

## REMEDIAL ACTION PROGRESS REPORT FOURTH QUARTER 2017

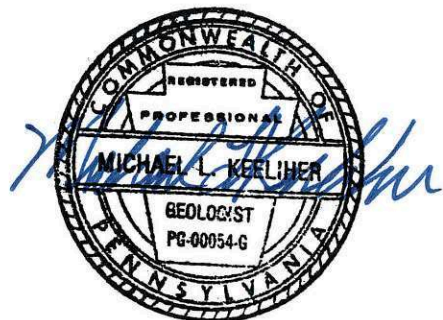
**VALLEY VILLAGE**  
10243 State Route 85  
Kittanning, PA 16201  
**Facility I.D. No. 03-06500**  
**USTIF No. 2014-0036(S)**

Prepared for

Pennsylvania Department of Environmental Protection  
Southwest Regional Office  
400 Waterfront Drive  
Pittsburgh, PA 15222-4745

Submitted by:

Sara Giordano and Paul Rogers





## Fourth Quarter 2017 Remedial Action Progress Report

### Valley Village

10243 State Route 85, Kittanning, PA 16201

Facility ID No. 03-06500

PADEP Contact: Patty Renwick

USTIF ID No. 2014-0036(S)

IGI Contacts: Sara Giordano and Paul Rogers

## **INTRODUCTION**

Insite Group, Inc. (IGI), on behalf of Mr. Joseph Buffone of JBRL Development Corp., provides this RAPR summarizing activities and findings for the referenced period at the Valley Village facility in Cowanshannock Township, Armstrong County, Pennsylvania (property). This RAPR includes a summary of site activities completed during the period, data interpretation, proposed future actions, a historical summary, and a description of site geology. A topographic map is provided as **Figure 1**, and site map is provided as **Figure 2**.

A release of unleaded gasoline was discovered and reported in March 2014 during an upgrade of the UST system. Extensive impacts to soil and groundwater were identified during site characterization. Excavation of impacted soil was completed in 2016, and attainment of the SHS-RUA was demonstrated for soil at that time.

Remedial Action Plan Addendum No. 2 was submitted to the PADEP on August 14, 2017, and was approved on August 24, 2017. The report provided a plan to address adsorbed-phase contaminant mass in the UST cavity and dissolved-phase contaminant mass in downgradient areas, including the sanitary sewer line trench. The proposed treatment included the following:

- Ivey-sol surfactant washing of the UST cavity.
- Ivey-sol surfactant washing of the sewer line trench backfill in the area surrounding SL-3 and SL-4.
- Carbon Based Injectate (CBI) treatment to address the remaining dissolved-phase plume downgradient of the UST cavity. After the conclusion of surfactant treatment, a period of monitoring and data evaluation will be completed in order to finalize the CBI treatment design.

The first round of surfactant washing of the UST cavity was initiated in September 2017 and concluded in November 2017.

## **CONTAMINANTS OF CONCERN**

The contaminant of concern at the site is unleaded gasoline, and the chemicals of concern are defined by PADEP's Post-2008 short list of parameters for unleaded gasoline (benzene, ethylbenzene, cumene, MTBE, naphthalene, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and total xylenes).

<u>Media</u>	<u>Cleanup Standard</u>	<u>Parameters Exceeding the Cleanup Standard</u>
Soil	SHS-RUA	Attainment of the SHS-RUA is demonstrated for soil.
Groundwater	SHS-RUA	Benzene, ethylbenzene, MTBE, naphthalene, 1,2,4-trimethylbenzene.

The site is defined by the extent of the monitoring well network. POC wells are shown in bold font and include **MW-3R**, **MW-4R**, **MW-8**, **MW-13** and **MW-14**.



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## REGULATORY STATUS

Attainment of the SHS-RUA has been demonstrated for soil. Remediation to address the remaining dissolved-phase plume (including the adsorbed-phase contaminant mass below the water table in the UST cavity) is underway.

## SITE ACTIVITIES COMPLETED DURING PERIOD

### Quarterly Groundwater Monitoring

Quarterly groundwater sampling was completed on November 14 and 15, 2017. Depth-to-water measurements were recorded for 15 monitoring wells (MW-1R through MW-15), two extraction wells (EW-1R and EW-2), and two sewer line trench wells (SL-3 and SL-4). Depth-to-water measurements and calculated groundwater elevations are summarized in **Table 1.0**.

Groundwater elevation data were used to prepare a groundwater contour map, provided as **Figure 3**.

Groundwater samples were collected from ten monitoring wells (MW-1R, **MW-3R**, **MW-4R**, **MW-8**, MW-9, MW-10, MW-11, **MW-13**, **MW-14**, and MW-15), two extraction wells (EW-1R and EW-2), and two sewer line trench wells (SL-3 and SL-4). Wells were sampled using a low flow purging and sampling approach. The samples were submitted for laboratory analysis of unleaded gasoline parameters by method 5030B/8260B. One duplicate sample was collected for quality assurance purposes.

The groundwater analytical results are summarized in **Table 2.0**. A summary of contaminant concentrations exceeding their respective SHS-RUA values is provided below:

<u>Well</u>	<u>Benzene</u>	<u>MTBE</u>	<u>1,2,4-Trimethylbenzene</u>	<u>Ethylbenzene</u>	<u>Naphthalene</u>
EW-1R	352 ug/L		1,140 ug/L	1,070 ug/L	232 ug/L
<b>MW-3R</b>	509 ug/L		338 ug/L		
<b>MW-13</b>	136 ug/L	181 ug/L			
<b>MW-8</b>		219 ug/L			
MW-1R	11.2 ug/L				

Concentrations of unleaded gasoline parameters do not exceed their respective SHS-RUA values in monitoring wells **MW-4R**, MW-9, MW-10, MW-11, **MW-14**, or MW-15. Monitoring wells MW-2, MW-5, MW-6, MW-7, and MW-12, previously exhibited eight or more consecutive quarters of results below SHS-RUA values and sampling was discontinued for these wells after Fourth Quarter 2016.

Historical groundwater analytical results are summarized in **Table 3.0**. Laboratory analytical reports are provided as **Attachment A**. Dissolved-phase contaminant isoconcentration maps are provided as **Figures 4 through 6**.



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Field measurements of DO, ORP, and pH were recorded for each well sampled. The data are summarized in **Table 4.0**. DO concentrations range from <1.0 to 5.5 ppm.

Contaminant concentration trend graphs for source area and distal wells are provided as **Figures 7** and **8**, respectively. Overall, contaminant concentrations appear to be decreasing.

### Ivey-sol Surfactant Washing of the UST Cavity

As described in RAP Addendum No. 2, Ivey-sol® 103 (Ivey-sol), a nonionic and biodegradable formulation of surfactants supplied by Ivey International, Inc., was selected for use at the Valley Village site. The first cycle of Ivey-sol surfactant washing of the UST cavity occurred between September 19 and November 29, 2017.

#### Surfactant Injection

In preparation for surfactant injection, approximately 1,000 gallons of groundwater was extracted from the cavity by pumping from EW-1R. Ivey-sol concentrate was mixed with dechlorinated potable water at a ratio of 1:25. The mixed solution was then injected into the UST cavity injection wells (CP-1 through CP-7). The first Ivey-sol treatment cycle consisted of five injection events between September 20 and October 3, 2017. A total of 3,120 gallons of diluted Ivey-sol solution was injected into the UST cavity, as summarized below:

Date	Ivey-sol Solution	Ivey-sol Volume Injected	Additional Potable Water Injected	Injection Wells
09/20/17	1:25	832 gallons		CP-1, CP-2, CP-3, CP-4, CP-5, CP-6, CP-7
09/21/17	1:25	832 gallons		CP-1, CP-2, CP-3, CP-4, CP-5, CP-6, CP-7
09/25/17	1:25	208 gallons	1,000 gallons	CP-1, CP-2
09/26/17	1:25	416 gallons	432 gallons	CP-1, CP-2
10/03/17	1:25	832 gallons	300 gallons	CP-1, CP-2, CP-3, CP-4, CP-5, CP-6, CP-7
11/09/17	--	--	400 gallons	CP-1, CP-2
<b>TOTAL</b>		<b>3,120 gallons</b>	<b>2,132 gallons</b>	

Following injection, the Ivey-sol solution was recirculated within the UST cavity to increase the distribution of surfactant throughout the UST cavity and maximize contaminant desorption. On several occasions, additional dechlorinated potable water was injected into the UST cavity injection wells to raise the groundwater elevation in the cavity in order to facilitate surfactant washing of the adsorbed-phase mass in the upper portions of the UST cavity. Additional dechlorinated potable water was also injected into the UST cavity on November 9, 2017, as a rinse to assist with the removal of residual surfactant.

#### Groundwater Extraction

Within one to eight days following injection events, groundwater was extracted from the UST cavity to recover the liberated contaminants. Several extraction events, which also included downgradient monitoring wells, occurred after the final injection event in order to recover the remaining surfactant. Between September 19 and November 29, 2017, approximately 7,760 gallons of groundwater was extracted. Extracted groundwater was temporarily staged onsite in



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a frac tank and later disposed / recycled at Danco Industries, Inc. in Barkeyville, PA. Disposal records are provided as **Attachment B**.

Groundwater extraction on November 9 and 29 was completed using a vacuum truck. Since surfactants facilitate the transfer of mass from the sorbed and dissolved phases to vapor phase under vacuum conditions, the vacuum truck was used to extract vapors as well as groundwater. IGI measured the air flow rate and relative concentration of volatiles (using a PID) in the extracted air stream in order to estimate the amount of mass removed in vapor form. Approximately 518 pounds of volatiles was removed in this manner, as summarized below.

Date	Average PID Reading	Extraction Period	Flow Rate	Volume Extracted	Contaminant Mass
	<i>ppm (mg/L)</i>	<i>minutes</i>	<i>scfm</i>	<i>cu ft</i>	<i>pounds</i>
11/09/17	517	208	53	11,119	359
11/29/17	434	110	53	5,880	159
TOTAL					518

### Monitoring

Depth-to-water measurements were recorded before and after injection and extraction events. Depth-to-water measurements are summarized in **Table 5.0**. Groundwater elevations in background well MW-6 and several other distal monitoring wells decreased steadily throughout September and October, likely due to an extended dry period. Groundwater elevations in wells near the UST cavity (EW-1R, EW-2, MW-1R, **MW-3R**, and **MW-4R**) appeared to rise in response to Ivey-sol injection in the UST cavity. Slight rises in groundwater elevations were also noted in sewer line trench wells SL-3 and SL-4 following injections in the UST cavity.

Groundwater samples were collected from selected wells on a routine basis for surfactant field testing. The results are summarized in **Table 6.0**. Surfactant was detected in EW-1R (screened in the UST cavity backfill) and MW-1R (approximately 10 feet east of the UST cavity), **MW-3R** (approximately 18 feet downgradient of the UST cavity), SL-4 (located in the sewer line trench approximately 30 feet downgradient of the UST cavity), and MW-15 (several feet west of the UST cavity). No surfactant was detected in downgradient monitoring wells **MW-8** or MW-10.

Because surfactant was detected in several monitoring wells outside of the UST cavity (MW-1R, MW-3R, and MW-15), the groundwater extraction program was expanded to capture the surfactant in these areas, in accordance with control measures proposed in RAP Addendum No. 2. The remaining surfactant was successfully removed from the subsurface and at the conclusion of the treatment, surfactant levels in all wells had returned to baseline levels (non-detect in all wells except EW-1R, which exhibited low levels of surfactant in the baseline sample).

Groundwater samples were collected from selected wells on several occasions during Ivey-sol treatment for analysis of unleaded gasoline parameters by method 5030B/8260B.



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Groundwater analytical results for selected wells before, during, and after treatment are summarized in **Table 7.0**.

Comparisons of pre-treatment, during-treatment, and post-treatment contaminant concentrations are summarized below:

Time Frame	Total COC Concentration (ug/L)								
	EW-1R	EW-2	MW-1R	MW-3R	MW-8	MW-13	MW-15	SL-3	SL-4
Before Ivey-sol Treatment (average of 6/26/17 & 8/08/17)	5,552	45	24	2,025	2,081	83	36	99	802
During Ivey-sol Treatment (average 9/20/17 to 10/6/17)	11,191	16	551	504	33				
After Ivey-sol Treatment & Extraction (most recent data Nov-Dec 2017)	5,857	5	2	1,057	389	35	0	13	6
<b>Percent Reduction</b>	<b>-5%</b>	<b>89%</b>	<b>91%</b>	<b>48%</b>	<b>81%</b>	<b>58%</b>	<b>100%</b>	<b>87%</b>	<b>99%</b>

Contaminant reductions in site monitoring wells (MW-1R, **MW-3R**, **MW-8**, **MW-13**, and MW-15) ranged from 48% to 100%, and contaminant reductions in sewer line trench wells (SL-3 and SL-4) ranged from 87% to 99%.

During surfactant treatment, a temporary increase in contaminant concentrations was observed in EW-1R and MW-1R. Because dechlorinated, potable water was used for surfactant injection, this finding indicates that mass was desorbed from the cavity backfill.

Following the conclusion of treatment and final groundwater extractions, the contaminant concentrations returned to pre-treatment levels in EW-1R and decreased below pre-treatment levels in MW-1R. The analytical data and vapor extraction data indicate that surfactant washing had a beneficial effect on the groundwater plume and desorption of mass from soil. However, dissolved-phase contaminant concentrations in EW-1 indicate that adsorbed-phase mass remains in the UST cavity.

A map showing the reductions in the size and magnitude of the dissolved-phase plume over time is provided as **Figure 9**. The map shows the dissolved-phase plume before excavation (which occurred in September-October 2016), after excavation / before surfactant washing, and after surfactant washing.

### Meeting with Client

On December 5, 2017, IGI met with Mr. Joseph Buffone to discuss the status of the remediation project.

### CONCLUSIONS

The first Ivey-sol surfactant treatment cycle appears to have been successful. Dissolved-phase contaminant concentrations were reduced (48 to 100%) in all site monitoring wells exceeding



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SHS-RUA values. Dissolved-phase contaminant concentrations were also reduced (87 to 99%) in the sewer line trench wells and currently do not exceed their respective SHS-RUA values. However, adsorbed-phase contamination remains in the UST cavity, as evidenced by the groundwater analytical results for EW-1R.

The injected surfactant was sufficiently recovered, and no surfactant remains in site monitoring wells after the first treatment cycle. Surfactant is present in EW-1R at low levels consistent with the levels observed in the EW-1R baseline sample. No increases in contaminant concentrations were observed downgradient.

### **PROPOSED FUTURE ACTIONS**

- Complete a second cycle of Ivey-sol surfactant treatment to further reduce the adsorbed-phase contaminant mass in the UST cavity.
- Because significant contaminant mass (518 pounds) was removed in the form of vapors during vacuum extraction of the UST cavity, IGI also recommends the extraction of vapors from the UST cavity in conjunction with future surfactant treatment. This may be accomplished using a vacuum truck or a standalone vacuum pump.
- Continue to monitor sewer line trench wells SL-3 and SL-4 to determine if surfactant treatment of the sewer line trench is warranted.
- After the final Ivey-sol surfactant treatment cycle is completed, complete a period of monitoring and finalize the CBI treatment design based on the then current site conditions.
- Continue quarterly groundwater monitoring.

### **RELEASES**

March 19, 2014	Unleaded Gasoline	A release of unleaded gasoline was discovered during an upgrade of the tank tops. Strong odors were noted in the area of the sump on Tank 003, and SPL was observed on the pit water.
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### **POTENTIAL RECEPTORS**

Surface Water:	Cowanshannock Creek is located approximately 250 feet south of the UST cavity and is the nearest surface water feature. Groundwater at the site flows south toward the creek. Dissolved-phase contaminants are currently not detected in the most downgradient monitoring wells. Therefore, no adverse impacts to Cowanshannock Creek are expected.
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- Water Well Survey: A search of the PaGWIS database identified three water wells within 0.25 miles of the site. All three wells are located northwest and upgradient/crossgradient of the site. The nearest well is approximately 700 feet from the site. None of these wells is likely to be impacted by the release at the site.
- Municipal Water Supply: The facility is serviced by public water supplied by the Cowanshannock Township Municipal Authority. Valley Village is the last customer on the water line. Properties to the east receive public water from the Rural Valley Municipal Authority. Cowanshannock Township Municipal Authority obtains its water from a number of wells located greater than 1.5 miles north of SR 85. The wells are greater than 150 feet in depth. Rural Valley Municipal Authority obtains its water from several wells and springs. Most of these are located greater than one mile from Valley Village. One well is located 200 yards south of State Route 85 and approximately 0.5 miles east of Valley Village. The wells are greater than 150 feet in depth. All of these wells are located upgradient or crossgradient of the property and are not likely to be impacted by the release at the site.

### SITE HISTORY

- 1985: The subject property was developed as a gasoline retail station and convenience store. The existing gasoline USTs (Tanks 001 through 003) and a diesel fuel UST (Tank 004, later removed) were installed at that time. Previously, the property was undeveloped.
- March 2014: A release of unleaded gasoline was discovered and reported during an upgrade of the tank tops. Strong odors were noted in the area of the sump on Tank 003, and SPL was observed on the pit water. Two soil samples and one groundwater sample were collected and submitted for laboratory analysis of unleaded gasoline parameters. Concentrations of unleaded gasoline parameters exceeded their respective SHS-RUA values in both soil and groundwater.
- June 2014: IGI completed five soil borings (B-1, B-2, B-3, B-4 and B-5), installed one nested vapor monitoring point (VM-1, 2 - 3 feet bgs and 4 - 5 feet bgs screened intervals) and installed five monitoring wells (MW-1, MW-2, **MW-3**, **MW-4** and MW-5) on the Valley Village property. Concentrations of unleaded gasoline parameters exceeded their respective SHS-RUA values in both soil and groundwater.
- August 2014: IGI completed five additional soil borings (B-6, B-7, B-8, B-9 and B-10) and installed six additional monitoring wells (MW-6, MW-7, **MW-8**, MW-9, MW-10 and MW-11) and one pilot test well (PT-1). Some of the soil borings and monitoring wells were installed on the downgradient CCWA property in accordance with a signed property access agreement. The extent of impact to soil and groundwater was not defined.



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- September 2014: Slug tests were completed in monitoring wells MW-1, **MW-8** and MW-10. Permeability was calculated to be 0.4 feet/day (MW-1), 0.004 feet/day (**MW-8**), and 0.005 feet/day (MW-10).
- September 2014 – January 2015: Installed VM-2 and VM-3. Soil vapor sampling was completed. Contaminant concentrations did not exceed their respective Nonresidential MSC<sub>SG</sub> values in any of the soil vapor monitoring points. The benzene concentration exceeded the Residential MSC<sub>SG</sub> value in VM-3 (installed in the source area) during the first of two sampling events for this soil vapor point.
- November 2014: IGI requested a property access agreement with Consol Energy, owner of the next property downgradient from the CCWA property. Consol Energy denied the request in an email dated November 11, 2014. Therefore, no additional monitoring wells could be installed downgradient of MW-10, and the extent of impact to groundwater could not be fully delineated in the downgradient direction.
- November – December 2014: IGI completed an in situ chemical oxidation pilot study using PersulfOx. A test pit was excavated into the groundwater table in an area of highly impacted soil and groundwater, and approximately 115 pounds of PersulfOx was mixed with the soil in the saturated zone. Soil and groundwater samples were collected at specified times before and after the oxidant application to evaluate the effectiveness of the product. The pilot study showed that PersulfOx was able to oxidize gasoline contaminants in both soil and groundwater, but that there was little effect on contaminant concentrations downgradient of the test pit due to the large amount of adsorbed phase contaminant mass at the site.
- December 2014: IGI completed two soil borings (B-11 and B-12) and installed one monitoring well (MW-12), one extraction well (EW-1), and four UST cavity injection wells (CP-1 through CP-4). Concentrations of unleaded gasoline parameters did not exceed their respective SHS-RUA values in soil or groundwater. The extent of impact to soil was fully delineated during this investigation. The extent of impact to groundwater was delineated to the extent possible.
- December 2014: Approximately 338 gallons of groundwater and product globules was removed from the UST cavity using vacuum extraction.
- March 2015: An SCR/RAP was submitted to the PADEP. The SHS-RUA was selected as the cleanup standard, and the proposed remediation included a combination of excavation and oxidant application.
- June 2015: The PADEP approved the SCR/RAP with modifications.
- October 2015: Monitoring wells **MW-13**, **MW-14**, and MW-15, extraction well EW-2, piezometers P-1 and P-2, and vapor monitoring point VM-4 were drilled and installed.



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- August 2016: Approximately 160 pounds of RegenOx Part A was mixed in slurry form and injected into the UST cavity.
- September – October 2016:
  - A total of 1,919.71 tons of impacted soil was excavated and disposed at Greentree Landfill in Kersey, PA. Attainment of the SHS-RUA was demonstrated for soil.
  - A total of 10,781 gallons of groundwater was extracted during excavation and disposed at Danco Industries in Harrisville, PA.
  - A PlumeStop barrier was installed along the downgradient property boundary. A total of 4,000 pounds of PlumeStop and 495 pounds of ORC was applied to a trench approximately 70 feet long, 5 feet wide, and 17 feet deep.
  - An additional 160 pounds of RegenOx Part A was mixed in slurry form and injected into the UST cavity.
  - Wells MW-1R, MW-3R, MW-4R, P-2R, EW-1R were installed to replace wells removed during excavation.
- August 2017: RAP Addendum No. 2 was submitted to and approved by the PADEP.

## **GEOLOGY**

### **Regional Geology**

The site is located in the Intermontane Pittsburgh Low Plateau Section of the Allegheny Plateau Physiographic Province. The Appalachian Plateau Province extends in a northeast direction from northern Alabama to New York. In Pennsylvania it occupies more than 26,000 square miles, nearly 60 percent of the total area of the state. This province is characterized by folded bedrock where the ridges are supported by anticlines and the valleys are underlain by synclines. The province in Pennsylvania is divided into seven sections, based on the elevations along the ridges and the depth of erosion. The bedrock in the Pittsburgh Low Plateau is gently folded with dips seldom exceeding five degrees. The rock types are mostly shale with sandstone, siltstone and limestone occurring locally.<sup>1</sup>

The site is underlain by rocks of Pennsylvanian age. Stratigraphically, the highest geologic formation is the Casselman Formation, which outcrops on ridge tops east of the site. The extent and thickness of this formation is limited. The formation below the Casselman is the Glenshaw Formation. This unit consists primarily of marine shale and limestones, with locally mined coal deposits. Documented strip mining activity took place in the area between 1990 and 2005. The Allegheny Formation underlies the site, State Route 85 west of Yatesborough, PA and portions of Cowanshannock Creek. The Allegheny Formation includes repeating cycles of coal, limestone and sediments ranging from claystone to coarse sandstone. This unit was defined to include all the economically significant coal seam in the area. The Upper Freeport is defined as the upper boundary of the Allegheny and has been extensively deep mined south and east of

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<sup>1</sup> Shultz, Charles H, ed. The Geology of Pennsylvania. Pennsylvania Geological Survey and the Pittsburgh Geological Society, 1999.



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the site. The mining took place between 1896 and 1931 in the Yatesborough Number 2 and Number 3 mines.<sup>2</sup>

Structurally the site sits between the axes of two anticlines and is near the axis of a syncline.<sup>3</sup> The anticipated dip of the rock is expected to be near zero.

The soils at the site are classified as the Ernest series of soils which are derived from colluvial material that moved down slope from nearby uplands. Soil Conservation Service maps indicate the presence of these soils north and south of Route 85 and Cowanshannock Creek and along creeks and valley walls in the area.<sup>4</sup>

### Site Geology and Hydrogeology

The subsurface at the site consists primarily of silty clay with weathered sandstone and shale fragments and traces of sand, gravel and scoria (burned shale and sandstone). The thickness of the silty clay layer ranges from 9 to 24 feet thick. Overall the material tends to be stiff to hard with some thin, soft zones. The poorly sorted texture and varied composition are characteristic of a colluvial soil.

In some areas, the colluvial silty clay is overlain with several feet of fill consisting of sand, gravel, weathered shale, silty clay, and cinders in varying combinations. Residual soils were only identified in four borings and consisted of gray plastic silty clay encountered at a depth of approximately 18 feet bgs and weathered shale and sandstone occurring between 19 and 27 feet bgs.

Groundwater is present in thin, discontinuous zones throughout the site. These thin, groundwater-bearing zones are most abundant between 2 to 6 feet bgs but were also identified as deep as 17 feet bgs. Some of the thin, groundwater-bearing zones were identified in shallow fill material. Other thin, groundwater-bearing zones were identified within soft zones in the otherwise stiff to hard colluvium. Because the groundwater-bearing zones are very thin, the total volume of groundwater present at the site is relatively low.

Fill material in the UST cavity consists of pea gravel and shale fill. The static groundwater level in the UST cavity ranges from approximately 2 to 3 feet bgs. The UST cavity acts as a groundwater reservoir that slowly surcharges the thin, groundwater-bearing zones at the site. During dry periods when the groundwater level in the UST cavity is lower, groundwater flow through the shallowest groundwater-bearing zones may be limited.

During dry periods, groundwater recovery at the site is very slow following groundwater extraction (days to weeks). During wetter periods, groundwater may recover more quickly. Slug test results indicated that the permeability ranged from 0.4 feet per day in MW-1, located in close proximity to the UST cavity, to 0.004 feet per day in MW-8, located farther downgradient.

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<sup>2</sup> [www.emappa.dep.state.pa.us/](http://www.emappa.dep.state.pa.us/)

<sup>3</sup> Berg, T.M., Edmunds, W.E., et. al., Geologic map of Pennsylvania, second ed. Pennsylvania Geologic Survey, 1980.

<sup>4</sup> Martin, Geroge D. Soil Survey of Armstrong County, Pennsylvania. United States Department of Agriculture Soil Conservation Service, the Pennsylvania State University College of Agriculture and the Pennsylvania Department of Environmental Resources State Conservation Commission, 1977.



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Based on the results of various pilot tests, it appears that the shallow groundwater-bearing zones are more permeable than the deeper zones. Piezometers screened exclusively in the deeper zone did not exhibit influence during a vacuum extraction pilot test while wells screened exclusively in the shallow zone and wells screened throughout the groundwater-bearing zones did exhibit influence. During a pilot study in which PersulfOx was injected into a shallow trench, the injected product was indentified in a monitoring well located 63 feet downgradient within 10 days. During the excavation of the PersulfOx pilot study trench, a thin, water-bearing zone was encountered within a layer of sandstone cobbles at 3 feet bgs.

Generally, groundwater flows southward toward Cowanshannock Creek, which is the likely groundwater receptor and topographically the lowest point south of the UST cavity.

### **PERMITS / ACCESS AGREEMENTS**

- Property Access Agreement with CCWA for completion of soil borings and installation of mointoring wells on the adjacent CCWA propety.
- Property Access Agreement with CCWA for excavation of impacted soil on the adjacent CCWA propety.

IGI requested a property access agreement with Consol Energy, owner of the next property downgradient from the CCWA property. Consol Energy denied the request in an email dated November 11, 2014.

### **MONITORING**

Well Specifications: Fifteen, 2-inch diameter monitoring wells (MW-1R through MW-15).  
One, 8-inch diameter extraction well (EW-1R).  
One, 4-inch diameter extraction well (EW-2).  
One nested set of 1-inch diameter soil vapor monitoring points (VM-1).  
Three single 1-inch diameter soil vapor monitoring points (VM-2R, VM-3R, and VM-4).  
One, 2-inch piezometer (P-2R).

Gauging Frequency: Quarterly at all monitoring wells.  
Sampling Frequency: Quarterly at select monitoring wells.

Analytical Laboratories Used: ESC Lab Sciences, Mt. Juliet, TN.  
Pace Analytical Services, Inc., Greensburg, PA.

Analytical Method Used: EPA Method 5030B/8260B for unleaded gasoline parameters in groundwater.



## **Fourth Quarter 2017 Remedial Action Progress Report**

*Valley Village*

10243 State Route 85, Kittanning, PA 16201

Facility ID No. 03-06500

PADEP Contact: Patty Renwick

USTIF ID No. 2014-0036(S)

IGI Contacts: Sara Giordano and Paul Rogers

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### **ATTACHMENTS**

Figure 1: Topographic Map

Figure 2: Site Map

Figure 3: Groundwater Contour Map

Figure 4: Benzene Isoconcentration Map

Figure 5: MTBE Isoconcentration Map

Figure 6: 1,2,4-Trimethylbenzene Isoconcentration Map

Figure 7: Contaminant Concentration Trend Graphs (Source Area)

Figure 8: Contaminant Concentration Trend Graphs (Distal Wells)

Figure 9: Dissolved-Phase Plume Progression Maps

Table 1.0: Monitoring Well Gauging Data

Table 2.0: Groundwater Analytical Results – Quarterly Groundwater Monitoring

Table 3.0: Historical Groundwater Analytical Results

Table 4.0: Groundwater Chemistry

Table 5.0: Surfactant Treatment Depth-to-Water Measurements

Table 6.0: Surfactant Field Testing Results

Table 7.0: Surfactant Treatment Groundwater Analytical Results

ATTACHMENT A: Laboratory Analytical Reports

ATTACHMENT B: Waste Disposal Records



# FIGURES



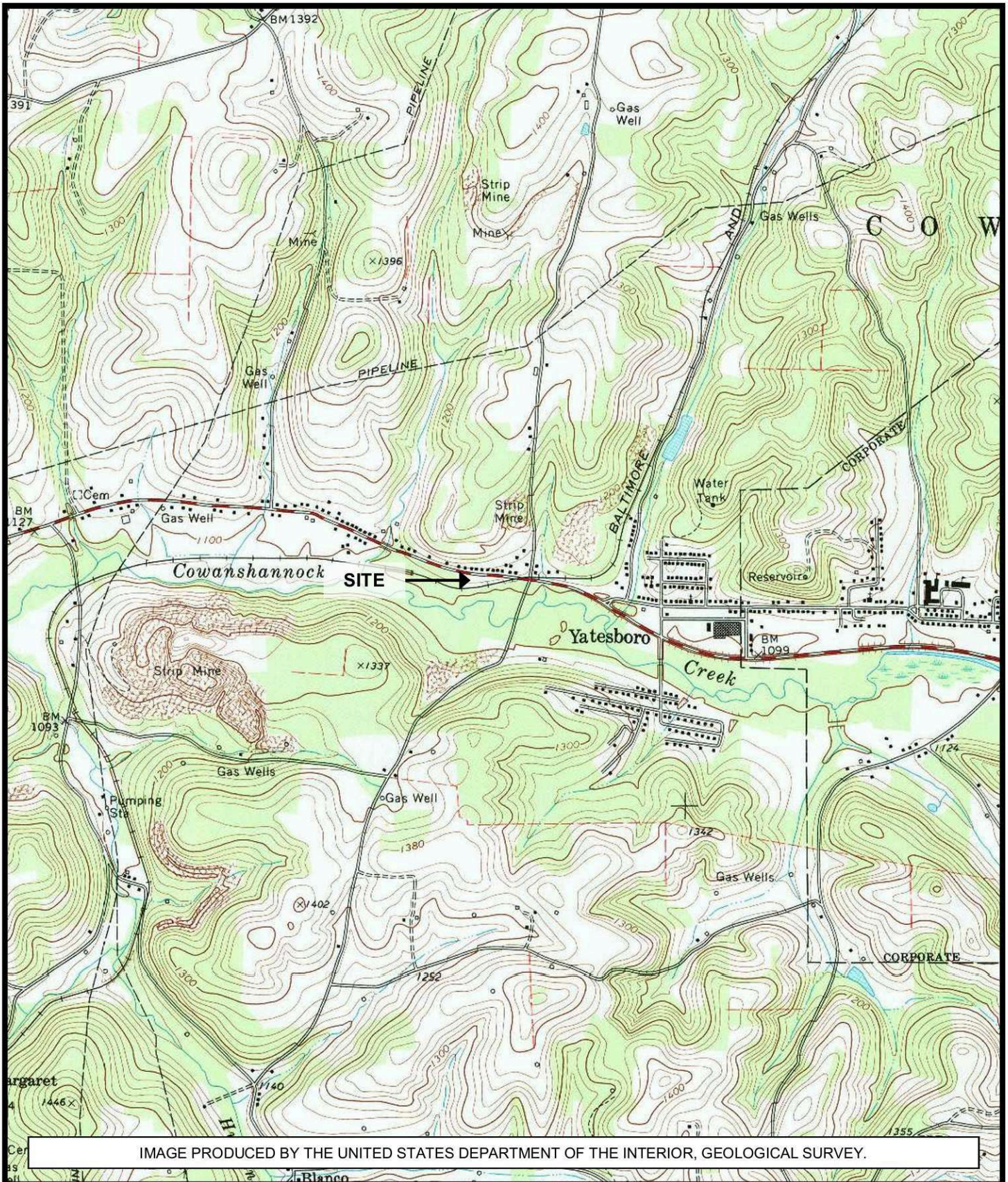
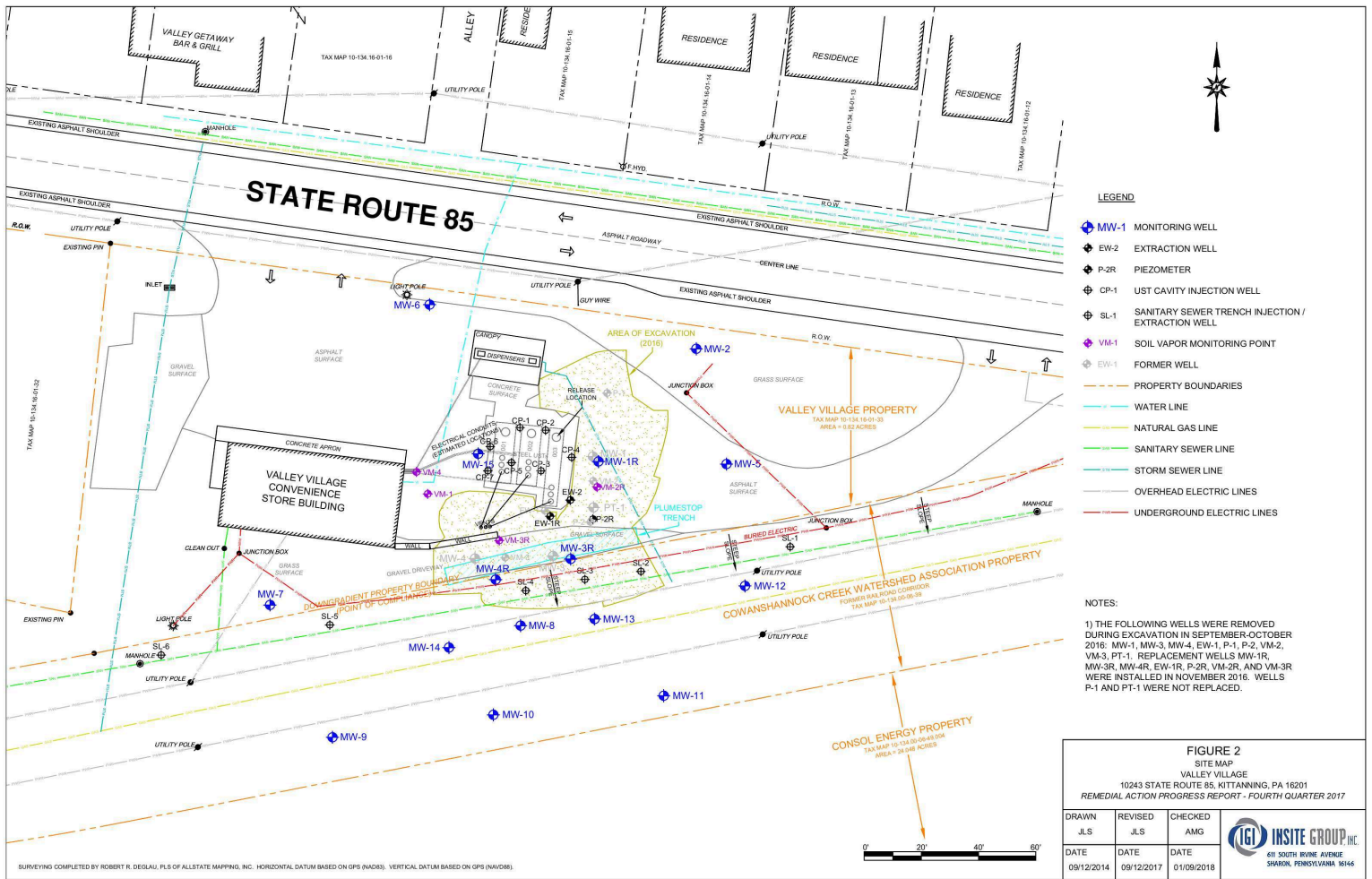
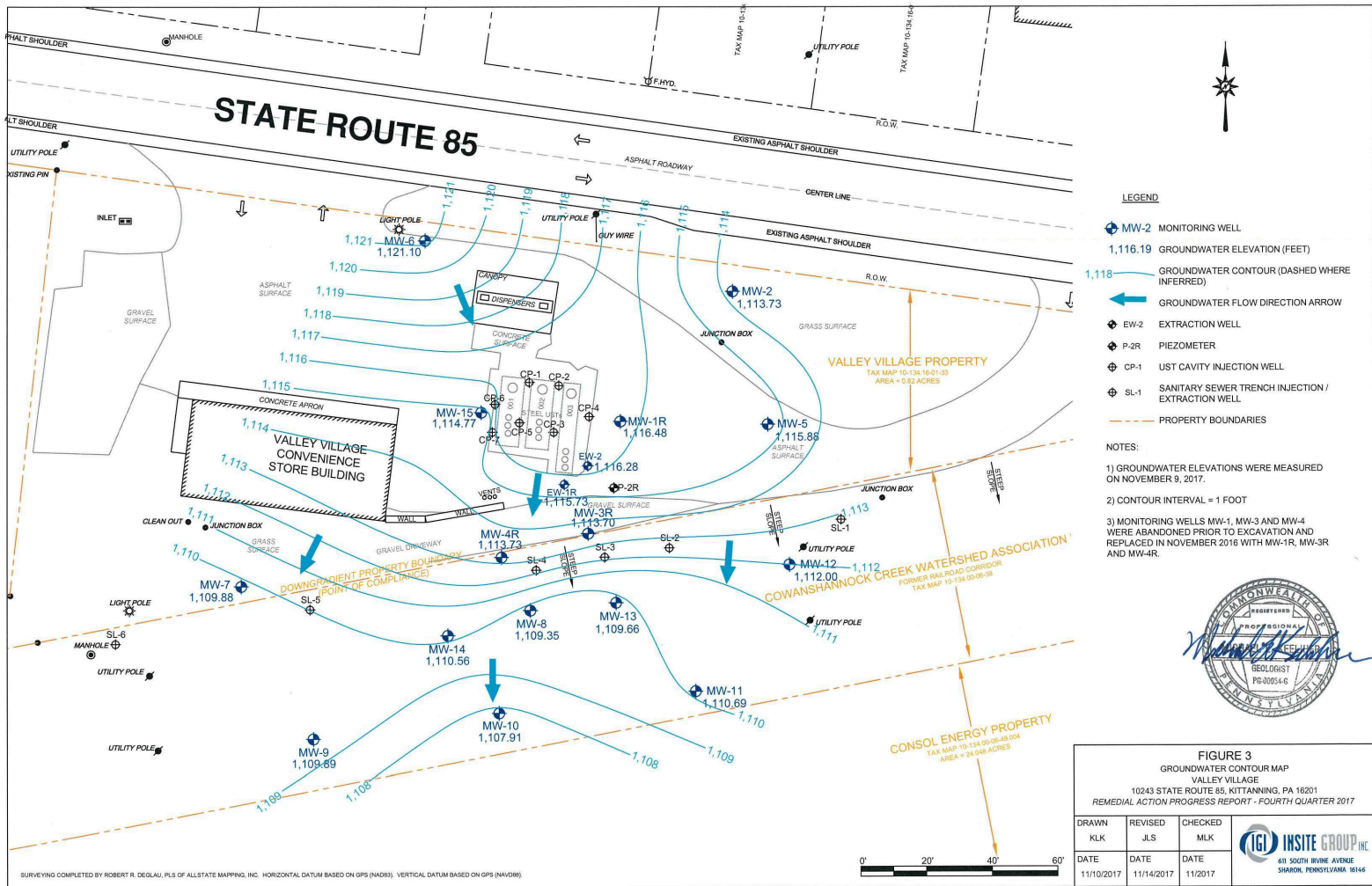


IMAGE PRODUCED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY.

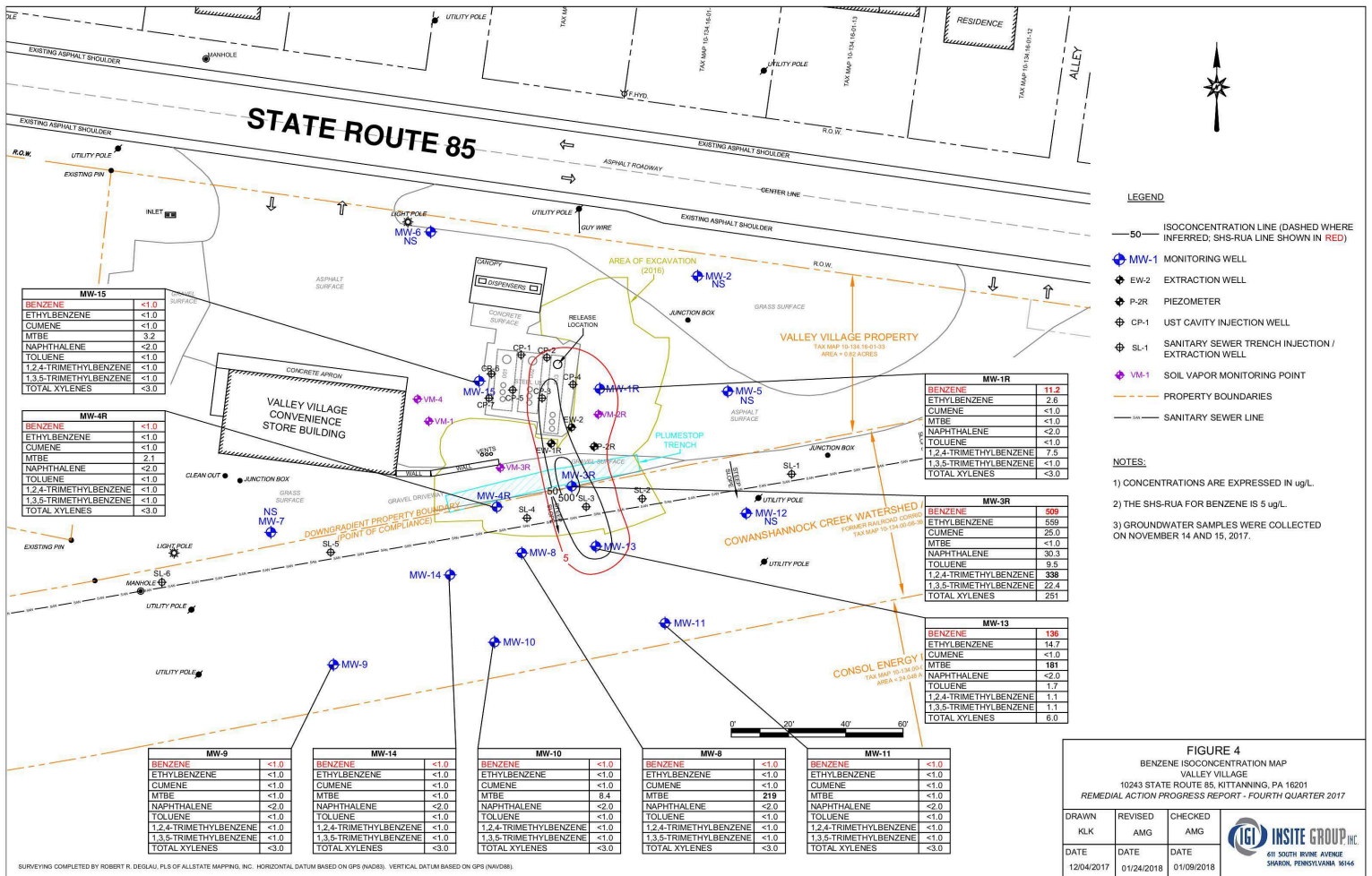




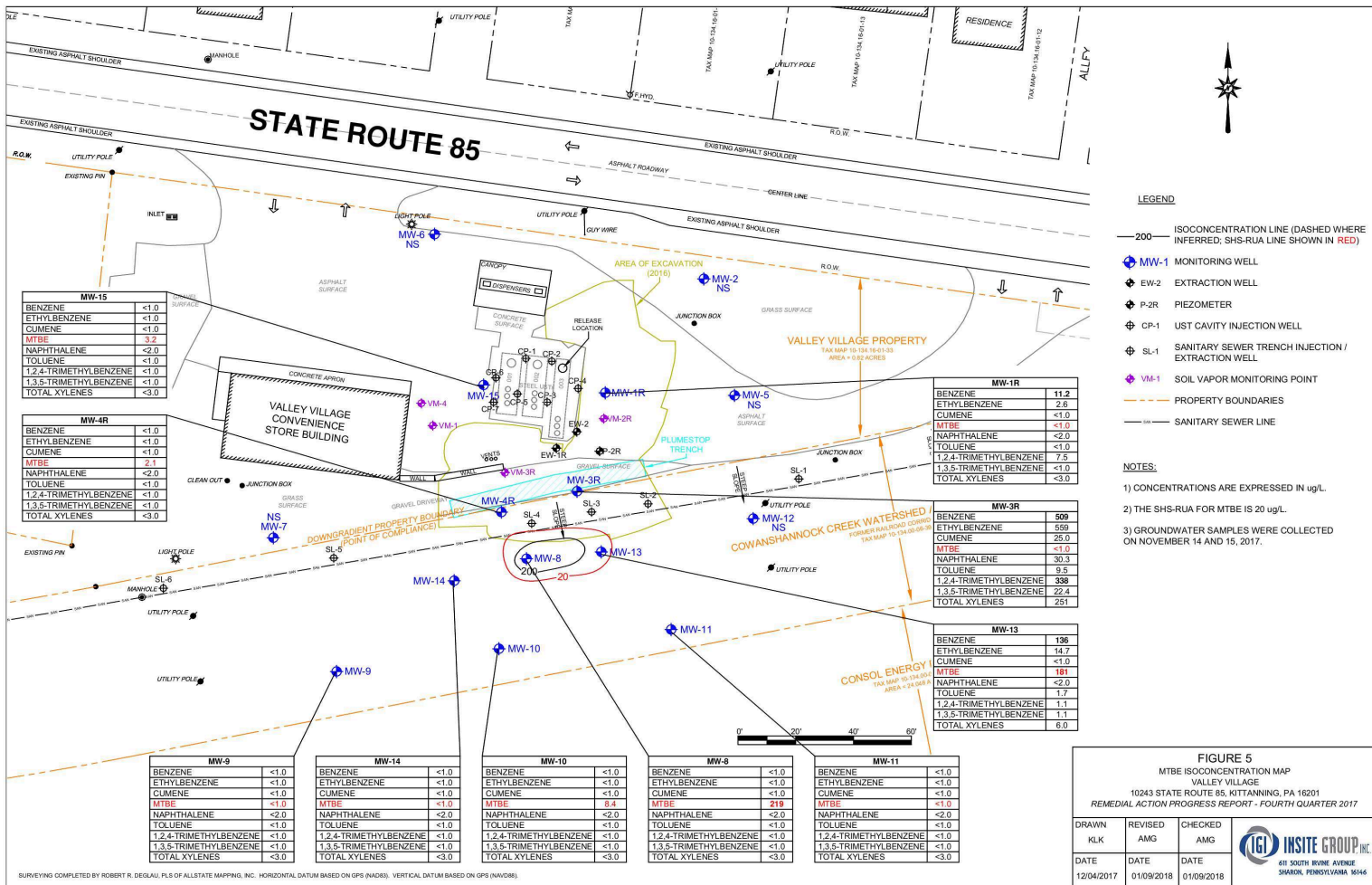




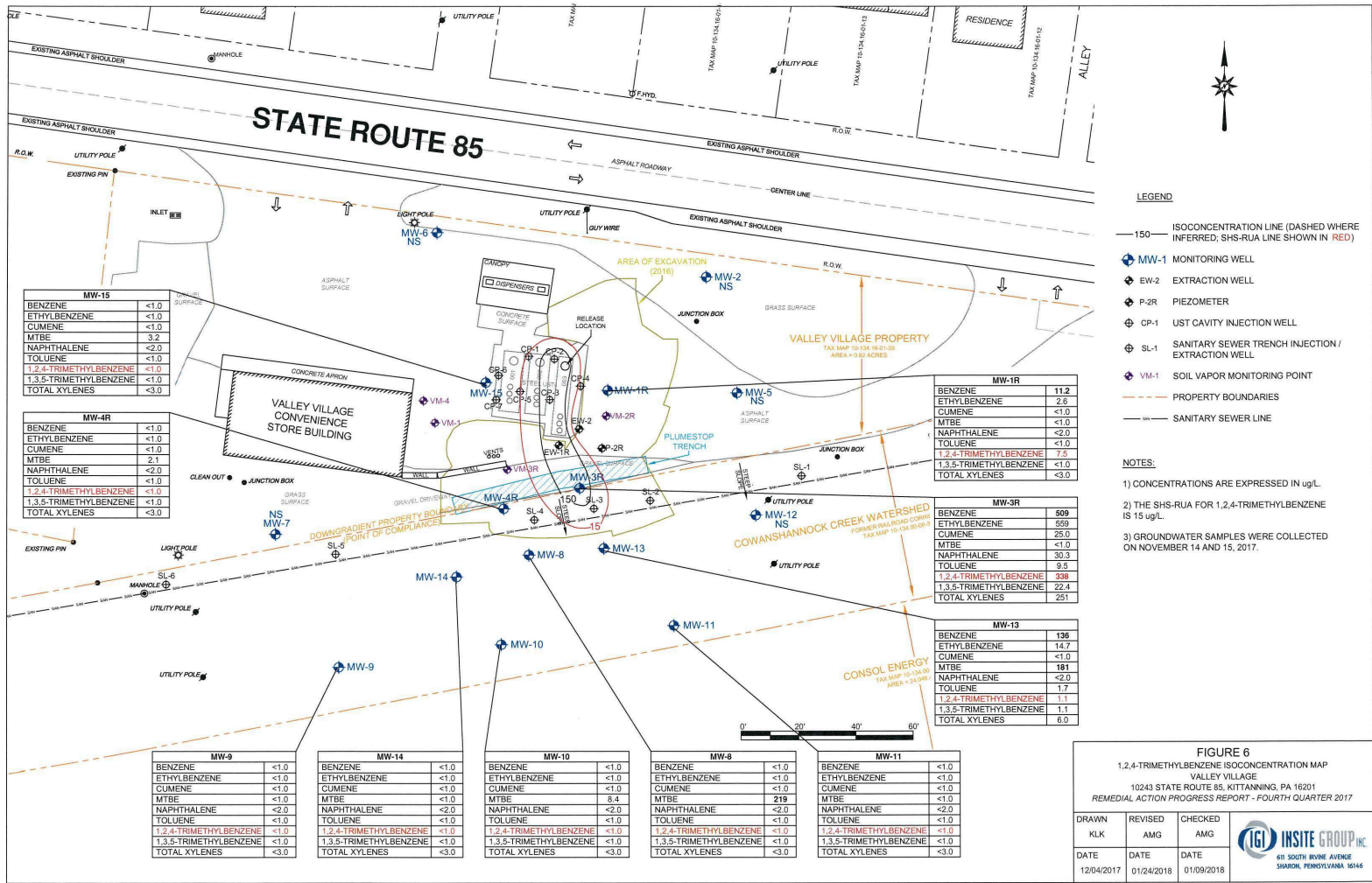












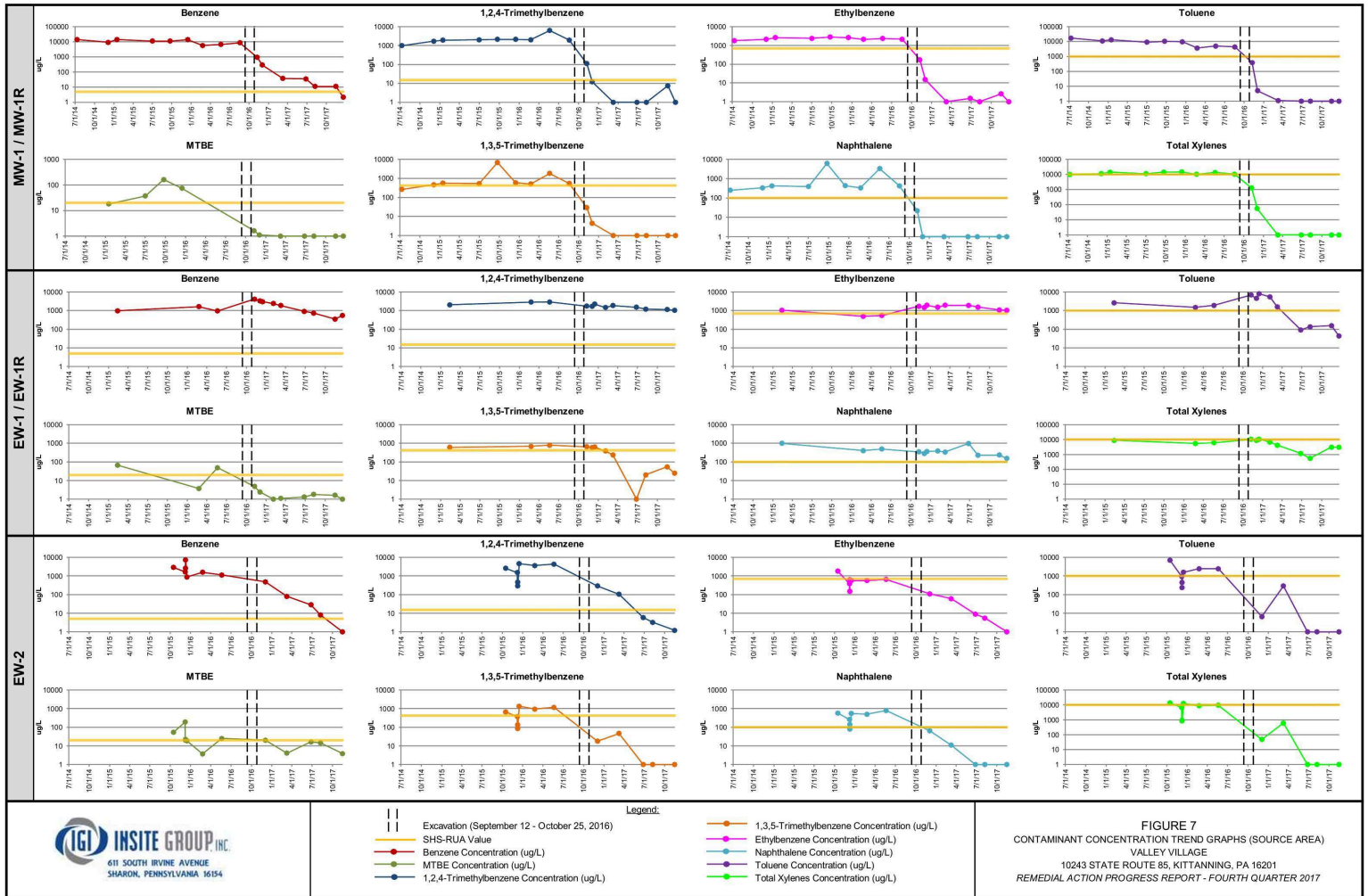
**FIGURE 6**  
1,2,4-TRIMETHYLBENZENE ISOCONCENTRATION MAP  
VALLEY VILLAGE  
10243 STATE ROUTE 85, KITTANNING, PA 16201  
REMEDIAL ACTION PROGRESS REPORT - FOURTH QUARTER 2017

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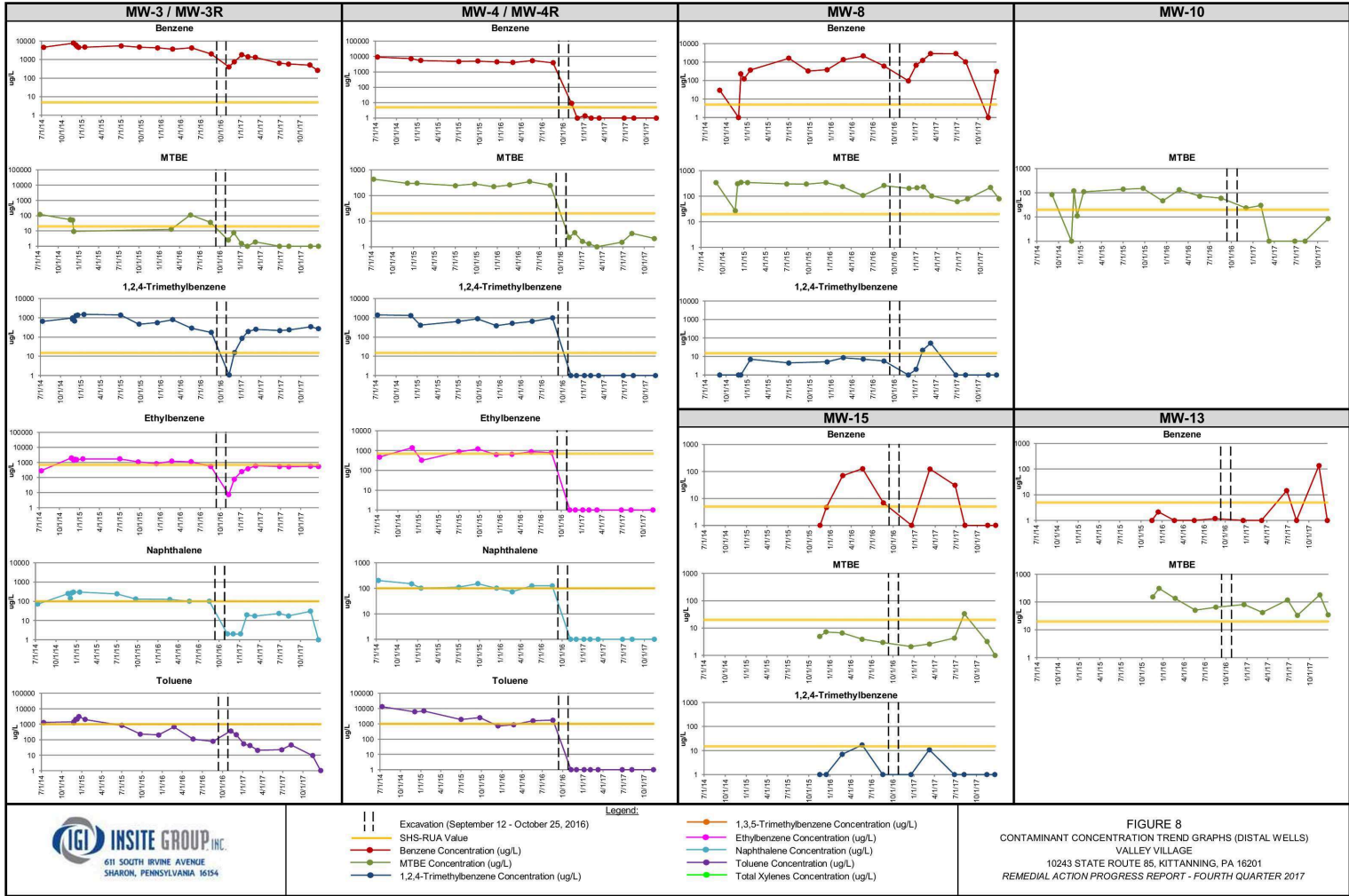
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12/04/2017	01/24/2018	01/09/2018

**IGI INSITE GROUP INC.**  
611 SOUTH BIRME AVENUE  
SHARON, PENNSYLVANIA 16146

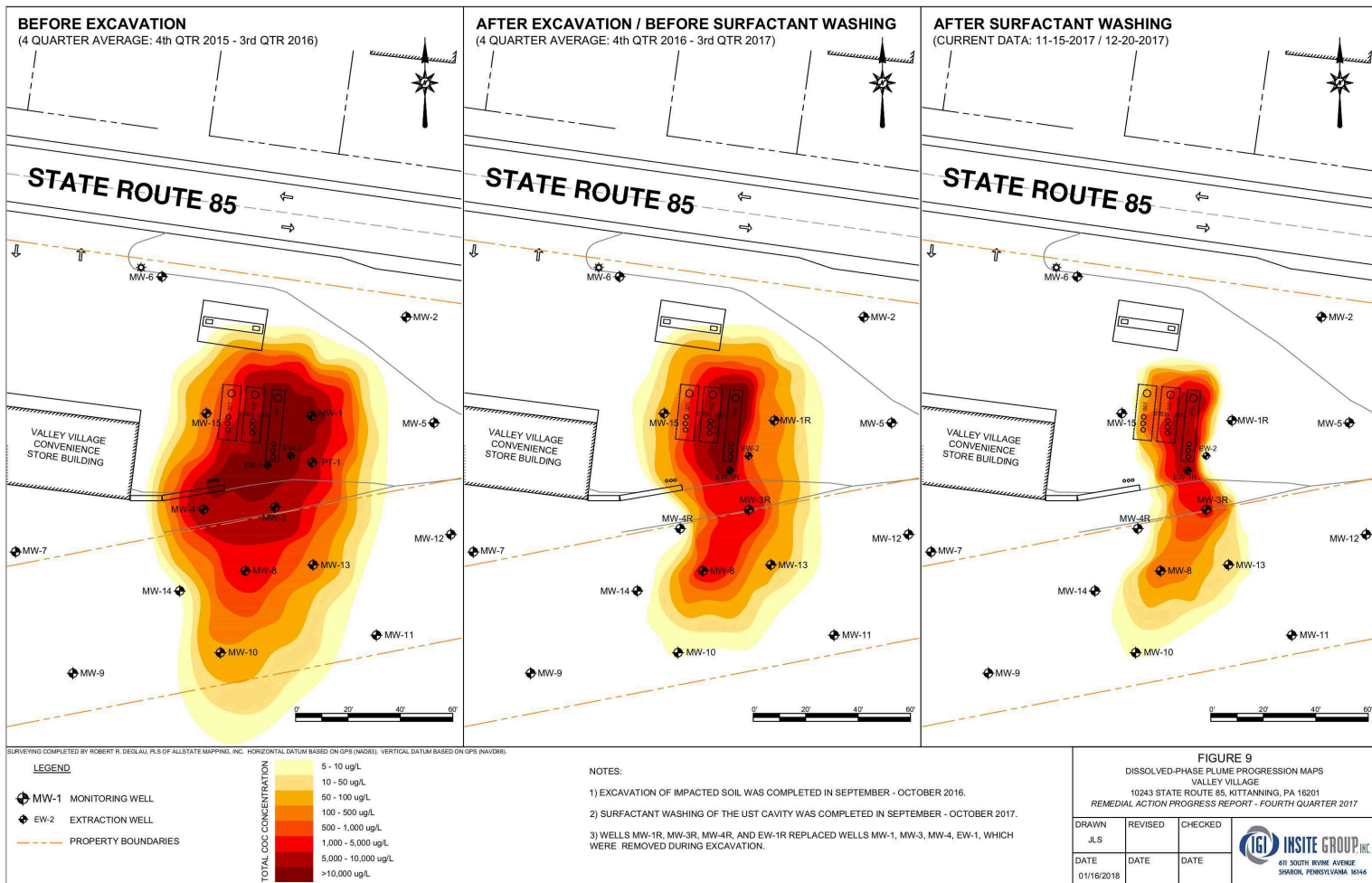














# TABLES



**Remedial Action Progress Report**

Valley Village

10243 State Route 85, Kittanning, PA 16201

**Tables**

Fourth Quarter 2017

**Table 1.0: Monitoring Well Gauging Data**

Gauging Location	Total Depth Below Grade (feet)	Screen Length (feet)	TOC Elevation (feet)	Date	Depth to Water (feet)	Groundwater Elevation (feet)
MW-1R	13	3 – 13	1,119.96	11/09/17	3.48	1,116.48
MW-2	13	3 – 13	1,123.60	11/09/17	9.87	1,113.73
MW-3R	13	3 – 13	1,119.11	11/09/17	5.41	1,113.70
MW-4R	13	3 – 13	1,119.02	11/09/17	5.29	1,113.73
MW-5	13	3 - 13	1,118.99	11/09/17	3.11	1,115.88
MW-6	13	3 - 13	1,123.45	11/09/17	2.35	1,121.10
MW-7	13	3 - 13	1,114.20	11/09/17	4.32	1,109.88
MW-8	13	3 - 13	1,115.67	11/09/17	6.32	1,109.35
MW-9	13	3 - 13	1,113.82	11/09/17	3.93	1,109.89
MW-10	13	3 - 13	1,113.63	11/09/17	6.16	1,107.91
MW-11	13	3 - 13	1,114.03	11/09/17	3.34	1,110.69
MW-12	12	6 - 12	1,117.57	11/09/17	5.57	1,112.00
MW-13	13	3 - 13	1,116.80	11/09/17	7.14	1,109.66
MW-14	13	3 - 13	1,116.56	11/09/17	6.00	1,110.56
MW-15	13	3 - 13	1,121.55	11/09/17	6.78	1,114.77
EW-1R	15	3 – 15	1,120.11	11/09/17	4.38	1,115.73
EW-2	13	3 – 13	1,120.39	11/09/17	3.98	1,116.28
P-2R	15	13 – 15	1,119.76	11/09/17	5.84	1,113.45



# Remedial Action Progress Report

Valley Village

10243 State Route 85, Kittanning, PA 16201

## Tables

Fourth Quarter 2017

**Table 2.0: Groundwater Analytical Results - Quarterly Groundwater Monitoring**

Sample ID	Date	Depth to Water (feet)	GW Elevation (feet)	Unleaded Gasoline Parameters (ug/L)								
				Benzene	Ethyl-benzene	Cumene	MTBE	Naph-thalene	Toluene	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Total Xylenes
SHS-RUA				5	700	840	20	100	1,000	15	420	10,000
Monitoring Wells												
MW-1R	11/15/17	3.48	1,116.48	11.2	2.6	<1.0	<1.0	<2.0	<1.0	7.5	<1.0	<3.0
MW-3R	11/14/17	5.41	1,113.70	509	559	25.0	<1.0	30.3	9.5	338	22.4	251
MW-4R	11/14/17	5.29	1,113.73	<1.0	<1.0	<1.0	2.1	<2.0	<1.0	<1.0	<1.0	<3.0
MW-8	11/14/17	6.32	1,109.35	<1.0	<1.0	<1.0	219	<2.0	<1.0	<1.0	<1.0	<3.0
MW-9	11/14/17	3.93	1,109.89	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-10	11/14/17	6.16	1,107.91	<1.0	<1.0	<1.0	8.4	<2.0	<1.0	<1.0	<1.0	<3.0
MW-11	11/14/17	3.34	1,110.69	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-13	11/14/17	7.14	1,109.66	136	14.7	<1.0	181	<2.0	1.7	1.1	1.1	6.0
MW-14	11/14/17	6.00	1,110.56	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-15	11/15/17	6.78	1,114.77	<1.0	<1.0	<1.0	3.2	<2.0	<1.0	<1.0	<1.0	<3.0
Extraction Wells												
EW-1R	11/15/17	4.38	1,115.73	352	1,070	74.1	1.6	232	154	1,140	53.6	3,060
EW-2	11/15/17	3.98	1,116.28	<1.0	<1.0	<1.0	3.8	<2.0	<1.0	1.2	<1.0	<3.0
Sewer Line Trench Wells												
SL-3	11/15/17	5.88	1,112.69	2.6	<1.0	<1.0	3.0	<2.0	<1.0	<1.0	<1.0	<3.0
SL-4	11/15/17	7.83	1,111.95	<1.0	<1.0	<1.0	19.0	2.1	<1.0	<1.0	<1.0	<3.0

Notes: 1) Concentrations exceeding their respective SHS-RUA values are shown in **bold**.

2) DUP = blind duplicate sample.

3) Samples were analyzed by EPA Method 5030B / 8260B.



# Remedial Action Progress Report

Valley Village

10243 State Route 85, Kittanning, PA 16201

## Tables

Fourth Quarter 2017

**Table 3.0: Historical Groundwater Analytical Results (page 1 of 9)**

Sample ID	Date	Depth to Water (feet)	GW Elevation (feet)	Unleaded Gasoline Parameters (ug/L)								
				Benzene	Ethyl-benzene	Cumene	MTBE	Naphthalene	Toluene	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Total Xylenes
SHS-RUA				5	700	840	20	100	1,000	15	420	10,000
MW-1	07/10/14	2.49	1,118.01	14,000	1,800	<250	<92	<250	17,000	990	260	10,000
MW-1	12/04/14	2.59	1,117.91	9,200	2,100	<250	<92	330	11,000	1,700	460	11,000
MW-1	01/15/15	3.37	1,117.13	14,000	2,600	120	18	420	13,000	1,900	560	14,000
MW-1	07/01/15	1.57	1,118.93	11,000	2,400	110	<37	390	9,100	2,000	530	11,000
MW-1	09/23/15	3.02	1,117.48	11,200	2,780	1,520	162	6,020	10,200	2,140	6,780	14,200
MW-1	12/15/15	3.68	1,116.82	13,700	2,580	<200	<73.4	426	9,570	2,130	592	14,400
MW-1	02/23/16	2.59	1,117.91	5,620	2,090	<200	<73.4	334	3,680	2,010	501	10,200
MW-1	05/20/16	2.75	1,117.75	6,540	2,340	<200	<73.4	3,280	5,010	6,210	1,810	13,600
MW-1	08/18/16	2.38	1,118.12	8,520	2,130	<200	<73.4	424	4,320	1,940	541	10,400
MW-1 was abandoned and removed during excavation activities in September and October 2016 and replaced by MW-1R.												
MW-1R	11/07/16	4.02	1,115.94	954	173	7.23	1.63	21.6	388	110	28.9	1,260
MW-1R	12/02/16	3.41	1,116.55	289	15.0	1.1	1.1	<2.0	5.0	12.0	4.4	55.8
MW-1R	03/09/17	3.24	1,116.72	37.8	<1.0	<1.0	<1.0	<2.0	1.1	<1.0	<1.0	<3.0
MW-1R	06/26/17	3.43	1,116.53	35.5	1.5	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-1R	08/08/17	3.70	1,116.26	11.1	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-1R	11/15/17	3.48	1,116.48	11.2	2.6	<1.0	<1.0	<2.0	<1.0	7.5	<1.0	<3.0
MW-2	07/10/14	9.70	1,113.90	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-2	12/04/14	10.59	1,113.01	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-2	01/15/15	7.97	1,115.63	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-2	07/01/15	6.42	1,117.18	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-2	09/23/15	9.94	1,113.66	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-2	12/15/15	6.44	1,117.16	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-2	02/23/16	3.79	1,119.81	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-2	05/20/16	7.30	1,116.30	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	1.71	<3.00
MW-2	08/18/16	10.08	1,113.52	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-2	12/02/16	8.47	1,115.13	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-2	Sampling was discontinued following eight or more quarters of results below SHS											

- Notes:
- 1) Concentrations exceeding their respective SHS-RUA values are shown in **bold**.
  - 2) DUP = blind duplicate sample.
  - 3) Samples were analyzed by EPA Method 5030B / 8260B.
  - 4) NR = Well did not recover after purging.



# Remedial Action Progress Report

Valley Village

10243 State Route 85, Kittanning, PA 16201

## Tables

Fourth Quarter 2017

**Table 3.0: Historical Groundwater Analytical Results (page 2 of 9)**

Sample ID	Date	Depth to Water (feet)	GW Elevation (feet)	Unleaded Gasoline Parameters (ug/L)								
				Benzene	Ethyl-benzene	Cumene	MTBE	Naphthalene	Toluene	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Total Xylenes
SHS-RUA				5	700	840	20	100	1,000	15	420	10,000
MW-3	07/10/14	2.99	1,115.94	4,600	280	<25	120	71	1,300	650	230	3,700
MW-3	11/24/14	3.58	1,115.35	7,600	2,000	73	55	250	1,400	970	280	5,500
MW-3	12/04/14	3.10	1,115.83	6,300	1,400	<100	51	140	2,000	680	230	3,800
MW-3	12/10/14	1.89	1,117.04	5,200	1,600	73	<9.2	270	2,100	1,300	310	7,800
MW-3	12/18/14	2.22	1,116.71	4,600	1,500	<250	<92	300	3,100	1,400	340	7,900
MW-3	01/15/15	2.60	1,116.33	4,700	1,700	82	<37	300	2,000	1,500	360	7,700
MW-3	06/05/15	--	--	6,910	2,350	107	15.1	395	175	2,030	507	6,210
MW-3	07/01/15	1.63	1,117.30	5,500	1,700	82	<37	240	830	1,400	310	3,900
MW-3	09/23/15	3.13	1,115.80	4,650	1,090	<100	<36.7	131	<500	459	75.1	1,180
MW-3	12/15/15	3.02	1,115.91	4,240	842	<100	<36.7	<100	<500	554	39.2	1,060
MW-3	02/23/16	2.88	1,116.05	3,670	1,200	62.7	12.8	124	669	798	124	3,140
MW-3	05/20/16	3.64	1,115.29	4,280	1,120	<100	110	<100	<500	288	<38.7	811
MW-3	08/18/16	2.83	1,116.10	2,010	544	<100	<36.7	<100	<500	173	<100	<300
MW-3 was abandoned and removed during excavation activities in September and October 2016 and replaced by MW-3R.												
MW-3R	11/07/16	6.38	1,112.73	403	7.15	<1.00	2.50	<5.00	365	1.07	<1.00	106
MW-3R	12/02/16	4.82	1,114.29	757	76.4	<1.0	7.6	<2.0	210	15.3	10.3	728
MW-3R	03/09/17	4.04	1,115.07	1,310	598	14.9	1.9	16.9	20.7	250	104	897
MW-3R	06/26/17	5.23	1,113.88	632	544	16.4	<1.0	23.2	22.3	215	107	539
MW-3R	08/08/17	7.09	1,112.02	575	514	17.5	<1.0	17.2	45.7	232	82.1	467
MW-3R	11/14/17	5.41	1,113.70	509	559	25.0	<1.0	30.3	9.5	338	22.4	251

- Notes:
- 1) Concentrations exceeding the SHS are shown in **bold**.
  - 2) DUP = blind duplicate sample.
  - 3) Samples were analyzed by EPA Method 5030B / 8260B.
  - 4) NR = Well did not recover after purging.



# Remedial Action Progress Report

Valley Village

10243 State Route 85, Kittanning, PA 16201

## Tables

Fourth Quarter 2017

**Table 3.0: Historical Groundwater Analytical Results (page 3 of 9)**

Sample ID	Date	Depth to Water (feet)	GW Elevation (feet)	Unleaded Gasoline Parameters (ug/L)								
				Benzene	Ethyl-benzene	Cumene	MTBE	Naphthalene	Toluene	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Total Xylenes
SHS-RUA				5	700	840	20	100	1,000	15	420	10,000
MW-4	07/10/14	8.39	1,109.34	9,000	470	<100	430	200	13,000	1,400	370	10,000
MW-4	12/04/14	5.78	1,111.95	7,200	1,400	<100	300	150	6,100	1,300	360	6,600
MW-4	01/15/15	5.72	1,112.01	5,400	320	<100	300	<100	6,800	410	230	3,800
MW-4	07/01/15	4.34	1,113.39	4,700	860	35	240	110	1,900	650	240	3,200
MW-4	09/23/15	5.52	1,112.21	5,010	1,200	55.8	279	152	2,530	879	278	3,820
MW-4	12/15/15	4.64	1,113.09	4,440	620	<100	220	<100	705	384	134	1,270
MW-4	02/23/16	4.35	1,113.38	4,020	644	33.1	256	72.5	871	513	176	1,590
MW-4	05/20/16	4.83	1,112.90	5,310	878	<100	348	124	1,580	649	224	2,230
MW-4	08/18/16	8.18	1,109.55	3,880	780	<100	245	125	1,700	982	317	2,750
MW-4 was abandoned and removed during excavation activities in September and October 2016 and replaced by MW-4R.												
MW-4R	11/07/16	6.25	1,112.77	8.80	<1.00	<1.00	2.32	<5.00	<5.00	<1.00	<1.00	3.77
MW-4R	12/02/16	4.63	1,114.39	<1.0	<1.0	<1.0	3.5	<2.0	<1.0	<1.0	<1.0	<3.0
MW-4R	03/09/17	3.94	1,115.08	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-4R	06/26/17	5.10	1,113.92	<1.0	<1.0	<1.0	1.5	<2.0	<1.0	<1.0	<1.0	<3.0
MW-4R	08/08/17	6.96	1,112.06	<1.0	<1.0	<1.0	3.3	<2.0	<1.0	<1.0	<1.0	<3.0
MW-4R	11/14/17	5.29	1,113.73	<1.0	<1.0	<1.0	2.1	<2.0	<1.0	<1.0	<1.0	<3.0

- Notes:
- 1) Concentrations exceeding the SHS are shown in **bold**.
  - 2) DUP = blind duplicate sample.
  - 3) Samples were analyzed by EPA Method 5030B / 8260B.
  - 4) NR = Well did not recover after purging.



# Remedial Action Progress Report

Valley Village

10243 State Route 85, Kittanning, PA 16201

# Tables

Fourth Quarter 2017

**Table 3.0: Historical Groundwater Analytical Results (page 4 of 9)**

Sample ID	Date	Depth to Water (feet)	GW Elevation (feet)	Unleaded Gasoline Parameters (ug/L)								
				Benzene	Ethyl-benzene	Cumene	MTBE	Naphthalene	Toluene	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Total Xylenes
SHS-RUA				5	700	840	20	100	1,000	15	420	10,000
MW-5	07/10/14	2.99	1,116.00	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-5	12/04/14	3.97	1,115.02	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-5	01/15/15	3.11	1,115.88	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-5	07/01/15	3.47	1,115.52	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-5	09/23/15	5.79	1,113.20	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-5	12/15/15	3.19	1,115.80	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-5	02/23/16	2.50	1,116.49	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-5	05/20/16	2.68	1,116.31	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-5	08/18/16	2.02	1,116.97	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-5	12/02/16	3.77	1,115.22	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-5	Sampling was discontinued following eight or more quarters of results below SHS											
MW-6	09/03/14	4.33	1,119.12	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-6	12/04/14	2.63	1,120.82	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-6	01/15/15	2.38	1,121.07	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-6	07/01/15	2.18	1,121.27	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-6	09/23/15	4.44	1,119.01	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-6	12/15/15	2.30	1,121.15	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-6	02/23/16	2.12	1,121.33	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-6	05/20/16	3.95	1,119.50	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-6	08/18/16	2.02	1,116.97	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-6	12/02/16	4.53	1,114.46	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-6	Sampling was discontinued following eight or more quarters of results below SHS											
MW-7	09/03/14	3.15	1,111.05	<1.0	<1.0	<1.0	1.5	<5.0	<5.0	<1.0	<1.0	<3.0
MW-7	12/04/14	5.04	1,109.16	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-7	01/15/15	4.26	1,109.94	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-7	07/01/15	3.90	1,110.30	<1.0	<1.0	<1.0	1.2	<5.0	<5.0	<1.0	<1.0	<3.0
MW-7	09/23/15	5.77	1,108.43	<1.00	<1.00	<1.00	2.11	<5.00	<5.00	<1.00	<1.00	<3.00
MW-7	12/15/15	4.10	1,110.10	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-7	02/23/16	3.56	1,110.64	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-7	05/20/16	3.62	1,110.58	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-7	08/18/16	4.73	1,109.47	<1.00	<1.00	<1.00	1.12	<5.00	<5.00	<1.00	<1.00	<3.00
MW-7	12/02/16	4.59	1,109.61	<1.0	<1.0	<1.0	1.5	<2.0	<1.0	<1.0	<1.0	<3.0
MW-7	Sampling was discontinued following eight or more quarters of results below SHS											

- Notes:
- 1) Concentrations exceeding the SHS are shown in **bold**.
  - 2) DUP = blind duplicate sample.
  - 3) Samples were analyzed by EPA Method 5030B / 8260B.
  - 4) NR = Well did not recover after purging.



# Remedial Action Progress Report

Valley Village

10243 State Route 85, Kittanning, PA 16201

## Tables

Fourth Quarter 2017

**Table 3.0: Historical Groundwater Analytical Results (page 5 of 9)**

Sample ID	Date	Depth to Water (feet)	GW Elevation (feet)	Unleaded Gasoline Parameters (ug/L)								
				Benzene	Ethyl-benzene	Cumene	MTBE	Naphthalene	Toluene	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Total Xylenes
SHS-RUA				5	700	840	20	100	1,000	15	420	10,000
MW-8	09/03/14	5.91	1,109.76	30	<1.0	<1.0	340	<5.0	<5.0	<1.0	<1.0	<3.0
MW-8	11/24/14	7.34	1,108.33	<1.0	<1.0	<1.0	27	<5.0	<5.0	<1.0	<1.0	<3.0
MW-8	12/04/14	7.15	1,108.52	230	6.1	<5.0	310	<25	<25	<5.0	<5.0	<15
MW-8	12/18/14	6.48	1,109.19	120	<50	<50	350	<50	<250	<19	<19	<150
MW-8	01/15/15	6.58	1,109.09	370	16	<5.0	340	<25	<25	7.0	<5.0	19
MW-8	07/01/15	5.03	1,110.64	1,600	28	16	300	<25	<25	<5.0	<5.0	<15
MW-8	09/23/15	9.95	1,105.72	327	<25.0	<25.0	298	<25.0	<125	<9.32	<9.68	<75.0
MW-8	12/15/15	6.78	1,108.89	385	6.67	<5.00	343	<25.0	<25.0	5.09	<5.00	<15.0
MW-8	02/23/16	5.88	1,109.79	1,340	31.3	14.8	237	13.8	34.4	8.57	6.49	28.8
MW-8	05/20/16	7.00	1,108.67	2,110	29.2	19.2	107	22.7	23.7	7.08	10.4	29.4
MW-8	08/18/16	7.46	1,108.21	609	47.9	10.1	260	<5.00	13.0	5.66	<1.00	18.3
MW-8	12/02/16	7.05	1,108.62	96.3	3.9	<1.0	203	<2.0	<1.0	<1.0	<1.0	<3.0
MW-8	03/09/17	5.29	1,110.38	2,830	89.0	31.3	103	24.3	96.9	52.3	35.7	168
MW-8	06/26/17	5.75	1,109.92	2,800	76.4	32.3	60.6	10.7	13.6	1.0	7.8	7.5
MW-8	08/08/17	8.32	1,107.35	1,030	28.7	14.3	77.9	<2.0	1.8	<1.0	<1.0	<3.0
MW-8	11/14/17	6.32	1,109.35	<1.0	<1.0	<1.0	219	<2.0	<1.0	<1.0	<1.0	<3.0
MW-9	09/03/14	4.36	1,109.46	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-9	12/04/14	4.26	1,109.56	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-9	01/15/15	4.77	1,109.05	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-9	07/01/15	3.81	1,110.01	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-9	09/23/15	10.52	1,103.30	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-9	12/15/15	4.63	1,109.19	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-9	02/23/16	4.08	1,109.74	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-9	05/20/16	5.27	1,108.55	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-9	08/18/16	9.76	1,104.06	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-9	12/02/16	3.67	1,110.15	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-9	03/09/17	3.92	1,109.90	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-9	06/26/17	4.97	1,108.85	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-9	08/08/17	8.36	1,105.46	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-9	11/14/17	3.93	1,109.89	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0

- Notes:
- 1) Concentrations exceeding the SHS are shown in **bold**.
  - 2) DUP = blind duplicate sample.
  - 3) Samples were analyzed by EPA Method 5030B / 8260B.
  - 4) NR = Well did not recover after purging.



# Remedial Action Progress Report

Valley Village

10243 State Route 85, Kittanning, PA 16201

## Tables

Fourth Quarter 2017

**Table 3.0: Historical Groundwater Analytical Results (page 6 of 9)**

Sample ID	Date	Depth to Water (feet)	GW Elevation (feet)	Unleaded Gasoline Parameters (ug/L)								
				Benzene	Ethyl-benzene	Cumene	MTBE	Naphthalene	Toluene	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Total Xylenes
SHS-RUA				5	700	840	20	100	1,000	15	420	10,000
MW-10	09/03/14	5.18	1,108.45	<1.0	<1.0	<1.0	84	<5.0	<5.0	<1.0	<1.0	<3.0
MW-10	11/24/14	6.23	1,107.40	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-10	12/04/14	6.27	1,107.36	<1.0	<1.0	<1.0	120	<5.0	<5.0	<1.0	<1.0	<3.0
MW-10	12/18/14	5.67	1,107.96	<1.0	<1.0	<1.0	11	<5.0	<5.0	<1.0	<1.0	<3.0
MW-10	01/15/15	5.91	1,107.72	<1.0	<1.0	<1.0	110	<5.0	<5.0	<1.0	<1.0	<3.0
MW-10	07/01/15	4.31	1,109.32	<1.0	<1.0	<1.0	140	<5.0	<5.0	<1.0	<1.0	<3.0
MW-10	09/23/15	9.55	1,104.08	<1.00	<1.00	<1.00	151	<5.00	<5.00	<1.00	<1.00	<3.00
MW-10	12/15/15	6.75	1,107.40	<1.00	<1.00	<1.00	46.2	<5.00	<5.00	<1.00	<1.00	<3.00
MW-10	02/23/16	6.15	1,108.00	<1.00	<1.00	<1.00	132	<5.00	<5.00	<1.00	<1.00	<3.00
MW-10	05/20/16	6.90	1,107.25	<1.00	<1.00	<1.00	72.4	<5.00	<5.00	<1.00	<1.00	<3.00
MW-10	08/18/16	7.43	1,106.72	<1.00	<1.00	<1.00	59.4	<5.00	<5.00	<1.00	<1.00	<3.00
MW-10	12/02/16	6.30	1,107.85	<1.0	<1.0	<1.0	23.3	<2.0	<1.0	<1.0	<1.0	<3.0
MW-10	03/09/17	5.31	1,108.76	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-10	06/26/17	5.82	1,108.25	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-10	08/08/17	8.56	1,105.51	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-10	11/14/17	6.16	1,107.91	<1.0	<1.0	<1.0	8.4	<2.0	<1.0	<1.0	<1.0	<3.0
MW-11	09/03/14	3.81	1,110.22	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-11	12/04/14	3.81	1,110.22	<1.0	<1.0	<1.0	1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-11	01/15/15	4.43	1,109.60	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-11	07/01/15	4.43	1,109.60	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-11	09/23/15	9.62	1,104.41	<1.00	<1.00	<1.00	7.51	<5.00	<5.00	<1.00	<1.00	<3.00
MW-11	12/15/15	4.77	1,109.26	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-11	02/23/16	3.34	1,110.69	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-11	05/20/16	5.96	1,108.07	<1.00	<1.00	<1.00	1.89	<5.00	<5.00	<1.00	<1.00	<3.00
MW-11	08/18/16	3.45	1,110.58	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-11	12/02/16	3.01	1,111.02	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-11	03/09/17	3.19	1,110.84	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-11	06/26/17	3.99	1,110.04	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-11	08/08/17	7.81	1,106.22	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-11	11/14/17	3.34	1,110.69	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-12	12/22/14	18.80	1,098.77	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-12	01/15/15	6.79	1,110.78	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-12	07/01/15	4.88	1,112.69	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
MW-12	09/23/15	9.14	1,108.43	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-12	12/15/15	6.97	1,110.50	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-12	02/23/16	5.72	1,111.75	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-12	05/20/16	7.15	1,110.32	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-12	08/18/16	6.23	1,111.24	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
MW-12	12/02/16	7.00	1,110.47	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-12	Sampling was discontinued following eight or more quarters of results below SHS											

- Notes:
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  - 4) NR = Well did not recover after purging.



# Remedial Action Progress Report

Valley Village

10243 State Route 85, Kittanning, PA 16201

## Tables

Fourth Quarter 2017

**Table 3.0: Historical Groundwater Analytical Results (page 7 of 9)**

Sample ID	Date	Depth to Water (feet)	GW Elevation (feet)	Unleaded Gasoline Parameters (ug/L)								
				Benzene	Ethyl-benzene	Cumene	MTBE	Naphthalene	Toluene	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Total Xylenes
SHS-RUA				5	700	840	20	100	1,000	15	420	10,000
MW-13	11/17/15	10.18	1,106.62	<1.00	<1.00	<1.00	153	<5.00	<5.00	<1.00	<1.00	<3.00
MW-13	12/15/15	7.40	1,109.40	2.14	<1.00	<1.00	307	<5.00	<5.00	<1.00	<1.00	<3.00
MW-13	02/23/16	6.69	1,110.11	<1.00	<1.00	<1.00	135	<5.00	<5.00	<1.00	<1.00	<3.00
MW-13	05/20/16	7.34	1,109.46	<1.00	<1.00	<1.00	50.9	<5.00	<5.00	<1.00	<1.00	<3.00
MW-13	08/18/16	9.24	1,107.56	1.17	<1.00	<1.00	65.0	<5.00	<5.00	<1.00	<1.00	<3.00
MW-13	12/02/16	8.08	1,108.72	<1.0	<1.0	<1.0	81.5	<2.0	<1.0	<1.0	<1.0	<3.0
MW-13	03/09/17	6.31	1,110.49	<1.0	<1.0	<1.0	41.9	<2.0	<1.0	<1.0	<1.0	<3.0
MW-13	06/26/17	6.46	1,110.34	14.4	<1.0	<1.0	118	<2.0	<1.0	<1.0	<1.0	<3.0
MW-13	08/08/17	8.46	1,108.34	<1.0	<1.0	<1.0	32.9	<2.0	<1.0	<1.0	<1.0	<3.0
MW-13	11/14/17	7.14	1,109.66	136	14.7	<1.0	181	<2.0	1.7	1.1	1.1	6.0
MW-14	11/17/15	8.66	1,107.90	<1.00	<1.00	<1.00	3.72	<5.00	<5.00	<1.00	<1.00	<3.00
MW-14	12/15/15	7.29	1,109.27	<1.00	<1.00	<1.00	10.9	<5.00	<5.00	<1.00	<1.00	<3.00
MW-14	02/23/16	6.22	1,110.34	<1.00	<1.00	<1.00	3.25	<5.00	<5.00	<1.00	<1.00	<3.00
MW-14	05/20/16	7.36	1,109.20	<1.00	<1.00	<1.00	2.10	<5.00	<5.00	<1.00	<1.00	<3.00
MW-14	08/18/16	8.99	1,107.57	<1.00	<1.00	<1.00	3.47	<5.00	<5.00	<1.00	<1.00	<3.00
MW-14	12/02/16	7.69	1,108.87	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-14	03/09/17	5.81	1,110.75	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-14	06/26/17	5.78	1,110.78	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-14	08/08/17	7.88	1,108.68	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-14	11/14/17	6.00	1,110.56	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
MW-15	11/17/15	9.84	1,111.71	<1.00	<1.00	<1.00	4.97	<5.00	<5.00	<1.00	<1.00	<3.00
MW-15	12/15/15	6.34	1,115.21	4.67	<1.00	<1.00	7.14	<5.00	<5.00	<1.00	<1.00	5.45
MW-15	02/23/16	5.25	1,116.30	69.7	18.5	<1.00	6.64	<5.00	75.2	6.92	3.48	94.3
MW-15	05/20/16	4.99	1,116.56	127	37.1	1.10	3.90	<5.00	33.9	17.0	7.28	144
MW-15	08/18/16	6.92	1,114.63	6.86	1.22	<1.00	2.96	<5.00	<5.00	<1.00	<1.00	<3.00
MW-15	12/02/16	6.74	1,114.81	<1.0	<1.0	<1.0	2.1	<2.0	<1.0	<1.0	<1.0	<3.0
MW-15	03/09/17	5.96	1,115.59	123	26.0	1.7	2.6	3.1	1.9	10.8	5.6	26.8
MW-15	06/26/17	5.71	1,115.84	30.7	2.3	1.3	4.3	<2.0	<1.0	<1.0	<1.0	<3.0
MW-15	08/08/17	6.02	1,115.53	<1.0	<1.0	<1.0	33.2	<2.0	<1.0	<1.0	<1.0	<3.0
MW-15	11/15/17	6.78	1,114.77	<1.0	<1.0	<1.0	3.2	<2.0	<1.0	<1.0	<1.0	<3.0
EW-1	02/11/15	2.18	--	975	1,040	115	66.7	983	2,620	2,020	602	8,800
EW-1	12/15/15	3.10	--	NS	NS	NS	NS	NS	NS	NS	NS	NS
EW-1	02/23/16	2.22	--	1,610	492	55.3	<10.0	401	1,480	2,860	677	5,420
EW-1	05/20/16	2.39	--	950	545	<100	48.7	490	1,910	2,900	786	6,110
EW-1 was removed during excavation activities in September and October 2016 and replaced by EW-1R.												
EW-1R	12/02/16	4.47	1,115.64	3,280	1,470	87.0	2.4	282	4,510	1,670	595	8,630
EW-1R	03/09/17	4.35	1,115.76	1,860	1,920	75.7	1.1	337	1,580	1,870	238	4,150
EW-1R	06/26/17	4.00	1,116.11	905	1,900	92.3	1.3	963	91.6	1,500	<1.0	1,160
EW-1R	08/08/17	4.14	1,115.97	733	1,530	94.2	1.8	229	135	1,200	20.2	548
EW-1R	11/15/17	4.38	1,115.73	352	1,070	74.1	1.6	232	154	1,140	53.6	3,060

- Notes:
- 1) Concentrations exceeding the SHS are shown in **bold**.
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  - 4) NR = Well did not recover after purging.



# Remedial Action Progress Report

Valley Village

10243 State Route 85, Kittanning, PA 16201

# Tables

Fourth Quarter 2017

**Table 3.0: Historical Groundwater Analytical Results (page 8 of 9)**

Sample ID	Date	Depth to Water (feet)	GW Elevation (feet)	Unleaded Gasoline Parameters (ug/L)								
				Benzene	Ethyl-benzene	Cumene	MTBE	Naph-thalene	Toluene	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Total Xylenes
SHS-RUA				5	700	840	20	100	1,000	15	420	10,000
EW-2	10/15/15	2.33	1,117.93	2830	1,810	114	52.4	574	6,990	2,540	655	13,600
EW-2	12/15/15	3.31	1,116.95	869	565	65.6	<18.4	545	1,570	4,520	1,340	12,400
EW-2	02/23/16	2.30	1,117.96	1,560	566	61.3	<10.0	497	2,440	3,570	931	8,660
EW-2	05/20/16	2.43	1,117.83	1,120	643	66.5	24.7	782	2,440	4,240	1,160	9,490
EW-2	12/02/16	3.99	1,116.27	482	108	5.3	19.9	64.5	6.5	289	17.8	47.5
EW-2	03/09/17	3.79	1,116.47	79.5	60.1	2.4	4.0	10.8	285	103	45.7	604
EW-2	06/26/17	3.66	1,116.60	27.9	8.9	<1.0	16.2	<2.0	<1.0	5.8	<1.0	<3.0
EW-2	08/08/17	3.78	1,116.48	7.8	5.4	<1.0	14.3	<2.0	<1.0	3.2	<1.0	<3.0
EW-2	11/15/17	3.98	1,116.28	<1.0	<1.0	<1.0	3.8	<2.0	<1.0	1.2	<1.0	<3.0
PT-1	09/03/14	4.67	--	2,800	170	24	160	<50	6,400	660	260	4,600
PT-1	12/04/14	4.54	--	1,800	710	52	240	110	1,100	910	300	3,600
PT-1	01/15/15	4.42	--	1,600	220	18	420	<50	1,200	250	140	1,500
PT-1	12/15/15	4.44	--	993	523	38.3	455	27.5	541	131	77.4	685
PT-1	02/23/16	3.68	--	1,050	1,300	90.6	361	219	1,780	1,310	406	5,040
PT-1	05/20/16	4.44	--	980	751	56.9	407	144	644	594	260	1,600
PT-1 was abandoned and removed during excavation activities during September and October 2016.												
P-1	11/17/15	9.08	1,112.31	6,680	1,300	50.0	<10.0	246	26,900	499	353	7,450
P-1	12/15/15	6.15	1,115.24	7,420	367	<25.0	<9.18	85.1	23,000	472	171	5,810
P-1	02/23/16	5.03	1,116.36	7,440	256	15.3	<5.00	206	9,990	666	225	6,980
P-1	05/20/16	5.29	1,116.10	7,140	681	<100	102	267	1,160	822	258	4,350
P-1 was abandoned and removed during excavation activities during September and October 2016.												
P-2	11/17/15	9.20	1,110.09	248	40.5	3.43	31.6	<5.00	308	11.7	28.7	293
P-2	12/15/15	5.80	1,113.49	3,570	637	31.7	173	31.9	841	405	151	2,900
P-2	02/23/16	5.16	1,114.13	NR	NR	NR	NR	NR	NR	NR	NR	NR
P-2	05/20/16	5.64	1,113.65	2,600	431	<100	305	<100	<500	301	159	736
P-2 was abandoned and removed during excavation activities in September and October 2016 and replaced by P-2R.												
P-2R	12/02/16	7.58	1,112.18	NR	NR	NR	NR	NR	NR	NR	NR	NR
Standpipe	12/04/14	1.23	--	29	51	6.7	<1.0	<5.0	32	24	<1.0	120
Standpipe	12/10/14	1.10	--	10	14	1.2	<1.0	<5.0	8.5	2.4	1.3	66
Standpipe	12/18/14	1.23	--	2.1	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<3.0
Standpipe	01/15/15	2.12	--	8.8	16	3.2	<1.0	5.9	17	34	12	78
Standpipe	06/05/15	--	--	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
Standpipe	12/15/15	1.95	--	74.8	25.2	1.12	<1.00	<5.00	17.2	6.88	<1.00	52.1
Standpipe	02/23/16	1.37	--	35.7	8.38	<1.00	2.97	<5.00	15.6	8.28	2.94	50.0
Standpipe	05/20/16	1.48	--	149	75.0	3.35	<1.00	32.6	82.9	86.2	4.84	213
The standpipe was removed during excavation activities in September and October 2016.												

- Notes:
- 1) Concentrations exceeding the SHS are shown in **bold**.
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  - 4) NR = Well did not recover after purging.



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## Tables

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**Table 3.0: Historical Groundwater Analytical Results (page 9 of 9)**

Sample ID	Date	Depth to Water (feet)	GW Elevation (feet)	Unleaded Gasoline Parameters (ug/L)								
				Benzene	Ethyl-benzene	Cumene	MTBE	Naphthalene	Toluene	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Total Xylenes
SHS-RUA				5	700	840	20	100	1,000	15	420	10,000
SL-1	10/19/16	--	--	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<3.00
SL-1	12/02/16	6.81	1,111.89	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
SL-1	02/02/17	4.69	1,114.01	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
SL-1	03/16/17	5.72	1,112.98	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
SL-2	10/19/16	--	--	2.79	<1.00	<1.00	<1.00	<5.00	<5.00	2.60	<1.00	8.47
SL-2	12/02/16	7.27	1,111.73	11.7	<1.0	<1.0	<1.0	<2.0	<1.0	2.3	1.0	11.0
SL-2	02/02/17	5.33	1,113.67	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	1.9	<1.0	<3.0
SL-2	03/16/17	6.26	1,112.74	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
SL-3	12/02/16	6.95	1,111.62	1.6	<1.0	<1.0	<1.0	2.5	<1.0	1.4	<1.0	<3.0
SL-3	02/02/17	5.30	1,113.27	62.2	6.0	<1.0	3.5	<2.0	4.9	2.3	1.5	21.4
SL-3	03/16/17	6.06	1,112.51	47.4	8.0	<1.0	3.0	<2.0	1.0	3.2	2.2	18.9
SL-3	06/26/17	5.92	1,112.65	82.5	31.7	<1.0	3.6	<2.0	<1.0	4.5	<1.0	<3.0
SL-3	08/08/17	8.22	1,110.35	53.1	17.2	<1.0	4.8	<2.0	<1.0	<1.0	<1.0	<3.0
SL-3	11/15/17	5.88	1,112.69	2.6	<1.0	<1.0	3.0	<2.0	<1.0	<1.0	<1.0	<3.0
SL-4	10/19/16	--	--	43.2	81.4	12.9	5.45	18.4	<5.00	393	117	444
SL-4	12/02/16	8.29	1,111.49	93.7	42.5	7.5	19.2	13.6	<1.0	119	35.0	62.4
SL-4	01/05/17	7.18	1,112.60	1.4	<1.0	<1.0	7.0	<2.0	<1.0	<1.0	<1.0	<3.0
SL-4	02/02/17	7.20	1,112.58	6.0	<1.0	<1.0	14.4	<2.0	<1.0	2.5	<1.0	<3.0
SL-4	03/16/17	7.89	1,111.89	23.6	5.2	1.5	8.1	<2.0	<1.0	3.7	<1.0	<3.0
SL-4	06/26/17	7.77	1,112.01	19.5	<1.0	<1.0	2.2	<2.0	<1.0	<1.0	<1.0	<3.0
SL-4	08/08/17	9.58	1,110.20	1,470	<20.0	<20.0	112	<40.0	<20.0	<20.0	<20.0	<60.0
SL-4	11/15/17	7.83	1,111.95	<1.0	<1.0	<1.0	19.0	2.1	<1.0	<1.0	<1.0	<3.0
SL-5	10/19/16	--	--	11.8	125	19.2	<1.00	39.1	10.9	342	99.9	478
SL-5	12/02/16	5.72	1,111.07	<1.0	<1.0	<1.0	1.6	<2.0	<1.0	2.1	<1.0	<3.0
SL-5	02/02/17	5.38	1,111.41	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
SL-5	03/16/17	5.65	1,111.14	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
SL-6	12/02/16	3.18	1,110.84	<1.0	<1.0	<1.0	1.2	<2.0	<1.0	<1.0	<1.0	<3.0
SL-6	02/02/17	2.99	1,111.03	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
SL-6	03/16/17	3.19	1,110.83	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0

- Notes:
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**Remedial Action Progress Report***Valley Village*

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**Tables**

Fourth Quarter 2017

**Table 4.0: Groundwater Chemistry**

Sample ID	Date	Dissolved Oxygen	Temperature	pH	Conductivity	ORP
		ppm	deg. C.	S.U.	ppm	mV
MW-1R	11/15/17	<1.0	17.4	7.0	1,390	-37
MW-3R	11/14/17	<1.0	16.7	7.1	1,172	-48
MW-4R	11/14/17	1.5	16.4	6.8	971	14
MW-8	11/14/17	3.0	13.6	6.4	1,028	168
MW-9	11/14/17	4.5	11.7	5.7	62	203
MW-10	11/14/17	5.5	11.8	5.9	129	197
MW-11	11/14/17	4.0	11.5	5.3	108	186
MW-13	11/14/17	3.5	12.7	6.5	937	177
MW-14	11/14/17	5.0	12.0	6.7	404	187
MW-15	11/15/17	2.5	13.7	6.7	1,520	19
EW-1R	11/15/17	<1.0	17.3	7.2	1,570	-69
EW-2	11/15/17	1.5	16.2	6.9	1,640	-33



# Remedial Action Progress Report

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**Table 5.0: Surfactant Treatment Depth-to-Water Measurements**

Date	Depth to Water (feet)															
	CP-1	CP-2	CP-4	EW-1R	EW-2	MW-1R	MW-3R	MW-4R	MW-6	MW-8	MW-10	MW-13	MW-14	MW-15	SL-3	SL-4
09/19/17	Dry	Dry	2.94	4.14	3.82	3.78	7.08	6.96	2.63	7.88	7.88	8.43	8.74	6.62	8.34	9.72
09/20/17	EXTRACT 900 gallons from EW-1R															
	EXTRACT 120 gallons from EW-1R															
	Dry	Dry	2.94	6.76	5.33	3.95	7.39	7.27	2.78	8.19	8.17	8.45	8.75	6.63	8.44	9.81
	INJECT 832 gallons of Ivey-sol (1:25 dilution) into CP wells															
09/21/17	Dry	Dry	2.93	4.92	4.92	3.76	7.40	7.31	2.82	8.13	8.09	8.45	8.75	6.64	8.12	9.54
	RECIRCULATE from EW-1R → CP-1															
	Dry	Dry	Dry	5.29	4.89	3.58	7.54	7.41	2.93	8.23	8.25	8.50	8.78	6.62	8.45	9.78
	EXTRACT 520 gallons from EW-1R															
09/25/17	Dry	Dry	Dry	13.80	5.53	3.61	7.53	7.42	2.95	8.34	8.28	8.50	8.78	6.62	8.48	9.81
	INJECT 832 gallons of Ivey-sol (1:25 dilution) into CP wells															
	Dry	Dry	2.68	5.98	5.70	3.37	7.57	7.49	2.93	8.11	8.29	8.53	8.78	6.62	8.52	9.84
	RECIRCULATE from EW-2 to CP-2 and EW-1R to CP-2															
09/26/17	Dry	Dry	Dry	4.43	4.08	3.84	8.08	7.97	3.49	8.86	8.99	8.90	8.97	6.62	8.92	10.21
	INJECT ~1,000 gallons potable water to CP-2															
	INJECT 208 gallons Ivey-sol (1:25 dilution) into CP-1 and CP-2															
	RECIRCULATE from EW-1R → CP-1 and EW-2 → CP-3															
09/27/17				3.94	8.49	3.08	8.03	7.95	3.53	9.04	8.99	8.93	8.99	6.61	8.91	10.21
	Dry	Dry	Muddy	4.22	3.83	3.39	7.53	7.46	3.63	9.03	9.12	9.01	9.06	6.62	8.88	10.19
	INJECT 416 gallons Ivey-sol (1:25 dilution) and 432 gallons potable water into CP wells															
	RECIRCULATE from EW-1R → CP-1 and EW-2 → CP-3															
09/29/17	Dry	Dry	2.88	3.97	8.72	3.03	7.04	7.08	3.71	9.03	9.09	9.04	9.06	6.61	8.86	10.15
	Dry	Dry	3.31	4.24	3.84	3.39	6.76	6.64	3.89	9.09	9.05	9.13	9.10	6.59	8.77	10.10
	Dry	Dry	3.34	4.30	3.95	3.63	7.32	7.21	4.35	9.39	9.53	9.30	9.41	6.53	8.86	10.19
	EXTRACT from EW-1R (~760 gallons)															
10/03/17	Dry	Dry	3.35	11.59	5.47	3.64	7.33	7.20	4.40	9.59	9.52	9.31	9.40	6.55	8.85	10.19
	Dry	Dry	3.39	4.66	4.33	4.22	8.34	8.24	5.55	10.01	10.18	9.93	9.85	6.62	9.28	10.56
	EXTRACT from EW-1R, MW-1R, MW-3R, MW-4R (~1,100 gallons)															
	Dry	Dry	3.39	11.86	5.23	4.64	8.62	8.57	5.60	10.03	10.20	9.92	9.86	6.63	9.29	10.57
10/06/17	INJECT 832 gallons of Ivey-sol (1:25 dilution) into CP wells, INJECT potable water into CP-3															
	RECIRCULATE MW-1R → CP-1, EW-1R → CP-2, MW-3R → CP-3															
	Dry		3.12	3.71	4.08	5.74	8.45	8.28	5.70	10.22	10.15	9.92	9.85	6.60	9.31	10.60
	Dry	Dry	3.35	4.64	4.34	4.65	8.16	8.08	6.45	10.03	10.13	10.25	10.03	6.60	8.73	10.08
11/09/17	EXTRACT from EW-1R, MW-1R, MW-3R (~900 gallons)															
	Dry	Dry	3.34	10.10	6.08	4.73	8.29	8.21	6.45	10.12	10.15	10.27	10.06	6.60	8.78	10.08
	Dry	Dry	3.09	4.38	3.98	3.48	5.41	5.29	2.35	6.32	6.16	7.14	6.00	6.78	5.60	7.67
	EXTRACT from EW-1R, EW-2, MW-1R, MW-3R, MW-4R, MW-8, MW-10, MW-13, MW-14, MW-15 (~2,510 gallons)															
11/14/17				Dry	Dry	Dry	Dry	Dry		Dry	Dry	Dry	Dry	Dry		
	Dry	Dry	3.17	10.64	6.21	3.89	6.50	6.39	2.32	13.78	7.83	14.47	13.55	12.11	5.88	7.83
				4.68	4.29	4.29	8.01	7.86		7.56	7.28	9.24	10.57	11.07	7.75	9.21
				4.59			6.61									
11/29/17	EXTRACT from EW-1R, MW-3R (~950 gallons)															
				10.85			6.78									
				4.60		4.38	7.27			7.42		7.89		8.38	7.38	8.86



# Remedial Action Progress Report

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## Tables

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**Table 6.0: Surfactant Field Testing Results**

Date	Surfactant Field Testing									
	EW-1R	EW-2	MW-1R	MW-3R	MW-4R	MW-8	MW-10	MW-15	SL-3	SL-4
09/19/17	EXTRACT 900 gallons from EW-1R									
09/20/17	+	none	none	none	none	none	none	none	none	none
	EXTRACT 120 gallons from EW-1R									
	INJECT 832 gallons of Ivey-sol (1:25 dilution) into CP wells									
	++++	none	none	none	none	none			none	none
09/21/17	RECIRCULATE from EW-1R → CP-1									
	++	none	none	none	none	none			none	none
	EXTRACT 520 gallons from EW-1R									
	+	none	none	none	none	none			none	none
	INJECT 832 gallons of Ivey-sol (1:25 dilution) into CP wells									
09/25/17	++++	none	none	none	none	none			none	none
	RECIRCULATE from EW-2 to CP-2 and EW-1R to CP-2									
	++	none	trace	none	none	none			none	none
	INJECT ~1,000 gallons potable water to CP-2 INJECT 208 gallons Ivey-sol (1:25 dilution) into CP-1 and CP-2 RECIRCULATE from EW-1R → CP-1 and EW-2 → CP-3									
09/26/17	+++	none	+	trace	none	none			none	none
	INJECT 416 gallons Ivey-sol (1:25 dilution) and 432 gallons potable water into CP wells									
	RECIRCULATE from EW-1R → CP-1 and EW-2 → CP-3									
09/27/17	+++	none	+	none	none	none			none	none
09/29/17	++	none	+	trace	none	none			none	none
	EXTRACT 760 gallons from EW-1R									
	+									
10/03/17	++	none	none	none	none	none			none	none
	EXTRACT from EW-1R, MW-1R, MW-3R, MW-4R (~1,100 gallons)									
	+	none	none	none	none	none			none	none
	INJECT 832 gallons of Ivey-sol (1:25 dilution) into CP wells, INJECT potable water into CP-3 RECIRCULATE MW-1R → CP-1, EW-1R → CP-2, MW-3R → CP-3									
	+++	none	++	++	none	none			none	none
10/06/17	++	none	+	none	none	none			trace	none
	EXTRACT from EW-1R, MW-1R, MW-3R (~900 gallons)									
	+	none	+	none	none	none			trace	+
11/09/17	+	none	none	+	none	none	none	+	none	none
	EXTRACT from EW-1R, EW-2, MW-1R, MW-3R, MW-4R, MW-8, MW-10, MW-13, MW-14, MW-15 (~2,510 gallons)									
	+							none		
	+		none	trace				none		
11/14-15/2017	+	none	none	+	none	none	none	none	none	none
11/29/17	EXTRACT from EW-1R, MW-3R (~950 gallons)									
	+			+						
12/20/17	+		none	none		none		none	none	



**Table 7.0: Surfactant Treatment Groundwater Analytical Results** (page 1 of 4)

Well	Date	Depth to Water (feet)	GW Elevation (feet)	Unleaded Gasoline Parameters (ug/L)								
				Benzene	Ethyl-benzene	Cumene	MTBE	Naphthalene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Total Xylenes
SHS-RUA				5	700	840	20	100	1,000	15	420	10,000
EW-1R	11/07/16	4.57	1,115.54	4,130	1,700	77.7	<10.0	341	6,880	1,740	647	10,200
	12/02/16	4.47	1,115.64	3,280	1,470	87.0	2.4	282	4,510	1,670	595	8,630
	12/14/16	--	--	3,010	1,920	<200	<73.4	359	7,990	2,220	621	10,600
	02/02/17	4.50	1,115.61	2,380	1,500	76.0	<1.0	379	5,510	1,450	383	6,760
	03/09/17	4.35	1,115.76	1,860	1,920	75.7	1.1	337	1,580	1,870	238	4,150
	06/26/17	4.00	1,116.11	905	1,900	92.3	1.3	963	91.6	1,500	<1.0	1,160
	08/08/17	4.14	1,115.97	733	1,530	94.2	1.8	229	135	1,200	20.2	548
	09/19/17	BEGIN IVEY-SOL INJECTIONS / EXTRACTIONS										
	09/20/17	4.92	1,115.19	1,020	1,640	69.6	<36.7	203	2,980	1,300	275	5,020
	09/25/17	--	--	960	1,780	55.4	<10.0	160	1,940	1,170	247	6,590
	09/26/17	--	--	552	622	26.5	<10.0	93.9	748	722	211	2,940
	09/29/17	--	--	1,090	1,320	58.9	1.1	160	1,120	1,200	270	5,440
	10/03/17	--	--	844	1,240	61.3	<36.7	140	1,430	1,210	289	5,960
	10/03/17	FINAL IVEY-SOL INJECTION										
	10/06/17	EXTRACTION										
	10/06/17	--	--	615	1,770	93.9	<36.7	288	3,570	1,640	398	5,610
	11/09/17	--	--	1,230	2,610	98.6	<10	269	6,210	1,890	449	12,600
	11/09/17	Additional Extraction										
	11/15/17	4.38	1,115.73	352	1,070	74.1	1.6	232	154	1,140	53.6	3,060
	11/29/17	Additional Extraction										
11/29/17	--	--	593	2,070	109	<18.4	346	4,030	2,010	439	7,420	
12/20/17	--	--	546	1,030	53.4	<10.0	151	42.5	1,040	24.2	2,970	
EW-2	12/02/16	3.99	1,116.27	482	108	5.3	19.9	64.5	6.5	289	17.8	47.5
	03/09/17	3.79	1,116.47	79.5	60.1	2.4	4.0	10.8	285	103	45.7	604
	06/26/17	3.66	1,116.60	27.9	8.9	<1.0	16.2	<2.0	<1.0	5.8	<1.0	<3.0
	08/08/17	3.78	1,116.48	7.8	5.4	<1.0	14.3	<2.0	<1.0	3.2	<1.0	<3.0
	09/19/17	BEGIN IVEY-SOL INJECTIONS / EXTRACTIONS										
	09/20/17	4.92	1,115.34	<1.00	<1.00	<1.00	7.20	<5.00	<1.00	<1.00	<1.00	<3.00
	09/25/17	--	--	<1.00	<1.00	<1.00	5.32	<5.00	<1.00	<1.00	<1.00	<3.00
	09/29/17	--	--	<1.0	1.8	<1.0	1.3	<2.0	<1.0	<1.0	<1.0	<3.0
	10/03/17	--	--	<1.00	<1.00	<1.00	2.14	<5.00	2.09	4.06	<1.00	8.61
	10/03/17	FINAL IVEY-SOL INJECTION										
	10/06/17	EXTRACTION										
	10/06/17	--	--	<1.00	1.28	<1.00	1.08	25.8	1.51	13.8	2.67	10.1
	11/09/17	Additional Extraction										
	11/15/17	3.98	1,116.28	<1.0	<1.0	<1.0	3.8	<2.0	<1.0	1.2	<1.0	<3.0
	11/29/17	Additional Extraction										



# Remedial Action Progress Report

Valley Village

10243 State Route 85, Kittanning, PA 16201

## Tables

Fourth Quarter 2017

**Table 7.0: Surfactant Treatment Groundwater Analytical Results (page 2 of 4)**

Well	Date	Depth to Water (feet)	GW Elevation (feet)	Unleaded Gasoline Parameters (ug/L)								
				Benzene	Ethyl-benzene	Cumene	MTBE	Naphthalene	Toluene	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Total Xylenes
SHS-RUA				5	700	840	20	100	1,000	15	420	10,000
MW-1R	11/07/16	4.02	1,115.94	954	173	7.23	1.63	21.6	388	110	28.9	1,260
	12/02/16	3.41	1,116.55	289	15.0	1.1	1.1	<2.0	5.0	12.0	4.4	55.8
	03/09/17	3.24	1,116.72	37.8	<1.0	<1.0	<1.0	<2.0	1.1	<1.0	<1.0	<3.0
	06/26/17	3.43	1,116.53	35.5	1.5	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
	08/08/17	3.70	1,116.26	11.1	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.0
	09/19/17	BEGIN IVEY-SOL INJECTIONS / EXTRACTIONS										
	10/03/17	--		42.7	8.92	2.23	<1.00	<5.00	3.36	37.5	2.47	23.6
	10/03/17	--		33.4	14.6	2.76	<1.00	<5.00	5.49	46.6	3.27	35.4
	10/03/17	FINAL IVEY-SOL INJECTION										
	10/03/17	--		50.2	34.1	6.74	<1.00	17.3	30.1	195	69.9	259
	10/06/17	EXTRACTION										
	10/06/17	--	--	209	119	14.4	<1.00	28.8	74.0	298	84.6	450
	11/09/17	Additional Extraction										
	11/15/17	3.48	1,116.48	11.2	2.6	<1.0	<1.0	<2.0	<1.0	7.5	<1.0	<3.0
	11/29/17	Additional Extraction										
12/20/17	--	--	2.14	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<3.00	
MW-3R	11/07/16	6.38	1,112.73	403	7.15	<1.00	2.50	<5.00	365	1.07	<1.00	106
	12/02/16	5.28	1,113.83	757	76.4	<1.0	7.6	<2.0	210	15.3	10.3	728
	01/05/17	4.82	1,114.29	1,790	250	5.2	1.5	<2.0	53.7	85.3	44.0	547
	02/02/17	4.92	1,114.19	1,420	381	10.5	<1.0	19.4	41.3	195	84.3	721
	03/09/17	4.04	1,115.07	1,310	598	14.9	1.9	16.9	20.7	250	104	897
	06/26/17	5.23	1,113.88	632	544	16.4	<1.0	23.2	22.3	215	107	539
	08/08/17	7.09	1,112.02	575	514	17.5	<1.0	17.2	45.7	232	82.1	467
	09/19/17	BEGIN IVEY-SOL INJECTIONS / EXTRACTIONS										
	09/21/17	7.54	1,111.57	57.7	19.4	<1.00	<1.00	<5.00	<1.00	5.99	<1.00	<3.00
	09/25/17			65.9	40.9	1.26	<1.00	<5.00	<1.00	11.8	<1.00	<3.00
	09/29/17			267	179	6.1	<1.0	6.1	8.2	100	2.1	105
	10/03/17			246	124	3.82	<1.00	7.50	2.57	47.8	<1.00	18.1
	10/03/17	FINAL IVEY-SOL INJECTION										
	10/06/17	EXTRACTION										
	10/06/17	--	--	218	390	18.5	<1.00	14.2	14.4	180	17.3	342
	11/09/17	Additional Extraction										
	11/14/17	5.41	1,113.70	509	559	25.0	<1.0	30.3	9.5	338	22.4	251
	11/29/17	Additional Extraction										
	11/29/17	--	--	456	796	30.7	<10.0	<50.0	11.4	541	<10.0	438
	12/20/17	--	--	260	529	<25.0	<9.18	<25.0	<25.0	268	<25.0	<75.0



# Remedial Action Progress Report

Valley Village

10243 State Route 85, Kittanning, PA 16201

# Tables

Fourth Quarter 2017

**Table 7.0: Surfactant Treatment Groundwater Analytical Results (page 3 of 4)**

Well	Date	Depth to Water (feet)	GW Elevation (feet)	Unleaded Gasoline Parameters (ug/L)								
				Benzene	Ethyl-benzene	Cumene	MTBE	Naphthalene	Toluene	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Total Xylenes
SHS-RUA				5	700	840	20	100	1,000	15	420	10,000
MW-8	12/02/16	7.05	1,108.62	96.3	3.9	<1.0	203	<2.0	<1.0	<1.0	<1.0	<3.0
	01/05/17	5.13	1,110.54	673	12.7	11.0	212	2.4	3.3	2.0	1.5	8.8
	02/02/17	5.85	1,109.82	1,230	34.6	17.4	232	7.9	22.5	21.6	12.2	48.7
	03/09/17	5.29	1,110.38	2,830	89.0	31.3	103	24.3	96.9	52.3	35.7	168
	06/26/17	5.75	1,109.92	2,800	76.4	32.3	60.6	10.7	13.6	1.0	7.8	7.5
	08/08/17	8.32	1,107.35	1,030	28.7	14.3	77.9	<2.0	1.8	<1.0	<1.0	<3.0
	09/19/17	BEGIN IVEY-SOL INJECTIONS / EXTRACTIONS										
	09/21/17	8.19	1,107.48	9.69	<1.00	<1.00	9.47	<5.00	<1.00	<1.00	<1.00	<3.00
	09/25/17	--	--	6.25	<1.00	<1.00	13.4	<5.00	<1.00	<1.00	<1.00	<3.00
	09/29/17	--	--	4.1	<1.0	<1.0	24.3	<2.0	<1.0	<1.0	<1.0	<3.0
	10/03/17	--	--	5.68	<1.00	<1.00	34.6	<5.00	<1.00	<1.00	<1.00	<3.00
	10/03/17	FINAL IVEY-SOL INJECTION										
	10/06/17	EXTRACTION										
	10/06/17	--	--	1.55	<1.00	<1.00	54.2	<5.00	<1.00	<1.00	<1.00	<3.00
	11/09/17	Additional Extraction										
11/14/17	6.32	1,109.35	<1.0	<1.0	<1.0	219	<2.0	<1.0	<1.0	<1.0	<3.0	
11/29/17	Additional Extraction											
12/20/17	--	--	305	<1.00	2.64	79.7	<5.00	1.38	<1.00	<1.00	<3.00	
MW-13	12/19/16	7.02	1,109.78	<1.0	<1.0	<1.0	81.5	<2.0	<1.0	<1.0	<1.0	<3.0
	03/09/17	6.31	1,110.49	<1.0	<1.0	<1.0	41.9	<2.0	<1.0	<1.0	<1.0	<3.0
	06/26/17	6.46	1,110.34	14.4	<1.0	<1.0	118	<2.0	<1.0	<1.0	<1.0	<3.0
	08/08/17	8.46	1,108.34	<1.0	<1.0	<1.0	32.9	<2.0	<1.0	<1.0	<1.0	<3.0
	09/19/17 - 10/06/17	IVEY-SOL INJECTION & EXTRACTION										
	11/09/17	Additional Extraction										
	11/14/17	7.14	1,109.66	136	14.7	<1.0	181	<2.0	1.7	1.1	1.1	6.0
	11/29/17	Additional Extraction										
	12/20/17	--	--	<1.00	<1.00	<1.00	34.8	<5.00	<1.00	<1.00	<1.00	<3.00
MW-15	12/19/16	8.77	1,112.78	<1.0	<1.0	<1.0	2.1	<2.0	<1.0	<1.0	<1.0	<3.0
	03/09/17	5.96	1,115.59	123	26.0	1.7	2.6	3.1	1.9	10.8	5.6	26.8
	06/26/17	5.71	1,115.84	30.7	2.3	1.3	4.3	<2.0	<1.0	<1.0	<1.0	<3.0
	08/08/17	6.02	1,115.53	<1.0	<1.0	<1.0	33.2	<2.0	<1.0	<1.0	<1.0	<3.0
	09/19/17 - 10/06/17	IVEY-SOL INJECTION & EXTRACTION										
	11/09/17	Additional Extraction										
	11/15/17	6.78	1,114.77	<1.0	<1.0	<1.0	3.2	<2.0	<1.0	<1.0	<1.0	<3.0
	11/29/17	Additional Extraction										
	12/20/17	--	--	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<3.00



# Remedial Action Progress Report

Valley Village

10243 State Route 85, Kittanning, PA 16201

## Tables

Fourth Quarter 2017

**Table 7.0: Surfactant Treatment Groundwater Analytical Results (page 4 of 4)**

Well	Date	Depth to Water (feet)	GW Elevation (feet)	Unleaded Gasoline Parameters (ug/L)								
				Benzene	Ethyl-benzene	Cumene	MTBE	Naphthalene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Total Xylenes
SHS-RUA				5	700	840	20	100	1,000	15	420	10,000
SL-3	12/02/16	6.95	1,111.62	1.6	<1.0	<1.0	<1.0	2.5	<1.0	1.4	<1.0	<3.0
	02/02/17	5.30	1,113.27	62.2	6.0	<1.0	3.5	<2.0	4.9	2.3	1.5	21.4
	03/16/17	6.06	1,112.51	47.4	8.0	<1.0	3.0	<2.0	1.0	3.2	2.2	18.9
	06/26/17	5.92	1,112.65	82.5	31.7	<1.0	3.6	<2.0	<1.0	4.5	<1.0	<3.0
	08/08/17	8.22	1,110.35	53.1	17.2	<1.0	4.8	<2.0	<1.0	<1.0	<1.0	<3.0
	09/19/17-10/06/17	IVEY-SOL INJECTION & EXTRACTION										
	11/09/17	Additional Extraction										
	11/15/17	5.88	1,112.69	2.6	<1.0	<1.0	3.0	<2.0	<1.0	<1.0	<1.0	<3.0
	11/29/17	Additional Extraction										
	12/20/17	--	--	<1.00	<1.00	<1.00	13.1	<5.00	<1.00	<1.00	<1.00	<3.00
SL-4	10/19/16	--	--	43.2	81.4	12.9	5.45	18.4	<5.00	393	117	444
	12/02/16	8.29	1,111.49	93.7	42.5	7.5	19.2	13.6	<1.0	119	35.0	62.4
	01/05/17	7.18	1,112.60	1.4	<1.0	<1.0	7.0	<2.0	<1.0	<1.0	<1.0	<3.0
	02/02/17	7.20	1,112.58	6.0	<1.0	<1.0	14.4	<2.0	<1.0	2.5	<1.0	<3.0
	03/16/17	7.89	1,111.89	23.6	5.2	1.5	8.1	<2.0	<1.0	3.7	<1.0	<3.0
	06/26/17	7.77	1,112.01	19.5	<1.0	<1.0	2.2	<2.0	<1.0	<1.0	<1.0	<3.0
	08/08/17	9.58	1,110.20	1,470	<20.0	<20.0	112	<40.0	<20.0	<20.0	<20.0	<60.0
	09/19/17-10/06/17	IVEY-SOL INJECTION & EXTRACTION										
	11/09/17	Additional Extraction										
	11/15/17	7.83	1,111.95	<1.0	<1.0	<1.0	19.0	2.1	<1.0	<1.0	<1.0	<3.0
	11/29/17	Additional Extraction										
	12/20/17	--	--	<1.00	<1.00	<1.00	5.85	<5.00	<1.00	<1.00	<1.00	<3.00



# **ATTACHMENT A**



November 20, 2017

## Insite Group

Sample Delivery Group: L950851  
Samples Received: 11/14/2017  
Project Number: VALLEY VILLAGE  
Description: Surfactant  
Site: 03-06500  
Report To: Ms. Sara Giordano  
611 S. Irvine Avenue  
Sharon, PA 16146-1165

Entire Report Reviewed By:



Craig Cothron  
Technical Service Representative

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





Cp: Cover Page	1	<sup>1</sup> Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	<sup>2</sup> Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	<sup>3</sup> Ss
EW-1R L950851-01	5	
Qc: Quality Control Summary	6	<sup>4</sup> Cn
Volatile Organic Compounds (GC/MS) by Method 8260B	6	
Gl: Glossary of Terms	7	<sup>5</sup> Sr
Al: Accreditations & Locations	8	<sup>6</sup> Qc
Sc: Sample Chain of Custody	9	<sup>7</sup> Gl
		<sup>8</sup> Al
		<sup>9</sup> Sc



# SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



EW-1R L950851-01 GW

Collected by  
Adam Gaines

Collected date/time  
11/09/17 10:44

Received date/time  
11/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1043342	10	11/16/17 00:01	11/16/17 00:01	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1043342	100	11/16/17 21:22	11/16/17 21:22	JHH

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc





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

Craig Cothron  
Technical Service Representative







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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	1230		3.31	10.0	10	11/16/2017 00:01	<a href="#">WG1043342</a>
Ethylbenzene	2610		38.4	100	100	11/16/2017 21:22	<a href="#">WG1043342</a>
Isopropylbenzene	98.6		3.26	10.0	10	11/16/2017 00:01	<a href="#">WG1043342</a>
Methyl tert-butyl ether	U		3.67	10.0	10	11/16/2017 00:01	<a href="#">WG1043342</a>
Naphthalene	269		10.0	50.0	10	11/16/2017 00:01	<a href="#">WG1043342</a>
Toluene	6210		41.2	100	100	11/16/2017 21:22	<a href="#">WG1043342</a>
1,2,4-Trimethylbenzene	1890		3.73	10.0	10	11/16/2017 00:01	<a href="#">WG1043342</a>
1,3,5-Trimethylbenzene	449		3.87	10.0	10	11/16/2017 00:01	<a href="#">WG1043342</a>
Xylenes, Total	12600		106	300	100	11/16/2017 21:22	<a href="#">WG1043342</a>
(S) Toluene-d8	107			80.0-120		11/16/2017 00:01	<a href="#">WG1043342</a>
(S) Toluene-d8	103			80.0-120		11/16/2017 21:22	<a href="#">WG1043342</a>
(S) Dibromofluoromethane	91.0			76.0-123		11/16/2017 00:01	<a href="#">WG1043342</a>
(S) Dibromofluoromethane	102			76.0-123		11/16/2017 21:22	<a href="#">WG1043342</a>
(S) 4-Bromofluorobenzene	102			80.0-120		11/16/2017 00:01	<a href="#">WG1043342</a>
(S) 4-Bromofluorobenzene	97.6			80.0-120		11/16/2017 21:22	<a href="#">WG1043342</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3266147-2 11/15/17 18:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Isopropylbenzene	U		0.326	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	105			80.0-120
(S) Dibromofluoromethane	94.5			76.0-123
(S) 4-Bromofluorobenzene	95.6			80.0-120

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3266147-1 11/15/17 18:15

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	25.0	21.4	85.6	69.0-123	
Ethylbenzene	25.0	23.5	93.8	77.0-120	
Isopropylbenzene	25.0	22.0	88.1	75.0-120	
Methyl tert-butyl ether	25.0	21.2	84.9	64.0-123	
Naphthalene	25.0	18.2	73.0	62.0-128	
Toluene	25.0	22.6	90.5	77.0-120	
1,2,4-Trimethylbenzene	25.0	21.0	84.1	75.0-120	
1,3,5-Trimethylbenzene	25.0	22.3	89.0	75.0-120	
Xylenes, Total	75.0	70.4	93.9	77.0-120	
(S) Toluene-d8			105	80.0-120	
(S) Dibromofluoromethane			93.7	76.0-123	
(S) 4-Bromofluorobenzene			99.0	80.0-120	





## Guide to Reading and Understanding Your Laboratory Report

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

### Abbreviations and Definitions

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

### Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

1	Cp
2	Tc
3	Ss
4	Cn
5	Sr
6	Qc
7	Gi
8	Al
9	Sc





ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

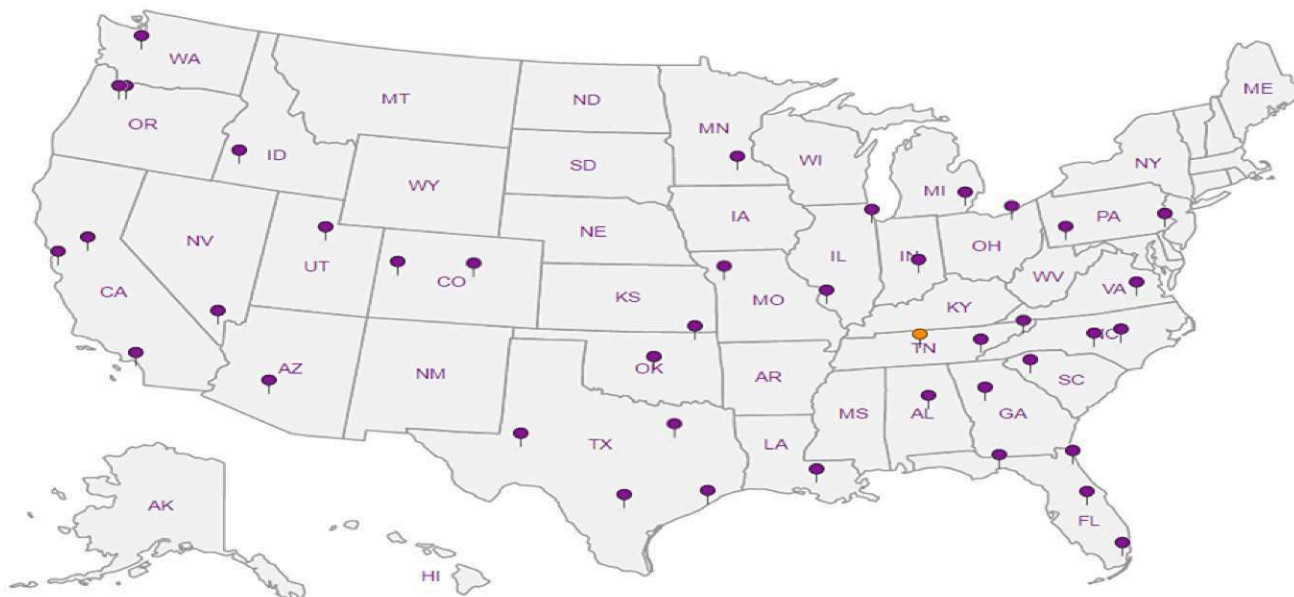
## Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>n/a</sup> Accreditation not applicable

## Our Locations

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





Insite Group, Inc.  
611 S. Irvine Ave.  
Sharon, PA 16146

Alternate billing information  
INSITE080614S

Analysis/Container/Preservative

Chain of Custody  
Page 1 of 1

Prepared by

**ENVIRONMENTAL  
SCIENCE CORP.**

12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone (615) 758-5858  
Phone (800) 767-5859  
FAX (615) 758-5859

**D016**

Report to  
Sara Giordano  
Email to  
lab@insitegroup.org

Project Description  
Surfactant  
Client Project #  
VALLEY VILLAGE  
ESC Key  
KITTANNING, PA  
INSITE080614S  
Phone 724 347 2101  
FAX 724 347 2139  
Collected by Adam Gaines  
Site/Facility ID# 03-06500  
P.O.#

Collected by (signature)  
*Adam Gaines*  
Pack/Container N Y  
Rush? (Lab MUST Be Notified)  
Same Day 200%  
Next Day 100%  
Two Day 50%  
Date Results Needed:  
Email? No Yes  
FAX? No Yes

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time
EW-1R	Grab	GW		11/09/17	1044

V8260UGPA / 40miAmb / HCI

CoCode (lab use only)

Template/Prelogin

Shipped Via

Remarks/Contaminant Sample # (lab only)

\*Matrix SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks **D1 PRIORITY**

pH Temp

Flow Other

Relinquished by (Signature) <i>Adam Gaines</i>	Date 11/13/17	Time 1300	Received by (Signature) <i>Adam Gaines</i>	Samples returned via <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> UPS	Condition (lab use only) OK
Relinquished by (Signature)	Date	Time	Received by (Signature)	Temp 0.95	Bottles Received 2
Relinquished by (Signature)	Date	Time	Received for lab by (Signature) <i>Adam Gaines</i>	Date 11/14/17	Time 0845
					pH Checked NCF

(XLS)



## ESC LAB SCIENCES Cooler Receipt Form

Client: <u>IASIS</u>	SPO#	125851	
Cooler Received, Opened On: <u>11/14/17</u>	Temperature:	<u>0.9</u>	
Received by: Kevin Turner			
Signature: <u>Kevin Turner</u>			
<b>Receipt Check List</b>			
	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable		✓	
VOA Zero headspace?			
Preservation Correct / Checked?			



November 20, 2017

Ms. Sara Giordano  
Insite Group, Inc.  
611 S. Irvine Ave.  
Sharon, PA 16146

RE: Project: Valley Village-QTR  
Pace Project No.: 30236282

Dear Ms. Giordano:

Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Samantha Bayura  
samantha.bayura@pacelabs.com  
(724)850-5622  
Project Manager

Enclosures

cc: Insite Group, Insite Group, Inc.  
Kristin Kelly, Insite Group



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Valley Village-QTR

Pace Project No.: 30236282

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### Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

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## SAMPLE ANALYTE COUNT

Project: Valley Village-QTR

Pace Project No.: 30236282

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30236282001	MW-1R	EPA 8260B	LEL	13	PASI-PA
30236282002	MW-3R	EPA 8260B	LEL	13	PASI-PA
30236282003	MW-4R	EPA 8260B	LEL	13	PASI-PA
30236282004	MW-8	EPA 8260B	LEL	13	PASI-PA
30236282005	MW-9	EPA 8260B	LEL	13	PASI-PA
30236282006	MW-10	EPA 8260B	LEL	13	PASI-PA
30236282007	MW-11	EPA 8260B	LEL	13	PASI-PA
30236282008	MW-13	EPA 8260B	LEL	13	PASI-PA
30236282009	MW-14	EPA 8260B	LEL	13	PASI-PA
30236282010	MW-15	EPA 8260B	LEL	13	PASI-PA
30236282011	MW-51	EPA 8260B	LEL	13	PASI-PA
30236282012	EW-1R	EPA 8260B	LEL	13	PASI-PA
30236282013	EW-2	EPA 8260B	LEL	13	PASI-PA
30236282014	SL-3	EPA 8260B	LEL	13	PASI-PA
30236282015	SL-4	EPA 8260B	LEL	13	PASI-PA
30236282016	Trip Blank	EPA 8260B	LEL	13	PASI-PA

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## ANALYTICAL RESULTS

Project: Valley Village-QTR

Pace Project No.: 30236282

Sample: MW-1R		Lab ID: 30236282001		Collected: 11/15/17 10:12		Received: 11/16/17 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260B MSV		Analytical Method: EPA 8260B							
Benzene	11.2	ug/L	1.0	1		11/17/17 15:16	71-43-2		
Ethylbenzene	2.6	ug/L	1.0	1		11/17/17 15:16	100-41-4		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/17/17 15:16	98-82-8		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/17/17 15:16	1634-04-4		
Naphthalene	ND	ug/L	2.0	1		11/17/17 15:16	91-20-3		
Toluene	ND	ug/L	1.0	1		11/17/17 15:16	108-88-3		
1,2,4-Trimethylbenzene	7.5	ug/L	1.0	1		11/17/17 15:16	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 15:16	108-67-8		
Xylene (Total)	ND	ug/L	3.0	1		11/17/17 15:16	1330-20-7		
Surrogates									
Toluene-d8 (S)	100	%	80-120	1		11/17/17 15:16	2037-26-5		
4-Bromofluorobenzene (S)	96	%	79-129	1		11/17/17 15:16	460-00-4		
1,2-Dichloroethane-d4 (S)	96	%	80-120	1		11/17/17 15:16	17060-07-0		
Dibromofluoromethane (S)	100	%	80-120	1		11/17/17 15:16	1868-53-7		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Valley Village-QTR

Pace Project No.: 30236282

Sample: MW-3R		Lab ID: 30236282002		Collected: 11/14/17 17:10		Received: 11/16/17 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260B MSV		Analytical Method: EPA 8260B							
Benzene	509	ug/L	10.0	10		11/17/17 18:13	71-43-2		
Ethylbenzene	559	ug/L	10.0	10		11/17/17 18:13	100-41-4		
Isopropylbenzene (Cumene)	25.0	ug/L	1.0	1		11/17/17 17:48	98-82-8		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/17/17 17:48	1634-04-4		
Naphthalene	30.3	ug/L	2.0	1		11/17/17 17:48	91-20-3		
Toluene	9.5	ug/L	1.0	1		11/17/17 17:48	108-88-3		
1,2,4-Trimethylbenzene	338	ug/L	1.0	1		11/17/17 17:48	95-63-6		
1,3,5-Trimethylbenzene	22.4	ug/L	1.0	1		11/17/17 17:48	108-67-8		
Xylene (Total)	251	ug/L	3.0	1		11/17/17 17:48	1330-20-7		
Surrogates									
Toluene-d8 (S)	103	%	80-120	1		11/17/17 17:48	2037-26-5		
4-Bromofluorobenzene (S)	97	%	79-129	1		11/17/17 17:48	460-00-4		
1,2-Dichloroethane-d4 (S)	97	%	80-120	1		11/17/17 17:48	17060-07-0		
Dibromofluoromethane (S)	94	%	80-120	1		11/17/17 17:48	1868-53-7		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Valley Village-QTR

Pace Project No.: 30236282

Sample: MW-4R		Lab ID: 30236282003		Collected: 11/14/17 16:25		Received: 11/16/17 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260B MSV		Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		11/17/17 15:41	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		11/17/17 15:41	100-41-4		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/17/17 15:41	98-82-8		
Methyl-tert-butyl ether	2.1	ug/L	1.0	1		11/17/17 15:41	1634-04-4		
Naphthalene	ND	ug/L	2.0	1		11/17/17 15:41	91-20-3		
Toluene	ND	ug/L	1.0	1		11/17/17 15:41	108-88-3		
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 15:41	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 15:41	108-67-8		
Xylene (Total)	ND	ug/L	3.0	1		11/17/17 15:41	1330-20-7		
Surrogates									
Toluene-d8 (S)	102	%	80-120	1		11/17/17 15:41	2037-26-5		
4-Bromofluorobenzene (S)	94	%	79-129	1		11/17/17 15:41	460-00-4		
1,2-Dichloroethane-d4 (S)	97	%	80-120	1		11/17/17 15:41	17060-07-0		
Dibromofluoromethane (S)	100	%	80-120	1		11/17/17 15:41	1868-53-7		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Valley Village-QTR  
Pace Project No.: 30236282

Sample: MW-8		Lab ID: 30236282004		Collected: 11/14/17 15:20		Received: 11/16/17 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260B MSV		Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		11/17/17 18:38	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		11/17/17 18:38	100-41-4		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/17/17 18:38	98-82-8		
Methyl-tert-butyl ether	219	ug/L	1.0	1		11/17/17 18:38	1634-04-4		
Naphthalene	ND	ug/L	2.0	1		11/17/17 18:38	91-20-3		
Toluene	ND	ug/L	1.0	1		11/17/17 18:38	108-88-3		
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 18:38	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 18:38	108-67-8		
Xylene (Total)	ND	ug/L	3.0	1		11/17/17 18:38	1330-20-7		
Surrogates									
Toluene-d8 (S)	101	%	80-120	1		11/17/17 18:38	2037-26-5		
4-Bromofluorobenzene (S)	99	%	79-129	1		11/17/17 18:38	460-00-4		
1,2-Dichloroethane-d4 (S)	93	%	80-120	1		11/17/17 18:38	17060-07-0		
Dibromofluoromethane (S)	93	%	80-120	1		11/17/17 18:38	1868-53-7		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Valley Village-QTR

Pace Project No.: 30236282

Sample: MW-9		Lab ID: 30236282005		Collected: 11/14/17 13:43		Received: 11/16/17 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260B MSV		Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		11/17/17 13:09	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		11/17/17 13:09	100-41-4		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/17/17 13:09	98-82-8		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/17/17 13:09	1634-04-4		
Naphthalene	ND	ug/L	2.0	1		11/17/17 13:09	91-20-3		
Toluene	ND	ug/L	1.0	1		11/17/17 13:09	108-88-3		
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 13:09	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 13:09	108-67-8		
Xylene (Total)	ND	ug/L	3.0	1		11/17/17 13:09	1330-20-7		
Surrogates									
Toluene-d8 (S)	101	%	80-120	1		11/17/17 13:09	2037-26-5		
4-Bromofluorobenzene (S)	94	%	79-129	1		11/17/17 13:09	460-00-4		
1,2-Dichloroethane-d4 (S)	99	%	80-120	1		11/17/17 13:09	17060-07-0		
Dibromofluoromethane (S)	98	%	80-120	1		11/17/17 13:09	1868-53-7		

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## ANALYTICAL RESULTS

Project: Valley Village-QTR

Pace Project No.: 30236282

Sample: MW-10		Lab ID: 30236282006		Collected: 11/14/17 13:15		Received: 11/16/17 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260B MSV		Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		11/17/17 14:00	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		11/17/17 14:00	100-41-4		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/17/17 14:00	98-82-8		
Methyl-tert-butyl ether	8.4	ug/L	1.0	1		11/17/17 14:00	1634-04-4		
Naphthalene	ND	ug/L	2.0	1		11/17/17 14:00	91-20-3		
Toluene	ND	ug/L	1.0	1		11/17/17 14:00	108-88-3		
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 14:00	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 14:00	108-67-8		
Xylene (Total)	ND	ug/L	3.0	1		11/17/17 14:00	1330-20-7		
Surrogates									
Toluene-d8 (S)	99	%	80-120	1		11/17/17 14:00	2037-26-5		
4-Bromofluorobenzene (S)	92	%	79-129	1		11/17/17 14:00	460-00-4		
1,2-Dichloroethane-d4 (S)	98	%	80-120	1		11/17/17 14:00	17060-07-0		
Dibromofluoromethane (S)	99	%	80-120	1		11/17/17 14:00	1868-53-7		

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## ANALYTICAL RESULTS

Project: Valley Village-QTR

Pace Project No.: 30236282

Sample: MW-11		Lab ID: 30236282007		Collected: 11/14/17 12:26		Received: 11/16/17 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260B MSV		Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		11/17/17 14:25	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		11/17/17 14:25	100-41-4		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/17/17 14:25	98-82-8		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/17/17 14:25	1634-04-4		
Naphthalene	ND	ug/L	2.0	1		11/17/17 14:25	91-20-3		
Toluene	ND	ug/L	1.0	1		11/17/17 14:25	108-88-3		
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 14:25	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 14:25	108-67-8		
Xylene (Total)	ND	ug/L	3.0	1		11/17/17 14:25	1330-20-7		
Surrogates									
Toluene-d8 (S)	98	%	80-120	1		11/17/17 14:25	2037-26-5		
4-Bromofluorobenzene (S)	94	%	79-129	1		11/17/17 14:25	460-00-4		
1,2-Dichloroethane-d4 (S)	99	%	80-120	1		11/17/17 14:25	17060-07-0		
Dibromofluoromethane (S)	95	%	80-120	1		11/17/17 14:25	1868-53-7		

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## ANALYTICAL RESULTS

Project: Valley Village-QTR

Pace Project No.: 30236282

Sample: MW-13		Lab ID: 30236282008		Collected: 11/14/17 14:55		Received: 11/16/17 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260B MSV		Analytical Method: EPA 8260B							
Benzene	136	ug/L	1.0	1		11/17/17 16:06	71-43-2		
Ethylbenzene	14.7	ug/L	1.0	1		11/17/17 16:06	100-41-4		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/17/17 16:06	98-82-8		
Methyl-tert-butyl ether	181	ug/L	1.0	1		11/17/17 16:06	1634-04-4		
Naphthalene	ND	ug/L	2.0	1		11/17/17 16:06	91-20-3		
Toluene	1.7	ug/L	1.0	1		11/17/17 16:06	108-88-3		
1,2,4-Trimethylbenzene	1.1	ug/L	1.0	1		11/17/17 16:06	95-63-6		
1,3,5-Trimethylbenzene	1.1	ug/L	1.0	1		11/17/17 16:06	108-67-8		
Xylene (Total)	6.0	ug/L	3.0	1		11/17/17 16:06	1330-20-7		
Surrogates									
Toluene-d8 (S)	99	%	80-120	1		11/17/17 16:06	2037-26-5		
4-Bromofluorobenzene (S)	94	%	79-129	1		11/17/17 16:06	460-00-4		
1,2-Dichloroethane-d4 (S)	94	%	80-120	1		11/17/17 16:06	17060-07-0		
Dibromofluoromethane (S)	98	%	80-120	1		11/17/17 16:06	1868-53-7		

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## ANALYTICAL RESULTS

Project: Valley Village-QTR

Pace Project No.: 30236282

Sample: MW-14		Lab ID: 30236282009		Collected: 11/14/17 14:16		Received: 11/16/17 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260B MSV		Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		11/17/17 14:50	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		11/17/17 14:50	100-41-4		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/17/17 14:50	98-82-8		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/17/17 14:50	1634-04-4		
Naphthalene	ND	ug/L	2.0	1		11/17/17 14:50	91-20-3		
Toluene	ND	ug/L	1.0	1		11/17/17 14:50	108-88-3		
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 14:50	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 14:50	108-67-8		
Xylene (Total)	ND	ug/L	3.0	1		11/17/17 14:50	1330-20-7		
Surrogates									
Toluene-d8 (S)	101	%	80-120	1		11/17/17 14:50	2037-26-5		
4-Bromofluorobenzene (S)	97	%	79-129	1		11/17/17 14:50	460-00-4		
1,2-Dichloroethane-d4 (S)	96	%	80-120	1		11/17/17 14:50	17060-07-0		
Dibromofluoromethane (S)	98	%	80-120	1		11/17/17 14:50	1868-53-7		

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## ANALYTICAL RESULTS

Project: Valley Village-QTR

Pace Project No.: 30236282

Sample: MW-15		Lab ID: 30236282010		Collected: 11/15/17 09:37		Received: 11/16/17 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260B MSV		Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		11/17/17 16:32	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		11/17/17 16:32	100-41-4		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/17/17 16:32	98-82-8		
Methyl-tert-butyl ether	3.2	ug/L	1.0	1		11/17/17 16:32	1634-04-4		
Naphthalene	ND	ug/L	2.0	1		11/17/17 16:32	91-20-3		
Toluene	ND	ug/L	1.0	1		11/17/17 16:32	108-88-3		
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 16:32	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 16:32	108-67-8		
Xylene (Total)	ND	ug/L	3.0	1		11/17/17 16:32	1330-20-7		
Surrogates									
Toluene-d8 (S)	99	%	80-120	1		11/17/17 16:32	2037-26-5		
4-Bromofluorobenzene (S)	98	%	79-129	1		11/17/17 16:32	460-00-4		
1,2-Dichloroethane-d4 (S)	96	%	80-120	1		11/17/17 16:32	17060-07-0		
Dibromofluoromethane (S)	96	%	80-120	1		11/17/17 16:32	1868-53-7		

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## ANALYTICAL RESULTS

Project: Valley Village-QTR

Pace Project No.: 30236282

Sample: MW-51		Lab ID: 30236282011		Collected: 11/14/17 17:30		Received: 11/16/17 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260B MSV		Analytical Method: EPA 8260B							
Benzene	538	ug/L	10.0	10		11/17/17 19:54	71-43-2		
Ethylbenzene	581	ug/L	10.0	10		11/17/17 19:54	100-41-4		
Isopropylbenzene (Cumene)	22.7	ug/L	1.0	1		11/17/17 19:29	98-82-8		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/17/17 19:29	1634-04-4		
Naphthalene	27.8	ug/L	2.0	1		11/17/17 19:29	91-20-3		
Toluene	8.7	ug/L	1.0	1		11/17/17 19:29	108-88-3		
1,2,4-Trimethylbenzene	293	ug/L	1.0	1		11/17/17 19:29	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 19:29	108-67-8		
Xylene (Total)	224	ug/L	3.0	1		11/17/17 19:29	1330-20-7		
Surrogates									
Toluene-d8 (S)	102	%	80-120	1		11/17/17 19:29	2037-26-5		
4-Bromofluorobenzene (S)	96	%	79-129	1		11/17/17 19:29	460-00-4		
1,2-Dichloroethane-d4 (S)	96	%	80-120	1		11/17/17 19:29	17060-07-0		
Dibromofluoromethane (S)	94	%	80-120	1		11/17/17 19:29	1868-53-7		

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## ANALYTICAL RESULTS

Project: Valley Village-QTR

Pace Project No.: 30236282

Sample: EW-1R		Lab ID: 30236282012		Collected: 11/15/17 11:11		Received: 11/16/17 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260B MSV		Analytical Method: EPA 8260B							
Benzene	352	ug/L	1.0	1		11/17/17 20:20	71-43-2		
Ethylbenzene	1070	ug/L	10.0	10		11/17/17 20:45	100-41-4		
Isopropylbenzene (Cumene)	74.1	ug/L	1.0	1		11/17/17 20:20	98-82-8		
Methyl-tert-butyl ether	1.6	ug/L	1.0	1		11/17/17 20:20	1634-04-4		
Naphthalene	232	ug/L	2.0	1		11/17/17 20:20	91-20-3		
Toluene	154	ug/L	1.0	1		11/17/17 20:20	108-88-3		
1,2,4-Trimethylbenzene	1140	ug/L	10.0	10		11/17/17 20:45	95-63-6		
1,3,5-Trimethylbenzene	53.6	ug/L	1.0	1		11/17/17 20:20	108-67-8		
Xylene (Total)	3060	ug/L	30.0	10		11/17/17 20:45	1330-20-7		
Surrogates									
Toluene-d8 (S)	102	%	80-120	1		11/17/17 20:20	2037-26-5		
4-Bromofluorobenzene (S)	98	%	79-129	1		11/17/17 20:20	460-00-4		
1,2-Dichloroethane-d4 (S)	99	%	80-120	1		11/17/17 20:20	17060-07-0		
Dibromofluoromethane (S)	89	%	80-120	1		11/17/17 20:20	1868-53-7		

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## ANALYTICAL RESULTS

Project: Valley Village-QTR

Pace Project No.: 30236282

Sample: EW-2		Lab ID: 30236282013		Collected: 11/15/17 10:37		Received: 11/16/17 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260B MSV		Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		11/17/17 16:57	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		11/17/17 16:57	100-41-4		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/17/17 16:57	98-82-8		
Methyl-tert-butyl ether	3.8	ug/L	1.0	1		11/17/17 16:57	1634-04-4		
Naphthalene	ND	ug/L	2.0	1		11/17/17 16:57	91-20-3		
Toluene	ND	ug/L	1.0	1		11/17/17 16:57	108-88-3		
1,2,4-Trimethylbenzene	1.2	ug/L	1.0	1		11/17/17 16:57	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 16:57	108-67-8		
Xylene (Total)	ND	ug/L	3.0	1		11/17/17 16:57	1330-20-7		
Surrogates									
Toluene-d8 (S)	99	%	80-120	1		11/17/17 16:57	2037-26-5		
4-Bromofluorobenzene (S)	94	%	79-129	1		11/17/17 16:57	460-00-4		
1,2-Dichloroethane-d4 (S)	98	%	80-120	1		11/17/17 16:57	17060-07-0		
Dibromofluoromethane (S)	99	%	80-120	1		11/17/17 16:57	1868-53-7		

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## ANALYTICAL RESULTS

Project: Valley Village-QTR

Pace Project No.: 30236282

Sample: SL-3		Lab ID: 30236282014		Collected: 11/15/17 08:43		Received: 11/16/17 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260B MSV		Analytical Method: EPA 8260B							
Benzene	2.6	ug/L	1.0	1		11/17/17 17:22	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		11/17/17 17:22	100-41-4		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/17/17 17:22	98-82-8		
Methyl-tert-butyl ether	3.0	ug/L	1.0	1		11/17/17 17:22	1634-04-4		
Naphthalene	ND	ug/L	2.0	1		11/17/17 17:22	91-20-3		
Toluene	ND	ug/L	1.0	1		11/17/17 17:22	108-88-3		
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 17:22	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 17:22	108-67-8		
Xylene (Total)	ND	ug/L	3.0	1		11/17/17 17:22	1330-20-7		
Surrogates									
Toluene-d8 (S)	99	%	80-120	1		11/17/17 17:22	2037-26-5		
4-Bromofluorobenzene (S)	92	%	79-129	1		11/17/17 17:22	460-00-4		
1,2-Dichloroethane-d4 (S)	100	%	80-120	1		11/17/17 17:22	17060-07-0		
Dibromofluoromethane (S)	101	%	80-120	1		11/17/17 17:22	1868-53-7		

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## ANALYTICAL RESULTS

Project: Valley Village-QTR

Pace Project No.: 30236282

Sample: SL-4		Lab ID: 30236282015		Collected: 11/15/17 08:54		Received: 11/16/17 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260B MSV		Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		11/17/17 21:10	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		11/17/17 21:10	100-41-4		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/17/17 21:10	98-82-8		
Methyl-tert-butyl ether	19.0	ug/L	1.0	1		11/17/17 21:10	1634-04-4		
Naphthalene	2.1	ug/L	2.0	1		11/17/17 21:10	91-20-3		
Toluene	ND	ug/L	1.0	1		11/17/17 21:10	108-88-3		
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 21:10	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 21:10	108-67-8		
Xylene (Total)	ND	ug/L	3.0	1		11/17/17 21:10	1330-20-7		
Surrogates									
Toluene-d8 (S)	100	%	80-120	1		11/17/17 21:10	2037-26-5		
4-Bromofluorobenzene (S)	96	%	79-129	1		11/17/17 21:10	460-00-4		
1,2-Dichloroethane-d4 (S)	96	%	80-120	1		11/17/17 21:10	17060-07-0		
Dibromofluoromethane (S)	96	%	80-120	1		11/17/17 21:10	1868-53-7		

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## ANALYTICAL RESULTS

Project: Valley Village-QTR

Pace Project No.: 30236282

Sample: Trip Blank		Lab ID: 30236282016		Collected: 11/15/17 00:01		Received: 11/16/17 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260B MSV		Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		11/17/17 12:44	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		11/17/17 12:44	100-41-4		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/17/17 12:44	98-82-8		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/17/17 12:44	1634-04-4		
Naphthalene	ND	ug/L	2.0	1		11/17/17 12:44	91-20-3		
Toluene	ND	ug/L	1.0	1		11/17/17 12:44	108-88-3		
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 12:44	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/17/17 12:44	108-67-8		
Xylene (Total)	ND	ug/L	3.0	1		11/17/17 12:44	1330-20-7		
Surrogates									
Toluene-d8 (S)	98	%	80-120	1		11/17/17 12:44	2037-26-5		
4-Bromofluorobenzene (S)	93	%	79-129	1		11/17/17 12:44	460-00-4		
1,2-Dichloroethane-d4 (S)	91	%	80-120	1		11/17/17 12:44	17060-07-0		
Dibromofluoromethane (S)	96	%	80-120	1		11/17/17 12:44	1868-53-7		

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## QUALITY CONTROL DATA

Project: Valley Village-QTR  
Pace Project No.: 30236282

QC Batch:	279515	Analysis Method:	EPA 8260B
QC Batch Method:	EPA 8260B	Analysis Description:	8260B MSV UST-WATER
Associated Lab Samples:	30236282001, 30236282002, 30236282003, 30236282004, 30236282005, 30236282006, 30236282007, 30236282008, 30236282009, 30236282010, 30236282011, 30236282012, 30236282013, 30236282014, 30236282015, 30236282016		

METHOD BLANK:	1372605	Matrix:	Water
Associated Lab Samples:	30236282001, 30236282002, 30236282003, 30236282004, 30236282005, 30236282006, 30236282007, 30236282008, 30236282009, 30236282010, 30236282011, 30236282012, 30236282013, 30236282014, 30236282015, 30236282016		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	ND	1.0	11/17/17 12:19	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	11/17/17 12:19	
Benzene	ug/L	ND	1.0	11/17/17 12:19	
Ethylbenzene	ug/L	ND	1.0	11/17/17 12:19	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	11/17/17 12:19	
Methyl-tert-butyl ether	ug/L	ND	1.0	11/17/17 12:19	
Naphthalene	ug/L	ND	2.0	11/17/17 12:19	
Toluene	ug/L	ND	1.0	11/17/17 12:19	
Xylene (Total)	ug/L	ND	3.0	11/17/17 12:19	
1,2-Dichloroethane-d4 (S)	%	97	80-120	11/17/17 12:19	
4-Bromofluorobenzene (S)	%	94	79-129	11/17/17 12:19	
Dibromofluoromethane (S)	%	99	80-120	11/17/17 12:19	
Toluene-d8 (S)	%	99	80-120	11/17/17 12:19	

LABORATORY CONTROL SAMPLE: 1372606

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	17.9	89	70-130	
1,3,5-Trimethylbenzene	ug/L	20	18.8	94	70-130	
Benzene	ug/L	20	18.7	94	70-130	
Ethylbenzene	ug/L	20	20.6	103	70-130	
Isopropylbenzene (Cumene)	ug/L	20	18.6	93	70-130	
Methyl-tert-butyl ether	ug/L	20	22.0	110	70-130	
Naphthalene	ug/L	20	18.5	93	70-130	
Toluene	ug/L	20	19.5	97	70-130	
Xylene (Total)	ug/L	60	61.5	103	70-130	
1,2-Dichloroethane-d4 (S)	%			96	80-120	
4-Bromofluorobenzene (S)	%			95	79-129	
Dibromofluoromethane (S)	%			97	80-120	
Toluene-d8 (S)	%			100	80-120	

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

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: Valley Village-QTR

Pace Project No.: 30236282

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1372607 1372608											
Parameter	Units	30236282005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2,4-Trimethylbenzene	ug/L	ND	20	20	16.7	16.8	83	84	75-125	1	
1,3,5-Trimethylbenzene	ug/L	ND	20	20	16.3	16.6	81	83	76-121	2	
Benzene	ug/L	ND	20	20	18.0	18.0	90	90	67-121	0	
Ethylbenzene	ug/L	ND	20	20	18.9	18.8	95	94	70-127	0	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	17.4	17.7	87	88	80-122	1	
Methyl-tert-butyl ether	ug/L	ND	20	20	22.3	21.3	112	106	79-135	5	
Naphthalene	ug/L	ND	20	20	15.1	15.7	75	78	62-131	4	
Toluene	ug/L	ND	20	20	18.4	18.8	92	94	77-125	2	
Xylene (Total)	ug/L	ND	60	60	56.3	58.3	94	97	69-128	3	
1,2-Dichloroethane-d4 (S)	%						94	93	80-120		
4-Bromofluorobenzene (S)	%						97	93	79-129		
Dibromofluoromethane (S)	%						97	100	80-120		
Toluene-d8 (S)	%						99	101	80-120		

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

## REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: Valley Village-QTR  
Pace Project No.: 30236282

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### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Valley Village-QTR

Pace Project No.: 30236282

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30236282001	MW-1R	EPA 8260B	279515		
30236282002	MW-3R	EPA 8260B	279515		
30236282003	MW-4R	EPA 8260B	279515		
30236282004	MW-8	EPA 8260B	279515		
30236282005	MW-9	EPA 8260B	279515		
30236282006	MW-10	EPA 8260B	279515		
30236282007	MW-11	EPA 8260B	279515		
30236282008	MW-13	EPA 8260B	279515		
30236282009	MW-14	EPA 8260B	279515		
30236282010	MW-15	EPA 8260B	279515		
30236282011	MW-51	EPA 8260B	279515		
30236282012	EW-1R	EPA 8260B	279515		
30236282013	EW-2	EPA 8260B	279515		
30236282014	SL-3	EPA 8260B	279515		
30236282015	SL-4	EPA 8260B	279515		
30236282016	Trip Blank	EPA 8260B	279515		

## REPORT OF LABORATORY ANALYSIS

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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.

## Section A

Required Client Information:

Company: Insite Group, Inc

Address: 611 South Irvine Avenue

Sharon, PA 16146

Email To: lab@insitegroup.org

Phone: 724-347-2101 Fax: 724-347-2139

Requested Due Date/TAT:

## Section B

Required Project Information:

Report To: Sara Giordano

Copy To:

Purchase Order No.:

Project Name: Valley Village - QTR

Project Number: 03-06500

## Section C

Invoice Information:

Attention: Sara Giordano

Company Name: Insite Group, Inc.

Address: (same)

Pace Quote Reference:

Pace Project Manager: Samantha Bayura

Pace Profile #:

Page: 1 of 2

## REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☒ UST ☐ RCRA ☐ OTHER

Site Location

STATE: Kittanning, PA

Requested Analysis Filtered (Y/N)

WO# : 30236282

30236282

Analysis Test

Preservatives

Unpreserved

# OF CONTAINERS

SAMPLE TEMP AT COLLECTION

COLLECTED

COMPOSITE START

COMPOSITE END/GRAB

DATE

TIME

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Residual Cl

Pace Project No./ Lab I.D.

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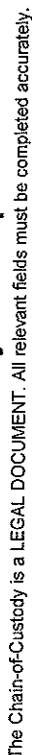
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The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<b>Section A</b> Requested Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:		Page: <u>2</u> of <u>2</u>	
Company: Insite Group, Inc		Report To: Sara Giordano		Attention: Sara Giordano			
Address: 611 South Irvine Avenue		Copy To:		Company Name: Insite Group, Inc.			
Sharon, PA 16146				Address: (same)			
Email To: <a href="mailto:lab@insitegroup.org">lab@insitegroup.org</a>		Purchase Order No.:		Pace Quote Reference:			
Phone: 724-347-2101		Project Name: Valley Village - QTR		Pace Project Manager: Samantha Bayura			
Fax: 724-347-2139		Project Number: 03-06500		Pace Profile #:			
Requested Due Date/TAT:							
<b>REGULATORY AGENCY</b> <input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input checked="" type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER _____							
<b>Site Location</b> _____ STATE: _____				Kittanning, PA _____			

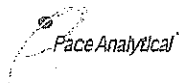
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Page 25 of 26

**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.



# Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Insite Group

Project # 30236282

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other \_\_\_\_\_

Tracking #: 7060 2535 7942

Label	<u>BLM</u>
LIMS Login	<u>ANL</u>

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Thermometer Used 8 Type of Ice: ☒ Wet ☐ Blue ☐ None

Cooler Temperature Observed Temp 4.3 °C Correction Factor: 0.0 °C Final Temp: 4.3 °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: BLM 11-16-17

Comments:	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.
-Includes date/time/ID Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9.
Correct Containers Used:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10.
-Pace Containers Used:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Containers Intact:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11.
Orthophosphate field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
Hex Cr Aqueous Compliance/NPDES sample field filtered	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.
Organic Samples checked for dechlorination:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
All containers have been checked for preservation.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	16.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
exceptions: <u>VOA</u> coliform, TOC, O&G, Phenolics				
				Initial when completed <u>BLM</u> Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17.
Trip Blank Present:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Rad Aqueous Samples Screened > 0.5 mrem/hr	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Initial when completed: _____ Date: _____

## Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted By: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

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☐ A check in this box indicates that additional information has been stored in ereports.

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

\*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.



December 07, 2017

## Insite Group

Sample Delivery Group: L954344  
Samples Received: 12/01/2017  
Project Number: VALLEY VILLAGE  
Description: Groundwater Monitoring  
Site: 03-06500  
Report To: Ms. Sara Giordano  
611 S. Irvine Avenue  
Sharon, PA 16146-1165

Entire Report Reviewed By:



Craig Cothron  
Technical Service Representative

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





Cp: Cover Page	1	<sup>1</sup> Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	<sup>2</sup> Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	<sup>3</sup> Ss
EW-1R L954344-01	5	
MW-3R L954344-02	6	<sup>4</sup> Cn
TRIP BLANK L954344-03	7	<sup>5</sup> Sr
Qc: Quality Control Summary	8	
Volatile Organic Compounds (GC/MS) by Method 8260B	8	<sup>6</sup> Qc
Gl: Glossary of Terms	9	<sup>7</sup> Gl
Al: Accreditations & Locations	10	<sup>8</sup> Al
Sc: Sample Chain of Custody	11	<sup>9</sup> Sc



## SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



## EW-1R L954344-01 GW

			Collected by George Mueller	Collected date/time 11/29/17 13:02	Received date/time 12/01/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1048495	50	12/03/17 17:37	12/03/17 17:37	ACG

## MW-3R L954344-02 GW

			Collected by George Mueller	Collected date/time 11/29/17 12:33	Received date/time 12/01/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1048495	10	12/03/17 17:57	12/03/17 17:57	ACG

## TRIP BLANK L954344-03 GW

			Collected by George Mueller	Collected date/time 11/29/17 00:00	Received date/time 12/01/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1048495	1	12/01/17 21:55	12/01/17 21:55	JAH

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al<sup>9</sup> Sc





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

Craig Cothron  
Technical Service Representative







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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	593		16.6	50.0	50	12/03/2017 17:37	<a href="#">WG1048495</a>
Ethylbenzene	2070		19.2	50.0	50	12/03/2017 17:37	<a href="#">WG1048495</a>
Isopropylbenzene	109		16.3	50.0	50	12/03/2017 17:37	<a href="#">WG1048495</a>
Methyl tert-butyl ether	U		18.4	50.0	50	12/03/2017 17:37	<a href="#">WG1048495</a>
Naphthalene	346		50.0	250	50	12/03/2017 17:37	<a href="#">WG1048495</a>
Toluene	4030		20.6	50.0	50	12/03/2017 17:37	<a href="#">WG1048495</a>
1,2,4-Trimethylbenzene	2010		18.6	50.0	50	12/03/2017 17:37	<a href="#">WG1048495</a>
1,3,5-Trimethylbenzene	439		19.4	50.0	50	12/03/2017 17:37	<a href="#">WG1048495</a>
Xylenes, Total	7420		53.0	150	50	12/03/2017 17:37	<a href="#">WG1048495</a>
(S) Toluene-d8	108			80.0-120		12/03/2017 17:37	<a href="#">WG1048495</a>
(S) Dibromofluoromethane	98.2			76.0-123		12/03/2017 17:37	<a href="#">WG1048495</a>
(S) 4-Bromofluorobenzene	103			80.0-120		12/03/2017 17:37	<a href="#">WG1048495</a>







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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	456		3.31	10.0	10	12/03/2017 17:57	<a href="#">WG1048495</a>
Ethylbenzene	796		3.84	10.0	10	12/03/2017 17:57	<a href="#">WG1048495</a>
Isopropylbenzene	30.7		3.26	10.0	10	12/03/2017 17:57	<a href="#">WG1048495</a>
Methyl tert-butyl ether	U		3.67	10.0	10	12/03/2017 17:57	<a href="#">WG1048495</a>
Naphthalene	49.7	J	10.0	50.0	10	12/03/2017 17:57	<a href="#">WG1048495</a>
Toluene	11.4		4.12	10.0	10	12/03/2017 17:57	<a href="#">WG1048495</a>
1,2,4-Trimethylbenzene	541		3.73	10.0	10	12/03/2017 17:57	<a href="#">WG1048495</a>
1,3,5-Trimethylbenzene	U		3.87	10.0	10	12/03/2017 17:57	<a href="#">WG1048495</a>
Xylenes, Total	438		10.6	30.0	10	12/03/2017 17:57	<a href="#">WG1048495</a>
(S) Toluene-d8	108			80.0-120		12/03/2017 17:57	<a href="#">WG1048495</a>
(S) Dibromofluoromethane	97.6			76.0-123		12/03/2017 17:57	<a href="#">WG1048495</a>
(S) 4-Bromofluorobenzene	105			80.0-120		12/03/2017 17:57	<a href="#">WG1048495</a>







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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/01/2017 21:55	<a href="#">WG1048495</a>
Ethylbenzene	U		0.384	1.00	1	12/01/2017 21:55	<a href="#">WG1048495</a>
Isopropylbenzene	U		0.326	1.00	1	12/01/2017 21:55	<a href="#">WG1048495</a>
Methyl tert-butyl ether	U		0.367	1.00	1	12/01/2017 21:55	<a href="#">WG1048495</a>
Naphthalene	U		1.00	5.00	1	12/01/2017 21:55	<a href="#">WG1048495</a>
Toluene	U		0.412	1.00	1	12/01/2017 21:55	<a href="#">WG1048495</a>
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/01/2017 21:55	<a href="#">WG1048495</a>
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/01/2017 21:55	<a href="#">WG1048495</a>
Xylenes, Total	U		1.06	3.00	1	12/01/2017 21:55	<a href="#">WG1048495</a>
(S) Toluene-d8	108			80.0-120		12/01/2017 21:55	<a href="#">WG1048495</a>
(S) Dibromofluoromethane	98.6			76.0-123		12/01/2017 21:55	<a href="#">WG1048495</a>
(S) 4-Bromofluorobenzene	107			80.0-120		12/01/2017 21:55	<a href="#">WG1048495</a>





Method Blank (MB)

(MB) R3269979-3 12/01/17 21:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Isopropylbenzene	U		0.326	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	108			80.0-120
(S) Dibromofluoromethane	96.7			76.0-123
(S) 4-Bromofluorobenzene	106			80.0-120

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

(LCS) R3269979-1 12/01/17 20:14 • (LCSD) R3269979-2 12/01/17 20:35

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	23.4	22.8	93.7	91.1	69.0-123			2.72	20
Ethylbenzene	25.0	25.9	25.5	104	102	77.0-120			1.88	20
Isopropylbenzene	25.0	26.7	25.8	107	103	75.0-120			3.50	20
Methyl tert-butyl ether	25.0	23.2	23.3	92.7	93.2	64.0-123			0.560	20
Naphthalene	25.0	25.8	26.0	103	104	62.0-128			0.856	20
Toluene	25.0	24.8	24.3	99.1	97.0	77.0-120			2.10	20
1,2,4-Trimethylbenzene	25.0	26.1	25.5	105	102	75.0-120			2.48	20
1,3,5-Trimethylbenzene	25.0	26.0	25.4	104	102	75.0-120			2.25	20
Xylenes, Total	75.0	78.6	77.0	105	103	77.0-120			2.06	20
(S) Toluene-d8				105	105	80.0-120				
(S) Dibromofluoromethane				98.2	97.9	76.0-123				
(S) 4-Bromofluorobenzene				104	104	80.0-120				





## Guide to Reading and Understanding Your Laboratory Report

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

### Abbreviations and Definitions

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

### Qualifier Description

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

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gi

<sup>8</sup> Ai

<sup>9</sup> Sc





ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

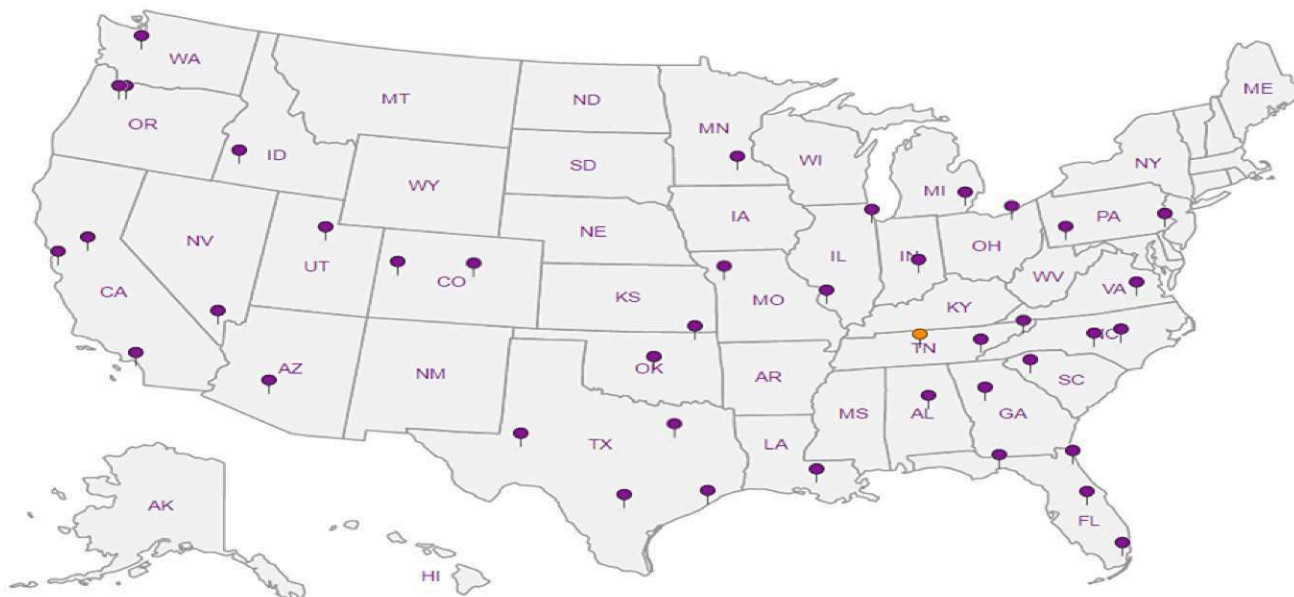
## Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>n/a</sup> Accreditation not applicable

## Our Locations

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





Insite Group, Inc.  
611 S. Irvine Ave.  
Sharon, PA 16146

Alternate billing information  
INSITE080614S

Analysis/Container/Preservative

Chain of Custody  
Page 1 of 1

Prepared by

**ENVIRONMENTAL  
SCIENCE CORP.**

12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone (615) 758-5858  
Phone (800) 767-5859  
FAX (615) 758-5859

Report to Sara Giordano  
Email to lab@insitegroup.org

Project Description GROUNDWATER MONITORING

Loc Site Address KITTANNING, PA

Phone 724 347 2101  
FAX 724 347 2139

Client Project #  
VALLEY VILLAGE

ESS Key INSITE080614S

Collected by George Mueller

Site/Facility ID# 03-06500 P.O.#

Collected by (signature)

**Rush?** (Lab MUST Be Notified)  
Same Day 200%  
Next Day 100%  
Two Day 50%

Date Results Needed:

Email? ☒ No ☐ Yes

FAX? ☒ No ☐ Yes

CnCode (lab use only)

Template/Prelog

Shipped Via

Remarks/Contaminant Sample # (lab use only)

Sample ID

Comp/Grab

Matrix\*

Depth

Date

Time

2

X

EW-1R

Grab

GW

11/29/17

1302

2

X

MW-3R

Grab

GW

11/29/17

1233

2

X

*Trip Blank*

L994344-01

02

03

V8260UGPA / 40mlAmb / HCl

Matrix: SS - Soil/Solid GW - Groundwater WW - Waste Water DW - Drinking Water OT - Other

Remarks **DI PRIORITY**

E207

pH Temp

Flow Other

Relinquished by (Signature)

Date

Time

Received by (Signature)

Samples returned via ☒ UPS

☒ FedEx ☐ Courier

Condition (lab use only)

Relinquished by (Signature)

Date

Time

Received by (Signature)

Temp: 4.5

Bottles Received: 5

CSH

OK

Relinquished by (Signature)

Date

Time

Received for lab by (Signature)

Date 12/1/17

Time 8:45

pH Checked

NCF



## ESC LAB SCIENCES Cooler Receipt Form

Client:	<i>INSITE</i>	SDUG#	<i>2964344</i>	
Cooler Received/Opened On: 12/1/17		Temperature:	<i>65</i>	
Received by: Christian Kacar				
Signature: <i>[Signature]</i>				
<b>Receipt Check List</b>				
	<b>NP</b>	<b>Yes</b>	<b>No</b>	
COC Seal Present / Intact?	<i>NSW</i>	✓		
COC Signed / Accurate?		✓		
Bottles arrive intact?		✓		
Correct bottles used?		✓		
Sufficient volume sent?		✓		
If Applicable				
VOA Zero headspace?		✓		
Preservation Correct / Checked?				



January 02, 2018

## Insite Group

Sample Delivery Group: L959578  
Samples Received: 12/22/2017  
Project Number: VALLEY VILLAGE  
Description: Surfactant Monitoring  
Site: 03-06500  
Report To: Ms. Sara Giordano  
611 S. Irvine Avenue  
Sharon, PA 16146-1165

Entire Report Reviewed By:



Craig Cothron  
Technical Service Representative

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





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<sup>1</sup> Cp
<sup>2</sup> Tc
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<sup>5</sup> Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
<sup>9</sup> Sc



# SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



## MW-1R L959578-01 GW

			Collected by Adam Gaines	Collected date/time 12/20/17 15:06	Received date/time 12/22/17 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1057187	1	12/24/17 23:48	12/24/17 23:48	RAS

## MW-3R L959578-02 GW

			Collected by Adam Gaines	Collected date/time 12/20/17 14:36	Received date/time 12/22/17 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1057187	25	12/25/17 00:07	12/25/17 00:07	RAS

## MW-8 L959578-03 GW

			Collected by Adam Gaines	Collected date/time 12/20/17 12:24	Received date/time 12/22/17 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1057187	1	12/25/17 00:27	12/25/17 00:27	RAS
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1057187	10	12/29/17 01:35	12/29/17 01:35	ACE

## MW-13 L959578-04 GW

			Collected by Adam Gaines	Collected date/time 12/20/17 12:01	Received date/time 12/22/17 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1057187	1	12/25/17 00:47	12/25/17 00:47	RAS

## MW-15 L959578-05 GW

			Collected by Adam Gaines	Collected date/time 12/20/17 13:28	Received date/time 12/22/17 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1057187	1	12/25/17 01:07	12/25/17 01:07	RAS

## EW-1R L959578-06 GW

			Collected by Adam Gaines	Collected date/time 12/20/17 15:35	Received date/time 12/22/17 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1057187	10	12/25/17 01:27	12/25/17 01:27	RAS

## SL-3 L959578-07 GW

			Collected by Adam Gaines	Collected date/time 12/20/17 14:04	Received date/time 12/22/17 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1057187	1	12/25/17 01:47	12/25/17 01:47	RAS

## SL-4 L959578-08 GW

			Collected by Adam Gaines	Collected date/time 12/20/17 12:55	Received date/time 12/22/17 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1057187	1	12/25/17 02:07	12/25/17 02:07	RAS





# SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



TRIP BLANK L959578-09 GW

Collected by  
Adam Gaines

Collected date/time  
12/20/17 00:00

Received date/time  
12/22/17 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1057187	1	12/24/17 22:48	12/24/17 22:48	RAS

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





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

Craig Cothron  
Technical Service Representative







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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	2.14		0.331	1.00	1	12/24/2017 23:48	<a href="#">WG1057187</a>
Ethylbenzene	U		0.384	1.00	1	12/24/2017 23:48	<a href="#">WG1057187</a>
Isopropylbenzene	U		0.326	1.00	1	12/24/2017 23:48	<a href="#">WG1057187</a>
Methyl tert-butyl ether	U		0.367	1.00	1	12/24/2017 23:48	<a href="#">WG1057187</a>
Naphthalene	U		1.00	5.00	1	12/24/2017 23:48	<a href="#">WG1057187</a>
Toluene	U		0.412	1.00	1	12/24/2017 23:48	<a href="#">WG1057187</a>
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/24/2017 23:48	<a href="#">WG1057187</a>
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/24/2017 23:48	<a href="#">WG1057187</a>
Xylenes, Total	U		1.06	3.00	1	12/24/2017 23:48	<a href="#">WG1057187</a>
(S) Toluene-d8	109			80.0-120		12/24/2017 23:48	<a href="#">WG1057187</a>
(S) Dibromofluoromethane	95.0			76.0-123		12/24/2017 23:48	<a href="#">WG1057187</a>
(S) 4-Bromofluorobenzene	97.6			80.0-120		12/24/2017 23:48	<a href="#">WG1057187</a>







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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	260		8.28	25.0	25	12/25/2017 00:07	<a href="#">WG1057187</a>
Ethylbenzene	529		9.60	25.0	25	12/25/2017 00:07	<a href="#">WG1057187</a>
Isopropylbenzene	18.7	J	8.15	25.0	25	12/25/2017 00:07	<a href="#">WG1057187</a>
Methyl tert-butyl ether	U		9.18	25.0	25	12/25/2017 00:07	<a href="#">WG1057187</a>
Naphthalene	U		25.0	125	25	12/25/2017 00:07	<a href="#">WG1057187</a>
Toluene	U		10.3	25.0	25	12/25/2017 00:07	<a href="#">WG1057187</a>
1,2,4-Trimethylbenzene	268		9.32	25.0	25	12/25/2017 00:07	<a href="#">WG1057187</a>
1,3,5-Trimethylbenzene	U		9.68	25.0	25	12/25/2017 00:07	<a href="#">WG1057187</a>
Xylenes, Total	U		26.5	75.0	25	12/25/2017 00:07	<a href="#">WG1057187</a>
(S) Toluene-d8	110			80.0-120		12/25/2017 00:07	<a href="#">WG1057187</a>
(S) Dibromofluoromethane	95.3			76.0-123		12/25/2017 00:07	<a href="#">WG1057187</a>
(S) 4-Bromofluorobenzene	95.2			80.0-120		12/25/2017 00:07	<a href="#">WG1057187</a>







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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	305		3.31	10.0	10	12/29/2017 01:35	<a href="#">WG1057187</a>
Ethylbenzene	0.448	J	0.384	1.00	1	12/25/2017 00:27	<a href="#">WG1057187</a>
Isopropylbenzene	2.64		0.326	1.00	1	12/25/2017 00:27	<a href="#">WG1057187</a>
Methyl tert-butyl ether	79.7		0.367	1.00	1	12/25/2017 00:27	<a href="#">WG1057187</a>
Naphthalene	U		1.00	5.00	1	12/25/2017 00:27	<a href="#">WG1057187</a>
Toluene	1.38		0.412	1.00	1	12/25/2017 00:27	<a href="#">WG1057187</a>
1,2,4-Trimethylbenzene	0.670	J	0.373	1.00	1	12/25/2017 00:27	<a href="#">WG1057187</a>
1,3,5-Trimethylbenzene	0.584	J	0.387	1.00	1	12/25/2017 00:27	<a href="#">WG1057187</a>
Xylenes, Total	2.21	J	1.06	3.00	1	12/25/2017 00:27	<a href="#">WG1057187</a>
(S) Toluene-d8	108			80.0-120		12/29/2017 01:35	<a href="#">WG1057187</a>
(S) Toluene-d8	109			80.0-120		12/25/2017 00:27	<a href="#">WG1057187</a>
(S) Dibromofluoromethane	97.7			76.0-123		12/25/2017 00:27	<a href="#">WG1057187</a>
(S) Dibromofluoromethane	86.6			76.0-123		12/29/2017 01:35	<a href="#">WG1057187</a>
(S) 4-Bromofluorobenzene	109			80.0-120		12/29/2017 01:35	<a href="#">WG1057187</a>
(S) 4-Bromofluorobenzene	96.8			80.0-120		12/25/2017 00:27	<a href="#">WG1057187</a>







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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/25/2017 00:47	<a href="#">WG1057187</a>
Ethylbenzene	U		0.384	1.00	1	12/25/2017 00:47	<a href="#">WG1057187</a>
Isopropylbenzene	U		0.326	1.00	1	12/25/2017 00:47	<a href="#">WG1057187</a>
Methyl tert-butyl ether	34.8		0.367	1.00	1	12/25/2017 00:47	<a href="#">WG1057187</a>
Naphthalene	U		1.00	5.00	1	12/25/2017 00:47	<a href="#">WG1057187</a>
Toluene	U		0.412	1.00	1	12/25/2017 00:47	<a href="#">WG1057187</a>
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/25/2017 00:47	<a href="#">WG1057187</a>
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/25/2017 00:47	<a href="#">WG1057187</a>
Xylenes, Total	U		1.06	3.00	1	12/25/2017 00:47	<a href="#">WG1057187</a>
(S) Toluene-d8	108			80.0-120		12/25/2017 00:47	<a href="#">WG1057187</a>
(S) Dibromofluoromethane	92.9			76.0-123		12/25/2017 00:47	<a href="#">WG1057187</a>
(S) 4-Bromofluorobenzene	98.4			80.0-120		12/25/2017 00:47	<a href="#">WG1057187</a>







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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/25/2017 01:07	<a href="#">WG1057187</a>
Ethylbenzene	U		0.384	1.00	1	12/25/2017 01:07	<a href="#">WG1057187</a>
Isopropylbenzene	U		0.326	1.00	1	12/25/2017 01:07	<a href="#">WG1057187</a>
Methyl tert-butyl ether	0.556	J	0.367	1.00	1	12/25/2017 01:07	<a href="#">WG1057187</a>
Naphthalene	U		1.00	5.00	1	12/25/2017 01:07	<a href="#">WG1057187</a>
Toluene	U		0.412	1.00	1	12/25/2017 01:07	<a href="#">WG1057187</a>
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/25/2017 01:07	<a href="#">WG1057187</a>
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/25/2017 01:07	<a href="#">WG1057187</a>
Xylenes, Total	U		1.06	3.00	1	12/25/2017 01:07	<a href="#">WG1057187</a>
(S) Toluene-d8	107			80.0-120		12/25/2017 01:07	<a href="#">WG1057187</a>
(S) Dibromofluoromethane	95.0			76.0-123		12/25/2017 01:07	<a href="#">WG1057187</a>
(S) 4-Bromofluorobenzene	100			80.0-120		12/25/2017 01:07	<a href="#">WG1057187</a>







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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	546		3.31	10.0	10	12/25/2017 01:27	<a href="#">WG1057187</a>
Ethylbenzene	1030		3.84	10.0	10	12/25/2017 01:27	<a href="#">WG1057187</a>
Isopropylbenzene	53.4		3.26	10.0	10	12/25/2017 01:27	<a href="#">WG1057187</a>
Methyl tert-butyl ether	U		3.67	10.0	10	12/25/2017 01:27	<a href="#">WG1057187</a>
Naphthalene	151		10.0	50.0	10	12/25/2017 01:27	<a href="#">WG1057187</a>
Toluene	42.5		4.12	10.0	10	12/25/2017 01:27	<a href="#">WG1057187</a>
1,2,4-Trimethylbenzene	1040		3.73	10.0	10	12/25/2017 01:27	<a href="#">WG1057187</a>
1,3,5-Trimethylbenzene	24.2		3.87	10.0	10	12/25/2017 01:27	<a href="#">WG1057187</a>
Xylenes, Total	2970		10.6	30.0	10	12/25/2017 01:27	<a href="#">WG1057187</a>
(S) Toluene-d8	109			80.0-120		12/25/2017 01:27	<a href="#">WG1057187</a>
(S) Dibromofluoromethane	95.8			76.0-123		12/25/2017 01:27	<a href="#">WG1057187</a>
(S) 4-Bromofluorobenzene	99.3			80.0-120		12/25/2017 01:27	<a href="#">WG1057187</a>







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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	0.369	J	0.331	1.00	1	12/25/2017 01:47	<a href="#">WG1057187</a>
Ethylbenzene	U		0.384	1.00	1	12/25/2017 01:47	<a href="#">WG1057187</a>
Isopropylbenzene	U		0.326	1.00	1	12/25/2017 01:47	<a href="#">WG1057187</a>
Methyl tert-butyl ether	13.1		0.367	1.00	1	12/25/2017 01:47	<a href="#">WG1057187</a>
Naphthalene	U		1.00	5.00	1	12/25/2017 01:47	<a href="#">WG1057187</a>
Toluene	U		0.412	1.00	1	12/25/2017 01:47	<a href="#">WG1057187</a>
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/25/2017 01:47	<a href="#">WG1057187</a>
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/25/2017 01:47	<a href="#">WG1057187</a>
Xylenes, Total	U		1.06	3.00	1	12/25/2017 01:47	<a href="#">WG1057187</a>
(S) Toluene-d8	110			80.0-120		12/25/2017 01:47	<a href="#">WG1057187</a>
(S) Dibromofluoromethane	93.8			76.0-123		12/25/2017 01:47	<a href="#">WG1057187</a>
(S) 4-Bromofluorobenzene	97.7			80.0-120		12/25/2017 01:47	<a href="#">WG1057187</a>







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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	0.492	J	0.331	1.00	1	12/25/2017 02:07	<a href="#">WG1057187</a>
Ethylbenzene	U		0.384	1.00	1	12/25/2017 02:07	<a href="#">WG1057187</a>
Isopropylbenzene	U		0.326	1.00	1	12/25/2017 02:07	<a href="#">WG1057187</a>
Methyl tert-butyl ether	5.85		0.367	1.00	1	12/25/2017 02:07	<a href="#">WG1057187</a>
Naphthalene	U		1.00	5.00	1	12/25/2017 02:07	<a href="#">WG1057187</a>
Toluene	U		0.412	1.00	1	12/25/2017 02:07	<a href="#">WG1057187</a>
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/25/2017 02:07	<a href="#">WG1057187</a>
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/25/2017 02:07	<a href="#">WG1057187</a>
Xylenes, Total	U		1.06	3.00	1	12/25/2017 02:07	<a href="#">WG1057187</a>
(S) Toluene-d8	109			80.0-120		12/25/2017 02:07	<a href="#">WG1057187</a>
(S) Dibromofluoromethane	95.4			76.0-123		12/25/2017 02:07	<a href="#">WG1057187</a>
(S) 4-Bromofluorobenzene	98.9			80.0-120		12/25/2017 02:07	<a href="#">WG1057187</a>







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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/24/2017 22:48	<a href="#">WG1057187</a>
Ethylbenzene	U		0.384	1.00	1	12/24/2017 22:48	<a href="#">WG1057187</a>
Isopropylbenzene	U		0.326	1.00	1	12/24/2017 22:48	<a href="#">WG1057187</a>
Methyl tert-butyl ether	U		0.367	1.00	1	12/24/2017 22:48	<a href="#">WG1057187</a>
Naphthalene	U		1.00	5.00	1	12/24/2017 22:48	<a href="#">WG1057187</a>
Toluene	U		0.412	1.00	1	12/24/2017 22:48	<a href="#">WG1057187</a>
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/24/2017 22:48	<a href="#">WG1057187</a>
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/24/2017 22:48	<a href="#">WG1057187</a>
Xylenes, Total	U		1.06	3.00	1	12/24/2017 22:48	<a href="#">WG1057187</a>
(S) Toluene-d8	109			80.0-120		12/24/2017 22:48	<a href="#">WG1057187</a>
(S) Dibromofluoromethane	96.1			76.0-123		12/24/2017 22:48	<a href="#">WG1057187</a>
(S) 4-Bromofluorobenzene	98.4			80.0-120		12/24/2017 22:48	<a href="#">WG1057187</a>





Method Blank (MB)

(MB) R3276414-2 12/24/17 22:28

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Isopropylbenzene	U		0.326	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	110			80.0-120
(S) Dibromofluoromethane	95.2			76.0-123
(S) 4-Bromofluorobenzene	94.5			80.0-120

Laboratory Control Sample (LCS)

(LCS) R3276414-1 12/24/17 21:48

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	25.0	20.8	83.1	69.0-123	
Ethylbenzene	25.0	24.1	96.4	77.0-120	
Isopropylbenzene	25.0	23.3	93.2	75.0-120	
Methyl tert-butyl ether	25.0	23.0	91.9	64.0-123	
Naphthalene	25.0	23.6	94.4	62.0-128	
Toluene	25.0	22.2	89.0	77.0-120	
1,2,4-Trimethylbenzene	25.0	22.7	90.7	75.0-120	
1,3,5-Trimethylbenzene	25.0	22.9	91.5	75.0-120	
Xylenes, Total	75.0	68.8	91.7	77.0-120	
(S) Toluene-d8			105	80.0-120	
(S) Dibromofluoromethane			96.5	76.0-123	
(S) 4-Bromofluorobenzene			98.1	80.0-120	





## Guide to Reading and Understanding Your Laboratory Report

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

### Abbreviations and Definitions

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

### Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
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<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gi

<sup>8</sup> Ai

<sup>9</sup> Sc





ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

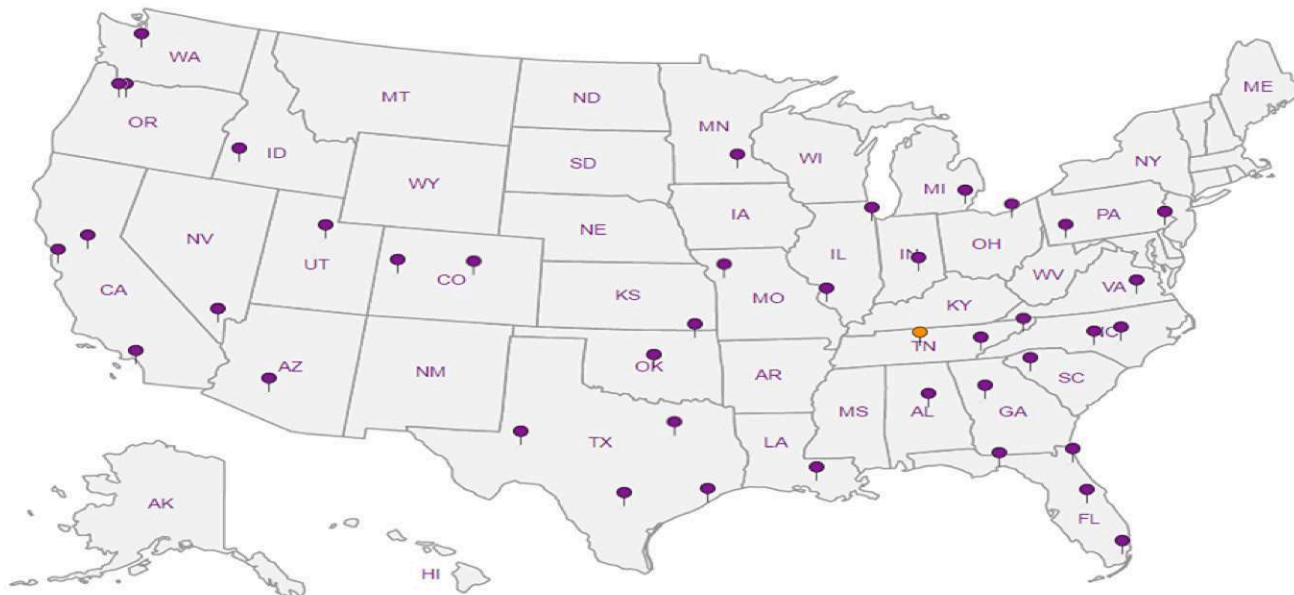
## Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>n/a</sup> Accreditation not applicable

## Our Locations

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





Insite Group, Inc.  
611 South Irvine Ave.  
Sharon, PA 16146

Billing Information:

INSITE080614S

Analysis / Container / Preservative

11 Jan of Custody Page 1 of 1



Lab Information:  
Lab Name: ESC  
Lab Address: 1000 E. 10th St.  
Lab City: Erie, PA 16512  
Lab Phone: 814.833.1100  
Lab Fax: 814.833.1101



Report to:  
Sara Giordano

Email To:  
lab@insitegroup.org

Project Description:  
Surfactant Monitoring

City/State Collected:  
Kittanning, PA

Phone: 724-347-2101  
Fax: 724-347-2139

Client Project #:  
Valley Village

Lab Project #:  
INSITE080614S

Collected by (Print):  
Adam Gaines

Site/Facility ID #:  
03-06500

P.O. #:

Collected by (Signature):

Immediate: ☐  
Packed on Ice: ☐ Y ☒ X

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

Quote #:  
INSITE080614S

Date Results Needed:

No. of Containers:

V8260 UGPA / 40 mL Amb / HCl

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Containers
MW-1R	Grab	GW		12/20/17	1506	2
MW-3R	Grab	GW		12/20/17	1436	2
MW-8	Grab	GW		12/20/17	1224	2
MW-13	Grab	GW		12/20/17	1201	2
MW-15	Grab	GW		12/20/17	1328	2
EW-1R	Grab	GW		12/20/17	1535	2
SL-3	Grab	GW		12/20/17	1404	2
SL-4	Grab	GW		12/20/17	1255	2
Trip Blank						1

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - Wastewater  
DW - Drinking Water  
OT - Other

Remarks:

D1 Priority

Samples returned via:  
UPS ☐ FedEx ☐ Courier ☐

Tracking # 7372 1965 4441

Relinquished by (Signature):

Date: 12/21/17

Time: 1453

Received by (Signature):

Temp Blank Received: Yes/No  
(HCl) / MeOH  
TBR

Relinquished by (Signature):

Date:

Time:

Received by (Signature):

Temp: 8.6°C Bottles Received: 16

Relinquished by (Signature):

Date:

Time:

Received for lab by (Signature):

Date: 12/22/17 Time: 930

Sample Receipt Checklist  
CSC Seal Present/Intact: ☒ Y ☐ N  
CSC: Signed/Accurate: ☒ Y ☐ N  
Bottles arrive intact: ☒ Y ☐ N  
Correct bottles used: ☒ Y ☐ N  
Sufficient volume sent: ☒ Y ☐ N  
If Applicable  
VDA Zero HeadSpace: ☒ Y ☐ N  
Preservation Correct/Checked: ☒ Y ☐ N

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK



# **ATTACHMENT B**



Shipper's No. \_\_\_\_\_

Carrier's Name: Heath Oil

Carrier's No. \_\_\_\_\_

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of lading,

at Rural Valley (Date) 10/6/17 FROM \_\_\_\_\_

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as shown below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own railroad, water line, highway route or routes, or within the territory of its highway operations, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Freight Bill of Lading set forth (1) in the Uniform Freight Classification in effect on the date hereof, if this is a rail or rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment. Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

(Mail or street address for purposes of notification only.)

Consigned TO Danco

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

On Collect on Delivery Shipments, the letters "COD" must appear before consignee's name or as otherwise provided in item 430, Sec. 1.

Destination Barkeyville Street \_\_\_\_\_ City \_\_\_\_\_  
Barkeyville County \_\_\_\_\_ State Pa Zip \_\_\_\_\_

Route Rt 8 Delivery Address ★

(★To be filled in only when shipper desires and governing tariffs provide for delivery thereof.)

Delivering Carrier Heath Oil Car or Vehicle Initials and No. 14290

Collect on Delivery \$ \_\_\_\_\_ And Remit to \_\_\_\_\_

(Signature of consignor.)

**C. O. D. Charges to be**

Paid by  
☐ Shipper ☐ Consignee

If charges are to be prepaid, write or stamp here, "To be Prepaid."

No. Packages	H.M.	Kind of Package, Description of Articles, Special Marks, and Exceptions	Weight (Subject to Correction)	Class or Rate	Check Column
		<u>Water</u>	<u>4300 gal</u>		

Received \$ \_\_\_\_\_ in apply in prepayment of the charges on the property described hereon.

Agent or Cashier

Per \_\_\_\_\_  
(The signature here acknowledges only the amount prepaid.)

Charges Advanced:

\$ \_\_\_\_\_

\*The fibre containers used for this shipment conform to the specifications set forth in the box maker's certificate thereon, and all other requirements of Rule 41 of the Uniform Freight Classification and Rule 5 of the National Motor Freight Classification.

†Shipper's imprint in lieu of stamp; not a part of bill of lading approved by the Interstate Commerce Commission.

\*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is carrier's or shipper's weight.  
NOTE—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \_\_\_\_\_ per \_\_\_\_\_

Shipper, Per \_\_\_\_\_



Agent must detach and retain this Shipping Order and must sign the Original Bill of Lading.

Permanent post-office address of shipper, \_\_\_\_\_

2



## INVOICE

DANCO INDUSTRIES, INC.

003747

FUEL OIL • KEROSENE • GASOLINE

PO BOX 941

OIL CITY, PA 16301

Date 11-9-17161  
INSITESold To Valley Village STORE GROUP  
10243 ST. RTE. 85  
Address KITTANNING PATERMS: To Receive Net Price This Invoice  
Must Be Paid By

Emergency Response:

START 1-800-633-8253 FINISH

Operator	CASH	Truck No.	Time	
VEJ	CHARGE	PT213	AM PM	
YOUR SALE NO.	GALLON READING—FINISH		10 THS	
PREVIOUS SALE NO.	GALLON READING—START			
PRODUCT	GALLONS	PRICE	GROSS PRICE	NET PRICE
Gasoline IMPACTED GROUND WATER				
57.25" = APPR 2510 gallons				

Received Quantity Shown Above

SHIPPER:

X

Customer Sign Here After Delivery

CARRIER:

VEJ



# THIS MEMORANDUM

is an acknowledgement that a bill of lading has been issued and is not the Original Bill of Lading, not a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper's No. JWO226514

Carrier **McCutcheon Enterprises Inc.**

Carrier's No. \_\_\_\_\_ Date \_\_\_\_\_

TO: **Danco Industries**  
Consignee **5609 State Rt. 8**  
Street **Harrisville PA**  
Destination \_\_\_\_\_ Zip **16038**

FROM: **Valley Village Keystone**  
Shipper **10243 State Route 85**  
Street **Kittanning PA**  
Origin \_\_\_\_\_ Zip **16201**

Route \_\_\_\_\_ Vehicle Number \_\_\_\_\_ U.S. DOT Hazmat Reg. No. \_\_\_\_\_

Number and Type of Packages	HM	I.D. Number	Description of Articles	Hazard Class	Pkg. Grp.	Total Quantity (mass, volume, or activity)	Weight (subject to correction)	Class or Rate
1 TT			Petroleum Impacted Groundwater			est. 950	gallons	

Remit COD to:

Address:

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \$ \_\_\_\_\_ Per \_\_\_\_\_

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:  
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

COD AMT:

\$

TOTAL CHARGES:

\$

COD FEE:

Prepaid ☐

Collect ☐ \$

FREIGHT CHARGES:

☐ Prepaid ☐ Collect

RECEIVED, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications and rules that have been established by the carrier and are available to the shipper, on request; and all applicable state and federal regulations; the Property described above, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to delivery at said destination, if on its route, or otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said Property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said Property that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on the back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

NOTE: Liability Limitation for loss or damage in this shipment may be applicable. See 49 U.S.C. 14706(c)(1)(A) and (B).

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Per \_\_\_\_\_

PLACARDS  
REQUIRED

PLACARDS  
SUPPLIED

☐ BY SHIPPER ☐ BY CARRIER

DRIVER'S  
SIGNATURE:

SHIPPER: **Valley Village Keystone**

CARRIER: **McCutcheon Enterprises Inc.**

PER: [Signature] DATE: 11-29-17

PER: [Signature] DATE: 11/29/17

EMERGENCY RESPONSE  
TELEPHONE NUMBER: **(724)568-3623**

NAME OR CONTRACT NUMBER  
OR OTHER UNIQUE IDENTIFIER: