-3	
2-Hexanone	ND	ug/m3	1.3	1.61		09/30/14 18:38	591-78-6	
Methylene Chloride	ND	ug/m3	5.7	1.61		09/30/14 18:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	**9.2**	ug/m3	3.4	1.61		09/30/14 18:38	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.2	1.61		09/30/14 18:38	1634-04-4	
Naphthalene	ND	ug/m3	4.3	1.61		09/30/14 18:38	91-20-3	
2-Propanol	ND	ug/m3	2.0	1.61		09/30/14 18:38	67-63-0	
Propylene	ND	ug/m3	0.56	1.61		09/30/14 18:38	115-07-1	
Styrene	ND	ug/m3	1.4	1.61		09/30/14 18:38	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.1	1.61		09/30/14 18:38	79-34-5	
Tetrachloroethene	**141**	ug/m3	1.1	1.61		09/30/14 18:38	127-18-4	

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ANALYTICAL RESULTS

Project: 30281-134 Valley Pike VOC Site
Pace Project No.: 10283276

Sample: VP-EPA-2-092714 **Lab ID: 10283276002** Collected: 09/28/14 13:56 Received: 09/30/14 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Tetrahydrofuran	ND	ug/m3	0.97	1.61		09/30/14 18:38	109-99-9	
Toluene	**2.8**	ug/m3	1.2	1.61		09/30/14 18:38	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.4	1.61		09/30/14 18:38	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.8	1.61		09/30/14 18:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.89	1.61		09/30/14 18:38	79-00-5	
Trichloroethene	**894**	ug/m3	84.6	77.5		10/01/14 15:13	79-01-6	
Trichlorofluoromethane	**3.9**	ug/m3	1.8	1.61		09/30/14 18:38	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.6	1.61		09/30/14 18:38	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.6	1.61		09/30/14 18:38	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.6	1.61		09/30/14 18:38	108-67-8	
Vinyl acetate	**2.2**	ug/m3	1.2	1.61		09/30/14 18:38	108-05-4	
Vinyl chloride	ND	ug/m3	0.42	1.61		09/30/14 18:38	75-01-4	
m&p-Xylene	**5.1**	ug/m3	2.8	1.61		09/30/14 18:38	179601-23-1	
o-Xylene	**3.1**	ug/m3	1.4	1.61		09/30/14 18:38	95-47-6	

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ANALYTICAL RESULTS

Project: 30281-134 Valley Pike VOC Site
Pace Project No.: 10283276

Sample: VP-EPA-3-092714 **Lab ID: 10283276001** Collected: 09/28/14 13:26 Received: 09/30/14 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**34.5**	ug/m3	3.9	1.61		09/30/14 17:48	67-64-1	
Benzene	**0.96**	ug/m3	0.52	1.61		09/30/14 17:48	71-43-2	
Benzyl chloride	ND	ug/m3	4.2	1.61		09/30/14 17:48	100-44-7	
Bromodichloromethane	ND	ug/m3	2.2	1.61		09/30/14 17:48	75-27-4	
Bromoform	ND	ug/m3	3.4	1.61		09/30/14 17:48	75-25-2	
Bromomethane	ND	ug/m3	1.3	1.61		09/30/14 17:48	74-83-9	
1,3-Butadiene	ND	ug/m3	0.72	1.61		09/30/14 17:48	106-99-0	
2-Butanone (MEK)	**4.9**	ug/m3	0.97	1.61		09/30/14 17:48	78-93-3	
Carbon disulfide	ND	ug/m3	1.0	1.61		09/30/14 17:48	75-15-0	
Carbon tetrachloride	ND	ug/m3	2.1	1.61		09/30/14 17:48	56-23-5	
Chlorobenzene	ND	ug/m3	1.5	1.61		09/30/14 17:48	108-90-7	
Chloroethane	ND	ug/m3	0.87	1.61		09/30/14 17:48	75-00-3	
Chloroform	ND	ug/m3	0.80	1.61		09/30/14 17:48	67-66-3	
Chloromethane	ND	ug/m3	0.68	1.61		09/30/14 17:48	74-87-3	
Cyclohexane	ND	ug/m3	1.1	1.61		09/30/14 17:48	110-82-7	
Dibromochloromethane	ND	ug/m3	2.8	1.61		09/30/14 17:48	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.5	1.61		09/30/14 17:48	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	2.0	1.61		09/30/14 17:48	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	2.0	1.61		09/30/14 17:48	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	2.0	1.61		09/30/14 17:48	106-46-7	
Dichlorodifluoromethane	**2.7**	ug/m3	1.6	1.61		09/30/14 17:48	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.3	1.61		09/30/14 17:48	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.66	1.61		09/30/14 17:48	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.3	1.61		09/30/14 17:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/30/14 17:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/30/14 17:48	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.5	1.61		09/30/14 17:48	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.5	1.61		09/30/14 17:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.5	1.61		09/30/14 17:48	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.3	1.61		09/30/14 17:48	76-14-2	
Ethanol	**3.6**	ug/m3	1.5	1.61		09/30/14 17:48	64-17-5	
Ethyl acetate	ND	ug/m3	1.2	1.61		09/30/14 17:48	141-78-6	
Ethylbenzene	ND	ug/m3	1.4	1.61		09/30/14 17:48	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.6	1.61		09/30/14 17:48	622-96-8	
n-Heptane	ND	ug/m3	1.3	1.61		09/30/14 17:48	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.5	1.61		09/30/14 17:48	87-68-3	
n-Hexane	ND	ug/m3	1.2	1.61		09/30/14 17:48	110-54-3	
2-Hexanone	ND	ug/m3	1.3	1.61		09/30/14 17:48	591-78-6	
Methylene Chloride	ND	ug/m3	5.7	1.61		09/30/14 17:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	3.4	1.61		09/30/14 17:48	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.2	1.61		09/30/14 17:48	1634-04-4	
Naphthalene	ND	ug/m3	4.3	1.61		09/30/14 17:48	91-20-3	
2-Propanol	ND	ug/m3	2.0	1.61		09/30/14 17:48	67-63-0	
Propylene	ND	ug/m3	0.56	1.61		09/30/14 17:48	115-07-1	
Styrene	ND	ug/m3	1.4	1.61		09/30/14 17:48	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.1	1.61		09/30/14 17:48	79-34-5	
Tetrachloroethene	**61.7**	ug/m3	1.1	1.61		09/30/14 17:48	127-18-4	

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ANALYTICAL RESULTS

Project: 30281-134 Valley Pike VOC Site
Pace Project No.: 10283276

Sample: VP-EPA-3-092714 **Lab ID: 10283276001** Collected: 09/28/14 13:26 Received: 09/30/14 10:00 Matrix: Air

Parameters	Results	Units		Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Tetrahydrofuran	ND	ug/m3	U	0.97	1.61		09/30/14 17:48	109-99-9	
Toluene	**2.2**	ug/m3		1.2	1.61		09/30/14 17:48	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	U	2.4	1.61		09/30/14 17:48	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3		1.8	1.61		09/30/14 17:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3		0.89	1.61		09/30/14 17:48	79-00-5	
Trichloroethene	**199**	ug/m3	J	0.89	1.61		09/30/14 17:48	79-01-6	
Trichlorofluoromethane	**2.0**	ug/m3		1.8	1.61		09/30/14 17:48	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	U	2.6	1.61		09/30/14 17:48	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3		1.6	1.61		09/30/14 17:48	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3		1.6	1.61		09/30/14 17:48	108-67-8	
Vinyl acetate	ND	ug/m3		1.2	1.61		09/30/14 17:48	108-05-4	
Vinyl chloride	ND	ug/m3		0.42	1.61		09/30/14 17:48	75-01-4	
m&p-Xylene	**3.3**	ug/m3		2.8	1.61		09/30/14 17:48	179601-23-1	
o-Xylene	**1.6**	ug/m3		1.4	1.61		09/30/14 17:48	95-47-6	

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ANALYTICAL RESULTS

Project: 30281-134 Valley Pike VOC Site
Pace Project No.: 10283276

Sample: VP-EPA-4-092714 **Lab ID: 10283276007** Collected: 09/28/14 15:44 Received: 09/30/14 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	1300	537.6		10/01/14 14:29	67-64-1	
Benzene	ND	ug/m3	349	537.6		10/01/14 14:29	71-43-2	
Benzyl chloride	ND	ug/m3	564	537.6		10/01/14 14:29	100-44-7	
Bromodichloromethane	~~ND~~	ug/m3	~~734~~	537.6		10/01/14 14:29	75-27-4	
Bromoform	ND	ug/m3	1130	537.6		10/01/14 14:29	75-25-2	
Bromomethane	ND	ug/m3	425	537.6		10/01/14 14:29	74-83-9	
1,3-Butadiene	ND	ug/m3	242	537.6		10/01/14 14:29	106-99-0	
2-Butanone (MEK)	ND	ug/m3	323	537.6		10/01/14 14:29	78-93-3	
Carbon disulfide	ND	ug/m3	339	537.6		10/01/14 14:29	75-15-0	
Carbon tetrachloride	ND	ug/m3	344	537.6		10/01/14 14:29	56-23-5	
Chlorobenzene	ND	ug/m3	1260	537.6		10/01/14 14:29	108-90-7	
Chloroethane	ND	ug/m3	290	537.6		10/01/14 14:29	75-00-3	
Chloroform	ND	ug/m3	534	537.6		10/01/14 14:29	67-66-3	
Chloromethane	ND	ug/m3	226	537.6		10/01/14 14:29	74-87-3	
Cyclohexane	ND	ug/m3	940	537.6		10/01/14 14:29	110-82-7	
Dibromochloromethane	ND	ug/m3	930	537.6		10/01/14 14:29	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	839	537.6		10/01/14 14:29	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	656	537.6		10/01/14 14:29	95-50-1	
1,3-Dichlorobenzene	~~ND~~	ug/m3	~~656~~	537.6		10/01/14 14:29	541-73-1	
1,4-Dichlorobenzene	~~ND~~	ug/m3	~~656~~	537.6		10/01/14 14:29	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	543	537.6		10/01/14 14:29	75-71-8	
1,1-Dichloroethane	~~ND~~	ug/m3	~~441~~	537.6		10/01/14 14:29	75-34-3	
1,2-Dichloroethane	ND	ug/m3	220	537.6		10/01/14 14:29	107-06-2	
1,1-Dichloroethene	ND	ug/m3	435	537.6		10/01/14 14:29	75-35-4	
cis-1,2-Dichloroethene	**4040**	ug/m3	435	537.6		10/01/14 14:29	156-59-2	
trans-1,2-Dichloroethene	~~ND~~	ug/m3	~~435~~	537.6		10/01/14 14:29	156-60-5	
1,2-Dichloropropane	~~ND~~	ug/m3	~~505~~	537.6		10/01/14 14:29	78-87-5	
cis-1,3-Dichloropropene	~~ND~~	ug/m3	~~495~~	537.6		10/01/14 14:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	495	537.6		10/01/14 14:29	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	763	537.6		10/01/14 14:29	76-14-2	
Ethanol	ND	ug/m3	516	537.6		10/01/14 14:29	64-17-5	
Ethyl acetate	ND	ug/m3	392	537.6		10/01/14 14:29	141-78-6	
Ethylbenzene	~~ND~~	ug/m3	~~473~~	537.6		10/01/14 14:29	100-41-4	
4-Ethyltoluene	ND	ug/m3	538	537.6		10/01/14 14:29	622-96-8	
n-Heptane	ND	ug/m3	1190	537.6		10/01/14 14:29	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	1180	537.6		10/01/14 14:29	87-68-3	
n-Hexane	ND	ug/m3	963	537.6		10/01/14 14:29	110-54-3	
2-Hexanone	ND	ug/m3	446	537.6		10/01/14 14:29	591-78-6	
Methylene Chloride	ND	ug/m3	1900	537.6		10/01/14 14:29	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	446	537.6		10/01/14 14:29	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	392	537.6		10/01/14 14:29	1634-04-4	
Naphthalene	ND	ug/m3	1430	537.6		10/01/14 14:29	91-20-3	
2-Propanol	ND	ug/m3	672	537.6		10/01/14 14:29	67-63-0	
Propylene	ND	ug/m3	188	537.6		10/01/14 14:29	115-07-1	
Styrene	ND	ug/m3	468	537.6		10/01/14 14:29	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	375	537.6		10/01/14 14:29	79-34-5	

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ANALYTICAL RESULTS

Project: 30281-134 Valley Pike VOC Site
Pace Project No.: 10283276

Sample: VP-EPA-4-092714 **Lab ID: 10283276007** Collected: 09/28/14 15:44 Received: 09/30/14 10:00 Matrix: Air

Parameters	Results	Units		Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Tetrachloroethene	**3550000**	ug/m3		23700	17203.2		10/01/14 16:00	127-18-4	
Tetrahydrofuran	ND	ug/m3	U	323	537.6		10/01/14 14:29	109-99-9	
Toluene	~~ND~~	ug/m3	R	~~414~~	537.6		10/01/14 14:29	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	U	812	537.6		10/01/14 14:29	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3		597	537.6		10/01/14 14:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3		296	537.6		10/01/14 14:29	79-00-5	
Trichloroethene	**25500**	ug/m3		587	537.6		10/01/14 14:29	79-01-6	
Trichlorofluoromethane	ND	ug/m3	U	613	537.6		10/01/14 14:29	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3		860	537.6		10/01/14 14:29	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3		537	537.6		10/01/14 14:29	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3		537	537.6		10/01/14 14:29	108-67-8	
Vinyl acetate	ND	ug/m3		385	537.6		10/01/14 14:29	108-05-4	
Vinyl chloride	ND	ug/m3		140	537.6		10/01/14 14:29	75-01-4	
m&p-Xylene	~~ND~~	ug/m3	R	~~946~~	537.6		10/01/14 14:29	179601-23-1	
o-Xylene	~~ND~~	ug/m3	R	~~473~~	537.6		10/01/14 14:29	95-47-6	

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ANALYTICAL RESULTS

Project: 30281-134 Valley Pike VOC Site
Pace Project No.: 10283276

Sample: VP-EPA-5-092714 **Lab ID: 10283276004** Collected: 09/28/14 14:57 Received: 09/30/14 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	2390	992		10/01/14 14:51	67-64-1	
Benzene	ND	ug/m3	644	992		10/01/14 14:51	71-43-2	
Benzyl chloride	ND	ug/m3	1040	992		10/01/14 14:51	100-44-7	
Bromodichloromethane	~~ND~~	ug/m3	~~1350~~	992		10/01/14 14:51	75-27-4	
Bromoform	ND	ug/m3	2080	992		10/01/14 14:51	75-25-2	
Bromomethane	ND	ug/m3	784	992		10/01/14 14:51	74-83-9	
1,3-Butadiene	ND	ug/m3	446	992		10/01/14 14:51	106-99-0	
2-Butanone (MEK)	ND	ug/m3	595	992		10/01/14 14:51	78-93-3	
Carbon disulfide	ND	ug/m3	625	992		10/01/14 14:51	75-15-0	
Carbon tetrachloride	ND	ug/m3	635	992		10/01/14 14:51	56-23-5	
Chlorobenzene	ND	ug/m3	2320	992		10/01/14 14:51	108-90-7	
Chloroethane	ND	ug/m3	536	992		10/01/14 14:51	75-00-3	
Chloroform	ND	ug/m3	985	992		10/01/14 14:51	67-66-3	
Chloromethane	ND	ug/m3	417	992		10/01/14 14:51	74-87-3	
Cyclohexane	ND	ug/m3	1740	992		10/01/14 14:51	110-82-7	
Dibromochloromethane	ND	ug/m3	1720	992		10/01/14 14:51	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1550	992		10/01/14 14:51	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1210	992		10/01/14 14:51	95-50-1	
1,3-Dichlorobenzene	~~ND~~	ug/m3	~~1210~~	992		10/01/14 14:51	541-73-1	
1,4-Dichlorobenzene	~~ND~~	ug/m3	~~1210~~	992		10/01/14 14:51	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1000	992		10/01/14 14:51	75-71-8	
1,1-Dichloroethane	~~ND~~	ug/m3	~~813~~	992		10/01/14 14:51	75-34-3	
1,2-Dichloroethane	ND	ug/m3	407	992		10/01/14 14:51	107-06-2	
1,1-Dichloroethene	ND	ug/m3	804	992		10/01/14 14:51	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	804	992		10/01/14 14:51	156-59-2	
trans-1,2-Dichloroethene	~~ND~~	ug/m3	~~804~~	992		10/01/14 14:51	156-60-5	
1,2-Dichloropropane	~~ND~~	ug/m3	~~932~~	992		10/01/14 14:51	78-87-5	
cis-1,3-Dichloropropene	~~ND~~	ug/m3	~~913~~	992		10/01/14 14:51	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	913	992		10/01/14 14:51	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1410	992		10/01/14 14:51	76-14-2	
Ethanol	ND	ug/m3	952	992		10/01/14 14:51	64-17-5	
Ethyl acetate	ND	ug/m3	724	992		10/01/14 14:51	141-78-6	
Ethylbenzene	~~ND~~	ug/m3	~~879~~	992		10/01/14 14:51	100-41-4	
4-Ethyltoluene	ND	ug/m3	992	992		10/01/14 14:51	622-96-8	
n-Heptane	ND	ug/m3	2190	992		10/01/14 14:51	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2180	992		10/01/14 14:51	87-68-3	
n-Hexane	ND	ug/m3	1780	992		10/01/14 14:51	110-54-3	
2-Hexanone	ND	ug/m3	823	992		10/01/14 14:51	591-78-6	
Methylene Chloride	ND	ug/m3	3500	992		10/01/14 14:51	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	823	992		10/01/14 14:51	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	724	992		10/01/14 14:51	1634-04-4	
Naphthalene	ND	ug/m3	2640	992		10/01/14 14:51	91-20-3	
2-Propanol	ND	ug/m3	1240	992		10/01/14 14:51	67-63-0	
Propylene	ND	ug/m3	347	992		10/01/14 14:51	115-07-1	
Styrene	ND	ug/m3	863	992		10/01/14 14:51	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	692	992		10/01/14 14:51	79-34-5	
Tetrachloroethene	**65000**	ug/m3	1370	992		10/01/14 15:38	127-18-4	

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ANALYTICAL RESULTS

Project: 30281-134 Valley Pike VOC Site
Pace Project No.: 10283276

Sample: VP-EPA-5-092714 **Lab ID: 10283276004** Collected: 09/28/14 14:57 Received: 09/30/14 10:00 Matrix: Air

Parameters	Results	Units		Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Tetrahydrofuran	ND	ug/m3	U	595	992		10/01/14 14:51	109-99-9	
Toluene	~~ND~~	ug/m3	R	~~764~~	992		10/01/14 14:51	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	U	1500	992		10/01/14 14:51	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3		1100	992		10/01/14 14:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3		546	992		10/01/14 14:51	79-00-5	
Trichloroethene	**44400**	ug/m3		1080	992		10/01/14 14:51	79-01-6	
Trichlorofluoromethane	ND	ug/m3	U	1130	992		10/01/14 14:51	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3		1590	992		10/01/14 14:51	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3		991	992		10/01/14 14:51	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3		991	992		10/01/14 14:51	108-67-8	
Vinyl acetate	ND	ug/m3		710	992		10/01/14 14:51	108-05-4	
Vinyl chloride	ND	ug/m3		258	992		10/01/14 14:51	75-01-4	
m&p-Xylene	~~ND~~	ug/m3	R	~~1750~~	992		10/01/14 14:51	179601-23-1	
o-Xylene	~~ND~~	ug/m3	R	~~873~~	992		10/01/14 14:51	95-47-6	

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ANALYTICAL RESULTS

Project: 30281-134 Valley Pike VOC Site
Pace Project No.: 10283276

Sample: VP-EPA-6-092714 **Lab ID: 10283276005** Collected: 09/28/14 15:20 Received: 09/30/14 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	203	84		10/01/14 13:45	67-64-1	
Benzene	ND	ug/m3	54.5	84		10/01/14 13:45	71-43-2	
Benzyl chloride	ND	ug/m3	88.2	84		10/01/14 13:45	100-44-7	
Bromodichloromethane	ND	ug/m3	114	84		10/01/14 13:45	75-27-4	
Bromoform	ND	ug/m3	176	84		10/01/14 13:45	75-25-2	
Bromomethane	ND	ug/m3	66.4	84		10/01/14 13:45	74-83-9	
1,3-Butadiene	ND	ug/m3	37.8	84		10/01/14 13:45	106-99-0	
2-Butanone (MEK)	ND	ug/m3	50.4	84		10/01/14 13:45	78-93-3	
Carbon disulfide	ND	ug/m3	52.9	84		10/01/14 13:45	75-15-0	
Carbon tetrachloride	ND	ug/m3	53.8	84		10/01/14 13:45	56-23-5	
Chlorobenzene	ND	ug/m3	197	84		10/01/14 13:45	108-90-7	
Chloroethane	ND	ug/m3	45.4	84		10/01/14 13:45	75-00-3	
Chloroform	ND	ug/m3	83.4	84		10/01/14 13:45	67-66-3	
Chloromethane	ND	ug/m3	35.3	84		10/01/14 13:45	74-87-3	
Cyclohexane	ND	ug/m3	147	84		10/01/14 13:45	110-82-7	
Dibromochloromethane	ND	ug/m3	145	84		10/01/14 13:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	131	84		10/01/14 13:45	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	102	84		10/01/14 13:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	102	84		10/01/14 13:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	102	84		10/01/14 13:45	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	84.8	84		10/01/14 13:45	75-71-8	
1,1-Dichloroethane	ND	ug/m3	68.9	84		10/01/14 13:45	75-34-3	
1,2-Dichloroethane	ND	ug/m3	34.4	84		10/01/14 13:45	107-06-2	
1,1-Dichloroethene	ND	ug/m3	68.0	84		10/01/14 13:45	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	68.0	84		10/01/14 13:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	68.0	84		10/01/14 13:45	156-60-5	
1,2-Dichloropropane	ND	ug/m3	79.0	84		10/01/14 13:45	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	77.3	84		10/01/14 13:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	77.3	84		10/01/14 13:45	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	119	84		10/01/14 13:45	76-14-2	
Ethanol	ND	ug/m3	80.6	84		10/01/14 13:45	64-17-5	
Ethyl acetate	ND	ug/m3	61.3	84		10/01/14 13:45	141-78-6	
Ethylbenzene	ND	ug/m3	73.9	84		10/01/14 13:45	100-41-4	
4-Ethyltoluene	ND	ug/m3	84.0	84		10/01/14 13:45	622-96-8	
n-Heptane	ND	ug/m3	185	84		10/01/14 13:45	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	185	84		10/01/14 13:45	87-68-3	
n-Hexane	ND	ug/m3	150	84		10/01/14 13:45	110-54-3	
2-Hexanone	ND	ug/m3	69.7	84		10/01/14 13:45	591-78-6	
Methylene Chloride	ND	ug/m3	297	84		10/01/14 13:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	69.7	84		10/01/14 13:45	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	61.3	84		10/01/14 13:45	1634-04-4	
Naphthalene	ND	ug/m3	223	84		10/01/14 13:45	91-20-3	
2-Propanol	ND	ug/m3	105	84		10/01/14 13:45	67-63-0	
Propylene	ND	ug/m3	29.4	84		10/01/14 13:45	115-07-1	
Styrene	ND	ug/m3	73.1	84		10/01/14 13:45	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	58.6	84		10/01/14 13:45	79-34-5	
Tetrachloroethene	**8380**	ug/m3	116	84		10/01/14 13:45	127-18-4	

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ANALYTICAL RESULTS

Project: 30281-134 Valley Pike VOC Site
Pace Project No.: 10283276

Sample: VP-EPA-6-092714 **Lab ID: 10283276005** Collected: 09/28/14 15:20 Received: 09/30/14 10:00 Matrix: Air

Parameters	Results	Units		Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Tetrahydrofuran	ND	ug/m3	U	50.4	84		10/01/14 13:45	109-99-9	
Toluene	~~ND~~	ug/m3	R	~~64.7~~	84		10/01/14 13:45	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	U	127	84		10/01/14 13:45	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3		93.2	84		10/01/14 13:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3		46.2	84		10/01/14 13:45	79-00-5	
Trichloroethene	**2170**	ug/m3		91.7	84		10/01/14 13:45	79-01-6	
Trichlorofluoromethane	ND	ug/m3	U	95.8	84		10/01/14 13:45	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3		134	84		10/01/14 13:45	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3		83.9	84		10/01/14 13:45	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3		83.9	84		10/01/14 13:45	108-67-8	
Vinyl acetate	ND	ug/m3		60.1	84		10/01/14 13:45	108-05-4	
Vinyl chloride	ND	ug/m3		21.8	84		10/01/14 13:45	75-01-4	
m&p-Xylene	~~ND~~	ug/m3	R	~~148~~	84		10/01/14 13:45	179601-23-1	
o-Xylene	~~ND~~	ug/m3	R	~~73.9~~	84		10/01/14 13:45	95-47-6	

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ANALYTICAL RESULTS

Project: 30281-134 Valley Pike VOC Site
Pace Project No.: 10283276

Sample: VP-EPA-FD-092714 **Lab ID: 10283276006** Collected: 09/28/14 15:20 Received: 09/30/14 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	180	74.5		10/01/14 13:23	67-64-1	
Benzene	ND	ug/m3	48.4	74.5		10/01/14 13:23	71-43-2	
Benzyl chloride	ND	ug/m3	78.2	74.5		10/01/14 13:23	100-44-7	
Bromodichloromethane	ND	ug/m3	101	74.5		10/01/14 13:23	75-27-4	
Bromoform	ND	ug/m3	156	74.5		10/01/14 13:23	75-25-2	
Bromomethane	ND	ug/m3	58.9	74.5		10/01/14 13:23	74-83-9	
1,3-Butadiene	ND	ug/m3	33.5	74.5		10/01/14 13:23	106-99-0	
2-Butanone (MEK)	ND	ug/m3	44.7	74.5		10/01/14 13:23	78-93-3	
Carbon disulfide	ND	ug/m3	46.9	74.5		10/01/14 13:23	75-15-0	
Carbon tetrachloride	ND	ug/m3	47.7	74.5		10/01/14 13:23	56-23-5	
Chlorobenzene	ND	ug/m3	174	74.5		10/01/14 13:23	108-90-7	
Chloroethane	ND	ug/m3	40.2	74.5		10/01/14 13:23	75-00-3	
Chloroform	ND	ug/m3	74.0	74.5		10/01/14 13:23	67-66-3	
Chloromethane	ND	ug/m3	31.3	74.5		10/01/14 13:23	74-87-3	
Cyclohexane	ND	ug/m3	130	74.5		10/01/14 13:23	110-82-7	
Dibromochloromethane	ND	ug/m3	129	74.5		10/01/14 13:23	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	116	74.5		10/01/14 13:23	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	90.9	74.5		10/01/14 13:23	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	90.9	74.5		10/01/14 13:23	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	90.9	74.5		10/01/14 13:23	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	75.2	74.5		10/01/14 13:23	75-71-8	
1,1-Dichloroethane	ND	ug/m3	61.1	74.5		10/01/14 13:23	75-34-3	
1,2-Dichloroethane	ND	ug/m3	30.5	74.5		10/01/14 13:23	107-06-2	
1,1-Dichloroethene	ND	ug/m3	60.3	74.5		10/01/14 13:23	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	60.3	74.5		10/01/14 13:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	60.8	74.5		10/01/14 13:23	156-60-5	
1,2-Dichloropropane	ND	ug/m3	70.0	74.5		10/01/14 13:23	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	68.5	74.5		10/01/14 13:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	68.5	74.5		10/01/14 13:23	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	106	74.5		10/01/14 13:23	76-14-2	
Ethanol	ND	ug/m3	71.5	74.5		10/01/14 13:23	64-17-5	
Ethyl acetate	ND	ug/m3	54.4	74.5		10/01/14 13:23	141-78-6	
Ethylbenzene	ND	ug/m3	65.6	74.5		10/01/14 13:23	100-41-4	
4-Ethyltoluene	ND	ug/m3	74.5	74.5		10/01/14 13:23	622-96-8	
n-Heptane	ND	ug/m3	164	74.5		10/01/14 13:23	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	164	74.5		10/01/14 13:23	87-68-3	
n-Hexane	ND	ug/m3	133	74.5		10/01/14 13:23	110-54-3	
2-Hexanone	ND	ug/m3	61.8	74.5		10/01/14 13:23	591-78-6	
Methylene Chloride	**315**	ug/m3	263	74.5		10/01/14 13:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	61.8	74.5		10/01/14 13:23	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	54.4	74.5		10/01/14 13:23	1634-04-4	
Naphthalene	ND	ug/m3	198	74.5		10/01/14 13:23	91-20-3	
2-Propanol	ND	ug/m3	93.1	74.5		10/01/14 13:23	67-63-0	
Propylene	ND	ug/m3	26.1	74.5		10/01/14 13:23	115-07-1	
Styrene	ND	ug/m3	64.8	74.5		10/01/14 13:23	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	52.0	74.5		10/01/14 13:23	79-34-5	
Tetrachloroethene	**6760**	ug/m3	103	74.5		10/01/14 13:23	127-18-4	

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ANALYTICAL RESULTS

Project: 30281-134 Valley Pike VOC Site
Pace Project No.: 10283276

Sample: VP-EPA-FD-092714 **Lab ID: 10283276006** Collected: 09/28/14 15:20 Received: 09/30/14 10:00 Matrix: Air

Parameters	Results	Units		Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Tetrahydrofuran	ND	ug/m3	U	44.7	74.5		10/01/14 13:23	109-99-9	
Toluene	~~ND~~	ug/m3	R	~~57.4~~	74.5		10/01/14 13:23	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	U	112	74.5		10/01/14 13:23	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3		82.7	74.5		10/01/14 13:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3		41.0	74.5		10/01/14 13:23	79-00-5	
Trichloroethene	**2070**	ug/m3		81.4	74.5		10/01/14 13:23	79-01-6	
Trichlorofluoromethane	ND	ug/m3	U	84.9	74.5		10/01/14 13:23	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3		119	74.5		10/01/14 13:23	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3		74.4	74.5		10/01/14 13:23	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3		74.4	74.5		10/01/14 13:23	108-67-8	
Vinyl acetate	ND	ug/m3		53.3	74.5		10/01/14 13:23	108-05-4	
Vinyl chloride	ND	ug/m3		19.4	74.5		10/01/14 13:23	75-01-4	
m&p-Xylene	~~ND~~	ug/m3	R	~~131~~	74.5		10/01/14 13:23	179601-23-1	
o-Xylene	~~ND~~	ug/m3	R	~~65.6~~	74.5		10/01/14 13:23	95-47-6	

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Appendix D

Soil and Groundwater Analytical Data Validation Reports

Note: Project file contains full laboratory data reports.

DATA VALIDATION CHECKLIST – STAGE 4

Site Name	Valley Pike VOC Site		**Project No.**	0001-1404-011
Data Reviewer (signature and date)	Jessica A. Vickers 01/19/2015		**Technical Reviewer (signature and date)**	
Laboratory Report No.	50105019		**Laboratory**	Pace - Indianapolis
Analyses	Volatile Organic Compounds (VOCs) – SW-846 Method 8260B			
Samples	SB-MW-EPA-8-0304; SB-MW-EPA-8-0608; SB-MW-EPA-8-1315; SB-MW-EPA-8-2022; SB-MW-EPA-8-2426; and GW-SB-MW-EPA-8-100714			
Field Duplicates	SB-MW-EPA-8-0608 and SB-FD-100714-01			
Field Blanks	RB-100714-01; TB-100714-01; and TB-100714-02			

This checklist summarizes the Stage 4 validation performed on the subject laboratory report, in accordance with the Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Organic Methods Data Review* (August 2014) data validation guidance document, as well as the above referenced methods.

Data completeness:

Within Criteria	Exceedance/Notes
X	

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
	Cooler received at 1.2 degrees Celsius – no action (samples received intact and not frozen)

Instrument Performance Checks:

Within Criteria	Exceedance/Notes
X	

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Initial Calibration:

Within Criteria	Exceedance/Notes
	10/13/14 (16:52-20:34): RRF exceeded criteria for bromodichloromethane; 1,1,2-trichloroethane; and 1,2-dibromoethane – flag "R" for SB-MW-EPA-8-0304; SB-MW-EPA-8-0608; SB-FD-100714-01; SB-MW-EPA-8-1315; and TB-100714-01 10/13/14 (17:07-20:50): RRF exceeded criteria for bromodichloromethane and 1,1,2-trichloroethane – flag "R" for SB-MW-EPA-8-2022 and SB-MW-EPA-8-2426

Continuing Calibration:

Within Criteria	Exceedance/Notes
	10/14/14 (11:29): %D exceeded criteria for carbon disulfide and iodomethane – flag "UJ" for SB-MW-EPA-8-0304; SB-MW-EPA-8-0608; SB-FD-100714-01; SB-MW-EPA-8-1315; and TB-100714-01 10/14/14 (11:45): %D exceeded criteria for bromomethane and carbon disulfide – flag "UJ" for SB-MW-EPA-8-2022 and SB-MW-EPA-8-2426 10/15/14 (12:14): %D exceeded criteria for carbon disulfide and o-xylene – no action (associated results reported from different runs

Calibration Verification:

Within Criteria	Exceedance/Notes
	10/13/14 (21:38): %D exceeded criteria for carbon disulfide and ethyl methacrylate – flag "UJ" for SB-MW-EPA-8-0304; SB-MW-EPA-8-0608; SB-FD-100714-01; SB-MW-EPA-8-1315; and TB-100714-01 10/13/14 (21:54): %D exceeded criteria for bromomethane; carbon disulfide; and ethyl methacrylate – flag "UJ" for SB-MW-EPA-8-2022 and SB-MW-EPA-8-2426

Method blanks:

Within Criteria	Exceedance/Notes
X	

Field blanks:

Within Criteria	Exceedance/Notes
X	

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
X	

MS/MSD:

Within Criteria	Exceedance/Notes
	MS/MSDs performed for data package were not from site – not evaluated

Field duplicates:

Within Criteria	Exceedance/Notes
X	

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
	1172485: high %R for iodomethane – no action (associated results non-detect) 1172509: high %Rs for carbon disulfide; methyl tert-butyl ether; and n-hexane – no action (associated results non-detect)

Sample dilutions:

Within Criteria	Exceedance/Notes
	50x: VOCs except tetrachloroethene for SB-MW-EPA-8-2022 1000x: Tetrachloroethene for SB-MW-EPA-8-2022 50x: VOCs except tetrachloroethene and trichloroethene for SB-MW-EPA-8-2426 5000x: Trichloroethene for SB-MW-EPA-8-2426 20000x: Tetrachloroethene for SB-MW-EPA-8-2426 10x: VOCs except tetrachloroethene for GW-SB-MW-EPA-8-100714 500x: Tetrachloroethene for GW-SB-MW-EPA-8-100714

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
	None were required

Internal Standards:

Within Criteria	Exceedance/Notes
X	

DATA VALIDATION CHECKLIST – STAGE 4

Target analyte identification:

Within Criteria	Exceedance/Notes
X	

Analyte quantitation and MDLs/RLs:

Within Criteria	Exceedance/Notes
	No indication that results were reported down to the MDL – no action

System performance and instrument stability:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: SB-MW-EPA-8-0304 **Lab ID: 50105019002** Collected: 10/07/14 10:35 Received: 10/08/14 10:39 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg	0.088	1		10/14/14 16:16	67-64-1	
Acrolein	ND	mg/kg	0.088	1		10/14/14 16:16	107-02-8	
Acrylonitrile	ND	mg/kg	0.088	1		10/14/14 16:16	107-13-1	
Benzene	ND	mg/kg	0.0044	1		10/14/14 16:16	71-43-2	
Bromobenzene	ND	mg/kg	0.0044	1		10/14/14 16:16	108-86-1	
Bromochloromethane	ND	mg/kg	0.0044	1		10/14/14 16:16	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/kg~~	~~0.0044~~	1		10/14/14 16:16	75-27-4	
Bromoform	ND	mg/kg	0.0044	1		10/14/14 16:16	75-25-2	
Bromomethane	ND	mg/kg	0.0044	1		10/14/14 16:16	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.022	1		10/14/14 16:16	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0044	1		10/14/14 16:16	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0044	1		10/14/14 16:16	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0044	1		10/14/14 16:16	98-06-6	
Carbon disulfide	ND	mg/kg	0.0088	1		10/14/14 16:16	75-15-0	
Carbon tetrachloride	ND	mg/kg	0.0044	1		10/14/14 16:16	56-23-5	
Chlorobenzene	ND	mg/kg	0.0044	1		10/14/14 16:16	108-90-7	
Chloroethane	ND	mg/kg	0.0044	1		10/14/14 16:16	75-00-3	
Chloroform	ND	mg/kg	0.0044	1		10/14/14 16:16	67-66-3	
Chloromethane	ND	mg/kg	0.0044	1		10/14/14 16:16	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0044	1		10/14/14 16:16	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0044	1		10/14/14 16:16	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0044	1		10/14/14 16:16	124-48-1	
1,2-Dibromoethane (EDB)	~~ND~~	~~mg/kg~~	~~0.0044~~	1		10/14/14 16:16	106-93-4	
Dibromomethane	ND	mg/kg	0.0044	1		10/14/14 16:16	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0044	1		10/14/14 16:16	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0044	1		10/14/14 16:16	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0044	1		10/14/14 16:16	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	0.088	1		10/14/14 16:16	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.0044	1		10/14/14 16:16	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0044	1		10/14/14 16:16	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0044	1		10/14/14 16:16	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0044	1		10/14/14 16:16	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0044	1		10/14/14 16:16	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0044	1		10/14/14 16:16	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0044	1		10/14/14 16:16	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0044	1		10/14/14 16:16	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0044	1		10/14/14 16:16	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0044	1		10/14/14 16:16	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0044	1		10/14/14 16:16	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0044	1		10/14/14 16:16	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0044	1		10/14/14 16:16	100-41-4	
Ethyl methacrylate	ND	mg/kg	0.088	1		10/14/14 16:16	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0044	1		10/14/14 16:16	87-68-3	
n-Hexane	ND	mg/kg	0.0044	1		10/14/14 16:16	110-54-3	
2-Hexanone	ND	mg/kg	0.088	1		10/14/14 16:16	591-78-6	
Iodomethane	ND	mg/kg	0.088	1		10/14/14 16:16	74-88-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: SB-MW-EPA-8-0304 **Lab ID: 50105019002** Collected: 10/07/14 10:35 Received: 10/08/14 10:39 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Isopropylbenzene (Cumene)	ND	mg/kg	0.0044	1		10/14/14 16:16	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0044	1		10/14/14 16:16	99-87-6	
Methylene Chloride	ND	mg/kg	0.018	1		10/14/14 16:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.022	1		10/14/14 16:16	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0044	1		10/14/14 16:16	1634-04-4	
Naphthalene	ND	mg/kg	0.0044	1		10/14/14 16:16	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0044	1		10/14/14 16:16	103-65-1	
Styrene	ND	mg/kg	0.0044	1		10/14/14 16:16	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0044	1		10/14/14 16:16	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0044	1		10/14/14 16:16	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0047	1		10/15/14 14:06	127-18-4	
Toluene	ND	mg/kg	0.0044	1		10/14/14 16:16	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0044	1		10/14/14 16:16	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0044	1		10/14/14 16:16	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0044	1		10/14/14 16:16	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/kg~~ R	~~0.0044~~	1		10/14/14 16:16	79-00-5	
Trichloroethene	ND	mg/kg	0.0044	1		10/14/14 16:16	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0044	1		10/14/14 16:16	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0044	1		10/14/14 16:16	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0044	1		10/14/14 16:16	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0044	1		10/14/14 16:16	108-67-8	
Vinyl acetate	ND	mg/kg	0.088	1		10/14/14 16:16	108-05-4	
Vinyl chloride	ND	mg/kg	0.0044	1		10/14/14 16:16	75-01-4	
Xylene (Total)	ND	mg/kg	0.0088	1		10/14/14 16:16	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	96	%.	85-118	1		10/14/14 16:16	1868-53-7	
Toluene-d8 (S)	98	%.	71-128	1		10/14/14 16:16	2037-26-5	
4-Bromofluorobenzene (S)	94	%.	56-144	1		10/14/14 16:16	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**12.1**	%	0.10	1		10/10/14 11:49		

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: SB-MW-EPA-8-0608 **Lab ID: 50105019003** Collected: 10/07/14 10:48 Received: 10/08/14 10:39 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg U	0.081	1		10/14/14 16:47	67-64-1	
Acrolein	ND	mg/kg	0.081	1		10/14/14 16:47	107-02-8	
Acrylonitrile	ND	mg/kg	0.081	1		10/14/14 16:47	107-13-1	
Benzene	ND	mg/kg	0.0041	1		10/14/14 16:47	71-43-2	
Bromobenzene	ND	mg/kg	0.0041	1		10/14/14 16:47	108-86-1	
Bromochloromethane	ND	mg/kg	0.0041	1		10/14/14 16:47	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/kg~~ R	~~0.0041~~	1		10/14/14 16:47	75-27-4	
Bromoform	ND	mg/kg U	0.0041	1		10/14/14 16:47	75-25-2	
Bromomethane	ND	mg/kg	0.0041	1		10/14/14 16:47	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.020	1		10/14/14 16:47	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0041	1		10/14/14 16:47	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0041	1		10/14/14 16:47	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0041	1		10/14/14 16:47	98-06-6	
Carbon disulfide	ND	mg/kg UJ	0.0081	1		10/14/14 16:47	75-15-0	
Carbon tetrachloride	ND	mg/kg U	0.0041	1		10/14/14 16:47	56-23-5	
Chlorobenzene	ND	mg/kg	0.0041	1		10/14/14 16:47	108-90-7	
Chloroethane	ND	mg/kg	0.0041	1		10/14/14 16:47	75-00-3	
Chloroform	ND	mg/kg	0.0041	1		10/14/14 16:47	67-66-3	
Chloromethane	ND	mg/kg	0.0041	1		10/14/14 16:47	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0041	1		10/14/14 16:47	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0041	1		10/14/14 16:47	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0041	1		10/14/14 16:47	124-48-1	
1,2-Dibromoethane (EDB)	~~ND~~	~~mg/kg~~ R	~~0.0041~~	1		10/14/14 16:47	106-93-4	
Dibromomethane	ND	mg/kg U	0.0041	1		10/14/14 16:47	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0041	1		10/14/14 16:47	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0041	1		10/14/14 16:47	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0041	1		10/14/14 16:47	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	0.081	1		10/14/14 16:47	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.0041	1		10/14/14 16:47	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0041	1		10/14/14 16:47	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0041	1		10/14/14 16:47	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0041	1		10/14/14 16:47	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0041	1		10/14/14 16:47	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0041	1		10/14/14 16:47	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0041	1		10/14/14 16:47	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0041	1		10/14/14 16:47	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0041	1		10/14/14 16:47	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0041	1		10/14/14 16:47	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0041	1		10/14/14 16:47	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0041	1		10/14/14 16:47	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0041	1		10/14/14 16:47	100-41-4	
Ethyl methacrylate	ND	mg/kg UJ	0.081	1		10/14/14 16:47	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg U	0.0041	1		10/14/14 16:47	87-68-3	
n-Hexane	ND	mg/kg	0.0041	1		10/14/14 16:47	110-54-3	
2-Hexanone	ND	mg/kg	0.081	1		10/14/14 16:47	591-78-6	
Iodomethane	ND	mg/kg UJ	0.081	1		10/14/14 16:47	74-88-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: SB-MW-EPA-8-0608 **Lab ID: 50105019003** Collected: 10/07/14 10:48 Received: 10/08/14 10:39 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Isopropylbenzene (Cumene)	ND	mg/kg U	0.0041	1		10/14/14 16:47	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0041	1		10/14/14 16:47	99-87-6	
Methylene Chloride	ND	mg/kg	0.016	1		10/14/14 16:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.020	1		10/14/14 16:47	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0041	1		10/14/14 16:47	1634-04-4	
Naphthalene	ND	mg/kg	0.0041	1		10/14/14 16:47	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0041	1		10/14/14 16:47	103-65-1	
Styrene	ND	mg/kg	0.0041	1		10/14/14 16:47	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0041	1		10/14/14 16:47	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0041	1		10/14/14 16:47	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0041	1		10/14/14 16:47	127-18-4	
Toluene	ND	mg/kg	0.0041	1		10/14/14 16:47	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0041	1		10/14/14 16:47	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0041	1		10/14/14 16:47	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0041	1		10/14/14 16:47	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/kg~~ R	~~0.0041~~	1		10/14/14 16:47	79-00-5	
Trichloroethene	ND	mg/kg U	0.0041	1		10/14/14 16:47	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0041	1		10/14/14 16:47	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0041	1		10/14/14 16:47	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0041	1		10/14/14 16:47	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0041	1		10/14/14 16:47	108-67-8	
Vinyl acetate	ND	mg/kg	0.081	1		10/14/14 16:47	108-05-4	
Vinyl chloride	ND	mg/kg	0.0041	1		10/14/14 16:47	75-01-4	
Xylene (Total)	ND	mg/kg	0.0081	1		10/14/14 16:47	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	95	%.	85-118	1		10/14/14 16:47	1868-53-7	
Toluene-d8 (S)	95	%.	71-128	1		10/14/14 16:47	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	56-144	1		10/14/14 16:47	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**3.3**	%	0.10	1		10/10/14 11:49		

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: SB-FD-100714-01 **Lab ID: 50105019007** Collected: 10/07/14 00:00 Received: 10/08/14 10:39 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg U	0.10	1		10/14/14 17:51	67-64-1	
Acrolein	ND	mg/kg	0.10	1		10/14/14 17:51	107-02-8	
Acrylonitrile	ND	mg/kg	0.10	1		10/14/14 17:51	107-13-1	
Benzene	ND	mg/kg	0.0051	1		10/14/14 17:51	71-43-2	
Bromobenzene	ND	mg/kg	0.0051	1		10/14/14 17:51	108-86-1	
Bromochloromethane	ND	mg/kg	0.0051	1		10/14/14 17:51	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/kg~~ R	~~0.0051~~	1		10/14/14 17:51	75-27-4	
Bromoform	ND	mg/kg U	0.0051	1		10/14/14 17:51	75-25-2	
Bromomethane	ND	mg/kg	0.0051	1		10/14/14 17:51	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.025	1		10/14/14 17:51	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0051	1		10/14/14 17:51	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0051	1		10/14/14 17:51	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0051	1		10/14/14 17:51	98-06-6	
Carbon disulfide	ND	mg/kg UJ	0.010	1		10/14/14 17:51	75-15-0	
Carbon tetrachloride	ND	mg/kg U	0.0051	1		10/14/14 17:51	56-23-5	
Chlorobenzene	ND	mg/kg	0.0051	1		10/14/14 17:51	108-90-7	
Chloroethane	ND	mg/kg	0.0051	1		10/14/14 17:51	75-00-3	
Chloroform	ND	mg/kg	0.0051	1		10/14/14 17:51	67-66-3	
Chloromethane	ND	mg/kg	0.0051	1		10/14/14 17:51	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0051	1		10/14/14 17:51	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0051	1		10/14/14 17:51	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0051	1		10/14/14 17:51	124-48-1	
1,2-Dibromoethane (EDB)	~~ND~~	~~mg/kg~~ R	~~0.0051~~	1		10/14/14 17:51	106-93-4	
Dibromomethane	ND	mg/kg U	0.0051	1		10/14/14 17:51	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0051	1		10/14/14 17:51	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0051	1		10/14/14 17:51	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0051	1		10/14/14 17:51	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	0.10	1		10/14/14 17:51	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.0051	1		10/14/14 17:51	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0051	1		10/14/14 17:51	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0051	1		10/14/14 17:51	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0051	1		10/14/14 17:51	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0051	1		10/14/14 17:51	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0051	1		10/14/14 17:51	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0051	1		10/14/14 17:51	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0051	1		10/14/14 17:51	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0051	1		10/14/14 17:51	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0051	1		10/14/14 17:51	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0051	1		10/14/14 17:51	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0051	1		10/14/14 17:51	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0051	1		10/14/14 17:51	100-41-4	
Ethyl methacrylate	ND	mg/kg UJ	0.10	1		10/14/14 17:51	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg U	0.0051	1		10/14/14 17:51	87-68-3	
n-Hexane	ND	mg/kg	0.0051	1		10/14/14 17:51	110-54-3	
2-Hexanone	ND	mg/kg	0.10	1		10/14/14 17:51	591-78-6	
Iodomethane	ND	mg/kg UJ	0.10	1		10/14/14 17:51	74-88-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: SB-FD-100714-01 **Lab ID: 50105019007** Collected: 10/07/14 00:00 Received: 10/08/14 10:39 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Isopropylbenzene (Cumene)	ND	mg/kg U	0.0051	1		10/14/14 17:51	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0051	1		10/14/14 17:51	99-87-6	
Methylene Chloride	ND	mg/kg	0.020	1		10/14/14 17:51	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.025	1		10/14/14 17:51	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0051	1		10/14/14 17:51	1634-04-4	
Naphthalene	ND	mg/kg	0.0051	1		10/14/14 17:51	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0051	1		10/14/14 17:51	103-65-1	
Styrene	ND	mg/kg	0.0051	1		10/14/14 17:51	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0051	1		10/14/14 17:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0051	1		10/14/14 17:51	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0051	1		10/14/14 17:51	127-18-4	
Toluene	ND	mg/kg	0.0051	1		10/14/14 17:51	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0051	1		10/14/14 17:51	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0051	1		10/14/14 17:51	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg U	0.0051	1		10/14/14 17:51	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/kg~~ R	~~0.0051~~	1		10/14/14 17:51	79-00-5	
Trichloroethene	ND	mg/kg U	0.0051	1		10/14/14 17:51	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0051	1		10/14/14 17:51	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0051	1		10/14/14 17:51	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0051	1		10/14/14 17:51	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0051	1		10/14/14 17:51	108-67-8	
Vinyl acetate	ND	mg/kg	0.10	1		10/14/14 17:51	108-05-4	
Vinyl chloride	ND	mg/kg	0.0051	1		10/14/14 17:51	75-01-4	
Xylene (Total)	ND	mg/kg U	0.010	1		10/14/14 17:51	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	98	%.	85-118	1		10/14/14 17:51	1868-53-7	
Toluene-d8 (S)	93	%.	71-128	1		10/14/14 17:51	2037-26-5	
4-Bromofluorobenzene (S)	92	%.	56-144	1		10/14/14 17:51	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**3.3**	%	0.10	1		10/10/14 11:51		

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: SB-MW-EPA-8-1315 **Lab ID: 50105019004** Collected: 10/07/14 11:02 Received: 10/08/14 10:39 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	**0.12**	mg/kg	0.082	1		10/14/14 17:19	67-64-1	
Acrolein	ND	mg/kg U	0.082	1		10/14/14 17:19	107-02-8	
Acrylonitrile	ND	mg/kg	0.082	1		10/14/14 17:19	107-13-1	
Benzene	ND	mg/kg	0.0041	1		10/14/14 17:19	71-43-2	
Bromobenzene	ND	mg/kg	0.0041	1		10/14/14 17:19	108-86-1	
Bromochloromethane	ND	mg/kg	0.0041	1		10/14/14 17:19	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/kg~~ R	~~0.0041~~	1		10/14/14 17:19	75-27-4	
Bromoform	ND	mg/kg U	0.0041	1		10/14/14 17:19	75-25-2	
Bromomethane	ND	mg/kg	0.0041	1		10/14/14 17:19	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.020	1		10/14/14 17:19	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0041	1		10/14/14 17:19	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0041	1		10/14/14 17:19	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0041	1		10/14/14 17:19	98-06-6	
Carbon disulfide	ND	mg/kg UJ	0.0082	1		10/14/14 17:19	75-15-0	
Carbon tetrachloride	ND	mg/kg U	0.0041	1		10/14/14 17:19	56-23-5	
Chlorobenzene	ND	mg/kg	0.0041	1		10/14/14 17:19	108-90-7	
Chloroethane	ND	mg/kg	0.0041	1		10/14/14 17:19	75-00-3	
Chloroform	ND	mg/kg	0.0041	1		10/14/14 17:19	67-66-3	
Chloromethane	ND	mg/kg	0.0041	1		10/14/14 17:19	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0041	1		10/14/14 17:19	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0041	1		10/14/14 17:19	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0041	1		10/14/14 17:19	124-48-1	
1,2-Dibromoethane (EDB)	~~ND~~	~~mg/kg~~ R	~~0.0041~~	1		10/14/14 17:19	106-93-4	
Dibromomethane	ND	mg/kg U	0.0041	1		10/14/14 17:19	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0041	1		10/14/14 17:19	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0041	1		10/14/14 17:19	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0041	1		10/14/14 17:19	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	0.082	1		10/14/14 17:19	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.0041	1		10/14/14 17:19	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0041	1		10/14/14 17:19	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0041	1		10/14/14 17:19	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0041	1		10/14/14 17:19	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0041	1		10/14/14 17:19	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0041	1		10/14/14 17:19	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0041	1		10/14/14 17:19	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0041	1		10/14/14 17:19	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0041	1		10/14/14 17:19	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0041	1		10/14/14 17:19	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0041	1		10/14/14 17:19	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0041	1		10/14/14 17:19	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0041	1		10/14/14 17:19	100-41-4	
Ethyl methacrylate	ND	mg/kg UJ	0.082	1		10/14/14 17:19	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg U	0.0041	1		10/14/14 17:19	87-68-3	
n-Hexane	ND	mg/kg	0.0041	1		10/14/14 17:19	110-54-3	
2-Hexanone	ND	mg/kg	0.082	1		10/14/14 17:19	591-78-6	
Iodomethane	ND	mg/kg UJ	0.082	1		10/14/14 17:19	74-88-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: SB-MW-EPA-8-1315 **Lab ID: 50105019004** Collected: 10/07/14 11:02 Received: 10/08/14 10:39 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Isopropylbenzene (Cumene)	ND	mg/kg	0.0041	1		10/14/14 17:19	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0041	1		10/14/14 17:19	99-87-6	
Methylene Chloride	ND	mg/kg	0.016	1		10/14/14 17:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.020	1		10/14/14 17:19	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0041	1		10/14/14 17:19	1634-04-4	
Naphthalene	ND	mg/kg	0.0041	1		10/14/14 17:19	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0041	1		10/14/14 17:19	103-65-1	
Styrene	ND	mg/kg	0.0041	1		10/14/14 17:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0041	1		10/14/14 17:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0041	1		10/14/14 17:19	79-34-5	
Tetrachloroethene	**0.032**	mg/kg	0.0041	1		10/14/14 17:19	127-18-4	
Toluene	ND	mg/kg	0.0041	1		10/14/14 17:19	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0041	1		10/14/14 17:19	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0041	1		10/14/14 17:19	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0041	1		10/14/14 17:19	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/kg~~ R	~~0.0041~~	1		10/14/14 17:19	79-00-5	
Trichloroethene	ND	mg/kg	0.0041	1		10/14/14 17:19	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0041	1		10/14/14 17:19	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0041	1		10/14/14 17:19	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0041	1		10/14/14 17:19	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0041	1		10/14/14 17:19	108-67-8	
Vinyl acetate	ND	mg/kg	0.082	1		10/14/14 17:19	108-05-4	
Vinyl chloride	ND	mg/kg	0.0041	1		10/14/14 17:19	75-01-4	
Xylene (Total)	ND	mg/kg	0.0082	1		10/14/14 17:19	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	88	%.	85-118	1		10/14/14 17:19	1868-53-7	
Toluene-d8 (S)	99	%.	71-128	1		10/14/14 17:19	2037-26-5	
4-Bromofluorobenzene (S)	94	%.	56-144	1		10/14/14 17:19	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**4.1**	%	0.10	1		10/10/14 11:49		

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: SB-MW-EPA-8-2022 **Lab ID: 50105019005** Collected: 10/07/14 11:18 Received: 10/08/14 10:39 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg U	3.8	50		10/14/14 14:56	67-64-1	
Acrolein	ND	mg/kg	3.8	50		10/14/14 14:56	107-02-8	
Acrylonitrile	ND	mg/kg	3.8	50		10/14/14 14:56	107-13-1	
Benzene	ND	mg/kg	0.19	50		10/14/14 14:56	71-43-2	2d
Bromobenzene	ND	mg/kg	0.19	50		10/14/14 14:56	108-86-1	
Bromochloromethane	ND	mg/kg	0.19	50		10/14/14 14:56	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/kg~~ R	~~0.19~~	50		10/14/14 14:56	75-27-4	
Bromoform	ND	mg/kg U	0.19	50		10/14/14 14:56	75-25-2	
Bromomethane	ND	mg/kg UJ	0.19	50		10/14/14 14:56	74-83-9	
2-Butanone (MEK)	ND	mg/kg U	0.94	50		10/14/14 14:56	78-93-3	
n-Butylbenzene	ND	mg/kg	0.19	50		10/14/14 14:56	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.19	50		10/14/14 14:56	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.19	50		10/14/14 14:56	98-06-6	
Carbon disulfide	ND	mg/kg UJ	0.38	50		10/14/14 14:56	75-15-0	
Carbon tetrachloride	ND	mg/kg U	0.19	50		10/14/14 14:56	56-23-5	
Chlorobenzene	ND	mg/kg	0.19	50		10/14/14 14:56	108-90-7	
Chloroethane	ND	mg/kg	0.19	50		10/14/14 14:56	75-00-3	
Chloroform	ND	mg/kg	0.19	50		10/14/14 14:56	67-66-3	
Chloromethane	ND	mg/kg	0.19	50		10/14/14 14:56	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.19	50		10/14/14 14:56	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.19	50		10/14/14 14:56	106-43-4	
Dibromochloromethane	ND	mg/kg	0.19	50		10/14/14 14:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.19	50		10/14/14 14:56	106-93-4	
Dibromomethane	ND	mg/kg	0.19	50		10/14/14 14:56	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.19	50		10/14/14 14:56	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.19	50		10/14/14 14:56	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.19	50		10/14/14 14:56	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	3.8	50		10/14/14 14:56	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.19	50		10/14/14 14:56	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.19	50		10/14/14 14:56	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.19	50		10/14/14 14:56	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.19	50		10/14/14 14:56	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.19	50		10/14/14 14:56	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.19	50		10/14/14 14:56	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.19	50		10/14/14 14:56	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.19	50		10/14/14 14:56	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.19	50		10/14/14 14:56	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.19	50		10/14/14 14:56	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.19	50		10/14/14 14:56	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.19	50		10/14/14 14:56	10061-02-6	
Ethylbenzene	ND	mg/kg	0.19	50		10/14/14 14:56	100-41-4	
Ethyl methacrylate	ND	mg/kg UJ	3.8	50		10/14/14 14:56	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg U	0.19	50		10/14/14 14:56	87-68-3	
n-Hexane	ND	mg/kg	0.19	50		10/14/14 14:56	110-54-3	
2-Hexanone	ND	mg/kg	3.8	50		10/14/14 14:56	591-78-6	
Iodomethane	ND	mg/kg	3.8	50		10/14/14 14:56	74-88-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: SB-MW-EPA-8-2022 **Lab ID: 50105019005** Collected: 10/07/14 11:18 Received: 10/08/14 10:39 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Isopropylbenzene (Cumene)	ND	mg/kg	0.19	50		10/14/14 14:56	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.19	50		10/14/14 14:56	99-87-6	
Methylene Chloride	ND	mg/kg	0.76	50		10/14/14 14:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.94	50		10/14/14 14:56	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.19	50		10/14/14 14:56	1634-04-4	
Naphthalene	ND	mg/kg	0.19	50		10/14/14 14:56	91-20-3	
n-Propylbenzene	ND	mg/kg	0.19	50		10/14/14 14:56	103-65-1	
Styrene	ND	mg/kg	0.19	50		10/14/14 14:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.19	50		10/14/14 14:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.19	50		10/14/14 14:56	79-34-5	
Tetrachloroethene	**17.1**	mg/kg	3.8	1000		10/14/14 15:28	127-18-4	
Toluene	ND	mg/kg	0.19	50		10/14/14 14:56	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.19	50		10/14/14 14:56	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.19	50		10/14/14 14:56	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.19	50		10/14/14 14:56	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/kg~~ R	~~0.19~~	50		10/14/14 14:56	79-00-5	
Trichloroethene	**2.6**	mg/kg	0.19	50		10/14/14 14:56	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.19	50		10/14/14 14:56	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.19	50		10/14/14 14:56	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.19	50		10/14/14 14:56	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.19	50		10/14/14 14:56	108-67-8	
Vinyl acetate	ND	mg/kg	3.8	50		10/14/14 14:56	108-05-4	
Vinyl chloride	ND	mg/kg	0.19	50		10/14/14 14:56	75-01-4	
Xylene (Total)	ND	mg/kg	0.38	50		10/14/14 14:56	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	94	%.	85-118	50		10/14/14 14:56	1868-53-7	D4
Toluene-d8 (S)	96	%.	71-128	50		10/14/14 14:56	2037-26-5	
4-Bromofluorobenzene (S)	94	%.	56-144	50		10/14/14 14:56	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**8.0**	%	0.10	1		10/10/14 11:51		

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: SB-MW-EPA-8-2426 **Lab ID: 50105019006** Collected: 10/07/14 11:30 Received: 10/08/14 10:39 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg U	4.4	50		10/14/14 16:00	67-64-1	
Acrolein	ND	mg/kg	4.4	50		10/14/14 16:00	107-02-8	
Acrylonitrile	ND	mg/kg	4.4	50		10/14/14 16:00	107-13-1	
Benzene	ND	mg/kg	0.22	50		10/14/14 16:00	71-43-2	2d
Bromobenzene	ND	mg/kg	0.22	50		10/14/14 16:00	108-86-1	
Bromochloromethane	ND	mg/kg	0.22	50		10/14/14 16:00	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/kg~~ R	~~0.22~~	50		10/14/14 16:00	75-27-4	
Bromoform	ND	mg/kg U	0.22	50		10/14/14 16:00	75-25-2	
Bromomethane	ND	mg/kg UJ	0.22	50		10/14/14 16:00	74-83-9	
2-Butanone (MEK)	ND	mg/kg U	1.1	50		10/14/14 16:00	78-93-3	
n-Butylbenzene	ND	mg/kg	0.22	50		10/14/14 16:00	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.22	50		10/14/14 16:00	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.22	50		10/14/14 16:00	98-06-6	
Carbon disulfide	ND	mg/kg UJ	0.44	50		10/14/14 16:00	75-15-0	
Carbon tetrachloride	ND	mg/kg U	0.22	50		10/14/14 16:00	56-23-5	
Chlorobenzene	ND	mg/kg	0.22	50		10/14/14 16:00	108-90-7	
Chloroethane	ND	mg/kg	0.22	50		10/14/14 16:00	75-00-3	
Chloroform	ND	mg/kg	0.22	50		10/14/14 16:00	67-66-3	
Chloromethane	ND	mg/kg	0.22	50		10/14/14 16:00	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.22	50		10/14/14 16:00	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.22	50		10/14/14 16:00	106-43-4	
Dibromochloromethane	ND	mg/kg	0.22	50		10/14/14 16:00	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.22	50		10/14/14 16:00	106-93-4	
Dibromomethane	ND	mg/kg	0.22	50		10/14/14 16:00	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.22	50		10/14/14 16:00	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.22	50		10/14/14 16:00	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.22	50		10/14/14 16:00	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	4.4	50		10/14/14 16:00	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.22	50		10/14/14 16:00	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.22	50		10/14/14 16:00	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.22	50		10/14/14 16:00	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.22	50		10/14/14 16:00	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.22	50		10/14/14 16:00	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.22	50		10/14/14 16:00	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.22	50		10/14/14 16:00	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.22	50		10/14/14 16:00	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.22	50		10/14/14 16:00	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.22	50		10/14/14 16:00	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.22	50		10/14/14 16:00	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.22	50		10/14/14 16:00	10061-02-6	
Ethylbenzene	ND	mg/kg	0.22	50		10/14/14 16:00	100-41-4	
Ethyl methacrylate	ND	mg/kg UJ	4.4	50		10/14/14 16:00	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg U	0.22	50		10/14/14 16:00	87-68-3	
n-Hexane	ND	mg/kg	0.22	50		10/14/14 16:00	110-54-3	
2-Hexanone	ND	mg/kg	4.4	50		10/14/14 16:00	591-78-6	
Iodomethane	ND	mg/kg	4.4	50		10/14/14 16:00	74-88-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: SB-MW-EPA-8-2426 **Lab ID: 50105019006** Collected: 10/07/14 11:30 Received: 10/08/14 10:39 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Isopropylbenzene (Cumene)	ND	mg/kg	0.22	50		10/14/14 16:00	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.22	50		10/14/14 16:00	99-87-6	
Methylene Chloride	ND	mg/kg	0.89	50		10/14/14 16:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	1.1	50		10/14/14 16:00	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.22	50		10/14/14 16:00	1634-04-4	
Naphthalene	ND	mg/kg	0.22	50		10/14/14 16:00	91-20-3	
n-Propylbenzene	ND	mg/kg	0.22	50		10/14/14 16:00	103-65-1	
Styrene	ND	mg/kg	0.22	50		10/14/14 16:00	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.22	50		10/14/14 16:00	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.22	50		10/14/14 16:00	79-34-5	
Tetrachloroethene	**2040**	mg/kg	88.6	20000		10/15/14 23:23	127-18-4	
Toluene	**0.23**	mg/kg	0.22	50		10/14/14 16:00	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.22	50		10/14/14 16:00	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.22	50		10/14/14 16:00	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.22	50		10/14/14 16:00	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/kg~~ R	~~0.22~~	50		10/14/14 16:00	79-00-5	
Trichloroethene	**411**	mg/kg	22.1	5000		10/15/14 14:38	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.22	50		10/14/14 16:00	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.22	50		10/14/14 16:00	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.22	50		10/14/14 16:00	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.22	50		10/14/14 16:00	108-67-8	
Vinyl acetate	ND	mg/kg	4.4	50		10/14/14 16:00	108-05-4	
Vinyl chloride	ND	mg/kg	0.22	50		10/14/14 16:00	75-01-4	
Xylene (Total)	**0.78**	mg/kg	0.44	50		10/14/14 16:00	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	92	%.	85-118	50		10/14/14 16:00	1868-53-7	D4
Toluene-d8 (S)	90	%.	71-128	50		10/14/14 16:00	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	56-144	50		10/14/14 16:00	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**8.4**	%	0.10	1		10/10/14 11:51		

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: TB-100714-01 **Lab ID: 50105019001** Collected: 10/07/14 07:00 Received: 10/08/14 10:39 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg U	0.10	1		10/14/14 15:44	67-64-1	
Acrolein	ND	mg/kg	0.10	1		10/14/14 15:44	107-02-8	
Acrylonitrile	ND	mg/kg	0.10	1		10/14/14 15:44	107-13-1	
Benzene	ND	mg/kg	0.0050	1		10/14/14 15:44	71-43-2	
Bromobenzene	ND	mg/kg	0.0050	1		10/14/14 15:44	108-86-1	
Bromochloromethane	ND	mg/kg	0.0050	1		10/14/14 15:44	74-97-5	
Bromodichloromethane	~~ND mg/kg~~	R	~~0.0050~~	1		10/14/14 15:44	75-27-4	
Bromoform	ND	mg/kg U	0.0050	1		10/14/14 15:44	75-25-2	
Bromomethane	ND	mg/kg	0.0050	1		10/14/14 15:44	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.025	1		10/14/14 15:44	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0050	1		10/14/14 15:44	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0050	1		10/14/14 15:44	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0050	1		10/14/14 15:44	98-06-6	
Carbon disulfide	ND	mg/kg UJ	0.010	1		10/14/14 15:44	75-15-0	
Carbon tetrachloride	ND	mg/kg U	0.0050	1		10/14/14 15:44	56-23-5	
Chlorobenzene	ND	mg/kg	0.0050	1		10/14/14 15:44	108-90-7	
Chloroethane	ND	mg/kg	0.0050	1		10/14/14 15:44	75-00-3	
Chloroform	ND	mg/kg	0.0050	1		10/14/14 15:44	67-66-3	
Chloromethane	ND	mg/kg	0.0050	1		10/14/14 15:44	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0050	1		10/14/14 15:44	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0050	1		10/14/14 15:44	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0050	1		10/14/14 15:44	124-48-1	
1,2-Dibromoethane (EDB)	~~ND mg/kg~~	R	~~0.0050~~	1		10/14/14 15:44	106-93-4	
Dibromomethane	ND	mg/kg U	0.0050	1		10/14/14 15:44	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0050	1		10/14/14 15:44	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0050	1		10/14/14 15:44	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0050	1		10/14/14 15:44	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	0.10	1		10/14/14 15:44	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.0050	1		10/14/14 15:44	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0050	1		10/14/14 15:44	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0050	1		10/14/14 15:44	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0050	1		10/14/14 15:44	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	1		10/14/14 15:44	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	1		10/14/14 15:44	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0050	1		10/14/14 15:44	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0050	1		10/14/14 15:44	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0050	1		10/14/14 15:44	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0050	1		10/14/14 15:44	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0050	1		10/14/14 15:44	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0050	1		10/14/14 15:44	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0050	1		10/14/14 15:44	100-41-4	
Ethyl methacrylate	ND	mg/kg UJ	0.10	1		10/14/14 15:44	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg U	0.0050	1		10/14/14 15:44	87-68-3	
n-Hexane	ND	mg/kg	0.0050	1		10/14/14 15:44	110-54-3	
2-Hexanone	ND	mg/kg	0.10	1		10/14/14 15:44	591-78-6	
Iodomethane	ND	mg/kg UJ	0.10	1		10/14/14 15:44	74-88-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: TB-100714-01 **Lab ID: 50105019001** Collected: 10/07/14 07:00 Received: 10/08/14 10:39 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Isopropylbenzene (Cumene)	ND	mg/kg	0.0050	1		10/14/14 15:44	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0050	1		10/14/14 15:44	99-87-6	
Methylene Chloride	ND	mg/kg	0.020	1		10/14/14 15:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.025	1		10/14/14 15:44	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0050	1		10/14/14 15:44	1634-04-4	
Naphthalene	ND	mg/kg	0.0050	1		10/14/14 15:44	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0050	1		10/14/14 15:44	103-65-1	
Styrene	ND	mg/kg	0.0050	1		10/14/14 15:44	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	1		10/14/14 15:44	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	1		10/14/14 15:44	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0050	1		10/14/14 15:44	127-18-4	
Toluene	ND	mg/kg	0.0050	1		10/14/14 15:44	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050	1		10/14/14 15:44	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050	1		10/14/14 15:44	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0050	1		10/14/14 15:44	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/kg~~	~~0.0050~~	1		10/14/14 15:44	79-00-5	
Trichloroethene	ND	mg/kg	0.0050	1		10/14/14 15:44	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0050	1		10/14/14 15:44	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0050	1		10/14/14 15:44	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050	1		10/14/14 15:44	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050	1		10/14/14 15:44	108-67-8	
Vinyl acetate	ND	mg/kg	0.10	1		10/14/14 15:44	108-05-4	
Vinyl chloride	ND	mg/kg	0.0050	1		10/14/14 15:44	75-01-4	
Xylene (Total)	ND	mg/kg	0.010	1		10/14/14 15:44	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	94	%.	85-118	1		10/14/14 15:44	1868-53-7	
Toluene-d8 (S)	96	%.	71-128	1		10/14/14 15:44	2037-26-5	
4-Bromofluorobenzene (S)	94	%.	56-144	1		10/14/14 15:44	460-00-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: GW-SB-MW-EPA-8-100714 **Lab ID: 50105019009** Collected: 10/07/14 12:50 Received: 10/08/14 10:39 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	1.0	10		10/12/14 14:13	67-64-1	
Acrolein	ND	mg/L	0.50	10		10/12/14 14:13	107-02-8	
Acrylonitrile	ND	mg/L	1.0	10		10/12/14 14:13	107-13-1	
Benzene	ND	mg/L	0.050	10		10/12/14 14:13	71-43-2	1d
Bromobenzene	ND	mg/L	0.050	10		10/12/14 14:13	108-86-1	
Bromochloromethane	ND	mg/L	0.050	10		10/12/14 14:13	74-97-5	
Bromodichloromethane	ND	mg/L	0.050	10		10/12/14 14:13	75-27-4	
Bromoform	ND	mg/L	0.050	10		10/12/14 14:13	75-25-2	
Bromomethane	ND	mg/L	0.050	10		10/12/14 14:13	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.25	10		10/12/14 14:13	78-93-3	
n-Butylbenzene	ND	mg/L	0.050	10		10/12/14 14:13	104-51-8	
sec-Butylbenzene	ND	mg/L	0.050	10		10/12/14 14:13	135-98-8	
tert-Butylbenzene	ND	mg/L	0.050	10		10/12/14 14:13	98-06-6	
Carbon disulfide	ND	mg/L	0.10	10		10/12/14 14:13	75-15-0	
Carbon tetrachloride	ND	mg/L	0.050	10		10/12/14 14:13	56-23-5	
Chlorobenzene	ND	mg/L	0.050	10		10/12/14 14:13	108-90-7	
Chloroethane	ND	mg/L	0.050	10		10/12/14 14:13	75-00-3	
Chloroform	ND	mg/L	0.050	10		10/12/14 14:13	67-66-3	
Chloromethane	ND	mg/L	0.050	10		10/12/14 14:13	74-87-3	
2-Chlorotoluene	ND	mg/L	0.050	10		10/12/14 14:13	95-49-8	
4-Chlorotoluene	ND	mg/L	0.050	10		10/12/14 14:13	106-43-4	
Dibromochloromethane	ND	mg/L	0.050	10		10/12/14 14:13	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.050	10		10/12/14 14:13	106-93-4	
Dibromomethane	ND	mg/L	0.050	10		10/12/14 14:13	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.050	10		10/12/14 14:13	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.050	10		10/12/14 14:13	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.050	10		10/12/14 14:13	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	1.0	10		10/12/14 14:13	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.050	10		10/12/14 14:13	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.050	10		10/12/14 14:13	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.050	10		10/12/14 14:13	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.050	10		10/12/14 14:13	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.050	10		10/12/14 14:13	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.050	10		10/12/14 14:13	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.050	10		10/12/14 14:13	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.050	10		10/12/14 14:13	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.050	10		10/12/14 14:13	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.050	10		10/12/14 14:13	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.050	10		10/12/14 14:13	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.050	10		10/12/14 14:13	10061-02-6	
Ethylbenzene	ND	mg/L	0.050	10		10/12/14 14:13	100-41-4	
Ethyl methacrylate	ND	mg/L	1.0	10		10/12/14 14:13	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.050	10		10/12/14 14:13	87-68-3	
n-Hexane	ND	mg/L	0.050	10		10/12/14 14:13	110-54-3	
2-Hexanone	ND	mg/L	0.25	10		10/12/14 14:13	591-78-6	
Iodomethane	ND	mg/L	0.10	10		10/12/14 14:13	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.050	10		10/12/14 14:13	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: GW-SB-MW-EPA-8-100714 **Lab ID: 50105019009** Collected: 10/07/14 12:50 Received: 10/08/14 10:39 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.050	10		10/12/14 14:13	99-87-6	
Methylene Chloride	ND	mg/L	0.050	10		10/12/14 14:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.25	10		10/12/14 14:13	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.040	10		10/12/14 14:13	1634-04-4	
Naphthalene	ND	mg/L	0.050	10		10/12/14 14:13	91-20-3	
n-Propylbenzene	ND	mg/L	0.050	10		10/12/14 14:13	103-65-1	
Styrene	ND	mg/L	0.050	10		10/12/14 14:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.050	10		10/12/14 14:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.050	10		10/12/14 14:13	79-34-5	
Tetrachloroethene	**13.4**	mg/L	2.5	500		10/12/14 14:52	127-18-4	pH
Toluene	ND	mg/L	0.050	10		10/12/14 14:13	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.050	10		10/12/14 14:13	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.050	10		10/12/14 14:13	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.050	10		10/12/14 14:13	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.050	10		10/12/14 14:13	79-00-5	
Trichloroethene	**0.18**	mg/L	0.050	10		10/12/14 14:13	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.050	10		10/12/14 14:13	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.050	10		10/12/14 14:13	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.050	10		10/12/14 14:13	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.050	10		10/12/14 14:13	108-67-8	
Vinyl acetate	ND	mg/L	0.50	10		10/12/14 14:13	108-05-4	
Vinyl chloride	ND	mg/L	0.020	10		10/12/14 14:13	75-01-4	
Xylene (Total)	ND	mg/L	0.10	10		10/12/14 14:13	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	96	%.	79-116	10		10/12/14 14:13	1868-53-7	D4,pH
4-Bromofluorobenzene (S)	92	%.	80-114	10		10/12/14 14:13	460-00-4	
Toluene-d8 (S)	95	%.	81-110	10		10/12/14 14:13	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: RB-100714-01 **Lab ID: 50105019010** Collected: 10/07/14 17:00 Received: 10/08/14 10:39 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		10/12/14 15:32	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/12/14 15:32	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/12/14 15:32	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/12/14 15:32	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/12/14 15:32	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/12/14 15:32	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/12/14 15:32	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/12/14 15:32	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/12/14 15:32	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/12/14 15:32	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/12/14 15:32	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/12/14 15:32	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/12/14 15:32	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/12/14 15:32	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/12/14 15:32	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/12/14 15:32	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/12/14 15:32	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/12/14 15:32	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/12/14 15:32	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/12/14 15:32	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/12/14 15:32	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/12/14 15:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/12/14 15:32	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/12/14 15:32	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/12/14 15:32	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/12/14 15:32	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/12/14 15:32	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/12/14 15:32	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/12/14 15:32	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/12/14 15:32	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/12/14 15:32	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/12/14 15:32	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/12/14 15:32	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/12/14 15:32	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/12/14 15:32	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/12/14 15:32	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/12/14 15:32	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/12/14 15:32	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/12/14 15:32	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/12/14 15:32	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/12/14 15:32	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/12/14 15:32	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/12/14 15:32	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/12/14 15:32	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/12/14 15:32	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/12/14 15:32	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/12/14 15:32	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: RB-100714-01 **Lab ID: 50105019010** Collected: 10/07/14 17:00 Received: 10/08/14 10:39 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/12/14 15:32	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/12/14 15:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/12/14 15:32	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/12/14 15:32	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/12/14 15:32	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/12/14 15:32	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/12/14 15:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/12/14 15:32	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/12/14 15:32	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/12/14 15:32	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/12/14 15:32	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/12/14 15:32	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/12/14 15:32	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/12/14 15:32	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		10/12/14 15:32	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/12/14 15:32	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/12/14 15:32	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/12/14 15:32	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/12/14 15:32	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/12/14 15:32	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/12/14 15:32	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/12/14 15:32	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/12/14 15:32	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	102	%.	79-116	1		10/12/14 15:32	1868-53-7	
4-Bromofluorobenzene (S)	91	%.	80-114	1		10/12/14 15:32	460-00-4	
Toluene-d8 (S)	94	%.	81-110	1		10/12/14 15:32	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: TB-100714-02 **Lab ID: 50105019008** Collected: 10/07/14 07:05 Received: 10/08/14 10:39 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		10/12/14 13:34	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/12/14 13:34	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/12/14 13:34	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/12/14 13:34	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/12/14 13:34	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/12/14 13:34	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/12/14 13:34	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/12/14 13:34	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/12/14 13:34	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/12/14 13:34	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/12/14 13:34	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/12/14 13:34	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/12/14 13:34	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/12/14 13:34	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/12/14 13:34	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/12/14 13:34	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/12/14 13:34	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/12/14 13:34	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/12/14 13:34	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/12/14 13:34	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/12/14 13:34	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/12/14 13:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/12/14 13:34	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/12/14 13:34	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/12/14 13:34	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/12/14 13:34	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/12/14 13:34	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/12/14 13:34	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/12/14 13:34	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/12/14 13:34	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/12/14 13:34	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/12/14 13:34	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/12/14 13:34	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/12/14 13:34	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/12/14 13:34	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/12/14 13:34	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/12/14 13:34	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/12/14 13:34	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/12/14 13:34	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/12/14 13:34	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/12/14 13:34	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/12/14 13:34	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/12/14 13:34	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/12/14 13:34	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/12/14 13:34	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/12/14 13:34	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/12/14 13:34	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site 30281-134
Pace Project No.: 50105019

Sample: TB-100714-02 **Lab ID: 50105019008** Collected: 10/07/14 07:05 Received: 10/08/14 10:39 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/12/14 13:34	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/12/14 13:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/12/14 13:34	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/12/14 13:34	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/12/14 13:34	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/12/14 13:34	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/12/14 13:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/12/14 13:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/12/14 13:34	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/12/14 13:34	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/12/14 13:34	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/12/14 13:34	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/12/14 13:34	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/12/14 13:34	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		10/12/14 13:34	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/12/14 13:34	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/12/14 13:34	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/12/14 13:34	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/12/14 13:34	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/12/14 13:34	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/12/14 13:34	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/12/14 13:34	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/12/14 13:34	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	105	%.	79-116	1		10/12/14 13:34	1868-53-7	
4-Bromofluorobenzene (S)	97	%.	80-114	1		10/12/14 13:34	460-00-4	
Toluene-d8 (S)	99	%.	81-110	1		10/12/14 13:34	2037-26-5	

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DATA VALIDATION CHECKLIST – STAGE 4

Site Name	Valley Pike VOC Site		**Project No.**	0001-1404-011
Data Reviewer (signature and date)	Jessica A. Vickers 01/22/2015		**Technical Reviewer (signature and date)**	
Laboratory Report No.	50105130		**Laboratory**	Pace - Indianapolis
Analyses	Volatile Organic Compounds (VOCs) – SW-846 Method 8260B			
Samples	SB-MW-EPA-7-0103; SB-MW-EPA-7-0810; SB-MW-EPA-7-1517; SB-MW-EPA-14-0204; SB-MW-EPA-14-0810; and SB-MW-EPA-14-1820			
Field Duplicates	SB-MW-EPA-7-1517 and SB-FD-100914-01			
Field Blanks	RB-100914-01; TB-100914-01; and TB-100914-02			

This checklist summarizes the Stage 4 validation performed on the subject laboratory report, in accordance with the Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Organic Methods Data Review* (August 2014) data validation guidance document, as well as the above referenced methods.

Data completeness:

Within Criteria	Exceedance/Notes
X	

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
	Cooler received at 1.7 degrees Celsius – no action (samples received intact and not frozen)

Instrument Performance Checks:

Within Criteria	Exceedance/Notes
X	

Initial Calibration:

Within Criteria	Exceedance/Notes
	10/13/14 (17:07-20:50): RRF exceeded criteria for bromodichloromethane and 1,1,2-trichloroethane – flag "R" for all samples in data package

Continuing Calibration:

Within Criteria	Exceedance/Notes
	10/16/14 (00:27): %D exceeded criteria for chloroethane; chloromethane; and iodomethane – flag "UJ" for RB-100914-01 and TB-100914-02 10/16/14 (11:53): %D exceeded criteria for acrolein; bromomethane; carbon disulfide; trans-1,4-dichlorio-2-butene; ethyl methacrylate; iodomethane; and methyl tert-butyl ether – flag "UJ" for SB-MW-EPA-7-0103, SB-MW-EPA-7-0810, SB-MW-EPA-7-1517, SB-MW-EPA-14-0204, SB-MW-EPA-14-0810, and TB-100914-01 10/16/14 (23:35): %D exceeded criteria for carbon disulfide – flag "UJ" for SB-MW-EPA-14-1820 and SB-FD-100914-01

Calibration Verification:

Within Criteria	Exceedance/Notes
	10/13/14 (21:54): %D exceeded criteria for bromomethane; carbon disulfide; and ethyl methacrylate – flag "UJ" for all samples in data package

Method blanks:

Within Criteria	Exceedance/Notes
X	

Field blanks:

Within Criteria	Exceedance/Notes
X	

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
X	

MS/MSD:

Within Criteria	Exceedance/Notes
	SB-MW-EPA-7-0103: high %Rs for carbon disulfide and iodomethane - no action (ND) low %Rs for vinyl acetate – flag "UJ" high RPD for hexachloro-1,3-butadiene and n-butylbenzene – no action (ND)

Field duplicates:

Within Criteria	Exceedance/Notes
X	

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
	1172983: high %R for carbon disulfide – no action (associated results non-detect) 1173376: high %Rs for carbon disulfide; iodomethane; and methyl tert-butyl ether – no action (associated results non-detect) 1173482: high %Rs for carbon disulfide and iodomethane; – no action (associated results non-detect)

Sample dilutions:

Within Criteria	Exceedance/Notes
	None required

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
	None required

Internal Standards:

Within Criteria	Exceedance/Notes
X	

Target analyte identification:

Within Criteria	Exceedance/Notes
X	

DATA VALIDATION CHECKLIST – STAGE 4

Analyte quantitation and MDLs/RLs:

Within Criteria	Exceedance/Notes
	No indication that results were reported down to the MDL – no action

System performance and instrument stability:

Within Criteria	Exceedance/Notes
X	

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: SB-MW-EPA-7-0103 **Lab ID: 50105130003** Collected: 10/09/14 09:40 Received: 10/10/14 10:04 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg U	0.084	1		10/16/14 19:21	67-64-1	
Acrolein	ND	mg/kg UJ	0.084	1		10/16/14 19:21	107-02-8	
Acrylonitrile	ND	mg/kg U	0.084	1		10/16/14 19:21	107-13-1	
Benzene	ND	mg/kg	0.0042	1		10/16/14 19:21	71-43-2	
Bromobenzene	ND	mg/kg	0.0042	1		10/16/14 19:21	108-86-1	
Bromochloromethane	ND	mg/kg	0.0042	1		10/16/14 19:21	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/kg~~ R	~~0.0042~~	1		10/16/14 19:21	75-27-4	
Bromoform	ND	mg/kg U	0.0042	1		10/16/14 19:21	75-25-2	
Bromomethane	ND	mg/kg UJ	0.0042	1		10/16/14 19:21	74-83-9	
2-Butanone (MEK)	ND	mg/kg U	0.021	1		10/16/14 19:21	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0042	1		10/16/14 19:21	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0042	1		10/16/14 19:21	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0042	1		10/16/14 19:21	98-06-6	
Carbon disulfide	ND	mg/kg UJ	0.0084	1		10/16/14 19:21	75-15-0	
Carbon tetrachloride	ND	mg/kg U	0.0042	1		10/16/14 19:21	56-23-5	
Chlorobenzene	ND	mg/kg	0.0042	1		10/16/14 19:21	108-90-7	
Chloroethane	ND	mg/kg	0.0042	1		10/16/14 19:21	75-00-3	
Chloroform	ND	mg/kg	0.0042	1		10/16/14 19:21	67-66-3	
Chloromethane	ND	mg/kg	0.0042	1		10/16/14 19:21	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0042	1		10/16/14 19:21	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0042	1		10/16/14 19:21	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0042	1		10/16/14 19:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0042	1		10/16/14 19:21	106-93-4	
Dibromomethane	ND	mg/kg	0.0042	1		10/16/14 19:21	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0042	1		10/16/14 19:21	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0042	1		10/16/14 19:21	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0042	1		10/16/14 19:21	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg UJ	0.084	1		10/16/14 19:21	110-57-6	
Dichlorodifluoromethane	ND	mg/kg U	0.0042	1		10/16/14 19:21	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0042	1		10/16/14 19:21	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0042	1		10/16/14 19:21	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0042	1		10/16/14 19:21	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0042	1		10/16/14 19:21	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0042	1		10/16/14 19:21	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0042	1		10/16/14 19:21	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0042	1		10/16/14 19:21	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0042	1		10/16/14 19:21	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0042	1		10/16/14 19:21	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0042	1		10/16/14 19:21	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0042	1		10/16/14 19:21	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0042	1		10/16/14 19:21	100-41-4	
Ethyl methacrylate	ND	mg/kg UJ	0.084	1		10/16/14 19:21	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg U	0.0042	1		10/16/14 19:21	87-68-3	
n-Hexane	ND	mg/kg	0.0042	1		10/16/14 19:21	110-54-3	
2-Hexanone	ND	mg/kg	0.084	1		10/16/14 19:21	591-78-6	
Iodomethane	ND	mg/kg UJ	0.084	1		10/16/14 19:21	74-88-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: SB-MW-EPA-7-0103 **Lab ID: 50105130003** Collected: 10/09/14 09:40 Received: 10/10/14 10:04 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Isopropylbenzene (Cumene)	ND	mg/kg U	0.0042	1		10/16/14 19:21	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0042	1		10/16/14 19:21	99-87-6	
Methylene Chloride	ND	mg/kg	0.017	1		10/16/14 19:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.021	1		10/16/14 19:21	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg UJ	0.0042	1		10/16/14 19:21	1634-04-4	
Naphthalene	ND	mg/kg U	0.0042	1		10/16/14 19:21	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0042	1		10/16/14 19:21	103-65-1	
Styrene	ND	mg/kg	0.0042	1		10/16/14 19:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0042	1		10/16/14 19:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0042	1		10/16/14 19:21	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0042	1		10/16/14 19:21	127-18-4	
Toluene	ND	mg/kg	0.0042	1		10/16/14 19:21	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0042	1		10/16/14 19:21	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0042	1		10/16/14 19:21	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0042	1		10/16/14 19:21	71-55-6	
1,1,2-Trichloroethane	~~ND mg/kg~~	R	~~0.0042~~	1		10/16/14 19:21	79-00-5	
Trichloroethene	ND	mg/kg U	0.0042	1		10/16/14 19:21	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0042	1		10/16/14 19:21	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0042	1		10/16/14 19:21	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0042	1		10/16/14 19:21	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0042	1		10/16/14 19:21	108-67-8	
Vinyl acetate	ND	mg/kg UJ	0.084	1		10/16/14 19:21	108-05-4	
Vinyl chloride	ND	mg/kg U	0.0042	1		10/16/14 19:21	75-01-4	
Xylene (Total)	ND	mg/kg U	0.0084	1		10/16/14 19:21	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	98	%.	85-118	1		10/16/14 19:21	1868-53-7	
Toluene-d8 (S)	93	%.	71-128	1		10/16/14 19:21	2037-26-5	
4-Bromofluorobenzene (S)	95	%.	56-144	1		10/16/14 19:21	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**15.9**	%	0.10	1		10/15/14 07:31		

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: SB-MW-EPA-7-0810 **Lab ID: 50105130004** Collected: 10/09/14 09:57 Received: 10/10/14 10:04 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg U	0.087	1		10/16/14 17:13	67-64-1	
Acrolein	ND	mg/kg UJ	0.087	1		10/16/14 17:13	107-02-8	
Acrylonitrile	ND	mg/kg U	0.087	1		10/16/14 17:13	107-13-1	
Benzene	ND	mg/kg	0.0044	1		10/16/14 17:13	71-43-2	
Bromobenzene	ND	mg/kg	0.0044	1		10/16/14 17:13	108-86-1	
Bromochloromethane	ND	mg/kg	0.0044	1		10/16/14 17:13	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/kg~~ R	~~0.0044~~	1		10/16/14 17:13	75-27-4	
Bromoform	ND	mg/kg U	0.0044	1		10/16/14 17:13	75-25-2	
Bromomethane	ND	mg/kg UJ	0.0044	1		10/16/14 17:13	74-83-9	
2-Butanone (MEK)	ND	mg/kg U	0.022	1		10/16/14 17:13	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0044	1		10/16/14 17:13	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0044	1		10/16/14 17:13	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0044	1		10/16/14 17:13	98-06-6	
Carbon disulfide	ND	mg/kg UJ	0.0087	1		10/16/14 17:13	75-15-0	
Carbon tetrachloride	ND	mg/kg U	0.0044	1		10/16/14 17:13	56-23-5	
Chlorobenzene	ND	mg/kg	0.0044	1		10/16/14 17:13	108-90-7	
Chloroethane	ND	mg/kg	0.0044	1		10/16/14 17:13	75-00-3	
Chloroform	ND	mg/kg	0.0044	1		10/16/14 17:13	67-66-3	
Chloromethane	ND	mg/kg	0.0044	1		10/16/14 17:13	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0044	1		10/16/14 17:13	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0044	1		10/16/14 17:13	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0044	1		10/16/14 17:13	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0044	1		10/16/14 17:13	106-93-4	
Dibromomethane	ND	mg/kg	0.0044	1		10/16/14 17:13	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0044	1		10/16/14 17:13	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0044	1		10/16/14 17:13	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0044	1		10/16/14 17:13	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg UJ	0.087	1		10/16/14 17:13	110-57-6	
Dichlorodifluoromethane	ND	mg/kg U	0.0044	1		10/16/14 17:13	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0044	1		10/16/14 17:13	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0044	1		10/16/14 17:13	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0044	1		10/16/14 17:13	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0044	1		10/16/14 17:13	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0044	1		10/16/14 17:13	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0044	1		10/16/14 17:13	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0044	1		10/16/14 17:13	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0044	1		10/16/14 17:13	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0044	1		10/16/14 17:13	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0044	1		10/16/14 17:13	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0044	1		10/16/14 17:13	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0044	1		10/16/14 17:13	100-41-4	
Ethyl methacrylate	ND	mg/kg UJ	0.087	1		10/16/14 17:13	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg U	0.0044	1		10/16/14 17:13	87-68-3	
n-Hexane	ND	mg/kg	0.0044	1		10/16/14 17:13	110-54-3	
2-Hexanone	ND	mg/kg	0.087	1		10/16/14 17:13	591-78-6	
Iodomethane	ND	mg/kg UJ	0.087	1		10/16/14 17:13	74-88-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: SB-MW-EPA-7-0810 **Lab ID: 50105130004** Collected: 10/09/14 09:57 Received: 10/10/14 10:04 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Isopropylbenzene (Cumene)	ND	mg/kg U	0.0044	1		10/16/14 17:13	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0044	1		10/16/14 17:13	99-87-6	
Methylene Chloride	ND	mg/kg	0.017	1		10/16/14 17:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.022	1		10/16/14 17:13	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg UJ	0.0044	1		10/16/14 17:13	1634-04-4	
Naphthalene	ND	mg/kg U	0.0044	1		10/16/14 17:13	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0044	1		10/16/14 17:13	103-65-1	
Styrene	ND	mg/kg	0.0044	1		10/16/14 17:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0044	1		10/16/14 17:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0044	1		10/16/14 17:13	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0044	1		10/16/14 17:13	127-18-4	
Toluene	ND	mg/kg	0.0044	1		10/16/14 17:13	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0044	1		10/16/14 17:13	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0044	1		10/16/14 17:13	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0044	1		10/16/14 17:13	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/kg~~ R	~~0.0044~~	1		10/16/14 17:13	79-00-5	
Trichloroethene	ND	mg/kg U	0.0044	1		10/16/14 17:13	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0044	1		10/16/14 17:13	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0044	1		10/16/14 17:13	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0044	1		10/16/14 17:13	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0044	1		10/16/14 17:13	108-67-8	
Vinyl acetate	ND	mg/kg	0.087	1		10/16/14 17:13	108-05-4	
Vinyl chloride	ND	mg/kg	0.0044	1		10/16/14 17:13	75-01-4	
Xylene (Total)	ND	mg/kg U	0.0087	1		10/16/14 17:13	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	95	%.	85-118	1		10/16/14 17:13	1868-53-7	
Toluene-d8 (S)	94	%.	71-128	1		10/16/14 17:13	2037-26-5	
4-Bromofluorobenzene (S)	95	%.	56-144	1		10/16/14 17:13	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**4.9**	%	0.10	1		10/15/14 07:31		

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: SB-MW-EPA-7-1517 **Lab ID: 50105130005** Collected: 10/09/14 10:18 Received: 10/10/14 10:04 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg U	0.086	1		10/16/14 17:45	67-64-1	
Acrolein	ND	mg/kg UJ	0.086	1		10/16/14 17:45	107-02-8	
Acrylonitrile	ND	mg/kg U	0.086	1		10/16/14 17:45	107-13-1	
Benzene	ND	mg/kg	0.0043	1		10/16/14 17:45	71-43-2	
Bromobenzene	ND	mg/kg	0.0043	1		10/16/14 17:45	108-86-1	
Bromochloromethane	ND	mg/kg	0.0043	1		10/16/14 17:45	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/kg~~ R	~~0.0043~~	1		10/16/14 17:45	75-27-4	
Bromoform	ND	mg/kg U	0.0043	1		10/16/14 17:45	75-25-2	
Bromomethane	ND	mg/kg UJ	0.0043	1		10/16/14 17:45	74-83-9	
2-Butanone (MEK)	ND	mg/kg U	0.022	1		10/16/14 17:45	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0043	1		10/16/14 17:45	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0043	1		10/16/14 17:45	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0043	1		10/16/14 17:45	98-06-6	
Carbon disulfide	ND	mg/kg UJ	0.0086	1		10/16/14 17:45	75-15-0	
Carbon tetrachloride	ND	mg/kg U	0.0043	1		10/16/14 17:45	56-23-5	
Chlorobenzene	ND	mg/kg	0.0043	1		10/16/14 17:45	108-90-7	
Chloroethane	ND	mg/kg	0.0043	1		10/16/14 17:45	75-00-3	
Chloroform	ND	mg/kg	0.0043	1		10/16/14 17:45	67-66-3	
Chloromethane	ND	mg/kg	0.0043	1		10/16/14 17:45	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0043	1		10/16/14 17:45	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0043	1		10/16/14 17:45	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0043	1		10/16/14 17:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0043	1		10/16/14 17:45	106-93-4	
Dibromomethane	ND	mg/kg	0.0043	1		10/16/14 17:45	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0043	1		10/16/14 17:45	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0043	1		10/16/14 17:45	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0043	1		10/16/14 17:45	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg UJ	0.086	1		10/16/14 17:45	110-57-6	
Dichlorodifluoromethane	ND	mg/kg U	0.0043	1		10/16/14 17:45	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0043	1		10/16/14 17:45	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0043	1		10/16/14 17:45	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0043	1		10/16/14 17:45	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0043	1		10/16/14 17:45	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0043	1		10/16/14 17:45	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0043	1		10/16/14 17:45	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0043	1		10/16/14 17:45	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0043	1		10/16/14 17:45	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0043	1		10/16/14 17:45	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0043	1		10/16/14 17:45	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0043	1		10/16/14 17:45	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0043	1		10/16/14 17:45	100-41-4	
Ethyl methacrylate	ND	mg/kg UJ	0.086	1		10/16/14 17:45	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg U	0.0043	1		10/16/14 17:45	87-68-3	
n-Hexane	ND	mg/kg	0.0043	1		10/16/14 17:45	110-54-3	
2-Hexanone	ND	mg/kg	0.086	1		10/16/14 17:45	591-78-6	
Iodomethane	ND	mg/kg UJ	0.086	1		10/16/14 17:45	74-88-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: SB-MW-EPA-7-1517 **Lab ID: 50105130005** Collected: 10/09/14 10:18 Received: 10/10/14 10:04 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Isopropylbenzene (Cumene)	ND	mg/kg U	0.0043	1		10/16/14 17:45	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0043	1		10/16/14 17:45	99-87-6	
Methylene Chloride	ND	mg/kg	0.017	1		10/16/14 17:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.022	1		10/16/14 17:45	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg UJ	0.0043	1		10/16/14 17:45	1634-04-4	
Naphthalene	ND	mg/kg U	0.0043	1		10/16/14 17:45	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0043	1		10/16/14 17:45	103-65-1	
Styrene	ND	mg/kg	0.0043	1		10/16/14 17:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0043	1		10/16/14 17:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0043	1		10/16/14 17:45	79-34-5	
Tetrachloroethene	**0.043**	mg/kg	0.0043	1		10/16/14 17:45	127-18-4	
Toluene	ND	mg/kg U	0.0043	1		10/16/14 17:45	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0043	1		10/16/14 17:45	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0043	1		10/16/14 17:45	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0043	1		10/16/14 17:45	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/kg~~ R	~~0.0043~~	1		10/16/14 17:45	79-00-5	
Trichloroethene	ND	mg/kg U	0.0043	1		10/16/14 17:45	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0043	1		10/16/14 17:45	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0043	1		10/16/14 17:45	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0043	1		10/16/14 17:45	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0043	1		10/16/14 17:45	108-67-8	
Vinyl acetate	ND	mg/kg	0.086	1		10/16/14 17:45	108-05-4	
Vinyl chloride	ND	mg/kg	0.0043	1		10/16/14 17:45	75-01-4	
Xylene (Total)	ND	mg/kg	0.0086	1		10/16/14 17:45	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	95	%.	85-118	1		10/16/14 17:45	1868-53-7	
Toluene-d8 (S)	98	%.	71-128	1		10/16/14 17:45	2037-26-5	
4-Bromofluorobenzene (S)	88	%.	56-144	1		10/16/14 17:45	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**4.1**	%	0.10	1		10/15/14 07:31		

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(317)228-3100

ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: SB-FD-100914-01 **Lab ID: 50105130010** Collected: 10/09/14 00:00 Received: 10/10/14 10:04 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg U	0.082	1		10/17/14 02:46	67-64-1	
Acrolein	ND	mg/kg	0.082	1		10/17/14 02:46	107-02-8	
Acrylonitrile	ND	mg/kg	0.082	1		10/17/14 02:46	107-13-1	
Benzene	ND	mg/kg	0.0041	1		10/17/14 02:46	71-43-2	
Bromobenzene	ND	mg/kg	0.0041	1		10/17/14 02:46	108-86-1	
Bromochloromethane	ND	mg/kg	0.0041	1		10/17/14 02:46	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/kg~~ R	~~0.0041~~	1		10/17/14 02:46	75-27-4	
Bromoform	ND	mg/kg U	0.0041	1		10/17/14 02:46	75-25-2	
Bromomethane	ND	mg/kg UJ	0.0041	1		10/17/14 02:46	74-83-9	
2-Butanone (MEK)	ND	mg/kg U	0.020	1		10/17/14 02:46	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0041	1		10/17/14 02:46	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0041	1		10/17/14 02:46	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0041	1		10/17/14 02:46	98-06-6	
Carbon disulfide	ND	mg/kg UJ	0.0082	1		10/17/14 02:46	75-15-0	
Carbon tetrachloride	ND	mg/kg U	0.0041	1		10/17/14 02:46	56-23-5	
Chlorobenzene	ND	mg/kg	0.0041	1		10/17/14 02:46	108-90-7	
Chloroethane	ND	mg/kg	0.0041	1		10/17/14 02:46	75-00-3	
Chloroform	ND	mg/kg	0.0041	1		10/17/14 02:46	67-66-3	
Chloromethane	ND	mg/kg	0.0041	1		10/17/14 02:46	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0041	1		10/17/14 02:46	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0041	1		10/17/14 02:46	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0041	1		10/17/14 02:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0041	1		10/17/14 02:46	106-93-4	
Dibromomethane	ND	mg/kg	0.0041	1		10/17/14 02:46	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0041	1		10/17/14 02:46	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0041	1		10/17/14 02:46	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0041	1		10/17/14 02:46	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	0.082	1		10/17/14 02:46	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.0041	1		10/17/14 02:46	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0041	1		10/17/14 02:46	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0041	1		10/17/14 02:46	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0041	1		10/17/14 02:46	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0041	1		10/17/14 02:46	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0041	1		10/17/14 02:46	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0041	1		10/17/14 02:46	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0041	1		10/17/14 02:46	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0041	1		10/17/14 02:46	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0041	1		10/17/14 02:46	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0041	1		10/17/14 02:46	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0041	1		10/17/14 02:46	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0041	1		10/17/14 02:46	100-41-4	
Ethyl methacrylate	ND	mg/kg UJ	0.082	1		10/17/14 02:46	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg U	0.0041	1		10/17/14 02:46	87-68-3	
n-Hexane	ND	mg/kg	0.0041	1		10/17/14 02:46	110-54-3	
2-Hexanone	ND	mg/kg	0.082	1		10/17/14 02:46	591-78-6	
Iodomethane	ND	mg/kg	0.082	1		10/17/14 02:46	74-88-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: SB-FD-100914-01 **Lab ID: 50105130010** Collected: 10/09/14 00:00 Received: 10/10/14 10:04 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Isopropylbenzene (Cumene)	ND	mg/kg	0.0041	1		10/17/14 02:46	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0041	1		10/17/14 02:46	99-87-6	
Methylene Chloride	ND	mg/kg	0.016	1		10/17/14 02:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.020	1		10/17/14 02:46	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0041	1		10/17/14 02:46	1634-04-4	
Naphthalene	ND	mg/kg	0.0041	1		10/17/14 02:46	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0041	1		10/17/14 02:46	103-65-1	
Styrene	ND	mg/kg	0.0041	1		10/17/14 02:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0041	1		10/17/14 02:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0041	1		10/17/14 02:46	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0041	1		10/17/14 02:46	127-18-4	
Toluene	ND	mg/kg	0.0041	1		10/17/14 02:46	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0041	1		10/17/14 02:46	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0041	1		10/17/14 02:46	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0041	1		10/17/14 02:46	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/kg~~ R	~~0.0041~~	1		10/17/14 02:46	79-00-5	
Trichloroethene	ND	mg/kg	0.0041	1		10/17/14 02:46	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0041	1		10/17/14 02:46	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0041	1		10/17/14 02:46	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0041	1		10/17/14 02:46	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0041	1		10/17/14 02:46	108-67-8	
Vinyl acetate	ND	mg/kg	0.082	1		10/17/14 02:46	108-05-4	
Vinyl chloride	ND	mg/kg	0.0041	1		10/17/14 02:46	75-01-4	
Xylene (Total)	ND	mg/kg	0.0082	1		10/17/14 02:46	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	95	%.	85-118	1		10/17/14 02:46	1868-53-7	
Toluene-d8 (S)	98	%.	71-128	1		10/17/14 02:46	2037-26-5	
4-Bromofluorobenzene (S)	91	%.	56-144	1		10/17/14 02:46	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**4.2**	%	0.10	1		10/15/14 07:34		

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Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: SB-MW-EPA-14-0204 **Lab ID: 50105130007** Collected: 10/09/14 15:00 Received: 10/10/14 10:04 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg U	0.11	1		10/16/14 18:17	67-64-1	
Acrolein	ND	mg/kg UJ	0.11	1		10/16/14 18:17	107-02-8	
Acrylonitrile	ND	mg/kg U	0.11	1		10/16/14 18:17	107-13-1	
Benzene	ND	mg/kg	0.0053	1		10/16/14 18:17	71-43-2	
Bromobenzene	ND	mg/kg	0.0053	1		10/16/14 18:17	108-86-1	
Bromochloromethane	ND	mg/kg	0.0053	1		10/16/14 18:17	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/kg~~ R	~~0.0053~~	1		10/16/14 18:17	75-27-4	
Bromoform	ND	mg/kg U	0.0053	1		10/16/14 18:17	75-25-2	
Bromomethane	ND	mg/kg UJ	0.0053	1		10/16/14 18:17	74-83-9	
2-Butanone (MEK)	ND	mg/kg U	0.027	1		10/16/14 18:17	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0053	1		10/16/14 18:17	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0053	1		10/16/14 18:17	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0053	1		10/16/14 18:17	98-06-6	
Carbon disulfide	ND	mg/kg UJ	0.011	1		10/16/14 18:17	75-15-0	
Carbon tetrachloride	ND	mg/kg U	0.0053	1		10/16/14 18:17	56-23-5	
Chlorobenzene	ND	mg/kg	0.0053	1		10/16/14 18:17	108-90-7	
Chloroethane	ND	mg/kg	0.0053	1		10/16/14 18:17	75-00-3	
Chloroform	ND	mg/kg	0.0053	1		10/16/14 18:17	67-66-3	
Chloromethane	ND	mg/kg	0.0053	1		10/16/14 18:17	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0053	1		10/16/14 18:17	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0053	1		10/16/14 18:17	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0053	1		10/16/14 18:17	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0053	1		10/16/14 18:17	106-93-4	
Dibromomethane	ND	mg/kg	0.0053	1		10/16/14 18:17	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0053	1		10/16/14 18:17	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0053	1		10/16/14 18:17	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0053	1		10/16/14 18:17	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg UJ	0.11	1		10/16/14 18:17	110-57-6	
Dichlorodifluoromethane	ND	mg/kg U	0.0053	1		10/16/14 18:17	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0053	1		10/16/14 18:17	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0053	1		10/16/14 18:17	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0053	1		10/16/14 18:17	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0053	1		10/16/14 18:17	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0053	1		10/16/14 18:17	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0053	1		10/16/14 18:17	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0053	1		10/16/14 18:17	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0053	1		10/16/14 18:17	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0053	1		10/16/14 18:17	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0053	1		10/16/14 18:17	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0053	1		10/16/14 18:17	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0053	1		10/16/14 18:17	100-41-4	
Ethyl methacrylate	ND	mg/kg UJ	0.11	1		10/16/14 18:17	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg U	0.0053	1		10/16/14 18:17	87-68-3	
n-Hexane	ND	mg/kg	0.0053	1		10/16/14 18:17	110-54-3	
2-Hexanone	ND	mg/kg	0.11	1		10/16/14 18:17	591-78-6	
Iodomethane	ND	mg/kg UJ	0.11	1		10/16/14 18:17	74-88-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: SB-MW-EPA-14-0204 **Lab ID: 50105130007** Collected: 10/09/14 15:00 Received: 10/10/14 10:04 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Isopropylbenzene (Cumene)	ND	mg/kg U	0.0053	1		10/16/14 18:17	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0053	1		10/16/14 18:17	99-87-6	
Methylene Chloride	ND	mg/kg	0.021	1		10/16/14 18:17	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.027	1		10/16/14 18:17	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg UJ	0.0053	1		10/16/14 18:17	1634-04-4	
Naphthalene	ND	mg/kg U	0.0053	1		10/16/14 18:17	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0053	1		10/16/14 18:17	103-65-1	
Styrene	ND	mg/kg	0.0053	1		10/16/14 18:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0053	1		10/16/14 18:17	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0053	1		10/16/14 18:17	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0053	1		10/16/14 18:17	127-18-4	
Toluene	ND	mg/kg	0.0053	1		10/16/14 18:17	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0053	1		10/16/14 18:17	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0053	1		10/16/14 18:17	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0053	1		10/16/14 18:17	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/kg~~ R	~~0.0053~~	1		10/16/14 18:17	79-00-5	
Trichloroethene	ND	mg/kg U	0.0053	1		10/16/14 18:17	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0053	1		10/16/14 18:17	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0053	1		10/16/14 18:17	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0053	1		10/16/14 18:17	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0053	1		10/16/14 18:17	108-67-8	
Vinyl acetate	ND	mg/kg	0.11	1		10/16/14 18:17	108-05-4	
Vinyl chloride	ND	mg/kg	0.0053	1		10/16/14 18:17	75-01-4	
Xylene (Total)	ND	mg/kg	0.011	1		10/16/14 18:17	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	100	%.	85-118	1		10/16/14 18:17	1868-53-7	
Toluene-d8 (S)	94	%.	71-128	1		10/16/14 18:17	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	56-144	1		10/16/14 18:17	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**25.1**	%	0.10	1		10/15/14 07:31		

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: SB-MW-EPA-14-0810 **Lab ID: 50105130008** Collected: 10/09/14 15:10 Received: 10/10/14 10:04 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg U	0.083	1		10/16/14 18:49	67-64-1	
Acrolein	ND	mg/kg UJ	0.083	1		10/16/14 18:49	107-02-8	
Acrylonitrile	ND	mg/kg U	0.083	1		10/16/14 18:49	107-13-1	
Benzene	ND	mg/kg	0.0041	1		10/16/14 18:49	71-43-2	
Bromobenzene	ND	mg/kg	0.0041	1		10/16/14 18:49	108-86-1	
Bromochloromethane	ND	mg/kg	0.0041	1		10/16/14 18:49	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/kg~~ R	~~0.0041~~	1		10/16/14 18:49	75-27-4	
Bromoform	ND	mg/kg U	0.0041	1		10/16/14 18:49	75-25-2	
Bromomethane	ND	mg/kg UJ	0.0041	1		10/16/14 18:49	74-83-9	
2-Butanone (MEK)	ND	mg/kg U	0.021	1		10/16/14 18:49	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0041	1		10/16/14 18:49	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0041	1		10/16/14 18:49	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0041	1		10/16/14 18:49	98-06-6	
Carbon disulfide	ND	mg/kg UJ	0.0083	1		10/16/14 18:49	75-15-0	
Carbon tetrachloride	ND	mg/kg U	0.0041	1		10/16/14 18:49	56-23-5	
Chlorobenzene	ND	mg/kg	0.0041	1		10/16/14 18:49	108-90-7	
Chloroethane	ND	mg/kg	0.0041	1		10/16/14 18:49	75-00-3	
Chloroform	ND	mg/kg	0.0041	1		10/16/14 18:49	67-66-3	
Chloromethane	ND	mg/kg	0.0041	1		10/16/14 18:49	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0041	1		10/16/14 18:49	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0041	1		10/16/14 18:49	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0041	1		10/16/14 18:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0041	1		10/16/14 18:49	106-93-4	
Dibromomethane	ND	mg/kg	0.0041	1		10/16/14 18:49	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0041	1		10/16/14 18:49	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0041	1		10/16/14 18:49	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0041	1		10/16/14 18:49	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg UJ	0.083	1		10/16/14 18:49	110-57-6	
Dichlorodifluoromethane	ND	mg/kg U	0.0041	1		10/16/14 18:49	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0041	1		10/16/14 18:49	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0041	1		10/16/14 18:49	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0041	1		10/16/14 18:49	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0041	1		10/16/14 18:49	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0041	1		10/16/14 18:49	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0041	1		10/16/14 18:49	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0041	1		10/16/14 18:49	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0041	1		10/16/14 18:49	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0041	1		10/16/14 18:49	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0041	1		10/16/14 18:49	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0041	1		10/16/14 18:49	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0041	1		10/16/14 18:49	100-41-4	
Ethyl methacrylate	ND	mg/kg UJ	0.083	1		10/16/14 18:49	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg U	0.0041	1		10/16/14 18:49	87-68-3	
n-Hexane	ND	mg/kg	0.0041	1		10/16/14 18:49	110-54-3	
2-Hexanone	ND	mg/kg	0.083	1		10/16/14 18:49	591-78-6	
Iodomethane	ND	mg/kg UJ	0.083	1		10/16/14 18:49	74-88-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: SB-MW-EPA-14-0810 **Lab ID: 50105130008** Collected: 10/09/14 15:10 Received: 10/10/14 10:04 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Isopropylbenzene (Cumene)	ND	mg/kg U	0.0041	1		10/16/14 18:49	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0041	1		10/16/14 18:49	99-87-6	
Methylene Chloride	ND	mg/kg	0.017	1		10/16/14 18:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.021	1		10/16/14 18:49	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg UJ	0.0041	1		10/16/14 18:49	1634-04-4	
Naphthalene	ND	mg/kg U	0.0041	1		10/16/14 18:49	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0041	1		10/16/14 18:49	103-65-1	
Styrene	ND	mg/kg	0.0041	1		10/16/14 18:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0041	1		10/16/14 18:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0041	1		10/16/14 18:49	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0041	1		10/16/14 18:49	127-18-4	
Toluene	ND	mg/kg	0.0041	1		10/16/14 18:49	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0041	1		10/16/14 18:49	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0041	1		10/16/14 18:49	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0041	1		10/16/14 18:49	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/kg~~ R	~~0.0041~~	1		10/16/14 18:49	79-00-5	
Trichloroethene	ND	mg/kg U	0.0041	1		10/16/14 18:49	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0041	1		10/16/14 18:49	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0041	1		10/16/14 18:49	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0041	1		10/16/14 18:49	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0041	1		10/16/14 18:49	108-67-8	
Vinyl acetate	ND	mg/kg	0.083	1		10/16/14 18:49	108-05-4	
Vinyl chloride	ND	mg/kg	0.0041	1		10/16/14 18:49	75-01-4	
Xylene (Total)	ND	mg/kg	0.0083	1		10/16/14 18:49	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	97	%.	85-118	1		10/16/14 18:49	1868-53-7	
Toluene-d8 (S)	96	%.	71-128	1		10/16/14 18:49	2037-26-5	
4-Bromofluorobenzene (S)	94	%.	56-144	1		10/16/14 18:49	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**3.9**	%	0.10	1		10/15/14 07:34		

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: SB-MW-EPA-14-1820 **Lab ID: 50105130009** Collected: 10/09/14 16:00 Received: 10/10/14 10:04 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg U	0.080	1		10/17/14 02:14	67-64-1	
Acrolein	ND	mg/kg	0.080	1		10/17/14 02:14	107-02-8	
Acrylonitrile	ND	mg/kg	0.080	1		10/17/14 02:14	107-13-1	
Benzene	ND	mg/kg	0.0040	1		10/17/14 02:14	71-43-2	
Bromobenzene	ND	mg/kg	0.0040	1		10/17/14 02:14	108-86-1	
Bromochloromethane	ND	mg/kg	0.0040	1		10/17/14 02:14	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/kg~~ R	~~0.0040~~	1		10/17/14 02:14	75-27-4	
Bromoform	ND	mg/kg U	0.0040	1		10/17/14 02:14	75-25-2	
Bromomethane	ND	mg/kg UJ	0.0040	1		10/17/14 02:14	74-83-9	
2-Butanone (MEK)	ND	mg/kg U	0.020	1		10/17/14 02:14	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0040	1		10/17/14 02:14	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0040	1		10/17/14 02:14	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0040	1		10/17/14 02:14	98-06-6	
Carbon disulfide	ND	mg/kg UJ	0.0080	1		10/17/14 02:14	75-15-0	
Carbon tetrachloride	ND	mg/kg U	0.0040	1		10/17/14 02:14	56-23-5	
Chlorobenzene	ND	mg/kg	0.0040	1		10/17/14 02:14	108-90-7	
Chloroethane	ND	mg/kg	0.0040	1		10/17/14 02:14	75-00-3	
Chloroform	ND	mg/kg	0.0040	1		10/17/14 02:14	67-66-3	
Chloromethane	ND	mg/kg	0.0040	1		10/17/14 02:14	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0040	1		10/17/14 02:14	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0040	1		10/17/14 02:14	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0040	1		10/17/14 02:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0040	1		10/17/14 02:14	106-93-4	
Dibromomethane	ND	mg/kg	0.0040	1		10/17/14 02:14	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0040	1		10/17/14 02:14	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0040	1		10/17/14 02:14	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0040	1		10/17/14 02:14	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	0.080	1		10/17/14 02:14	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.0040	1		10/17/14 02:14	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0040	1		10/17/14 02:14	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0040	1		10/17/14 02:14	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0040	1		10/17/14 02:14	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0040	1		10/17/14 02:14	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0040	1		10/17/14 02:14	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0040	1		10/17/14 02:14	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0040	1		10/17/14 02:14	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0040	1		10/17/14 02:14	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0040	1		10/17/14 02:14	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0040	1		10/17/14 02:14	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0040	1		10/17/14 02:14	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0040	1		10/17/14 02:14	100-41-4	
Ethyl methacrylate	ND	mg/kg UJ	0.080	1		10/17/14 02:14	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg U	0.0040	1		10/17/14 02:14	87-68-3	
n-Hexane	ND	mg/kg	0.0040	1		10/17/14 02:14	110-54-3	
2-Hexanone	ND	mg/kg	0.080	1		10/17/14 02:14	591-78-6	
Iodomethane	ND	mg/kg	0.080	1		10/17/14 02:14	74-88-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: SB-MW-EPA-14-1820 **Lab ID: 50105130009** Collected: 10/09/14 16:00 Received: 10/10/14 10:04 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Isopropylbenzene (Cumene)	ND	mg/kg U	0.0040	1		10/17/14 02:14	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0040	1		10/17/14 02:14	99-87-6	
Methylene Chloride	ND	mg/kg	0.016	1		10/17/14 02:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.020	1		10/17/14 02:14	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0040	1		10/17/14 02:14	1634-04-4	
Naphthalene	ND	mg/kg	0.0040	1		10/17/14 02:14	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0040	1		10/17/14 02:14	103-65-1	
Styrene	ND	mg/kg	0.0040	1		10/17/14 02:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0040	1		10/17/14 02:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0040	1		10/17/14 02:14	79-34-5	
Tetrachloroethene	**0.014**	mg/kg	0.0040	1		10/17/14 02:14	127-18-4	
Toluene	ND	mg/kg U	0.0040	1		10/17/14 02:14	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0040	1		10/17/14 02:14	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0040	1		10/17/14 02:14	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0040	1		10/17/14 02:14	71-55-6	
1,1,2-Trichloroethane	~~ND mg/kg~~ R		~~0.0040~~	1		10/17/14 02:14	79-00-5	
Trichloroethene	ND	mg/kg U	0.0040	1		10/17/14 02:14	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0040	1		10/17/14 02:14	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0040	1		10/17/14 02:14	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0040	1		10/17/14 02:14	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0040	1		10/17/14 02:14	108-67-8	
Vinyl acetate	ND	mg/kg	0.080	1		10/17/14 02:14	108-05-4	
Vinyl chloride	ND	mg/kg	0.0040	1		10/17/14 02:14	75-01-4	
Xylene (Total)	ND	mg/kg	0.0080	1		10/17/14 02:14	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	95	%.	85-118	1		10/17/14 02:14	1868-53-7	
Toluene-d8 (S)	95	%.	71-128	1		10/17/14 02:14	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	56-144	1		10/17/14 02:14	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**5.0**	%	0.10	1		10/15/14 07:34		

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: RB-100914-01 **Lab ID: 50105130006** Collected: 10/09/14 14:08 Received: 10/10/14 10:04 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L U	0.10	1		10/16/14 04:09	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/16/14 04:09	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/16/14 04:09	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/16/14 04:09	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/16/14 04:09	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/16/14 04:09	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/L~~ R	~~0.0050~~	1		10/16/14 04:09	75-27-4	
Bromoform	ND	mg/L U	0.0050	1		10/16/14 04:09	75-25-2	
Bromomethane	ND	mg/L UJ	0.0050	1		10/16/14 04:09	74-83-9	
2-Butanone (MEK)	ND	mg/L U	0.025	1		10/16/14 04:09	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/16/14 04:09	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/16/14 04:09	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/16/14 04:09	98-06-6	
Carbon disulfide	ND	mg/L UJ	0.010	1		10/16/14 04:09	75-15-0	
Carbon tetrachloride	ND	mg/L U	0.0050	1		10/16/14 04:09	56-23-5	
Chlorobenzene	ND	mg/L U	0.0050	1		10/16/14 04:09	108-90-7	
Chloroethane	ND	mg/L UJ	0.0050	1		10/16/14 04:09	75-00-3	
Chloroform	ND	mg/L U	0.0050	1		10/16/14 04:09	67-66-3	
Chloromethane	ND	mg/L UJ	0.0050	1		10/16/14 04:09	74-87-3	
2-Chlorotoluene	ND	mg/L U	0.0050	1		10/16/14 04:09	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/16/14 04:09	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/16/14 04:09	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/16/14 04:09	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/16/14 04:09	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/16/14 04:09	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/16/14 04:09	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/16/14 04:09	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/16/14 04:09	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/16/14 04:09	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/16/14 04:09	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/16/14 04:09	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/16/14 04:09	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/16/14 04:09	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/16/14 04:09	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/16/14 04:09	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/16/14 04:09	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/16/14 04:09	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/16/14 04:09	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/16/14 04:09	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/16/14 04:09	10061-02-6	
Ethylbenzene	ND	mg/L U	0.0050	1		10/16/14 04:09	100-41-4	
Ethyl methacrylate	ND	mg/L UJ	0.10	1		10/16/14 04:09	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L U	0.0050	1		10/16/14 04:09	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/16/14 04:09	110-54-3	
2-Hexanone	ND	mg/L U	0.025	1		10/16/14 04:09	591-78-6	
Iodomethane	ND	mg/L UJ	0.010	1		10/16/14 04:09	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L U	0.0050	1		10/16/14 04:09	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: RB-100914-01 **Lab ID: 50105130006** Collected: 10/09/14 14:08 Received: 10/10/14 10:04 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L U	0.0050	1		10/16/14 04:09	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/16/14 04:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/16/14 04:09	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/16/14 04:09	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/16/14 04:09	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/16/14 04:09	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/16/14 04:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/16/14 04:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/16/14 04:09	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/16/14 04:09	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/16/14 04:09	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/16/14 04:09	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/16/14 04:09	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/16/14 04:09	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/L~~ R	~~0.0050~~	1		10/16/14 04:09	79-00-5	
Trichloroethene	ND	mg/L U	0.0050	1		10/16/14 04:09	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/16/14 04:09	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/16/14 04:09	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/16/14 04:09	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/16/14 04:09	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/16/14 04:09	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/16/14 04:09	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/16/14 04:09	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	92	%.	79-116	1		10/16/14 04:09	1868-53-7	
4-Bromofluorobenzene (S)	98	%.	80-114	1		10/16/14 04:09	460-00-4	
Toluene-d8 (S)	95	%.	81-110	1		10/16/14 04:09	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: TB-100914-01 **Lab ID: 50105130001** Collected: 10/09/14 07:00 Received: 10/10/14 10:04 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg U	0.10	1		10/16/14 16:41	67-64-1	
Acrolein	ND	mg/kg UJ	0.10	1		10/16/14 16:41	107-02-8	
Acrylonitrile	ND	mg/kg U	0.10	1		10/16/14 16:41	107-13-1	
Benzene	ND	mg/kg	0.0050	1		10/16/14 16:41	71-43-2	
Bromobenzene	ND	mg/kg	0.0050	1		10/16/14 16:41	108-86-1	
Bromochloromethane	ND	mg/kg	0.0050	1		10/16/14 16:41	74-97-5	
Bromodichloromethane	~~ND mg/kg~~ R		~~0.0050~~	1		10/16/14 16:41	75-27-4	
Bromoform	ND	mg/kg U	0.0050	1		10/16/14 16:41	75-25-2	
Bromomethane	ND	mg/kg UJ	0.0050	1		10/16/14 16:41	74-83-9	
2-Butanone (MEK)	ND	mg/kg U	0.025	1		10/16/14 16:41	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0050	1		10/16/14 16:41	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0050	1		10/16/14 16:41	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0050	1		10/16/14 16:41	98-06-6	
Carbon disulfide	ND	mg/kg UJ	0.010	1		10/16/14 16:41	75-15-0	
Carbon tetrachloride	ND	mg/kg U	0.0050	1		10/16/14 16:41	56-23-5	
Chlorobenzene	ND	mg/kg	0.0050	1		10/16/14 16:41	108-90-7	
Chloroethane	ND	mg/kg	0.0050	1		10/16/14 16:41	75-00-3	
Chloroform	ND	mg/kg	0.0050	1		10/16/14 16:41	67-66-3	
Chloromethane	ND	mg/kg	0.0050	1		10/16/14 16:41	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0050	1		10/16/14 16:41	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0050	1		10/16/14 16:41	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0050	1		10/16/14 16:41	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0050	1		10/16/14 16:41	106-93-4	
Dibromomethane	ND	mg/kg	0.0050	1		10/16/14 16:41	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0050	1		10/16/14 16:41	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0050	1		10/16/14 16:41	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0050	1		10/16/14 16:41	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg UJ	0.10	1		10/16/14 16:41	110-57-6	
Dichlorodifluoromethane	ND	mg/kg U	0.0050	1		10/16/14 16:41	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0050	1		10/16/14 16:41	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0050	1		10/16/14 16:41	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0050	1		10/16/14 16:41	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	1		10/16/14 16:41	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	1		10/16/14 16:41	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0050	1		10/16/14 16:41	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0050	1		10/16/14 16:41	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0050	1		10/16/14 16:41	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0050	1		10/16/14 16:41	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0050	1		10/16/14 16:41	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0050	1		10/16/14 16:41	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0050	1		10/16/14 16:41	100-41-4	
Ethyl methacrylate	ND	mg/kg UJ	0.10	1		10/16/14 16:41	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg U	0.0050	1		10/16/14 16:41	87-68-3	
n-Hexane	ND	mg/kg	0.0050	1		10/16/14 16:41	110-54-3	
2-Hexanone	ND	mg/kg	0.10	1		10/16/14 16:41	591-78-6	
Iodomethane	ND	mg/kg UJ	0.10	1		10/16/14 16:41	74-88-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: TB-100914-01 **Lab ID: 50105130001** Collected: 10/09/14 07:00 Received: 10/10/14 10:04 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Isopropylbenzene (Cumene)	ND	mg/kg U	0.0050	1		10/16/14 16:41	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0050	1		10/16/14 16:41	99-87-6	
Methylene Chloride	ND	mg/kg	0.020	1		10/16/14 16:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.025	1		10/16/14 16:41	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg UJ	0.0050	1		10/16/14 16:41	1634-04-4	
Naphthalene	ND	mg/kg U	0.0050	1		10/16/14 16:41	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0050	1		10/16/14 16:41	103-65-1	
Styrene	ND	mg/kg	0.0050	1		10/16/14 16:41	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	1		10/16/14 16:41	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	1		10/16/14 16:41	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0050	1		10/16/14 16:41	127-18-4	
Toluene	ND	mg/kg	0.0050	1		10/16/14 16:41	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050	1		10/16/14 16:41	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050	1		10/16/14 16:41	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0050	1		10/16/14 16:41	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/kg~~ R	~~0.0050~~	1		10/16/14 16:41	79-00-5	
Trichloroethene	ND	mg/kg U	0.0050	1		10/16/14 16:41	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0050	1		10/16/14 16:41	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0050	1		10/16/14 16:41	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050	1		10/16/14 16:41	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050	1		10/16/14 16:41	108-67-8	
Vinyl acetate	ND	mg/kg	0.10	1		10/16/14 16:41	108-05-4	
Vinyl chloride	ND	mg/kg	0.0050	1		10/16/14 16:41	75-01-4	
Xylene (Total)	ND	mg/kg	0.010	1		10/16/14 16:41	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	94	%.	85-118	1		10/16/14 16:41	1868-53-7	
Toluene-d8 (S)	95	%.	71-128	1		10/16/14 16:41	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	56-144	1		10/16/14 16:41	460-00-4	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: TB-100914-02 **Lab ID: 50105130002** Collected: 10/09/14 07:05 Received: 10/10/14 10:04 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L U	0.10	1		10/16/14 03:38	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/16/14 03:38	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/16/14 03:38	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/16/14 03:38	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/16/14 03:38	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/16/14 03:38	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/L~~ R	~~0.0050~~	1		10/16/14 03:38	75-27-4	
Bromoform	ND	mg/L U	0.0050	1		10/16/14 03:38	75-25-2	
Bromomethane	ND	mg/L UJ	0.0050	1		10/16/14 03:38	74-83-9	
2-Butanone (MEK)	ND	mg/L U	0.025	1		10/16/14 03:38	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/16/14 03:38	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/16/14 03:38	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/16/14 03:38	98-06-6	
Carbon disulfide	ND	mg/L UJ	0.010	1		10/16/14 03:38	75-15-0	
Carbon tetrachloride	ND	mg/L U	0.0050	1		10/16/14 03:38	56-23-5	
Chlorobenzene	ND	mg/L U	0.0050	1		10/16/14 03:38	108-90-7	
Chloroethane	ND	mg/L UJ	0.0050	1		10/16/14 03:38	75-00-3	
Chloroform	ND	mg/L U	0.0050	1		10/16/14 03:38	67-66-3	
Chloromethane	ND	mg/L UJ	0.0050	1		10/16/14 03:38	74-87-3	
2-Chlorotoluene	ND	mg/L U	0.0050	1		10/16/14 03:38	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/16/14 03:38	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/16/14 03:38	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/16/14 03:38	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/16/14 03:38	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/16/14 03:38	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/16/14 03:38	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/16/14 03:38	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/16/14 03:38	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/16/14 03:38	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/16/14 03:38	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/16/14 03:38	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/16/14 03:38	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/16/14 03:38	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/16/14 03:38	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/16/14 03:38	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/16/14 03:38	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/16/14 03:38	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/16/14 03:38	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/16/14 03:38	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/16/14 03:38	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/16/14 03:38	100-41-4	
Ethyl methacrylate	ND	mg/L UJ	0.10	1		10/16/14 03:38	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L U	0.0050	1		10/16/14 03:38	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/16/14 03:38	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/16/14 03:38	591-78-6	
Iodomethane	ND	mg/L UJ	0.010	1		10/16/14 03:38	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L U	0.0050	1		10/16/14 03:38	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site
Pace Project No.: 50105130

Sample: TB-100914-02 **Lab ID: 50105130002** Collected: 10/09/14 07:05 Received: 10/10/14 10:04 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/16/14 03:38	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/16/14 03:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/16/14 03:38	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/16/14 03:38	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/16/14 03:38	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/16/14 03:38	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/16/14 03:38	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/16/14 03:38	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/16/14 03:38	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/16/14 03:38	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/16/14 03:38	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/16/14 03:38	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/16/14 03:38	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/16/14 03:38	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/L~~ R	~~0.0050~~	1		10/16/14 03:38	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/16/14 03:38	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/16/14 03:38	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/16/14 03:38	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/16/14 03:38	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/16/14 03:38	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/16/14 03:38	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/16/14 03:38	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/16/14 03:38	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	90	%.	79-116	1		10/16/14 03:38	1868-53-7	
4-Bromofluorobenzene (S)	98	%.	80-114	1		10/16/14 03:38	460-00-4	
Toluene-d8 (S)	95	%.	81-110	1		10/16/14 03:38	2037-26-5	

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DATA VALIDATION CHECKLIST – STAGE 4

Site Name	Valley Pike VOC Site	**Project No.**	0001-1404-011
Data Reviewer (signature and date)	Jessica A. Vickers 01/22/2015	**Technical Reviewer (signature and date)**	
Laboratory Report No.	50105209	**Laboratory**	Pace - Indianapolis
Analyses	Volatile Organic Compounds (VOCs) – SW-846 Method 8260B		
Samples	GW-SB-MW-EPA-7-101014		
Field Blanks	TB-101014-01		

This checklist summarizes the Stage 4 validation performed on the subject laboratory report, in accordance with the Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Organic Methods Data Review* (August 2014) data validation guidance document, as well as the above referenced methods.

Data completeness:

Within Criteria	Exceedance/Notes
X	

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
X	

Instrument Performance Checks:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

Initial Calibration:

Within Criteria	Exceedance/Notes
X	

Continuing Calibration:

Within Criteria	Exceedance/Notes
	%D exceeded criteria for bromomethane – flag "UJ"

Calibration Verification:

Within Criteria	Exceedance/Notes
	%D exceeded criteria for acrolein; bromomethane; and iodomethane – flag "UJ"

Method blanks:

Within Criteria	Exceedance/Notes
X	

Field blanks:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
X	

MS/MSD:

Within Criteria	Exceedance/Notes
	None for this data package

Field duplicates:

Within Criteria	Exceedance/Notes
	None for this data package

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
	high %R for bromomethane – no action (associated results non-detect)

Sample dilutions:

Within Criteria	Exceedance/Notes
	None required

DATA VALIDATION CHECKLIST – STAGE 4

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
	None required

Internal Standards:

Within Criteria	Exceedance/Notes
X	

Target analyte identification:

Within Criteria	Exceedance/Notes
X	

Analyte quantitation and MDLs/RLs:

Within Criteria	Exceedance/Notes
	No indication that results were reported down to the MDL – no action

System performance and instrument stability:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105209

Sample: GW-SB-MW-EPA-7-101014 **Lab ID: 50105209002** Collected: 10/10/14 10:20 Received: 10/11/14 08:52 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L U	0.10	1		10/16/14 22:14	67-64-1	
Acrolein	ND	mg/L UJ	0.050	1		10/16/14 22:14	107-02-8	
Acrylonitrile	ND	mg/L U	0.10	1		10/16/14 22:14	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/16/14 22:14	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/16/14 22:14	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/16/14 22:14	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/16/14 22:14	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/16/14 22:14	75-25-2	
Bromomethane	ND	mg/L UJ	0.0050	1		10/16/14 22:14	74-83-9	
2-Butanone (MEK)	ND	mg/L U	0.025	1		10/16/14 22:14	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/16/14 22:14	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/16/14 22:14	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/16/14 22:14	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/16/14 22:14	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/16/14 22:14	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/16/14 22:14	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/16/14 22:14	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/16/14 22:14	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/16/14 22:14	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/16/14 22:14	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/16/14 22:14	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/16/14 22:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/16/14 22:14	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/16/14 22:14	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/16/14 22:14	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/16/14 22:14	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/16/14 22:14	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/16/14 22:14	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/16/14 22:14	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/16/14 22:14	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/16/14 22:14	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/16/14 22:14	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/16/14 22:14	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/16/14 22:14	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/16/14 22:14	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/16/14 22:14	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/16/14 22:14	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/16/14 22:14	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/16/14 22:14	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/16/14 22:14	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/16/14 22:14	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/16/14 22:14	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/16/14 22:14	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/16/14 22:14	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/16/14 22:14	591-78-6	
Iodomethane	ND	mg/L UJ	0.010	1		10/16/14 22:14	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L U	0.0050	1		10/16/14 22:14	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105209

Sample: GW-SB-MW-EPA-7-101014 **Lab ID: 50105209002** Collected: 10/10/14 10:20 Received: 10/11/14 08:52 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/16/14 22:14	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/16/14 22:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/16/14 22:14	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/16/14 22:14	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/16/14 22:14	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/16/14 22:14	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/16/14 22:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/16/14 22:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/16/14 22:14	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/16/14 22:14	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/16/14 22:14	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/16/14 22:14	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/16/14 22:14	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/16/14 22:14	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		10/16/14 22:14	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/16/14 22:14	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/16/14 22:14	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/16/14 22:14	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/16/14 22:14	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/16/14 22:14	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/16/14 22:14	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/16/14 22:14	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/16/14 22:14	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	102	%.	79-116	1		10/16/14 22:14	1868-53-7	
4-Bromofluorobenzene (S)	94	%.	80-114	1		10/16/14 22:14	460-00-4	
Toluene-d8 (S)	100	%.	81-110	1		10/16/14 22:14	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105209

Sample: TB-101014-01 **Lab ID: 50105209001** Collected: 10/10/14 07:00 Received: 10/11/14 08:52 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L U	0.10	1		10/16/14 21:41	67-64-1	
Acrolein	ND	mg/L UJ	0.050	1		10/16/14 21:41	107-02-8	
Acrylonitrile	ND	mg/L U	0.10	1		10/16/14 21:41	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/16/14 21:41	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/16/14 21:41	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/16/14 21:41	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/16/14 21:41	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/16/14 21:41	75-25-2	
Bromomethane	ND	mg/L UJ	0.0050	1		10/16/14 21:41	74-83-9	
2-Butanone (MEK)	ND	mg/L U	0.025	1		10/16/14 21:41	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/16/14 21:41	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/16/14 21:41	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/16/14 21:41	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/16/14 21:41	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/16/14 21:41	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/16/14 21:41	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/16/14 21:41	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/16/14 21:41	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/16/14 21:41	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/16/14 21:41	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/16/14 21:41	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/16/14 21:41	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/16/14 21:41	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/16/14 21:41	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/16/14 21:41	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/16/14 21:41	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/16/14 21:41	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/16/14 21:41	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/16/14 21:41	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/16/14 21:41	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/16/14 21:41	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/16/14 21:41	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/16/14 21:41	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/16/14 21:41	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/16/14 21:41	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/16/14 21:41	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/16/14 21:41	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/16/14 21:41	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/16/14 21:41	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/16/14 21:41	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/16/14 21:41	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/16/14 21:41	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/16/14 21:41	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/16/14 21:41	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/16/14 21:41	591-78-6	
Iodomethane	ND	mg/L UJ	0.010	1		10/16/14 21:41	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L U	0.0050	1		10/16/14 21:41	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105209

Sample: TB-101014-01 **Lab ID: 50105209001** Collected: 10/10/14 07:00 Received: 10/11/14 08:52 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/16/14 21:41	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/16/14 21:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/16/14 21:41	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/16/14 21:41	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/16/14 21:41	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/16/14 21:41	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/16/14 21:41	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/16/14 21:41	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/16/14 21:41	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/16/14 21:41	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/16/14 21:41	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/16/14 21:41	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/16/14 21:41	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/16/14 21:41	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		10/16/14 21:41	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/16/14 21:41	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/16/14 21:41	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/16/14 21:41	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/16/14 21:41	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/16/14 21:41	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/16/14 21:41	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/16/14 21:41	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/16/14 21:41	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	102	%.	79-116	1		10/16/14 21:41	1868-53-7	
4-Bromofluorobenzene (S)	96	%.	80-114	1		10/16/14 21:41	460-00-4	
Toluene-d8 (S)	99	%.	81-110	1		10/16/14 21:41	2037-26-5	

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DATA VALIDATION CHECKLIST – STAGE 4

Site Name	Valley Pike VOC Site	**Project No.**	0001-1404-011
Data Reviewer (signature and date)	Jessica A. Vickers 01/22/2015	**Technical Reviewer (signature and date)**	
Laboratory Report No.	50105286	**Laboratory**	Pace - Indianapolis
Analyses	Volatile Organic Compounds (VOCs) – SW-846 Method 8260B		
Samples	GW-MW-EPA-10-101314 and GW-MW-EPA-11-101314		
Field Duplicates	GW-MW-EPA-10-101314/GW-FD-101314-01 and GW-MW-EPA-11-101314/GW-FD-101314-02		
Field Blanks	TB-101314-01		

This checklist summarizes the Stage 4 validation performed on the subject laboratory report, in accordance with the Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Organic Methods Data Review* (August 2014) data validation guidance document, as well as the above referenced methods.

Data completeness:

Within Criteria	Exceedance/Notes
X	

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
	Cooler received at 0.5 degrees Celsius – no action (samples received intact and not frozen)

Instrument Performance Checks:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

Initial Calibration:

Within Criteria	Exceedance/Notes
X	

Continuing Calibration:

Within Criteria	Exceedance/Notes
	10/18/2014 (09:53): %D exceeded criteria for bromomethane – flag "UJ" for GW-MW-EPA-10-101314 and TB-101314-01 10/20/2014 (22:05): %D exceeded criteria for bromomethane; carbon tetrachloride; dibromochloromethane; cis-1,3-dichloropropene; and styrene – flag "UJ" for GW-MW-EPA-11-101314, GW-FD-101314-01, and GW-FD-101314-02

Calibration Verification:

Within Criteria	Exceedance/Notes
	10/15/2014 (21:39): %D exceeded criteria for acrolein; bromomethane; and iodomethane – flag "UJ" for GW-MW-EPA-10-101314 and TB-101314-01 10/20/2014 (20:27): %D exceeded criteria for acrolein; bromodichloromethane; bromomethane; carbon tetrachloride; dibromochloromethane; trans-1,4-dichloro-2-butene; cis-1,3-dichloropropene; ethyl methacrylate; styrene; and vinyl chloride – flag "UJ" for GW-MW-EPA-11-101314, GW-FD-101314-01, and GW-FD-101314-02

Method blanks:

Within Criteria	Exceedance/Notes
X	

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Field blanks:

Within Criteria	Exceedance/Notes
X	

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
X	

MS/MSD:

Within Criteria	Exceedance/Notes
	Performed on sample from another site – not evaluated

Field duplicates:

Within Criteria	Exceedance/Notes
X	

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
	low %R for 2,2-dichloropropane – flag "UJ" for GW-MW-EPA-10-101314 and TB-101314-01 high %R for bromomethane and vinyl chloride– no action (associated results non-detect)

DATA VALIDATION CHECKLIST – STAGE 4

Sample dilutions:

Within Criteria	Exceedance/Notes
	None required

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
	None required

Internal Standards:

Within Criteria	Exceedance/Notes
X	

Target analyte identification:

Within Criteria	Exceedance/Notes
X	

Analyte quantitation and MDLs/RLs:

Within Criteria	Exceedance/Notes
	No indication that results were reported down to the MDL – no action

DATA VALIDATION CHECKLIST – STAGE 4

System performance and instrument stability:

Within Criteria	Exceedance/Notes
X	

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105286

Sample: GW-MW-EPA-10-101314 **Lab ID: 50105286002** Collected: 10/13/14 16:00 Received: 10/14/14 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L U	0.10	1		10/18/14 19:30	67-64-1	
Acrolein	ND	mg/L UJ	0.050	1		10/18/14 19:30	107-02-8	
Acrylonitrile	ND	mg/L U	0.10	1		10/18/14 19:30	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/18/14 19:30	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/18/14 19:30	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/18/14 19:30	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/18/14 19:30	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/18/14 19:30	75-25-2	
Bromomethane	ND	mg/L UJ	0.0050	1		10/18/14 19:30	74-83-9	
2-Butanone (MEK)	ND	mg/L U	0.025	1		10/18/14 19:30	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 19:30	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 19:30	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 19:30	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/18/14 19:30	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/18/14 19:30	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/18/14 19:30	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/18/14 19:30	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/18/14 19:30	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/18/14 19:30	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 19:30	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 19:30	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/18/14 19:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/18/14 19:30	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/18/14 19:30	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 19:30	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 19:30	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 19:30	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/18/14 19:30	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/18/14 19:30	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 19:30	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 19:30	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 19:30	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 19:30	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 19:30	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 19:30	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 19:30	142-28-9	
2,2-Dichloropropane	ND	mg/L UJ	0.0050	1		10/18/14 19:30	594-20-7	
1,1-Dichloropropene	ND	mg/L U	0.0050	1		10/18/14 19:30	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 19:30	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 19:30	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/18/14 19:30	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/18/14 19:30	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/18/14 19:30	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/18/14 19:30	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/18/14 19:30	591-78-6	
Iodomethane	ND	mg/L UJ	0.010	1		10/18/14 19:30	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L U	0.0050	1		10/18/14 19:30	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105286

Sample: GW-MW-EPA-10-101314 **Lab ID: 50105286002** Collected: 10/13/14 16:00 Received: 10/14/14 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/18/14 19:30	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/18/14 19:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/18/14 19:30	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/18/14 19:30	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/18/14 19:30	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/18/14 19:30	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/18/14 19:30	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 19:30	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 19:30	79-34-5	
Tetrachloroethene	**0.034**	mg/L	0.0050	1		10/18/14 19:30	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/18/14 19:30	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 19:30	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 19:30	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 19:30	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 19:30	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/18/14 19:30	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/18/14 19:30	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/18/14 19:30	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 19:30	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 19:30	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/18/14 19:30	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/18/14 19:30	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/18/14 19:30	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	105	%.	79-116	1		10/18/14 19:30	1868-53-7	
4-Bromofluorobenzene (S)	92	%.	80-114	1		10/18/14 19:30	460-00-4	
Toluene-d8 (S)	98	%.	81-110	1		10/18/14 19:30	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105286

Sample: GW-FD-101314-01 **Lab ID: 50105286004** Collected: 10/13/14 08:00 Received: 10/14/14 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L U	0.10	1		10/21/14 08:22	67-64-1	
Acrolein	ND	mg/L UJ	0.050	1		10/21/14 08:22	107-02-8	
Acrylonitrile	ND	mg/L U	0.10	1		10/21/14 08:22	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/21/14 08:22	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/21/14 08:22	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/21/14 08:22	74-97-5	
Bromodichloromethane	ND	mg/L UJ	0.0050	1		10/21/14 08:22	75-27-4	
Bromoform	ND	mg/L U	0.0050	1		10/21/14 08:22	75-25-2	
Bromomethane	ND	mg/L UJ	0.0050	1		10/21/14 08:22	74-83-9	
2-Butanone (MEK)	ND	mg/L U	0.025	1		10/21/14 08:22	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/21/14 08:22	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/21/14 08:22	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/21/14 08:22	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/21/14 08:22	75-15-0	
Carbon tetrachloride	ND	mg/L UJ	0.0050	1		10/21/14 08:22	56-23-5	
Chlorobenzene	ND	mg/L U	0.0050	1		10/21/14 08:22	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/21/14 08:22	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/21/14 08:22	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/21/14 08:22	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/21/14 08:22	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/21/14 08:22	106-43-4	
Dibromochloromethane	ND	mg/L UJ	0.0050	1		10/21/14 08:22	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L U	0.0050	1		10/21/14 08:22	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/21/14 08:22	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/21/14 08:22	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/21/14 08:22	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/21/14 08:22	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L UJ	0.10	1		10/21/14 08:22	110-57-6	
Dichlorodifluoromethane	ND	mg/L U	0.0050	1		10/21/14 08:22	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/21/14 08:22	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/21/14 08:22	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/21/14 08:22	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/21/14 08:22	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/21/14 08:22	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/21/14 08:22	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/21/14 08:22	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/21/14 08:22	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/21/14 08:22	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L UJ	0.0050	1		10/21/14 08:22	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L U	0.0050	1		10/21/14 08:22	10061-02-6	
Ethylbenzene	ND	mg/L U	0.0050	1		10/21/14 08:22	100-41-4	
Ethyl methacrylate	ND	mg/L UJ	0.10	1		10/21/14 08:22	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L U	0.0050	1		10/21/14 08:22	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/21/14 08:22	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/21/14 08:22	591-78-6	
Iodomethane	ND	mg/L ~~UJ~~ U	0.010	1		10/21/14 08:22	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L U	0.0050	1		10/21/14 08:22	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105286

Sample: GW-FD-101314-01 **Lab ID: 50105286004** Collected: 10/13/14 08:00 Received: 10/14/14 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L U	0.0050	1		10/21/14 08:22	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/21/14 08:22	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/21/14 08:22	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/21/14 08:22	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/21/14 08:22	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/21/14 08:22	103-65-1	
Styrene	ND	mg/L UJ	0.0050	1		10/21/14 08:22	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L U	0.0050	1		10/21/14 08:22	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L U	0.0050	1		10/21/14 08:22	79-34-5	
Tetrachloroethene	**0.030**	mg/L	0.0050	1		10/21/14 08:22	127-18-4	
Toluene	ND	mg/L U	0.0050	1		10/21/14 08:22	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/21/14 08:22	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/21/14 08:22	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/21/14 08:22	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		10/21/14 08:22	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/21/14 08:22	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/21/14 08:22	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/21/14 08:22	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/21/14 08:22	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/21/14 08:22	108-67-8	
Vinyl acetate	ND	mg/L U	0.050	1		10/21/14 08:22	108-05-4	
Vinyl chloride	ND	mg/L UJ	0.0020	1		10/21/14 08:22	75-01-4	
Xylene (Total)	ND	mg/L U	0.010	1		10/21/14 08:22	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	102	%.	79-116	1		10/21/14 08:22	1868-53-7	
4-Bromofluorobenzene (S)	96	%.	80-114	1		10/21/14 08:22	460-00-4	
Toluene-d8 (S)	101	%.	81-110	1		10/21/14 08:22	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105286

Sample: GW-MW-EPA-11-101314 **Lab ID: 50105286003** Collected: 10/13/14 18:20 Received: 10/14/14 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L U	0.10	1		10/21/14 07:50	67-64-1	
Acrolein	ND	mg/L UJ	0.050	1		10/21/14 07:50	107-02-8	
Acrylonitrile	ND	mg/L U	0.10	1		10/21/14 07:50	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/21/14 07:50	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/21/14 07:50	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/21/14 07:50	74-97-5	
Bromodichloromethane	ND	mg/L UJ	0.0050	1		10/21/14 07:50	75-27-4	
Bromoform	ND	mg/L U	0.0050	1		10/21/14 07:50	75-25-2	
Bromomethane	ND	mg/L UJ	0.0050	1		10/21/14 07:50	74-83-9	
2-Butanone (MEK)	ND	mg/L U	0.025	1		10/21/14 07:50	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/21/14 07:50	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/21/14 07:50	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/21/14 07:50	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/21/14 07:50	75-15-0	
Carbon tetrachloride	ND	mg/L UJ	0.0050	1		10/21/14 07:50	56-23-5	
Chlorobenzene	ND	mg/L U	0.0050	1		10/21/14 07:50	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/21/14 07:50	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/21/14 07:50	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/21/14 07:50	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/21/14 07:50	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/21/14 07:50	106-43-4	
Dibromochloromethane	ND	mg/L UJ	0.0050	1		10/21/14 07:50	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L U	0.0050	1		10/21/14 07:50	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/21/14 07:50	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/21/14 07:50	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/21/14 07:50	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/21/14 07:50	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L UJ	0.10	1		10/21/14 07:50	110-57-6	
Dichlorodifluoromethane	ND	mg/L U	0.0050	1		10/21/14 07:50	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/21/14 07:50	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/21/14 07:50	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/21/14 07:50	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/21/14 07:50	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/21/14 07:50	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/21/14 07:50	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/21/14 07:50	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/21/14 07:50	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/21/14 07:50	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L UJ	0.0050	1		10/21/14 07:50	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L U	0.0050	1		10/21/14 07:50	10061-02-6	
Ethylbenzene	ND	mg/L U	0.0050	1		10/21/14 07:50	100-41-4	
Ethyl methacrylate	ND	mg/L UJ	0.10	1		10/21/14 07:50	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L U	0.0050	1		10/21/14 07:50	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/21/14 07:50	110-54-3	
2-Hexanone	ND	mg/L U	0.025	1		10/21/14 07:50	591-78-6	
Iodomethane	ND	mg/L ~~UJ~~ U	0.010	1		10/21/14 07:50	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L U	0.0050	1		10/21/14 07:50	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105286

Sample: GW-MW-EPA-11-101314 **Lab ID: 50105286003** Collected: 10/13/14 18:20 Received: 10/14/14 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/21/14 07:50	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/21/14 07:50	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/21/14 07:50	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/21/14 07:50	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/21/14 07:50	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/21/14 07:50	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/21/14 07:50	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/21/14 07:50	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/21/14 07:50	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/21/14 07:50	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/21/14 07:50	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/21/14 07:50	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/21/14 07:50	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/21/14 07:50	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		10/21/14 07:50	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/21/14 07:50	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/21/14 07:50	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/21/14 07:50	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/21/14 07:50	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/21/14 07:50	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/21/14 07:50	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/21/14 07:50	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/21/14 07:50	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	102	%.	79-116	1		10/21/14 07:50	1868-53-7	
4-Bromofluorobenzene (S)	96	%.	80-114	1		10/21/14 07:50	460-00-4	
Toluene-d8 (S)	100	%.	81-110	1		10/21/14 07:50	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105286

Sample: GW-FD-101314-02 **Lab ID: 50105286005** Collected: 10/13/14 08:00 Received: 10/14/14 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L U	0.10	1		10/21/14 08:55	67-64-1	
Acrolein	ND	mg/L UJ	0.050	1		10/21/14 08:55	107-02-8	
Acrylonitrile	ND	mg/L U	0.10	1		10/21/14 08:55	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/21/14 08:55	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/21/14 08:55	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/21/14 08:55	74-97-5	
Bromodichloromethane	ND	mg/L UJ	0.0050	1		10/21/14 08:55	75-27-4	
Bromoform	ND	mg/L U	0.0050	1		10/21/14 08:55	75-25-2	
Bromomethane	ND	mg/L UJ	0.0050	1		10/21/14 08:55	74-83-9	
2-Butanone (MEK)	ND	mg/L U	0.025	1		10/21/14 08:55	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/21/14 08:55	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/21/14 08:55	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/21/14 08:55	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/21/14 08:55	75-15-0	
Carbon tetrachloride	ND	mg/L UJ	0.0050	1		10/21/14 08:55	56-23-5	
Chlorobenzene	ND	mg/L U	0.0050	1		10/21/14 08:55	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/21/14 08:55	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/21/14 08:55	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/21/14 08:55	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/21/14 08:55	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/21/14 08:55	106-43-4	
Dibromochloromethane	ND	mg/L UJ	0.0050	1		10/21/14 08:55	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L U	0.0050	1		10/21/14 08:55	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/21/14 08:55	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/21/14 08:55	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/21/14 08:55	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/21/14 08:55	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/21/14 08:55	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/21/14 08:55	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/21/14 08:55	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/21/14 08:55	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/21/14 08:55	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/21/14 08:55	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/21/14 08:55	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/21/14 08:55	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/21/14 08:55	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/21/14 08:55	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/21/14 08:55	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L UJ	0.0050	1		10/21/14 08:55	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L U	0.0050	1		10/21/14 08:55	10061-02-6	
Ethylbenzene	ND	mg/L U	0.0050	1		10/21/14 08:55	100-41-4	
Ethyl methacrylate	ND	mg/L UJ	0.10	1		10/21/14 08:55	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L U	0.0050	1		10/21/14 08:55	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/21/14 08:55	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/21/14 08:55	591-78-6	
Iodomethane	ND	mg/L ~~UJ~~ U	0.010	1		10/21/14 08:55	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L U	0.0050	1		10/21/14 08:55	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105286

Sample: GW-FD-101314-02 **Lab ID: 50105286005** Collected: 10/13/14 08:00 Received: 10/14/14 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L U	0.0050	1		10/21/14 08:55	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/21/14 08:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/21/14 08:55	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/21/14 08:55	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/21/14 08:55	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/21/14 08:55	103-65-1	
Styrene	ND	mg/L UJ	0.0050	1		10/21/14 08:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L U	0.0050	1		10/21/14 08:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/21/14 08:55	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/21/14 08:55	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/21/14 08:55	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/21/14 08:55	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/21/14 08:55	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/21/14 08:55	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		10/21/14 08:55	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/21/14 08:55	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/21/14 08:55	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/21/14 08:55	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/21/14 08:55	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/21/14 08:55	108-67-8	
Vinyl acetate	ND	mg/L U	0.050	1		10/21/14 08:55	108-05-4	
Vinyl chloride	ND	mg/L UJ	0.0020	1		10/21/14 08:55	75-01-4	
Xylene (Total)	ND	mg/L U	0.010	1		10/21/14 08:55	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	104	%.	79-116	1		10/21/14 08:55	1868-53-7	
4-Bromofluorobenzene (S)	94	%.	80-114	1		10/21/14 08:55	460-00-4	
Toluene-d8 (S)	98	%.	81-110	1		10/21/14 08:55	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105286

Sample: TB-101314-01 **Lab ID: 50105286001** Collected: 10/13/14 07:00 Received: 10/14/14 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L U	0.10	1		10/18/14 19:01	67-64-1	
Acrolein	ND	mg/L UJ	0.050	1		10/18/14 19:01	107-02-8	
Acrylonitrile	ND	mg/L U	0.10	1		10/18/14 19:01	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/18/14 19:01	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/18/14 19:01	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/18/14 19:01	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/18/14 19:01	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/18/14 19:01	75-25-2	
Bromomethane	ND	mg/L UJ	0.0050	1		10/18/14 19:01	74-83-9	
2-Butanone (MEK)	ND	mg/L U	0.025	1		10/18/14 19:01	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 19:01	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 19:01	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 19:01	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/18/14 19:01	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/18/14 19:01	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/18/14 19:01	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/18/14 19:01	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/18/14 19:01	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/18/14 19:01	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 19:01	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 19:01	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/18/14 19:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/18/14 19:01	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/18/14 19:01	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 19:01	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 19:01	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 19:01	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/18/14 19:01	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/18/14 19:01	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 19:01	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 19:01	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 19:01	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 19:01	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 19:01	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 19:01	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 19:01	142-28-9	
2,2-Dichloropropane	ND	mg/L UJ	0.0050	1		10/18/14 19:01	594-20-7	
1,1-Dichloropropene	ND	mg/L U	0.0050	1		10/18/14 19:01	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 19:01	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 19:01	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/18/14 19:01	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/18/14 19:01	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/18/14 19:01	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/18/14 19:01	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/18/14 19:01	591-78-6	
Iodomethane	ND	mg/L UJ	0.010	1		10/18/14 19:01	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L U	0.0050	1		10/18/14 19:01	98-82-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105286

Sample: TB-101314-01 **Lab ID: 50105286001** Collected: 10/13/14 07:00 Received: 10/14/14 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/18/14 19:01	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/18/14 19:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/18/14 19:01	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/18/14 19:01	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/18/14 19:01	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/18/14 19:01	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/18/14 19:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 19:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 19:01	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/18/14 19:01	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/18/14 19:01	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 19:01	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 19:01	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 19:01	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 19:01	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/18/14 19:01	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/18/14 19:01	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/18/14 19:01	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 19:01	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 19:01	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/18/14 19:01	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/18/14 19:01	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/18/14 19:01	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	109	%.	79-116	1		10/18/14 19:01	1868-53-7	
4-Bromofluorobenzene (S)	93	%.	80-114	1		10/18/14 19:01	460-00-4	
Toluene-d8 (S)	98	%.	81-110	1		10/18/14 19:01	2037-26-5	

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DATA VALIDATION CHECKLIST – STAGE 4

Site Name	Valley Pike VOC Site	**Project No.**	0001-1404-011
Data Reviewer (signature and date)	Jessica A. Vickers 01/23/2015	**Technical Reviewer (signature and date)**	
Laboratory Report No.	50105357	**Laboratory**	Pace - Indianapolis
Analyses	Volatile Organic Compounds (VOCs) – SW-846 Method 8260B		
Samples	GW-MW-2-101414; GW-MW-5-101414; GW-MW-6-101414; GW-MW-EPA-12-101414; and GW-MW-EPA-13-101414		
Field Blanks	TB-101414-01		

This checklist summarizes the Stage 4 validation performed on the subject laboratory report, in accordance with the Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Organic Methods Data Review* (August 2014) data validation guidance document, as well as the above referenced methods.

Data completeness:

Within Criteria	Exceedance/Notes
X	

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
	Cooler received at 1.1 degrees Celsius – no action (samples received intact and not frozen)

Instrument Performance Checks:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

Initial Calibration:

Within Criteria	Exceedance/Notes
X	

Continuing Calibration:

Within Criteria	Exceedance/Notes
	%D exceeded criteria for trans-1,4-dichloro-2-butene and ethyl methacrylate – flag "UJ"

Calibration Verification:

Within Criteria	Exceedance/Notes
X	

Method blanks:

Within Criteria	Exceedance/Notes
X	

Field blanks:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
X	

MS/MSD:

Within Criteria	Exceedance/Notes
X	Note: abbreviated list of analytes was spiked

Field duplicates:

Within Criteria	Exceedance/Notes
	None for this data package

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
X	Note: abbreviated list of analytes was spiked

Sample dilutions:

Within Criteria	Exceedance/Notes
	None were required

DATA VALIDATION CHECKLIST – STAGE 4

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
	None were required

Internal Standards:

Within Criteria	Exceedance/Notes
X	

Target analyte identification:

Within Criteria	Exceedance/Notes
X	

Analyte quantitation and MDLs/RLs:

Within Criteria	Exceedance/Notes
	No indication that results were reported down to the MDL – no action

System performance and instrument stability:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105357

Sample: GW-MW-2-101414 **Lab ID: 50105357005** Collected: 10/14/14 15:50 Received: 10/15/14 10:08 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L U	0.10	1		10/18/14 12:16	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/18/14 12:16	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/18/14 12:16	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/18/14 12:16	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/18/14 12:16	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/18/14 12:16	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/18/14 12:16	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/18/14 12:16	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/18/14 12:16	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/18/14 12:16	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 12:16	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 12:16	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 12:16	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/18/14 12:16	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/18/14 12:16	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/18/14 12:16	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/18/14 12:16	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/18/14 12:16	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/18/14 12:16	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 12:16	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 12:16	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/18/14 12:16	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/18/14 12:16	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/18/14 12:16	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 12:16	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 12:16	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 12:16	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L UJ	0.10	1		10/18/14 12:16	110-57-6	
Dichlorodifluoromethane	ND	mg/L U	0.0050	1		10/18/14 12:16	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 12:16	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 12:16	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 12:16	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 12:16	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 12:16	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 12:16	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 12:16	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 12:16	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 12:16	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 12:16	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 12:16	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/18/14 12:16	100-41-4	
Ethyl methacrylate	ND	mg/L UJ	0.10	1		10/18/14 12:16	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L U	0.0050	1		10/18/14 12:16	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/18/14 12:16	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/18/14 12:16	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/18/14 12:16	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/18/14 12:16	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105357

Sample: GW-MW-2-101414 **Lab ID: 50105357005** Collected: 10/14/14 15:50 Received: 10/15/14 10:08 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/18/14 12:16	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/18/14 12:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/18/14 12:16	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/18/14 12:16	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/18/14 12:16	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/18/14 12:16	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/18/14 12:16	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 12:16	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 12:16	79-34-5	
Tetrachloroethene	**0.0093**	mg/L	0.0050	1		10/18/14 12:16	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/18/14 12:16	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 12:16	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 12:16	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 12:16	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 12:16	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/18/14 12:16	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/18/14 12:16	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/18/14 12:16	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 12:16	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 12:16	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/18/14 12:16	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/18/14 12:16	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/18/14 12:16	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	98	%.	79-116	1		10/18/14 12:16	1868-53-7	
4-Bromofluorobenzene (S)	98	%.	80-114	1		10/18/14 12:16	460-00-4	
Toluene-d8 (S)	99	%.	81-110	1		10/18/14 12:16	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105357

Sample: GW-MW-5-101414 **Lab ID: 50105357003** Collected: 10/14/14 10:10 Received: 10/15/14 10:08 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		10/18/14 09:38	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/18/14 09:38	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/18/14 09:38	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/18/14 09:38	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/18/14 09:38	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/18/14 09:38	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/18/14 09:38	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/18/14 09:38	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/18/14 09:38	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/18/14 09:38	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 09:38	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 09:38	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 09:38	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/18/14 09:38	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/18/14 09:38	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/18/14 09:38	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/18/14 09:38	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/18/14 09:38	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/18/14 09:38	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 09:38	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 09:38	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/18/14 09:38	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/18/14 09:38	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/18/14 09:38	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 09:38	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 09:38	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 09:38	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/18/14 09:38	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/18/14 09:38	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 09:38	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 09:38	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 09:38	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 09:38	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 09:38	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 09:38	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 09:38	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 09:38	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 09:38	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 09:38	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 09:38	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/18/14 09:38	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/18/14 09:38	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/18/14 09:38	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/18/14 09:38	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/18/14 09:38	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/18/14 09:38	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/18/14 09:38	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105357

Sample: GW-MW-5-101414 **Lab ID: 50105357003** Collected: 10/14/14 10:10 Received: 10/15/14 10:08 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/18/14 09:38	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/18/14 09:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/18/14 09:38	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/18/14 09:38	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/18/14 09:38	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/18/14 09:38	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/18/14 09:38	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 09:38	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 09:38	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/18/14 09:38	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/18/14 09:38	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 09:38	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 09:38	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 09:38	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 09:38	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/18/14 09:38	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/18/14 09:38	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/18/14 09:38	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 09:38	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 09:38	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/18/14 09:38	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/18/14 09:38	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/18/14 09:38	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	100	%.	79-116	1		10/18/14 09:38	1868-53-7	
4-Bromofluorobenzene (S)	100	%.	80-114	1		10/18/14 09:38	460-00-4	
Toluene-d8 (S)	97	%.	81-110	1		10/18/14 09:38	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105357

Sample: GW-MW-6-101414 **Lab ID: 50105357002** Collected: 10/14/14 10:06 Received: 10/15/14 10:08 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		10/18/14 08:59	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/18/14 08:59	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/18/14 08:59	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/18/14 08:59	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/18/14 08:59	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/18/14 08:59	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/18/14 08:59	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/18/14 08:59	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/18/14 08:59	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/18/14 08:59	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 08:59	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 08:59	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 08:59	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/18/14 08:59	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/18/14 08:59	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/18/14 08:59	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/18/14 08:59	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/18/14 08:59	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/18/14 08:59	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 08:59	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 08:59	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/18/14 08:59	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/18/14 08:59	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/18/14 08:59	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 08:59	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 08:59	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 08:59	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/18/14 08:59	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/18/14 08:59	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 08:59	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 08:59	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 08:59	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 08:59	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 08:59	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 08:59	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 08:59	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 08:59	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 08:59	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 08:59	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 08:59	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/18/14 08:59	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/18/14 08:59	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/18/14 08:59	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/18/14 08:59	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/18/14 08:59	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/18/14 08:59	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/18/14 08:59	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105357

Sample: GW-MW-6-101414 **Lab ID: 50105357002** Collected: 10/14/14 10:06 Received: 10/15/14 10:08 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/18/14 08:59	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/18/14 08:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/18/14 08:59	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/18/14 08:59	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/18/14 08:59	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/18/14 08:59	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/18/14 08:59	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 08:59	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 08:59	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/18/14 08:59	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/18/14 08:59	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 08:59	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 08:59	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 08:59	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 08:59	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/18/14 08:59	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/18/14 08:59	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/18/14 08:59	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 08:59	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 08:59	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/18/14 08:59	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/18/14 08:59	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/18/14 08:59	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	107	%.	79-116	1		10/18/14 08:59	1868-53-7	
4-Bromofluorobenzene (S)	101	%.	80-114	1		10/18/14 08:59	460-00-4	
Toluene-d8 (S)	92	%.	81-110	1		10/18/14 08:59	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105357

Sample: GW-MW-EPA-12-101414 **Lab ID: 50105357004** Collected: 10/14/14 13:00 Received: 10/15/14 10:08 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		10/18/14 10:17	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/18/14 10:17	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/18/14 10:17	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/18/14 10:17	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/18/14 10:17	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/18/14 10:17	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/18/14 10:17	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/18/14 10:17	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/18/14 10:17	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/18/14 10:17	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 10:17	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 10:17	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 10:17	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/18/14 10:17	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/18/14 10:17	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/18/14 10:17	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/18/14 10:17	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/18/14 10:17	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/18/14 10:17	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 10:17	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 10:17	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/18/14 10:17	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/18/14 10:17	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/18/14 10:17	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 10:17	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 10:17	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 10:17	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/18/14 10:17	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/18/14 10:17	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 10:17	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 10:17	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 10:17	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 10:17	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 10:17	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 10:17	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 10:17	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 10:17	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 10:17	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 10:17	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 10:17	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/18/14 10:17	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/18/14 10:17	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/18/14 10:17	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/18/14 10:17	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/18/14 10:17	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/18/14 10:17	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/18/14 10:17	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105357

Sample: GW-MW-EPA-12-101414 **Lab ID: 50105357004** Collected: 10/14/14 13:00 Received: 10/15/14 10:08 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/18/14 10:17	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/18/14 10:17	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/18/14 10:17	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/18/14 10:17	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/18/14 10:17	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/18/14 10:17	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/18/14 10:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 10:17	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 10:17	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/18/14 10:17	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/18/14 10:17	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 10:17	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 10:17	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 10:17	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 10:17	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/18/14 10:17	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/18/14 10:17	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/18/14 10:17	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 10:17	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 10:17	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/18/14 10:17	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/18/14 10:17	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/18/14 10:17	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	100	%.	79-116	1		10/18/14 10:17	1868-53-7	
4-Bromofluorobenzene (S)	104	%.	80-114	1		10/18/14 10:17	460-00-4	
Toluene-d8 (S)	101	%.	81-110	1		10/18/14 10:17	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105357

Sample: GW-MW-EPA-13-101414 **Lab ID: 50105357006** Collected: 10/14/14 16:20 Received: 10/15/14 10:08 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L U	0.10	1		10/18/14 12:55	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/18/14 12:55	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/18/14 12:55	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/18/14 12:55	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/18/14 12:55	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/18/14 12:55	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/18/14 12:55	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/18/14 12:55	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/18/14 12:55	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/18/14 12:55	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 12:55	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 12:55	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 12:55	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/18/14 12:55	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/18/14 12:55	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/18/14 12:55	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/18/14 12:55	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/18/14 12:55	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/18/14 12:55	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 12:55	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 12:55	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/18/14 12:55	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/18/14 12:55	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/18/14 12:55	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 12:55	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 12:55	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 12:55	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L UJ	0.10	1		10/18/14 12:55	110-57-6	
Dichlorodifluoromethane	ND	mg/L U	0.0050	1		10/18/14 12:55	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 12:55	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 12:55	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 12:55	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 12:55	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 12:55	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 12:55	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 12:55	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 12:55	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 12:55	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 12:55	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 12:55	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/18/14 12:55	100-41-4	
Ethyl methacrylate	ND	mg/L UJ	0.10	1		10/18/14 12:55	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L U	0.0050	1		10/18/14 12:55	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/18/14 12:55	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/18/14 12:55	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/18/14 12:55	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/18/14 12:55	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105357

Sample: GW-MW-EPA-13-101414 **Lab ID: 50105357006** Collected: 10/14/14 16:20 Received: 10/15/14 10:08 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/18/14 12:55	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/18/14 12:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/18/14 12:55	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/18/14 12:55	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/18/14 12:55	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/18/14 12:55	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/18/14 12:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 12:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 12:55	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/18/14 12:55	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/18/14 12:55	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 12:55	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 12:55	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 12:55	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 12:55	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/18/14 12:55	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/18/14 12:55	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/18/14 12:55	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 12:55	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 12:55	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/18/14 12:55	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/18/14 12:55	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/18/14 12:55	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	104	%.	79-116	1		10/18/14 12:55	1868-53-7	
4-Bromofluorobenzene (S)	101	%.	80-114	1		10/18/14 12:55	460-00-4	
Toluene-d8 (S)	97	%.	81-110	1		10/18/14 12:55	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105357

Sample: TB-101414-01 **Lab ID: 50105357001** Collected: 10/14/14 07:00 Received: 10/15/14 10:08 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		10/18/14 08:19	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/18/14 08:19	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/18/14 08:19	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/18/14 08:19	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/18/14 08:19	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/18/14 08:19	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/18/14 08:19	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/18/14 08:19	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/18/14 08:19	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/18/14 08:19	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 08:19	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 08:19	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 08:19	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/18/14 08:19	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/18/14 08:19	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/18/14 08:19	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/18/14 08:19	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/18/14 08:19	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/18/14 08:19	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 08:19	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 08:19	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/18/14 08:19	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/18/14 08:19	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/18/14 08:19	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 08:19	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 08:19	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 08:19	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/18/14 08:19	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/18/14 08:19	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 08:19	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 08:19	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 08:19	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 08:19	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 08:19	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 08:19	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 08:19	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 08:19	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 08:19	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 08:19	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 08:19	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/18/14 08:19	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/18/14 08:19	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/18/14 08:19	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/18/14 08:19	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/18/14 08:19	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/18/14 08:19	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/18/14 08:19	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105357

Sample: TB-101414-01 **Lab ID: 50105357001** Collected: 10/14/14 07:00 Received: 10/15/14 10:08 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L U	0.0050	1		10/18/14 08:19	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/18/14 08:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/18/14 08:19	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/18/14 08:19	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/18/14 08:19	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/18/14 08:19	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/18/14 08:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 08:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 08:19	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/18/14 08:19	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/18/14 08:19	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 08:19	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 08:19	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 08:19	71-55-6	
1,1,2-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 08:19	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/18/14 08:19	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/18/14 08:19	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/18/14 08:19	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 08:19	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 08:19	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/18/14 08:19	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/18/14 08:19	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/18/14 08:19	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	101	%.	79-116	1		10/18/14 08:19	1868-53-7	
4-Bromofluorobenzene (S)	100	%.	80-114	1		10/18/14 08:19	460-00-4	
Toluene-d8 (S)	94	%.	81-110	1		10/18/14 08:19	2037-26-5	

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REPORT OF LABORATORY ANALYSIS

Date: 10/21/2014 10:01 AM

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DATA VALIDATION CHECKLIST – STAGE 4

Site Name	Valley Pike VOC Site	**Project No.**	0001-1404-011
Data Reviewer (signature and date)	Jessica A. Vickers 01/23/2015	**Technical Reviewer (signature and date)**	
Laboratory Report No.	50105429	**Laboratory**	Pace - Indianapolis
Analyses	Volatile Organic Compounds (VOCs) – SW-846 Method 8260B		
Samples	GW-MW-1R-101514; GW-MW-EPA-7-101514; GW-MW-EPA-8-101514; and GW-PW-101514		
Field Blanks	TB-101514-01		

This checklist summarizes the Stage 4 validation performed on the subject laboratory report, in accordance with the Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Organic Methods Data Review* (August 2014) data validation guidance document, as well as the above referenced methods.

Data completeness:

Within Criteria	Exceedance/Notes
X	

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
	Laboratory corrected ID GW-MW-EPA-8-101414 to GW-MW-EPA-8-101514

Instrument Performance Checks:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

Initial Calibration:

Within Criteria	Exceedance/Notes
	RRF exceeded criteria for 1,1,2-trichloroethane – flag "R"

Continuing Calibration:

Within Criteria	Exceedance/Notes
X	10/20/2014 (12:45): %D exceeded criteria for bromoform – flag "UJ" for GW-MW-1R-101514, GW-MW-EPA-8-101514, and GW-PW-101514

Calibration Verification:

Within Criteria	Exceedance/Notes
X	

Method blanks:

Within Criteria	Exceedance/Notes
X	

Field blanks:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
X	

MS/MSD:

Within Criteria	Exceedance/Notes
X	Note: abbreviated list of analytes was spiked

Field duplicates:

Within Criteria	Exceedance/Notes
	No field duplicates included in this data package.

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
X	Note: abbreviated list of analytes was spiked

Sample dilutions:

Within Criteria	Exceedance/Notes
	5x: VOCs except tetrachloroethene for GW-MW-EPA-8-101514 100x: tetrachloroethene for GW-MW-EPA-8-101514

DATA VALIDATION CHECKLIST – STAGE 4

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
	None were required

Internal Standards:

Within Criteria	Exceedance/Notes
X	

Target analyte identification:

Within Criteria	Exceedance/Notes
X	

Analyte quantitation and MDLs/RLs:

Within Criteria	Exceedance/Notes
	No indication that results were reported down to the MDL – no action

System performance and instrument stability:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105429

Sample: GW-MW-1R-101514 **Lab ID: 50105429005** Collected: 10/15/14 17:00 Received: 10/16/14 10:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L U	0.10	1		10/17/14 22:01	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/17/14 22:01	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/17/14 22:01	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/17/14 22:01	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/17/14 22:01	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/17/14 22:01	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/17/14 22:01	75-27-4	
Bromoform	ND	mg/L UJ	0.0050	1		10/17/14 22:01	75-25-2	
Bromomethane	ND	mg/L U	0.0050	1		10/17/14 22:01	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/17/14 22:01	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 22:01	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 22:01	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 22:01	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/17/14 22:01	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/17/14 22:01	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/17/14 22:01	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/17/14 22:01	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/17/14 22:01	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/17/14 22:01	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/17/14 22:01	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/17/14 22:01	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/17/14 22:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/17/14 22:01	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/17/14 22:01	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 22:01	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 22:01	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 22:01	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/17/14 22:01	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/17/14 22:01	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/17/14 22:01	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/17/14 22:01	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 22:01	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 22:01	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 22:01	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 22:01	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 22:01	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 22:01	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 22:01	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 22:01	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 22:01	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/17/14 22:01	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/17/14 22:01	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/17/14 22:01	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/17/14 22:01	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/17/14 22:01	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/17/14 22:01	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/17/14 22:01	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105429

Sample: GW-MW-1R-101514 **Lab ID: 50105429005** Collected: 10/15/14 17:00 Received: 10/16/14 10:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/17/14 22:01	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/17/14 22:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/17/14 22:01	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/17/14 22:01	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/17/14 22:01	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/17/14 22:01	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/17/14 22:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/17/14 22:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/17/14 22:01	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/20/14 16:11	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/20/14 16:11	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/17/14 22:01	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/17/14 22:01	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/17/14 22:01	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/L~~ R	~~0.0050~~	1		10/17/14 22:01	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/17/14 22:01	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/17/14 22:01	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/17/14 22:01	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/17/14 22:01	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/17/14 22:01	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/17/14 22:01	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/17/14 22:01	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/17/14 22:01	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	97	%.	79-116	1		10/17/14 22:01	1868-53-7	
4-Bromofluorobenzene (S)	103	%.	80-114	1		10/17/14 22:01	460-00-4	
Toluene-d8 (S)	104	%.	81-110	1		10/17/14 22:01	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105429

Sample: GW-MW-EPA-7-101514 **Lab ID: 50105429002** Collected: 10/15/14 11:15 Received: 10/16/14 10:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		10/17/14 19:17	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/17/14 19:17	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/17/14 19:17	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/17/14 19:17	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/17/14 19:17	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/17/14 19:17	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/17/14 19:17	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/17/14 19:17	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/17/14 19:17	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/17/14 19:17	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 19:17	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 19:17	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 19:17	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/17/14 19:17	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/17/14 19:17	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/17/14 19:17	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/17/14 19:17	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/17/14 19:17	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/17/14 19:17	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/17/14 19:17	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/17/14 19:17	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/17/14 19:17	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/17/14 19:17	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/17/14 19:17	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 19:17	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 19:17	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 19:17	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/17/14 19:17	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/17/14 19:17	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/17/14 19:17	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/17/14 19:17	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 19:17	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 19:17	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 19:17	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 19:17	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 19:17	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 19:17	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 19:17	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 19:17	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 19:17	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/17/14 19:17	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/17/14 19:17	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/17/14 19:17	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/17/14 19:17	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/17/14 19:17	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/17/14 19:17	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/17/14 19:17	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105429

Sample: GW-MW-EPA-7-101514 **Lab ID: 50105429002** Collected: 10/15/14 11:15 Received: 10/16/14 10:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L U	0.0050	1		10/17/14 19:17	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/17/14 19:17	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/17/14 19:17	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/17/14 19:17	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/17/14 19:17	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/17/14 19:17	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/17/14 19:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/17/14 19:17	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/17/14 19:17	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/17/14 19:17	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/17/14 19:17	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/17/14 19:17	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/17/14 19:17	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/17/14 19:17	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/L~~ R	~~0.0050~~	1		10/17/14 19:17	79-00-5	
Trichloroethene	ND	mg/L U	0.0050	1		10/17/14 19:17	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/17/14 19:17	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/17/14 19:17	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/17/14 19:17	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/17/14 19:17	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/17/14 19:17	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/17/14 19:17	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/17/14 19:17	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	103	%.	79-116	1		10/17/14 19:17	1868-53-7	
4-Bromofluorobenzene (S)	98	%.	80-114	1		10/17/14 19:17	460-00-4	
Toluene-d8 (S)	102	%.	81-110	1		10/17/14 19:17	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105429

Sample: GW-MW-EPA-8-101514 **Lab ID: 50105429004** Collected: 10/15/14 14:05 Received: 10/16/14 10:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L U	0.50	5		10/20/14 18:22	67-64-1	
Acrolein	ND	mg/L	0.25	5		10/20/14 18:22	107-02-8	
Acrylonitrile	ND	mg/L	0.50	5		10/20/14 18:22	107-13-1	
Benzene	ND	mg/L	0.025	5		10/20/14 18:22	71-43-2	1d,D4
Bromobenzene	ND	mg/L	0.025	5		10/20/14 18:22	108-86-1	
Bromochloromethane	ND	mg/L	0.025	5		10/20/14 18:22	74-97-5	
Bromodichloromethane	ND	mg/L	0.025	5		10/20/14 18:22	75-27-4	
Bromoform	ND	mg/L UJ	0.025	5		10/20/14 18:22	75-25-2	
Bromomethane	ND	mg/L U	0.025	5		10/20/14 18:22	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.12	5		10/20/14 18:22	78-93-3	
n-Butylbenzene	ND	mg/L	0.025	5		10/20/14 18:22	104-51-8	
sec-Butylbenzene	ND	mg/L	0.025	5		10/20/14 18:22	135-98-8	
tert-Butylbenzene	ND	mg/L	0.025	5		10/20/14 18:22	98-06-6	
Carbon disulfide	ND	mg/L	0.050	5		10/20/14 18:22	75-15-0	
Carbon tetrachloride	ND	mg/L	0.025	5		10/20/14 18:22	56-23-5	
Chlorobenzene	ND	mg/L	0.025	5		10/20/14 18:22	108-90-7	
Chloroethane	ND	mg/L	0.025	5		10/20/14 18:22	75-00-3	
Chloroform	ND	mg/L	0.025	5		10/20/14 18:22	67-66-3	
Chloromethane	ND	mg/L	0.025	5		10/20/14 18:22	74-87-3	
2-Chlorotoluene	ND	mg/L	0.025	5		10/20/14 18:22	95-49-8	
4-Chlorotoluene	ND	mg/L	0.025	5		10/20/14 18:22	106-43-4	
Dibromochloromethane	ND	mg/L	0.025	5		10/20/14 18:22	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.025	5		10/20/14 18:22	106-93-4	
Dibromomethane	ND	mg/L	0.025	5		10/20/14 18:22	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.025	5		10/20/14 18:22	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.025	5		10/20/14 18:22	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.025	5		10/20/14 18:22	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.50	5		10/20/14 18:22	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.025	5		10/20/14 18:22	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.025	5		10/20/14 18:22	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.025	5		10/20/14 18:22	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.025	5		10/20/14 18:22	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.025	5		10/20/14 18:22	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.025	5		10/20/14 18:22	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.025	5		10/20/14 18:22	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.025	5		10/20/14 18:22	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.025	5		10/20/14 18:22	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.025	5		10/20/14 18:22	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.025	5		10/20/14 18:22	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.025	5		10/20/14 18:22	10061-02-6	
Ethylbenzene	ND	mg/L	0.025	5		10/20/14 18:22	100-41-4	
Ethyl methacrylate	ND	mg/L	0.50	5		10/20/14 18:22	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.025	5		10/20/14 18:22	87-68-3	
n-Hexane	ND	mg/L	0.025	5		10/20/14 18:22	110-54-3	
2-Hexanone	ND	mg/L	0.12	5		10/20/14 18:22	591-78-6	
Iodomethane	ND	mg/L	0.050	5		10/20/14 18:22	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.025	5		10/20/14 18:22	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105429

Sample: GW-MW-EPA-8-101514 **Lab ID: 50105429004** Collected: 10/15/14 14:05 Received: 10/16/14 10:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L U	0.025	5		10/20/14 18:22	99-87-6	
Methylene Chloride	ND	mg/L	0.025	5		10/20/14 18:22	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.12	5		10/20/14 18:22	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.020	5		10/20/14 18:22	1634-04-4	
Naphthalene	ND	mg/L	0.025	5		10/20/14 18:22	91-20-3	
n-Propylbenzene	ND	mg/L	0.025	5		10/20/14 18:22	103-65-1	
Styrene	ND	mg/L	0.025	5		10/20/14 18:22	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.025	5		10/20/14 18:22	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.025	5		10/20/14 18:22	79-34-5	
Tetrachloroethene	**19.3**	mg/L	0.50	100		10/20/14 18:55	127-18-4	
Toluene	ND	mg/L U	0.025	5		10/20/14 18:22	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.025	5		10/20/14 18:22	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.025	5		10/20/14 18:22	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.025	5		10/20/14 18:22	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/L~~ R	~~0.025~~	5		10/20/14 18:22	79-00-5	
Trichloroethene	ND	mg/L U	0.025	5		10/20/14 18:22	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.025	5		10/20/14 18:22	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.025	5		10/20/14 18:22	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.025	5		10/20/14 18:22	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.025	5		10/20/14 18:22	108-67-8	
Vinyl acetate	ND	mg/L	0.25	5		10/20/14 18:22	108-05-4	
Vinyl chloride	ND	mg/L	0.010	5		10/20/14 18:22	75-01-4	
Xylene (Total)	ND	mg/L	0.050	5		10/20/14 18:22	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	105	%.	79-116	5		10/20/14 18:22	1868-53-7	
4-Bromofluorobenzene (S)	97	%.	80-114	5		10/20/14 18:22	460-00-4	
Toluene-d8 (S)	103	%.	81-110	5		10/20/14 18:22	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105429

Sample: GW-PW-101514 **Lab ID: 50105429003** Collected: 10/15/14 13:15 Received: 10/16/14 10:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		10/17/14 20:55	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/17/14 20:55	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/17/14 20:55	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/17/14 20:55	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/17/14 20:55	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/17/14 20:55	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/17/14 20:55	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/17/14 20:55	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/17/14 20:55	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/17/14 20:55	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 20:55	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 20:55	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 20:55	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/17/14 20:55	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/17/14 20:55	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/17/14 20:55	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/17/14 20:55	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/17/14 20:55	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/17/14 20:55	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/17/14 20:55	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/17/14 20:55	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/17/14 20:55	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/17/14 20:55	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/17/14 20:55	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 20:55	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 20:55	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 20:55	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/17/14 20:55	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/17/14 20:55	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/17/14 20:55	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/17/14 20:55	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 20:55	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 20:55	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 20:55	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 20:55	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 20:55	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 20:55	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 20:55	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 20:55	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 20:55	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/17/14 20:55	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/17/14 20:55	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/17/14 20:55	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/17/14 20:55	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/17/14 20:55	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/17/14 20:55	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/17/14 20:55	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105429

Sample: GW-PW-101514 **Lab ID: 50105429003** Collected: 10/15/14 13:15 Received: 10/16/14 10:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L U	0.0050	1		10/17/14 20:55	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/17/14 20:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/17/14 20:55	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/17/14 20:55	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/17/14 20:55	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/17/14 20:55	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/17/14 20:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/17/14 20:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/17/14 20:55	79-34-5	
Tetrachloroethene	**0.028**	mg/L	0.0050	1		10/17/14 20:55	127-18-4	
Toluene	ND	mg/L U	0.0050	1		10/20/14 15:38	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/17/14 20:55	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/17/14 20:55	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/17/14 20:55	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/L~~ R	~~0.0050~~	1		10/17/14 20:55	79-00-5	
Trichloroethene	ND	mg/L U	0.0050	1		10/17/14 20:55	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/17/14 20:55	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/17/14 20:55	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/17/14 20:55	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/17/14 20:55	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/17/14 20:55	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/17/14 20:55	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/17/14 20:55	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	102	%.	79-116	1		10/17/14 20:55	1868-53-7	
4-Bromofluorobenzene (S)	99	%.	80-114	1		10/17/14 20:55	460-00-4	
Toluene-d8 (S)	104	%.	81-110	1		10/17/14 20:55	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105429

Sample: TB-101514-01 **Lab ID: 50105429001** Collected: 10/15/14 07:00 Received: 10/16/14 10:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		10/17/14 18:44	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/17/14 18:44	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/17/14 18:44	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/17/14 18:44	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/17/14 18:44	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/17/14 18:44	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/17/14 18:44	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/17/14 18:44	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/17/14 18:44	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/17/14 18:44	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 18:44	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 18:44	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 18:44	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/17/14 18:44	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/17/14 18:44	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/17/14 18:44	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/17/14 18:44	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/17/14 18:44	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/17/14 18:44	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/17/14 18:44	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/17/14 18:44	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/17/14 18:44	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/17/14 18:44	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/17/14 18:44	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 18:44	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 18:44	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 18:44	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/17/14 18:44	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/17/14 18:44	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/17/14 18:44	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/17/14 18:44	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 18:44	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 18:44	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 18:44	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 18:44	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 18:44	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 18:44	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 18:44	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 18:44	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 18:44	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/17/14 18:44	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/17/14 18:44	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/17/14 18:44	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/17/14 18:44	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/17/14 18:44	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/17/14 18:44	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/17/14 18:44	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105429

Sample: TB-101514-01 **Lab ID: 50105429001** Collected: 10/15/14 07:00 Received: 10/16/14 10:28 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/17/14 18:44	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/17/14 18:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/17/14 18:44	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/17/14 18:44	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/17/14 18:44	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/17/14 18:44	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/17/14 18:44	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/17/14 18:44	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/17/14 18:44	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/17/14 18:44	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/17/14 18:44	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/17/14 18:44	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/17/14 18:44	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/17/14 18:44	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/L~~ R	~~0.0050~~	1		10/17/14 18:44	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/17/14 18:44	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/17/14 18:44	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/17/14 18:44	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/17/14 18:44	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/17/14 18:44	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/17/14 18:44	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/17/14 18:44	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/17/14 18:44	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	104	%.	79-116	1		10/17/14 18:44	1868-53-7	
4-Bromofluorobenzene (S)	97	%.	80-114	1		10/17/14 18:44	460-00-4	
Toluene-d8 (S)	103	%.	81-110	1		10/17/14 18:44	2037-26-5	

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DATA VALIDATION CHECKLIST – STAGE 4

Site Name	Valley Pike VOC Site		**Project No.**	0001-1404-011
Data Reviewer (signature and date)	Jessica A. Vickers 01/15/2015		**Technical Reviewer (signature and date)**	
Laboratory Report No.	50105481		**Laboratory**	Pace - Indianapolis
Analyses	Volatile Organic Compounds (VOCs) – SW-846 Method 8260B			
Samples	GW-MW-3-101614; GW-MW-4-101614; GW-MW-EPA-9-101614; and GW-MW-EPA-14-101614			
Field Blanks	RB-101614-01 and TB-101614-01			

This checklist summarizes the Stage 4 validation performed on the subject laboratory report, in accordance with the Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Organic Methods Data Review* (August 2014) data validation guidance document, as well as the above referenced methods.

Data completeness:

Within Criteria	Exceedance/Notes
X	

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
	Cooler received at 0.5 degrees Celsius – no action (samples received intact and not frozen)

Instrument Performance Checks:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

Initial Calibration:

Within Criteria	Exceedance/Notes
	RRF exceeded criteria for 1,1,2-trichloroethane – flag "R"

Continuing Calibration:

Within Criteria	Exceedance/Notes
X	

Calibration Verification:

Within Criteria	Exceedance/Notes
X	

Method blanks:

Within Criteria	Exceedance/Notes
X	

Field blanks:

Within Criteria	Exceedance/Notes
X	

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System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
X	

MS/MSD:

Within Criteria	Exceedance/Notes
	MS/MSD performed for data package was not from site – not evaluated

Field duplicates:

Within Criteria	Exceedance/Notes
	No field duplicates included in this data package.

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
X	Note: abbreviated list of analytes was spiked

Sample dilutions:

Within Criteria	Exceedance/Notes
	20x: tetrachloroethene for GW-MW-4-101614 and GW-MW-EPA-14-101614

DATA VALIDATION CHECKLIST – STAGE 4

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
	None were required

Internal Standards:

Within Criteria	Exceedance/Notes
X	

Target analyte identification:

Within Criteria	Exceedance/Notes
X	

Analyte quantitation and MDLs/RLs:

Within Criteria	Exceedance/Notes
	No indication that results were reported down to the MDL – no action

System performance and instrument stability:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105481

Sample: GW-MW-3-101614 **Lab ID: 50105481003** Collected: 10/16/14 11:30 Received: 10/17/14 10:13 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		10/17/14 23:40	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/17/14 23:40	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/17/14 23:40	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/17/14 23:40	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/17/14 23:40	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/17/14 23:40	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/17/14 23:40	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/17/14 23:40	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/17/14 23:40	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/17/14 23:40	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 23:40	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 23:40	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 23:40	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/17/14 23:40	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/17/14 23:40	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/17/14 23:40	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/17/14 23:40	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/17/14 23:40	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/17/14 23:40	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/17/14 23:40	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/17/14 23:40	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/17/14 23:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/17/14 23:40	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/17/14 23:40	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 23:40	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 23:40	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 23:40	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/17/14 23:40	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/17/14 23:40	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/17/14 23:40	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/17/14 23:40	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 23:40	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 23:40	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 23:40	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 23:40	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 23:40	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 23:40	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 23:40	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 23:40	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 23:40	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/17/14 23:40	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/17/14 23:40	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/17/14 23:40	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/17/14 23:40	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/17/14 23:40	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/17/14 23:40	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/17/14 23:40	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105481

Sample: GW-MW-3-101614 **Lab ID: 50105481003** Collected: 10/16/14 11:30 Received: 10/17/14 10:13 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/17/14 23:40	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/17/14 23:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/17/14 23:40	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/17/14 23:40	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/17/14 23:40	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/17/14 23:40	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/17/14 23:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/17/14 23:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/17/14 23:40	79-34-5	
Tetrachloroethene	**0.065**	mg/L	0.0050	1		10/17/14 23:40	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/17/14 23:40	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/17/14 23:40	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/17/14 23:40	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/17/14 23:40	71-55-6	
1,1,2-Trichloroethane	~~ND mg/L~~	R	~~0.0050~~	1		10/17/14 23:40	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/17/14 23:40	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/17/14 23:40	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/17/14 23:40	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/17/14 23:40	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/17/14 23:40	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/17/14 23:40	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/17/14 23:40	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/17/14 23:40	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	99	%.	79-116	1		10/17/14 23:40	1868-53-7	
4-Bromofluorobenzene (S)	100	%.	80-114	1		10/17/14 23:40	460-00-4	
Toluene-d8 (S)	106	%.	81-110	1		10/17/14 23:40	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105481

Sample: GW-MW-4-101614 **Lab ID: 50105481002** Collected: 10/16/14 09:45 Received: 10/17/14 10:13 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		10/17/14 23:07	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/17/14 23:07	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/17/14 23:07	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/17/14 23:07	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/17/14 23:07	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/17/14 23:07	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/17/14 23:07	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/17/14 23:07	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/17/14 23:07	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/17/14 23:07	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 23:07	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 23:07	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 23:07	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/17/14 23:07	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/17/14 23:07	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/17/14 23:07	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/17/14 23:07	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/17/14 23:07	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/17/14 23:07	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/17/14 23:07	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/17/14 23:07	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/17/14 23:07	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/17/14 23:07	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/17/14 23:07	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 23:07	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 23:07	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 23:07	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/17/14 23:07	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/17/14 23:07	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/17/14 23:07	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/17/14 23:07	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 23:07	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 23:07	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 23:07	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 23:07	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 23:07	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 23:07	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 23:07	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 23:07	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 23:07	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/17/14 23:07	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/17/14 23:07	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/17/14 23:07	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/17/14 23:07	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/17/14 23:07	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/17/14 23:07	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/17/14 23:07	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105481

Sample: GW-MW-4-101614 **Lab ID: 50105481002** Collected: 10/16/14 09:45 Received: 10/17/14 10:13 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/17/14 23:07	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/17/14 23:07	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/17/14 23:07	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/17/14 23:07	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/17/14 23:07	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/17/14 23:07	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/17/14 23:07	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/17/14 23:07	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/17/14 23:07	79-34-5	
Tetrachloroethene	**1.6**	mg/L	0.10	20		10/20/14 17:16	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/17/14 23:07	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/17/14 23:07	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/17/14 23:07	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/17/14 23:07	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/L~~ R	~~0.0050~~	1		10/17/14 23:07	79-00-5	
Trichloroethene	**0.024**	mg/L	0.0050	1		10/17/14 23:07	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/17/14 23:07	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/17/14 23:07	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/17/14 23:07	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/17/14 23:07	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/17/14 23:07	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/17/14 23:07	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/17/14 23:07	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	99	%.	79-116	1		10/17/14 23:07	1868-53-7	
4-Bromofluorobenzene (S)	98	%.	80-114	1		10/17/14 23:07	460-00-4	
Toluene-d8 (S)	105	%.	81-110	1		10/17/14 23:07	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105481

Sample: GW-MW-EPA-9-101614 **Lab ID: 50105481005** Collected: 10/16/14 15:05 Received: 10/17/14 10:13 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		10/18/14 00:45	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/18/14 00:45	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/18/14 00:45	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/18/14 00:45	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/18/14 00:45	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/18/14 00:45	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/18/14 00:45	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/18/14 00:45	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/18/14 00:45	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/18/14 00:45	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 00:45	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 00:45	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 00:45	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/18/14 00:45	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/18/14 00:45	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/18/14 00:45	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/18/14 00:45	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/18/14 00:45	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/18/14 00:45	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 00:45	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 00:45	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/18/14 00:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/18/14 00:45	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/18/14 00:45	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 00:45	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 00:45	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 00:45	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/18/14 00:45	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/18/14 00:45	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 00:45	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 00:45	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 00:45	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 00:45	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 00:45	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 00:45	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 00:45	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 00:45	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 00:45	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 00:45	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 00:45	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/18/14 00:45	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/18/14 00:45	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/18/14 00:45	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/18/14 00:45	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/18/14 00:45	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/18/14 00:45	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/18/14 00:45	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105481

Sample: GW-MW-EPA-9-101614 **Lab ID: 50105481005** Collected: 10/16/14 15:05 Received: 10/17/14 10:13 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/18/14 00:45	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/18/14 00:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/18/14 00:45	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/18/14 00:45	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/18/14 00:45	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/18/14 00:45	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/18/14 00:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 00:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 00:45	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/18/14 00:45	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/18/14 00:45	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 00:45	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 00:45	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 00:45	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/L~~	~~0.0050~~	1		10/18/14 00:45	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/18/14 00:45	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/18/14 00:45	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/18/14 00:45	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 00:45	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 00:45	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/18/14 00:45	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/18/14 00:45	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/18/14 00:45	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	100	%.	79-116	1		10/18/14 00:45	1868-53-7	
4-Bromofluorobenzene (S)	100	%.	80-114	1		10/18/14 00:45	460-00-4	
Toluene-d8 (S)	105	%.	81-110	1		10/18/14 00:45	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105481

Sample: GW-MW-EPA-14-101614 **Lab ID: 50105481004** Collected: 10/16/14 12:15 Received: 10/17/14 10:13 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		10/18/14 00:13	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/18/14 00:13	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/18/14 00:13	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/18/14 00:13	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/18/14 00:13	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/18/14 00:13	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/18/14 00:13	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/18/14 00:13	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/18/14 00:13	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/18/14 00:13	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 00:13	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 00:13	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 00:13	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/18/14 00:13	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/18/14 00:13	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/18/14 00:13	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/18/14 00:13	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/18/14 00:13	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/18/14 00:13	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 00:13	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 00:13	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/18/14 00:13	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/18/14 00:13	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/18/14 00:13	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 00:13	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 00:13	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 00:13	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/18/14 00:13	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/18/14 00:13	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 00:13	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 00:13	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 00:13	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 00:13	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 00:13	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 00:13	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 00:13	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 00:13	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 00:13	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 00:13	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 00:13	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/18/14 00:13	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/18/14 00:13	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/18/14 00:13	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/18/14 00:13	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/18/14 00:13	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/18/14 00:13	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/18/14 00:13	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105481

Sample: GW-MW-EPA-14-101614 **Lab ID: 50105481004** Collected: 10/16/14 12:15 Received: 10/17/14 10:13 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L U	0.0050	1		10/18/14 00:13	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/18/14 00:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/18/14 00:13	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/18/14 00:13	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/18/14 00:13	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/18/14 00:13	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/18/14 00:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 00:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 00:13	79-34-5	
Tetrachloroethene	**2.5**	mg/L	0.10	20		10/20/14 17:49	127-18-4	
Toluene	ND	mg/L U	0.0050	1		10/18/14 00:13	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 00:13	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 00:13	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 00:13	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/L~~ R	~~0.0050~~	1		10/18/14 00:13	79-00-5	
Trichloroethene	ND	mg/L U	0.0050	1		10/18/14 00:13	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/18/14 00:13	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/18/14 00:13	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 00:13	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 00:13	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/18/14 00:13	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/18/14 00:13	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/18/14 00:13	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	100	%.	79-116	1		10/18/14 00:13	1868-53-7	
4-Bromofluorobenzene (S)	99	%.	80-114	1		10/18/14 00:13	460-00-4	
Toluene-d8 (S)	104	%.	81-110	1		10/18/14 00:13	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105481

Sample: RB-101614-01 **Lab ID: 50105481006** Collected: 10/16/14 15:45 Received: 10/17/14 10:13 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		10/18/14 01:18	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/18/14 01:18	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/18/14 01:18	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/18/14 01:18	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/18/14 01:18	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/18/14 01:18	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/18/14 01:18	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/18/14 01:18	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/18/14 01:18	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/18/14 01:18	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 01:18	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 01:18	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/18/14 01:18	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/18/14 01:18	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/18/14 01:18	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/18/14 01:18	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/18/14 01:18	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/18/14 01:18	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/18/14 01:18	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 01:18	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/18/14 01:18	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/18/14 01:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/18/14 01:18	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/18/14 01:18	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 01:18	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 01:18	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/18/14 01:18	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/18/14 01:18	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/18/14 01:18	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 01:18	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/18/14 01:18	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 01:18	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 01:18	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/18/14 01:18	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 01:18	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 01:18	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/18/14 01:18	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 01:18	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 01:18	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/18/14 01:18	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/18/14 01:18	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/18/14 01:18	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/18/14 01:18	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/18/14 01:18	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/18/14 01:18	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/18/14 01:18	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/18/14 01:18	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105481

Sample: RB-101614-01 **Lab ID: 50105481006** Collected: 10/16/14 15:45 Received: 10/17/14 10:13 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/18/14 01:18	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/18/14 01:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/18/14 01:18	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/18/14 01:18	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/18/14 01:18	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/18/14 01:18	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/18/14 01:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 01:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/18/14 01:18	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/18/14 01:18	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/18/14 01:18	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 01:18	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/18/14 01:18	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/18/14 01:18	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/L~~ R	~~0.0050~~	1		10/18/14 01:18	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/18/14 01:18	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/18/14 01:18	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/18/14 01:18	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 01:18	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/18/14 01:18	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/18/14 01:18	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/18/14 01:18	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/18/14 01:18	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	102	%.	79-116	1		10/18/14 01:18	1868-53-7	
4-Bromofluorobenzene (S)	99	%.	80-114	1		10/18/14 01:18	460-00-4	
Toluene-d8 (S)	104	%.	81-110	1		10/18/14 01:18	2037-26-5	

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105481

Sample: TB-101614-01 **Lab ID: 50105481001** Collected: 10/16/14 07:00 Received: 10/17/14 10:13 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		10/17/14 22:34	67-64-1	
Acrolein	ND	mg/L	0.050	1		10/17/14 22:34	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		10/17/14 22:34	107-13-1	
Benzene	ND	mg/L	0.0050	1		10/17/14 22:34	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		10/17/14 22:34	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		10/17/14 22:34	74-97-5	
Bromodichloromethane	ND	mg/L	0.0050	1		10/17/14 22:34	75-27-4	
Bromoform	ND	mg/L	0.0050	1		10/17/14 22:34	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		10/17/14 22:34	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		10/17/14 22:34	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 22:34	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 22:34	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		10/17/14 22:34	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		10/17/14 22:34	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		10/17/14 22:34	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		10/17/14 22:34	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		10/17/14 22:34	75-00-3	
Chloroform	ND	mg/L	0.0050	1		10/17/14 22:34	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		10/17/14 22:34	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		10/17/14 22:34	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		10/17/14 22:34	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		10/17/14 22:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/L	0.0050	1		10/17/14 22:34	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		10/17/14 22:34	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 22:34	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 22:34	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		10/17/14 22:34	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		10/17/14 22:34	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		10/17/14 22:34	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		10/17/14 22:34	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		10/17/14 22:34	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 22:34	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 22:34	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		10/17/14 22:34	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 22:34	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 22:34	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		10/17/14 22:34	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 22:34	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 22:34	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		10/17/14 22:34	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		10/17/14 22:34	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		10/17/14 22:34	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		10/17/14 22:34	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		10/17/14 22:34	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		10/17/14 22:34	591-78-6	
Iodomethane	ND	mg/L	0.010	1		10/17/14 22:34	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		10/17/14 22:34	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike VOC Site/30281-134
Pace Project No.: 50105481

Sample: TB-101614-01 **Lab ID: 50105481001** Collected: 10/16/14 07:00 Received: 10/17/14 10:13 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		10/17/14 22:34	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		10/17/14 22:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		10/17/14 22:34	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		10/17/14 22:34	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		10/17/14 22:34	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		10/17/14 22:34	103-65-1	
Styrene	ND	mg/L	0.0050	1		10/17/14 22:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/17/14 22:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		10/17/14 22:34	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		10/17/14 22:34	127-18-4	
Toluene	ND	mg/L	0.0050	1		10/20/14 16:44	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		10/17/14 22:34	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		10/17/14 22:34	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		10/17/14 22:34	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/L~~ R	~~0.0050~~	1		10/17/14 22:34	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		10/17/14 22:34	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		10/17/14 22:34	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		10/17/14 22:34	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		10/17/14 22:34	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		10/17/14 22:34	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		10/17/14 22:34	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		10/17/14 22:34	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		10/17/14 22:34	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	100	%.	79-116	1		10/17/14 22:34	1868-53-7	
4-Bromofluorobenzene (S)	102	%.	80-114	1		10/17/14 22:34	460-00-4	
Toluene-d8 (S)	105	%.	81-110	1		10/17/14 22:34	2037-26-5	

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DATA VALIDATION CHECKLIST – STAGE 4

Site Name	Valley Pike VOC Site		**Project No.**	0001-1404-011
Data Reviewer (signature and date)	Jessica A. Vickers 01/16/2015		**Technical Reviewer (signature and date)**	
Laboratory Report No.	50106269		**Laboratory**	Pace - Indianapolis
Analyses	Volatile Organic Compounds (VOCs) – SW-846 Method 8260B			
Samples	GW-MW-1-103014			
Field Blanks	TB-103014-01			

This checklist summarizes the Stage 4 validation performed on the subject laboratory report, in accordance with the Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Organic Methods Data Review* (August 2014) data validation guidance document, as well as the above referenced methods.

Data completeness:

Within Criteria	Exceedance/Notes
X	

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
X	

Instrument Performance Checks:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

Initial Calibration:

Within Criteria	Exceedance/Notes
	RRF exceeded criteria for bromodichloromethane; 1,1,2-trichloroethane; and 1,2-dibromoethane – flag “R”

Continuing Calibration:

Within Criteria	Exceedance/Notes
	%D exceeded criteria for dibromochloromethane – flag “UJ”

Calibration Verification:

Within Criteria	Exceedance/Notes
	%D exceeded criteria for ethyl methacrylate – flag “UJ”

Method blanks:

Within Criteria	Exceedance/Notes
X	

Field blanks:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
X	

MS/MSD:

Within Criteria	Exceedance/Notes
X	Note: abbreviated list of analytes was spiked

Field duplicates:

Within Criteria	Exceedance/Notes
	No field duplicates included in this data package.

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
X	Note: abbreviated list of analytes was spiked

Sample dilutions:

Within Criteria	Exceedance/Notes
	None were required

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Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
	None were required

Internal Standards:

Within Criteria	Exceedance/Notes
X	

Target analyte identification:

Within Criteria	Exceedance/Notes
X	

Analyte quantitation and MDLs/RLs:

Within Criteria	Exceedance/Notes
	No indication that results were reported down to the MDL – no action

System performance and instrument stability:

Within Criteria	Exceedance/Notes
X	

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DATA VALIDATION CHECKLIST – STAGE 4

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

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ANALYTICAL RESULTS

Project: Valley Pike 30281-134
Pace Project No.: 50106269

Sample: GW-MW-1-103014 **Lab ID: 50106269002** Collected: 10/30/14 11:55 Received: 10/31/14 09:48 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		11/01/14 05:19	67-64-1	
Acrolein	ND	mg/L	0.050	1		11/01/14 05:19	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		11/01/14 05:19	107-13-1	
Benzene	ND	mg/L	0.0050	1		11/01/14 05:19	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		11/01/14 05:19	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		11/01/14 05:19	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/L~~	~~0.0050~~	1		11/01/14 05:19	75-27-4	
Bromoform	ND	mg/L	0.0050	1		11/01/14 05:19	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		11/01/14 05:19	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		11/01/14 05:19	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		11/01/14 05:19	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		11/01/14 05:19	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		11/01/14 05:19	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		11/01/14 05:19	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		11/01/14 05:19	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		11/01/14 05:19	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		11/01/14 05:19	75-00-3	
Chloroform	ND	mg/L	0.0050	1		11/01/14 05:19	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		11/01/14 05:19	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		11/01/14 05:19	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		11/01/14 05:19	106-43-4	
Dibromochloromethane	ND	mg/L	0.0050	1		11/01/14 05:19	124-48-1	
1,2-Dibromoethane (EDB)	~~ND~~	~~mg/L~~	~~0.0050~~	1		11/01/14 05:19	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		11/01/14 05:19	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		11/01/14 05:19	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		11/01/14 05:19	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		11/01/14 05:19	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		11/01/14 05:19	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		11/01/14 05:19	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		11/01/14 05:19	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		11/01/14 05:19	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		11/01/14 05:19	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		11/01/14 05:19	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		11/01/14 05:19	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		11/01/14 05:19	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		11/01/14 05:19	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		11/01/14 05:19	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		11/01/14 05:19	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		11/01/14 05:19	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		11/01/14 05:19	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		11/01/14 05:19	100-41-4	
Ethyl methacrylate	ND	mg/L	0.10	1		11/01/14 05:19	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		11/01/14 05:19	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		11/01/14 05:19	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		11/01/14 05:19	591-78-6	
Iodomethane	ND	mg/L	0.010	1		11/01/14 05:19	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		11/01/14 05:19	98-82-8	

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(317)228-3100

ANALYTICAL RESULTS

Project: Valley Pike 30281-134
Pace Project No.: 50106269

Sample: GW-MW-1-103014 **Lab ID: 50106269002** Collected: 10/30/14 11:55 Received: 10/31/14 09:48 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		11/01/14 05:19	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		11/01/14 05:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		11/01/14 05:19	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		11/01/14 05:19	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		11/01/14 05:19	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		11/01/14 05:19	103-65-1	
Styrene	ND	mg/L	0.0050	1		11/01/14 05:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		11/01/14 05:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		11/01/14 05:19	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		11/01/14 05:19	127-18-4	
Toluene	ND	mg/L	0.0050	1		11/01/14 05:19	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		11/01/14 05:19	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		11/01/14 05:19	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		11/01/14 05:19	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/L~~ R	~~0.0050~~	1		11/01/14 05:19	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		11/01/14 05:19	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		11/01/14 05:19	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		11/01/14 05:19	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		11/01/14 05:19	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		11/01/14 05:19	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		11/01/14 05:19	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		11/01/14 05:19	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		11/01/14 05:19	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	101	%.	79-116	1		11/01/14 05:19	1868-53-7	
4-Bromofluorobenzene (S)	96	%.	80-114	1		11/01/14 05:19	460-00-4	
Toluene-d8 (S)	96	%.	81-110	1		11/01/14 05:19	2037-26-5	

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ANALYTICAL RESULTS

Project: Valley Pike 30281-134
Pace Project No.: 50106269

Sample: TB-103014-01 **Lab ID: 50106269001** Collected: 10/30/14 07:00 Received: 10/31/14 09:48 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	mg/L	0.10	1		11/01/14 04:46	67-64-1	
Acrolein	ND	mg/L	0.050	1		11/01/14 04:46	107-02-8	
Acrylonitrile	ND	mg/L	0.10	1		11/01/14 04:46	107-13-1	
Benzene	ND	mg/L	0.0050	1		11/01/14 04:46	71-43-2	
Bromobenzene	ND	mg/L	0.0050	1		11/01/14 04:46	108-86-1	
Bromochloromethane	ND	mg/L	0.0050	1		11/01/14 04:46	74-97-5	
Bromodichloromethane	~~ND~~	~~mg/L~~ R	~~0.0050~~	1		11/01/14 04:46	75-27-4	
Bromoform	ND	mg/L	0.0050	1		11/01/14 04:46	75-25-2	
Bromomethane	ND	mg/L	0.0050	1		11/01/14 04:46	74-83-9	
2-Butanone (MEK)	ND	mg/L	0.025	1		11/01/14 04:46	78-93-3	
n-Butylbenzene	ND	mg/L	0.0050	1		11/01/14 04:46	104-51-8	
sec-Butylbenzene	ND	mg/L	0.0050	1		11/01/14 04:46	135-98-8	
tert-Butylbenzene	ND	mg/L	0.0050	1		11/01/14 04:46	98-06-6	
Carbon disulfide	ND	mg/L	0.010	1		11/01/14 04:46	75-15-0	
Carbon tetrachloride	ND	mg/L	0.0050	1		11/01/14 04:46	56-23-5	
Chlorobenzene	ND	mg/L	0.0050	1		11/01/14 04:46	108-90-7	
Chloroethane	ND	mg/L	0.0050	1		11/01/14 04:46	75-00-3	
Chloroform	ND	mg/L	0.0050	1		11/01/14 04:46	67-66-3	
Chloromethane	ND	mg/L	0.0050	1		11/01/14 04:46	74-87-3	
2-Chlorotoluene	ND	mg/L	0.0050	1		11/01/14 04:46	95-49-8	
4-Chlorotoluene	ND	mg/L	0.0050	1		11/01/14 04:46	106-43-4	
Dibromochloromethane	ND	mg/L UJ	0.0050	1		11/01/14 04:46	124-48-1	
1,2-Dibromoethane (EDB)	~~ND~~	~~mg/L~~ R	~~0.0050~~	1		11/01/14 04:46	106-93-4	
Dibromomethane	ND	mg/L	0.0050	1		11/01/14 04:46	74-95-3	
1,2-Dichlorobenzene	ND	mg/L	0.0050	1		11/01/14 04:46	95-50-1	
1,3-Dichlorobenzene	ND	mg/L	0.0050	1		11/01/14 04:46	541-73-1	
1,4-Dichlorobenzene	ND	mg/L	0.0050	1		11/01/14 04:46	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/L	0.10	1		11/01/14 04:46	110-57-6	
Dichlorodifluoromethane	ND	mg/L	0.0050	1		11/01/14 04:46	75-71-8	
1,1-Dichloroethane	ND	mg/L	0.0050	1		11/01/14 04:46	75-34-3	
1,2-Dichloroethane	ND	mg/L	0.0050	1		11/01/14 04:46	107-06-2	
1,1-Dichloroethene	ND	mg/L	0.0050	1		11/01/14 04:46	75-35-4	
cis-1,2-Dichloroethene	ND	mg/L	0.0050	1		11/01/14 04:46	156-59-2	
trans-1,2-Dichloroethene	ND	mg/L	0.0050	1		11/01/14 04:46	156-60-5	
1,2-Dichloropropane	ND	mg/L	0.0050	1		11/01/14 04:46	78-87-5	
1,3-Dichloropropane	ND	mg/L	0.0050	1		11/01/14 04:46	142-28-9	
2,2-Dichloropropane	ND	mg/L	0.0050	1		11/01/14 04:46	594-20-7	
1,1-Dichloropropene	ND	mg/L	0.0050	1		11/01/14 04:46	563-58-6	
cis-1,3-Dichloropropene	ND	mg/L	0.0050	1		11/01/14 04:46	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/L	0.0050	1		11/01/14 04:46	10061-02-6	
Ethylbenzene	ND	mg/L	0.0050	1		11/01/14 04:46	100-41-4	
Ethyl methacrylate	ND	mg/L UJ	0.10	1		11/01/14 04:46	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/L	0.0050	1		11/01/14 04:46	87-68-3	
n-Hexane	ND	mg/L	0.0050	1		11/01/14 04:46	110-54-3	
2-Hexanone	ND	mg/L	0.025	1		11/01/14 04:46	591-78-6	
Iodomethane	ND	mg/L	0.010	1		11/01/14 04:46	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/L	0.0050	1		11/01/14 04:46	98-82-8	

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ANALYTICAL RESULTS

Project: Valley Pike 30281-134
Pace Project No.: 50106269

Sample: TB-103014-01 **Lab ID: 50106269001** Collected: 10/30/14 07:00 Received: 10/31/14 09:48 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
p-Isopropyltoluene	ND	mg/L	0.0050	1		11/01/14 04:46	99-87-6	
Methylene Chloride	ND	mg/L	0.0050	1		11/01/14 04:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/L	0.025	1		11/01/14 04:46	108-10-1	
Methyl-tert-butyl ether	ND	mg/L	0.0040	1		11/01/14 04:46	1634-04-4	
Naphthalene	ND	mg/L	0.0050	1		11/01/14 04:46	91-20-3	
n-Propylbenzene	ND	mg/L	0.0050	1		11/01/14 04:46	103-65-1	
Styrene	ND	mg/L	0.0050	1		11/01/14 04:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0050	1		11/01/14 04:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0050	1		11/01/14 04:46	79-34-5	
Tetrachloroethene	ND	mg/L	0.0050	1		11/01/14 04:46	127-18-4	
Toluene	ND	mg/L	0.0050	1		11/01/14 04:46	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/L	0.0050	1		11/01/14 04:46	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/L	0.0050	1		11/01/14 04:46	120-82-1	
1,1,1-Trichloroethane	ND	mg/L	0.0050	1		11/01/14 04:46	71-55-6	
1,1,2-Trichloroethane	~~ND~~	~~mg/L~~	~~0.0050~~	1		11/01/14 04:46	79-00-5	
Trichloroethene	ND	mg/L	0.0050	1		11/01/14 04:46	79-01-6	
Trichlorofluoromethane	ND	mg/L	0.0050	1		11/01/14 04:46	75-69-4	
1,2,3-Trichloropropane	ND	mg/L	0.0050	1		11/01/14 04:46	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/L	0.0050	1		11/01/14 04:46	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/L	0.0050	1		11/01/14 04:46	108-67-8	
Vinyl acetate	ND	mg/L	0.050	1		11/01/14 04:46	108-05-4	
Vinyl chloride	ND	mg/L	0.0020	1		11/01/14 04:46	75-01-4	
Xylene (Total)	ND	mg/L	0.010	1		11/01/14 04:46	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	102	%.	79-116	1		11/01/14 04:46	1868-53-7	
4-Bromofluorobenzene (S)	96	%.	80-114	1		11/01/14 04:46	460-00-4	
Toluene-d8 (S)	96	%.	81-110	1		11/01/14 04:46	2037-26-5	

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Appendix D

March 2014 Groundwater

Analytical Results

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April 07, 2014

Mr. Erik Corbin
Environmental Quality Mgmt, IN
1800 Carillon Blvd.
Cincinnati, OH 45240

RE: Project: USEPA/Valley Pike
Pace Project No.: 5095417

Dear Mr. Corbin:
Enclosed are the analytical results for sample(s) received by the laboratory on March 29, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Regina Bedel for
Mick Mayse
mick.mayse@pacelabs.com
Project Manager

Enclosures

cc: Accounts Payable, Environmental Quality Mgmt, INC

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CERTIFICATIONS

Project:	USEPA/Valley Pike
Pace Project No.:	5095417

Indiana Certification IDs
7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas Certification #: E-10247
Kentucky UST Certification #: 0042
Louisiana/NELAP Certification #: 04076
Ohio VAP Certification #: CL-0065
Pennsylvania Certification #: 68-04991
West Virginia Certification #: 330

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SAMPLE SUMMARY

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5095417001	**GP-11**	Water	03/27/14 17:05	03/29/14 12:32
5095417002	**GP-6**	Water	03/27/14 14:30	03/29/14 12:32
5095417003	**GP-3**	Water	03/28/14 10:00	03/29/14 12:32
5095417004	**GP-2**	Water	03/28/14 09:45	03/29/14 12:32
5095417005	**GP-4**	Water	03/28/14 10:20	03/29/14 12:32
5095417006	**GP-5**	Water	03/28/14 10:35	03/29/14 12:32
5095417007	**GP-6B**	Water	03/28/14 10:50	03/29/14 12:32
5095417008	**GP-7**	Water	03/28/14 11:15	03/29/14 12:32
5095417009	**GP-8**	Water	03/28/14 11:30	03/29/14 12:32
5095417010	**GP-9**	Water	03/28/14 11:45	03/29/14 12:32
5095417011	**GP-10**	Water	03/28/14 12:20	03/29/14 12:32
5095417012	**TRIP BLANK**	Water	03/28/14 14:15	03/29/14 12:32
5095417013	**GP-11B**	Water	03/28/14 12:35	03/29/14 12:32
5095417014	**GP-12**	Water	03/28/14 12:50	03/29/14 12:32
5095417015	**GP-12D**	Water	03/28/14 12:55	03/29/14 12:32
5095417016	**GP-13**	Water	03/28/14 13:15	03/29/14 12:32
5095417017	**GP-14**	Water	03/28/14 13:30	03/29/14 12:32

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SAMPLE ANALYTE COUNT

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5095417001	**GP-11**	EPA 5030B/8260	RSW	73
5095417002	**GP-6**	EPA 5030B/8260	RSW	73
5095417003	**GP-3**	EPA 5030B/8260	DAE	73
5095417004	**GP-2**	EPA 5030B/8260	DAE	73
5095417005	**GP-4**	EPA 5030B/8260	DAE	73
5095417006	**GP-5**	EPA 5030B/8260	DAE	73
5095417007	**GP-6B**	EPA 5030B/8260	DAE	73
5095417008	**GP-7**	EPA 5030B/8260	DAE	73
5095417009	**GP-8**	EPA 5030B/8260	DAE	73
5095417010	**GP-9**	EPA 5030B/8260	DAE	73
5095417011	**GP-10**	EPA 5030B/8260	DAE	73
5095417012	**TRIP BLANK**	EPA 5030B/8260	DAE	73
5095417013	**GP-11B**	EPA 5030B/8260	DAE	73
5095417014	**GP-12**	EPA 5030B/8260	DAE	73
5095417015	**GP-12D**	EPA 5030B/8260	DAE	73
5095417016	**GP-13**	EPA 5030B/8260	DAE	73
5095417017	**GP-14**	EPA 5030B/8260	DAE	73

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-11 **Lab ID: 5095417001** Collected: 03/27/14 17:05 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/03/14 13:02	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/03/14 13:02	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/03/14 13:02	107-13-1	
Benzene	ND	ug/L	1.0	1		04/03/14 13:02	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/03/14 13:02	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/03/14 13:02	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/03/14 13:02	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/03/14 13:02	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/03/14 13:02	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/03/14 13:02	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/03/14 13:02	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/03/14 13:02	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/03/14 13:02	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/03/14 13:02	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/03/14 13:02	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/03/14 13:02	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/03/14 13:02	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/03/14 13:02	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/03/14 13:02	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/03/14 13:02	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/03/14 13:02	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/03/14 13:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/03/14 13:02	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/03/14 13:02	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/03/14 13:02	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/03/14 13:02	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/03/14 13:02	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/03/14 13:02	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/03/14 13:02	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/03/14 13:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/03/14 13:02	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/03/14 13:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/03/14 13:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/03/14 13:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/03/14 13:02	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/03/14 13:02	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/03/14 13:02	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/03/14 13:02	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/03/14 13:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/03/14 13:02	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/03/14 13:02	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/03/14 13:02	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/03/14 13:02	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/03/14 13:02	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/03/14 13:02	591-78-6	
Iodomethane	**2.5**	ug/L	1.0	1		04/03/14 13:02	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/03/14 13:02	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-11 **Lab ID: 5095417001** Collected: 03/27/14 17:05 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/03/14 13:02	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/03/14 13:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/03/14 13:02	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/03/14 13:02	1634-04-4	
Naphthalene	**2.5**	ug/L	1.0	1		04/03/14 13:02	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/03/14 13:02	103-65-1	
Styrene	ND	ug/L	1.0	1		04/03/14 13:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/03/14 13:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/03/14 13:02	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/03/14 13:02	127-18-4	
Toluene	ND	ug/L	1.0	1		04/03/14 13:02	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/03/14 13:02	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/03/14 13:02	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/03/14 13:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/03/14 13:02	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/03/14 13:02	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/03/14 13:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/03/14 13:02	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/03/14 13:02	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/03/14 13:02	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/03/14 13:02	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/03/14 13:02	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/03/14 13:02	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	96	%.	80-114	1		04/03/14 13:02	460-00-4	
Dibromofluoromethane (S)	96	%.	79-116	1		04/03/14 13:02	1868-53-7	
Toluene-d8 (S)	102	%.	81-110	1		04/03/14 13:02	2037-26-5	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-6 **Lab ID: 5095417002** Collected: 03/27/14 14:30 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/03/14 13:35	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/03/14 13:35	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/03/14 13:35	107-13-1	
Benzene	ND	ug/L	1.0	1		04/03/14 13:35	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/03/14 13:35	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/03/14 13:35	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/03/14 13:35	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/03/14 13:35	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/03/14 13:35	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/03/14 13:35	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/03/14 13:35	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/03/14 13:35	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/03/14 13:35	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/03/14 13:35	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/03/14 13:35	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/03/14 13:35	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/03/14 13:35	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/03/14 13:35	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/03/14 13:35	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/03/14 13:35	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/03/14 13:35	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/03/14 13:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/03/14 13:35	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/03/14 13:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/03/14 13:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/03/14 13:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/03/14 13:35	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/03/14 13:35	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/03/14 13:35	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/03/14 13:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/03/14 13:35	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/03/14 13:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/03/14 13:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/03/14 13:35	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/03/14 13:35	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/03/14 13:35	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/03/14 13:35	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/03/14 13:35	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/03/14 13:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/03/14 13:35	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/03/14 13:35	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/03/14 13:35	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/03/14 13:35	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/03/14 13:35	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/03/14 13:35	591-78-6	
Iodomethane	ND	ug/L	1.0	1		04/03/14 16:32	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/03/14 13:35	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-6 **Lab ID: 5095417002** Collected: 03/27/14 14:30 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/03/14 13:35	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/03/14 13:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/03/14 13:35	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/03/14 13:35	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/03/14 13:35	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/03/14 13:35	103-65-1	
Styrene	ND	ug/L	1.0	1		04/03/14 13:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/03/14 13:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/03/14 13:35	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/03/14 13:35	127-18-4	
Toluene	**25.4**	ug/L	1.0	1		04/03/14 13:35	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/03/14 13:35	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/03/14 13:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/03/14 13:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/03/14 13:35	79-00-5	
Trichloroethene	**2.6**	ug/L	1.0	1		04/03/14 13:35	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/03/14 13:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/03/14 13:35	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/03/14 13:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/03/14 13:35	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/03/14 13:35	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/03/14 13:35	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/03/14 13:35	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	96	%.	80-114	1		04/03/14 13:35	460-00-4	
Dibromofluoromethane (S)	96	%.	79-116	1		04/03/14 13:35	1868-53-7	
Toluene-d8 (S)	102	%.	81-110	1		04/03/14 13:35	2037-26-5	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-3 **Lab ID: 5095417003** Collected: 03/28/14 10:00 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/05/14 19:25	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/05/14 19:25	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/05/14 19:25	107-13-1	
Benzene	ND	ug/L	1.0	1		04/05/14 19:25	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/05/14 19:25	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/05/14 19:25	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/05/14 19:25	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/05/14 19:25	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/05/14 19:25	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/05/14 19:25	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/05/14 19:25	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/05/14 19:25	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/05/14 19:25	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/05/14 19:25	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/05/14 19:25	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/05/14 19:25	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/05/14 19:25	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/05/14 19:25	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/05/14 19:25	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 19:25	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 19:25	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/05/14 19:25	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/05/14 19:25	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/05/14 19:25	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 19:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 19:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 19:25	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/05/14 19:25	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/05/14 19:25	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/05/14 19:25	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/05/14 19:25	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/05/14 19:25	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 19:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 19:25	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 19:25	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/05/14 19:25	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 19:25	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/05/14 19:25	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 19:25	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 19:25	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/05/14 19:25	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/05/14 19:25	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/05/14 19:25	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/05/14 19:25	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/05/14 19:25	591-78-6	
Iodomethane	ND	ug/L	1.0	1		04/05/14 19:25	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/05/14 19:25	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-3 **Lab ID: 5095417003** Collected: 03/28/14 10:00 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/05/14 19:25	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/05/14 19:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/05/14 19:25	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/05/14 19:25	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/05/14 19:25	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/05/14 19:25	103-65-1	
Styrene	ND	ug/L	1.0	1		04/05/14 19:25	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 19:25	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 19:25	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/05/14 19:25	127-18-4	
Toluene	ND	ug/L	1.0	1		04/05/14 19:25	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 19:25	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 19:25	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/05/14 19:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/05/14 19:25	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/05/14 19:25	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/05/14 19:25	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/05/14 19:25	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 19:25	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 19:25	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/05/14 19:25	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/05/14 19:25	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/05/14 19:25	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	92	%.	80-114	1		04/05/14 19:25	460-00-4	
Dibromofluoromethane (S)	100	%.	79-116	1		04/05/14 19:25	1868-53-7	
Toluene-d8 (S)	99	%.	81-110	1		04/05/14 19:25	2037-26-5	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-2 **Lab ID: 5095417004** Collected: 03/28/14 09:45 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/05/14 19:59	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/05/14 19:59	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/05/14 19:59	107-13-1	
Benzene	ND	ug/L	1.0	1		04/05/14 19:59	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/05/14 19:59	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/05/14 19:59	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/05/14 19:59	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/05/14 19:59	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/05/14 19:59	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/05/14 19:59	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/05/14 19:59	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/05/14 19:59	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/05/14 19:59	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/05/14 19:59	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/05/14 19:59	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/05/14 19:59	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/05/14 19:59	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/05/14 19:59	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/05/14 19:59	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 19:59	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 19:59	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/05/14 19:59	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/05/14 19:59	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/05/14 19:59	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 19:59	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 19:59	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 19:59	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/05/14 19:59	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/05/14 19:59	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/05/14 19:59	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/05/14 19:59	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/05/14 19:59	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 19:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 19:59	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 19:59	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/05/14 19:59	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 19:59	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/05/14 19:59	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 19:59	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 19:59	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/05/14 19:59	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/05/14 19:59	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/05/14 19:59	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/05/14 19:59	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/05/14 19:59	591-78-6	
Iodomethane	ND	ug/L	1.0	1		04/05/14 19:59	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/05/14 19:59	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-2 **Lab ID: 5095417004** Collected: 03/28/14 09:45 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/05/14 19:59	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/05/14 19:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/05/14 19:59	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/05/14 19:59	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/05/14 19:59	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/05/14 19:59	103-65-1	
Styrene	ND	ug/L	1.0	1		04/05/14 19:59	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 19:59	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 19:59	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/05/14 19:59	127-18-4	
Toluene	ND	ug/L	1.0	1		04/05/14 19:59	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 19:59	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 19:59	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/05/14 19:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/05/14 19:59	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/05/14 19:59	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/05/14 19:59	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/05/14 19:59	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 19:59	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 19:59	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/05/14 19:59	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/05/14 19:59	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/05/14 19:59	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	94	%.	80-114	1		04/05/14 19:59	460-00-4	
Dibromofluoromethane (S)	100	%.	79-116	1		04/05/14 19:59	1868-53-7	
Toluene-d8 (S)	100	%.	81-110	1		04/05/14 19:59	2037-26-5	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-4 **Lab ID: 5095417005** Collected: 03/28/14 10:20 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/05/14 20:32	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/05/14 20:32	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/05/14 20:32	107-13-1	
Benzene	ND	ug/L	1.0	1		04/05/14 20:32	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/05/14 20:32	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/05/14 20:32	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/05/14 20:32	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/05/14 20:32	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/05/14 20:32	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/05/14 20:32	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/05/14 20:32	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/05/14 20:32	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/05/14 20:32	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/05/14 20:32	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/05/14 20:32	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/05/14 20:32	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/05/14 20:32	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/05/14 20:32	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/05/14 20:32	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 20:32	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 20:32	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/05/14 20:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/05/14 20:32	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/05/14 20:32	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 20:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 20:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 20:32	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/05/14 20:32	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/05/14 20:32	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/05/14 20:32	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/05/14 20:32	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/05/14 20:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 20:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 20:32	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 20:32	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/05/14 20:32	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 20:32	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/05/14 20:32	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 20:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 20:32	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/05/14 20:32	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/05/14 20:32	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/05/14 20:32	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/05/14 20:32	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/05/14 20:32	591-78-6	
Iodomethane	ND	ug/L	1.0	1		04/05/14 20:32	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/05/14 20:32	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-4 **Lab ID: 5095417005** Collected: 03/28/14 10:20 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/05/14 20:32	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/05/14 20:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/05/14 20:32	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/05/14 20:32	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/05/14 20:32	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/05/14 20:32	103-65-1	
Styrene	ND	ug/L	1.0	1		04/05/14 20:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 20:32	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 20:32	79-34-5	
Tetrachloroethene	**290**	ug/L	10.0	10		04/07/14 13:16	127-18-4	
Toluene	**19.0**	ug/L	1.0	1		04/05/14 20:32	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 20:32	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 20:32	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/05/14 20:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/05/14 20:32	79-00-5	
Trichloroethene	**5.7**	ug/L	1.0	1		04/05/14 20:32	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/05/14 20:32	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/05/14 20:32	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 20:32	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 20:32	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/05/14 20:32	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/05/14 20:32	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/05/14 20:32	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	93	%.	80-114	1		04/05/14 20:32	460-00-4	
Dibromofluoromethane (S)	101	%.	79-116	1		04/05/14 20:32	1868-53-7	
Toluene-d8 (S)	97	%.	81-110	1		04/05/14 20:32	2037-26-5	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-5 **Lab ID: 5095417006** Collected: 03/28/14 10:35 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/05/14 21:06	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/05/14 21:06	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/05/14 21:06	107-13-1	
Benzene	ND	ug/L	1.0	1		04/05/14 21:06	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/05/14 21:06	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/05/14 21:06	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/05/14 21:06	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/05/14 21:06	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/05/14 21:06	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/05/14 21:06	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/05/14 21:06	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/05/14 21:06	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/05/14 21:06	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/05/14 21:06	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/05/14 21:06	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/05/14 21:06	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/05/14 21:06	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/05/14 21:06	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/05/14 21:06	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 21:06	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 21:06	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/05/14 21:06	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/05/14 21:06	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/05/14 21:06	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 21:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 21:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 21:06	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/05/14 21:06	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/05/14 21:06	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/05/14 21:06	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/05/14 21:06	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/05/14 21:06	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 21:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 21:06	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 21:06	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/05/14 21:06	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 21:06	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/05/14 21:06	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 21:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 21:06	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/05/14 21:06	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/05/14 21:06	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/05/14 21:06	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/05/14 21:06	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/05/14 21:06	591-78-6	
Iodomethane	ND	ug/L	1.0	1		04/05/14 21:06	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/05/14 21:06	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-5 **Lab ID: 5095417006** Collected: 03/28/14 10:35 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/05/14 21:06	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/05/14 21:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/05/14 21:06	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/05/14 21:06	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/05/14 21:06	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/05/14 21:06	103-65-1	
Styrene	ND	ug/L	1.0	1		04/05/14 21:06	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 21:06	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 21:06	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/05/14 21:06	127-18-4	
Toluene	**31.5**	ug/L	1.0	1		04/05/14 21:06	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 21:06	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 21:06	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/05/14 21:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/05/14 21:06	79-00-5	
Trichloroethene	**4.3**	ug/L	1.0	1		04/05/14 21:06	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/05/14 21:06	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/05/14 21:06	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 21:06	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 21:06	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/05/14 21:06	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/05/14 21:06	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/05/14 21:06	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	93	%.	80-114	1		04/05/14 21:06	460-00-4	
Dibromofluoromethane (S)	101	%.	79-116	1		04/05/14 21:06	1868-53-7	
Toluene-d8 (S)	99	%.	81-110	1		04/05/14 21:06	2037-26-5	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-6B **Lab ID: 5095417007** Collected: 03/28/14 10:50 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/05/14 21:39	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/05/14 21:39	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/05/14 21:39	107-13-1	
Benzene	ND	ug/L	1.0	1		04/05/14 21:39	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/05/14 21:39	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/05/14 21:39	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/05/14 21:39	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/05/14 21:39	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/05/14 21:39	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/05/14 21:39	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/05/14 21:39	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/05/14 21:39	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/05/14 21:39	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/05/14 21:39	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/05/14 21:39	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/05/14 21:39	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/05/14 21:39	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/05/14 21:39	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/05/14 21:39	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 21:39	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 21:39	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/05/14 21:39	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/05/14 21:39	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/05/14 21:39	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 21:39	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 21:39	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 21:39	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/05/14 21:39	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/05/14 21:39	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/05/14 21:39	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/05/14 21:39	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/05/14 21:39	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 21:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 21:39	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 21:39	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/05/14 21:39	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 21:39	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/05/14 21:39	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 21:39	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 21:39	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/05/14 21:39	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/05/14 21:39	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/05/14 21:39	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/05/14 21:39	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/05/14 21:39	591-78-6	
Iodomethane	ND	ug/L	1.0	1		04/05/14 21:39	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/05/14 21:39	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-6B **Lab ID: 5095417007** Collected: 03/28/14 10:50 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/05/14 21:39	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/05/14 21:39	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/05/14 21:39	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/05/14 21:39	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/05/14 21:39	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/05/14 21:39	103-65-1	
Styrene	ND	ug/L	1.0	1		04/05/14 21:39	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 21:39	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 21:39	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/05/14 21:39	127-18-4	
Toluene	**97.3**	ug/L	1.0	1		04/05/14 21:39	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 21:39	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 21:39	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/05/14 21:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/05/14 21:39	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/05/14 21:39	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/05/14 21:39	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/05/14 21:39	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 21:39	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 21:39	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/05/14 21:39	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/05/14 21:39	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/05/14 21:39	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	91	%.	80-114	1		04/05/14 21:39	460-00-4	
Dibromofluoromethane (S)	99	%.	79-116	1		04/05/14 21:39	1868-53-7	
Toluene-d8 (S)	98	%.	81-110	1		04/05/14 21:39	2037-26-5	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-7 **Lab ID: 5095417008** Collected: 03/28/14 11:15 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/05/14 22:13	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/05/14 22:13	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/05/14 22:13	107-13-1	
Benzene	ND	ug/L	1.0	1		04/05/14 22:13	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/05/14 22:13	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/05/14 22:13	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/05/14 22:13	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/05/14 22:13	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/05/14 22:13	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/05/14 22:13	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/05/14 22:13	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/05/14 22:13	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/05/14 22:13	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/05/14 22:13	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/05/14 22:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/05/14 22:13	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/05/14 22:13	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/05/14 22:13	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/05/14 22:13	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 22:13	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 22:13	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/05/14 22:13	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/05/14 22:13	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/05/14 22:13	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 22:13	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 22:13	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 22:13	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/05/14 22:13	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/05/14 22:13	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/05/14 22:13	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/05/14 22:13	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/05/14 22:13	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 22:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 22:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 22:13	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/05/14 22:13	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 22:13	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/05/14 22:13	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 22:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 22:13	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/05/14 22:13	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/05/14 22:13	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/05/14 22:13	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/05/14 22:13	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/05/14 22:13	591-78-6	
Iodomethane	ND	ug/L	1.0	1		04/05/14 22:13	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/05/14 22:13	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-7 **Lab ID: 5095417008** Collected: 03/28/14 11:15 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/05/14 22:13	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/05/14 22:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/05/14 22:13	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/05/14 22:13	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/05/14 22:13	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/05/14 22:13	103-65-1	
Styrene	ND	ug/L	1.0	1		04/05/14 22:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 22:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 22:13	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/05/14 22:13	127-18-4	
Toluene	**7.2**	ug/L	1.0	1		04/05/14 22:13	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 22:13	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 22:13	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/05/14 22:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/05/14 22:13	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/05/14 22:13	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/05/14 22:13	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/05/14 22:13	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 22:13	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 22:13	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/05/14 22:13	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/05/14 22:13	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/05/14 22:13	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	91	%.	80-114	1		04/05/14 22:13	460-00-4	
Dibromofluoromethane (S)	102	%.	79-116	1		04/05/14 22:13	1868-53-7	
Toluene-d8 (S)	99	%.	81-110	1		04/05/14 22:13	2037-26-5	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-8 **Lab ID: 5095417009** Collected: 03/28/14 11:30 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/05/14 22:46	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/05/14 22:46	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/05/14 22:46	107-13-1	
Benzene	ND	ug/L	1.0	1		04/05/14 22:46	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/05/14 22:46	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/05/14 22:46	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/05/14 22:46	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/05/14 22:46	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/05/14 22:46	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/05/14 22:46	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/05/14 22:46	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/05/14 22:46	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/05/14 22:46	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/05/14 22:46	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/05/14 22:46	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/05/14 22:46	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/05/14 22:46	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/05/14 22:46	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/05/14 22:46	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 22:46	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 22:46	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/05/14 22:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/05/14 22:46	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/05/14 22:46	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 22:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 22:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 22:46	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/05/14 22:46	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/05/14 22:46	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/05/14 22:46	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/05/14 22:46	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/05/14 22:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 22:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 22:46	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 22:46	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/05/14 22:46	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 22:46	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/05/14 22:46	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 22:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 22:46	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/05/14 22:46	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/05/14 22:46	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/05/14 22:46	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/05/14 22:46	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/05/14 22:46	591-78-6	
Iodomethane	ND	ug/L	1.0	1		04/05/14 22:46	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/05/14 22:46	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-8 **Lab ID: 5095417009** Collected: 03/28/14 11:30 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/05/14 22:46	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/05/14 22:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/05/14 22:46	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/05/14 22:46	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/05/14 22:46	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/05/14 22:46	103-65-1	
Styrene	ND	ug/L	1.0	1		04/05/14 22:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 22:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 22:46	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/05/14 22:46	127-18-4	
Toluene	ND	ug/L	1.0	1		04/05/14 22:46	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 22:46	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 22:46	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/05/14 22:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/05/14 22:46	79-00-5	
Trichloroethene	**5.3**	ug/L	1.0	1		04/05/14 22:46	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/05/14 22:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/05/14 22:46	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 22:46	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 22:46	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/05/14 22:46	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/05/14 22:46	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/05/14 22:46	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	92	%.	80-114	1		04/05/14 22:46	460-00-4	
Dibromofluoromethane (S)	101	%.	79-116	1		04/05/14 22:46	1868-53-7	
Toluene-d8 (S)	101	%.	81-110	1		04/05/14 22:46	2037-26-5	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-9 **Lab ID: 5095417010** Collected: 03/28/14 11:45 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/05/14 23:20	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/05/14 23:20	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/05/14 23:20	107-13-1	
Benzene	ND	ug/L	1.0	1		04/05/14 23:20	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/05/14 23:20	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/05/14 23:20	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/05/14 23:20	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/05/14 23:20	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/05/14 23:20	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/05/14 23:20	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/05/14 23:20	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/05/14 23:20	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/05/14 23:20	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/05/14 23:20	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/05/14 23:20	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/05/14 23:20	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/05/14 23:20	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/05/14 23:20	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/05/14 23:20	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 23:20	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 23:20	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/05/14 23:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/05/14 23:20	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/05/14 23:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 23:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 23:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 23:20	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/05/14 23:20	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/05/14 23:20	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/05/14 23:20	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/05/14 23:20	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/05/14 23:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 23:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 23:20	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 23:20	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/05/14 23:20	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 23:20	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/05/14 23:20	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 23:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 23:20	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/05/14 23:20	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/05/14 23:20	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/05/14 23:20	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/05/14 23:20	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/05/14 23:20	591-78-6	
Iodomethane	ND	ug/L	1.0	1		04/05/14 23:20	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/05/14 23:20	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-9 **Lab ID: 5095417010** Collected: 03/28/14 11:45 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/05/14 23:20	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/05/14 23:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/05/14 23:20	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/05/14 23:20	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/05/14 23:20	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/05/14 23:20	103-65-1	
Styrene	ND	ug/L	1.0	1		04/05/14 23:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 23:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 23:20	79-34-5	
Tetrachloroethene	**45.6**	ug/L	1.0	1		04/05/14 23:20	127-18-4	
Toluene	**65.0**	ug/L	1.0	1		04/05/14 23:20	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 23:20	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 23:20	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/05/14 23:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/05/14 23:20	79-00-5	
Trichloroethene	**12.4**	ug/L	1.0	1		04/05/14 23:20	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/05/14 23:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/05/14 23:20	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 23:20	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 23:20	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/05/14 23:20	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/05/14 23:20	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/05/14 23:20	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	91	%.	80-114	1		04/05/14 23:20	460-00-4	
Dibromofluoromethane (S)	100	%.	79-116	1		04/05/14 23:20	1868-53-7	
Toluene-d8 (S)	98	%.	81-110	1		04/05/14 23:20	2037-26-5	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-10 **Lab ID: 5095417011** Collected: 03/28/14 12:20 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/05/14 23:53	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/05/14 23:53	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/05/14 23:53	107-13-1	
Benzene	ND	ug/L	1.0	1		04/05/14 23:53	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/05/14 23:53	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/05/14 23:53	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/05/14 23:53	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/05/14 23:53	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/05/14 23:53	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/05/14 23:53	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/05/14 23:53	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/05/14 23:53	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/05/14 23:53	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/05/14 23:53	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/05/14 23:53	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/05/14 23:53	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/05/14 23:53	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/05/14 23:53	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/05/14 23:53	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 23:53	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 23:53	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/05/14 23:53	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/05/14 23:53	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/05/14 23:53	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 23:53	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 23:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 23:53	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/05/14 23:53	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/05/14 23:53	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/05/14 23:53	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/05/14 23:53	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/05/14 23:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 23:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 23:53	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 23:53	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/05/14 23:53	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 23:53	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/05/14 23:53	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 23:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 23:53	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/05/14 23:53	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/05/14 23:53	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/05/14 23:53	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/05/14 23:53	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/05/14 23:53	591-78-6	
Iodomethane	ND	ug/L	1.0	1		04/05/14 23:53	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/05/14 23:53	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-10 **Lab ID: 5095417011** Collected: 03/28/14 12:20 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/05/14 23:53	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/05/14 23:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/05/14 23:53	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/05/14 23:53	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/05/14 23:53	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/05/14 23:53	103-65-1	
Styrene	ND	ug/L	1.0	1		04/05/14 23:53	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 23:53	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 23:53	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/05/14 23:53	127-18-4	
Toluene	ND	ug/L	1.0	1		04/05/14 23:53	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 23:53	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 23:53	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/05/14 23:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/05/14 23:53	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/05/14 23:53	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/05/14 23:53	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/05/14 23:53	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 23:53	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 23:53	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/05/14 23:53	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/05/14 23:53	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/05/14 23:53	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	92	%.	80-114	1		04/05/14 23:53	460-00-4	
Dibromofluoromethane (S)	101	%.	79-116	1		04/05/14 23:53	1868-53-7	
Toluene-d8 (S)	101	%.	81-110	1		04/05/14 23:53	2037-26-5	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: TRIP BLANK **Lab ID: 5095417012** Collected: 03/28/14 14:15 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/05/14 18:52	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/05/14 18:52	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/05/14 18:52	107-13-1	
Benzene	ND	ug/L	1.0	1		04/05/14 18:52	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/05/14 18:52	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/05/14 18:52	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/05/14 18:52	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/05/14 18:52	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/05/14 18:52	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/05/14 18:52	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/05/14 18:52	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/05/14 18:52	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/05/14 18:52	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/05/14 18:52	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/05/14 18:52	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/05/14 18:52	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/05/14 18:52	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/05/14 18:52	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/05/14 18:52	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 18:52	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/05/14 18:52	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/05/14 18:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/05/14 18:52	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/05/14 18:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 18:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 18:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/05/14 18:52	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/05/14 18:52	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/05/14 18:52	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/05/14 18:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/05/14 18:52	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/05/14 18:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 18:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/05/14 18:52	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 18:52	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/05/14 18:52	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/05/14 18:52	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/05/14 18:52	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 18:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/05/14 18:52	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/05/14 18:52	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/05/14 18:52	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/05/14 18:52	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/05/14 18:52	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/05/14 18:52	591-78-6	
Iodomethane	ND	ug/L	1.0	1		04/05/14 18:52	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/05/14 18:52	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: TRIP BLANK **Lab ID: 5095417012** Collected: 03/28/14 14:15 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/05/14 18:52	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/05/14 18:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/05/14 18:52	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/05/14 18:52	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/05/14 18:52	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/05/14 18:52	103-65-1	
Styrene	ND	ug/L	1.0	1		04/05/14 18:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 18:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/05/14 18:52	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/05/14 18:52	127-18-4	
Toluene	ND	ug/L	1.0	1		04/05/14 18:52	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 18:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/05/14 18:52	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/05/14 18:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/05/14 18:52	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/05/14 18:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/05/14 18:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/05/14 18:52	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 18:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/05/14 18:52	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/05/14 18:52	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/05/14 18:52	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/05/14 18:52	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	92	%.	80-114	1		04/05/14 18:52	460-00-4	
Dibromofluoromethane (S)	100	%.	79-116	1		04/05/14 18:52	1868-53-7	
Toluene-d8 (S)	100	%.	81-110	1		04/05/14 18:52	2037-26-5	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-11B **Lab ID: 5095417013** Collected: 03/28/14 12:35 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/06/14 00:27	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/06/14 00:27	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/06/14 00:27	107-13-1	
Benzene	ND	ug/L	1.0	1		04/06/14 00:27	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/06/14 00:27	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/06/14 00:27	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/06/14 00:27	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/06/14 00:27	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/06/14 00:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/06/14 00:27	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/06/14 00:27	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/06/14 00:27	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/06/14 00:27	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/06/14 00:27	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/06/14 00:27	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/06/14 00:27	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/06/14 00:27	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/06/14 00:27	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/06/14 00:27	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/06/14 00:27	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/06/14 00:27	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/06/14 00:27	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/06/14 00:27	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/06/14 00:27	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/06/14 00:27	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/06/14 00:27	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/06/14 00:27	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/06/14 00:27	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/06/14 00:27	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/06/14 00:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/06/14 00:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/06/14 00:27	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/06/14 00:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/06/14 00:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/06/14 00:27	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/06/14 00:27	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/06/14 00:27	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/06/14 00:27	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/06/14 00:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/06/14 00:27	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/06/14 00:27	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/06/14 00:27	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/06/14 00:27	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/06/14 00:27	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/06/14 00:27	591-78-6	
Iodomethane	ND	ug/L	1.0	1		04/06/14 00:27	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/06/14 00:27	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-11B **Lab ID: 5095417013** Collected: 03/28/14 12:35 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/06/14 00:27	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/06/14 00:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/06/14 00:27	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/06/14 00:27	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/06/14 00:27	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/06/14 00:27	103-65-1	
Styrene	ND	ug/L	1.0	1		04/06/14 00:27	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/06/14 00:27	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/06/14 00:27	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/06/14 00:27	127-18-4	
Toluene	ND	ug/L	1.0	1		04/06/14 00:27	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/06/14 00:27	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/06/14 00:27	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/06/14 00:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/06/14 00:27	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/06/14 00:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/06/14 00:27	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/06/14 00:27	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/06/14 00:27	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/06/14 00:27	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/06/14 00:27	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/06/14 00:27	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/06/14 00:27	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	92	%.	80-114	1		04/06/14 00:27	460-00-4	
Dibromofluoromethane (S)	99	%.	79-116	1		04/06/14 00:27	1868-53-7	
Toluene-d8 (S)	99	%.	81-110	1		04/06/14 00:27	2037-26-5	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-12 **Lab ID: 5095417014** Collected: 03/28/14 12:50 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/06/14 01:01	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/06/14 01:01	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/06/14 01:01	107-13-1	
Benzene	ND	ug/L	1.0	1		04/06/14 01:01	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/06/14 01:01	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/06/14 01:01	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/06/14 01:01	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/06/14 01:01	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/06/14 01:01	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/06/14 01:01	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/06/14 01:01	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/06/14 01:01	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/06/14 01:01	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/06/14 01:01	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/06/14 01:01	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/06/14 01:01	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/06/14 01:01	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/06/14 01:01	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/06/14 01:01	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/06/14 01:01	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/06/14 01:01	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/06/14 01:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/06/14 01:01	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/06/14 01:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/06/14 01:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/06/14 01:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/06/14 01:01	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/06/14 01:01	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/06/14 01:01	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/06/14 01:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/06/14 01:01	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/06/14 01:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/06/14 01:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/06/14 01:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/06/14 01:01	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/06/14 01:01	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/06/14 01:01	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/06/14 01:01	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/06/14 01:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/06/14 01:01	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/06/14 01:01	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/06/14 01:01	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/06/14 01:01	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/06/14 01:01	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/06/14 01:01	591-78-6	
Iodomethane	ND	ug/L	1.0	1		04/06/14 01:01	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/06/14 01:01	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-12 **Lab ID: 5095417014** Collected: 03/28/14 12:50 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/06/14 01:01	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/06/14 01:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/06/14 01:01	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/06/14 01:01	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/06/14 01:01	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/06/14 01:01	103-65-1	
Styrene	ND	ug/L	1.0	1		04/06/14 01:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/06/14 01:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/06/14 01:01	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/06/14 01:01	127-18-4	
Toluene	**42.3**	ug/L	1.0	1		04/06/14 01:01	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/06/14 01:01	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/06/14 01:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/06/14 01:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/06/14 01:01	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/06/14 01:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/06/14 01:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/06/14 01:01	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/06/14 01:01	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/06/14 01:01	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/06/14 01:01	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/06/14 01:01	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/06/14 01:01	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	92	%.	80-114	1		04/06/14 01:01	460-00-4	
Dibromofluoromethane (S)	102	%.	79-116	1		04/06/14 01:01	1868-53-7	
Toluene-d8 (S)	100	%.	81-110	1		04/06/14 01:01	2037-26-5	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-12D **Lab ID: 5095417015** Collected: 03/28/14 12:55 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/06/14 01:34	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/06/14 01:34	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/06/14 01:34	107-13-1	
Benzene	ND	ug/L	1.0	1		04/06/14 01:34	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/06/14 01:34	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/06/14 01:34	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/06/14 01:34	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/06/14 01:34	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/06/14 01:34	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/06/14 01:34	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/06/14 01:34	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/06/14 01:34	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/06/14 01:34	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/06/14 01:34	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/06/14 01:34	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/06/14 01:34	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/06/14 01:34	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/06/14 01:34	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/06/14 01:34	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/06/14 01:34	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/06/14 01:34	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/06/14 01:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/06/14 01:34	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/06/14 01:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/06/14 01:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/06/14 01:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/06/14 01:34	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/06/14 01:34	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/06/14 01:34	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/06/14 01:34	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/06/14 01:34	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/06/14 01:34	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/06/14 01:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/06/14 01:34	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/06/14 01:34	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/06/14 01:34	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/06/14 01:34	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/06/14 01:34	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/06/14 01:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/06/14 01:34	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/06/14 01:34	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/06/14 01:34	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/06/14 01:34	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/06/14 01:34	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/06/14 01:34	591-78-6	
Iodomethane	ND	ug/L	1.0	1		04/06/14 01:34	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/06/14 01:34	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-12D **Lab ID: 5095417015** Collected: 03/28/14 12:55 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/06/14 01:34	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/06/14 01:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/06/14 01:34	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/06/14 01:34	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/06/14 01:34	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/06/14 01:34	103-65-1	
Styrene	ND	ug/L	1.0	1		04/06/14 01:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/06/14 01:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/06/14 01:34	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/06/14 01:34	127-18-4	
Toluene	**36.4**	ug/L	1.0	1		04/06/14 01:34	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/06/14 01:34	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/06/14 01:34	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/06/14 01:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/06/14 01:34	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/06/14 01:34	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/06/14 01:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/06/14 01:34	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/06/14 01:34	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/06/14 01:34	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/06/14 01:34	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/06/14 01:34	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/06/14 01:34	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	93	%.	80-114	1		04/06/14 01:34	460-00-4	
Dibromofluoromethane (S)	100	%.	79-116	1		04/06/14 01:34	1868-53-7	
Toluene-d8 (S)	98	%.	81-110	1		04/06/14 01:34	2037-26-5	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-13 **Lab ID: 5095417016** Collected: 03/28/14 13:15 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/06/14 03:08	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/06/14 03:08	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/06/14 03:08	107-13-1	
Benzene	ND	ug/L	1.0	1		04/06/14 03:08	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/06/14 03:08	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/06/14 03:08	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/06/14 03:08	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/06/14 03:08	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/06/14 03:08	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/06/14 03:08	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/06/14 03:08	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/06/14 03:08	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/06/14 03:08	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/06/14 03:08	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/06/14 03:08	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/06/14 03:08	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/06/14 03:08	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/06/14 03:08	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/06/14 03:08	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/06/14 03:08	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/06/14 03:08	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/06/14 03:08	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/06/14 03:08	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/06/14 03:08	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/06/14 03:08	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/06/14 03:08	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/06/14 03:08	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/06/14 03:08	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/06/14 03:08	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/06/14 03:08	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/06/14 03:08	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/06/14 03:08	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/06/14 03:08	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/06/14 03:08	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/06/14 03:08	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/06/14 03:08	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/06/14 03:08	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/06/14 03:08	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/06/14 03:08	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/06/14 03:08	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/06/14 03:08	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/06/14 03:08	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/06/14 03:08	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/06/14 03:08	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/06/14 03:08	591-78-6	
Iodomethane	ND	ug/L	1.0	1		04/06/14 03:08	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/06/14 03:08	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-13 **Lab ID: 5095417016** Collected: 03/28/14 13:15 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/06/14 03:08	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/06/14 03:08	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/06/14 03:08	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/06/14 03:08	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/06/14 03:08	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/06/14 03:08	103-65-1	
Styrene	ND	ug/L	1.0	1		04/06/14 03:08	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/06/14 03:08	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/06/14 03:08	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/06/14 03:08	127-18-4	
Toluene	ND	ug/L	1.0	1		04/06/14 03:08	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/06/14 03:08	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/06/14 03:08	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/06/14 03:08	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/06/14 03:08	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/06/14 03:08	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/06/14 03:08	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/06/14 03:08	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/06/14 03:08	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/06/14 03:08	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/06/14 03:08	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/06/14 03:08	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/06/14 03:08	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	91	%.	80-114	1		04/06/14 03:08	460-00-4	
Dibromofluoromethane (S)	100	%.	79-116	1		04/06/14 03:08	1868-53-7	
Toluene-d8 (S)	100	%.	81-110	1		04/06/14 03:08	2037-26-5	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-14 **Lab ID: 5095417017** Collected: 03/28/14 13:30 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	20.0	1		04/06/14 04:15	67-64-1	
Acrolein	ND	ug/L	20.0	1		04/06/14 04:15	107-02-8	
Acrylonitrile	ND	ug/L	100	1		04/06/14 04:15	107-13-1	
Benzene	ND	ug/L	1.0	1		04/06/14 04:15	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/06/14 04:15	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/06/14 04:15	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/06/14 04:15	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/06/14 04:15	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/06/14 04:15	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		04/06/14 04:15	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		04/06/14 04:15	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		04/06/14 04:15	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		04/06/14 04:15	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		04/06/14 04:15	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/06/14 04:15	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/06/14 04:15	108-90-7	
Chloroethane	ND	ug/L	2.0	1		04/06/14 04:15	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/06/14 04:15	67-66-3	
Chloromethane	ND	ug/L	2.0	1		04/06/14 04:15	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/06/14 04:15	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/06/14 04:15	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		04/06/14 04:15	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/06/14 04:15	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/06/14 04:15	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/06/14 04:15	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/06/14 04:15	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/06/14 04:15	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		04/06/14 04:15	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		04/06/14 04:15	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/06/14 04:15	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/06/14 04:15	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/06/14 04:15	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/06/14 04:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/06/14 04:15	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/06/14 04:15	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/06/14 04:15	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/06/14 04:15	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/06/14 04:15	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/06/14 04:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/06/14 04:15	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/06/14 04:15	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		04/06/14 04:15	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/06/14 04:15	87-68-3	
n-Hexane	ND	ug/L	5.0	1		04/06/14 04:15	110-54-3	N2
2-Hexanone	ND	ug/L	20.0	1		04/06/14 04:15	591-78-6	
Iodomethane	ND	ug/L	1.0	1		04/06/14 04:15	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/06/14 04:15	98-82-8	

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ANALYTICAL RESULTS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Sample: GP-14 **Lab ID: 5095417017** Collected: 03/28/14 13:30 Received: 03/29/14 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 5030B/8260							
p-Isopropyltoluene	ND	ug/L	1.0	1		04/06/14 04:15	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		04/06/14 04:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		04/06/14 04:15	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		04/06/14 04:15	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/06/14 04:15	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		04/06/14 04:15	103-65-1	
Styrene	ND	ug/L	1.0	1		04/06/14 04:15	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/06/14 04:15	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/06/14 04:15	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/06/14 04:15	127-18-4	
Toluene	**15.3**	ug/L	1.0	1		04/06/14 04:15	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/06/14 04:15	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/06/14 04:15	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/06/14 04:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/06/14 04:15	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/06/14 04:15	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		04/06/14 04:15	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/06/14 04:15	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		04/06/14 04:15	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		04/06/14 04:15	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		04/06/14 04:15	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/06/14 04:15	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/06/14 04:15	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	93	%.	80-114	1		04/06/14 04:15	460-00-4	
Dibromofluoromethane (S)	100	%.	79-116	1		04/06/14 04:15	1868-53-7	
Toluene-d8 (S)	100	%.	81-110	1		04/06/14 04:15	2037-26-5	

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QUALITY CONTROL DATA

Project: USEPA/Valley Pike
Pace Project No.: 5095417

QC Batch: MSV/63206 | Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 | Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 5095417001, 5095417002

METHOD BLANK: 1072781 | Matrix: Water
Associated Lab Samples: 5095417001, 5095417002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	04/03/14 07:32	
1,1,1-Trichloroethane	ug/L	ND	1.0	04/03/14 07:32	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	04/03/14 07:32	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/03/14 07:32	
1,1-Dichloroethane	ug/L	ND	1.0	04/03/14 07:32	
1,1-Dichloroethene	ug/L	ND	1.0	04/03/14 07:32	
1,1-Dichloropropene	ug/L	ND	1.0	04/03/14 07:32	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	04/03/14 07:32	
1,2,3-Trichloropropane	ug/L	ND	1.0	04/03/14 07:32	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	04/03/14 07:32	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	04/03/14 07:32	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	04/03/14 07:32	
1,2-Dichlorobenzene	ug/L	ND	1.0	04/03/14 07:32	
1,2-Dichloroethane	ug/L	ND	1.0	04/03/14 07:32	
1,2-Dichloropropane	ug/L	ND	1.0	04/03/14 07:32	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	04/03/14 07:32	
1,3-Dichlorobenzene	ug/L	ND	1.0	04/03/14 07:32	
1,3-Dichloropropane	ug/L	ND	1.0	04/03/14 07:32	
1,4-Dichlorobenzene	ug/L	ND	1.0	04/03/14 07:32	
2,2-Dichloropropane	ug/L	ND	1.0	04/03/14 07:32	
2-Butanone (MEK)	ug/L	ND	20.0	04/03/14 07:32	
2-Chlorotoluene	ug/L	ND	1.0	04/03/14 07:32	
2-Hexanone	ug/L	ND	20.0	04/03/14 07:32	
4-Chlorotoluene	ug/L	ND	1.0	04/03/14 07:32	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20.0	04/03/14 07:32	
Acetone	ug/L	ND	20.0	04/03/14 07:32	
Acrolein	ug/L	ND	20.0	04/03/14 07:32	
Acrylonitrile	ug/L	ND	100	04/03/14 07:32	
Benzene	ug/L	ND	1.0	04/03/14 07:32	
Bromobenzene	ug/L	ND	1.0	04/03/14 07:32	
Bromochloromethane	ug/L	ND	1.0	04/03/14 07:32	
Bromodichloromethane	ug/L	ND	1.0	04/03/14 07:32	
Bromoform	ug/L	ND	1.0	04/03/14 07:32	
Bromomethane	ug/L	ND	5.0	04/03/14 07:32	
Carbon disulfide	ug/L	ND	5.0	04/03/14 07:32	
Carbon tetrachloride	ug/L	ND	1.0	04/03/14 07:32	
Chlorobenzene	ug/L	ND	1.0	04/03/14 07:32	
Chloroethane	ug/L	ND	2.0	04/03/14 07:32	
Chloroform	ug/L	ND	1.0	04/03/14 07:32	
Chloromethane	ug/L	ND	2.0	04/03/14 07:32	
cis-1,2-Dichloroethene	ug/L	ND	1.0	04/03/14 07:32	
cis-1,3-Dichloropropene	ug/L	ND	1.0	04/03/14 07:32	
Dibromochloromethane	ug/L	ND	1.0	04/03/14 07:32	

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QUALITY CONTROL DATA

Project: USEPA/Valley Pike
Pace Project No.: 5095417

METHOD BLANK: 1072781 Matrix: Water
Associated Lab Samples: 5095417001, 5095417002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromomethane	ug/L	ND	1.0	04/03/14 07:32	
Dichlorodifluoromethane	ug/L	ND	2.0	04/03/14 07:32	
Ethyl methacrylate	ug/L	ND	20.0	04/03/14 07:32	
Ethylbenzene	ug/L	ND	1.0	04/03/14 07:32	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	04/03/14 07:32	
Iodomethane	ug/L	2.3	1.0	04/03/14 07:32	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	04/03/14 07:32	
Methyl-tert-butyl ether	ug/L	ND	4.0	04/03/14 07:32	
Methylene Chloride	ug/L	ND	5.0	04/03/14 07:32	
n-Butylbenzene	ug/L	ND	1.0	04/03/14 07:32	
n-Hexane	ug/L	ND	5.0	04/03/14 07:32	N2
n-Propylbenzene	ug/L	ND	1.0	04/03/14 07:32	
Naphthalene	ug/L	ND	1.0	04/03/14 07:32	
p-Isopropyltoluene	ug/L	ND	1.0	04/03/14 07:32	
sec-Butylbenzene	ug/L	ND	1.0	04/03/14 07:32	
Styrene	ug/L	ND	1.0	04/03/14 07:32	
tert-Butylbenzene	ug/L	ND	1.0	04/03/14 07:32	
Tetrachloroethene	ug/L	ND	1.0	04/03/14 07:32	
Toluene	ug/L	ND	1.0	04/03/14 07:32	
trans-1,2-Dichloroethene	ug/L	ND	1.0	04/03/14 07:32	
trans-1,3-Dichloropropene	ug/L	ND	1.0	04/03/14 07:32	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	04/03/14 07:32	
Trichloroethene	ug/L	ND	1.0	04/03/14 07:32	
Trichlorofluoromethane	ug/L	ND	2.0	04/03/14 07:32	
Vinyl acetate	ug/L	ND	20.0	04/03/14 07:32	
Vinyl chloride	ug/L	ND	1.0	04/03/14 07:32	
Xylene (Total)	ug/L	ND	2.0	04/03/14 07:32	
4-Bromofluorobenzene (S)	%.	94	80-114	04/03/14 07:32	
Dibromofluoromethane (S)	%.	101	79-116	04/03/14 07:32	
Toluene-d8 (S)	%.	100	81-110	04/03/14 07:32	

LABORATORY CONTROL SAMPLE: 1072782

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	47.6	95	61-135	
1,1,1-Trichloroethane	ug/L	50	57.2	114	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	51.9	104	66-126	
1,1,2-Trichloroethane	ug/L	50	53.0	106	77-130	
1,1-Dichloroethane	ug/L	50	46.2	92	75-130	
1,1-Dichloroethene	ug/L	50	56.9	114	68-127	
1,1-Dichloropropene	ug/L	50	53.2	106	78-130	
1,2,3-Trichlorobenzene	ug/L	50	52.5	105	70-130	
1,2,3-Trichloropropane	ug/L	50	49.7	99	58-142	
1,2,4-Trichlorobenzene	ug/L	50	49.3	99	68-131	
1,2,4-Trimethylbenzene	ug/L	50	50.5	101	69-127	

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QUALITY CONTROL DATA

Project: USEPA/Valley Pike
Pace Project No.: 5095417

LABORATORY CONTROL SAMPLE: 1072782

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	50	58.5	117	76-125	
1,2-Dichlorobenzene	ug/L	50	55.5	111	75-123	
1,2-Dichloroethane	ug/L	50	54.3	109	75-128	
1,2-Dichloropropane	ug/L	50	55.2	110	74-121	
1,3,5-Trimethylbenzene	ug/L	50	52.4	105	70-126	
1,3-Dichlorobenzene	ug/L	50	56.1	112	74-122	
1,3-Dichloropropane	ug/L	50	55.3	111	74-123	
1,4-Dichlorobenzene	ug/L	50	53.0	106	76-120	
2,2-Dichloropropane	ug/L	50	42.3	85	50-137	
2-Butanone (MEK)	ug/L	250	271	108	58-139	
2-Chlorotoluene	ug/L	50	53.7	107	74-122	
2-Hexanone	ug/L	250	266	106	54-140	
4-Chlorotoluene	ug/L	50	55.6	111	77-123	
4-Methyl-2-pentanone (MIBK)	ug/L	250	274	110	58-138	
Acetone	ug/L	250	306	122	49-150	
Acrolein	ug/L	1000	1230	123	41-200	
Acrylonitrile	ug/L	1000	918	92	63-137	
Benzene	ug/L	50	51.2	102	74-122	
Bromobenzene	ug/L	50	53.4	107	72-127	
Bromochloromethane	ug/L	50	59.2	118	63-132	
Bromodichloromethane	ug/L	50	51.4	103	62-136	
Bromoform	ug/L	50	39.6	79	44-134	
Bromomethane	ug/L	50	89.0	178	22-181	
Carbon disulfide	ug/L	100	125	125	59-132	
Carbon tetrachloride	ug/L	50	49.8	100	56-137	
Chlorobenzene	ug/L	50	54.2	108	78-123	
Chloroethane	ug/L	50	52.0	104	60-144	
Chloroform	ug/L	50	58.1	116	78-126	
Chloromethane	ug/L	50	46.7	93	42-134	
cis-1,2-Dichloroethene	ug/L	50	56.7	113	75-122	
cis-1,3-Dichloropropene	ug/L	50	46.0	92	64-126	
Dibromochloromethane	ug/L	50	46.1	92	58-128	
Dibromomethane	ug/L	50	57.0	114	73-125	
Dichlorodifluoromethane	ug/L	50	46.3	93	35-181	
Ethyl methacrylate	ug/L	200	213	107	69-133	
Ethylbenzene	ug/L	50	54.4	109	66-133	
Hexachloro-1,3-butadiene	ug/L	50	59.3	119	59-145	
Iodomethane	ug/L	100	143	143	21-170	
Isopropylbenzene (Cumene)	ug/L	50	56.7	113	69-124	
Methyl-tert-butyl ether	ug/L	100	98.6	99	69-122	
Methylene Chloride	ug/L	50	57.8	116	68-132	
n-Butylbenzene	ug/L	50	55.8	112	70-126	
n-Hexane	ug/L	50	37.1	74	51-125	N2
n-Propylbenzene	ug/L	50	54.2	108	71-122	
Naphthalene	ug/L	50	52.0	104	68-127	
p-Isopropyltoluene	ug/L	50	55.8	112	72-132	
sec-Butylbenzene	ug/L	50	55.5	111	70-128	
Styrene	ug/L	50	60.6	121	74-126	

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(317)228-3100

QUALITY CONTROL DATA

Project: USEPA/Valley Pike
Pace Project No.: 5095417

LABORATORY CONTROL SAMPLE: 1072782

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butylbenzene	ug/L	50	47.6	95	51-118	
Tetrachloroethene	ug/L	50	52.1	104	69-130	
Toluene	ug/L	50	52.5	105	72-122	
trans-1,2-Dichloroethene	ug/L	50	51.1	102	72-124	
trans-1,3-Dichloropropene	ug/L	50	43.4	87	64-121	
trans-1,4-Dichloro-2-butene	ug/L	200	174	87	56-133	
Trichloroethene	ug/L	50	52.9	106	76-126	
Trichlorofluoromethane	ug/L	50	55.2	110	76-149	
Vinyl acetate	ug/L	200	191	95	45-151	
Vinyl chloride	ug/L	50	49.7	99	59-126	
Xylene (Total)	ug/L	150	169	113	70-124	
4-Bromofluorobenzene (S)	%.			99	80-114	
Dibromofluoromethane (S)	%.			110	79-116	
Toluene-d8 (S)	%.			101	81-110	

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QUALITY CONTROL DATA

Project: USEPA/Valley Pike
Pace Project No.: 5095417

QC Batch: MSV/63308 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 5095417003, 5095417004, 5095417005, 5095417006, 5095417007, 5095417008, 5095417009, 5095417010, 5095417011, 5095417012, 5095417013, 5095417014, 5095417015, 5095417016, 5095417017

METHOD BLANK: 1074482 Matrix: Water
Associated Lab Samples: 5095417003, 5095417004, 5095417005, 5095417006, 5095417007, 5095417008, 5095417009, 5095417010, 5095417011, 5095417012, 5095417013, 5095417014, 5095417015, 5095417016, 5095417017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	04/05/14 18:19	
1,1,1-Trichloroethane	ug/L	ND	1.0	04/05/14 18:19	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	04/05/14 18:19	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/05/14 18:19	
1,1-Dichloroethane	ug/L	ND	1.0	04/05/14 18:19	
1,1-Dichloroethene	ug/L	ND	1.0	04/05/14 18:19	
1,1-Dichloropropene	ug/L	ND	1.0	04/05/14 18:19	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	04/05/14 18:19	
1,2,3-Trichloropropane	ug/L	ND	1.0	04/05/14 18:19	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	04/05/14 18:19	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	04/05/14 18:19	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	04/05/14 18:19	
1,2-Dichlorobenzene	ug/L	ND	1.0	04/05/14 18:19	
1,2-Dichloroethane	ug/L	ND	1.0	04/05/14 18:19	
1,2-Dichloropropane	ug/L	ND	1.0	04/05/14 18:19	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	04/05/14 18:19	
1,3-Dichlorobenzene	ug/L	ND	1.0	04/05/14 18:19	
1,3-Dichloropropane	ug/L	ND	1.0	04/05/14 18:19	
1,4-Dichlorobenzene	ug/L	ND	1.0	04/05/14 18:19	
2,2-Dichloropropane	ug/L	ND	1.0	04/05/14 18:19	
2-Butanone (MEK)	ug/L	ND	20.0	04/05/14 18:19	
2-Chlorotoluene	ug/L	ND	1.0	04/05/14 18:19	
2-Hexanone	ug/L	ND	20.0	04/05/14 18:19	
4-Chlorotoluene	ug/L	ND	1.0	04/05/14 18:19	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20.0	04/05/14 18:19	
Acetone	ug/L	ND	20.0	04/05/14 18:19	
Acrolein	ug/L	ND	20.0	04/05/14 18:19	
Acrylonitrile	ug/L	ND	100	04/05/14 18:19	
Benzene	ug/L	ND	1.0	04/05/14 18:19	
Bromobenzene	ug/L	ND	1.0	04/05/14 18:19	
Bromochloromethane	ug/L	ND	1.0	04/05/14 18:19	
Bromodichloromethane	ug/L	ND	1.0	04/05/14 18:19	
Bromoform	ug/L	ND	1.0	04/05/14 18:19	
Bromomethane	ug/L	ND	5.0	04/05/14 18:19	
Carbon disulfide	ug/L	ND	5.0	04/05/14 18:19	
Carbon tetrachloride	ug/L	ND	1.0	04/05/14 18:19	
Chlorobenzene	ug/L	ND	1.0	04/05/14 18:19	
Chloroethane	ug/L	ND	2.0	04/05/14 18:19	
Chloroform	ug/L	ND	1.0	04/05/14 18:19	
Chloromethane	ug/L	ND	2.0	04/05/14 18:19	
cis-1,2-Dichloroethene	ug/L	ND	1.0	04/05/14 18:19	

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QUALITY CONTROL DATA

Project: USEPA/Valley Pike
Pace Project No.: 5095417

METHOD BLANK: 1074482 Matrix: Water

Associated Lab Samples: 5095417003, 5095417004, 5095417005, 5095417006, 5095417007, 5095417008, 5095417009, 5095417010, 5095417011, 5095417012, 5095417013, 5095417014, 5095417015, 5095417016, 5095417017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,3-Dichloropropene	ug/L	ND	1.0	04/05/14 18:19	
Dibromochloromethane	ug/L	ND	1.0	04/05/14 18:19	
Dibromomethane	ug/L	ND	1.0	04/05/14 18:19	
Dichlorodifluoromethane	ug/L	ND	2.0	04/05/14 18:19	
Ethyl methacrylate	ug/L	ND	20.0	04/05/14 18:19	
Ethylbenzene	ug/L	ND	1.0	04/05/14 18:19	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	04/05/14 18:19	
Iodomethane	ug/L	ND	1.0	04/05/14 18:19	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	04/05/14 18:19	
Methyl-tert-butyl ether	ug/L	ND	4.0	04/05/14 18:19	
Methylene Chloride	ug/L	ND	5.0	04/05/14 18:19	
n-Butylbenzene	ug/L	ND	1.0	04/05/14 18:19	
n-Hexane	ug/L	ND	5.0	04/05/14 18:19	N2
n-Propylbenzene	ug/L	ND	1.0	04/05/14 18:19	
Naphthalene	ug/L	ND	1.0	04/05/14 18:19	
p-Isopropyltoluene	ug/L	ND	1.0	04/05/14 18:19	
sec-Butylbenzene	ug/L	ND	1.0	04/05/14 18:19	
Styrene	ug/L	ND	1.0	04/05/14 18:19	
tert-Butylbenzene	ug/L	ND	1.0	04/05/14 18:19	
Tetrachloroethene	ug/L	ND	1.0	04/05/14 18:19	
Toluene	ug/L	ND	1.0	04/05/14 18:19	
trans-1,2-Dichloroethene	ug/L	ND	1.0	04/05/14 18:19	
trans-1,3-Dichloropropene	ug/L	ND	1.0	04/05/14 18:19	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	04/05/14 18:19	
Trichloroethene	ug/L	ND	1.0	04/05/14 18:19	
Trichlorofluoromethane	ug/L	ND	2.0	04/05/14 18:19	
Vinyl acetate	ug/L	ND	20.0	04/05/14 18:19	
Vinyl chloride	ug/L	ND	1.0	04/05/14 18:19	
Xylene (Total)	ug/L	ND	2.0	04/05/14 18:19	
4-Bromofluorobenzene (S)	%.	94	80-114	04/05/14 18:19	
Dibromofluoromethane (S)	%.	100	79-116	04/05/14 18:19	
Toluene-d8 (S)	%.	101	81-110	04/05/14 18:19	

LABORATORY CONTROL SAMPLE: 1074483

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	46.1	92	61-135	
1,1,1-Trichloroethane	ug/L	50	46.7	93	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	48.3	97	66-126	
1,1,2-Trichloroethane	ug/L	50	48.1	96	77-130	
1,1-Dichloroethane	ug/L	50	46.8	94	75-130	
1,1-Dichloroethene	ug/L	50	38.2	76	68-127	
1,1-Dichloropropene	ug/L	50	42.0	84	78-130	
1,2,3-Trichlorobenzene	ug/L	50	51.9	104	70-130	

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QUALITY CONTROL DATA

Project: USEPA/Valley Pike
Pace Project No.: 5095417

LABORATORY CONTROL SAMPLE: 1074483

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/L	50	47.8	96	58-142	
1,2,4-Trichlorobenzene	ug/L	50	51.0	102	68-131	
1,2,4-Trimethylbenzene	ug/L	50	50.0	100	69-127	
1,2-Dibromoethane (EDB)	ug/L	50	46.8	94	76-125	
1,2-Dichlorobenzene	ug/L	50	48.2	96	75-123	
1,2-Dichloroethane	ug/L	50	45.9	92	75-128	
1,2-Dichloropropane	ug/L	50	47.4	95	74-121	
1,3,5-Trimethylbenzene	ug/L	50	49.5	99	70-126	
1,3-Dichlorobenzene	ug/L	50	47.2	94	74-122	
1,3-Dichloropropane	ug/L	50	48.0	96	74-123	
1,4-Dichlorobenzene	ug/L	50	45.8	92	76-120	
2,2-Dichloropropane	ug/L	50	47.7	95	50-137	
2-Butanone (MEK)	ug/L	250	257	103	58-139	
2-Chlorotoluene	ug/L	50	46.5	93	74-122	
2-Hexanone	ug/L	250	247	99	54-140	
4-Chlorotoluene	ug/L	50	49.9	100	77-123	
4-Methyl-2-pentanone (MIBK)	ug/L	250	263	105	58-138	
Acetone	ug/L	250	352	141	49-150	
Acrolein	ug/L	1000	520	52	41-200	
Acrylonitrile	ug/L	1000	845	84	63-137	
Benzene	ug/L	50	41.5	83	74-122	
Bromobenzene	ug/L	50	44.1	88	72-127	
Bromochloromethane	ug/L	50	45.3	91	63-132	
Bromodichloromethane	ug/L	50	44.0	88	62-136	
Bromoform	ug/L	50	39.1	78	44-134	
Bromomethane	ug/L	50	36.7	73	22-181	
Carbon disulfide	ug/L	100	84.4	84	59-132	
Carbon tetrachloride	ug/L	50	41.5	83	56-137	
Chlorobenzene	ug/L	50	46.3	93	78-123	
Chloroethane	ug/L	50	51.4	103	60-144	
Chloroform	ug/L	50	45.8	92	78-126	
Chloromethane	ug/L	50	28.7	57	42-134	
cis-1,2-Dichloroethene	ug/L	50	43.6	87	75-122	
cis-1,3-Dichloropropene	ug/L	50	41.9	84	64-126	
Dibromochloromethane	ug/L	50	40.8	82	58-128	
Dibromomethane	ug/L	50	50.0	100	73-125	
Dichlorodifluoromethane	ug/L	50	32.1	64	35-181	
Ethyl methacrylate	ug/L	200	184	92	69-133	
Ethylbenzene	ug/L	50	48.0	96	66-133	
Hexachloro-1,3-butadiene	ug/L	50	53.3	107	59-145	
Iodomethane	ug/L	100	62.9	63	21-170	
Isopropylbenzene (Cumene)	ug/L	50	50.3	101	69-124	
Methyl-tert-butyl ether	ug/L	100	92.8	93	69-122	
Methylene Chloride	ug/L	50	43.3	87	68-132	
n-Butylbenzene	ug/L	50	52.6	105	70-126	
n-Hexane	ug/L	50	44.0	88	51-125	N2
n-Propylbenzene	ug/L	50	47.7	95	71-122	
Naphthalene	ug/L	50	44.6	89	68-127	

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QUALITY CONTROL DATA

Project: USEPA/Valley Pike
Pace Project No.: 5095417

LABORATORY CONTROL SAMPLE: 1074483

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/L	50	52.8	106	72-132	
sec-Butylbenzene	ug/L	50	50.1	100	70-128	
Styrene	ug/L	50	51.9	104	74-126	
tert-Butylbenzene	ug/L	50	43.9	88	51-118	
Tetrachloroethene	ug/L	50	43.8	88	69-130	
Toluene	ug/L	50	44.7	89	72-122	
trans-1,2-Dichloroethene	ug/L	50	42.5	85	72-124	
trans-1,3-Dichloropropene	ug/L	50	40.1	80	64-121	
trans-1,4-Dichloro-2-butene	ug/L	200	175	88	56-133	
Trichloroethene	ug/L	50	46.4	93	76-126	
Trichlorofluoromethane	ug/L	50	50.8	102	76-149	
Vinyl acetate	ug/L	200	209	105	45-151	
Vinyl chloride	ug/L	50	34.3	69	59-126	
Xylene (Total)	ug/L	150	147	98	70-124	
4-Bromofluorobenzene (S)	%.			100	80-114	
Dibromofluoromethane (S)	%.			99	79-116	
Toluene-d8 (S)	%.			99	81-110	

SAMPLE DUPLICATE: 1074484

Parameter	Units	5095417016 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		20	
1,1,1-Trichloroethane	ug/L	ND	ND		20	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		20	
1,1,2-Trichloroethane	ug/L	ND	ND		20	
1,1-Dichloroethane	ug/L	ND	ND		20	
1,1-Dichloroethene	ug/L	ND	ND		20	
1,1-Dichloropropene	ug/L	ND	ND		20	
1,2,3-Trichlorobenzene	ug/L	ND	ND		20	
1,2,3-Trichloropropane	ug/L	ND	ND		20	
1,2,4-Trichlorobenzene	ug/L	ND	ND		20	
1,2,4-Trimethylbenzene	ug/L	ND	ND		20	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1,2-Dichlorobenzene	ug/L	ND	ND		20	
1,2-Dichloroethane	ug/L	ND	ND		20	
1,2-Dichloropropane	ug/L	ND	ND		20	
1,3,5-Trimethylbenzene	ug/L	ND	ND		20	
1,3-Dichlorobenzene	ug/L	ND	ND		20	
1,3-Dichloropropane	ug/L	ND	ND		20	
1,4-Dichlorobenzene	ug/L	ND	ND		20	
2,2-Dichloropropane	ug/L	ND	ND		20	
2-Butanone (MEK)	ug/L	ND	ND		20	
2-Chlorotoluene	ug/L	ND	ND		20	
2-Hexanone	ug/L	ND	ND		20	
4-Chlorotoluene	ug/L	ND	ND		20	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		20	
Acetone	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: USEPA/Valley Pike
Pace Project No.: 5095417

SAMPLE DUPLICATE: 1074484

Parameter	Units	5095417016 Result	Dup Result	RPD	Max RPD	Qualifiers
Acrolein	ug/L	ND	ND		20	
Acrylonitrile	ug/L	ND	ND		20	
Benzene	ug/L	ND	ND		20	
Bromobenzene	ug/L	ND	ND		20	
Bromochloromethane	ug/L	ND	ND		20	
Bromodichloromethane	ug/L	ND	ND		20	
Bromoform	ug/L	ND	ND		20	
Bromomethane	ug/L	ND	ND		20	
Carbon disulfide	ug/L	ND	ND		20	
Carbon tetrachloride	ug/L	ND	ND		20	
Chlorobenzene	ug/L	ND	ND		20	
Chloroethane	ug/L	ND	ND		20	
Chloroform	ug/L	ND	ND		20	
Chloromethane	ug/L	ND	ND		20	
cis-1,2-Dichloroethene	ug/L	ND	ND		20	
cis-1,3-Dichloropropene	ug/L	ND	ND		20	
Dibromochloromethane	ug/L	ND	ND		20	
Dibromomethane	ug/L	ND	ND		20	
Dichlorodifluoromethane	ug/L	ND	ND		20	
Ethyl methacrylate	ug/L	ND	ND		20	
Ethylbenzene	ug/L	ND	ND		20	
Hexachloro-1,3-butadiene	ug/L	ND	ND		20	
Iodomethane	ug/L	ND	ND		20	
Isopropylbenzene (Cumene)	ug/L	ND	ND		20	
Methyl-tert-butyl ether	ug/L	ND	ND		20	
Methylene Chloride	ug/L	ND	ND		20	
n-Butylbenzene	ug/L	ND	ND		20	
n-Hexane	ug/L	ND	ND		20	N2
n-Propylbenzene	ug/L	ND	ND		20	
Naphthalene	ug/L	ND	ND		20	
p-Isopropyltoluene	ug/L	ND	ND		20	
sec-Butylbenzene	ug/L	ND	ND		20	
Styrene	ug/L	ND	ND		20	
tert-Butylbenzene	ug/L	ND	ND		20	
Tetrachloroethene	ug/L	ND	ND		20	
Toluene	ug/L	ND	ND		20	
trans-1,2-Dichloroethene	ug/L	ND	ND		20	
trans-1,3-Dichloropropene	ug/L	ND	ND		20	
trans-1,4-Dichloro-2-butene	ug/L	ND	ND		20	
Trichloroethene	ug/L	ND	ND		20	
Trichlorofluoromethane	ug/L	ND	ND		20	
Vinyl acetate	ug/L	ND	ND		20	
Vinyl chloride	ug/L	ND	ND		20	
Xylene (Total)	ug/L	ND	ND		20	
4-Bromofluorobenzene (S)	%.	91	95	5		
Dibromofluoromethane (S)	%.	100	98	1		
Toluene-d8 (S)	%.	100	101	1		

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QUALIFIERS

Project: USEPA/Valley Pike
Pace Project No.: 5095417

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

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

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Pace Analytical Services, Inc.
Not NELAP Accredited
1233 Dublin Road
Columbus, OH 43215
(614)486-5421

Pace Analytical Services, Inc.
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: USEPA/Valley Pike
Pace Project No.: 5095417

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5095417001	**GP-11**	EPA 5030B/8260	MSV/63206		
5095417002	**GP-6**	EPA 5030B/8260	MSV/63206		
5095417003	**GP-3**	EPA 5030B/8260	MSV/63308		
5095417004	**GP-2**	EPA 5030B/8260	MSV/63308		
5095417005	**GP-4**	EPA 5030B/8260	MSV/63308		
5095417006	**GP-5**	EPA 5030B/8260	MSV/63308		
5095417007	**GP-6B**	EPA 5030B/8260	MSV/63308		
5095417008	**GP-7**	EPA 5030B/8260	MSV/63308		
5095417009	**GP-8**	EPA 5030B/8260	MSV/63308		
5095417010	**GP-9**	EPA 5030B/8260	MSV/63308		
5095417011	**GP-10**	EPA 5030B/8260	MSV/63308		
5095417012	**TRIP BLANK**	EPA 5030B/8260	MSV/63308		
5095417013	**GP-11B**	EPA 5030B/8260	MSV/63308		
5095417014	**GP-12**	EPA 5030B/8260	MSV/63308		
5095417015	**GP-12D**	EPA 5030B/8260	MSV/63308		
5095417016	**GP-13**	EPA 5030B/8260	MSV/63308		
5095417017	**GP-14**	EPA 5030B/8260	MSV/63308		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1740678

Section A Required Client Information:

Company: EQM
Address: 1800 Carillon Blvd
Cincinnati, OH 45208
Email To: ecorbin@eqm.com
Phone: 800/500-0575 Fax: 513-825-9728
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Eric Corbin
Copy To:
Purchase Order No.: TBD
Project Name: USEPA/Valley Pike
Project Number: 030281.0134

Section C Invoice Information:

Attention: Eric Corbin
Company Name: EQM
Address:
Pace Quote Reference:
Pace Project Manager: Mick Mayse
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER ____

Site Location STATE: ____

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): N N N N N N N N N N N N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: VOA-8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 5095417
1	GP-11	WT	G	3/27	1705	3/27	1705		3	X								X		-001
2	GP-6	WT	G			3/27	1430		3	X								X		-002
3	GP-3	WT	G			3/28	1000		3	X								X		-003
4	GP-2	WT	G			3/28	0945		3	X								X		-004
5	GP-4	WT	G			3/28	1020		3	X								X		-005
6	GP-5	WT	G			3/28	1035		3	X								X		-006
7	GP-6B	WT	G			3/28	1050		3	X								X		-007
8	GP-7	WT	G			3/28	1115		3	X								X		-008
9	GP-8	WT	G			3/28	1130		3	X								X		-009
10	GP-9	WT	G			3/28	1145		3	X								X		-010
11	GP-10	WT	G			3/28	1220		3	X								X		-011
12	Trip Blank	WT	G			3/28	1415		3	X								X		-012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Report below MCLs	[signature]	3/28/14	1426	[signature]	3/28/14	1426	3.2	Y	X	Y

James Jones 3/29/14 1232

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1740679

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: EQM	Report To: Eric Corbin	Attention: ERIK Corbin
Address: 1800 Carillon Blvd	Copy To:	Company Name: EQM
Cinci, OH 45240		Address:
Email To: ecorbin@eqm.com	Purchase Order No.:	Pace Quote Reference:
Phone: Fax:	Project Name: USEPA / Valley Pike	Pace Project Manager: Mick Mayse
Requested Due Date/TAT:	Project Number: 030281.0134	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): Y/N N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: VOA-8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	GP-11B	WT	G			3/28	1235		3	X								X		-013
2	GP-12	WT	G			3/28	1250		3	X								X		-014
3	GP-12D	WT	G			3/28	1255		3	X								X		-015
4	GP-13	WT	G			3/28	1315		3	X								X		-016
5	GP-14	WT	G			3/28	1330		3	X								X		-017
6																				
7																				
8																				
9																				
10																				
11																				
12																				

5095417

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Report below MRL	[signature]	3/28/14	1426	[signature]	3/28/14	1426	3.2	Y	Y	Y

James Jones 3/29/14 1237

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Sample Condition Upon Receipt

Pace Analytical

Client Name: EQM Project # 5095417

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Date/Time 5035A kits placed in freezer _____

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer Used 1 2 3 4 ~~5~~ A B C D E **Type of Ice:** ~~Wet~~ Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 3.2 **Ice Visible in Sample Containers:** ☐ yes ☑ no
(Corrected, if applicable)

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 3/29/14 JJ

				Comments:
Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	5.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	6.
Containers Intact:	☑Yes	☐No	☐N/A	7.
Sample Labels match COC: -Includes date/time/ID/Analysis	☐Yes	☑No	☐N/A	8. Six VOAs are Unpreserved rest are HCl
All containers needing acid/base pres. have been checked? exceptions: VOA, coliform, TOC, O&G All containers needing preservation are found to be in compliance with EPA recommendation (<2, >9, >12) unless otherwise noted.	☐Yes	☐No	☑N/A	9. (Circle) HNO3 H2SO4 NaOH HCl
Headspace in VOA Vials (>6mm):	☐Yes	☑No	☐N/A	10.
Trip Blank Present:	☑Yes	☐No	☐N/A	11.
Trip Blank Custody Seals Present	☑Yes	☐No	☐N/A	
Project Manager Review				
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	12.
Sufficient Volume:	☑Yes	☐No	☐N/A	13.
Correct Containers Used:	☑Yes	☐No	☐N/A	14.

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Kenneth Hurt **Date:** 3/29/14

Form F-IN-Q-290-rev.05, 10Sep2013

Sample Container Count

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CLIENT: EQM

COC PAGE 2 of 1

COC ID#

Project # 5095417

Sample Line Item	DG9H	AG1U	WGFU	AG0U	R	4 / 6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H	BP3C	BP1U	SPST	DG9U	pH <2	pH>12	Comments
1																		3			
2																		3			
3	3																				
4	3																				
5	3																				
6	3																				
7	3																				
8	3																				
9	3																				
10	3																				
11	3																				
12	3																				

Container Codes

DG9H	40mL HCL amber voa vial	AG0U	100mL unpreserved amber gl	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber gla	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved **amber** vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber g	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber g	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved **clear** vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gl	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plasti	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

Sample Container Count

Pace Analytical
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CLIENT: EQM

COC PAGE 2 of 2
COC ID#

Project # 50952117

Sample Line Item	DG9H	AG1U	WGFU	AG0U	R	4 / 6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H	BP3C	BP1U	SPST		pH <2	pH>12	Comments
1	3																				
2	3																				
3	3																				
4	3																				
5	3																				
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Container Codes

DG9H	40mL HCL amber voa vial	AG0U	100mL unpreserved amber gl	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber gla	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber g	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber g	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber g	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gl	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag