

**SITE CHARACTERIZATION REPORT
FORMER ROSEMERGY'S
STORE/GARAGE
PADEP ID # 52-01926
1623 ROUTE 590,
LACKAWAXEN TWP., PIKE CO.,
PENNSYLVANIA**

FOR

**LOCHGEN, LP
731 WELCOME LAKE ROAD
HAWLEY, PENNSYLVANIA 18428**

December 31, 2015

Project Number: 11-17788-03

BY

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EXECUTIVE SUMMARY
SITE CHARACTERIZATION REPORT
FORMER ROSEMERGY'S STORE/GARAGE
USTIF CLAIM NO. 2011-0082(S)
1623 STATE ROUTE 590
LACKAWAXEN TWP., PIKE CO., PENNSYLVANIA

The following is an Executive Summary of the Site Characterization, as presented in the body of this report that was conducted by Converse Consultants (Converse). Please refer to the appropriate sections of the report for a complete discussion of these issues. In the event of a conflict between this Executive Summary and the report, or an omission in the Executive Summary, the report shall prevail.

Converse Consultants (Converse), on behalf of Lochgen, LP (Lochgen), submits this Site Characterization Progress Report (SCPR) to document site characterization activities that were conducted at the former Rosemergy's Store/Garage located at 1623 State Route 590 in Hawley (Lackawaxen Twp.), Pike County, Pennsylvania (Property). The Property is currently operated as the Market at Woodloch a retail motor fuel distribution and convenience store. The site characterization is being conducted to further assess a release of petroleum product (unleaded gasoline) that was identified in July 2011 from a regulated underground storage tank (UST) system at the Property and comply with the requirements of *25 Pennsylvania Code Chapter 245* (§245).

Site characterization included the following primary tasks:

1. Completion of a Site-Specific Health and Safety Plan.
2. Completion of a Receptor Survey for the area surrounding the Property.
3. Completion of a private utility markout and other measures to assess utility locations and depths beneath the property.
4. Negotiation of site access to off-property locations
5. Assessment of the soil vapor to indoor air pathway via soil vapor sampling and indoor air sampling.
6. Completion of a Soil Sample Collection Program using a Geoprobe Direct-Push soil sampling system. Twenty (20) soil borings (soil borings SB-8 through SB-27) were completed at the Property to assess the levels of residual petroleum constituents in soil.
7. Installation and development of twenty two (22) groundwater monitoring wells (monitoring wells MW-1 through MW-22) at the site to assess the extent of the impacted groundwater plume. The groundwater monitoring wells were installed to depths of approximately 15 feet below grade (fbg) and, if possible, were screened across the water table that was encountered during drilling.



8. Completion of multiple rounds of groundwater sample collection from the monitoring wells. At least two rounds of groundwater sample collection were collected from each monitoring well.
9. Completion of two (2) rounds of sample collection from the nearest on-lot supply wells located on adjacent properties.
10. Review of previously completed studies at the site.
11. Aquifer testing, pilot testing, and development of an updated site conceptual model.
12. Compilation and submission of this Site Characterization Report (SCR).

SELECTED STANDARDS

SOIL - Nonresidential medium specific (NRMSC) Statewide Health Standard (SHS)
GROUNDWATER - Residential MSC SHS

SETTING

The site is located approximately 1,200 feet south of Little Teedyuskung Lake. The lake drains into West Falls Creek which passes approximately 1,100 feet northeast of the site. West Falls Creek flows southeast to the Lackawaxen River. The site is located approximately 2,200 feet northeast and northwest, respectively, of two (2) small creeks that drain south into the Lackawaxen River. The Lackawaxen River is located approximately 7,500 feet south of the site and flows from west to east (towards the Delaware River). No surface water body is present within the boundaries of the Property. Use of properties in the immediate area of the Site consists primarily of residential use.

RECEPTORS - Converse performed a door-to-door survey and site reconnaissance of the Property and vicinity to identify potential receptors. With the exception of the residential supply well on the adjacent property to the south and potential receptors based on site use (employees, visitors, and construction workers), no potential receptor was identified during the site reconnaissance. The nearest surface water body is located approximately 1200 feet from the Property. The site building and nearest off-Property residence do not have basements.

SOIL VAPOR - No compound exceeded the residential MSC_{SG} (RMSC_{SG}) or nonresidential MSC_{SG} (NRMSC_{SG}) in the soil gas samples (2 rounds) collected from the two (2) soil vapor points VP-1 and VP-2 that were installed between the release area and the convenience store building.

INDOOR AIR – An assessment of indoor air was completed at the nearest residential structure to the southeast. Samples were collected inside the structure and outside the



structure (ambient air). Gasoline constituents were detected in the indoor air sample but were not present at levels that exceed the RMSC SHSs for indoor air that are published by PADEP.

GROUNDWATER

Multiple rounds of groundwater sample collection and analysis have been conducted to characterize groundwater during the course of the site characterization phase. As discussed previously, additional groundwater monitoring wells were added in phases to address data gaps. Groundwater sample collection events were conducted on the following dates:

May 8, 2012
June 7, 2012
November 8, 2013
December 11, 2013
February 4, 2014 (MW-10 through MW-12 only)
March 7, 2014
April 29, 2014 (MW-13 through MW-16 only)
June 12, 2014
September 17, 2014
December 3, 2014
March 25, 2015
June 25, 2015
August 26, 2015
November 12, 2015 (select wells only)
December 9, 2015

The laboratory results indicate that petroleum constituents in the groundwater are present beneath the Property and the adjacent Woodloch property (to the south) and the Jensen Property (to the east) at levels that exceed the RMSC SHSs. UST closure data and the analytical data indicate that the petroleum product released at the site was unleaded gasoline. The highest levels of gasoline constituents have been detected in monitoring wells west and southeast of the former leaking UST system consistent with the local direction of groundwater flow indicated by water level data.

As previously discussed, the principal directions of contaminant transport beneath the site are to the north and west with a component of flow to the southeast. The impacted groundwater plume has not migrated to the west or southeast beyond the current monitoring well network at levels that exceed the RMSC SHSs.

Historical data for the core of the plume indicate stable contaminant concentrations in monitoring wells MW-1 and MW-4, a general decline in concentrations in monitoring wells MW-2 and MW-7, and a post-construction increase in concentrations in



monitoring wells MW-3 and MW-5R. Recent groundwater sample collection events document expansion of the impacted groundwater plume to the northwest and the south (beneath Route 590) in response to changes in infiltration patterns at the site.

SOIL - In general, the highest levels of petroleum constituents in each soil boring were detected near the soil/groundwater interface. In general, the highest levels of petroleum constituents in soil were detected in borings west and southeast (downgradient) of the former UST excavation. No residual source area is indicated to be present in the unsaturated zone.

SITE CONCEPTUAL MODEL – Current data for the Site indicate:

1. Field data indicate that unconsolidated deposits are laterally extensive and serve as an aquifer beneath the Site.
2. The primary surface water discharge boundary in the area of the Site is the Lackawaxen River and its tributaries.
3. No distinct confining unit was evident in the subsurface that was evaluated by this study.
4. The overburden consists of a poorly stratified mixture of silty sands and silts, with varying amounts of gravel, and occasional clayey horizons. Bedrock was not encountered during site characterization activities that investigated to a depth of approximately 21 feet below grade.
5. The water table is indicated to be shallow and is generally located just below the depth of utilities at the Property and above the depths of utilities on the property south of Route 590. Although data indicates that the distribution of contaminants is consistent with groundwater flow predicted from contour maps, utilities surrounded by permeable backfill could potentially serve as preferential pathways and/or sources of groundwater mounding.
6. Groundwater mounding within the unconsolidated overburden occurs near the southeast corner of the Property.
7. Although groundwater is shallow, experience with open holes and excavations indicate that very little water is available in the shallow overburden.

Impacted groundwater extends to the north, west, and southeast of the former UST system at levels that exceed the RMSC SHSs. No potential source of additional petroleum hydrocarbons has been identified in the area of the impacted groundwater plume. Based on the age of the release and the lack of an active source, the mass of contaminants in the plume would be expected to be shrinking. Although the overall mass of contaminants is expected to be shrinking, construction activities at the site in 2014 have changed the patterns of infiltration at the Facility, and resultant shifts in the contaminant mass have been observed since that time.



A qualitative analysis of fate and transport indicates limited mobility of constituents beyond the current contaminant distribution. The current monitoring well array is sufficient to detect expansion of the plume before the plume reaches downgradient receptors, however recent data suggests that characterization activities may not be complete. Additional sample collection and analysis is required to further assess the extent of the plume to the northwest and additional monitoring wells may be required.

PILOT TESTING

Converse used a trailer mounted rotary phase blower system to conduct a pilot test on the DPE wells during March 2015 and again in October 2015. The March 2015 pilot test activities demonstrated that DPE was a viable remedial technology for the site and provided initial estimates of vapor and groundwater extraction rates, required vacuum, drawdown, and zones of influence. The October 2015 pilot test was completed for 48 hours to document system response to longer duration extraction and provide a more accurate estimate of drawdown and groundwater discharge as the system approaches equilibrium. As expected, the longer term pilot test data was more encouraging with respect to the amount of drawdown that will be achieved within the treatment cell. The longer term data implies that at least 1.5 to 2 feet of drawdown can be achieved throughout the majority of the treatment cell with the exception of the extreme southeast corner of the Property (area of groundwater mounding) where the aquifer framework precludes significant drawdown.

INTERIM REMEDIAL ACTIONS

Interim remedial actions have been completed to remove contaminant mass and collect the data required for the design of additional remedial measures. Converse mobilized a shed based dual phase extraction system to the Site in early December 2015 to make use of the existing dual phase extraction components that were installed during development of the Woodloch Market. During early January 2016, Converse plans to complete the piping within the DPE wellheads and test the DPES components. By late January 2016 we hope to have the DPES running full time as an interim remedial measure.

PLANNED ACTIVITIES

- Additional groundwater assessment to completely characterize the extent of dissolved phase unleaded gasoline constituents in groundwater that exceed the RMSC SHSs. If characterization is incomplete, additional groundwater monitoring wells will be installed as needed.
- Submission of an SCR.
- Screening of remedial alternatives and submission of a Remedial Action Plan.
- Quarterly Groundwater Monitoring and Reporting.



- Interim remedial actions to control the extent of the impacted groundwater plume and reduce contaminant mass within the residual source area.
- Quantitative fate and transport analysis will be completed after the plume stabilizes. The current distribution of contaminants is a combination of the pre-development and post-development patterns of fate and transport.

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SITE CHARACTERIZATION PROGRESS REPORT
FORMER ROSEMERGY'S STORE
FACILITY ID #52-01926
1623 ROUTE 590
LACKAWAXEN TWP., PIKE CO., PENNSYLVANIA

1.0 INTRODUCTION

Converse Consultants (Converse), on behalf of Lochgen, LP (Lochgen), submits this Site Characterization Progress Report (SCPR) to document additional site characterization activities that were conducted at the former Rosemergy's convenient store located at 1623 State Route 590 in Hawley (Lackawaxen Twp.), Pike County, Pennsylvania (Property). The site characterization is being conducted to further assess a release of petroleum product (unleaded gasoline) that was identified in July 2011 from a regulated underground storage tank (UST) system at the Property. Appendix A: Figure 1 presents the location of the Property relative to area roads and features.

The scope of work for site characterization activities completed by Converse and others was prepared in coordination with USTIF. Ultimately, the site characterization activities were conducted to: 1) assess the lateral extent of petroleum constituents in soil and groundwater that resulted from the release of product from a former underground storage tank (UST) system at the Property; 2) comply with the requirements of 25 *Pennsylvania Code Chapter 245* (§245). *Subchapter D: Corrective Action Process for Owners and Operators of Storage Tanks and Storage Tank Facilities and Other Responsible Parties*; and 3) collect data to facilitate attainment of one (1) or more of the remediation standards that are promulgated in and to comply with the requirements of 25 *Pennsylvania Code Chapter 250* (§250): *Administration of the Land Recycling Program*.

The site characterization included the following primary tasks:

1. Completion of a Site-Specific Health and Safety Plan.
2. Completion of a Receptor Survey for the area surrounding the Property.
3. Completion of a private utility markout and other measures to assess utility locations and depths beneath the property.
4. Negotiation of site access to off-property locations



5. Collection of water samples from potable supply wells located on adjacent properties.
6. Assessment of the soil vapor to indoor air pathway via soil vapor sampling and indoor air sampling.
7. Completion of a Soil Sample Collection Program using a Geoprobe Direct-Push soil sampling system. Twenty (20) soil borings (soil borings SB-8 through SB-27) were completed at the Property to assess the levels of residual petroleum constituents in soil.
8. Installation and development of twenty two (22) groundwater monitoring wells (monitoring well MW-1 through MW-22) at the site to assess the extent of the impacted groundwater plume. The groundwater monitoring wells were installed to depths of approximately 15 feet below grade (fbg) and were screened across the water table that was encountered during drilling.
9. Completion of multiple rounds of groundwater sample collection from the monitoring wells. At least two rounds of groundwater sample collection were collected from each monitoring well.
10. Completion of two (2) rounds of sample collection from the nearest on-lot supply wells located on adjacent properties.
11. Review of previously completed studies at the site.
12. Aquifer testing and development of an updated site conceptual model.
13. Pilot testing activities to facilitate remedial design.
14. Interim remedial measures.
15. Compilation and submission of this Site Characterization Progress Report (SCPR).



2.0 DOCUMENTATION AND ADMINISTRATIVE SUMMARY

2.1 PRIMARY CONTACTS

Responsible Party

Lochgen LP
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(570) 685-8061
Primary Contact: Mr. George Korb

USTIF/ICF Contact

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Primary Contact: Ms. Linda Melvin

Consultant

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Pennsylvania Department of Environmental Protection (PADEP) Staff Contact

PADEP – Northeast Region
2 Public Square
Wilkes Barre, Pennsylvania 15222
(570) 830-3028
Primary Contact: Ms. Rebecca Albert

2.2 SITE USE DESIGNATION

For the purpose of this submission, a “Property” is defined as a parcel of land that is defined by metes and bounds that are set forth in the deed for that land and is the originating property of the constituents of concern (COC) that are assessed by the Site Characterization and addressed during Remedial Action. As presented in §250.1, a Site is defined as “the extent of contamination originating within the property boundaries and all areas in close proximity to the contamination necessary for the implementation of remediation activities to be conducted under the act”. More



than one (1) Site can be located within the boundaries of a property and a Site can extend beyond the boundaries of a property.

One (1) Site was identified during the Site Characterization. The Site extends beyond the boundary of the Property and includes soil and groundwater that are circumscribed by the monitoring wells and UST area at the Site.

Appendix A: Figure 2 presents cultural features that are located on and the general area of the Site. The Property has historically been utilized to service, store, and fuel vehicles. An active UST system that includes a fuel island with canopy and USTs that store unleaded gasoline is currently located at the Property. The current use of the Property meets the definition of a Nonresidential Property as promulgated in *Act 2 of 1995: Pennsylvania Land Recycling and Environmental Remediation Standards Act (Act 2), Section 103*. The use of properties that are adjacent to the Site consists primarily of commercial, residential, and undeveloped land. The current use of surrounding properties meet the definition of nonresidential and residential property as promulgated in *Act 2, Section 103*. The probable future use of the Property and adjacent properties may be for either Residential or Nonresidential purposes.

Constituent concentrations in the soil were evaluated with respect to the Nonresidential Medium Specific Concentration (NRMSC) Statewide Health Standards (SHSs) that are promulgated in §250: Subchapter C. Constituent concentrations in groundwater were evaluated with respect to the Residential Medium Specific Concentration (RMSC) Statewide Health Standards (SHSs) that are promulgated in §250: Subchapter C.

§250.302(a) and 407(a) stipulate that the point of compliance (POC) “is the property boundary that existed at the time the contamination was discovered”. Data indicate that compounds of concern (COCs) extend beyond the downgradient POC at concentrations greater than the RMSC SHS.

2.3 SELECTED STANDARD

§245.310(a)(26) requires the identification of the remediation standard that has or will be attained. Act 2 requires that the attainment of one (1) or a combination of three

(3) cleanup standards be demonstrated by scientifically recognized principles, standards, and procedures. The cleanup standards include the Background Standard (BGS), the Statewide Health Standard (SHS), and the Site Specific Standard (SSS). §250 promulgates cleanup criteria for three (3) specific media: soil not in the zone of groundwater saturation (unsaturated soil); soil in the zone of groundwater saturation (saturated soil); and groundwater. Act 2 also requires that the Remediator notify PADEP which standard(s) will be used to demonstrate attainment.

Attainment of the following remediation standards at the Site is currently anticipated:
SOIL - Nonresidential medium specific (NRMSC) Statewide Health Standard (SHS)
GROUNDWATER - Residential MSC SHS

2.4 DEED ACKNOWLEDGEMENT AND UNIFORM ENVIRONMENTAL COVENANT ACT

Act 2: Section 303(g) requires that “persons attaining and demonstrating compliance with the Statewide Health Standard considering residential exposure factors for a regulated substance shall not be subject to the deed acknowledgment requirements of” the sections of Pennsylvania Law (P.L.) specified in Act 2: Section 303(g), but “the deed acknowledgment requirements shall apply where nonresidential exposure factors were used to comply with the Statewide Health Standard”. Act 2: Section 304(m) requires that “persons attaining and demonstrating compliance with the site-specific standard for a regulated substance shall be subject to the deed acknowledgment requirements of” the sections of Pennsylvania Law (P.L.) that are specified in Act 2: Section 304(m). A deed acknowledgment is not currently anticipated for the Property that is the subject of this Report.

The Pennsylvania Uniform Environmental Covenants Act (UECA: Act 68 of 2007) requires a covenant on the real property if an engineering control or institutional control is necessary to demonstrate attainment of an Act 2 standard. Engineering controls can include, but are not limited to, slurry walls, liner systems, caps, leachate collection systems, and groundwater recovery trenches. Institutional controls are measures taken to limit or prohibit certain activities that may interfere with the integrity of a remedial action or result in exposure to regulated substances at a property. The covenant can

act as the deed acknowledgement. At this point in time, the use of covenants is not anticipated for the Site.

2.5 RELEASE REPORTING

2.5.1 Submissions to PADEP

§245.305(a) requires that “the owner or operator of storage tanks and storage tank facilities shall notify the appropriate regional office of the Department as soon as practicable, but not later than 24 hours, after the confirmation of a reportable release” and §245.305(c) requires that “the notice required by subsection (a) shall be by telephone”. A release of product was identified at the Property in July 2011. Based on documentation provided by Bluestone Environmental, PADEP was notified of the release from the UST system.

§245.305(d) requires that “within 15 days of the notice required by subsection (a), the owner or operator shall provide written notification to the Department and to each municipality in which the reportable release occurred, and each municipality where the release has impacted environmental media or water supplies, buildings or sewer or other utility lines”. No information on municipal notification was provided to Converse. Based on documentation provided by Bluestone Environmental, PADEP was notified of the release from the UST system. Converse and/or Lochgen will notify the municipality of the release.

§245.305(e) requires that “the owner or operator shall provide written notification to the Department and each impacted municipality of new impacts to environmental media or water supplies, buildings, or sewer or other utility lines discovered after the initial written notification required by subsection (d). Written notification under this subsection shall be made within 15 days of the discovery of the new impact”. The impacts assessed in this report are considered to be the result of the reported release. No new impact was identified during the characterization activities discussed in this report.

2.5.2 Submissions to the Municipality

As presented in Section 2.5.1, municipal notification requirements are specified in §245.305(d) and (e). Lackawaxen Township, Pike County, Pennsylvania is the

municipality in which the release occurred and where impacted media have been identified. Converse and/or Lochgen will confirm that the municipality has been notified of the release.

2.6 COMMUNITY INVOLVEMENT

§245 does not require the development or implementation of a community involvement plan.

2.7 FEDERAL, STATE, AND LOCAL PERMITS OR APPROVALS

To the best of our knowledge, PADEP approval of this Site Characterization Report is the only Federal, State, or Local permit or approval that is necessary at this point in time.

Permitting for the dual phase extraction and treatment system (DPES) that is anticipated has been investigated. The local sewage treatment plant has denied a request to discharge treated groundwater to the sanitary sewer system. As the anticipated discharge will be a subsurface discharge to groundwater, Converse has contacted the US EPA Underground Injection Control (UIC) contact for Region 3 to facilitate the discharge.

2.8 ADDITIONAL NOTIFICATION AND COMMUNICATIONS

No additional notification to a public or private entity was made.

2.9 OFF-PROPERTY ACCESS AGREEMENTS

§250.410(c) requires that “when a person proposes a remedy that relies on access to properties owned by third parties, for remediation or monitoring, documentation of cooperation or agreement shall be submitted as part of the cleanup plan”.

Documentation of off-Property access was previously submitted.

2.10 AQUIFER USE DETERMINATION

The aquifer beneath and in the area of the Property is considered to be used and currently planned for use (§250.403(b)) and to contain less than 2,500 milligrams per liter (mg/l) of total dissolved solids.

2.11 AFFECTED OR DIMINISHED WATER SUPPLY

Act 32 of 1989: Storage Tank and Spill Prevention Act (Act 32) and §245.307 require that any responsible party who affects or diminishes a water supply as a result of a release must restore or replace the affected or diminished water supply at no cost to the owner of the supply.

No affected or diminished water supply was identified during the course of the investigation that is documented in this Report.

2.12 PREVIOUSLY SUBMITTED REPORTS AND PADEP RESPONSES

2.12.1 General

The following documents were previously submitted to PADEP, and are incorporated herein by reference. Copies of PADEP documents that were submitted in response are also listed below, if available.

2.12.2 Previous Reports, Approval Requests, and Notifications

1. *Work Plan, Additional Supplemental Site Characterization, Former Rosemergy's Convenient Store, 1623 Route 590, Hawley, Pennsylvania*, dated September, 25, 2013, prepared by Converse Consultants.
2. *SCR Submittal Date Extension Request, USTIF Claim Number: 2011-0082(S), Rosemergy's Convenience Store, Hawley, Pennsylvania*, dated March 13, 2014, prepared by Converse Consultants.
3. *SCR Submittal Date Extension Request (update), USTIF Claim Number: 2011-0082(S), Rosemergy's Convenience Store, Hawley, Pennsylvania*, dated March 13, 2014, prepared by Converse Consultants.
4. *Site Characterization Report, Former Rosemergy's Store/Garage, USTIF Claim Number: 2011-0082(S), Lackawaxen Twp., Pike Co., Pennsylvania*, dated August 7, 2014, prepared by Converse Consultants.
5. *RAP Submittal Date Extension Request (update), USTIF Claim Number: 2011-0082(S), Rosemergy's Convenience Store, Hawley, Pennsylvania*, dated May 28, 2014, prepared by Converse Consultants.
6. *Remedial Action Plan, Former Rosemergy's Store/Garage, USTIF Claim Number: 2011-0082(S), Lackawaxen Twp., Pike Co., Pennsylvania*, dated July 15, 2015, prepared by Converse Consultants.



2.12.3 PADEP Correspondence

1. *Storage Tanks Program* - Northeast Regional Office, Notice of Violation (NOV), Rosemergy's Garage Facility, Facility ID No. 52-01926, dated July 15, 2011.
2. *Storage Tanks Program* - Northeast Regional Office, Notice of Violation (NOV), Rosemergy's Garage Facility, Facility ID No. 52-01926, dated September 6, 2013, signed by Mr. David McGovern.
3. *ECB - Storage Tanks Program* - Northeast Regional Office, RAP Alternative Timeframe Approval Letter, Rosemergy's Garage Facility, Facility ID No. 52-01926, dated July 15, 2011, signed by Ms. Susan E. Thomas.
4. *ECB - Storage Tanks Program* - Northeast Regional Office, RAP Disapproval Letter, Rosemergy's Garage Facility, Facility ID No. 52-01926, dated October 26, 2015, signed by Mr. Eric Supey.

2.13 FIELD ACTIVITY CHRONOLOGY

The Site Characterization field activities were completed during the period of March 2012 through December 2015. The events and activities of this Site Characterization are summarized in the following chronology of events:

| <u>Date</u> | <u>Field Activity</u> |
|----------------|--|
| March 2012 : | Soil borings and installation of monitoring wells MW-1 through MW-6. |
| May 2012: | Complete round of groundwater samples. |
| June 2012: | Complete round of groundwater samples. |
| October 2013: | Installation of groundwater monitoring wells MW-7 through MW-9, MW-1R, and MW-12. |
| November 2013: | Groundwater sample collection event. |
| December 2013: | Groundwater sample collection event including nearest residential supply wells. |
| January 2014: | Installation of groundwater monitoring wells MW-10 and MW-11. |
| February 2014: | Groundwater sample collection event from new wells and nearest residential supply wells. Collection of soil vapor samples. |

| | |
|------------------------|--|
| March 2014: | Complete round of groundwater samples. Collection of soil vapor samples. |
| April 2014: | Installation of groundwater monitoring wells MW-13 through MW-16. |
| May 2014: | Groundwater sample collection event from newly installed monitoring wells. |
| June 2014: | Groundwater sample collection event from all monitoring wells. Collection of one round of indoor air assessment samples. |
| September 16-17, 2014: | Collection of groundwater samples from monitoring wells MW-1R through MW-16 (except MW-5 and MW-6). A nearby proxy well was used (DPE-4) in place of the destroyed MW-5. Treatment of event for groundwater in monitoring wells MW-3 and MW-5. |
| December 3-4, 2014: | Collection of groundwater samples from monitoring wells MW-1R through MW-16 (except MW-5 and MW-6). A nearby proxy well was used (DPE-4) in place of the destroyed MW-5. |
| December 17, 2014: | Second round of indoor air sampling. |
| February 5, 2015: | Reinstallation of groundwater monitoring well MW-5 using hollow stem auger drilling methods. |
| March 25, 2015: | Collection of groundwater samples from monitoring wells MW-1R through MW-15 (except MW-6). |
| June 25-26, 2015: | Collection of groundwater samples from monitoring wells MW-1R through MW-16 (except MW-6). |
| Oct 28-29, 2015: | Installation of monitoring wells MW-17 to MW-22. |
| Oct 29-31, 2015: | Long term extraction event (pilot test) from multiple DPE extraction points. |
| Nov 4, 2015: | Extraction events at DPE wells not in Pilot Test. |
| Nov 12, 2015: | Collection of groundwater samples from monitoring wells MW-17 through MW-22 (and select wells). |
| Dec 9-10, 2015: | Collection of groundwater samples from monitoring wells MW-1R through MW-22 (except MW-6). |
| Dec 10, 2015: | Shed with DPE system delivered to Site. |



3.0 PROPERTY DESCRIPTION

3.1 SITE LOCATION

The Former Rosemergy's Store/Garage consists of one parcel of land that occupies approximately 2.1 acres of land at 1623 Route 590, Lackawaxen Twp., Pike County, Pennsylvania. The Property is located along the north side of Hamlin Highway (PA 590) approximately 600 feet east of the intersection of Hamlin Highway and Woodloch Drive (N41° 30' 05.49", W75° 05' 49.05"). Appendix A: Figure 1 presents the location of the Property relative to area roads and features.

3.2 PROPERTY SETTING

Although the site is relatively flat, hills are located northeast and west of the site. The Narrowsburg USGS topographic quadrangle map indicates that the site is located at an elevation of approximately 1290 feet above mean sea level. With respect to topography, the site is located near the saddle point that separates surface flow to the north towards Little Teedyuskung Lake from surface flow to the southeast and east towards creeks that drain into the Lackawaxen River.

The site is located approximately 1,200 feet south of Little Teedyuskung Lake. The lake drains into West Falls Creek which passes approximately 1,100 feet northeast of the site. West Falls Creek flows southeast to the Lackawaxen River. The site is located approximately 2,200 feet northeast and northwest, respectively, of two (2) small creeks that drain south into the Lackawaxen River. The Lackawaxen River is located approximately 7,500 feet south of the site and flows from west to east (towards the Delaware River). No surface water body is present within the boundaries of the Property.

Use of properties in the immediate area of the Site consists primarily of residential use.

3.3 PROPERTY DESCRIPTION AND OPERATIONS

Appendix A: Figure 2 presents cultural features and the boundaries of the Property. The Property is currently owned by Lochgen, LP. The Property is currently operated as The Market at Woodloch (Woodloch Market), a retail motor fuel distribution and convenience store. The active UST systems that are used to store and dispense unleaded gasoline at the Property are shown on Figure 2.



Former Rosemergy's Store/Garage
USTIF Claim No. 2011-0082(S)
Lackawaxen Twp., Pike Co., Pennsylvania

The Property is generally flat and is covered with pavement (concrete or asphalt). The area of the former release is covered by pavement. One slab on grade building is located at the Property. The Property and surrounding areas are served by public water and public sewers, however not all residences are hooked up to the public systems. Woodloch Market is served by the public water and sewer system.



4.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND INTERIM REMEDIAL ACTIVITIES

4.1 GENERAL

The site began as an automotive repair station with retail gasoline sales around 1965. The site was operated as both an automotive repair station and retail gasoline station until April 2000, by Mr. Robert Rosemergy, Jr. At that time, the Rosemergy Estate took ownership of the property, until February 2002, when Ms. Hoadley and her brother, Charles Rosemergy became heirs of the Estate. The facility was out-of-service from April 2000 until February 2002. In February 2002, retail gasoline sales resumed at the site. A convenience store was added in October 2002. The retail gasoline sales continued until March 2010.

Prior to UST closure activities in 2011, there were two (2) 2,000-gallon single wall STIP-3 underground storage tanks (USTs) used to store gasoline. There was also a 1,000-gallon single wall STIP-3 UST used to store on-road diesel fuel. The three (3) tanks were installed in April 1988 and upgraded to Pennsylvania Department of Environmental Protection (PADEP) Storage Tank Requirements in December 1998 by Fowler Oil Company. The product transfer lines were single wall steel construction, with the European style suction pumps located in the dispensing units. During the upgrade in 1998, a TLS-300 Veeder-Root Monitoring System was installed, and connected to each of the three (3) tanks, with each tank having its own monitoring probe. Also at that time, overfill protection and spill buckets were installed at each tank. The overfill protection was in the form of an audible alarm located on the front of the building.

4.2 PHASE II ESA

The release of petroleum product to the environment was first identified during a limited Phase II Environmental Assessment (Phase II) of the property on June 28th, 2011. The Phase II was being conducted by Bluestone Environmental for Woodloch Real Estate (Woodloch) as part of a property transaction. Locations, boring logs and analytical data from the Phase II ESA are included as Exhibit C of the *2012 Bluestone Work Plan* (a copy of which is provided with this report). The contents of this Section of the report are from the referenced Work Plan.

On June 28, 2011, Bluestone mobilized to the site with a Geoprobe unit to conduct a limited Phase II assessment of the property. Three (3) soil borings were placed around



the tank system and pump island. The first boring was placed approximately 6-feet off the southeastern side of the pump island. The first sample sleeve showed a potential release of petroleum fuel at 4-feet below grade. Screening of the soil sample sleeve with a Photo Ionization Detector (PID) indicated that the highest PID reading (approximately 1,800 units) was observed at the 4-foot interval. A sample for laboratory analysis was collected at 4-feet below grade. The last several inches of the 0 to 4 foot sample encountered shallow ground water. A solid 4-foot rod was dropped down to 8-feet below grade and a 1" piece of slotted screen was dropped down the boring and left in place for 30 minutes. After 30 minutes, a grab sample of the groundwater was removed with a ½" bailer. The water had a very strong petroleum odor. The laboratory results confirmed that the groundwater was impacted by petroleum constituents.

A second boring was placed approximately 75 feet east of the pump island. The second boring was completed at a depth of 8-feet below grade. Continuous screening of the soil with the PID indicated the highest PID response (35 units) at approximately 4-feet below. A soil sample for laboratory analysis was collected at 4-feet below grade.

The third boring was placed approximately 20-feet southwest of the pump island. The third boring was completed at a depth of 12-feet below grade. Continuous screening of the soil indicated the highest PID response was at approximately 8-feet below grade. A soil sample for laboratory analysis was collected from the third boring at 8-feet below grade.

The samples were placed on ice and sent to Fairway Laboratories, Inc. (Fairway) for analysis. Bluestone received the analytical data from Fairway on July 5, 2011. The soil and groundwater analytical data confirmed a release of petroleum to the soils and groundwater at the property.

4.3 UST SYSTEMS CLOSURE

On September 12, 2011, the three underground storage tanks (USTs) were removed from the Former Rosemergy's Store/Garage. The tank systems were closed by excavation and removal of the USTs and components. Site assessment results during UST closure identified "obvious, extensive contamination." A copy of the submitted UST closure report can be found in Exhibit B of *2012 Bluestone Work Plan*.



As expected, Tank 001 was a 2,000 gallon capacity containing unleaded gasoline; Tank 002 was a 2,000 gallon capacity containing unleaded gasoline, and Tank 003 was a 1000 gallon containing diesel fuel. An amended "Storage Tanks Registration/Permitting Application Form" was submitted by Bluestone to PADEP on October 14, 2011.

Prior to removal, all useable liquids were removed by FCC Environmental of Wilmington, Delaware. A total of 1247 gallons of gasoline and diesel fuel was disposed of off-site. All liquids and sludges were removed during the on-site cleaning process. The bottoms were drummed, secured, and stored on site. The waste material was disposed of by Cycle-Chem, Inc. Lewisberry, PA. The USTs associated with the removal were recycled at Mike's Scrap yard, Scranton, PA. Disposal receipts are included in the closure report.

Based on the tank handling information, all three tanks were inspected. All three USTs were identified as in good to excellent condition. The associated underground piping was removed and was also in good condition.

Site assessment information generated during the removal and closure process indicated evidence of soil contamination throughout the excavation area. The heaviest contamination and highest field PID readings were identified directly below the pump island. The island contained three dispensers. The heaviest soil contamination appeared to be under the center pump dispenser, Dispenser #2. Dispenser #2 was connected to unleaded gasoline tank 002. The likely source of the release was the dispenser or piping connections under the dispenser. The leak appeared to be a slow release (chronic problem) that occurred over a multiple year period. There were no containment sumps under the dispensing units.

Approximately 100± tons of soil was removed from under the pump islands. The soil was stockpiled on polyethylene sheeting for off-site disposal.

Groundwater was encountered at a depth of 9 to 10 feet below ground surface in the UST excavation. The water that accumulated within the tank excavation pit had a visible petroleum sheen.



4.4 ADDITIONAL HISTORICAL DOCUMENTS

4.4.1 Previous Phase II ESA

A Phase II assessment was conducted in April 1996 by F.X. Browne for Woodloch as part of a potential property transaction. As a follow up to the F.X. Browne report, Hydrotech Inc. was hired by Mr. Ralph Westgate of Fowler Oil Company to complete an additional investigation around the results found in the F. X. Browne report. At this time, there is limited information on the work completed by Hydrotech, Inc. Copies of the site diagram, along with groundwater sample results are included in Exhibit A - Attachment F of the *2012 Bluestone Work Plan*. Also, additional soil samples were collected by Hydrotech, Inc. on July 5, 1996. A copy of the F. X. Browne report, Hydrotech Site Maps and the sample results from the samples collected on July 5, 1996 can be found in Exhibit A - Attachment F of the *2012 Bluestone Work Plan*.

4.4.2 Utility Line Excavation

In December of 2002, Aqua PA (local water company) was installing a domestic water line on the southern side of PA Route 590. During excavation activities for the water line, suspected contaminated soil was encountered and excavation activities were stopped. PADEP was notified and Mr. Tom Coar responded to the site. A copy of Mr. Coar's report can be found in Exhibit A - Attachment D of the *2012 Bluestone Work Plan*. Austin James Associates, Inc. responded to the site on March 11, 2003 to collect soil samples in an effort to investigate the suspected release encountered by Aqua PA. A copy of the sample results can be found in Exhibit A - Attachment D of the *2012 Bluestone Work*. At that time, there was no further work completed at the site, and the sample results apparently did not confirm a release from the property.

4.5 INTERIM REMEDIAL MEASURES

As previously documented, soil removal was completed as part of the UST closures activities. Several short term extraction events have been completed in the last 12 months. The extraction events were completed to assess aquifer properties, treat contaminated groundwater and soil vapor in the source area, and serve as a pilot test for the dual phase extraction technology that is anticipated to be a remedial measure.



5.0 GENERAL PROPERTY GEOLOGY

The Facility is located in the Glaciated Low Plateau Section of the Appalachian Plateaus Physiographic Province of Pennsylvania. The Pennsylvania Department of Environmental Resources, Bureau of Topographic and Geologic Survey, *Geologic Map of Pennsylvania, 1981* indicates that the bedrock that underlies the Facility consists of Devonian-age, Long Run and Walcksville Members (Dclw) of the Catskill Formation. The Long Run and Walcksville Members (Dclw) of the Catskill Formation (undivided) consist of cyclic sequences of gray to grayish-red to greenish-gray sandstone, siltstone, and claystone in fining upward cycles. No outcrop was observed in the immediate vicinity of the Site. Consistent with regional structure, bedrock is expected to strike roughly northeast-southwest with gentle dips of bedding to the southeast and northwest.

The area of the Site was covered by the Wisconsin Glaciation. Approximately 50 percent of the ground surface is estimated to be covered by gray to grayish red sandy till. The layer of till is reported to vary from thin to thick. The till is reported to be draped over bedrock and is not expected to have been reworked into glacial landforms.

Soil borings were completed during site characterization activities. Borings indicate that unconsolidated deposits that consist mainly of a mix of silty sands and silts with varying amounts of gravel (some of which could be described as till) are located beneath the site to the maximum depth of the soil borings that was 21 feet below grade. Bedrock was not encountered in the soil borings.



6.0 GENERAL PROPERTY HYDROGEOLOGY

6.1 GENERAL

Field and published data indicate that aquifers are present in the unconsolidated deposits (water table aquifer) and in the bedrock beneath the Property. The site characterization activities indicate that the unconsolidated overburden beneath the Property has been impacted by the release of gasoline. Appendix A: Figure 2 presents the locations of the monitoring wells.

With respect to topography, the site is located near the saddle point that separates surface flow to the north towards Little Teedyuskung Lake from surface flow to the southeast and east towards creeks that drain into the Lackawaxen River.

The depth to groundwater in monitoring wells that are completed within the unconsolidated overburden ranges from approximately 0.5 feet to 13 feet below grade.

6.2 RELATIVE ELEVATION SURVEY

Kiley Associates, LLC of Lakeville, Pennsylvania, a Pennsylvania licensed surveyor, completed the survey to provide the data necessary to assess the direction of groundwater flow in the water table aquifer at and in the area of the Property. The survey provided elevations of the top of casing and a reliable horizontal location of each well. The location and top of casing (TOC) elevation for each well was measured relative to the 1983 North American Datum (NAD83) using the State Plane Coordinate System. The TOC elevations and the measured groundwater levels in each well were then used to calculate groundwater elevations at each data point. Appendix B: Table 1 presents a tabulated summary of the elevation survey data, depth to water data, and calculated groundwater relative elevation data.

6.3 DEPTHS TO WATER

6.3.1 General

In the absence of nearby pumping wells, observed changes in the water level elevation is generally the result of seasonal fluctuations in groundwater levels as affected, primarily, by precipitation and infiltration. The thickness of the water table aquifer unit beneath the Property is at least 15 feet.



Data indicate that the water table may be at elevations equal to or higher than the maximum depth below grade of cultural features such as basements and utility trenches. These data indicate that cultural features are a potential, preferential pathway for groundwater movement. In particular, water levels on the south side of Route 590 are at elevations that could impact or be impacted by utility trenches.

Current overburden (water table) groundwater elevation data suggest an area of groundwater mounding in the southeast corner of the Site. The mechanism of groundwater mounding is currently unknown. The majority of the Site is currently covered with relatively impermeable asphalt and/or concrete.

Groundwater levels were measured in the overburden monitoring wells at the Site at depths that ranged from approximately 0.5 feet to 13 feet below grade (location dependent) during the periods of May 2012 to December 2015. A maximum change of approximately 5.5 feet in the depth to the water table at individual monitoring well locations was measured during these periods.

Groundwater levels in the southeast corner of the property and on the Woodloch property south of Route 590 are often less than 3 feet below grade and sometimes within 0.5 feet of grade. Monitoring wells at the site are typically constructed with screened intervals that begin at 3 feet below grade in order to allow for a properly constructed manhole set in concrete with a bentonite seal below the concrete and sand pack that extends above the screened interval. As such, water levels in the monitoring wells are sometimes above the screened interval. As the wells are in close proximity to a major highway, it is our professional opinion that the surface seal is critical and no alternative method of construction is proposed. As we discussed via telephone, Converse will make sure that the water level in the monitoring wells is drawn down to the screened interval during sample collection events.

6.4 DIRECTION OF GROUNDWATER FLOW

6.4.1 Lateral Groundwater Flow

Groundwater elevation data indicate that flow within unconsolidated overburden across the Site is radially away from groundwater mounding in the area of the former UST excavation with components of flow to the north (toward the lake), west (away from the

groundwater mound) and southeast (towards regional discharge). Appendix A: Figure 5H, 5C, and 5D present Groundwater Elevation Contour Maps for the unconsolidated overburden that depict the calculated groundwater relative elevations at the monitoring wells for the three (3) most recent sample collection events. Appendix B: Table 1 presents a tabulated summary of the relative elevation survey data, depth to water data, and calculated groundwater relative elevation data.

6.4.2 Vertical Groundwater Flow

The petroleum impact was encountered at the approximate depth of the groundwater table in the unconsolidated overburden aquifer. Soil screening data indicates that levels of contamination are highest within the top 5 feet of the overburden aquifer. As vertical movement of the impacted groundwater is not indicated for the Site, no quantitative evaluation of vertical groundwater movement was conducted.

6.5 HYDRAULIC GRADIENT

The hydraulic gradient was calculated using data presented on the groundwater contour maps in Appendix A (and previously submitted contour maps) and the groundwater elevation data presented in Appendix B. As expected, the hydraulic gradient is variable and depends on the direction of transport and water table fluctuations that impact the degree of mounding in the southeast corner of the Site. Gradients of approximately 0.1 to 0.02 are common at the Site.

6.6 AQUIFER PROPERTIES

6.6.1 Bail/Slug Tests

On February 4, 2014 rising head slug/bail tests were performed by Converse personnel on monitoring wells MW-1R, and MW-8 through MW-12. Monitoring well MW-7 did not contain a sufficient groundwater column to perform a rising head slug/bail test. All slug/bail tests were performed using a 1-inch diameter Whale® (or similar) submersible pump. Water levels within the wells were continuously monitored during the pumping tests utilizing Schlumberger Water Services Diver® pressure transducers with self-contained data loggers. A hand water level probe was used to take manual water level readings and a portable granular activated carbon unit was used to treat water pumped from contaminated wells.



The rising head slug/bail test consisted of pumping the well dry (where applicable) and recording (logging) the aquifer's recovery back to near static groundwater levels. A transducer was set to record a data point every one (1) second and then lowered into the bottom of the well. The pump was introduced and the groundwater was pumped from the well until most or all of the water was evacuated from the well. Once the groundwater level in the monitoring well had nearly recovered, the transducer was pulled and the data was downloaded onto a field laptop computer. Barometric (atmospheric) pressure was collected just prior and immediately after each test.

Data from the pumping tests was analyzed with Waterloo Hydrogeologic Inc. (now Schlumberger Water Services) Aquifer Test Pro 3.5 groundwater software using the Bouwer & Rice solution method. The analysis method was chosen based on performing the analysis on an unconfined overburden aquifer. Barometric pressure was subtracted (barometric pressure correction) from the pressure recorded by the transducer within the well before the data was entered into the software.

Analysis data plots for the slug/bail tests were previously submitted. The slug/bail test data indicate a range of hydraulic conductivities for the tested monitoring wells that varies over approximately three orders of magnitude. The calculated hydraulic conductivity for the overburden aquifer at the Property ranges from 0.00343 to 0.107 feet per day (ft/day).

The slug/bail tests indicate the flowing hydraulic conductivities for the tested monitoring wells:

| TABLE 6.6 HYDRAULIC CONDUCTIVITY TABLE | | |
|---|--------------|-------------|
| WELL ID | TYPE OF TEST | K (FT/DAY)* |
| MW-1R | Rising Head | 3.43E-3 |
| MW-8 | Rising Head | 1.07E-1 |
| MW-9 | Rising Head | 3.14E-2 |
| MW-10 | Rising Head | 3.06E-2 |
| MW-1 | Rising Head | 2.97E-2 |
| MW-12 | Rising Head | 1.47E-2 |

* Calculated using the Bouwer & Rice method.

Based on the slug tests, a hydraulic conductivity of approximately 1.0E-2 ft/day was estimated. This selected value was higher than the median value and provided a more conservative estimate of contaminant transport.

All purge water was treated with a portable granular activated carbon unit prior to being discharged to the ground surface.

6.6.2 Long Term Extraction Event Data

Pilot tests for the DPE system were conducted in March of 2015 (documented in the RAP) and in October of 2015. The October Pilot Test is described in Section 7.5 of this Report. As discussed in Section 7.5, a hydraulic conductivity of approximately 0.8 ft/day can be estimated based on an analysis of the 48 hour extraction event that was completed in October 2015.

Hydraulic conductivity calculated from a longer duration pumping test (or extraction event) is generally considered to be more representative of average aquifer properties compared to a single well slug test or bail test. As two of the three observation wells during the extraction event indicate a hydraulic conductivity of 0.8 ft/day, this value will be used for calculations of contaminant transport. Hydraulic conductivity calculations for the extraction event are shown on the pilot test charts that are included as Appendix E.

6.7 GROUNDWATER SEEPAGE VELOCITY

Groundwater seepage velocity (V_s) is calculated using the equation:

$$V_s \text{ (feet per year [ft/yr])} = (K \times I) / N_e \times 365 \text{ days per year}$$

where:

K = hydraulic conductivity (ft/day)

I = hydraulic gradient (foot/foot)

N_e = effective porosity

and:

$K = 0.8 \text{ ft/day}$ (see Section 6.6.2)

$I = 0.060$ (mid-range value from Section 6.5)

$N_e = 0.2$ (based on descriptions of soil)

Then:

$$V_s = (0.8 \text{ ft/day} \times 0.060) / 0.2 = 0.24 \text{ ft/day} \times 365 \text{ days/yr} = 88 \text{ ft/yr.}$$

6.8 GROUNDWATER EXTRACTION

The area of the Site is served by private supply wells. None of the private supply wells is anticipated to influence groundwater flow beneath the site. Please see Section 3.8 of the Converse Work Plan and Section 7.4.7 of this report on supply well sample collection and results for additional information.



7.0 SITE CHARACTERIZATION ACTIVITIES

7.1 GENERAL

The Site Characterization field activities included the following primary tasks:

1. Completion of a Site-Specific Health and Safety Plan.
2. Completion of a Sensitive Receptor Survey for the area surrounding the Property.
3. Collection of water samples from potable supply wells located on adjacent properties.
4. Assessment of the soil vapor to indoor air pathway via soil vapor sampling and indoor air sampling.
5. Completion of a Soil Sample Collection Program using a Geoprobe Direct-Push soil sampling system. Twenty (20) soil borings (soil borings SB-8 through SB-27) were completed at the Property to assess the levels of residual petroleum constituents in soil.
6. Installation and development of twenty two (22) groundwater monitoring wells (monitoring well MW-1 through MW-22) at the site to assess the extent of the impacted groundwater plume. The groundwater monitoring wells were installed to depths of approximately 15 feet below grade (fbg) and were screened across the water table that was encountered during drilling.
7. Completion of multiple rounds of groundwater sample collection from the monitoring wells. At least two rounds of groundwater sample collection were collected from each monitoring well.
8. Completion of two (2) rounds of sample collection from the nearest on-lot supply wells located on adjacent properties.
9. Aquifer testing and development of an updated site conceptual model.
10. Pilot testing activities to facilitate remedial design.
11. Interim remedial measures.

Appendix A: Figure 2 presents the groundwater monitoring well locations. Appendix A Figure 2B presents the locations of soil borings. Appendix A: Figure 4 presents the location of vapor monitoring points and indoor air samples. Odyssey Environmental of Harrisburg, Pennsylvania provided the drilling installation services for the soil borings, soil vapor points, and monitoring wells. The initial soil borings, monitoring wells, and soil borings were supervised by Bluestone Environmental. Subsequent field activities were directed and supervised by Converse personnel.



7.2 HEALTH AND SAFETY PLAN

A site specific Health & Safety Plan that complies with Occupational Safety and Health Administration (OSHA) 29 CFR Part 1910.120 was completed prior to the initiation of field activities and was utilized at the Property during all field activities.

7.3 SENSITIVE RECEPTOR SURVEY

7.3.1 General

A receptor survey was performed to identify receptors (current and future) that may be exposed to the contaminant release. The receptor survey for the Property included the following components:

- Review of Pennsylvania Ground Water Information System (PaGWIS) data base for the Site vicinity.
- Review of local water use information.
- A PNDI search for the Property.
- Reconnaissance of the Site vicinity.

7.3.2 PAGWIS Database Summary

A search for groundwater wells was performed utilizing the Pennsylvania Ground Water Information System (PAGWIS) database for the Property and surrounding 0.5 mile radius. The PAGWIS website states "Well record data in PAGWIS come from various sources (US Geological Survey, PA Dept. of Environmental Protection, Susquehanna River Basin Commission, PA Dept. of Agriculture), but the vast majority is from well records submitted to the Pennsylvania Geological Survey by water well drillers. Well records submitted by drillers have been added to the database at various times over the years, starting in 1969." Those data are summarized below.

1. Public Supply Wells - The PAGWIS database identified two public water supply wells within 0.5 miles of the Property. The wells are owned by Woodloch and are located south of the site at a distance that is not anticipated to be potentially impacted by the plume.
2. Domestic Supply Wells - The PAGWIS identified no domestic supply well within a 0.5 mile radius of the Property. Known on-lot supply well locations are discussed in a subsequent section.
3. Agriculture Wells - The PAGWIS database identified no agricultural well within a 0.5 mile radius of the Property.
4. Industrial Wells - The PAGWIS database identified no industrial supply well within a

0.5 mile radius of the Property.

5. Geothermal Wells - The PAGWIS database identified no geothermal wells within a 0.5 mile radius of the Property.
6. Groundwater Monitoring Wells - The PAGWIS identified twenty five (26) groundwater monitoring/extraction wells within a 0.5 mile radius of the Property. These wells are all associated with the current ongoing environmental assessment and remediation of the Site.

7.3.3 Groundwater Use

Local records and interviews with property owners indicate that the area of the Site is served by the Woodloch supply wells (currently operated by Aqua PA) and private on-lot supply wells. Although the former Rosemergy's store was served by a private on-lot well, the new Facility on the Property (Woodloch Market) is served by the public water system that has assumed control of the Woodloch wells. The former residential well on the Property was reportedly abandoned as part of the construction of the new fuel facility. Several adjacent properties are still served by private on-lot wells. Current data indicates that nearby on-lot wells have not been impacted by the release.

7.3.4 PNDI Search

Converse performed a Pennsylvania Natural Diversity Index (PNDI) search for the Former Rosemergy Convenience Store Property. The PNDI search identifies threatened and endangered species or special concern species and resources that are potentially located in the search area. The PNDI search indicated that several species of concern potentially exist in the area of the Site. As no excavation or clearing activities are currently planned in unpaved areas, the species identified in the PNDI search are not expected to be impacted by cleanup activities at the Site. If additional measures are required, additional information will be requested from DCNR.

7.3.5 Area Reconnaissance

Converse performed a door-to-door survey and site reconnaissance of the Property and vicinity to identify potential receptors. With the exception of the previously discussed domestic supply wells and potential receptors based on site use (employees, visitors, and construction workers), no potential receptor was identified during the site reconnaissance. The nearest surface water body is located approximately 1200 feet



from the Property. The nearest off-Property seasonal residence does not have a basement.

7.4 SAMPLE COLLECTION AND ANALYSIS

7.4.1 General

Soil and groundwater samples that were collected as part of site characterization activities were analyzed for the unleaded gasoline indicator compounds and by the analytical methods that are published in the PADEP *Technical Document 2530-BK-DEP2008: Closure Requirements for Underground Storage Tank Systems, Effective April 1, 1998 (1998 UST Technical Document)* unless otherwise noted. Soil vapor samples were analyzed for the unleaded gasoline parameters in the *1998 UST Technical Document* by Method TO-15.

Field and laboratory QA/QC protocol was consistent with PADEP protocol and with those that are published in the United States Environmental Protection Agency (USEPA) document titled *Solid Waste, Test Methods for Evaluating Solid Waste (EPA Manual SW-846)*. The VOC portion of the soil samples was collected in accordance with *USEPA Method SW846 5035*. One (1) trip blank and one (1) duplicate sample were generally submitted with each sample set analyzed to provide quality assurance.

Nitrile disposable gloves were worn during sample collection activities and were changed prior to the collection of each sample. Each sample was given a unique identification number that was recorded on the field log, the Chain of Custody record, and the sample label.

All samples were placed in a cooler and chilled with ice for shipment to the analytical laboratory. All samples remained in the possession of Converse personnel until transferred to the analytical laboratory or to a courier for delivery to the analytical laboratory. Chain of Custody documentation was completed for and attended each sample set.

Single-use syringes, scoops, gloves, and acetate liners were used to collect the soil samples. Pumps with dedicated tubing or disposable bailers were used to purge and/or sample the wells.

7.4.2 Monitoring Well Construction and Development

Twenty two (22) groundwater monitoring wells were installed in the unconsolidated overburden at the Site to assess the extent of impacted groundwater. Monitoring wells MW-1 through MW-7, MW-12 through MW-15, and MW-17 through MW-19 were installed on the former Rosemergy property. Monitoring wells MW-8, MW-9, MW-16, and MW-20 through MW-22 were installed south of Rosemergy's on property owned by Woodloch. Monitoring wells MW-10 and MW-11 were installed east of Rosemergy's on property owned by the Jensens. The monitoring wells were completed using a Geoprobe rig using hollow stem augers. At each monitoring well location, 1.6-inch diameter by 5-feet long, soil cores were collected continuously from grade to the bottom of the boring. Monitoring well MW-6 was abandoned as part of the construction of the new convenience store by Lochgen. Analytical data indicates that monitoring well MW-6 was not in an area significantly impacted by the release from the former UST systems.

All monitoring wells were installed by Odyssey Environmental of Harrisburg, Pennsylvania. The monitoring wells were installed as follows:

- MW-1 through MW-6 were installed under the direction of Bluestone Environmental during the period of March 13 through March 19, 2012.
- MW-7 through MW-9, MW-1R, and MW-12 were installed under the direction of Converse Consultants during the period of October 28 and October 29, 2013.
- MW-10 and MW-11 were installed under the direction of Converse Consultants on January 21, 2014.
- MW-13 through MW-16 were installed under the direction of Converse Consultants during the period of April 16 through April 17, 2014.
- MW-17 through MW-22 were installed under the direction of Converse Consultants during the period of October 28 through October 29, 2015.

The wells were constructed similar to the requirements that are described in the PADEP 383-3000-001: *Pennsylvania Groundwater Monitoring Guidance Manual, December 1, 2001 (2001 GM Guidance Manual)* and *ASTM Standard D 5092-04*. The monitoring wells were completed to depths of approximately 15 feet below grade and the wells were screened across the water table encountered during drilling (if

possible) with 2-inch diameter, Schedule 40, 0.010-inch factory slotted, flush threaded, PVC screen. The borehole above the screened interval was cased with 2-inch diameter, Schedule 40, flush threaded PVC riser. The annular space between the borehole and the well screen was filled with sand to approximately 1 foot above the screened interval. The remaining annular space was filled with bentonite and concrete. The monitoring wells were secured with an expandable locking cap and padlock and completed at the surface with a flush-mount, bolt-down, water-tight, manhole. Appendix D: Well Logs presents a summary of well construction and a description of the materials encountered and the field screening results logged during the installation of the monitoring wells.

In general, the monitoring wells were developed by Converse or Bluestone personnel to remove fine-grained material and to initiate hydraulic communication with the aquifer. Monitoring wells were developed using a direct current (DC) submersible 1.5 inch diameter Whale® (model #921) pump with a booster (inline mounted Whale® pump) and a 0.5-inch diameter polyethylene discharge line capable of pumping approximately two (2) gallons per minute (GPM) (depth dependent) consistent with the PADEP 2001 Guidance Document. Each well was purged for approximately ten (10) minutes with intermittent surging (vertical movement of the pump over a distance of 2 to 3 feet within the well during development pumping). Development of each well was terminated when the purge water had little to no turbidity. As the monitoring wells are not installed in ideal aquifer materials, turbidity often returns to the monitoring well after development is complete.

7.4.3 Soil Samples

7.4.3.1 Sample Collection

On March 13 through March 16 and March 19, 2012, Bluestone contracted with Odyssey Environmental Services to install soil borings to delineate contamination. A total of 20 soil borings were installed to a depth of fifteen (15) feet below ground surface (bgs). Borings were numbered SB-008 through SB-027 (Designations SB-001 through SB-007 were not used to avoid confusion with historical assessment activities). The soil borings were drilled and sampled similar to the methods that are described in *ASTM Standard D 6282-98*. At each boring location two-inch diameter



direct-push soil cores were used to collect soil samples continuously from grade to the bottom of the boring.

The soil was visually inspected and logged in the field noting soil color, texture, moisture content, odor, and was characterized similar to the methods that are described in *ASTM Standard D 2488-93*. The liners were divided into roughly 2-foot intervals and a portion of each 2-foot interval was then transferred and allowed to equilibrate in a sealable plastic bag. After approximately 2 minutes, each sample was gently agitated to facilitate the partitioning of vapors into the headspace of the bag, and then field screened utilizing a Photoionization Detector (PID). A copy of the soil boring logs was previously provided.

Soil samples that were submitted for laboratory analysis were either representative of “worst case” conditions in the respective boring, or, if no impact was identified, were collected from a variety of depths to provide an assessment of the potential vertical distribution of petroleum constituents in the saturated and unsaturated zones. Soil samples that were submitted for laboratory analysis were transferred directly into laboratory-supplied glassware, and were not the portion of the sample that was collected for field screening purposes. The boreholes were filled to grade with bentonite and patched with an appropriate material.

7.4.3.2 Sample Analysis

Twenty (20) soil samples were collected from the twenty (20) soil borings (one sample per borehole) completed around the area of the former UST systems. Samples were analyzed by Fairway labs of Altoona, Pennsylvania for the unleaded gasoline constituents on the 2008 PADEP Petroleum Short list. Appendix B: Table 2 summarizes the soil laboratory data. Appendix A: Figure 2B presents the locations of the site characterization soil borings.

Levels of at least one (1) short list petroleum constituent exceeded the the NRMSC SHSs in all soil samples except the soil sample collected from SB-15. Soil boring SB-15 was the easternmost boring located near the Jensen property boundary. Soil laboratory reports and the corresponding Chain-of-Custody were previously provided.



With respect to the vertical distribution of contaminants in the overburden soil, the highest PID readings were encountered at the approximate depth of the water table smear zone that was encountered at depths of approximately 4 feet to 9 feet below grade. The distribution of analytes in soil indicates that the impacted unsaturated zone soil was removed as part of the UST closure activities. No residual source area is indicated to be present in the unsaturated zone. The distribution of contaminants in saturated soil corresponds to the migration of groundwater from the former source area.

In general, the highest concentrations of analytes were detected in soil samples that were collected west of the former UST excavation (soil borings SB-20 through SB-24). The area west of the UST excavation is also the area where the highest PID readings were observed during the soil borings. Appendix A: Figure 2B shows the highest PID concentration recorded in each of the soil borings.

7.4.3.3 Soil Analytical Summary

In general, the highest levels of petroleum constituents in each soil boring were detected near the soil/groundwater interface. In general, the highest levels of petroleum constituents in soil were detected in borings west (downgradient) of the former UST excavation. No residual source area is indicated to be present in the unsaturated zone.

7.4.4 Soil Gas Samples

7.4.4.1 Soil Gas Vapor Point Installation and Soil Gas Vapor Sample Collection

Four (4) soil vapor sample points were previously installed between the source area and the buildings at the Site by Bluestone using a Geoprobe. The soil vapor points were constructed of 0.75-inch diameter PVC installed to a depth of approximately 5 feet below grade with six-inches of screened interval at the bottom. It is our understanding that three (3) vapor points were subsequently destroyed by site development activities before they were sampled. The remaining vapor point, VP-1, is located between the former source area and the new convenience store at the Property. A second vapor point, VP-2, was installed between the source area and the building by Converse. VP-2 was installed to four feet below grade using a hammer drill. VP-2 consists of a 4" inch long stainless steel slotted implant connected to the ground surface by poly tubing. A third vapor point was planned for the Woodloch property south of the site to assess vapor migration towards the residence south of the Former Rosemergy property. The



third vapor point was not installed because groundwater is present at approximately 0.5 feet below grade at the planned location of VP-3 (adjacent to MW-16). Vapor and indoor air sample locations are shown on Figure 4 of Appendix A.

Soil Vapor Point sampling was conducted on February 4, 2014 and March 7, 2014 to evaluate potential vapor intrusion into the convenience store building from impacted groundwater.

The length of all sample transfer lines were kept as short as possible to minimize condensation of the extracted gas in the line. At least two (2) interior-diameter (ID) air volumes are purged prior to sample collection using a peristaltic pump.

Soil gas samples were collected using laboratory-supplied SUMMA Canisters (6 liter volume) over a period of two (2) hours. The SUMMA Canisters are purged, decontaminated, and sampled at the laboratory prior to shipment. One (1) duplicate soil vapor sample was submitted for laboratory analysis for quality control.

Each sample was given a unique identification number that was recorded on the field log, the Chain of Custody record, and the sample label. Chain of Custody documentation was completed for and accompanied each sample set. The samples were stored and shipped in accordance with requirements for the TO-15 method. Single-use, factory decontaminated nylon tubing was used to collect the samples therefore decontamination of the sample equipment was not necessary.

7.4.4.2 Laboratory Analysis

During each sampling event, three soil gas samples SV-1/VP-1 (sample of VP-1), SV-2/VP-2 (sample of VP-2), and SV-3/VP-3 (duplicate sample of SV-1/VP-1) were submitted for laboratory analysis. Appendix A: Figure 4 presents the locations of soil gas points. Appendix B: Table 4 summarizes the soil gas laboratory data.

No compound was identified in the ambient air sample at a concentration greater than the residential medium specific concentration for soil gas (RMSC_{SG}). An example calculation for the conversion of laboratory units is presented in Appendix F.



As presented in Appendix B: Table 4, no compound exceeded the residential MSC_{SG} (RMSC_{SG}) or nonresidential MSC_{SG} (NRMSC_{SG}) in the soil gas samples collected from the two (2) soil vapor points (SV-1 and SV-2) located between the former release area and the building.

PADEP, 2004: Appendix A references §250.4 and provides a relative list of reporting limits (RLs) that represent PQLs for air analysis and states that “determining a PQL is specific to a particular laboratory”. The LQLs for all compounds were less than the PQLs.

7.4.5 Indoor Air Samples

7.4.5.1 Sample Collection

The *Pennsylvania's Land Recycling Program, Technical Guidance Manual*, (253-0300-100), May 4, 2002 (2002 LRP TGM): *Draft Vapor Intrusion Into Indoor Structures (June 14, 2002 draft partial)* was used to identify appropriate screening methods to evaluate if an unacceptable risk is posed to indoor air quality (IAQ) as the result of vapor intrusion into a structure.

The collection of IAQ samples was the selected screening method because:

1. The use of screening values is inappropriate because insufficient soil is present between the depth of the plume and the base of the residential structure
2. The depth to water precluded the use of soil vapor wells.

A Pre-Sampling Inspection protocol was developed to identify if appropriate sampling conditions were present prior to the collection of the samples. “Appropriate sampling conditions” was defined as no potential source of petroleum vapors, other than vapor intrusion from groundwater, could be identified in the sample area during the Pre-Sampling Inspection. The Pre-Sampling Inspection included the:

1. Interview of the property owner or occupant relating to the past or current use or storage of petroleum products in the sample area.
2. Visual inspection of the sample area for storage containers or equipment that might contain petroleum products.
3. Visual inspection of the sample area for penetrations or vents that might convey vapors from other areas of the structure.
4. Visual inspection of the sample area for stains or discoloration that might indicate



the storage and/or spill or release of a petroleum product.

The pre-sampling protocol did not identify any conditions that would indicate a conflict with the proposed sampling method.

Indoor air quality (IAQ) sampling was conducted on June 18, 2014 and December 16, 2014 to evaluate vapor intrusion into the adjacent residential structure from impacted groundwater as part of the site characterization.

Soil vapor and indoor air sample locations are shown on Figure 4 of Appendix A.

A total of two (2) samples were collected from the Woodloch property that is located south of the former Rosemergy property. Sample IA-1 was collected inside the residence within the entry hallway on the north side of the residence (closest to former Rosemergy property). Sample IA-2 was collected just outside the residence on the north side of the building as a means of eliminating any background (outdoor) concentrations of analytes.

The samples were collected using a using a 6-liter Summa canister for a period of four (4) hours. The SUMMA Canisters are purged, decontaminated, and sampled at the laboratory prior to shipment. Each sample was given a unique identification number that was recorded on the field log, the Chain of Custody record, and the sample label. Chain of Custody documentation was completed for and accompanied each sample set. The samples were stored and shipped in accordance with requirements for the TO-15 method.

7.4.5.2 Laboratory Analysis

A total of two (2) air samples were collected from the Woodloch property that is located south of the former Rosemergy property. The samples were analyzed using USEPA Method TO-15 by Contest Analytical Laboratory, East Longmeadow, Massachusetts.

Gasoline constituents were detected in the indoor air sample but were not present at levels that exceed the RMSC SHSs for indoor air that are published by PADEP. The



detection limits for all compounds were below the applicable standards. Laboratory reports and chain of custody forms were previously provided.

7.4.6 Groundwater Samples

7.4.6.1 Water Level Gauging and Groundwater Sample Collection

Multiple rounds of groundwater sample collection and analysis have been conducted to characterize groundwater during the course of the site characterization phase. As discussed previously, additional groundwater monitoring wells were added in phases to address data gaps. Unless otherwise noted, all accessible groundwater monitoring wells were sampled during each event. Groundwater sample collection events were conducted on the following dates:

May 8, 2012

June 7, 2012

November 8, 2013

December 11, 2013

February 4, 2014 (MW-10 through MW-12 only)

March 7, 2014

April 29, 2014 (MW-13 through MW-16 only)

June 12, 2014

September 17, 2014

December 3, 2014

March 25, 2015

June 25, 2015

August 26, 2015

November 12, 2015 (select wells only)

December 9, 2015

Prior to sample collection, groundwater levels were measured at each monitoring well and the respective saturated casing volumes were calculated. Each well was then purged of at least three (3) saturated casing volumes or until all standing water was evacuated from the well prior to sample collection. The monitoring wells were purged and sampled using a peristaltic pump or "whale" pump and disposable tubing. The temperature, specific conductivity, and pH of the purge water were monitored at the



beginning and end of each purge event. Potentially impacted purge water was treated on-site using granular activated carbon and discharged to the ground surface in the vicinity of the wells. Water samples were transferred directly into laboratory supplied glassware. Groundwater samples collected for VOC analysis were transferred to 40 milliliter (mL) VOA vials and preserved with hydrochloric acid (HCL).

No separate phase liquid (SPL) was observed during the purge or groundwater sample collection activities. Additional information on sampling protocols is discussed in the 2013 Converse Work Plan.

7.4.6.2 Laboratory Analysis

7.4.6.2.1 General

As previously discussed, all accessible groundwater monitoring wells were sampled during each event unless otherwise noted. All groundwater samples were analyzed by Fairway Laboratories of Altoona, Pennsylvania for the unleaded gasoline constituents on the 2008 Petroleum short list. Historical groundwater analytical data is summarized on Table 3 of Appendix B.

No compound was identified in a trip blank at a concentration greater than the LQL. The LQLs for all compounds were generally less than the PQLs, however in selected samples with high concentrations of contaminants, the laboratory was not able to provide quantitation limits at the PQL.

7.4.6.2.2 2012 Sampling Events

The May 2012 and June 2012 sampling events included sample collection from monitoring wells MW-1 through MW-6. Concentrations of petroleum constituents exceeded the RMSC SHSs in groundwater samples that were collected from monitoring wells MW-1, MW-2, MW-3, MW-4, and MW-5. The highest analyte concentrations were detected in monitoring wells MW-1, MW-3, and MW-4 that are located west, north, and south of the former UST excavation.

Based on the analytical data for the May and June 2012 events, additional groundwater monitoring wells were installed at the site to assess the impacted groundwater plume.

7.4.6.2.3 2013 Sampling Events

Sampling events were completed in November 2013 and December 2013. Each event included sample collection from monitoring wells MW-1 through MW-9 (except for MW-6 that was destroyed during site development) and MW-12. Monitoring wells MW-10 and MW-11 were not installed yet due to off-Property access issues. Concentrations of petroleum constituents exceeded the RMSC SHSs in groundwater samples that were collected from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-7, and MW-9. The highest analyte concentrations were detected in monitoring wells MW-1, MW-2, MW-4, and MW-7 that are located west, north, and south of the former UST excavation.

The distribution of contaminants indicated groundwater flow to the west and south-southeast from the former UST area.

7.4.6.2.4 Sampling Events in 2014 and Early 2015

Sampling events were completed in February 2014 (MW-10 and MW-11 only), March 2014, April 2014 (MW-13 through MW-16 only), June 2014, September 2014, December 2014, March 2015, and June 2015.

The Woodloch Market was completed in June 2014 after a period of site disturbance that included grading, paving, concrete work, subsurface utility installation, building expansion, etc. The pattern of groundwater contamination at the Site began to change in late 2014 (or early 2015) presumably in response to changes in the pattern of infiltration at the Property. The highest concentrations of analytes continued to be detected in monitoring wells MW-1, MW-2, MW-4, and MW-7. Noticeable changes in late 2014 (or early 2015) included:

- Increasing analyte concentrations in peripheral monitoring wells MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, and MW-16.
- Decreasing analyte concentrations in source area monitoring wells MW-2 and MW-4.

The largest increase in analyte concentrations was seen in monitoring well MW-9 which is located across Route 590 (south) of monitoring well MW-4. The distribution of contaminants indicated groundwater flow to the west and south-southeast from the

former UST area and an expansion of the impacted groundwater plume to the north and northwest.

7.4.6.2.5 Recent Groundwater Sample Collection Events

Recent groundwater sample collection events were completed in August 2015, November 2015 (select monitoring wells only), and December 2015. Analyte concentrations detected in groundwater samples from the August 2015 event were generally similar to the previous events that are discussed above. Isoconcentration contour maps of the August 2015 data for the major analytes of concern are included as Figures 6H through 10H of Appendix A.

The November 2015 event included newly installed monitoring wells MW-17 through MW-22 that were requested by PADEP to further characterize the impacted groundwater plume. Groundwater analytical data for the November 2015 event indicated that no analyte was detected in peripheral monitoring wells MW-17 through MW-22 at concentrations that exceeded the LQLs or RMSC SHSs. During the November groundwater sample collection event samples were also collected from monitoring wells MW-3, MW-4, and MW-9 to assess analyte concentrations near the southeast corner of the source area. The November data, though limited in scope, appeared to confirm that the site had been fully characterized by the newly installed monitoring wells as the impacted groundwater plume did not extend beyond the existing monitoring well network. As the November data set included only selected wells, no isocon maps were prepared for the concentration data.

The December 2015 event included all monitoring wells at the Site. The highest analyte concentrations were detected in monitoring wells MW-1, MW-5R, and MW-9. Similar to recent quarterly events, the analytical data showed expansion of the impacted groundwater plume to the north and west. Benzene in new peripheral monitoring wells MW-17 and MW-18 that are located north and northwest, respectively, of the source area was detected at levels that exceed the RMSC SHSs. The December 2015 data indicate that the site may not yet be fully characterized. Additional groundwater sample collection is recommended to confirm the exceedances in the newly installed peripheral monitoring wells.

Isoconcentration contour maps of the December 2015 data for the major analytes of concern are included as Figures 6D through 10D of Appendix A. The distribution of contaminants indicate groundwater flow to the north and west and south-southeast from the former UST area.

Groundwater contour maps for the recent groundwater sampling events are included as Figures 5H, 5C, and 5D of Appendix A.

The LQLs were generally less than the promulgated RMSC SHSs. Laboratory reports and chain of custody data for the recent events are presented in Appendix C. Appendix B: Table 2 summarizes the groundwater analytical data.

7.4.6.2.6 Indicator Parameters

Indicator parameters were monitored during select groundwater sample collection events. Based on the June 2014 sampling event that provides the most complete set of data, dissolved oxygen levels were generally highest in monitoring wells MW-14, MW-15, and MW-16 that were located furthest from the impacted groundwater plume in areas that are not covered by asphalt. ORP levels in the monitoring wells are generally lowest in the middle of the impacted groundwater plume, as expected.

7.4.6.2.7 Groundwater Analytical Data Evaluation

The laboratory results indicate that petroleum constituents in the groundwater are present beneath the Property and the adjacent Woodloch property at levels that exceed the RMSC SHSs. UST closure data and the analytical data indicate that the petroleum product released at the site was unleaded gasoline. The highest levels of gasoline constituents have historically been detected in monitoring wells west of the former leaking UST system consistent with the local direction of groundwater flow indicated by water level data. Recent groundwater sample collection events document expansion of the impacted groundwater plume to the northwest and the south (beneath Route 590) in response to changes in infiltration patterns at the site.

UST closure information and soils data indicate that impacted unsaturated zone soil was removed for off-site disposal. The source of the current groundwater plume is residual unleaded gasoline constituents in the soil smear zone located at the top of the



water table. As the new UST systems at the Property are located outside of the impacted groundwater plume, no potential source area of additional petroleum product has been identified in the area of the release. Buried petroleum refuse related to the garage operation that was identified north of the building (and remediated under a separate case number with PADEP) does not appear to impact analyte concentrations in groundwater.

As previously discussed, the principal direction of contaminant transport beneath the site was historically to the west. Recent data also indicate a component of flow to the southeast and the northwest. The impacted groundwater plume has not migrated to the west or southeast beyond the current monitoring well network at levels that exceed the RMSC SHSs.

Recent trends for the groundwater analytical data indicate:

- Increasing analyte concentrations in peripheral monitoring wells MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, and MW-16.
- Decreasing analyte concentrations in source area monitoring wells MW-2 and MW-4.

7.4.7 On-Lot Supply Well Samples

7.4.7.1 Sample Collection

The Converse Work Plan specified sample collection from the on-lot supply wells on the Jensen property, the Charles Rosemergy property, and the Woodloch property of Figure 13. Mr. Jensen did not provide access for the collection of a supply well sample from his Property. As the well on the Jensen is approximately 1000 feet northeast of the former leaking UST system it is not within the area potentially impacted by the release. Samples from the on-lot supply wells at the Rosemergy (labelled SW-8) and Woodloch properties (labelled SW-12) were collected on 12/11/13 and 2/4/14

In general, supply well samples were collected in accordance with the Converse Work Plan. Samples were collected directly from a tap into laboratory supplied glassware after stagnant water within the system had been purged by running the water for an extended period of time.



7.4.7.2 Sample Analysis

Supply well samples were collected from the Woodloch Property and the Rosemergy Property on both sample collection dates. Samples were analyzed by Fairway labs of Altoona, Pennsylvania for the unleaded gasoline constituents on the 2008 PADEP Petroleum Short list.

As presented on Appendix B: Table 6, no unleaded gasoline constituent was detected in the on-lot supply well samples at a concentration that exceeded the laboratory quantitation limits (LQLs) or the RMSC SHSs. Appendix A: Figure 13 presents the locations of the properties that were sampled. Property owners were notified of the analytical results for their wells.

7.4.8 Waste Disposition

Potentially impacted soil cuttings that were generated during the completion of the soil borings and monitoring wells was containerized for subsequent disposition by Bluestone Environmental of Honesdale, Pennsylvania.

Purge water and development water from potentially impacted groundwater monitoring wells was treated using a granular activated carbon (GAC) canister and discharged to the ground surface at the Property. Discharge water from the GAC canister is periodically monitored and/or sampled during purge activities. No breakthrough of the carbon bed was detected during treatment events. The GAC unit is periodically emptied and filled with new coconut shell carbon (or equivalent) that is capable of removing the target analytes.

7.4.9 Elevation Survey

Kiley Associates LLC of Lakeville, Pennsylvania completed a survey of the locations and elevations of the monitoring wells that were utilized in this study to provide the data necessary to assess the direction of groundwater flow in the water table aquifer at and in the area of the Property. The location and top of casing (TOC) elevation for each well was measured relative to the 1983 North American Datum (NAD83) using the State Plane Coordinate System. The TOC elevations and the measured groundwater levels in each well were then used to calculate groundwater elevations at each

monitoring well. Appendix B: Table 1 presents a tabulated summary of the elevation survey data, depth to water data, and calculated groundwater elevation data. Appendix A: Figures 5H, 5C, and 5D present groundwater contour maps for the three most recent groundwater sample collection events.

7.5 PILOT TEST ACTIVITIES

7.5.1 General

Converse used a trailer mounted rotary phase blower system to conduct a pilot test on the DPE wells during March 2015 and again in October 2015. The vapor wells for the partially installed dual-phase extraction system provided a means for conducting a pilot test of vapor and groundwater extraction. In March 2015, Short-term pilot tests were completed individually on dual-phase extraction system wells DPE-3, DPE-6, and DPE-7 and a multi-well test was conducted on DPE-1, DPE-4, and DPE-5 simultaneously. The location of existing DPE components is shown on Figure 3A. Site features and monitoring well locations are shown on Figure 2. The March 2015 Pilot Test data is discussed in the RAP that was submitted on July 15, 2015.

The March 2015 pilot test activities demonstrated that DPE was a viable remedial technology for the site and provided initial estimates of vapor and groundwater extraction rates, required vacuum, drawdown, and zones of influence.

The October 2015 pilot test was completed for 48 hours to document system response to longer duration extraction and provide a more accurate estimate of drawdown and groundwater discharge as the system approaches equilibrium. Data summary charts from the October 2015 pilot test activities are included as Appendix E.

7.5.2 DPES WELL CONSTRUCTION

The DPE wells were constructed similar to the requirements that are described in the PADEP 383-3000-001: Pennsylvania Groundwater Monitoring Guidance Manual, December 1, 2001 (2001 GM Guidance Manual) and ASTM Standard D 5092-04. Well and Boring Logs were prepared that present a summary of well construction and descriptions of the materials and the field screening results that were encountered during the installation of the wells and soil borings at the Site.

The wells were developed by Converse personnel using a submersible pump or disposable bailer to remove fine-grained material and to initiate hydraulic communication with the aquifer. Converse personnel field monitored the development water for pH, temperature, and specific conductivity. Potentially impacted development water was treated on-site using granular activated carbon and discharged to the ground surface in the vicinity of the well.

The DPE wells were installed using hollow stem auger drilling methods to depths of approximately 15 feet below grade. The DPE wells were screened with approximately 12.5 feet of 2-inch diameter, schedule 40 polyvinyl chloride (PVC), 0.020-inch factory slotted, flush threaded screen. The borehole above the screened interval was cased with 2-inch diameter, schedule 40, flush threaded PVC riser. The annular space between the borehole and the well screen was filled with appropriate sand to approximately ½-foot above the screened interval and the remaining annular space was filled with bentonite and concrete.

7.5.3 DPES MOBILIZATION AND HOOK-UP

Converse mobilized a trailer mounted dual-phase extraction system (DPES) to the Site on October 28, 2015. Basic components of the DPES consist of a Roots Universal RAI blower with 7.5 horse power (hp) motor, knockout drum with three (3) level sensors, $\frac{3}{4}$ hp water transfer pump, $\frac{1}{2}$ hp heat exchanger unit, and electronic control panel. Treatment units consist of two (2) 160-pound granular activated carbon (GAC) vapor treatment vessels (in series) and two (2) 200-pound GAC water treatment vessels (in series). Vacuum gauges, pressure gauges, and temperature gauges are used to monitor system operation. System vacuum is controlled by an air-mix valve located at the blower inlet.

The well heads consist of 2-inch PVC riser. 2-inch flexible PVC hose was used to connect the trailer mounted DPES to the well head. A temporary one-inch drop pipe within a 2-inch manifold was used extract soil vapor and groundwater at the well head. The 2-inch manifold contains a sample port that can be used to monitor vacuum, introduce entrainment air, and collect air samples at the well head.



7.5.4 TESTS AND MONITORING

The primary pilot test tasks were as follows:

1. A multi-well test utilizing simultaneous extraction at DPE-3, DPE-4, and MW-4 for a period of approximately 48 hours.
2. Data tabulation and analysis to establish drawdown and long term discharge rates.

The pilot testing was conducted on October 29 through October 31, 2015. During the pilot testing, the following parameters were monitored:

1. Vacuum in the DPE wells being tested, in inches of mercury (inHg).
2. Groundwater extraction rate from the DPE wells being tested, in gallons per minute (gpm).
3. Groundwater levels in the piezometers and DPE wells not being tested at that time, in feet below top of casing (ft-toc).
4. Vacuum in the piezometers and DPE wells not being tested at that time, in inches of mercury (inHg).

Air flow from the well heads would have also been measured but one of the extraction points required more make-up air at the well head than could be supplied by the sampling port. As a result, the DPE connection at the well head was not tightened and the air flow at the well heads could not be quantified. Air flow data from individual well heads is available from the March 2015 pilot tests. In addition to the above measurements, discharge samples (treated effluent) were collected at 8 hour intervals to satisfy discharge permit requirements.

7.5.5 TEST RESULTS

General

Dual phase extraction was achieved during the multi-well test. DPE at the site was easily achieved at vacuums of 6 to 7 inHg. The volume of air and groundwater generated by the system was consistent with the initial design of the DPE system. Vacuum data collected during the tests at nearby extraction wells indicate that soil vapor can be extracted from the treatment cell using the current array of DPE wells. Water level data indicates that the zone of influence of each extraction well will overlap. Although groundwater can be extracted from entire treatment cell using the current DPE array, the predicted drawdown from the short term pilot test raised concerns about the



amount of drawdown that will be achieved within the treatment cell. As expected, the longer term pilot test data was more encouraging with respect to the amount of drawdown that will be achieved within the treatment cell. The longer term data implies that at least 1.5 to 2 feet of drawdown can be achieved throughout the majority of the treatment cell with the exception of the extreme southeast corner of the Property (area of groundwater mounding) where the aquifer framework precludes significant drawdown. As the majority of the contaminant mass is extracted via the vapor phase, drawdown is critical to the efficient removal of contaminants.

The data summary sheets and summary charts from the October 2015 pilot test activities are included as Appendix E. A detailed discussion of the pilot test results is provided below.

Multi-well Test (DPE-3, DPE-4, and MW-4)

Dual-phase wells DPE-3, DPE-4, and MW-4 were tested for a period of approximately 48 hours.

The DPE system operated within the range of 7 inHg to 13 inHg for the duration of the test. Total system airflow during the test was generally within the range of 120 to 140 cfm. The volume of make-up air that was required generally decreased during the course of the test as groundwater drawdown exposed additional areas of soil vapor that became available for extraction.

The multi-well test induced a measurable drawdown in all of the nearby monitoring locations. Time versus drawdown charts are included for DPE-1, DPE-2, DPE-7, MW-3, and MW-5R. The largest drawdown, approximately 2 feet, was observed in DPE-2.

Groundwater drawdown

The radius of influence for groundwater extraction was approximately 42 feet based on the longer duration multi-well test. The predicted radius of influence was lower (28 feet) for the previously completed short duration tests. Drawdown of 1 foot is predicted at a distance of approximately 20 feet from a vertical DPE well. Based on the pilot test data, a DPE well spacing of approximately 40 feet would be required to achieve a drawdown of 2 feet throughout the treatment plume. As the drawdown is limited upgradient of the



former UST excavation by the area of groundwater mounding, this relationship should only be expected to apply to areas north and west (downgradient) of the former UST excavation. As the bulk of the residual source area is located north and west of the former UST area, this data provides a useful tool for remedial design.

Groundwater extraction rate

Groundwater extraction for the pilot test can be calculated based on the gallons of water treated per increment of time. Groundwater extraction rates ranged from approximately 8 gallons per minute at the start of the multi-well test to less approximately 0.5 gallons per minute. As expected, the longer duration test demonstrated that discharge rates decrease rapidly after system start-up and long term extraction rates are expected to be 1 gpm or less. Groundwater extraction rates typically drop significantly during continuous operation of the system, however transient infiltration events due to snowmelt and heavy rain can cause sudden increases in the volume of water extracted.

Vapor extraction zone of influence

The radius of influence for vapor extraction was approximately 19 feet based on the multi-well test. The predicted radius of influence was slightly higher (24 feet) for the previously completed short duration tests. The radius of influence for the longer duration test may have been impacted by the significant rain event (2 inches in 24 hours) that occurred on the first day of the pilot test. The pilot tests indicate considerable variability in connectivity between vapor wells. As such, although the vapor extraction zone of influence appears to be sufficient in general, each area of the DPE array will need to be evaluated after start-up and operation of the overall system. We anticipate that piezometers will be installed within the DPE array to monitor water levels and vacuum between extraction points.

Hydraulic Conductivity

The greatest amount of drawdown (around 2 feet) was observed in DPE-1, DPE-2, and MW-5R, therefore the drawdown data from these wells was selected for the hydraulic conductivity analysis.

Assumptions:



- 1) Test wells DPE-3, DPE-4, and MW-4 have to be considered a singular pumping well for the analysis.
- 2) A constant pumping (water withdrawal) rate of 0.5 gallons per minute.
- 3) Saturated aquifer thickness of 15 feet.
- 4) DPE-1 is approximately 25 feet from the general pumping area.
- 5) DPE-2 is approximately 30 feet from the general pumping area.
- 6) MW-5R is approximately 20 feet from the general pumping area.

The hydraulic conductivity is estimated from the distance-drawdown relationship between a pumping well (with known constant water withdrawal rate) and an observation well (with known distance from the pumping well).

The equation to calculate transmissivity (T) from this relationship can be found in *Groundwater and Wells* by F.G. Driscoll, 1986.

Where Q is the pumping rate in gallons per minute (gpm) and Δs is the drawdown (in feet) observed over one full log cycle, determined by graphical analysis. The drawdown graphs for DPE-1, DPE-2, and MW-5R (Appendix E) present the analysis.

Transmissivity has units of gallons per day per feet (gpd/ft) which can be converted to feet squared per day (ft²/d) by dividing by the amount of water that can fit into 1 cubic foot, 7.481 gallons per cubic foot (g/ft³). Transmissivity (ft²/d) can be converted to hydraulic conductivity by dividing it by the saturated aquifer thickness (ft).

8.0 INDOOR AIR QUALITY EVALUATION

8.1 GENERAL

The presence of Volatile Organic Compounds (VOCs) in groundwater pose the potential for vapor intrusion into a structure. The Pennsylvania Land Recycling Program, *Technical Guidance Manual*, (253-0300-100), May 4, 2002 (*2002 LRP TGM*): Section IV(A)(4) Vapor Intrusion Into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standard, dated January 24, 2004 (*2004 Vapor Intrusion Guidance*) provides guidance and was used for the assessment of potential subsurface vapor intrusion of volatile organic compounds into buildings.

8.2 DECISION MATRIX

8.2.1 General

The *2004 Vapor Intrusion Guidance: Figure 1 - GW IAQ Decision Matrix for SHS* and *Figure 2 - Soil IAQ Decision Matrix for SHS* provide decision matrices for screening activities.

8.2.2 Groundwater Decision Matrix

No separate phase liquid (SPL) has been identified at the Property. The Property building and the residence on the adjacent property to the south are within 100 feet of the impacted groundwater plume. No active preferential pathways have been identified at the Site although water in some locations is present at depths that could impact utility lines trenches. Assessments of soil vapor and indoor air (See Sections 7.4.4 and 7.4.5) were completed to evaluate potential vapor migration from groundwater to indoor air at the Site.

8.2.3 Soil Decision Matrix

Soil data collected after UST closure activities indicate that unsaturated soil is not a current contaminant source area at the Site. Soil vapor was assessed to evaluate transport from impacted groundwater to indoor air. No additional assessment is required at the site to evaluate the soil volatilization to indoor air pathway.



9.0 EVALUATION OF POTENTIAL DISCHARGES TO SURFACE WATER

9.1 GENERAL

§245.310(a)(29) references that an evaluation of impacts to surface water may be conducted in accordance with §250.309 or §250.406, as necessary. §250.309(a) requires that “any regulated discharge to surface waters shall comply with the applicable provisions of Chapters 91-96, 97 (reserved), 102, 103 and 105, including antidegradation requirements, and may not cause an exceedance of the applicable water quality standards for the surface water in question”.

No surface water body is present on the Property. The site is located approximately 1,200 feet south of Little Teedyuskung Lake. The lake drains into West Falls Creek which passes approximately 1,100 feet northeast of the site. West Falls Creek flows southeast to the Lackawaxen River. The site is located approximately 2,200 feet northeast and northwest, respectively, of two (2) small creeks that drain south into the Lackawaxen River.

§250.309(b) requires that “for point source discharges to surface water, compliance shall be measured at the point of discharge in accordance with limits specified in the NPDES permit”. No point source discharge to surface water is present at the Property, and §250.406(b) is not applicable to this Property.

§250.309(c) presents compliance requirements for surface water quality standards for diffuse surface water and diffuse groundwater discharge. Residual constituents in groundwater have the potential to degrade surface water quality in the surface water. An evaluation of diffuse groundwater discharge to surface water is discussed in Section 9.2.

§250.309(d) requires an evaluation of diffuse surface water discharge to surface water from springs. No spring was identified at or in the area of the Property, and §250.309(d) is not applicable to this Property.



9.2 DIFFUSE GROUNDWATER DISCHARGE TO SURFACE WATER

Groundwater flow in the shallow overburden deposits is influenced by groundwater mounding in the southeast corner of the former Rosemergy Property. The distribution of contaminants and contours of the potentiometric surface (See Figures in Appendix A) indicate that groundwater flow is primarily to the north and west with a component of flow to the south-southeast. Fate and transport analysis and the distribution of contaminants within the overburden indicate that the impacted groundwater plume does not extend to identified off-property receptors at the Site and does not reach the identified surface water bodies. In the absence of preferential pathways, the direction of transport and limited mobility precludes the impacted groundwater within the shallow overburden from reaching surface water.



10.0 ECOLOGICAL RECEPTORS

§245.310(a)(28) references that an evaluation of impacts to ecological receptors may be conducted in accordance with §250.311 or §250.402(d), as necessary. §250.311 requires an evaluation of impacts to ecological receptors. The ecological receptors that are identified in §250.311(a) are:

1. Individuals of threatened and endangered species as designated by the United States Fish and Wildlife Service under the Endangered Species Act (16 U.S.C.A. §§ 1531-1544).
2. Exceptional value wetland as defined by §105.17.
3. Habitats of concern.
4. Species of concern.

In accordance with §250.311(b), no additional evaluation of ecological receptors is required at the Facility because it meets all three (3) criteria that are available for exemption from further assessment. Namely,

1. Gasoline/diesel fuel/heating oil was the only source of constituents detected at the Site.
2. The area of contaminated soil is less than 2 acres (and impacted sediment is less than 1,000 square feet).
3. The site has features such as paved areas and buildings that limit potential exposure to impacted soil



11.0 FATE AND TRANSPORT ANALYSIS

11.1 GENERAL

Fate and transport analysis can be used to predict constituent concentrations in soil and groundwater at one (1) or more locations and at specific times. The *Pennsylvania's Land Recycling Program, Technical Guidance Manual, (253-0300-100), May 4, 2002 (2002 LRP TGM)*: Section IV(A) presents a description of how fate and transport analysis can be applied to the three (3) cleanup standards.

The *2002 LRP TGM*: Section IV.A states that "fate and transport analysis or modeling is a necessary part of site characterization and demonstrating attainment of an Act 2 standard. However, the regulations governing Act 2 use the term 'fate and transport analysis' as opposed to 'fate and transport model.' This particular distinction was made because it will not always be necessary to run an analytical or numerical quantitative 'fate and transport model' to achieve a standard". Qualitative and analytical fate and transport modeling will be used to estimate future contaminant transport for COCs in site groundwater.

11.2 SITE CONCEPTUAL MODEL

11.2.1 Source and Extent

The site was developed as an automotive repair station with retail gasoline sales in approximately 1965. The site operated as both an automotive repair station and retail gasoline station until April 2000. The facility was out-of-service from April 2000 until February 2002. In February 2002, retail gasoline sales resumed at the site. A convenience store was also added in October 2002. The retail gasoline sales continued until March 2010.

The release of petroleum to the environment was first identified during a limited Phase II Environmental Assessment (Phase II) of the property on June 28th, 2011. The three (3) underground storage tanks (USTS) were removed from the Former Rosemergy's Convenient Store Facility in September 2011. Site Assessment Information generated during the removal and closure process indicated evidence of soil contamination throughout the excavation area. The heaviest contamination and highest field PID readings were identified directly below the pump island. The island contained three dispensers. The heaviest soil contamination appeared to be under

the center (unleaded gasoline) dispenser. The likely source of the release was the dispenser or piping connections under the dispenser. The leak appeared to be a slow release (chronic problem) that occurred over a multiple year period. There were no containment sumps under the dispensing units.

Approximately 100± tons, was removed from under the pump islands for off-site disposal as part of the UST closure activities. Soil borings completed since the USTs were removed have encountered widespread saturated zone soil that has been impacted by the release of gasoline, however no residual impacted soil appears to be present in the unsaturated zone. Groundwater samples collected from monitoring wells at the Site indicate that the residual petroleum constituents within the uppermost saturated soils represent the source area for the current impacted groundwater plume. In general, the highest concentrations in groundwater are associated with the highest levels of gasoline constituents detected in saturated soil.

The release of product impacted the shallow overburden (water table) aquifer beneath the Property. Groundwater mounding in the southeast corner of the Property effects groundwater transport beneath the Site. Recent pilot test data indicates that the groundwater mounding is not related to the backfill in the former UST excavation. Flow within the shallow overburden aquifer flows toward the north and west with a component of flow to the south-southeast. The impacted groundwater extends beneath Route 590 to property owned by Woodloch. Although the Former Rosemergy Property (source area property) is currently owned by Woodloch, it was not owned by Woodloch at the time that the release was discovered

11.2.2 Constituents of Concern

The following unleaded gasoline indicator compounds are considered to be the constituents of concern (COCs) at the Property:

| CONSTITUENTS OF CONCERN (COCs) | |
|--------------------------------|-----------|
| CONSTITUENTS | CASRN |
| Benzene | 71-43-2 |
| Cumene (isopropylbenzene) | 98-82-8 |
| Ethylbenzene | 100-41-4 |
| Methyl Tert-Butyl Ether (MTBE) | 1634-04-4 |
| Naphthalene | 91-20-3 |

| CONSTITUENTS OF CONCERN (COCs) | |
|--------------------------------|-----------|
| CONSTITUENTS | CASRN |
| Toluene | 108-88-3 |
| 1,2,4-Trimethylbenzene | 95-63-6 |
| 1,3,5-Trimethylbenzene | 108-67-8 |
| Xylene | 1330-20-7 |

11.2.3 Hydrogeology

Field data indicate that unconsolidated deposits are laterally extensive and serve as an aquifer beneath the Site. Groundwater in the area of the former UST system was encountered at a depth of approximately 4 feet below grade. Groundwater is encountered as shallow at 1 foot below grade in areas of the Site that are located near to and south of Route 590. The depth to groundwater indicates that the potential for preferential contaminant transport pathways exists at the site.

With respect to topography, the site is located near the saddle point that separates surface flow to the north towards Little Teedyuskung Lake from surface flow to the southeast and east towards creeks that drain into the Lackawaxen River. The site is located approximately 1,200 feet south of Little Teedyuskung Lake. The lake drains into West Falls Creek which passes approximately 1,100 feet northeast of the site. West Falls Creek flows southeast to the Lackawaxen River. The site is located approximately 2,200 feet northeast and northwest, respectively, of two (2) small creeks that drain south into the Lackawaxen River. The Lackawaxen River is located approximately 7,500 feet south of the site and flows from west to east (towards the Delaware River). The distribution of contaminants at the Site indicate that flow in the area of the former USTS is to the north and west with a component of flow to the south-southeast.

A cross section of the Site from west to east across the Site was previously provided. An updated cross section will be included in the SCR.

Available geographical and historical data and the cross-section indicate:

1. The primary surface water discharge boundary in the area of the Site is the Lackawaxen River and its tributaries.



2. No distinct confining unit was evident in the subsurface that was evaluated by this study.
3. The overburden consists of a poorly stratified mixture of silty sands and silts, with varying amounts of gravel, and occasional clayey horizons. Bedrock was not encountered during site characterization activities that investigated to a depth of approximately 21 feet below grade.
4. The water table is indicated to be shallow and is generally located just below the depth of utilities at the Property and above the depths of utilities on the property south of Route 590. Although data indicates that the distribution of contaminants is consistent with groundwater flow predicted from contour maps, utilities surrounded by permeable backfill could potentially serve as preferential pathways and/or sources of groundwater mounding.
5. Groundwater mounding within the unconsolidated overburden occurs near the southeast corner of the Property.
6. Although groundwater is shallow, experience with open holes and excavations indicate that very little water is available in the shallow overburden.

11.2.4 Plume Configuration, Contaminant Distribution, and Plume Stability

A release of unleaded gasoline was identified at the Site in 2011. The impacted soil and groundwater have MTBE which gained widespread use in the northeast United States around 1995. Most suppliers replaced MTBE with other oxygenates by 2009. Aqua PA reported encountering evidence of a release across from the former Rosemergy's Store in 2002, however it was not "confirmed" by subsequent sampling. Information from the 1996 Hydrotech Assessment that is included in Exhibit A of the Bluestone Work Plan indicates that BTEX constituents were detected in groundwater in July of 1996. Although it is difficult to establish an exact timeline, it appears that the release began in 1995 or 1996 and most likely continued until UST system closure in 2011.

Bedrock was not encountered during site assessment activities that reached a total depth of approximately 21 feet below grade. Contaminant distributions and field screening data from the soil borings indicate that the highest levels of analytes in soil are located at or just below the water table (impact is in saturated zone). Indicators of contamination were observed to generally decrease with depth below the water table.



As discussed previously, impacted groundwater extends to the north, west, and southeast of the former UST system at levels that exceed the RMSC SHSs. Although data in some of the recent monitoring wells are insufficient to assess constituent concentration trends, no potential source of additional petroleum hydrocarbons has been identified in the area of the impacted groundwater plume. Based on the age of the release and the lack of an active source, the mass of contaminants in the plume would be expected to be shrinking. Although the overall mass of contaminants is expected to be shrinking, construction activities at the site in 2014 have changed the patterns of infiltration at the Facility, and resultant shifts in the contaminant mass have been observed since that time.

11.3 FATE AND TRANSPORT IN THE UNSATURATED SOIL ZONE

The *2002 LRP TGM*: Section IV.A.1.(a) identifies that fate and transport analysis should be conducted for the unsaturated zone if constituents of concern (COCs) in the unsaturated zone are identified at concentrations greater than the Soil to Groundwater Numeric Value (SGNV) MSC SHS.

Site characterization activities indicate that unsaturated zone soil is not currently a potential source area.

11.4 FATE AND TRANSPORT IN THE SATURATED SOIL ZONE

PADEP, 2002: Section (IV)(A)(2) provides guidance for fate and transport analysis in the saturated zone if constituents in the saturated soil zone are identified at concentrations greater than the MSC SHS. Fate and transport models usually evaluate constituent fate and transport in saturated soil as a function of constituent fate and transport in groundwater at the source area. Fate and transport from this source term is evaluated in the following Section.

11.5 FATE AND TRANSPORT IN GROUNDWATER

11.5.1 General

Data indicate:

1. A release of product (unleaded gasoline) impacted soil and groundwater at the Property. The release is indicated to have been a slow release over a long time that may have begun as early as 1995.



2. Impacted unsaturated zone soils were remediated during UST closure activities.
3. The groundwater plume has generally been delineated both vertically and laterally, although the most recent data indicates that the total extent to the northwest may not be known.
4. An assessment of aquifer properties has collected the data that will be required to predict fate and transport and design remedial measures.
5. As the UST systems have been moved to the far side of the Property and impacted unsaturated soil has been removed for off-site disposal, no source area for additional petroleum impact is located in the area of the impacted groundwater plume. Although recent data indicates that the shape of the contaminant plume is changing, the total volume of contaminants within the plume should be decreasing.

11.5.2 Qualitative Analysis

It is our opinion that the qualitative fate and transport analysis presented below presents a reasonable assessment of solute fate and transport at the Site based on the current data.

Benzene and MTBE are present in groundwater beneath the Site. Both Benzene and MTBE are extremely soluble in groundwater, have low organic carbon coefficients (Koc), and are resistant (under some circumstances) to biologic attenuation. Benzene and MTBE are generally at the leading edge of a solute plume and are the most distally distributed solutes. At the Former Rosemergy Store/Garage, Benzene is the only unleaded gasoline constituent that has been detected in all portions of the impacted groundwater plume at levels that exceed the RMSC SHS. MTBE is confined to an area near the southeast corner of the Property. Redevelopment activities completed in 2014 have altered the distribution of benzene, MTBE, and TMBs in groundwater.

Insufficient quarterly groundwater sample collection events have been completed in the newly installed peripheral monitoring wells to assess contaminant trends. However, based on the age of the release and the elimination of the leaking UST and unsaturated zone source area, the contaminant mass within the plume is expected to be shrinking. The current monitoring well array is sufficient to detect expansion of the plume before the plume reaches downgradient receptors, however recent data suggests that characterization activities may not be complete. Additional sample collection and analysis is required to further assess the extent of the plume to the northwest and

additional monitoring wells may be required. Recent trends in analyte concentrations are discussed in Section 7.4.6.2.4.

11.5.3 Quantitative Analysis

The current distribution of contaminants is a combination of the pre development pattern of contamination and the evolving post development pattern of contamination. As Converse is currently working on solutions to mitigate the changing fate and transport, a numerical analysis of fate and transport would be premature.



12.0 INTERIM REMEDIAL ACTIONS

Interim remedial actions have been completed to remove contaminant mass and collect the data required for the design of additional remedial measures. In addition to the long term (2 day) pilot test that was completed in late October 2015 and treated approximately 4,300 gallons of impacted groundwater and 173,000 cubic feet of impacted soil vapor, the following interim remedial actions have been completed to date:

- September 2014 Extraction event – treated approximately 400 gallons of impacted groundwater from monitoring wells MW-3 and MW-5.
- Spring 2015 Pilot tests – treated impacted groundwater and soil vapor from DPE points DPE-3, DPE-6, DPE-7, DPE-1, DPE-4, and DPE-5 for short time periods over a total period of several days.
- November 2015 Extraction events – after the long term pilot test was complete, Converse returned to the site to extract impacted groundwater and soil vapor from the DPE points that were not used for the long term test. Extraction was completed from DPE-5, DPE-7, and DPE-8 for three hours and then from DPE-1, DPE-2 and MW-1R for a period of 3 hours.

Converse mobilized a shed based dual phase extraction (DPE) system to the Site in early December 2015 to make use of the existing dual phase extraction components that were installed during development of the Woodloch Market. The electrician has completed installation of three phase power to the shed. A local excavation firm is in the process of connecting the existing piping components to the treatment system shed that is located north of the building.

During early January 2016, Converse plans to complete the piping within the DPE wellheads and test the DPES components. By late January 2016 we hope to have the DPES running full time as an interim remedial measure.



13.0 PLANNED ACTIVITIES

The following activities are currently planned:

- Additional groundwater assessment to completely characterize the extent of dissolved phase unleaded gasoline constituents in groundwater that exceed the RMSC SHSs. If characterization is incomplete, additional groundwater monitoring wells will be installed as needed.
- Submission of an SCR.
- Screening of remedial alternatives and submission of a Remedial Action Plan.
- Quarterly Groundwater Monitoring and Reporting.
- Interim remedial actions to control the extent of the impacted groundwater plume and reduce contaminant mass within the residual source area.
- Quantitative fate and transport analysis will be completed after the plume stabilizes. The current distribution of contaminants is a combination of the pre-development and post-development patterns of fate and transport.

Former Rosemergy's Store/Garage
USTIF Claim No. 2011-0082(S)
Lackawaxen Twp., Pike Co., Pennsylvania

14.0 QUALIFICATIONS

Mr. David W. Swetland, P.G., Senior Geologist, was responsible for management of the project and technical oversight of the work completed by Converse. Mr. Swetland has twenty-six (26) years of experience supervising site characterizations and providing environmental consulting services throughout the Northeast.



Mr. David W. Swetland, P.G.,
Senior Geologist

AFFIX
P.G. SEAL
HERE



SOURCE: USGS Narrowsburg, NY - PA
7.5' topographic quadrangle map. 1968.
Photorevised 1983



SCALE:
1 inch = APPROX. 2,000 feet

0 1,000 2,000 4,000 feet

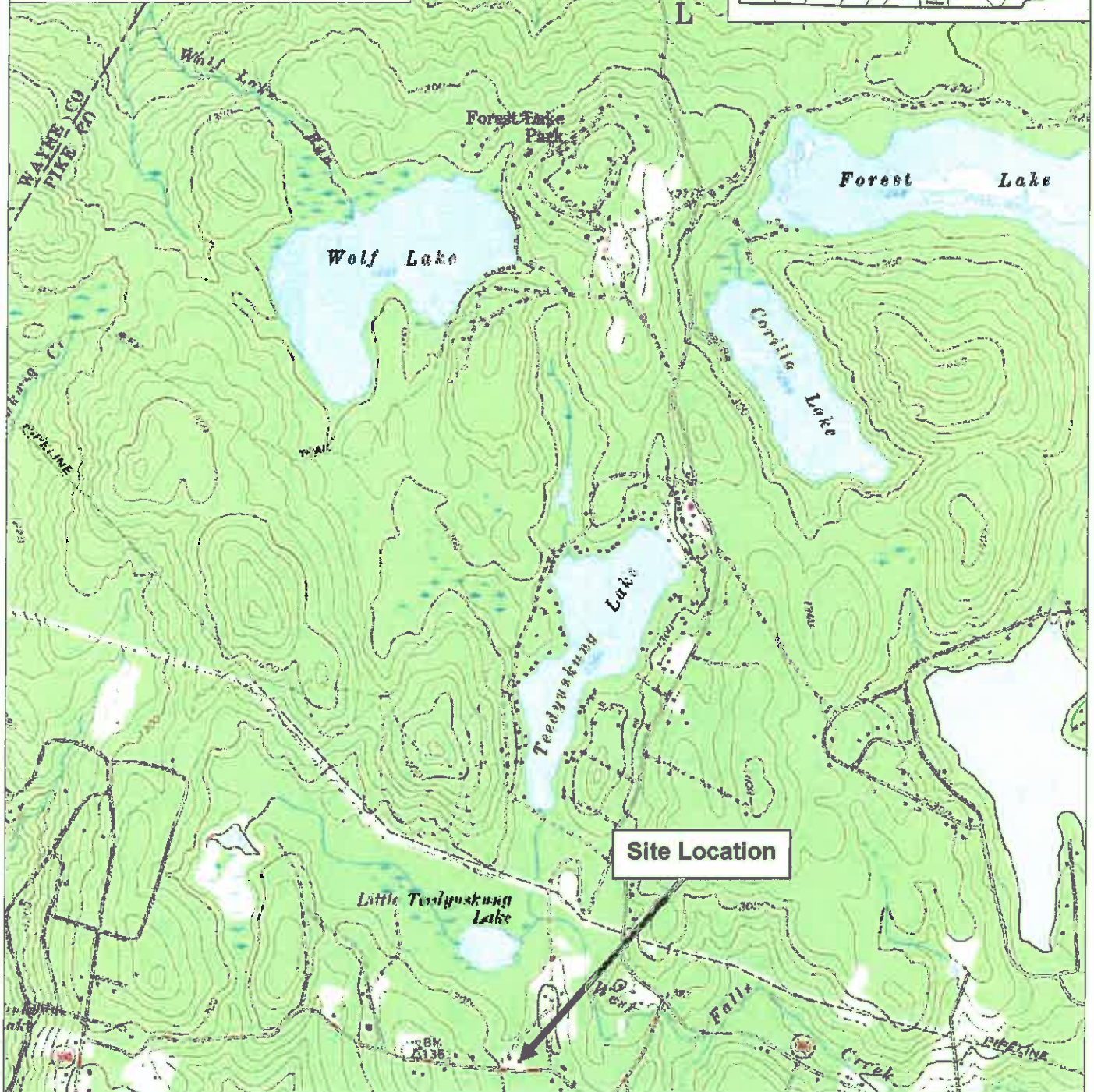
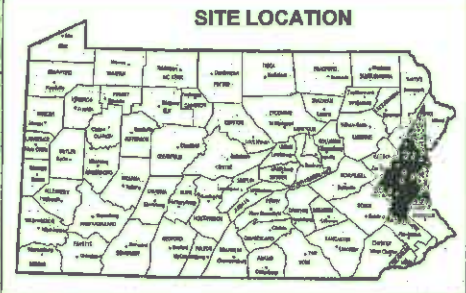


FIGURE 1: LOCATION MAP

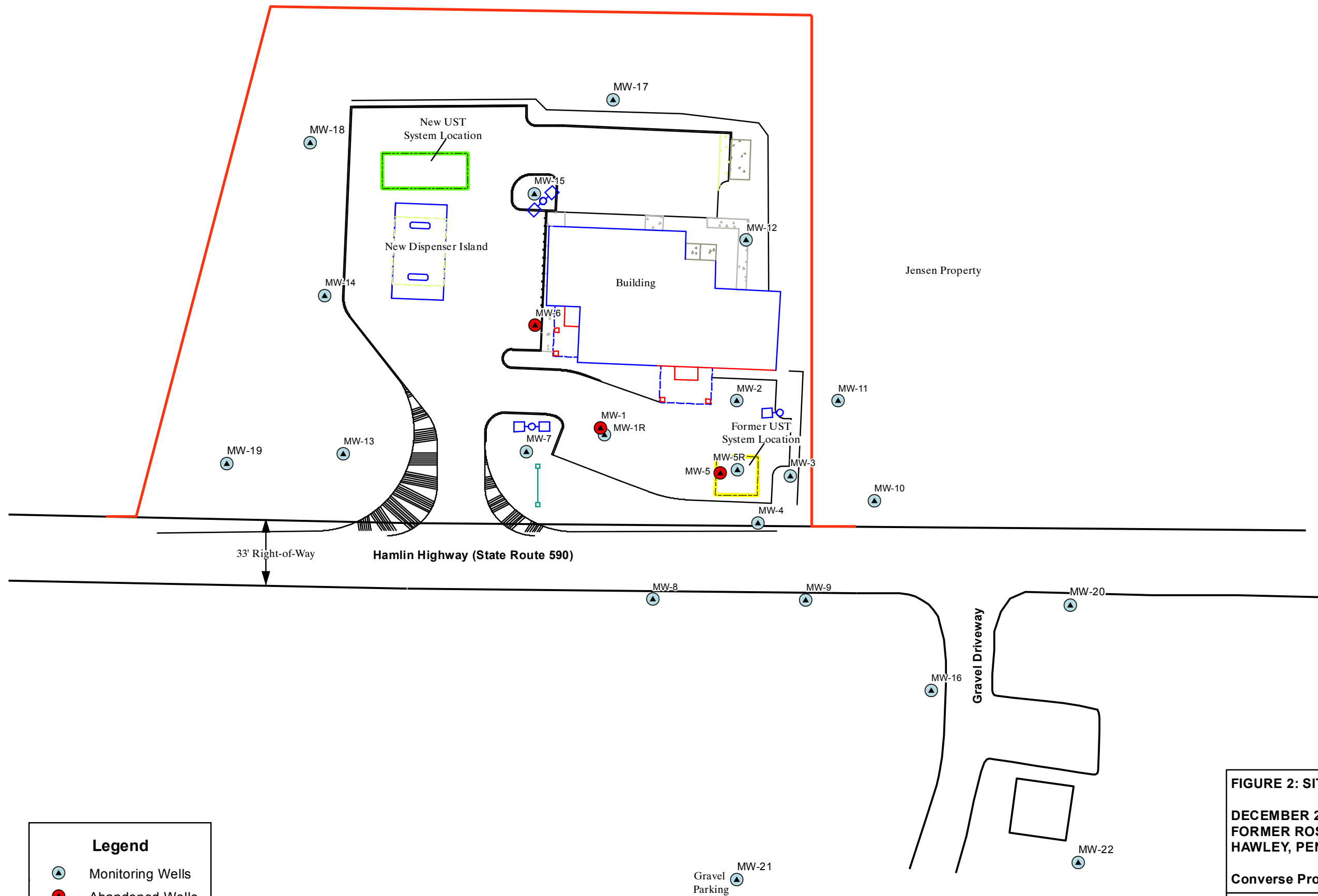
ROSEMERGY SITE
HAMLIN HIGHWAY (PA 590)
HAWLEY, PIKE COUNTY, PENNSYLVANIA

Converse Project Number 11-17829-01

Revised 01/09/13



CONVERSE CONSULTANTS
2738 West College Avenue
State College, PA 16801
(814) 234-3223



Legend

- Monitoring Wells
- Abandoned Wells
- Property Boundary

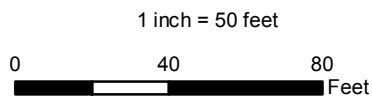


FIGURE 2: SITE PLAN

DECEMBER 2015
FORMER ROSEMERGY SITE
HAWLEY, PENNSYLVANIA

Converse Project Number 11-17788-01



Converse Consultants
2738 West College Avenue
State College, PA 16801

New Dispenser Island

Building

MW-6
(24)

500

1000

500

MW-2
(1,725)

2000

2500

1500

MW-1
(2,719)

SB-26
(2,791)

SB-19
(2,806)

SB-18
(2,704)

Former UST
System Location

SB-16
(1,556)

SB-17
(1,889)

SB-25
(3,226)

SB-15
(5)

SB-14
(1,300)

SB-12
(1,430)

SB-22
(3,384)

SB-24
(3,009)

SB-10
(1,505)

SB-8
(1,498)

SB-21
(3,317)

SB-23
(2,614)

SB-20
(3,121)

SB-9
(1,779)

SB-11
(1,580)

SB-13
(1,720)

SB-27
(2,694)

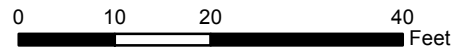
Hamlin Highway (State Route 590)



Legend

- Monitoring Wells
- Soil Borings
- Concentration Contours
- Property Boundary

1 inch = 20 feet

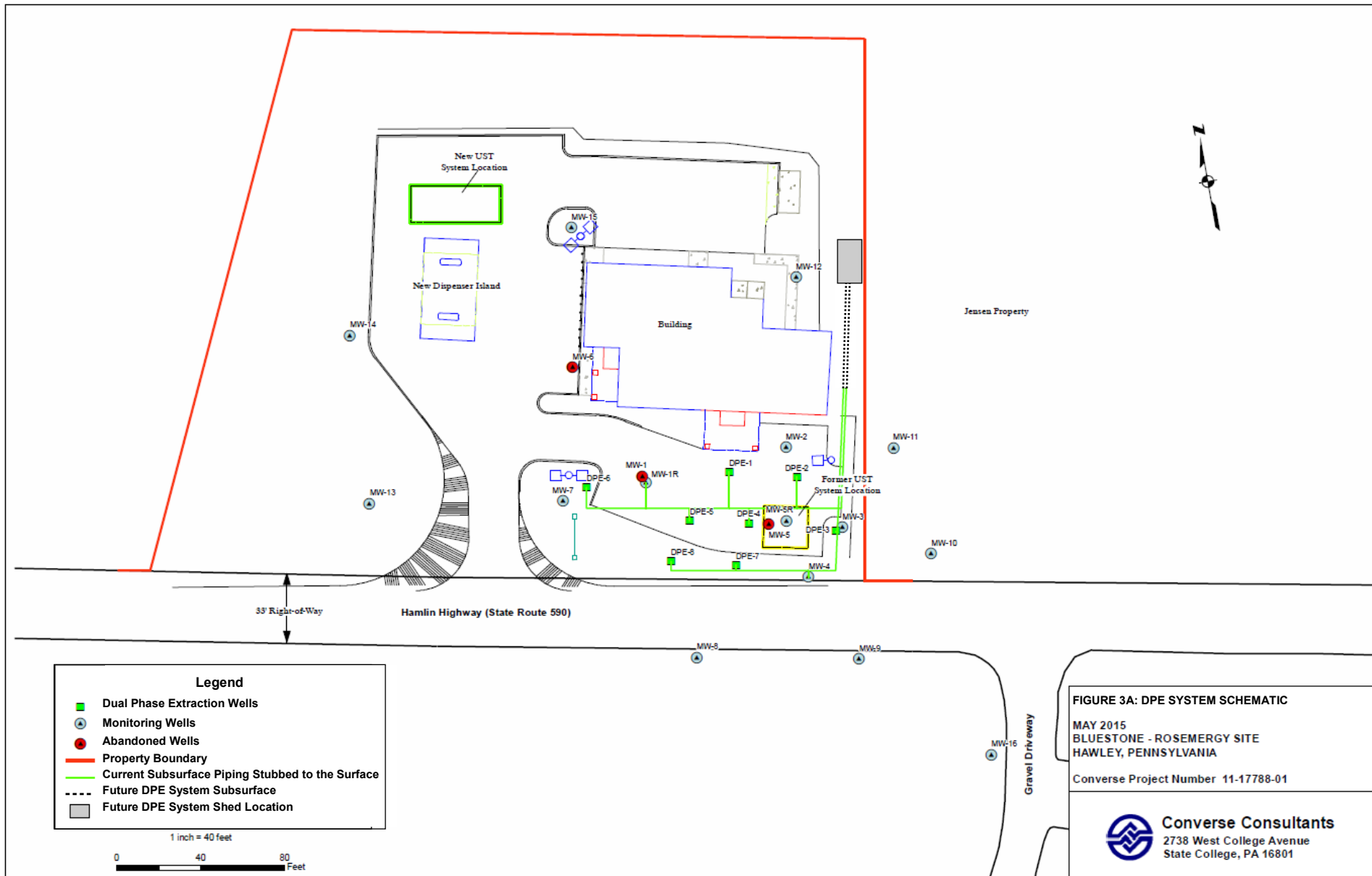


**FIGURE 2B: SOIL BORINGS & MAXIMUM
PID READING ISOCONCENTRATION MAP
FORMER ROSEMERGY SITE
HAWLEY, PENNSYLVANIA**

Converse Project Number 11-17788-02



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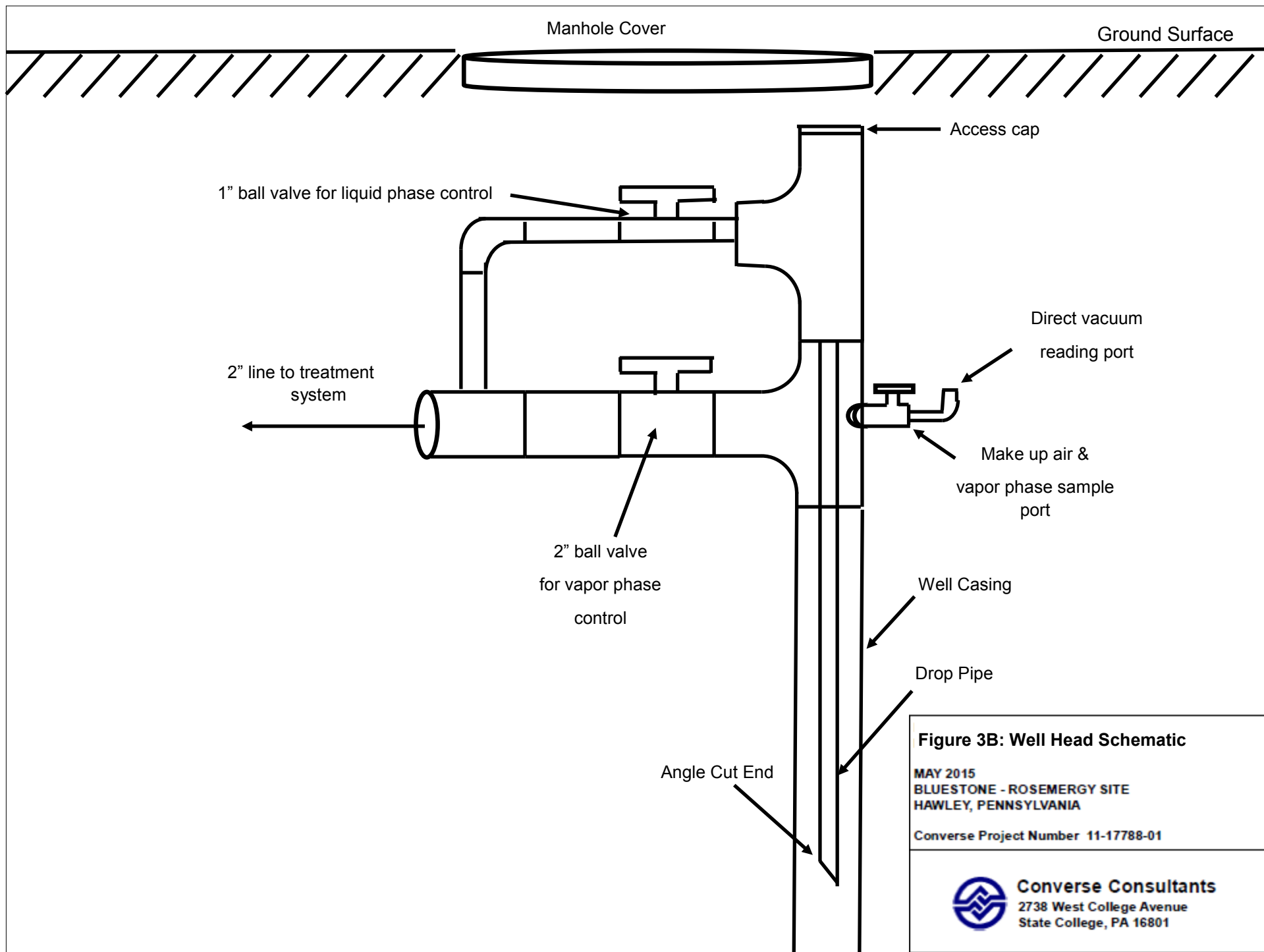


Figure 3B: Well Head Schematic

MAY 2015
BLUESTONE - ROSEMERGY SITE
HAWLEY, PENNSYLVANIA

Converse Project Number 11-17788-01



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State College, PA 16801

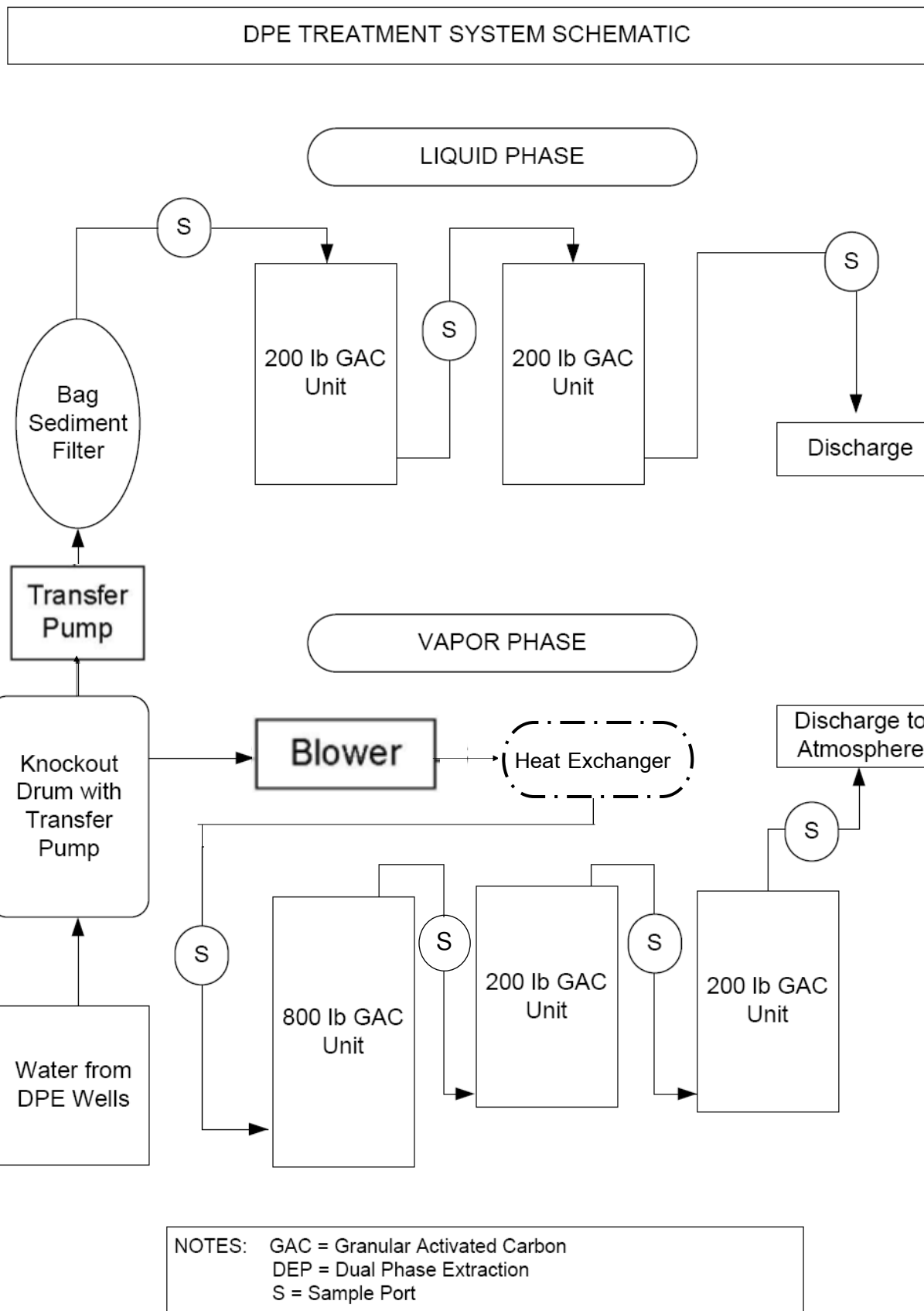


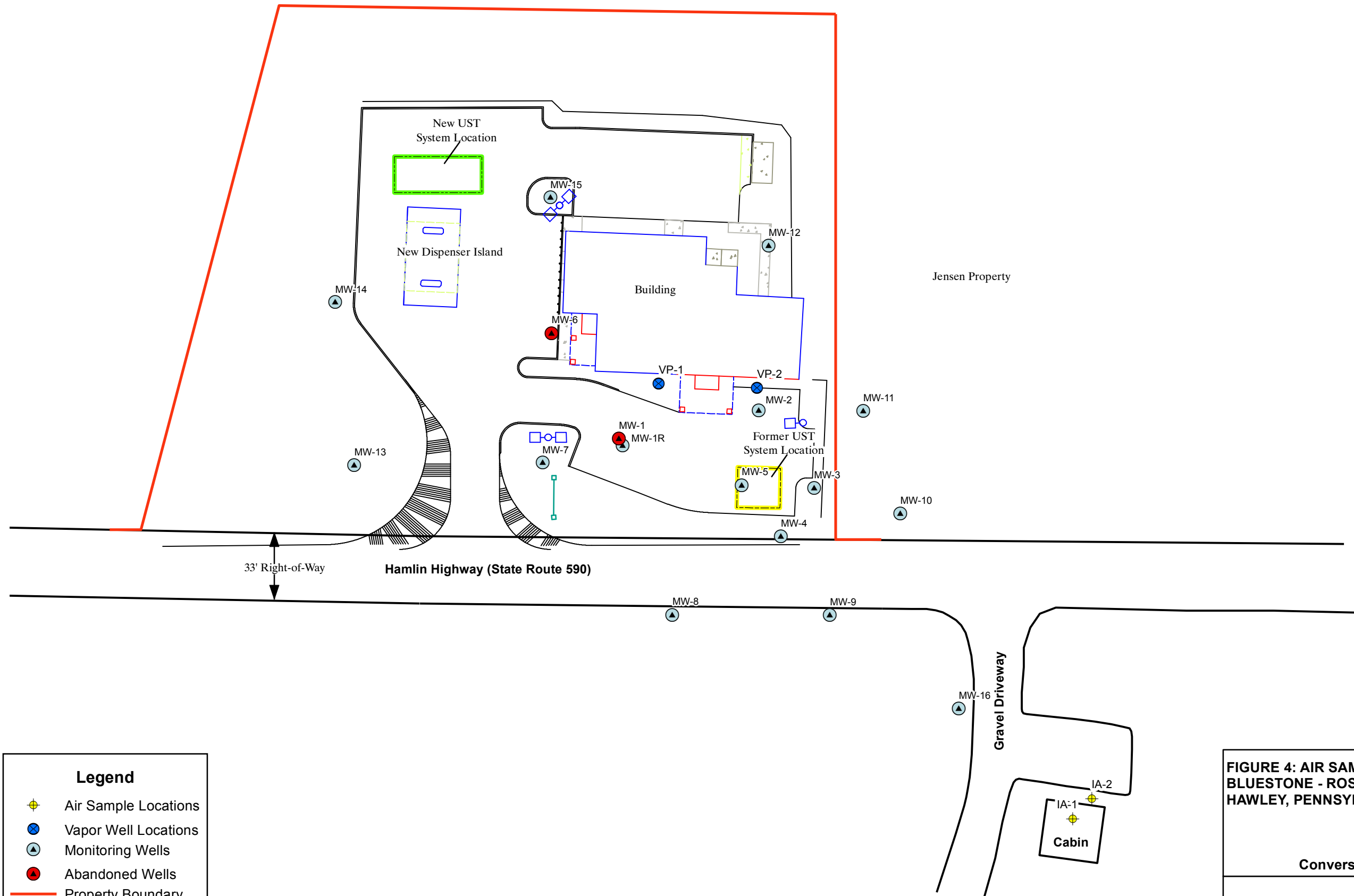
FIGURE 3C - DPE TREATMENT SYSTEM SCHEMATIC

**FORMER ROSEMERGY'S PROPERTY
 LACKAWAXEN TWP., PIKE CO., PENNSYLVANIA**

CONVERSE PROJECT NUMBER 111-17788-02

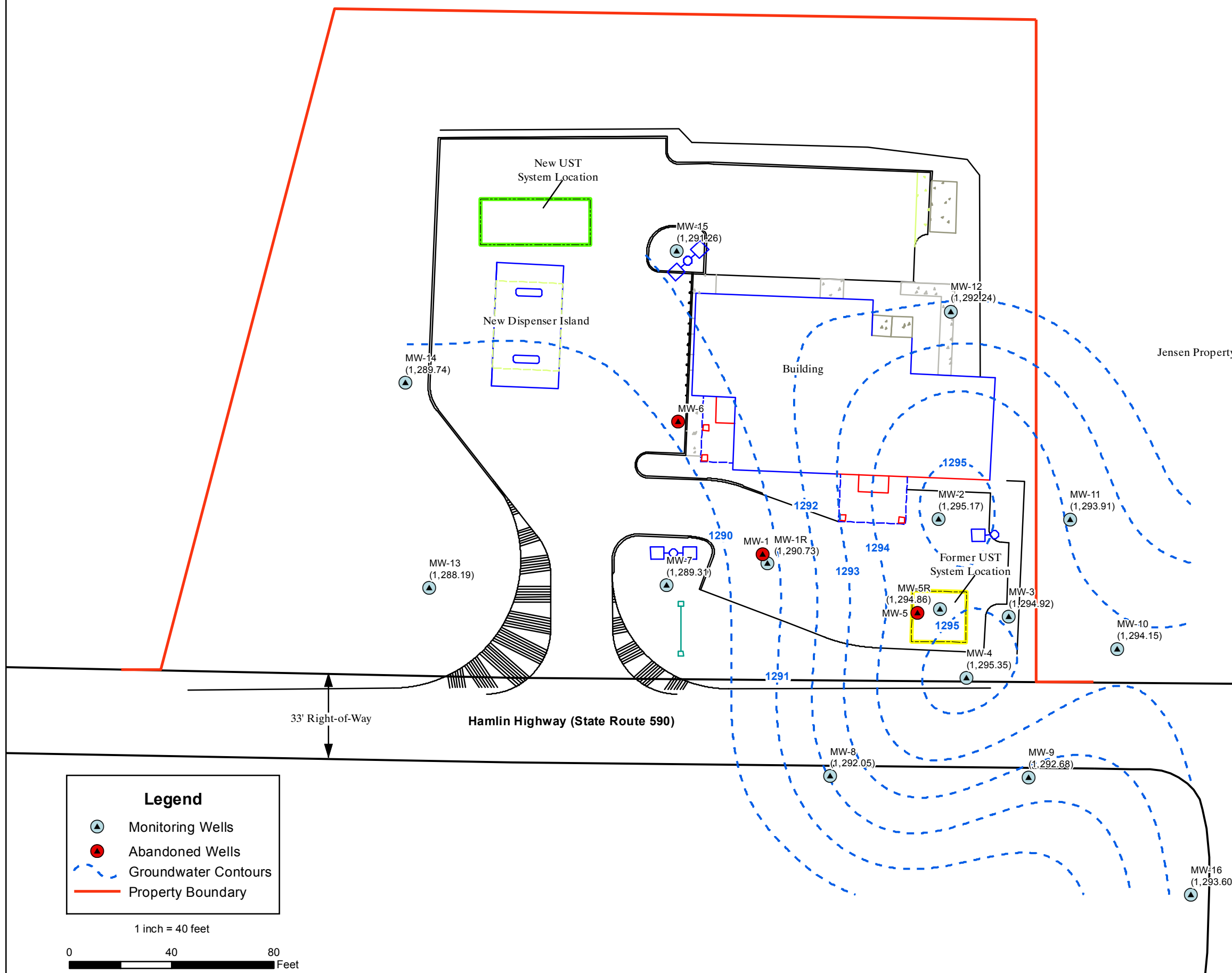


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 (814) 234-3223



**FIGURE 4: AIR SAMPLE LOCATIONS
BLUESTONE - ROSEMERGY SITE
HAWLEY, PENNSYLVANIA**

Converse Project Number 11-17788-01



Legend

- Monitoring Wells
- Abandoned Wells
- Groundwater Contours
- Property Boundary

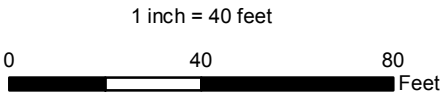
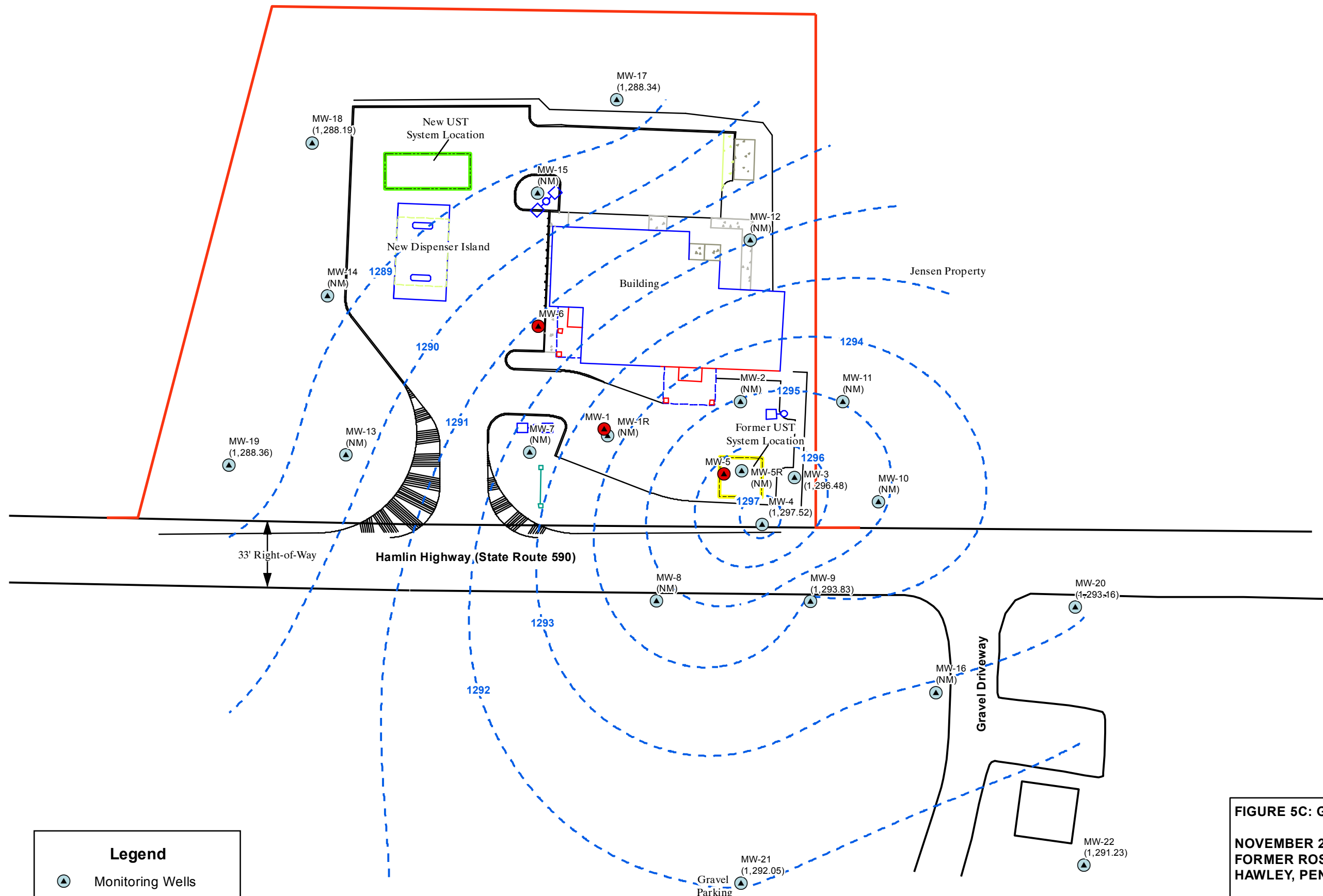


FIGURE 5H: GROUNDWATER CONTOUR MAP

AUGUST 2015
BLUESTONE - ROSEMERGY SITE
HAWLEY, PENNSYLVANIA

Converse Project Number 11-17788-01

Converse Consultants
2738 West College Avenue
State College, PA 16801



Legend

- Monitoring Wells
- Abandoned Wells
- Groundwater Contours
- Property Boundary

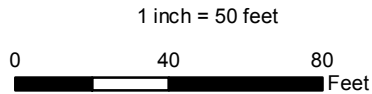
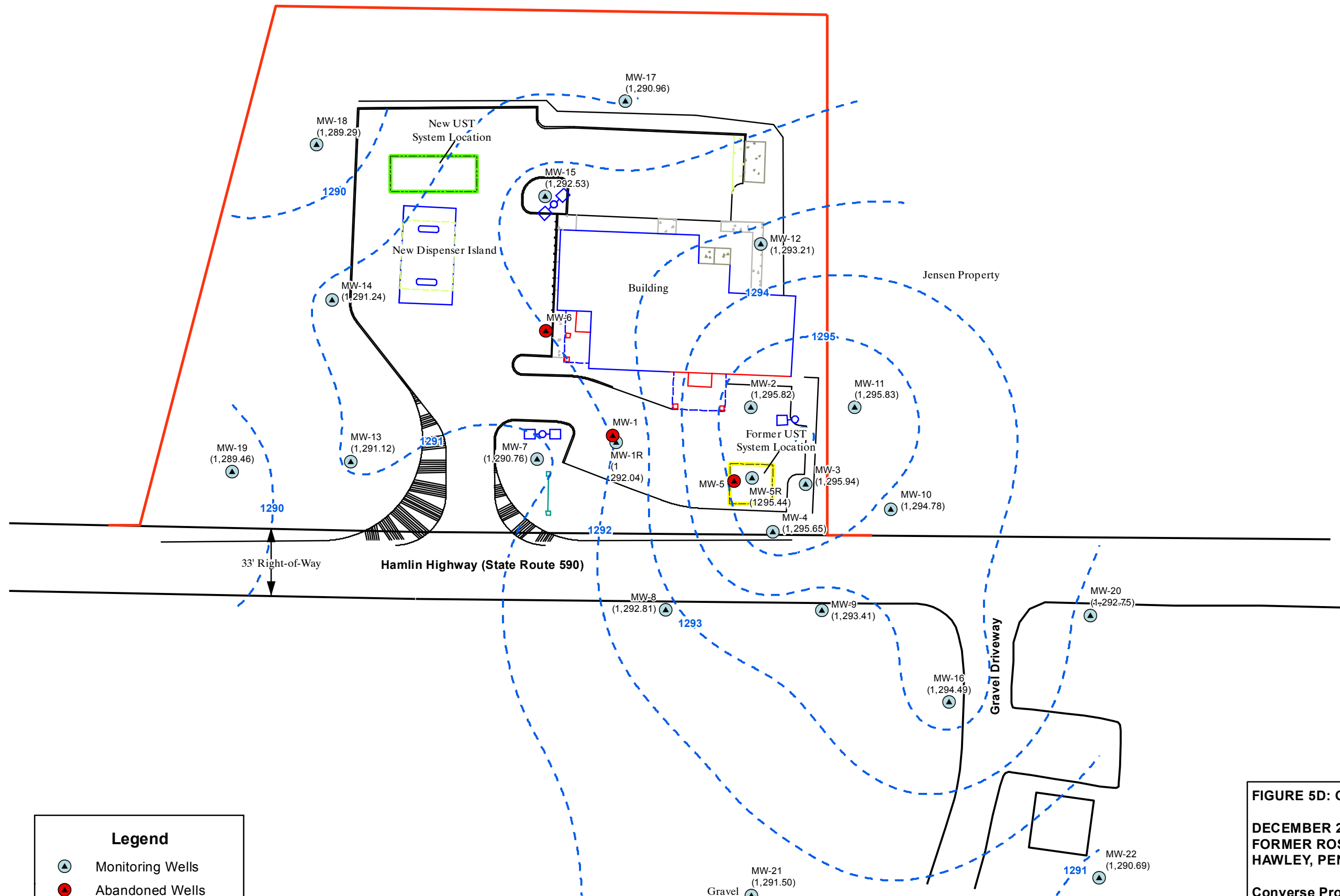


FIGURE 5C: GROUNDWATER CONTOUR MAP

NOVEMBER 2015
FORMER ROSEMERGY SITE
HAWLEY, PENNSYLVANIA

Converse Project Number 11-17788-01

Converse Consultants
 2738 West College Avenue
 State College, PA 16801



Legend

- Monitoring Wells
- Abandoned Wells
- Groundwater Contours
- Property Boundary

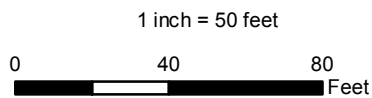
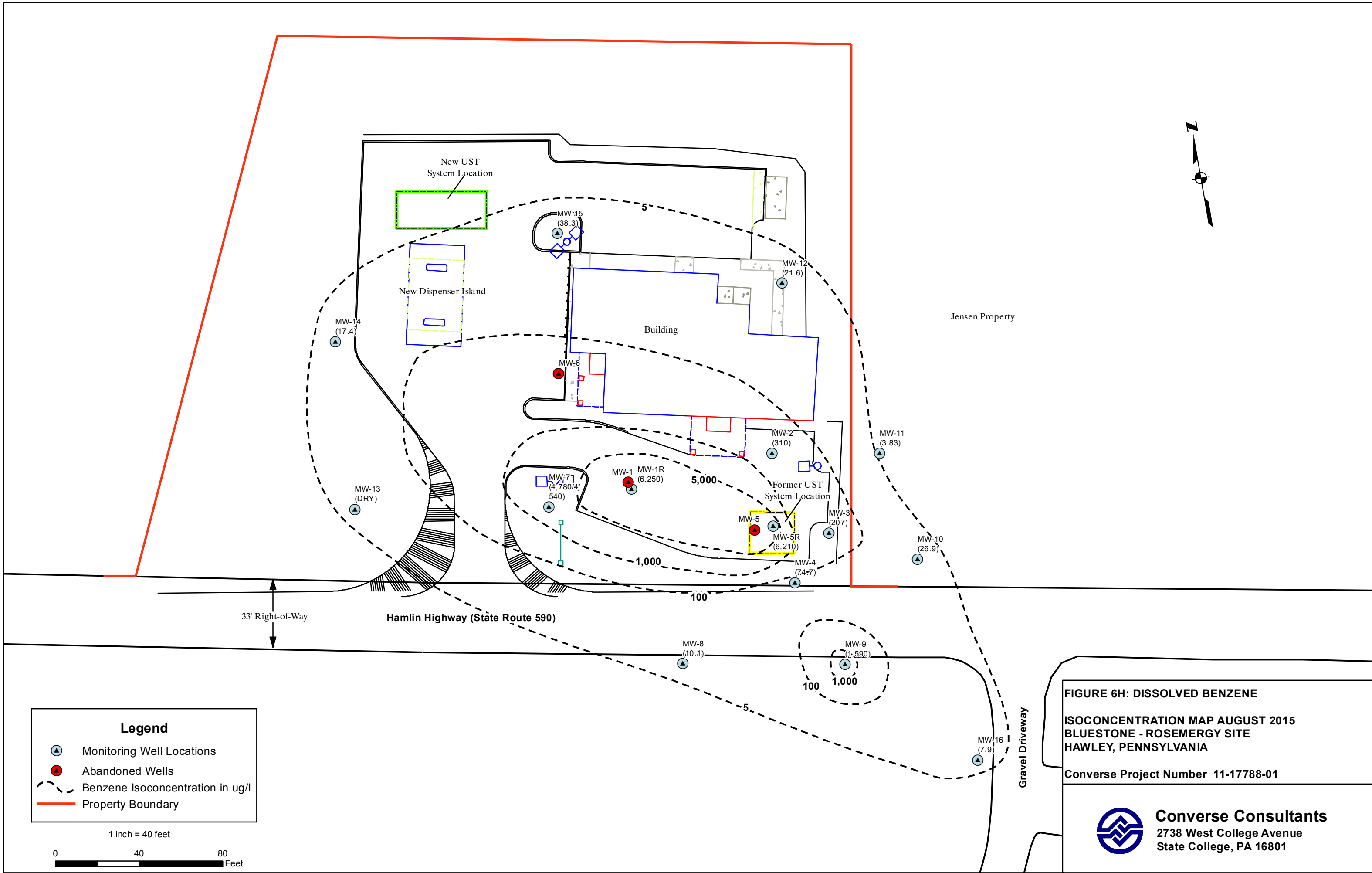


FIGURE 5D: GROUNDWATER CONTOUR MAP

DECEMBER 2015
FORMER ROSEMERGY SITE
HAWLEY, PENNSYLVANIA

Converse Project Number 11-17788-01

Converse Consultants
2738 West College Avenue
State College, PA 16801



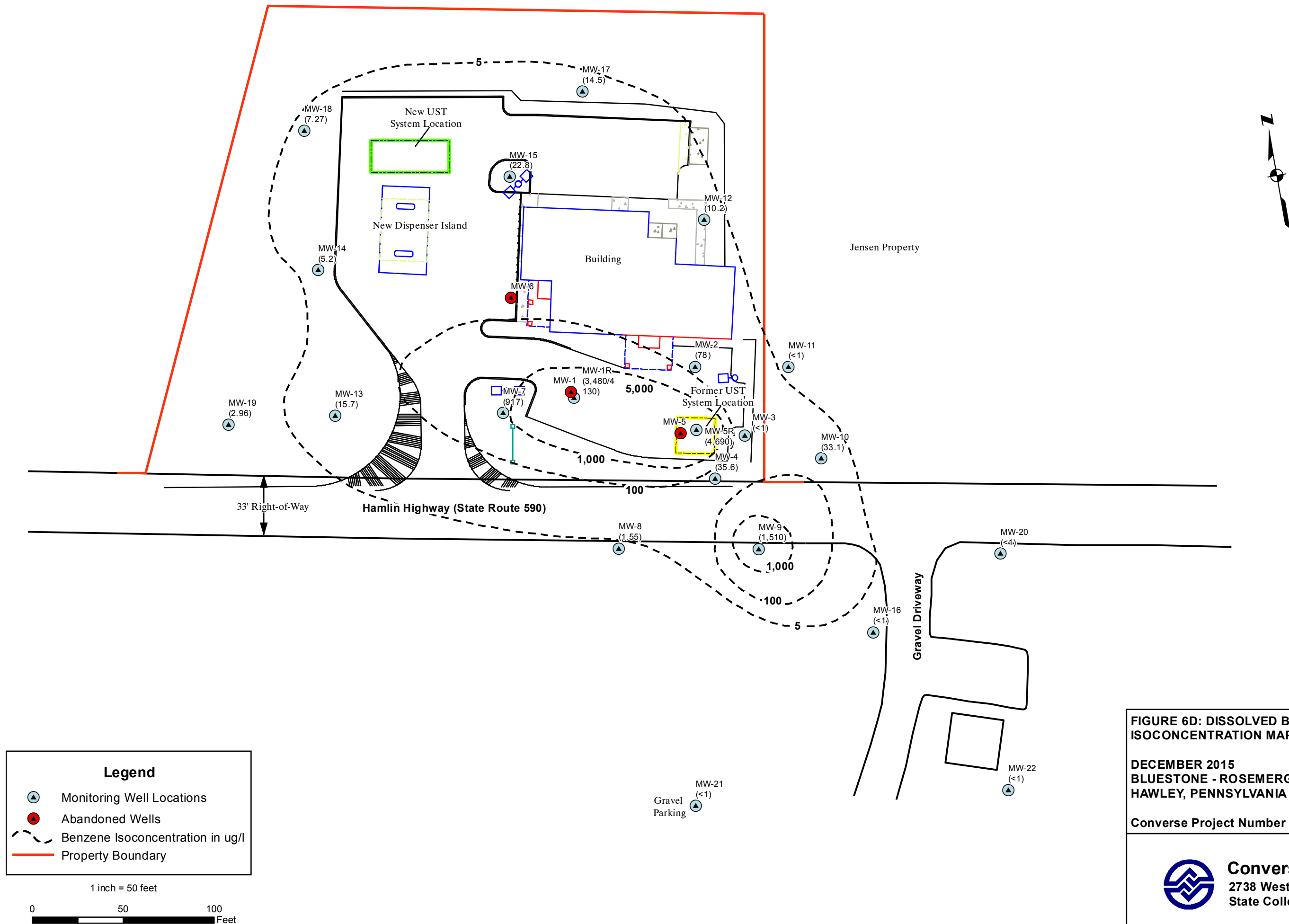


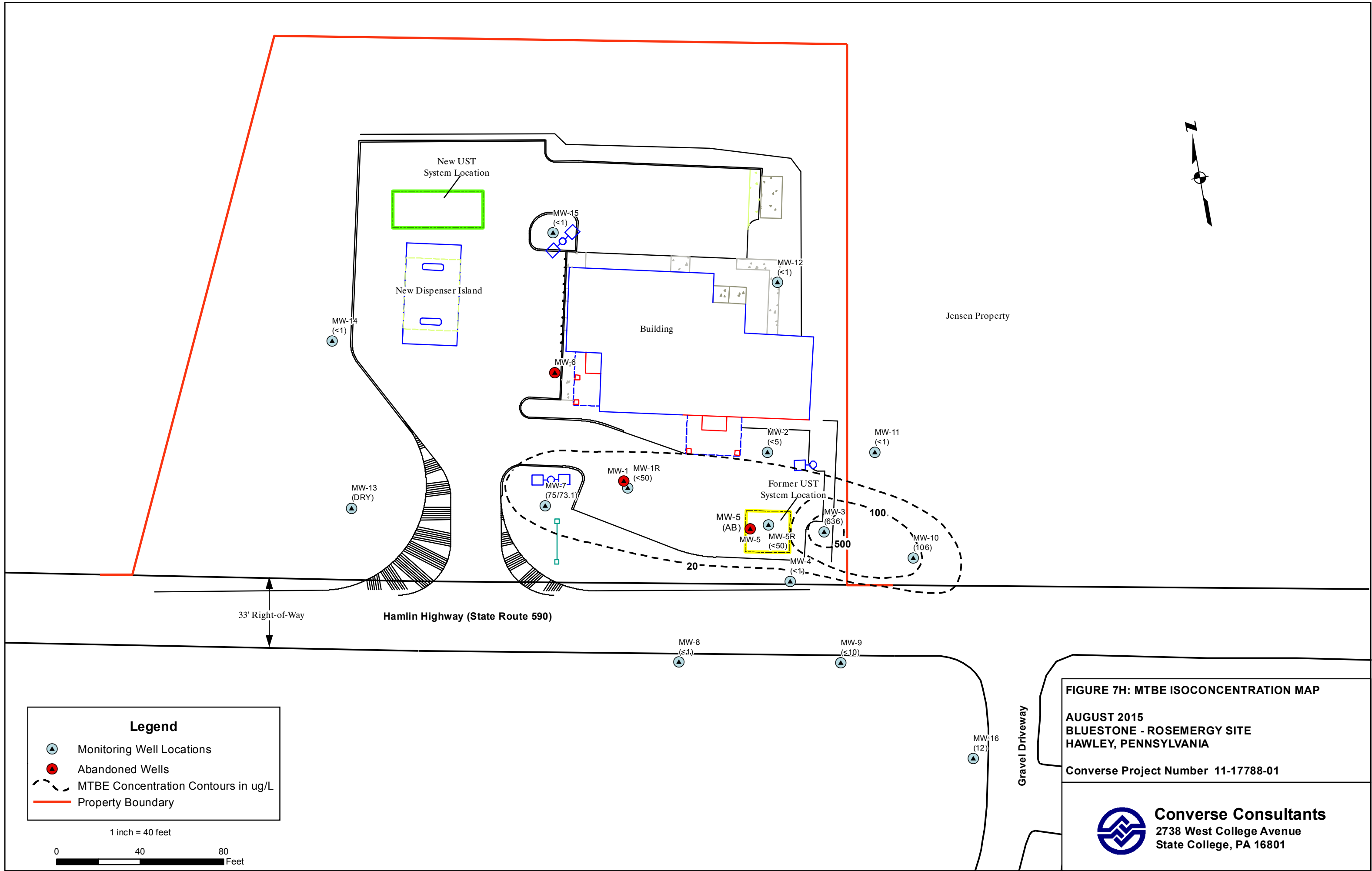
FIGURE 6D: DISSOLVED BENZENE ISOCONCENTRATION MAP

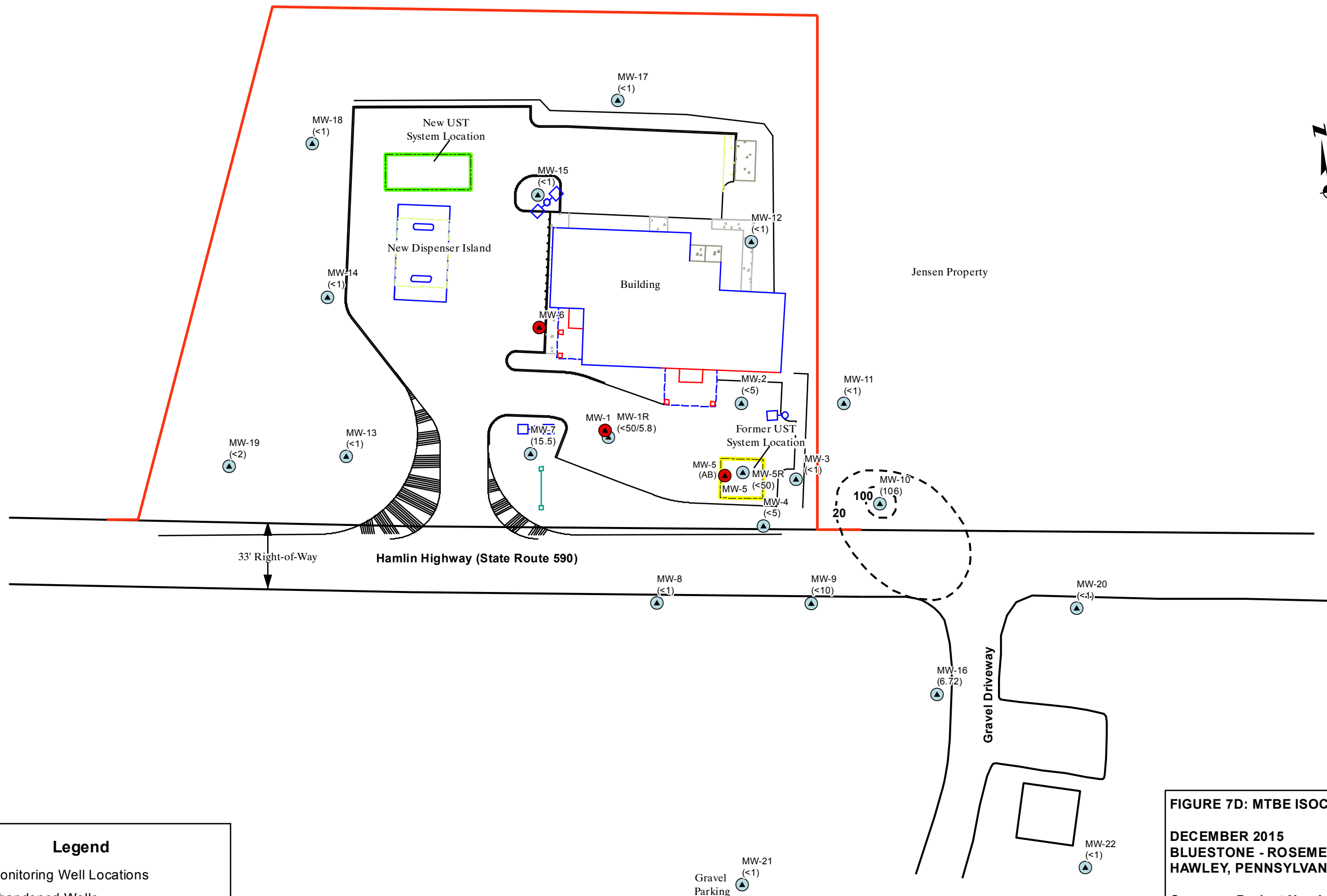
DECEMBER 2015
BLUESTONE - ROSEMERGY SITE
HAWLEY, PENNSYLVANIA

Converse Project Number 11-17788-01



Converse Consultants
2738 West College Avenue
State College, PA 16801





Legend

- Monitoring Well Locations
- Abandoned Wells
- MTBE Concentration Contours in ug/L
- Property Boundary

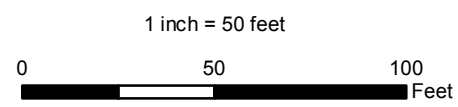
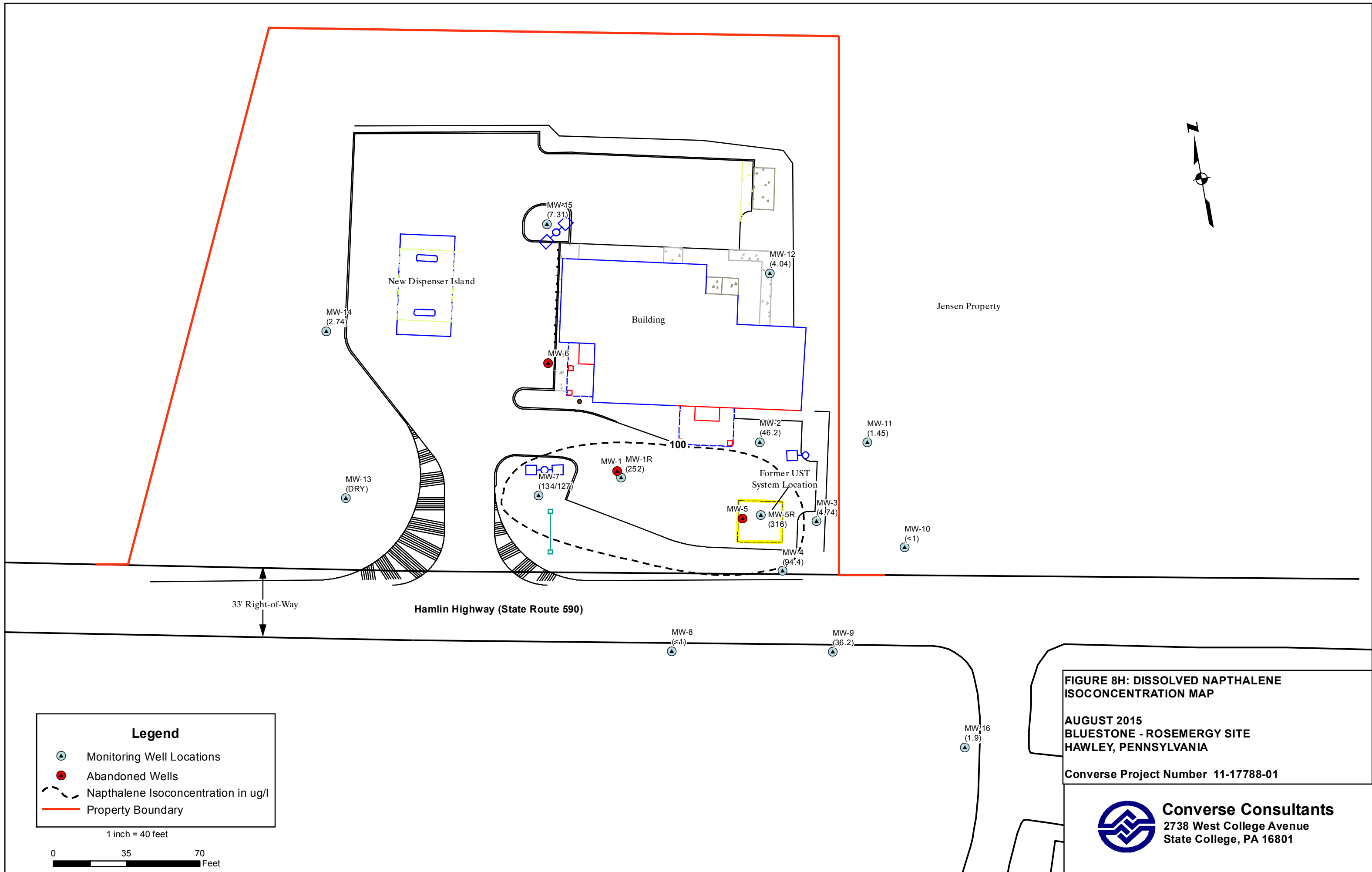


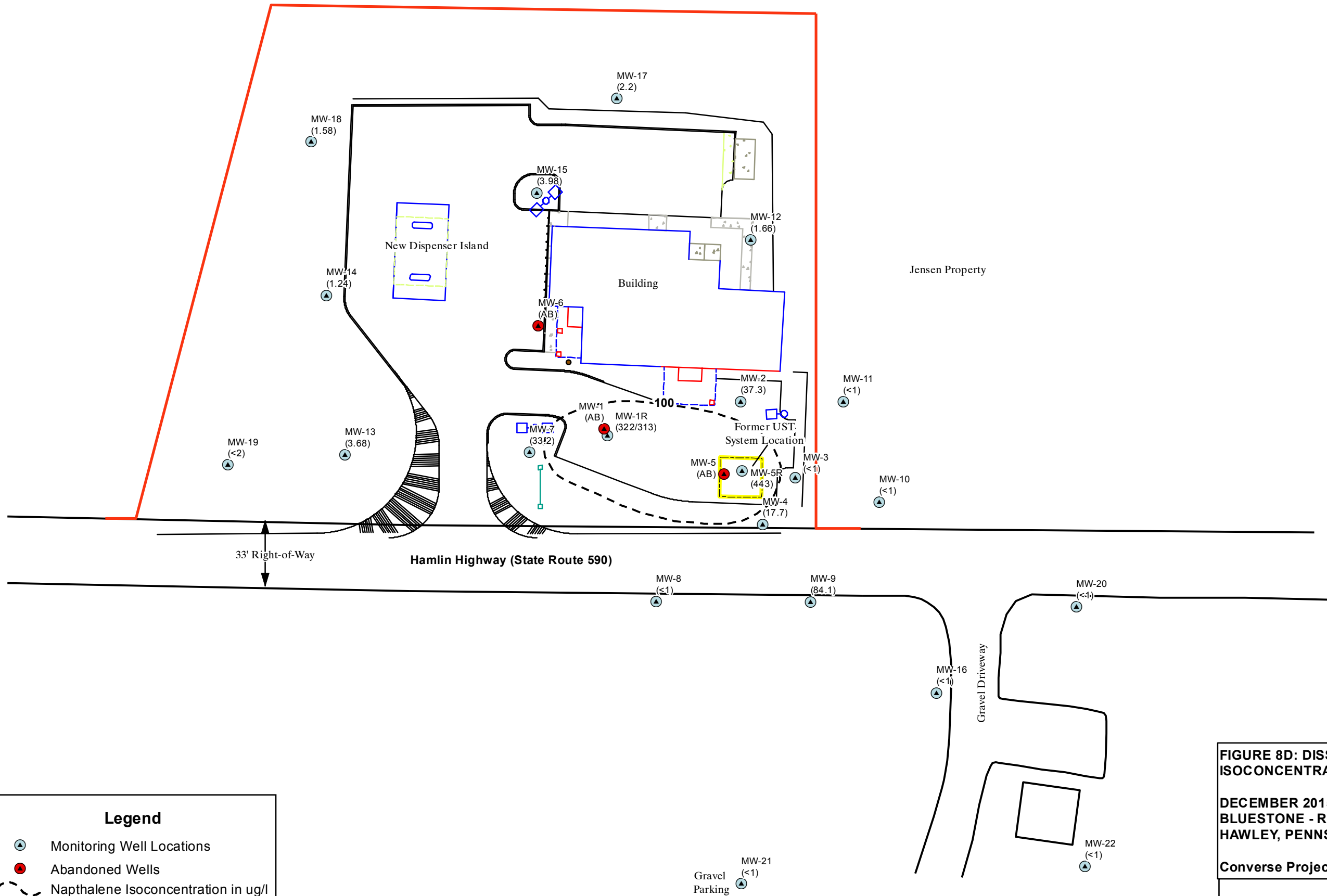
FIGURE 7D: MTBE ISOCONCENTRATION MAP

DECEMBER 2015
BLUESTONE - ROSEMERGY SITE
HAWLEY, PENNSYLVANIA

Converse Project Number 11-17788-01

 **Converse Consultants**
 2738 West College Avenue
 State College, PA 16801





Legend

- Monitoring Well Locations
- Abandoned Wells
- Napthalene Isoconcentration in ug/l
- Property Boundary

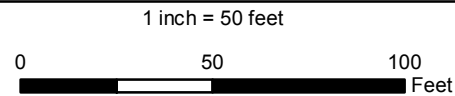
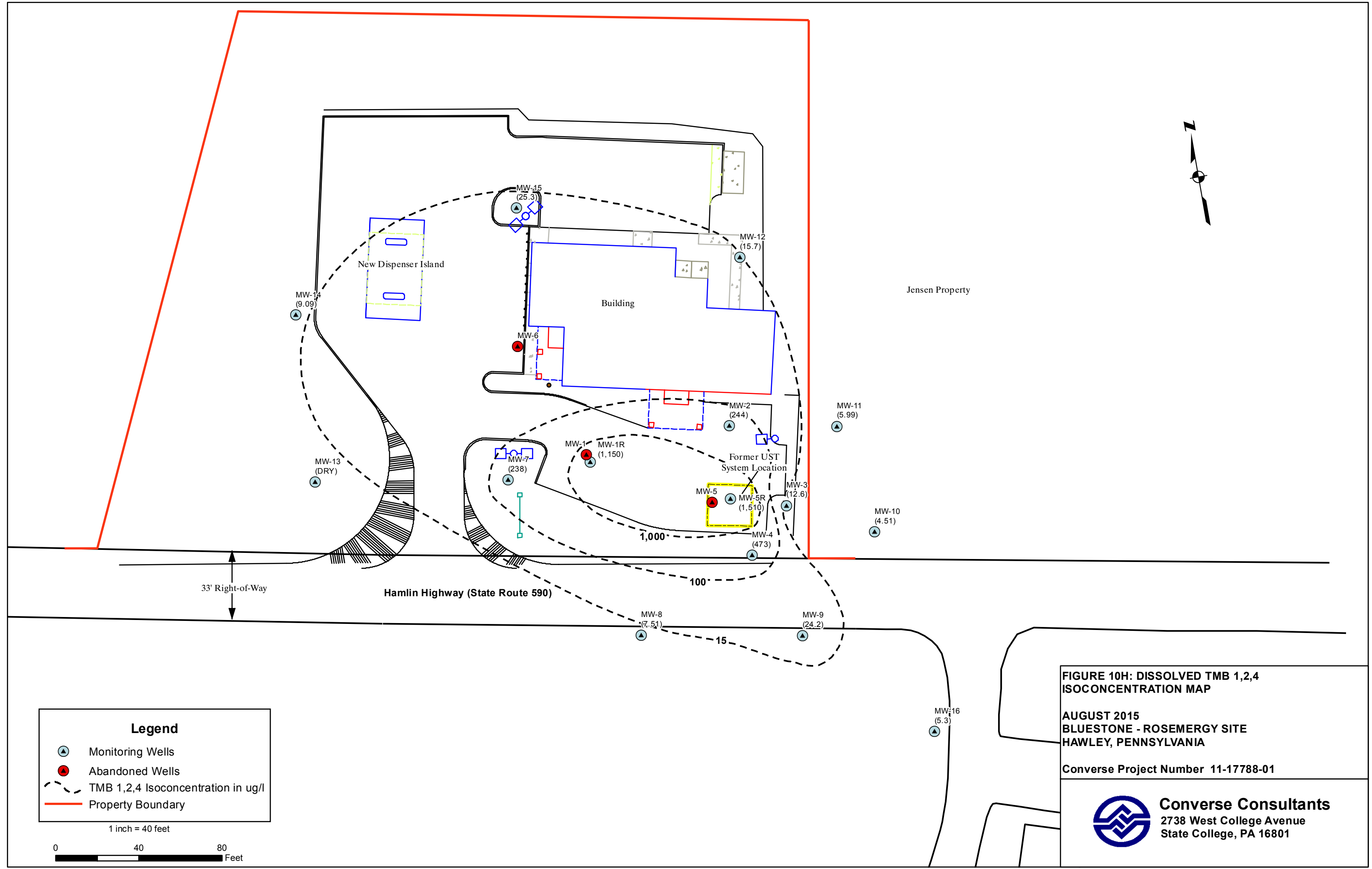


FIGURE 8D: DISSOLVED NAPHTHALENE ISOCONCENTRATION MAP

DECEMBER 2015
BLUESTONE - ROSEMERGY SITE
HAWLEY, PENNSYLVANIA

Converse Project Number 11-17788-01



Legend

- Monitoring Wells
- Abandoned Wells
- TMB 1,2,4 Isoconcentration in ug/l
- Property Boundary


1 inch = 40 feet

0 40 80 Feet

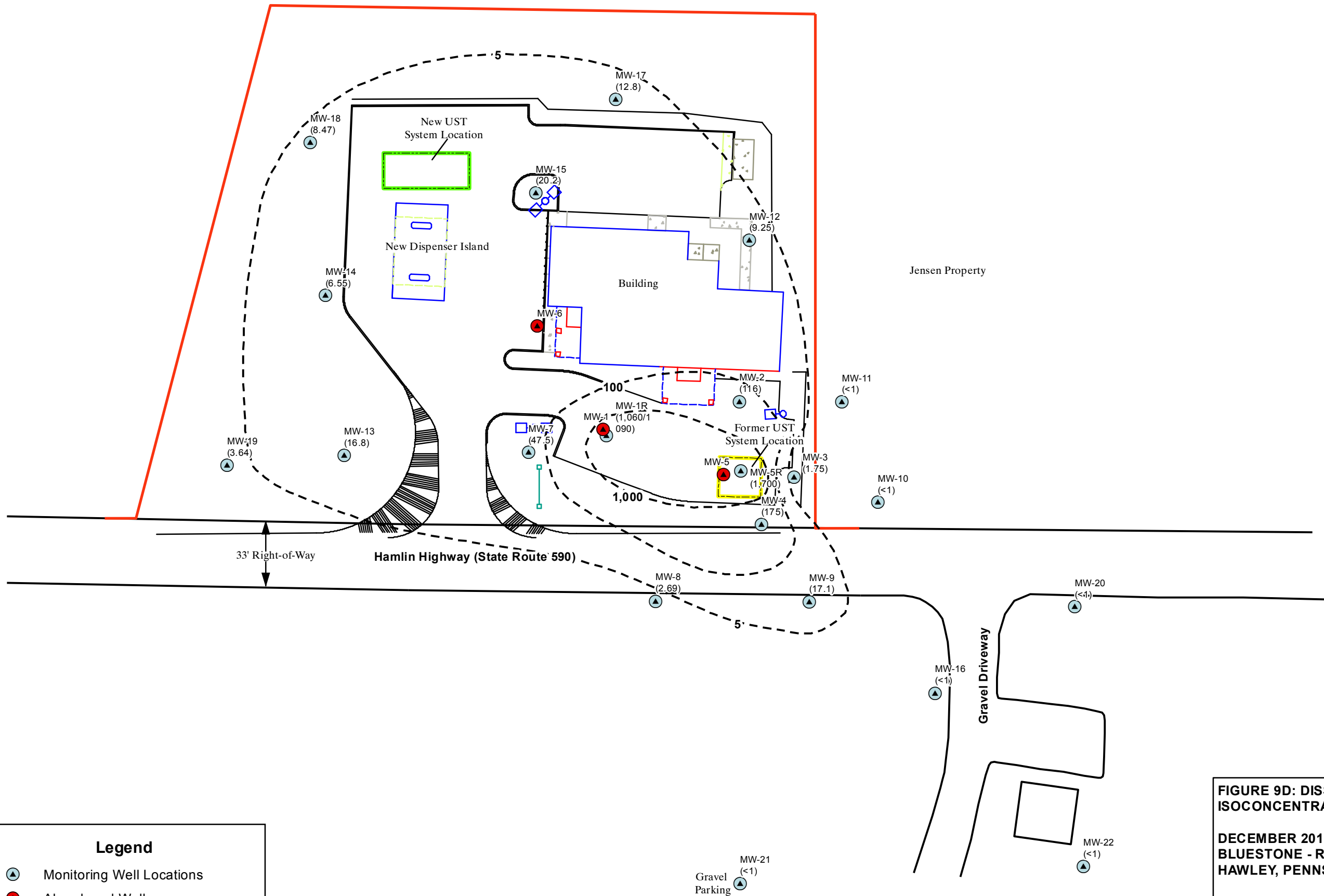
FIGURE 10H: DISSOLVED TMB 1,2,4 ISOCONCENTRATION MAP

AUGUST 2015
BLUESTONE - ROSEMERGY SITE
HAWLEY, PENNSYLVANIA

Converse Project Number 11-17788-01



Converse Consultants
2738 West College Avenue
State College, PA 16801



Legend

- Monitoring Well Locations
- Abandoned Wells
- 1,2,4 TMB Isoconcentration in ug/L
- Property Boundary

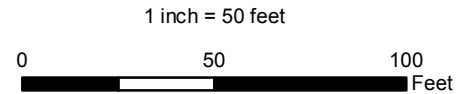
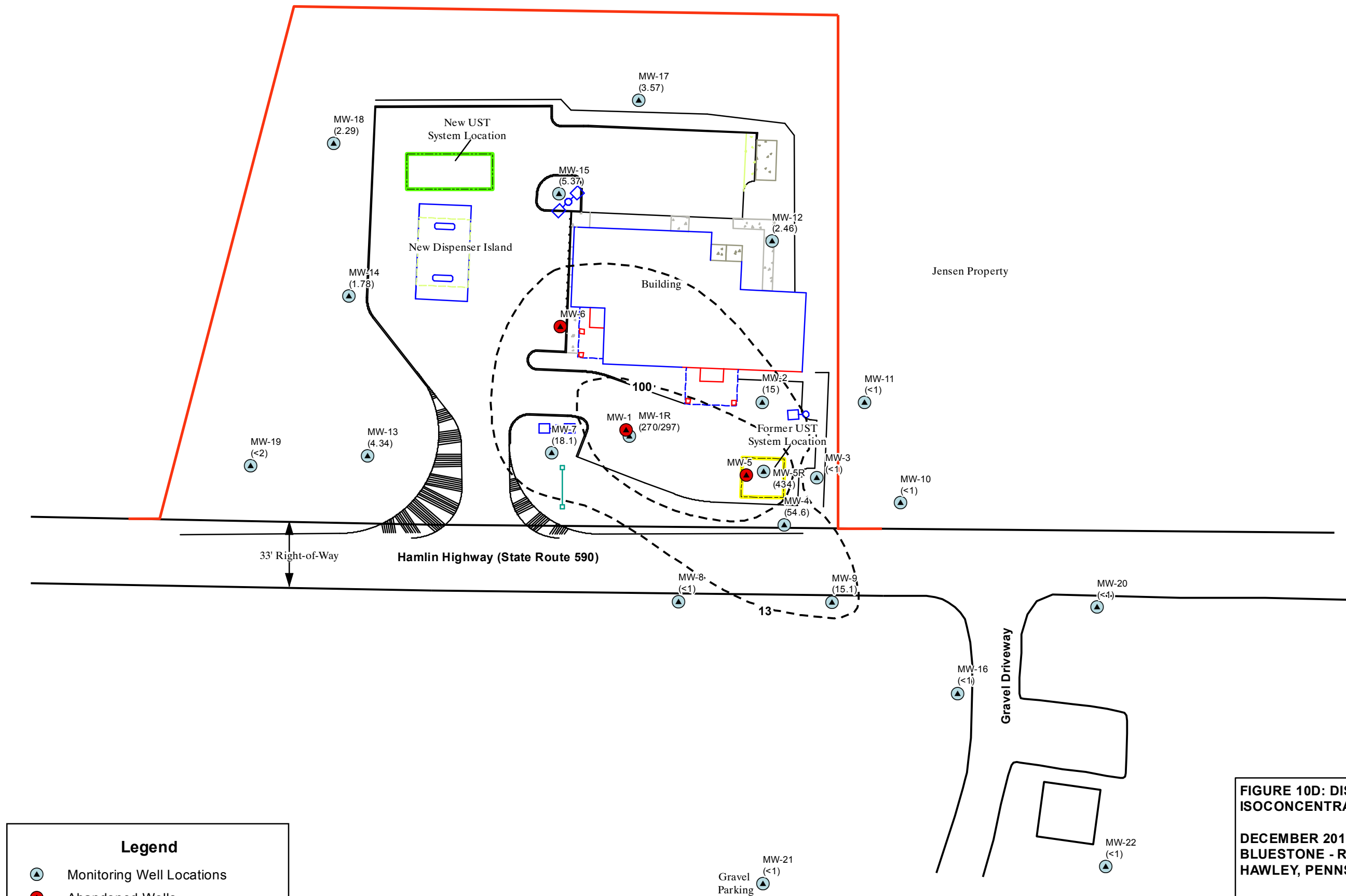


FIGURE 9D: DISSOLVED 1,2,4 TMB ISOCONCENTRATION MAP

DECEMBER 2015
BLUESTONE - ROSEMERGY SITE
HAWLEY, PENNSYLVANIA

Converse Project Number 11-17788-01

Converse Consultants
2738 West College Avenue
State College, PA 16801



Legend

- Monitoring Well Locations
- Abandoned Wells
- 1,3,5 TMB Isoconcentration in ug/L
- Property Boundary

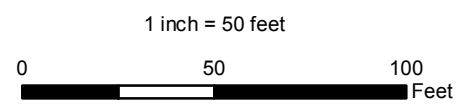



FIGURE 10D: DISSOLVED 1,3,5 TMB ISOCONCENTRATION MAP

DECEMBER 2015
BLUESTONE - ROSEMERGY SITE
HAWLEY, PENNSYLVANIA

Converse Project Number 11-17788-01



Converse Consultants
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FIGURE 13: ON-LOT SUPPLY WELL LOCATIONS
 DECEMBER 2014
 BLUESTONE - ROSEMERGY SITE
 HAWLEY, PENNSYLVANIA

Converse Project Number 11-17788-01

Converse Consultants
 2738 West College Avenue
 State College, PA 16801

Legend
 ▲ Approximate Supply Well Location
 X Site Location

TABLE 1
GROUNDWATER ELEVATION DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

| WELL | TWD | SI | TOCG | TOC | DATE | DTW | GW ELEV |
|-------------|-------|---------|-------|---------|----------|-------|---------|
| MW-1 (2) | 14.70 | 3-14.7 | -0.48 | 1300.57 | 5/8/12 | 5.30 | 1295.27 |
| | | | | | 6/17/12 | 6.52 | 1294.05 |
| | | | | | 5/14/13 | IA | IA |
| | | | | | 12/11/13 | AB | AB |
| MW-1R | 14.61 | 4-14.61 | -0.28 | 1298.25 | 11/8/13 | 10.89 | 1287.36 |
| | | | | | 12/11/13 | 9.90 | 1288.35 |
| | | | | | 2/4/14 | 7.82 | 1290.43 |
| | | | | | 3/7/14 | 7.73 | 1290.52 |
| | | | | | 4/29/14 | NS | NC |
| | | | | | 6/12/14 | 6.35 | 1291.90 |
| | | | | | 9/17/14 | 7.49 | 1290.76 |
| | | | | | 12/3/14 | 7.44 | 1290.81 |
| | | | | | 3/25/15 | 5.00 | 1293.25 |
| | | | | | 6/25/15 | 5.16 | 1293.09 |
| | | | | | 8/26/15 | 7.52 | 1290.73 |
| | | | | | 11/12/15 | NS | NS |
| | | | | | 12/9/15 | 6.21 | 1292.04 |
| MW-2 (2) | 14.40 | 3-14.4 | -0.67 | 1299.67 | 5/8/12 | 3.18 | 1296.49 |
| | | | | | 6/17/12 | 5.61 | 1294.06 |
| | | | | | 5/14/13 | 3.51 | 1296.16 |
| | | | | | 11/8/13 | 8.62 | 1291.05 |
| | | | | | 12/11/13 | 5.70 | 1293.97 |
| | | | | | 2/4/14 | NS | NC |
| | | | | | 3/7/14 | 4.87 | 1294.80 |
| | | | | | 4/29/14 | NS | NC |
| | | | | | 6/12/14 | NS | NC |
| | | | | | 9/17/14 | 5.27 | 1294.40 |
| | | | | | 12/3/14 | 3.31 | 1296.36 |
| | | | | | 3/25/15 | 2.80 | 1296.87 |
| | | | | | 6/25/15 | 3.17 | 1296.50 |
| | | | | | 8/26/15 | 4.50 | 1295.17 |
| | | | | | 11/12/15 | NS | NS |
| | | | | | 12/9/15 | 3.85 | 1295.82 |
| MW-3 (2) | 14.21 | 3-14.21 | -0.37 | 1298.61 | 5/8/12 | 2.13 | 1296.48 |
| | | | | | 6/17/12 | 3.45 | 1295.16 |
| | | | | | 5/14/13 | 2.71 | 1295.90 |
| | | | | | 11/8/13 | 6.73 | 1291.88 |
| | | | | | 12/11/13 | 3.82 | 1294.79 |
| | | | | | 2/4/14 | NS | NC |
| | | | | | 3/7/14 | NS | NC |
| | | | | | 4/29/14 | NS | NC |
| | | | | | 6/12/14 | 3.49 | 1295.12 |
| | | | | | 9/17/14 | 4.14 | 1294.47 |
| | | | | | 12/3/14 | 2.18 | 1296.43 |
| | | | | | 3/25/15 | 2.14 | 1296.47 |
| | | | | | 6/25/15 | 2.15 | 1296.46 |
| | | | | | 8/26/15 | 3.69 | 1294.92 |
| | | | | | 11/12/15 | 2.13 | 1296.48 |
| | | | | | 12/9/15 | 2.67 | 1295.94 |

TABLE 1
GROUNDWATER ELEVATION DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

| WELL | TWD | SI | TOCG | TOC | DATE | DTW | GW ELEV |
|-------------|-------|---------|-------|---------|----------|-------|---------|
| MW-4 (2) | 14.56 | 3-14.56 | -0.56 | 1299.05 | 5/8/12 | 2.45 | 1296.60 |
| | | | | | 6/17/12 | 3.96 | 1295.09 |
| | | | | | 5/14/13 | 3.19 | 1295.86 |
| | | | | | 11/8/13 | 7.36 | 1291.69 |
| | | | | | 12/11/13 | 4.41 | 1294.64 |
| | | | | | 2/4/14 | NS | NC |
| | | | | | 3/7/14 | NS | NC |
| | | | | | 4/29/14 | NS | NC |
| | | | | | 6/12/14 | 3.64 | 1295.41 |
| | | | | | 9/17/14 | 4.20 | 1294.85 |
| | | | | | 12/3/14 | 1.52 | 1297.53 |
| | | | | | 3/25/15 | 1.70 | 1297.35 |
| | | | | | 6/26/15 | 2.34 | 1296.71 |
| | | | | | 8/26/15 | 3.71 | 1295.34 |
| | | | | | 11/12/15 | 1.53 | 1297.52 |
| | | | | | 12/9/15 | 3.4 | 1295.65 |
| MW-5 (2) | 14.68 | 3-14.68 | -0.26 | 1299.36 | 5/8/12 | 2.65 | 1296.71 |
| | | | | | 6/17/12 | 3.90 | 1295.46 |
| | | | | | 5/14/13 | 3.18 | 1296.18 |
| | | | | | 11/8/13 | 7.82 | 1291.54 |
| | | | | | 12/11/13 | 4.42 | 1294.94 |
| | | | | | 2/4/14 | NS | NC |
| | | | | | 3/7/14 | 3.83 | 1295.53 |
| | | | | | 4/29/14 | NS | NC |
| | | | | | 3/25/15 | 2.78 | 1296.58 |
| | | | | | 6/25/15 | 3.30 | 1296.06 |
| | | | | | 8/26/15 | 4.50 | 1294.86 |
| | | | | | 11/12/15 | NS | NS |
| | | | | | 12/9/15 | 3.92 | 1295.44 |
| MW-6 (2) | 15.30 | 3-15.3 | -0.51 | 1301.21 | 5/8/12 | 5.74 | 1295.47 |
| | | | | | 6/17/12 | 7.98 | 1293.23 |
| | | | | | 5/14/13 | 6.08 | 1295.13 |
| | | | | | 11/8/13 | AB | AB |
| MW-7 | 14.99 | 5-14.99 | -0.57 | 1298.58 | 11/8/13 | 12.48 | 1286.10 |
| | | | | | 12/11/13 | 12.59 | 1285.99 |
| | | | | | 2/4/14 | NS | NC |
| | | | | | 3/7/14 | NS | NC |
| | | | | | 4/29/14 | NS | NC |
| | | | | | 6/12/14 | 7.73 | 1290.85 |
| | | | | | 9/17/14 | 9.19 | 1289.39 |
| | | | | | 12/3/14 | 9.16 | 1289.42 |
| | | | | | 3/25/15 | 6.60 | 1291.98 |
| | | | | | 6/25/15 | 7.07 | 1291.51 |
| | | | | | 8/26/15 | 9.27 | 1289.31 |
| | | | | | 11/12/15 | NS | NS |
| | | | | | 12/9/15 | 7.82 | 1290.76 |
| MW-8 | 14.62 | 4-14.62 | -0.39 | 1295.27 | 11/8/13 | 6.24 | 1289.03 |
| | | | | | 12/11/13 | 3.14 | 1292.13 |
| | | | | | 2/4/14 | 3.52 | 1291.75 |
| | | | | | 3/7/14 | 3.05 | 1292.22 |
| | | | | | 4/29/14 | NS | NC |
| | | | | | 6/12/14 | 2.80 | 1292.47 |
| | | | | | 9/17/14 | 3.06 | 1292.21 |
| | | | | | 12/3/14 | 1.68 | 1293.59 |
| | | | | | 3/25/15 | 2.67 | 1292.60 |
| | | | | | 6/25/15 | 2.43 | 1292.84 |
| | | | | | 8/26/15 | 3.22 | 1292.05 |

TABLE 1
GROUNDWATER ELEVATION DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

| WELL | TWD | SI | TOCG | TOC | DATE | DTW | GW ELEV |
|------|-----|----|------|-----|----------|------|---------|
| | | | | | 11/12/15 | NS | NS |
| | | | | | 12/9/15 | 2.46 | 1292.81 |

TABLE 1
GROUNDWATER ELEVATION DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

| WELL | TWD | SI | TOCG | TOC | DATE | DTW | GW ELEV |
|-------|-------|---------|-------|---------|----------|------|---------|
| MW-9 | 14.65 | 4-14.62 | -0.37 | 1293.91 | 11/8/13 | 3.96 | 1289.95 |
| | | | | | 12/11/13 | 1.14 | 1292.77 |
| | | | | | 2/4/14 | 1.82 | 1292.09 |
| | | | | | 3/7/14 | 1.12 | 1292.79 |
| | | | | | 4/29/14 | NS | NC |
| | | | | | 6/12/14 | 1.43 | 1292.48 |
| | | | | | 9/17/14 | 1.89 | 1292.02 |
| | | | | | 12/3/14 | 0.81 | 1293.10 |
| | | | | | 3/25/15 | 0.40 | 1293.51 |
| | | | | | 6/25/15 | 0.62 | 1293.29 |
| | | | | | 8/26/15 | 1.23 | 1292.68 |
| | | | | | 11/12/15 | 0.08 | 1293.83 |
| | | | | | 12/9/15 | 0.50 | 1293.41 |
| MW-10 | 14.25 | 5-14.25 | -0.41 | 1297.61 | 11/8/13 | NI | NC |
| | | | | | 12/11/13 | NI | NC |
| | | | | | 2/4/14 | 3.13 | 1294.48 |
| | | | | | 3/7/14 | 2.72 | 1294.89 |
| | | | | | 4/29/14 | NS | NC |
| | | | | | 6/12/14 | 3.04 | 1294.57 |
| | | | | | 9/17/14 | 3.84 | 1293.77 |
| | | | | | 12/3/14 | 2.14 | 1295.47 |
| | | | | | 3/25/15 | 2.09 | 1295.52 |
| | | | | | 6/26/15 | 2.60 | 1295.01 |
| | | | | | 8/27/15 | 3.46 | 1294.15 |
| | | | | | 11/12/15 | NS | NS |
| | | | | | 12/9/15 | 2.83 | 1294.78 |
| MW-11 | 14.73 | 5-14.73 | -0.25 | 1298.35 | 11/8/13 | NI | NC |
| | | | | | 12/11/13 | NI | NC |
| | | | | | 2/4/14 | 3.68 | 1294.67 |
| | | | | | 3/7/14 | 3.22 | 1295.13 |
| | | | | | 4/29/14 | NS | NC |
| | | | | | 6/12/14 | 3.47 | 1294.88 |
| | | | | | 9/17/14 | 4.01 | 1294.34 |
| | | | | | 12/3/14 | 3.16 | 1295.19 |
| | | | | | 3/25/15 | 4.00 | 1294.35 |
| | | | | | 6/26/15 | 2.83 | 1295.52 |
| | | | | | 8/27/15 | 4.44 | 1293.91 |
| | | | | | 11/12/15 | NS | NS |
| | | | | | 12/9/15 | 2.52 | 1295.83 |
| MW-12 | 14.65 | 4-14.65 | -0.81 | 1297.44 | 11/8/13 | 9.40 | 1288.04 |
| | | | | | 12/11/13 | 5.46 | 1291.98 |
| | | | | | 2/4/14 | 5.55 | 1291.89 |
| | | | | | 3/7/14 | 5.18 | 1292.26 |
| | | | | | 4/29/14 | NS | NC |
| | | | | | 6/12/14 | 4.93 | 1292.51 |
| | | | | | 9/17/14 | 5.44 | 1292.00 |
| | | | | | 12/3/14 | 3.72 | 1293.72 |
| | | | | | 3/25/15 | 3.80 | 1293.64 |
| | | | | | 6/25/15 | 3.70 | 1293.74 |
| | | | | | 8/26/15 | 5.20 | 1292.24 |
| | | | | | 11/12/15 | NS | NS |
| | | | | | 12/9/15 | 4.23 | 1293.21 |

TABLE 1
GROUNDWATER ELEVATION DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

| WELL | TWD | SI | TOCG | TOC | DATE | DTW | GW ELEV |
|-------|-------|------------|------|---------|----------|-------|---------|
| MW-13 | 14.93 | 5.75-14.93 | -0.2 | 1303.84 | 11/8/13 | WNI | |
| | | | | | 12/11/13 | | |
| | | | | | 2/4/14 | | |
| | | | | | 3/7/14 | | |
| | | | | | 4/29/14 | 11.53 | 1292.31 |
| | | | | | 6/12/14 | 12.64 | 1291.20 |
| | | | | | 9/17/14 | 11.34 | 1292.50 |
| | | | | | 12/3/14 | 13.77 | 1290.07 |
| | | | | | 3/25/15 | NS | NS |
| | | | | | 6/25/15 | 11.74 | 1292.10 |
| | | | | | 8/26/15 | 15.65 | 1288.19 |
| | | | | | 11/12/15 | NS | NS |
| | | | | | 12/9/15 | 12.72 | 1291.12 |
| MW-14 | 18.65 | 5-18.65 | -0.3 | 1304.54 | 11/8/13 | WNI | |
| | | | | | 12/11/13 | | |
| | | | | | 2/4/14 | | |
| | | | | | 3/7/14 | | |
| | | | | | 4/29/14 | 11.37 | 1293.17 |
| | | | | | 6/12/14 | 12.73 | 1291.81 |
| | | | | | 9/17/14 | 14.52 | 1290.02 |
| | | | | | 12/3/14 | 13.94 | 1290.60 |
| | | | | | 3/25/15 | 11.69 | 1292.85 |
| | | | | | 6/25/15 | 12.08 | 1292.46 |
| | | | | | 8/26/15 | 14.80 | 1289.74 |
| | | | | | 11/12/15 | NS | NS |
| | | | | | 12/9/15 | 13.30 | 1291.24 |

TABLE 1
GROUNDWATER ELEVATION DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

| WELL | TWD | SI | TOCG | TOC | DATE | DTW | GW ELEV |
|-------|-------|---------|-------|---------|----------|-------|---------|
| MW-15 | 14.86 | 5-14.86 | -0.3 | 1301.14 | 11/8/13 | WNI | |
| | | | | | 12/11/13 | | |
| | | | | | 2/4/14 | | |
| | | | | | 3/7/14 | | |
| | | | | | 4/29/14 | | |
| | | | | | 6/12/14 | 6.45 | 1294.69 |
| | | | | | 9/17/14 | 8.41 | 1292.73 |
| | | | | | 12/3/14 | 9.73 | 1291.41 |
| | | | | | 3/25/15 | 9.34 | 1291.80 |
| | | | | | 6/25/15 | 7.37 | 1293.77 |
| | | | | | 8/26/15 | 7.68 | 1293.46 |
| | | | | | 11/12/15 | 9.88 | 1291.26 |
| | | | | | 12/9/15 | NS | NS |
| MW-16 | 14.69 | 5-14.69 | -0.3 | 1295.24 | 11/8/13 | WNI | |
| | | | | | 12/11/13 | | |
| | | | | | 2/4/14 | | |
| | | | | | 3/7/14 | | |
| | | | | | 4/29/14 | | |
| | | | | | 6/12/14 | 0.708 | 1294.53 |
| | | | | | 9/17/14 | 1.47 | 1293.77 |
| | | | | | 12/3/14 | 2.52 | 1292.72 |
| | | | | | 3/25/15 | 0.10 | 1295.14 |
| | | | | | 6/25/15 | NS | NS |
| | | | | | 8/26/15 | 0.82 | 1294.42 |
| | | | | | 11/12/15 | 1.64 | 1293.60 |
| | | | | | 12/9/15 | NS | NS |
| MW-17 | 15.00 | 3-15 | -0.24 | 1296.68 | 11/12/15 | 8.34 | 1288.34 |
| MW-18 | 17.95 | 3-18 | -0.31 | 1300.38 | 12/9/15 | 5.72 | 1290.96 |
| MW-19 | 16.56 | 2-17 | -0.47 | 1301.68 | 11/12/15 | 12.19 | 1288.19 |
| MW-20 | 14.47 | 3-15 | -0.26 | 1294.17 | 12/9/15 | 11.09 | 1289.29 |
| MW-21 | 15.00 | 3-15 | -0.29 | 1293.09 | 11/12/15 | 13.32 | 1288.36 |
| MW-22 | 14.90 | 3-15 | -0.44 | 1291.48 | 12/9/15 | 12.22 | 1289.46 |
| | | | | | 11/12/15 | 1.01 | 1293.16 |
| | | | | | 12/9/15 | 1.42 | 1292.75 |
| | | | | | 11/12/15 | 1.04 | 1292.05 |
| | | | | | 12/9/15 | 1.59 | 1291.50 |
| | | | | | 11/12/15 | 0.250 | 1291.23 |
| | | | | | 12/9/15 | 0.79 | 1290.69 |

(2) = Diameter of Well Casing in Inches.
TWD = Total Well Depth in feet below grade.
SI = Screened Interval in feet below grade.
TOCG = Top of Well Casing relative to Grade.
+ = Approximate feet above grade.
- = Approximate feet below grade.
TOC = Top of Well Casing.
NI = Not Installed

DTW = Measured Depth to Groundwater from TOC.
GW ELEV = Calculated Groundwater Elevation.
NM = Well not measured.
NA = Not Applicable.
IA = Inaccessible.
NS = Not Sampled.
AB = Abandoned or Destroyed

TABLE 2
GROUNDWATER ANALYTICAL DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

| Sample ID (Depth) | Statewide Health Standards | MW-1 | MW-1 | MW-1 | MW-1 | MW-1 | MW-1 | MW-1 | MW-1 | MW-1 | MW-1 | MW-1 | MW-1 | MW-1 |
|-----------------------------------|----------------------------|--------|--------|---------------|--------------|--------|---------------|---------|---------|--------------|-------------|---------|---------|-------------|
| | Residential | | | | | | | | | | | | | |
| Sampling Date | Groundwater | 5/8/12 | 6/7/12 | 11/8/13 | 12/11/13 | 2/4/14 | 3/7/14 | 6/12/14 | 9/17/14 | 12/3/14 | 3/25/15 | 6/25/15 | 8/26/15 | 12/9/15 |
| Matrix | Used Aquifers | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 13 | 1,030 | 736 | 310/646 | 643/625 | NS | 618/662 | 365 | 389 | 792/594 | 279/294 | 265 | 300 | 270/297 |
| 1,2,4-Trimethylbenzene | 15 | 2,310 | 2,580 | 978/1,020 | 2,100/2,050 | NS | 1,900/2,100 | 1,300 | 1,490 | 3,040/1,700 | 981/997 | 996 | 1,150 | 1,060/1,090 |
| Benzene | 5 | 3,930 | 5,680 | 6,410/6,620 | 7,400/7,610 | NS | 7,740/8,210 | 7,170 | 6,330 | 6290/8,530 | 4,500/4,600 | 4,230 | 6,250 | 3,480/4,130 |
| Toluene | 1,000 | 13,600 | 10,900 | 15,700/16,100 | 9,960/10,000 | NS | 12,900/14,500 | 10,200 | 5,860 | 7,980/13,900 | 5,620/5,830 | 4,490 | 6,030 | 6,820/6,910 |
| Ethylbenzene | 700 | 2,450 | 2,720 | 1,540/1,580 | 2,380/2,350 | NS | 2,710/2,760 | 1,770 | 2,480 | 4,530/2,740 | 1,650/1,650 | 1,390 | 1,700 | 1,180/1,310 |
| Xylenes (total) | 10,000 | 11,800 | 12,200 | 8,980/9,060 | 5,550/5,390 | NS | 14,000/14,400 | 8640 | 11,000 | 8,300/14,200 | 9,130/9,150 | 7,170 | 8,930 | 7380/8,110 |
| Isopropylbenzene | 840 | 1,210 | 395 | 111/405 | 387/386 | NS | 336/364 | 213 | 233 | 482/394 | 158/158 | 152 | 175 | 118/138 |
| Methyl tert-butyl ether | 20 | 68.6 | <50 | 195/269 | 162/166 | NS | <100/<100 | 82 | <100 | 62/57.4 | <50/<50 | <50 | <50 | <50/5.8 |
| Naphthalene | 100 | 881 | 276 | 265/693 | 424/450 | NS | 194/209 | 254 | 319 | 652/696 | 107/98.5 | 239 | 252 | 322/313 |

| Sample ID (Depth) | Statewide Health Standards | MW-2 | MW-2 | MW-2 | MW-2 | MW-2 | MW-2 | MW-2 | MW-2 | MW-2 | MW-2 | MW-2 | MW-2 | MW-2 |
|-----------------------------------|----------------------------|--------|---------|---------|----------|--------|--------|---------|------------|---------|---------|---------|---------|---------|
| | Residential | | | | | | | | | | | | | |
| Sampling Date | Groundwater | 5/8/12 | 6/17/12 | 11/8/13 | 12/11/13 | 2/4/14 | 3/7/14 | 6/12/14 | 9/17/14 | 12/3/14 | 3/25/15 | 6/25/15 | 8/26/15 | 12/9/15 |
| Matrix | Used Aquifers | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 13 | 635 | 687 | 406 | 401 | NS | 255 | NS | 112/195 | 201 | <5 | <5 | 49.5 | 15 |
| 1,2,4-Trimethylbenzene | 15 | 1,820 | 1,940 | 1,200 | 1,110 | NS | 612 | NS | 279/585 | 721 | 15.8 | 28.7 | 244 | 116 |
| Benzene | 5 | 791 | 272 | 273 | 164 | NS | 115 | NS | 50/1,040 | 1,320 | 22.8 | 41.8 | 310 | 78 |
| Toluene | 1,000 | 1,520 | 1,460 | 958 | 514 | NS | 298 | NS | 3090/3,834 | 5,720 | 16.1 | 43.6 | 1,130 | 127 |
| Ethylbenzene | 700 | 765 | 752 | 828 | 634 | NS | 391 | NS | 424/831 | 1,330 | 18.2 | 38.2 | 337 | 107 |
| Xylenes (total) | 10,000 | 4,060 | 3,470 | 1,380 | 875 | NS | 586 | NS | 1070/2,110 | 3,060 | 29.6 | 50.2 | 868 | 120 |
| Isopropylbenzene | 840 | 1,020 | 246 | 3,227 | 255 | NS | 153 | NS | 97.1/190 | 187 | <5 | 9.4 | 59.4 | 32.6 |
| Methyl tert-butyl ether | 20 | 32.6 | <20 | <50 | <10 | NS | <10 | NS | <10/27.7 | 32.7 | <5 | <5 | <5 | <5 |
| Naphthalene | 100 | 898 | 145 | 240 | 265 | NS | 160 | NS | 159/344 | 235 | 14.6 | 31.2 | 46.2 | 37.3 |

NS - Not Sampled
All concentrations in micrograms per liter (ug/L)
WD - Well Destroyed

TABLE 2 (Continued)
GROUNDWATER ANALYTICAL DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

| Sample ID (Depth) | Statewide Health Standards | MW-3 | MW-3 | MW-3 | MW-3 | MW-3 | MW-3 | MW-3 | MW-3 | MW-3 | MW-3 | MW-3 | MW-3 | MW-3 | MW-3 |
|-----------------------------------|----------------------------|--------|---------|---------|----------|--------|--------|---------|---------|---------|---------|---------|---------|----------|---------|
| Sampling Date | Groundwater | 5/8/12 | 6/17/12 | 11/8/13 | 12/11/13 | 2/4/14 | 3/7/14 | 6/12/14 | 9/17/14 | 12/3/14 | 3/25/15 | 6/25/15 | 8/26/15 | 11/13/15 | 12/9/15 |
| Matrix | Used Aquifers | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 13 | <10 | <10 | <5 | <2 | NS | NS | <10 | 22.4 | <10 | <5 | <1 | 3.43 | 1.46 | <1 |
| 1,2,4-Trimethylbenzene | 15 | <10 | <10 | 5.15 | <2 | NS | NS | 38.5 | 87.1 | 10 | <5 | <1 | 12.6 | 6.07 | 1.75 |
| Benzene | 5 | 273 | 236 | 91 | 88.4 | NS | NS | 788 | 476 | 318 | 2.4 | <1 | 207 | 82.4 | <1 |
| Toluene | 1,000 | 86.4 | <10 | <5 | <2 | NS | NS | 62.8 | 109 | <10 | <5 | <1 | 12.4 | 12.7 | <1 |
| Ethylbenzene | 700 | 12.2 | <10 | <5 | 3.24 | NS | NS | 56.8 | 145 | 11.1 | <5 | <1 | 15.1 | 20 | 1.11 |
| Xylenes (total) | 10,000 | 49.2 | <20 | <10 | 7.24 | NS | NS | 122 | 541 | <20 | <10 | <2 | 38.5 | 28 | <2 |
| Isopropylbenzene | 840 | <10 | 11 | 12.6 | 6.88 | NS | NS | 44.4 | 50.4 | 17.9 | <5 | <1 | 34.8 | 11.2 | <1 |
| Methyl tert-butyl ether | 20 | 768 | 684 | 375 | 348 | NS | NS | 1,180 | 1,190 | 2,560 | 30.9 | <1 | 636 | 419 | <1 |
| Naphthalene | 100 | <10 | <10 | <5 | 2.5 | NS | NS | <10 | 26 | 18.3 | <5 | <1 | 4.74 | 1.63 | <1 |

| Sample ID (Depth) | Statewide Health Standards | MW-4 | MW-4 | MW-4 | MW-4 | MW-4 | MW-4 | MW-4 | MW-4 | MW-4 | MW-4 | MW-4 | MW-4 | MW-4 | MW-4 |
|-----------------------------------|----------------------------|--------|---------|---------|----------|--------|--------|---------|---------|---------|---------|---------|---------|----------|---------|
| Sampling Date | Groundwater | 5/8/12 | 6/17/12 | 11/8/13 | 12/11/13 | 2/4/14 | 3/7/14 | 6/12/14 | 9/17/14 | 12/3/14 | 3/25/15 | 6/25/15 | 8/26/15 | 11/13/15 | 12/9/15 |
| Matrix | Used Aquifers | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 13 | 594 | 590 | 736 | 703 | NS | NS | 358 | 128 | 5.15 | 1.16 | 1.9 | 131 | 8.15 | 54.6 |
| 1,2,4-Trimethylbenzene | 15 | 1,400 | 2,210 | 2,000 | 2,750 | NS | NS | 1,250 | 445 | 14.1 | 1.96 | 4.89 | 473 | 20.1 | 175 |
| Benzene | 5 | 4,120 | 2,460 | 3,040 | 1,000 | NS | NS | 301 | 225 | 2,130 | 6.6 | 4.29 | 74.7 | 7.29 | 35.6 |
| Toluene | 1,000 | 19,700 | 9,210 | 2,860 | 5,550 | NS | NS | 2,060 | 864 | 65.6 | 10.1 | 10.6 | 304 | 14.9 | 148 |
| Ethylbenzene | 700 | 1,420 | 2,000 | 2,290 | 2,250 | NS | NS | 1,050 | 452 | 87 | 2.92 | 4.15 | 390 | 8.42 | 139 |
| Xylenes (total) | 10,000 | 9,440 | 10,400 | 5,540 | 10,900 | NS | NS | 4,720 | 2,070 | 62 | 12.5 | 20.7 | 1,650 | 41.1 | 623 |
| Isopropylbenzene | 840 | 728 | 228 | 433 | 387 | NS | NS | 178 | 65.6 | 43.9 | <1 | <1 | 88.4 | 2.35 | 22 |
| Methyl tert-butyl ether | 20 | 14.8 | <50 | 56.9 | <10 | NS | NS | <20 | <20 | 10.7 | <1 | <1 | <1 | <1 | <5 |
| Naphthalene | 100 | 1,090 | 244 | 604 | 404 | NS | NS | 205 | 73.6 | 20.4 | <1 | <1 | 94.4 | 1.89 | 17.7 |

NS - Not Sampled

All concentrations in micrograms per liter (ug/L)

WD - Well Destroyed

TABLE 2 (Continued)
GROUNDWATER ANALYTICAL DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

| Sample ID (Depth) | Statewide Health Standards | MW-5 | MW-5 | MW-5 | MW-5 | MW-5 | MW-5 | MW-5 | MW-5R | MW-5R | MW-5R | MW-5R |
|-----------------------------------|----------------------------|--------|---------|---------|----------|--------|--------|---------|---------|---------------|---------|---------|
| Sampling Date | Groundwater | 5/8/12 | 6/17/12 | 11/8/13 | 12/11/13 | 2/4/14 | 3/7/14 | 6/12/14 | 3/25/15 | 6/25/15 | 8/26/15 | 12/9/15 |
| Matrix | Used Aquifers | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 13 | 155 | 14.7 | <10 | <2 | NS | <2 | WD | 437 | 388/370 | 430 | 434 |
| 1,2,4-Trimethylbenzene | 15 | 427 | 36.2 | 13.6 | <2 | NS | <2 | WD | 1,680 | 1,510/2,460 | 1,670 | 1,700 |
| Benzene | 5 | 14.4 | 4.3 | 89.5 | 2.44 | NS | <2 | WD | 3,960 | 5,450/11,200 | 6,210 | 4,690 |
| Toluene | 1,000 | 116 | 14.1 | <10 | <2 | NS | <2 | WD | 13,600 | 16,600/33,700 | 17,500 | 18,200 |
| Ethylbenzene | 700 | 107 | 14.6 | 80.7 | <2 | NS | <2 | WD | 2,740 | 2,430/4,420 | 3,110 | 2,500 |
| Xylenes (total) | 10,000 | 403 | 38.7 | <20 | <4 | NS | <4 | WD | 9,460 | 10,900/20,800 | 14,100 | 12,200 |
| Isopropylbenzene | 840 | 51.8 | <10 | 25.3 | <2 | NS | <2 | WD | 197 | 1 | 186 | 170 |
| Methyl tert-butyl ether | 20 | <5 | <10 | 12.7 | 2.82 | NS | <2 | WD | 33.5 | <50/34.6 | <50 | <50 |
| Naphthalene | 100 | 94.4 | <10 | <10 | <2 | NS | <2 | WD | 331 | 376/436 | 316 | 443 |

| Sample ID (Depth) | Statewide Health Standards | MW-6 | MW-6 | MW-6 |
|-----------------------------------|----------------------------|--------|---------|--------|
| Sampling Date | Groundwater | 5/8/12 | 6/17/12 | 3/7/14 |
| Matrix | Used Aquifers | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | |
| 1,3,5-Trimethylbenzene | 13 | <1 | <1 | AB |
| 1,2,4-Trimethylbenzene | 15 | <1 | <1 | AB |
| Benzene | 5 | <1 | 1.15 | AB |
| Toluene | 1,000 | <1 | 2.55 | AB |
| Ethylbenzene | 700 | <1 | <1 | AB |
| Xylenes (total) | 10,000 | <2 | <2 | AB |
| Isopropylbenzene | 840 | <1 | <1 | AB |
| Methyl tert-butyl ether | 20 | <1 | <1 | AB |
| Naphthalene | 100 | <1 | <1 | AB |

NS - Not Sampled

All concentrations in micrograms per liter (ug/L)

WD - Well Destroyed

TABLE 2 (Continued)
GROUNDWATER ANALYTICAL DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

| Sample ID (Depth) | Statewide Health Standards | MW-7 | MW-7 | MW-7 | MW-7 | MW-7 | MW-7 | MW-7 | MW-7 | MW-7 | MW-7 | MW-7 |
|-----------------------------------|----------------------------|---------|----------|--------|--------|---------|---------|---------|---------|---------|-------------|-----------|
| Sampling Date | Groundwater | 11/8/13 | 12/11/13 | 2/4/14 | 3/7/14 | 6/12/14 | 9/17/14 | 12/3/14 | 3/25/15 | 6/25/15 | 8/26/2015 | 12/9/2015 |
| Matrix | Used Aquifers | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 13 | 8.5 | 12.1 | NS | NS | <20 | 56.2 | 158 | <25 | <25 | 91.5/85.8 | 18.1 |
| 1,2,4-Trimethylbenzene | 15 | 5.22 | 6.44 | NS | NS | 40.4 | 153 | 300 | 50 | 60.5 | 238/229 | 47.5 |
| Benzene | 5 | 7,480 | 5,100 | NS | NS | 390 | 2,200 | 6,120 | 884 | 582 | 4,780/4,540 | 917 |
| Toluene | 1,000 | 62.7 | 54.8 | NS | NS | <20 | 66.4 | 296 | 300 | 193 | 279/275 | 157 |
| Ethylbenzene | 700 | 34.3 | 30.9 | NS | NS | <20 | 299 | 800 | 120 | 90.5 | 436/438 | 96.6 |
| Xylenes (total) | 10,000 | 31.8 | 33.3 | NS | NS | 96.8 | 436 | 1,120 | 293 | 314 | 876/849 | 222 |
| Isopropylbenzene | 840 | 43 | 54.9 | NS | NS | <20 | 51.8 | 167 | <25 | <25 | 85.2/90.5 | 23 |
| Methyl tert-butyl ether | 20 | 546 | 449 | NS | NS | <20 | 48.4 | 192 | <25 | <25 | 75/73.1 | 15.5 |
| Naphthalene | 100 | 43.7 | 78.9 | NS | NS | <20 | 65.4 | 222 | <25 | <25 | 134/127 | 33.2 |

| Sample ID (Depth) | Statewide Health Standards | MW-8 | MW-8 | MW-8 | MW-8 | MW-8 | MW-8 | MW-8 | MW-8 | MW-8 | MW-8 | MW-8 |
|-----------------------------------|----------------------------|---------|----------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| Sampling Date | Groundwater | 11/8/13 | 12/11/13 | 2/4/14 | 3/7/14 | 6/12/14 | 9/17/14 | 12/3/14 | 3/25/15 | 6/25/15 | 8/26/15 | 12/9/15 |
| Matrix | Used Aquifers | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 13 | <2 | <1 | NS | <1 | <1 | 5.16 | 1.3 | 1.55 | 1.54 | 2.22 | <1 |
| 1,2,4-Trimethylbenzene | 15 | <2 | <1 | NS | <1 | <1 | 19.4 | 4.05 | 5.42 | 5.52 | 7.51 | 2.69 |
| Benzene | 5 | <2 | <1 | NS | <1 | <1 | 8.76 | 2.1 | 14.7 | 7.09 | 10.1 | 1.55 |
| Toluene | 1,000 | <2 | <1 | NS | <1 | <1 | 13 | 3.62 | 35.2 | 18.7 | 22.1 | 8.1 |
| Ethylbenzene | 700 | <2 | <1 | NS | <1 | <1 | 18.8 | 3.56 | 7.47 | 5.14 | 6.9 | 2.05 |
| Xylenes (total) | 10,000 | <4 | <2 | NS | <2 | <2 | 90.5 | 17.3 | 37.2 | 26.5 | 34.3 | 11.3 |
| Isopropylbenzene | 840 | <2 | <1 | NS | <1 | <1 | 2.57 | <1 | <1 | <1 | <1 | <1 |
| Methyl tert-butyl ether | 20 | 2.7 | <1 | NS | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Naphthalene | 100 | <2 | <1 | NS | <1 | <1 | 3.64 | 1.17 | 1 | <1 | <1 | <1 |

NS - Not Sampled
All concentrations in micrograms per liter (ug/L)
WD - Well Destroyed

TABLE 2 (Continued)
GROUNDWATER ANALYTICAL DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

| Sample ID (Depth) | Statewide Health Standards | MW-9 | MW-9 | MW-9 | MW-9 | MW-9 | MW-9 | MW-9 | MW-9 | MW-9 | MW-9 | MW-9 | MW-9 |
|-----------------------------------|----------------------------|---------|----------|--------|--------|---------|---------|---------|---------|---------|---------|----------|---------|
| Sampling Date | Groundwater | 11/8/13 | 12/11/13 | 2/4/14 | 3/7/14 | 6/12/14 | 9/17/14 | 12/3/14 | 3/25/15 | 6/25/15 | 8/26/15 | 11/13/15 | 12/9/15 |
| Matrix | Used Aquifers | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 13 | <2 | <1 | NS | <1 | <1 | 8.68 | 7.7 | <10 | 40.6 | 23.9 | 14.6 | 15.1 |
| 1,2,4-Trimethylbenzene | 15 | <2 | <1 | NS | <1 | <1 | 36.1 | <5 | <10 | 65.4 | 24.2 | 12 | 17.1 |
| Benzene | 5 | 13 | 16.9 | NS | 96.1 | 58.3 | 82.9 | 19.2 | 853 | 1,050 | 1,590 | 1,210 | 1,510 |
| Toluene | 1,000 | <2 | <1 | NS | <1 | 2.24 | 39.8 | <5 | 80.9 | 178.0 | 113 | 112 | 116 |
| Ethylbenzene | 700 | <2 | <1 | NS | 3.18 | 1.96 | 41 | 9.7 | 66 | 152 | 175 | 251 | 265 |
| Xylenes (total) | 10,000 | <4 | <2 | NS | <2 | <2 | 165 | 17.4 | 66 | 298 | 153 | 73 | 98.6 |
| Isopropylbenzene | 840 | <2 | <1 | NS | 5.48 | 5.73 | 9.87 | <5 | 38.9 | 82.8 | 77.3 | 92.5 | 97.1 |
| Methyl tert-butyl ether | 20 | 8 | 2.94 | NS | 9.41 | 5.88 | 5.1 | <5 | 11.3 | <10 | <10 | <10 | <10 |
| Naphthalene | 100 | <2 | <1 | NS | <1 | <1 | 8.05 | <5 | 14.7 | 69.2 | 36.2 | 61 | 84.1 |

| Sample ID (Depth) | Statewide Health Standards | MW-10 | MW-10 | MW-10 | MW-10 | MW-10 | MW-10 | MW-10 | MW-10 | MW-10 | MW-10 | MW-10 | MW-10 |
|-----------------------------------|----------------------------|---------|----------|--------|--------|---------|---------|---------|---------|---------|---------|---------|-------|
| Sampling Date | Groundwater | 11/8/13 | 12/11/13 | 2/4/14 | 3/7/14 | 6/12/14 | 9/17/14 | 12/3/14 | 3/25/15 | 6/25/15 | 8/27/15 | 12/9/15 | |
| Matrix | Used Aquifers | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | |
| VOLATILE ORGANIC COMPOUNDS | | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 13 | WNI | WNI | <2 | <1 | <1 | <1 | 1.72 | <1 | 1.09 | 1.4 | <1 | |
| 1,2,4-Trimethylbenzene | 15 | WNI | WNI | <2 | <1 | <1 | <1 | 4.82 | 2.63 | 5.03 | 4.51 | <1 | |
| Benzene | 5 | WNI | WNI | <0.24 | <1 | <1 | <1 | 13.4 | 13.9 | 49.7 | 26.9 | 33.1 | |
| Toluene | 1,000 | WNI | WNI | <2 | <1 | <1 | <1 | 14.2 | 14.6 | 9.98 | 5.72 | <1 | |
| Ethylbenzene | 700 | WNI | WNI | <2 | <1 | <1 | <1 | 7.21 | 3.71 | 3.24 | 3.4 | <1 | |
| Xylenes (total) | 10,000 | WNI | WNI | <4 | <2 | <2 | <2 | 32 | 17 | 16 | 15.4 | <2 | |
| Isopropylbenzene | 840 | WNI | WNI | <2 | <1 | <1 | <1 | 1.16 | <1 | 6.08 | 3.5 | 4.85 | |
| Methyl tert-butyl ether | 20 | WNI | WNI | <2 | <1 | <1 | 11.5 | 12.6 | 24 | 116 | 106 | 106 | |
| Naphthalene | 100 | WNI | WNI | <2 | <1 | <1 | <1 | 1.02 | <1 | <1 | <1 | <1 | |

NS - Not Sampled

All concentrations in micrograms per liter (ug/L)

WD - Well Destroyed

TABLE 2 (Continued)
GROUNDWATER ANALYTICAL DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

| Sample ID (Depth) | Statewide Health Standards | MW-11 | MW-11 | MW-11 | MW-11 | MW-11 | MW-11 | MW-11 | MW-11 | MW-11 | MW-11 | MW-11 |
|-----------------------------------|----------------------------|---------|----------|--------|--------|---------|---------|---------|---------|---------|---------|----------|
| Sampling Date | Groundwater | 11/8/13 | 12/11/13 | 2/4/14 | 3/7/14 | 6/12/14 | 9/17/14 | 12/3/14 | 3/25/15 | 6/25/15 | 8/27/15 | 12/10/15 |
| Matrix | Used Aquifers | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 13 | WNI | WNI | <2 | <1 | <1 | <1 | 2.6 | 1.8 | 1.31 | 1.84 | <1 |
| 1,2,4-Trimethylbenzene | 15 | WNI | WNI | <2 | <1 | <1 | <1 | 9.8 | 6.3 | 4.01 | 5.99 | <1 |
| Benzene | 5 | WNI | WNI | 0.3 | <1 | <1 | <1 | 19.3 | 32.1 | 5.65 | 3.83 | <1 |
| Toluene | 1,000 | WNI | WNI | <2 | <1 | <1 | <1 | 20.3 | 50.5 | 11.8 | 6.7 | <1 |
| Ethylbenzene | 700 | WNI | WNI | <2 | <1 | <1 | <1 | 10 | 12 | 3.93 | 4.28 | <1 |
| Xylenes (total) | 10,000 | WNI | WNI | <4 | <2 | <2 | <2 | 47 | 53 | 18.4 | 18.9 | <2 |
| Isopropylbenzene | 840 | WNI | WNI | <2 | <1 | <1 | <1 | 1.56 | 1.47 | <1 | 1.26 | <1 |
| Methyl tert-butyl ether | 20 | WNI | WNI | <2 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Naphthalene | 100 | WNI | WNI | <2 | <1 | <1 | <1 | 2.21 | 1.52 | <1 | 1.45 | <1 |

| Sample ID (Depth) | Statewide Health Standards | MW-12 | MW-12 | MW-12 | MW-12 | MW-12 | MW-12 | MW-12 | MW-12 | MW-12 | MW-12 | MW-12 |
|-----------------------------------|----------------------------|---------|----------|--------|--------|---------|---------|---------|---------|---------|---------|----------|
| Sampling Date | Groundwater | 11/8/13 | 12/11/13 | 2/4/14 | 3/7/14 | 6/12/14 | 9/17/14 | 12/3/14 | 3/25/15 | 6/25/15 | 8/26/15 | 12/10/15 |
| Matrix | Used Aquifers | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 13 | <2 | <1 | NS | <1 | <1 | 6.74 | <1 | 2.32 | 4.65 | 4.46 | 2.46 |
| 1,2,4-Trimethylbenzene | 15 | <2 | <1 | NS | <1 | <1 | 19.9 | <1 | 8.32 | 17.7 | 15.7 | 9.25 |
| Benzene | 5 | 2.12 | <1 | NS | <1 | 1.43 | 20.4 | <1 | 26.2 | 21.2 | 21.6 | 10.2 |
| Toluene | 1,000 | 6.64 | <1 | NS | <1 | 3.12 | 24.9 | <1 | 59.8 | 53.6 | 42.8 | 36.4 |
| Ethylbenzene | 700 | <2 | <1 | NS | <1 | 1.48 | 18.9 | <1 | 12.1 | 16.8 | 14.5 | 7.26 |
| Xylenes (total) | 10,000 | 4.1 | <2 | NS | <2 | 6.35 | 82.6 | <2 | 60 | 86.5 | 66.5 | 40.8 |
| Isopropylbenzene | 840 | <2 | <1 | NS | <1 | <1 | 3.45 | <1 | 1.08 | 2.07 | 2.18 | <1 |
| Methyl tert-butyl ether | 20 | <2 | <1 | NS | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Naphthalene | 100 | <2 | <1 | NS | <1 | <1 | 1.26 | <1 | 1.63 | 3.39 | 4.04 | 1.66 |

NS - Not Sampled

All concentrations in micrograms per liter (ug/L)

WD - Well Destroyed

TABLE 2 (Continued)
GROUNDWATER ANALYTICAL DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

| Sample ID (Depth) | Statewide Health Standards | MW-13 | MW-13 | MW-13 | MW-13 | MW-13 | MW-13 | MW-13 | MW-13 |
|-----------------------------------|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Sampling Date | Groundwater | 4/29/14 | 6/12/14 | 9/17/14 | 12/3/14 | 3/25/15 | 6/25/15 | 8/26/15 | 12/9/15 |
| Matrix | Used Aquifers | Water | Water | Water | Water | Water | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 13 | <1 | <1 | <1 | 4.9 | NS | 1.93 | NS | 4.34 |
| 1,2,4-Trimethylbenzene | 15 | <1 | <1 | <1 | 18.9 | NS | 6.84 | NS | 16.8 |
| Benzene | 5 | <1 | <1 | <1 | 108 | NS | 10.3 | NS | 15.7 |
| Toluene | 1,000 | 66.1 | 102 | 1.81 | 120 | NS | 24.8 | NS | 91 |
| Ethylbenzene | 700 | <1 | <1 | <1 | 30.5 | NS | 6.67 | NS | 18 |
| Xylenes (total) | 10,000 | <2 | <2 | 3.61 | 133 | NS | 33.9 | NS | 98.3 |
| Isopropylbenzene | 840 | <1 | <1 | <1 | 3.32 | NS | <1 | NS | 1.68 |
| Methyl tert-butyl ether | 20 | <1 | <1 | <1 | <1 | NS | <1 | NS | <1 |
| Naphthalene | 100 | <1 | <1 | <1 | 5.95 | NS | 1.19 | NS | 3.68 |

| Sample ID (Depth) | Statewide Health Standards | MW-14 | MW-14 | MW-14 | MW-14 | MW-14 | MW-14 | MW-14 | MW-14 |
|-----------------------------------|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Sampling Date | Groundwater | 4/29/14 | 6/12/14 | 9/17/14 | 12/3/14 | 3/25/15 | 6/25/15 | 8/26/15 | 12/9/15 |
| Matrix | Used Aquifers | Water | Water | Water | Water | Water | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 13 | <1 | <1 | <1 | 7.15 | 6.21 | 2.52 | 2.93 | 1.78 |
| 1,2,4-Trimethylbenzene | 15 | <1 | <1 | <1 | 25.6 | 21.3 | 9.02 | 9.09 | 6.55 |
| Benzene | 5 | <1 | <1 | <1 | 71.6 | 62.9 | 13.2 | 17.4 | 5.2 |
| Toluene | 1,000 | <1 | <1 | <1 | 65.1 | 95.6 | 30.4 | 35.9 | 23 |
| Ethylbenzene | 700 | <1 | <1 | <1 | 30.8 | 28.2 | 8.21 | 11.20 | 5.14 |
| Xylenes (total) | 10,000 | <2 | <2 | 2.19 | 137 | 147 | 43.4 | 50.6 | 28.6 |
| Isopropylbenzene | 840 | <1 | <1 | <1 | 4.43 | 2.93 | 1.03 | 2 | <1 |
| Methyl tert-butyl ether | 20 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Naphthalene | 100 | <1 | <1 | <1 | 6.96 | 3.73 | 1.52 | 2.74 | 1.24 |

NS - Not Sampled

All concentrations in micrograms per liter (ug/L)

WD - Well Destroyed

TABLE 2 (Continued)
GROUNDWATER ANALYTICAL DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

| Sample ID (Depth) | Statewide Health Standards | MW-15 | MW-15 | MW-15 | MW-15 | MW-15 | MW-15 | MW-15 | MW-15 |
|-----------------------------------|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Sampling Date | Groundwater | 4/29/14 | 6/12/14 | 9/17/14 | 12/3/14 | 3/25/15 | 6/25/15 | 8/26/15 | 12/9/15 |
| Matrix | Used Aquifers | Water | Water | Water | Water | Water | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 13 | <1 | <1 | <1 | 7.7 | 3.06 | 5.86 | 7.29 | 5.37 |
| 1,2,4-Trimethylbenzene | 15 | <1 | <1 | <1 | 25.7 | 10.6 | 21.8 | 25.3 | 20.2 |
| Benzene | 5 | <1 | <1 | <1 | 71 | 29.1 | 27.7 | 38.3 | 22.8 |
| Toluene | 1,000 | <1 | 2.35 | <1 | 57.2 | 61.2 | 63.2 | 62.4 | 70.2 |
| Ethylbenzene | 700 | <1 | <1 | <1 | 31 | 13.4 | 20.6 | 23.4 | 15.2 |
| Xylenes (total) | 10,000 | <2 | 2.94 | 4.25 | 135 | 68 | 105 | 105 | 87.9 |
| Isopropylbenzene | 840 | <1 | <1 | <1 | 4.7 | 1.23 | 2.70 | 3.86 | 1.92 |
| Methyl tert-butyl ether | 20 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Naphthalene | 100 | <1 | <1 | <1 | 7.06 | 1.91 | 4.5 | 7.31 | 3.98 |

| Sample ID (Depth) | Statewide Health Standards | MW-16 | MW-16 | MW-16 | MW-16 | MW-16 | MW-16 | MW-16 | MW-16 |
|-----------------------------------|----------------------------|---------|-----------|---------|---------|---------|---------|---------|---------|
| Sampling Date | Groundwater | 4/29/14 | 6/12/14 | 9/17/14 | 12/3/14 | 3/25/15 | 6/25/15 | 8/26/15 | 12/9/15 |
| Matrix | Used Aquifers | Water | Water | Water | Water | Water | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | | | | | | |
| 1,3,5-Trimethylbenzene | 13 | <1 | <1 | 7 | 1.7 | NS | 1.67 | 1.67 | <1 |
| 1,2,4-Trimethylbenzene | 15 | <1 | <1 | 26.9 | 4.84 | NS | 4.82 | 5.3 | <1 |
| Benzene | 5 | <1 | <1 | 19.6 | 11.6 | NS | 8.14 | 7.9 | <1 |
| Toluene | 1,000 | <1 | <1 | 26.4 | 14.6 | NS | 13.8 | 11.6 | <1 |
| Ethylbenzene | 700 | <1 | <1 | 32.4 | 7.72 | NS | 4.79 | 5.4 | <1 |
| Xylenes (total) | 10,000 | <2 | <2 | 138 | 34.1 | NS | 21.8 | 21 | <2 |
| Isopropylbenzene | 840 | <1 | <1 | 4.18 | 1.1 | NS | 1.12 | 1.41 | <1 |
| Methyl tert-butyl ether | 20 | 9.18 | 3.02/3.42 | 29.9 | 19.5 | NS | 14.8 | 12 | 6.72 |
| Naphthalene | 100 | <1 | <1 | 1.81 | 1.16 | NS | 1.13 | 1.9 | <1 |

NS - Not Sampled

All concentrations in micrograms per liter (ug/L)

WD - Well Destroyed

TABLE 2 (Continued)
GROUNDWATER ANALYTICAL DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

| Sample ID (Depth) | Statewide Health Standards | MW-17 | MW-17 | MW-17 |
|-----------------------------------|----------------------------|----------|-------------|--------|
| Sampling Date | Groundwater | 11/12/15 | 12/9/15 | |
| Matrix | Used Aquifers | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | |
| 1,3,5-Trimethylbenzene | 13 | <1 | 3.57 | |
| 1,2,4-Trimethylbenzene | 15 | <1 | 12.80 | |
| Benzene | 5 | <1 | 14.5 | |
| Toluene | 1,000 | <1 | 46.8 | |
| Ethylbenzene | 700 | <2 | 9.9 | |
| Xylenes (total) | 10,000 | <1 | 56 | |
| Isopropylbenzene | 840 | <1 | 1.22 | |
| Methyl tert-butyl ether | 20 | <1 | <1 | |
| Naphthalene | 100 | <1 | 2.2 | |

| Sample ID (Depth) | Statewide Health Standards | MW-18 | MW-18 | MW-18 |
|-----------------------------------|----------------------------|----------|-------------|--------|
| Sampling Date | Groundwater | 11/12/15 | 12/9/15 | |
| Matrix | Used Aquifers | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | |
| 1,3,5-Trimethylbenzene | 13 | <1 | 2.29 | |
| 1,2,4-Trimethylbenzene | 15 | <1 | 8.47 | |
| Benzene | 5 | <1 | 7.27 | |
| Toluene | 1,000 | <1 | 29.5 | |
| Ethylbenzene | 700 | <2 | 6.63 | |
| Xylenes (total) | 10,000 | <1 | 37.3 | |
| Isopropylbenzene | 840 | <1 | <1 | |
| Methyl tert-butyl ether | 20 | <1 | <1 | |
| Naphthalene | 100 | <1 | 1.58 | |

NS - Not Sampled

All concentrations in micrograms per liter (ug/L)

WD - Well Destroyed

TABLE 2 (Continued)
GROUNDWATER ANALYTICAL DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

| Sample ID (Depth) | Statewide Health Standards | MW-19 | MW-19 | MW-19 |
|-----------------------------------|----------------------------|----------|---------|--------|
| Sampling Date | Groundwater | 11/12/15 | 12/9/15 | |
| Matrix | Used Aquifers | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | |
| 1,3,5-Trimethylbenzene | 13 | <1 | <2 | |
| 1,2,4-Trimethylbenzene | 15 | <1 | 3.64 | |
| Benzene | 5 | <1 | 2.96 | |
| Toluene | 1,000 | <1 | 12.1 | |
| Ethylbenzene | 700 | <2 | 2.82 | |
| Xylenes (total) | 10,000 | <1 | 15.9 | |
| Isopropylbenzene | 840 | <1 | <2 | |
| Methyl tert-butyl ether | 20 | <1 | <2 | |
| Naphthalene | 100 | <1 | <2 | |

| Sample ID (Depth) | Statewide Health Standards | MW-20 | MW-20 | MW-20 |
|-----------------------------------|----------------------------|----------|----------|--------|
| Sampling Date | Groundwater | 11/12/15 | 12/10/15 | |
| Matrix | Used Aquifers | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | |
| 1,3,5-Trimethylbenzene | 13 | <1 | <1 | |
| 1,2,4-Trimethylbenzene | 15 | <1 | <1 | |
| Benzene | 5 | <1 | <1 | |
| Toluene | 1,000 | <1 | <1 | |
| Ethylbenzene | 700 | <1 | <1 | |
| Xylenes (total) | 10,000 | <2 | <2 | |
| Isopropylbenzene | 840 | <1 | <1 | |
| Methyl tert-butyl ether | 20 | <1 | <1 | |
| Naphthalene | 100 | <1 | <1 | |

NS - Not Sampled

All concentrations in micrograms per liter (ug/L)

WD - Well Destroyed

TABLE 2 (Continued)
GROUNDWATER ANALYTICAL DATA
FORMER ROSEMERGY'S CONVENIENT STORE
1623 ROUTE 590
HAWLEY, PA
11-17788-02

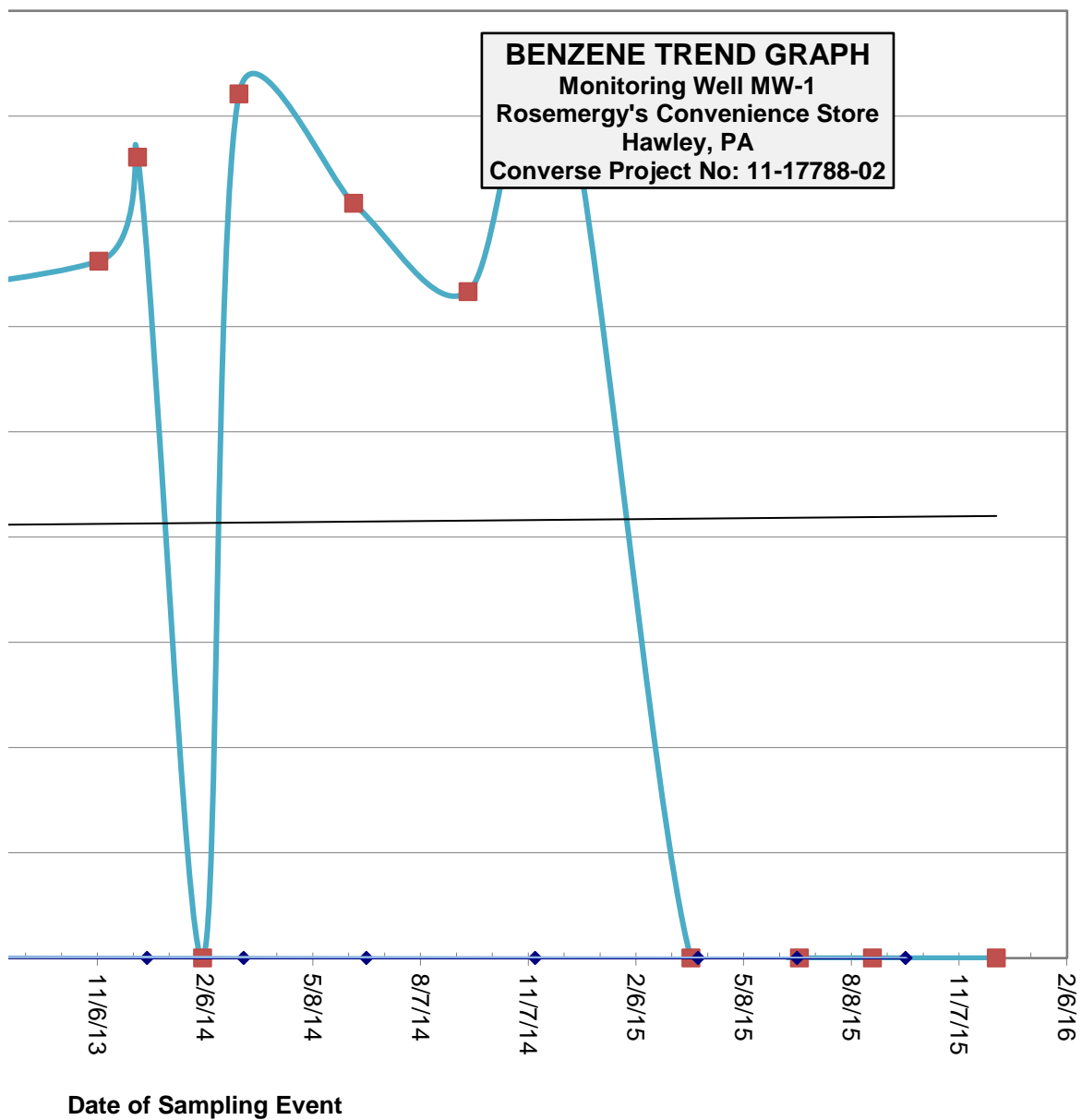
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|-----------------------------------|----------------------------|----------|----------|--------|
| Sampling Date | Groundwater | 11/12/15 | 12/10/15 | |
| Matrix | Used Aquifers | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | |
| 1,3,5-Trimethylbenzene | 13 | <1 | <1 | |
| 1,2,4-Trimethylbenzene | 15 | <1 | <1 | |
| Benzene | 5 | <1 | <1 | |
| Toluene | 1,000 | <1 | <1 | |
| Ethylbenzene | 700 | <1 | <1 | |
| Xylenes (total) | 10,000 | <2 | <2 | |
| Isopropylbenzene | 840 | <1 | <1 | |
| Methyl tert-butyl ether | 20 | <1 | <1 | |
| Naphthalene | 100 | <1 | <1 | |

| Sample ID (Depth) | Statewide Health Standards | MW-22 | MW-22 | MW-22 |
|-----------------------------------|----------------------------|----------|----------|--------|
| Sampling Date | Groundwater | 11/12/15 | 12/10/15 | |
| Matrix | Used Aquifers | Water | Water | Water |
| Units | <2,500 TDS | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | |
| 1,3,5-Trimethylbenzene | 13 | <1 | <1 | |
| 1,2,4-Trimethylbenzene | 15 | <1 | <1 | |
| Benzene | 5 | <1 | <1 | |
| Toluene | 1,000 | <1 | <1 | |
| Ethylbenzene | 700 | <1 | <1 | |
| Xylenes (total) | 10,000 | <2 | <2 | |
| Isopropylbenzene | 840 | <1 | <1 | |
| Methyl tert-butyl ether | 20 | <1 | <1 | |
| Naphthalene | 100 | <1 | <1 | |

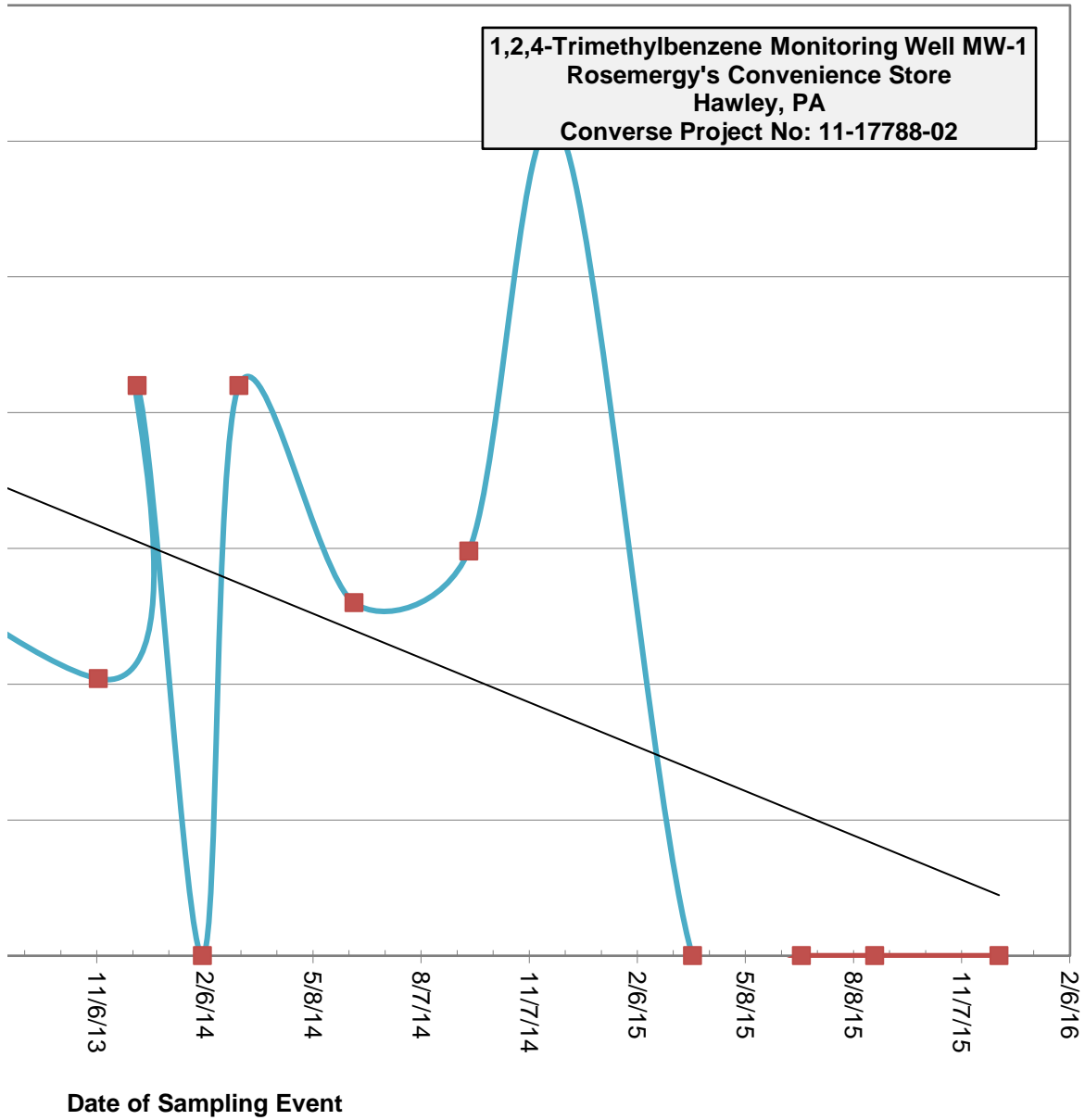
NS - Not Sampled

All concentrations in micrograms per liter (ug/L)

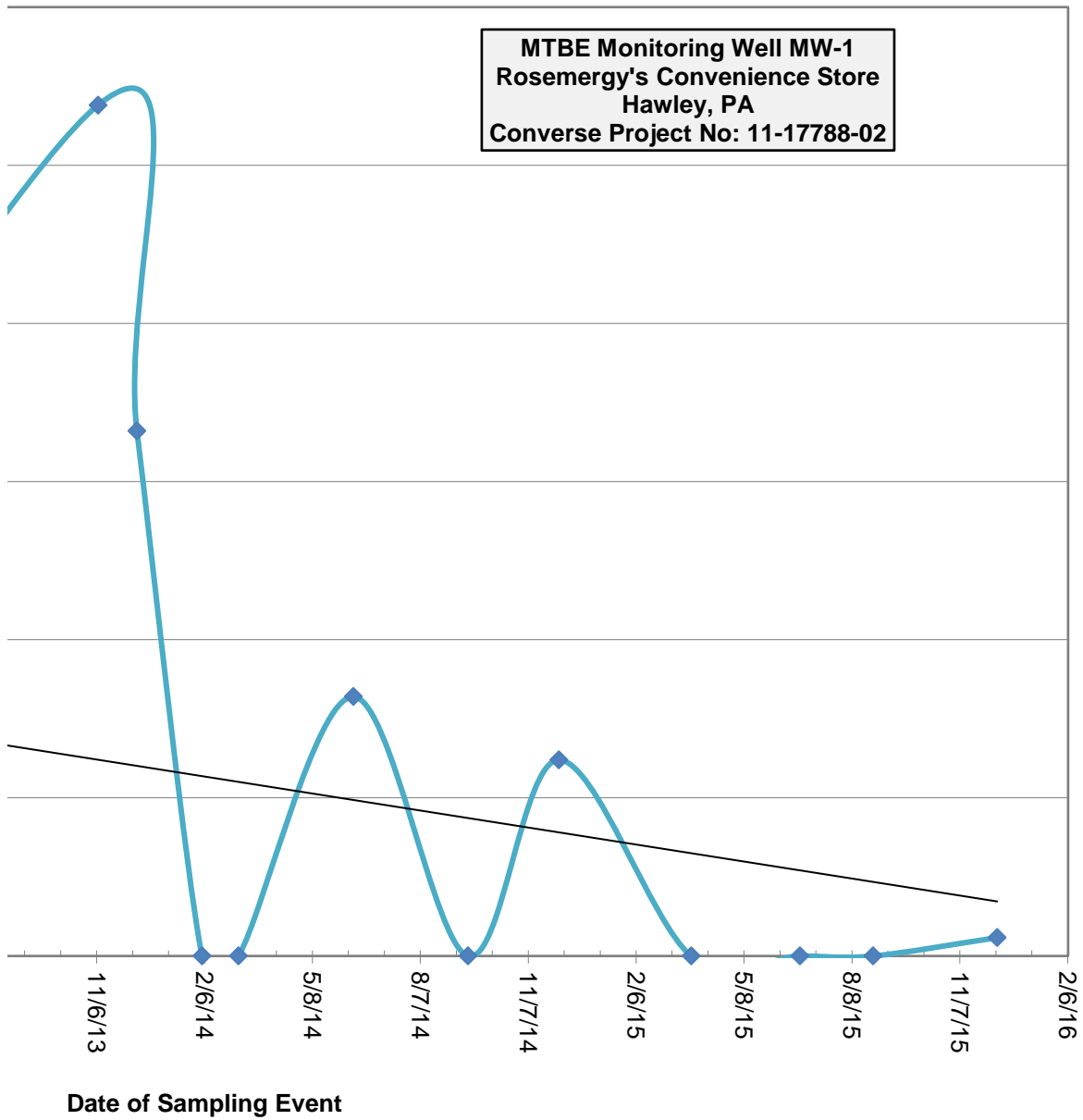
WD - Well Destroyed



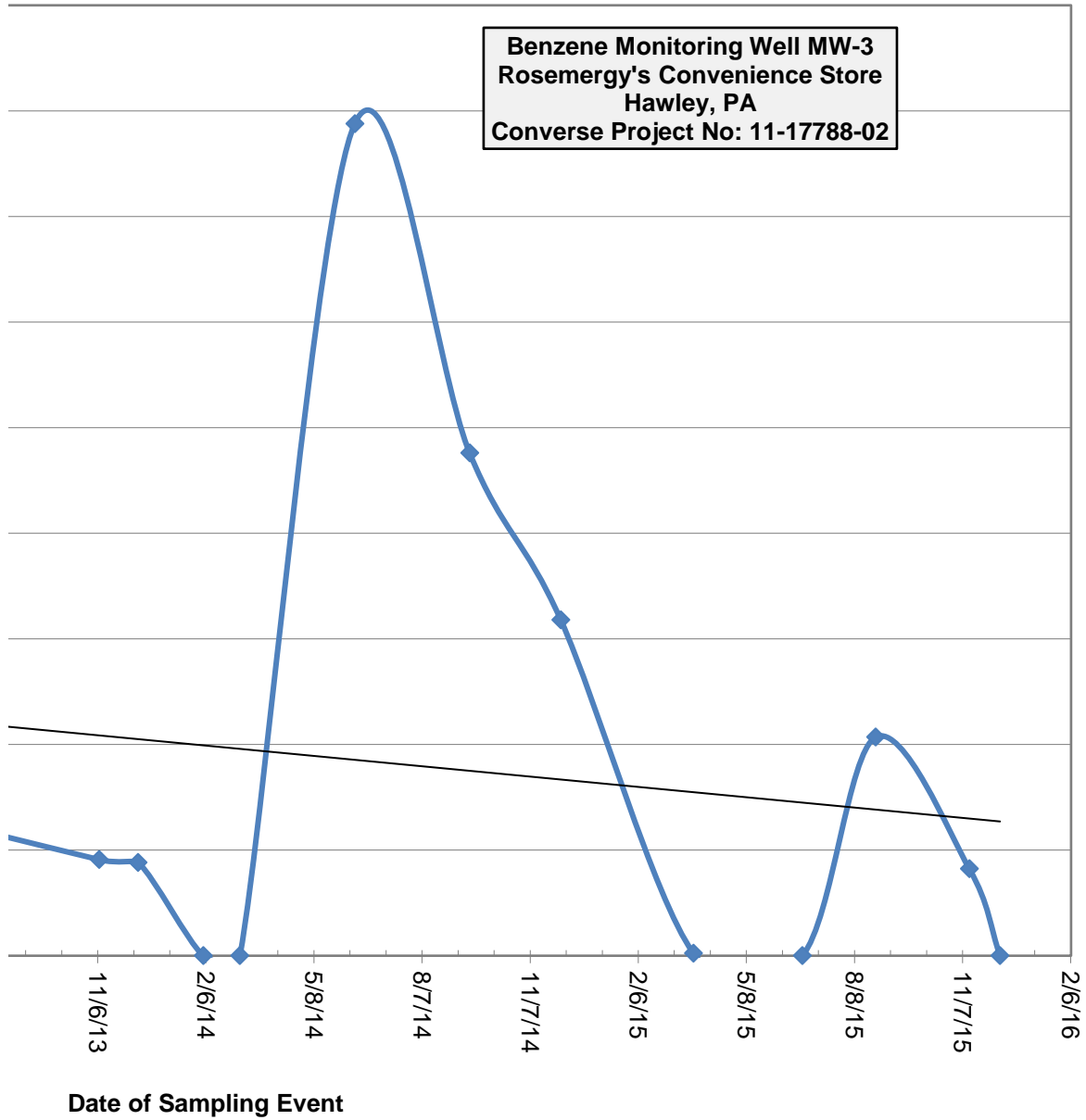
1,2,4-Trimethylbenzene Monitoring Well MW-1
Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02



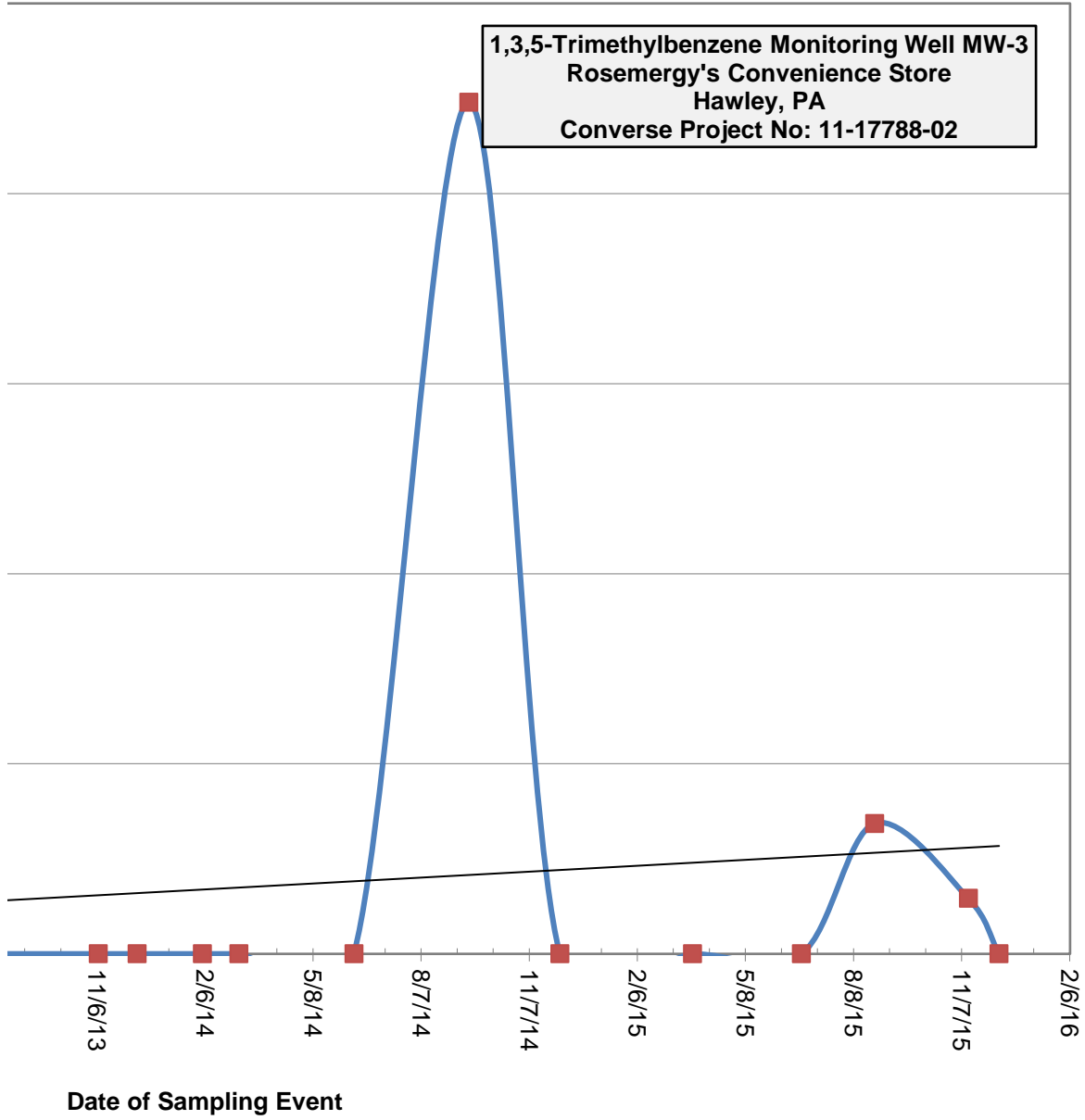
MTBE Monitoring Well MW-1
Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02



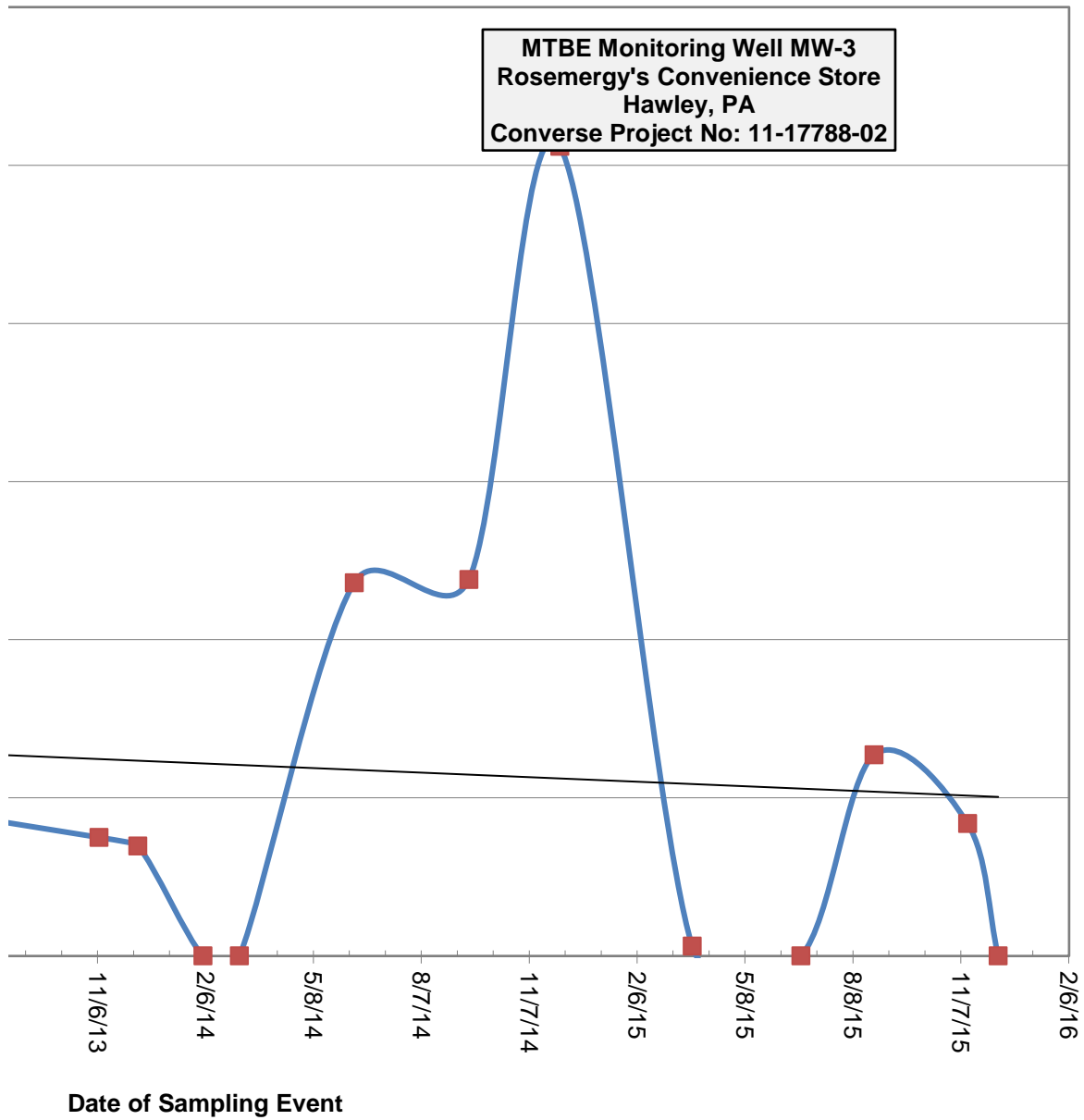
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Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02**



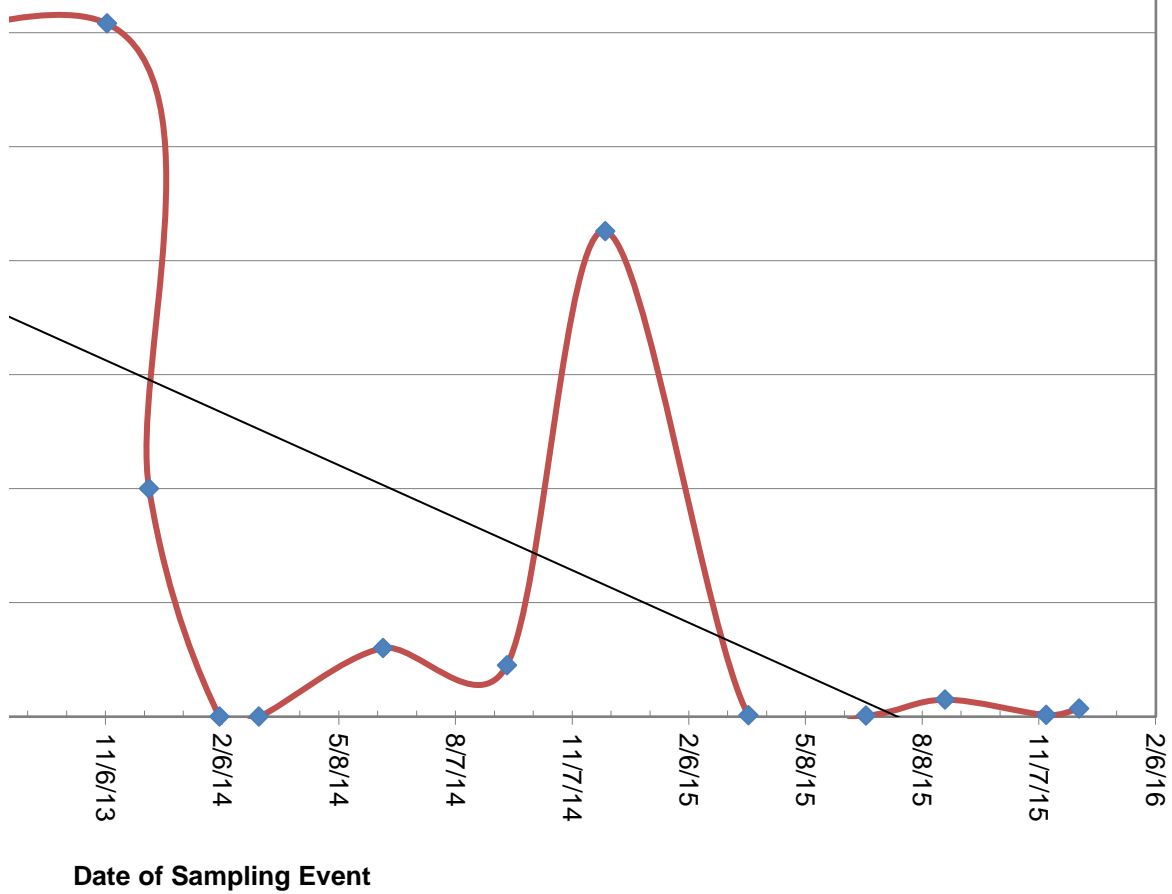
1,3,5-Trimethylbenzene Monitoring Well MW-3
Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02



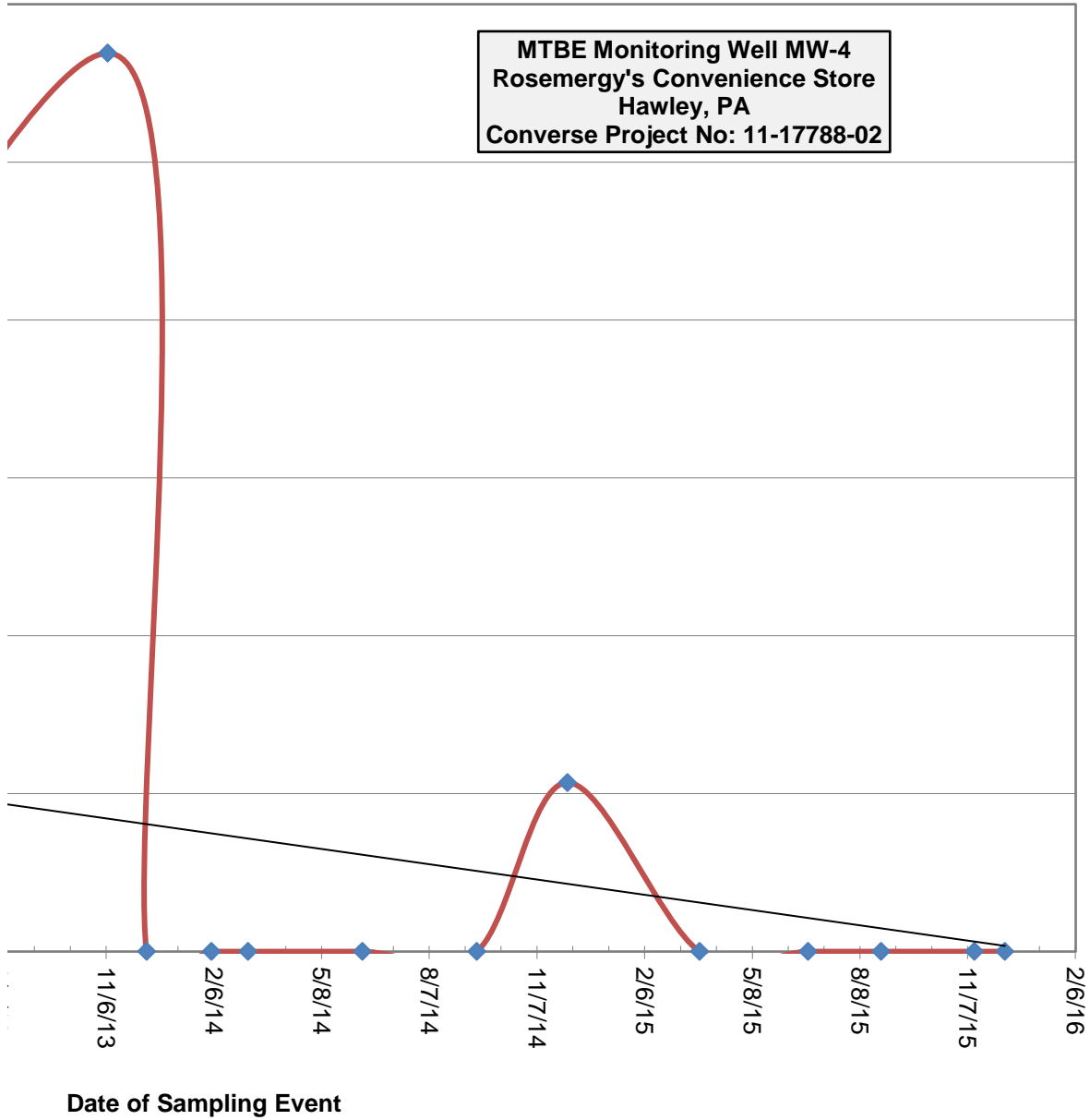
MTBE Monitoring Well MW-3
Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02



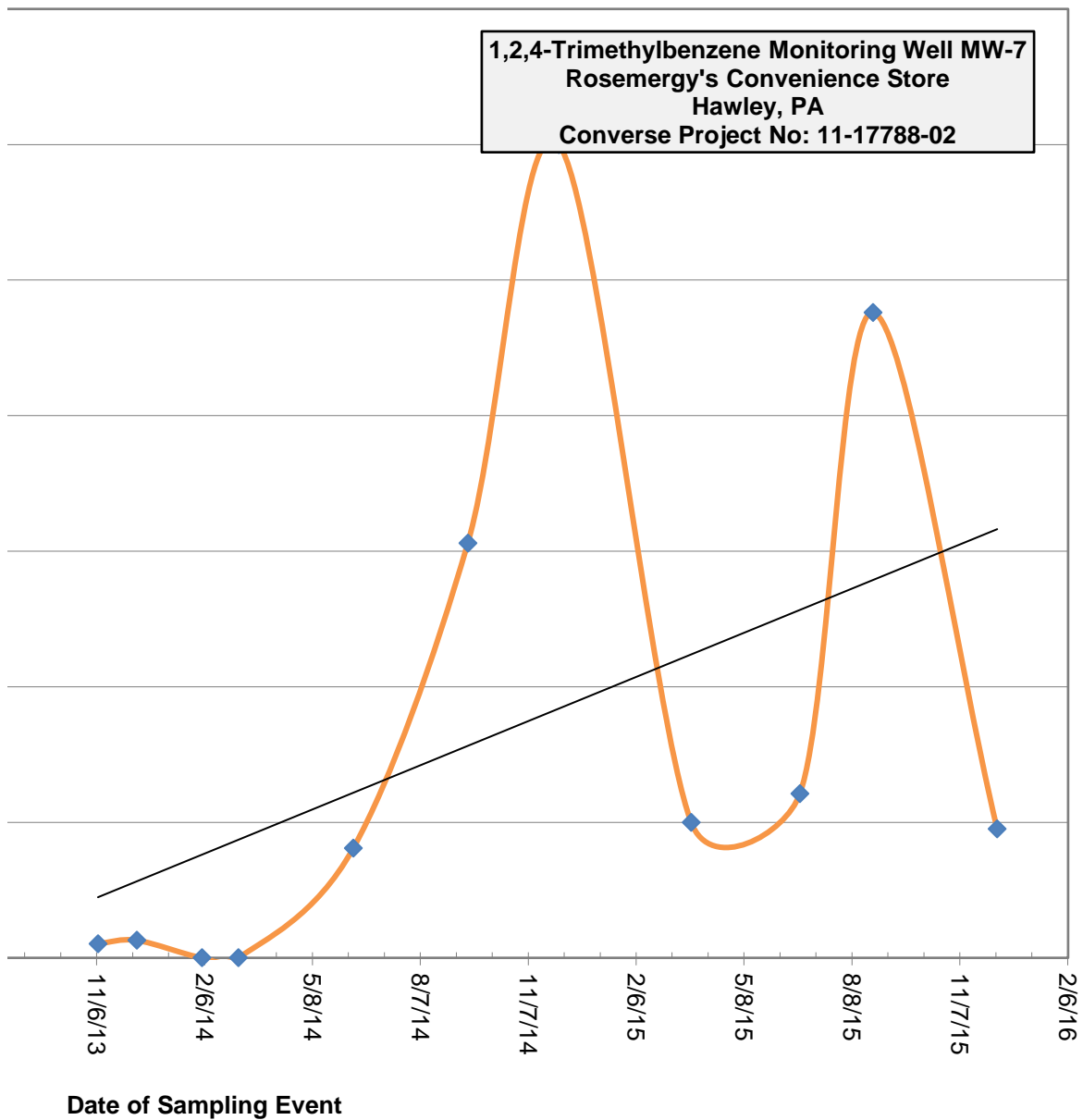
**Benzene Monitoring Well MW-4
Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02**



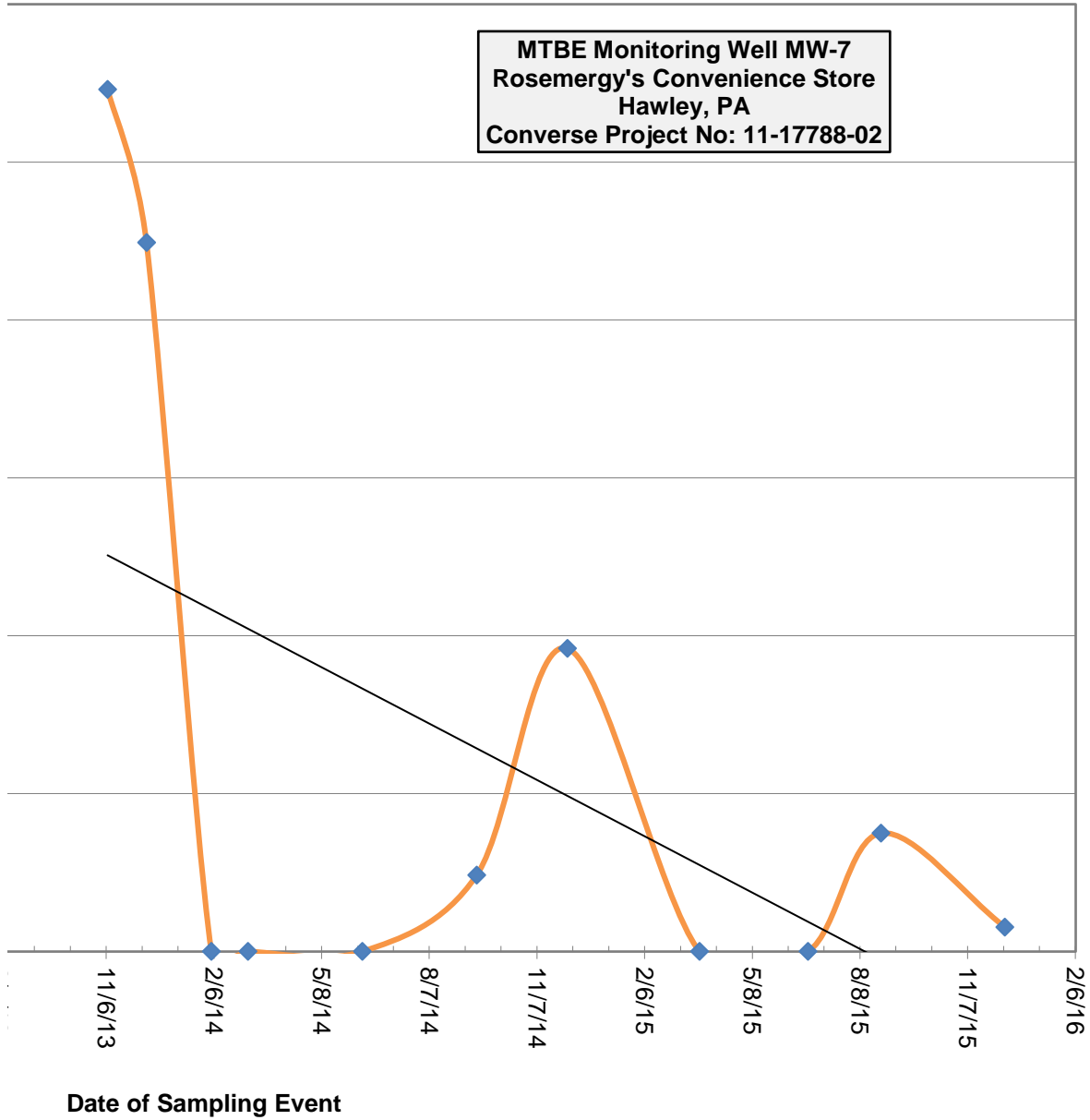
MTBE Monitoring Well MW-4
Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02



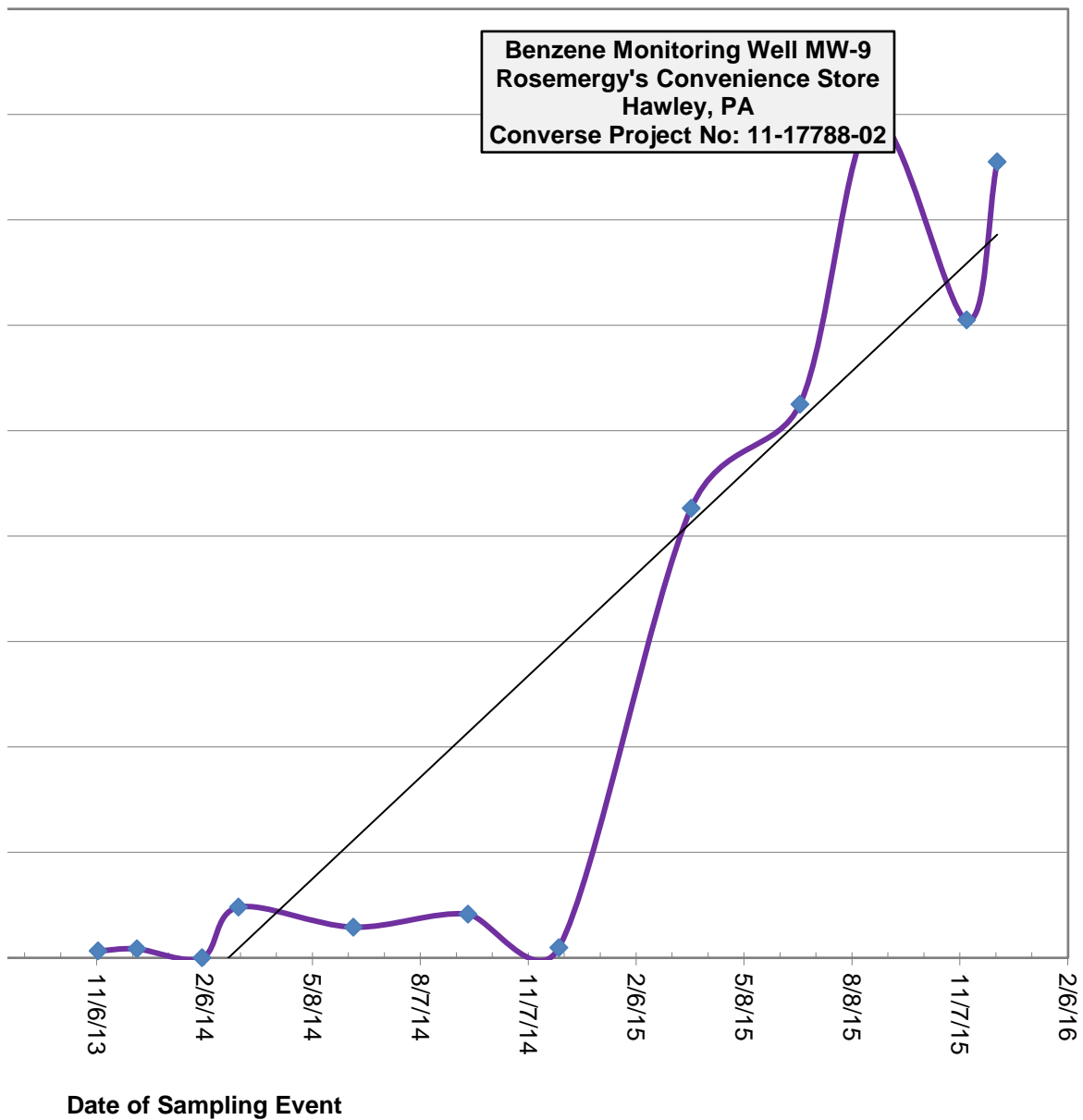
1,2,4-Trimethylbenzene Monitoring Well MW-7
Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02



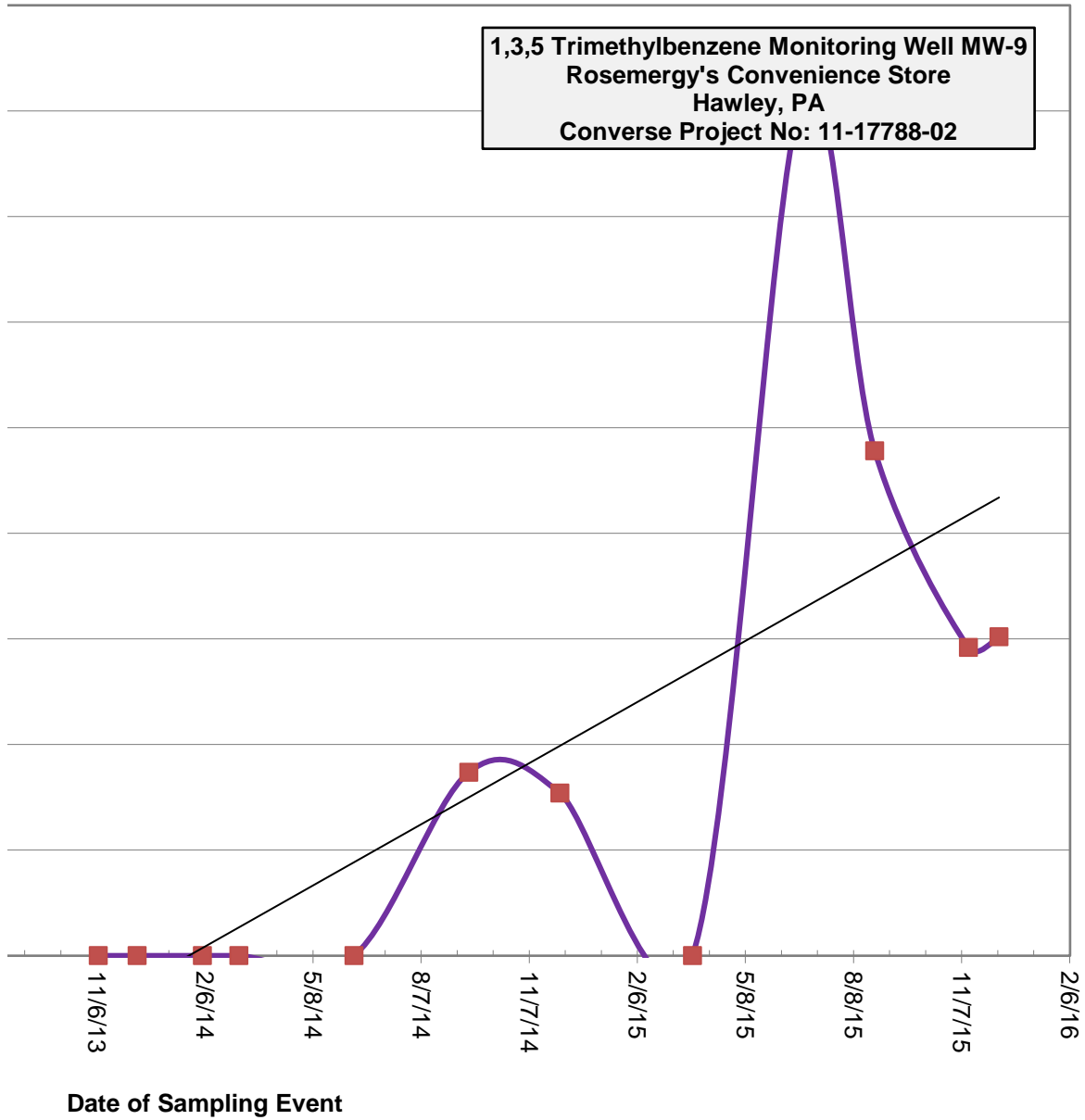
MTBE Monitoring Well MW-7
Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02



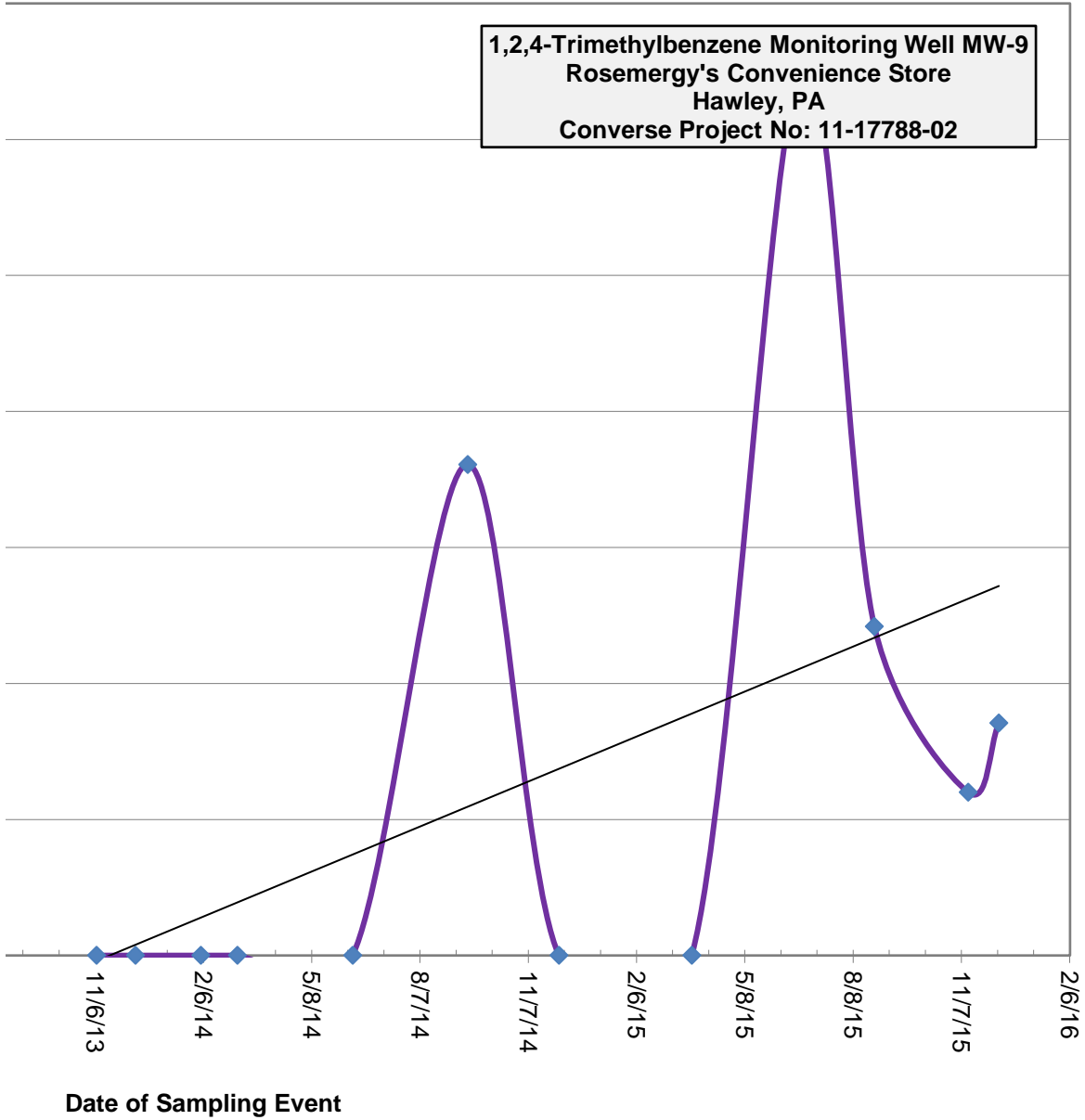
**Benzene Monitoring Well MW-9
Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02**



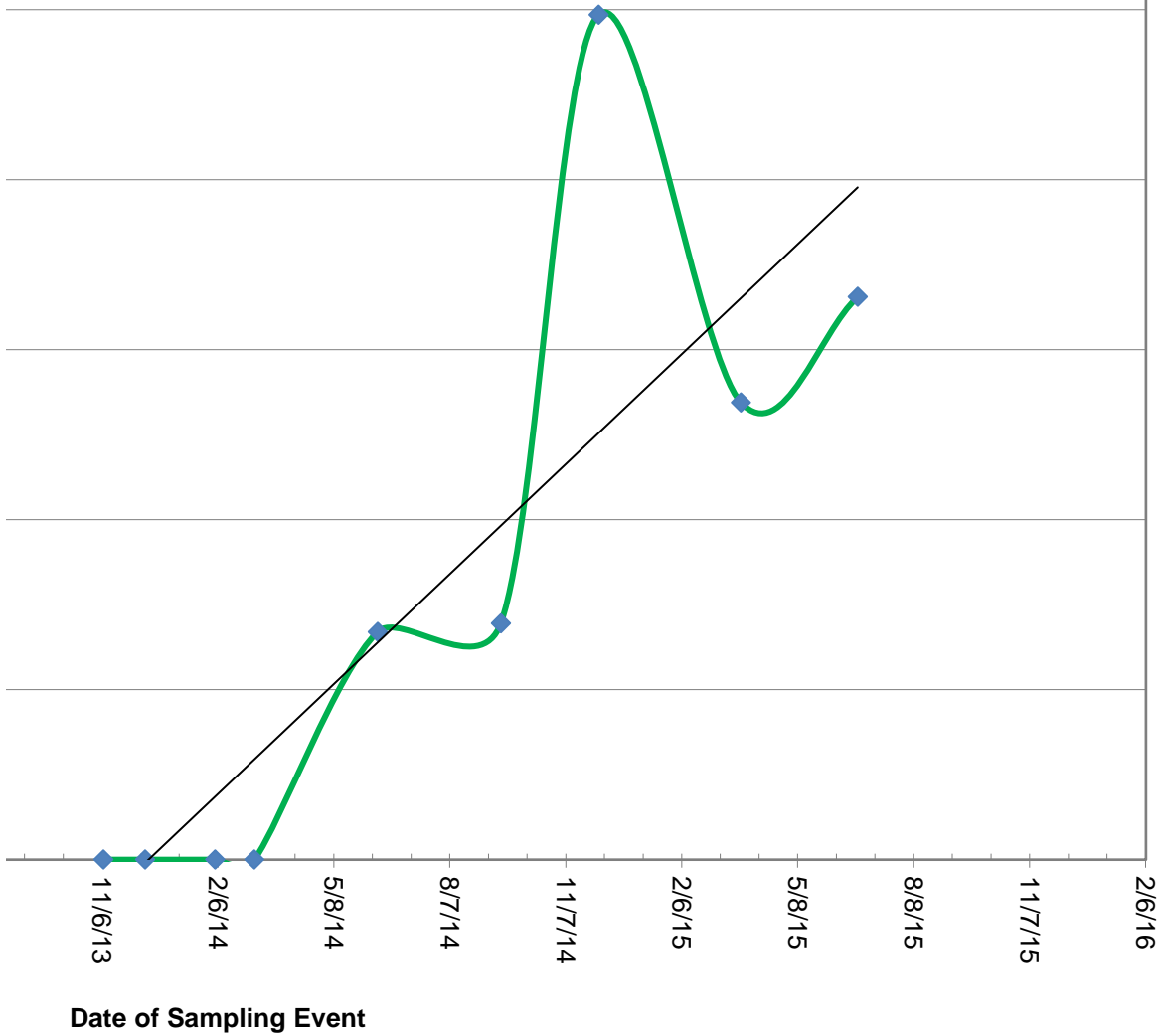
1,3,5 Trimethylbenzene Monitoring Well MW-9
Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02



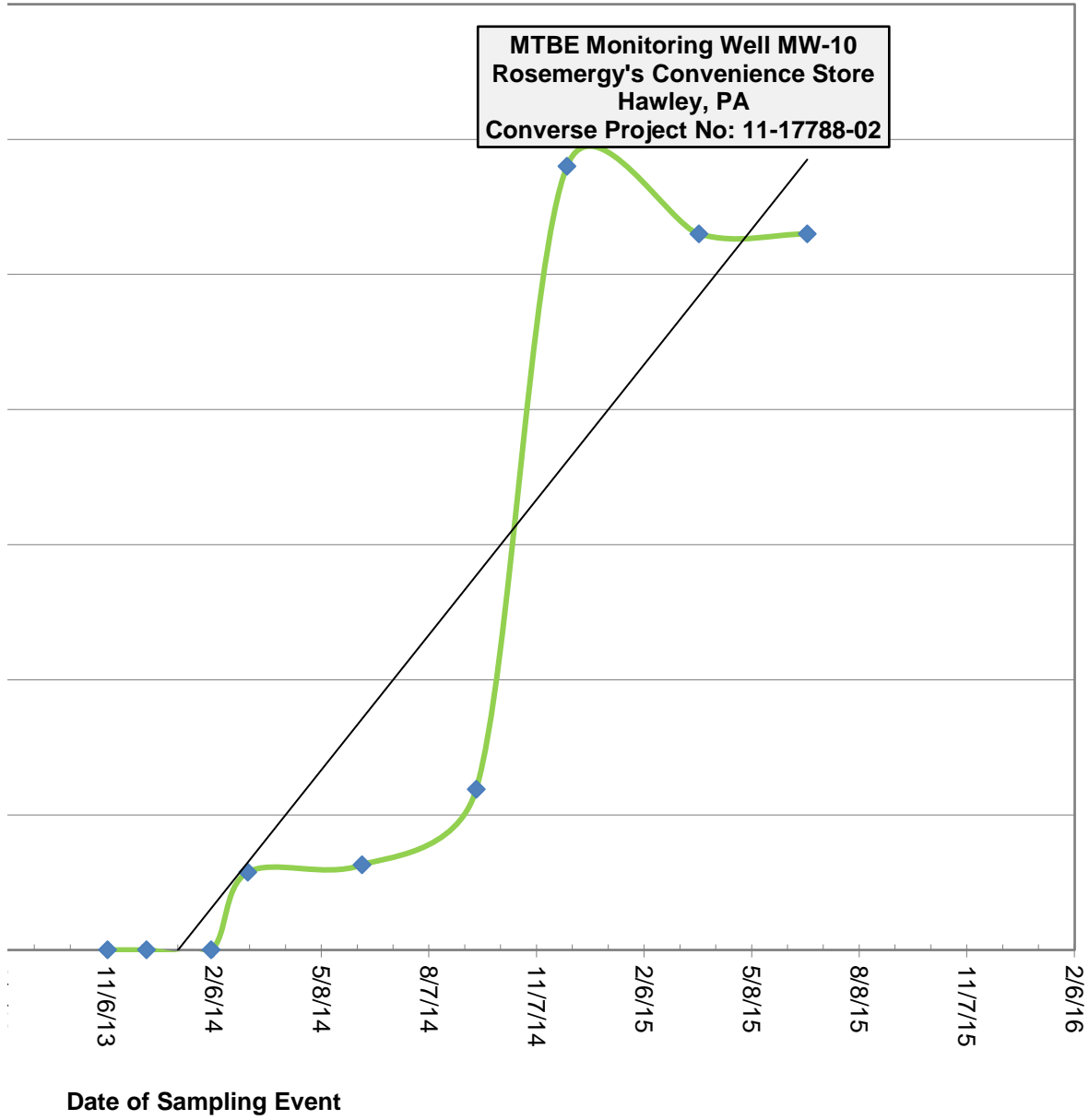
1,2,4-Trimethylbenzene Monitoring Well MW-9
Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02



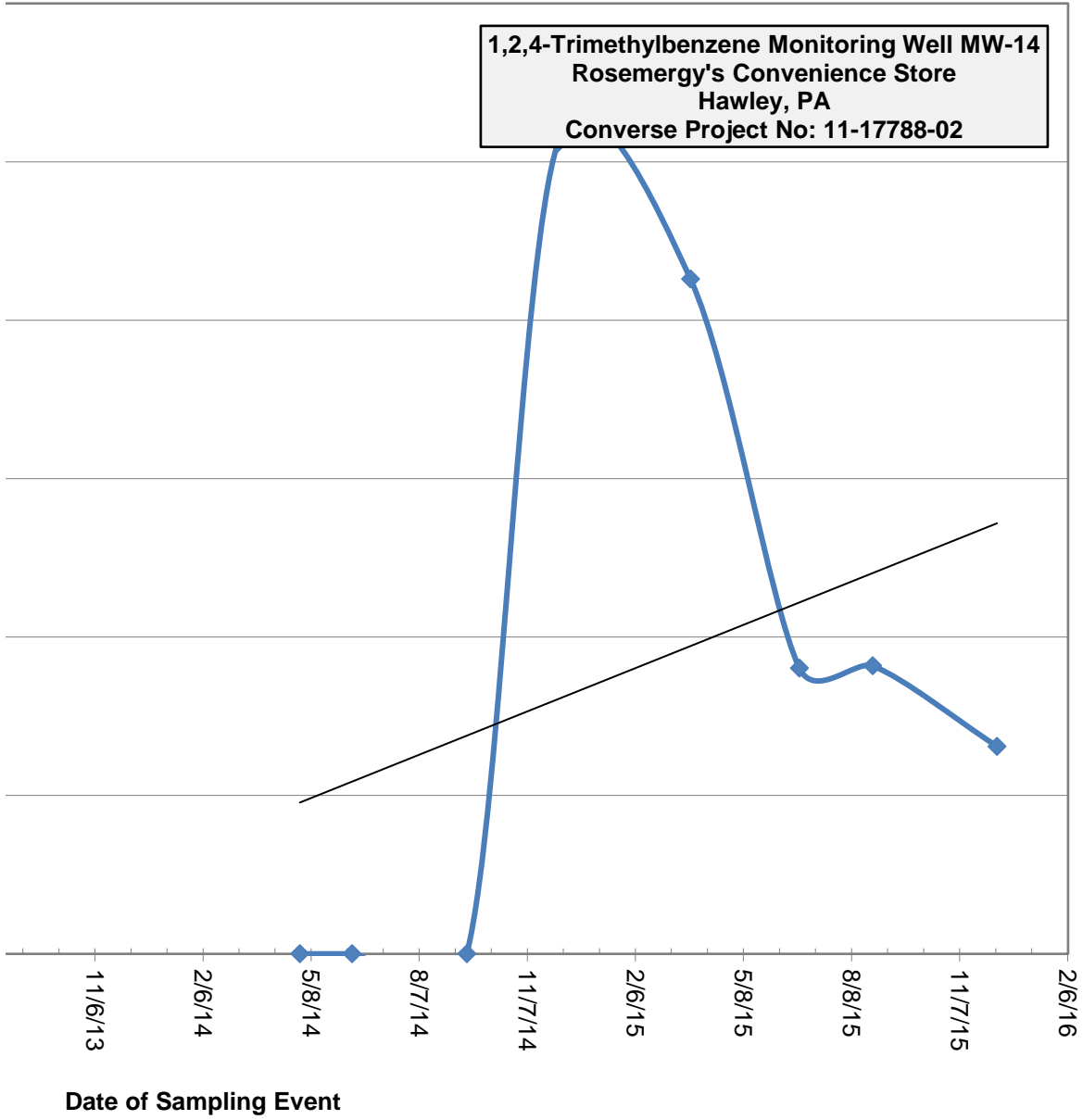
**Benzene Monitoring Well MW-10
Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02**



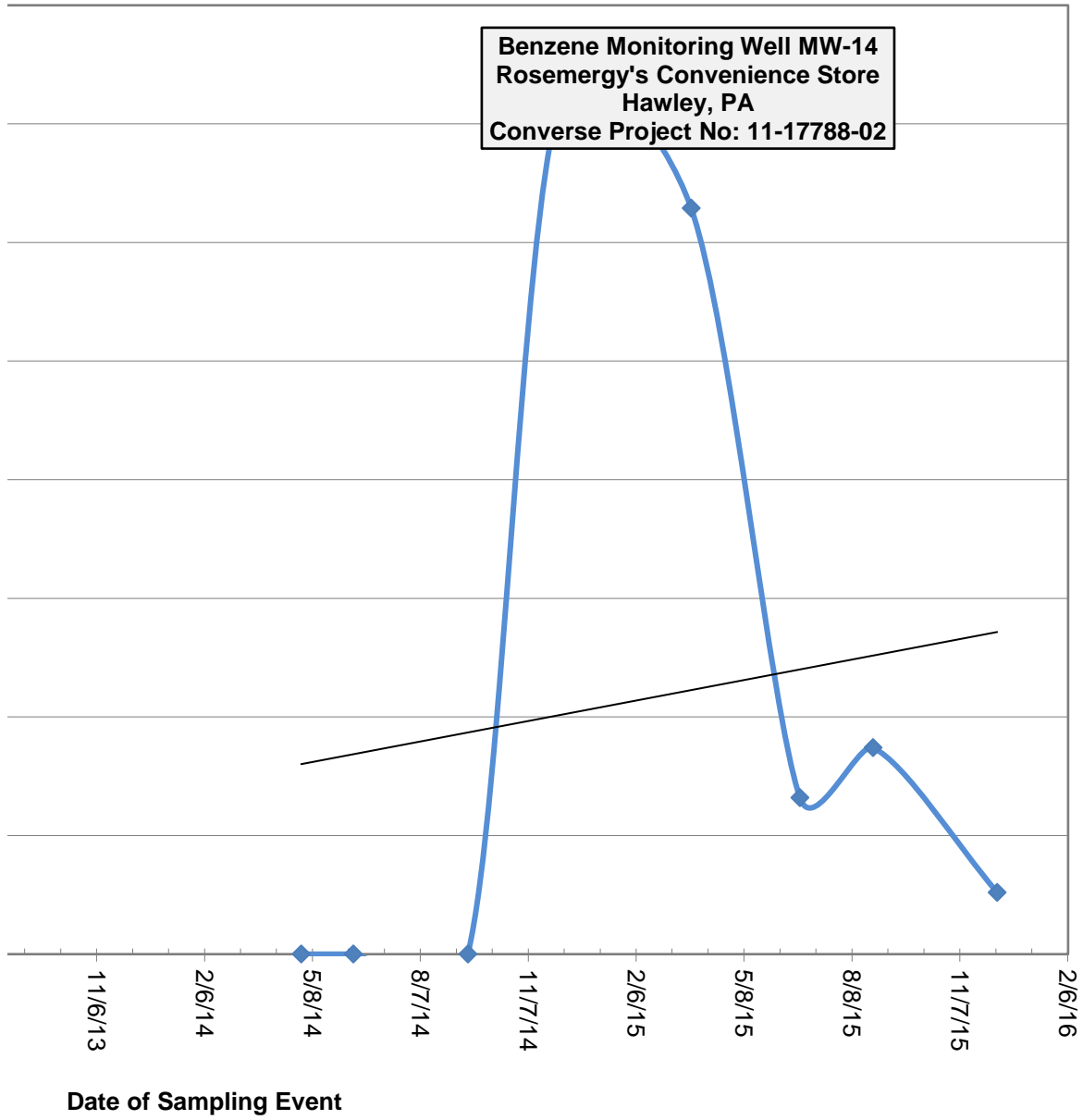
**MTBE Monitoring Well MW-10
Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02**



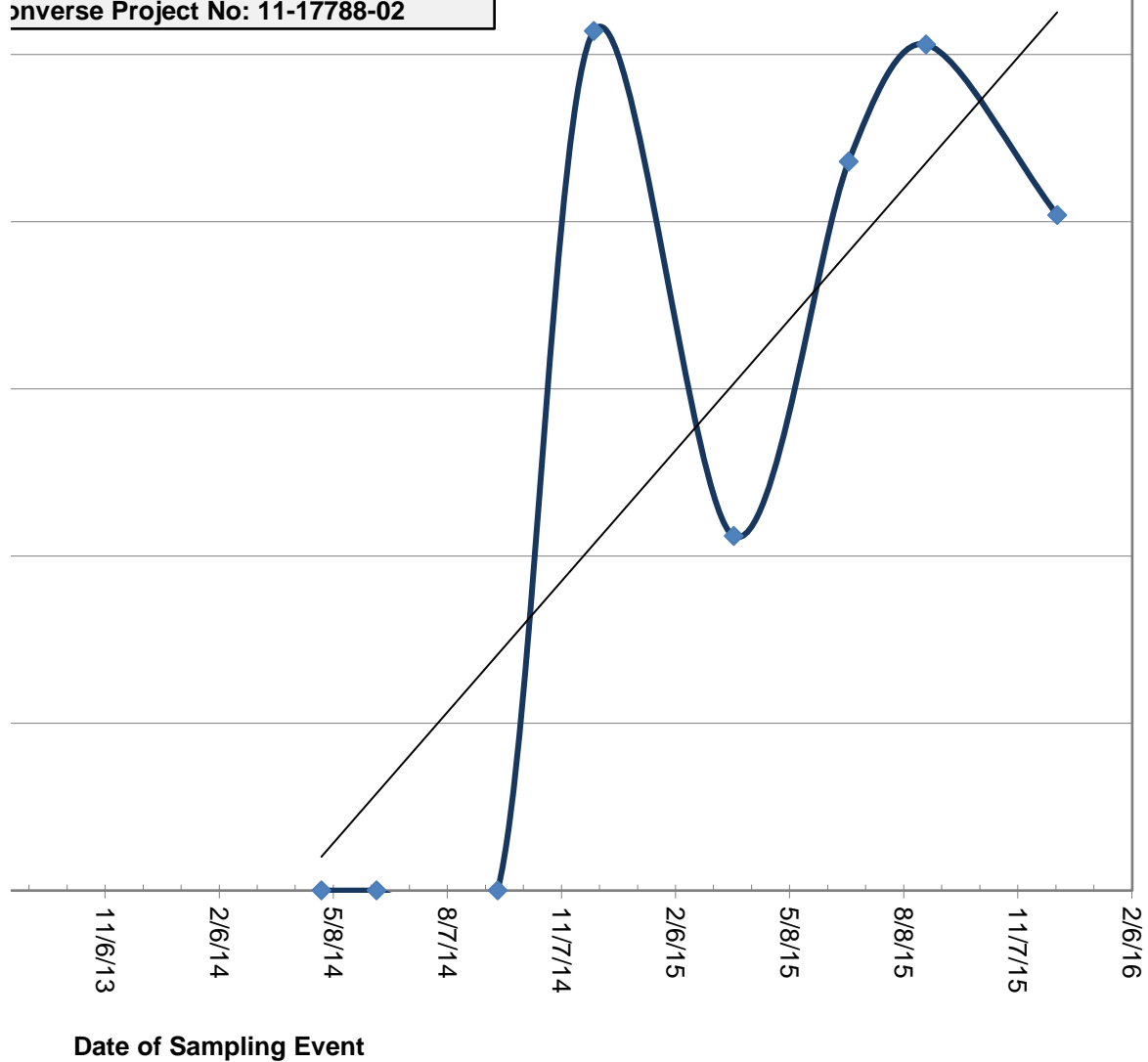
1,2,4-Trimethylbenzene Monitoring Well MW-14
Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02



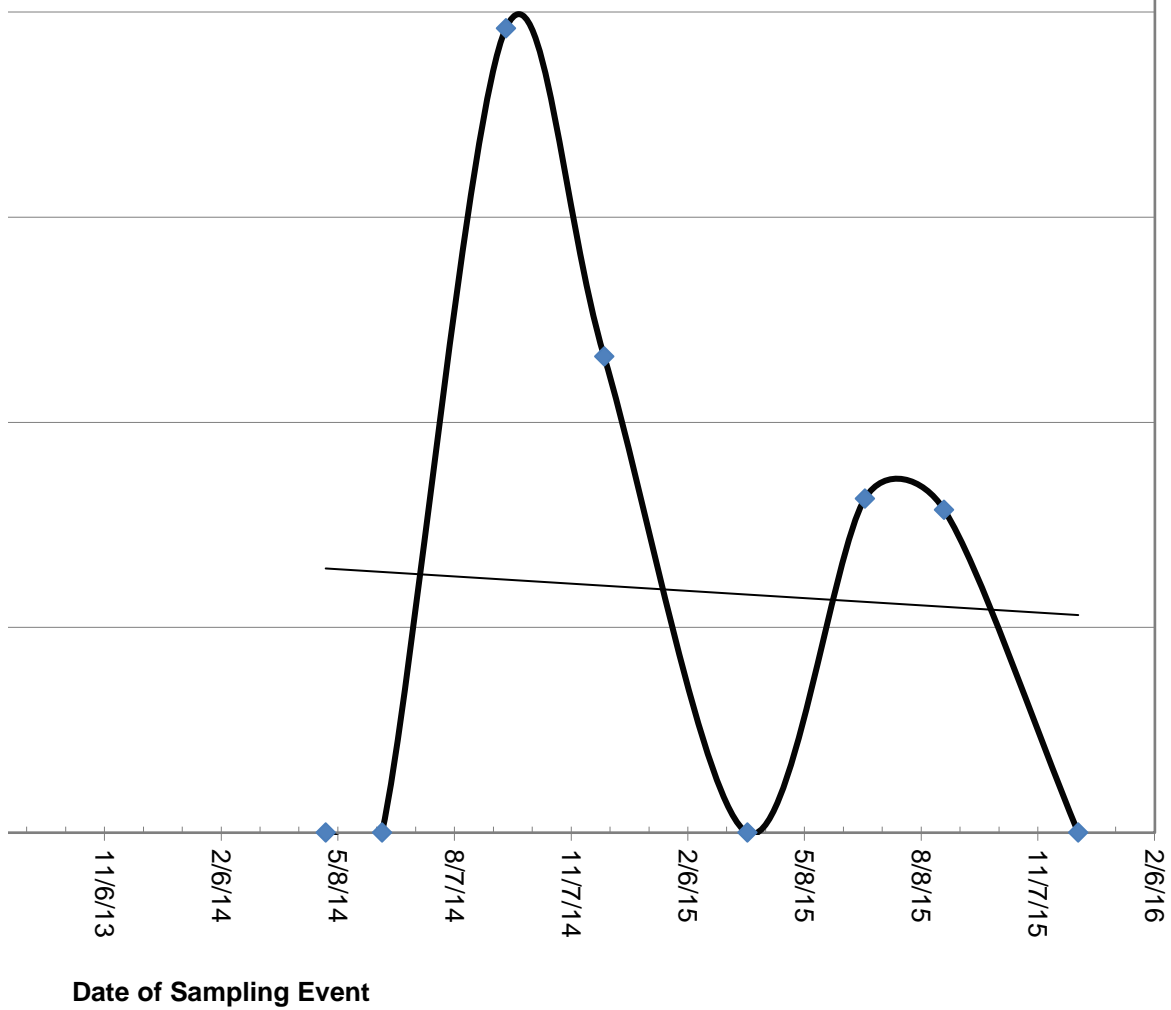
**Benzene Monitoring Well MW-14
Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02**



nethylbenzene Monitoring Well MW-15
osemergy's Convenience Store
Hawley, PA
onverse Project No: 11-17788-02



Benzene Monitoring Well MW-16
Rosemergy's Convenience Store
Hawley, PA
Converse Project No: 11-17788-02



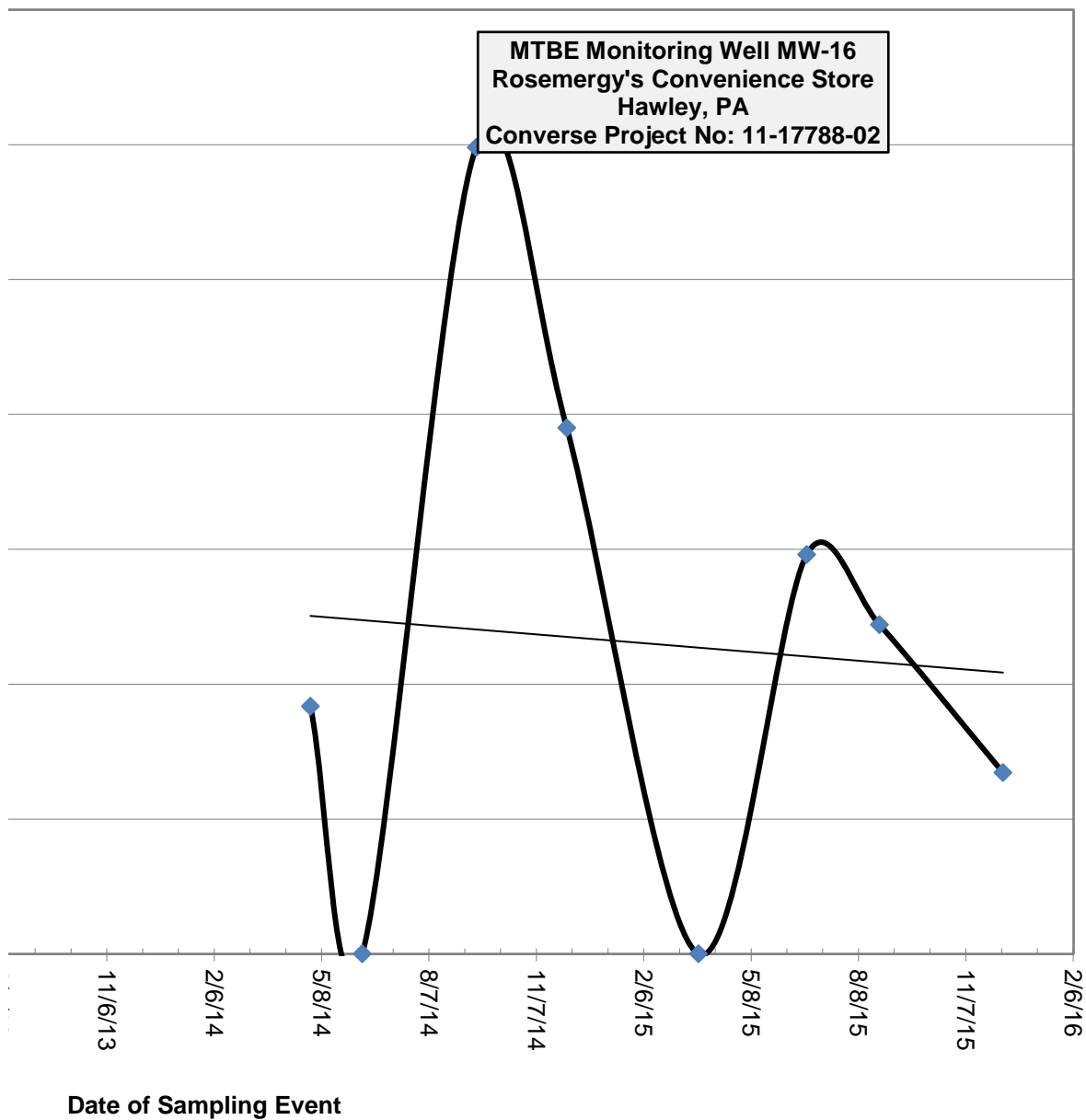


TABLE 3
SOIL SAMPLES
MARCH 13, 2012
FORMER ROSEMERGY'S CONVENIENCE STORE
HAWLEY, PA
11-17788-02

| PARAMETER Sample Depth (Ft.) | NRMSC | PQL's | SB-8 (6) | SB-9 (10) | SB-10 (9) | SB-11 (7) | SB-12 (9) | SB-13 (6) | SB-14 (6) | SB-15 (6) | SB-16 (9) | SB-17 (9) | SB-18 (9) |
|---------------------------------|-------|-------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|
| BENZENE | 0.5 | 0.005 | 2.4 | 6.68 | 0.78 | 1.24 | 27.7 | 1.41 | <0.3 | <0.0016 | 2.07 | 1.59 | <0.524 |
| CUMENE (Isopropylbenzene) | 600 | 0.005 | 8.57 | 9.49 | 7.09 | 4.57 | 12.3 | 17.7 | 4.49 | <0.004 | 10.5 | 5.48 | 3.85 |
| ETHYLBENZENE | 70 | 0.005 | 25.3 | 21.7 | 16 | 10.3 | 28 | 40.8 | 3.51 | <0.004 | 28.7 | 19.1 | 9.82 |
| METHYL TERT-BUTYL ETHER | 2 | 0.66 | <1.45 | <1.46 | <1.44 | <1.15 | <1.41 | <1.43 | <.751 | 0.0386 | <1.27 | <0.818 | <1.31 |
| NAPHTHALENE | 25 | 0.66 | 9.22 | 5.7 | 4.97 | 4.34 | 9.29 | 12.9 | 1.27 | <0.004 | 7.76 | 5.76 | 2.44 |
| TOLUENE | 100 | 0.005 | 53.7 | 82.7 | 49.4 | 30.6 | 55.9 | 57 | <.751 | <0.004 | 15.3 | 17.8 | 8.19 |
| 1,2,4-TRIMETHYLBENZENE | 20 | 0.005 | 71.2 | 33.5 | 36.2 | 28 | 68 | 109 | 26.5 | <0.004 | 68.1 | 38.8 | 24.3 |
| 1,3,5-TRIMETHYLBENZENE | 6.2 | NPQL | 25.7 | 15.8 | 12.6 | 8.94 | 25.5 | 32.3 | 10.5 | <0.004 | 21.8 | 13 | 6.31 |
| XYLENES (totals) | 1,000 | 0.005 | 130 | 87.3 | 67.6 | 46.7 | 147 | 217 | 2.91 | <0.0079 | 104 | 83.2 | 47.9 |

| PARAMETER Sample Depth (Ft.) | NRMSC | PQL's | SB-19 (6) | SB-20 (4.5) | SB-21 (6) | SB-22 (6) | SB-23 (6) | SB-24 (6) | SB-25 (6) | SB-26 (9) | SB-27 (6) | TRIP BLANK |
|---------------------------------|-------|-------|--------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| BENZENE | 0.5 | 0.005 | 0.594 | 113 | 15 | 16 | 25.7 | 16 | 3.31 | 1.27 | <0.135 | <1 |
| CUMENE (Isopropylbenzene) | 600 | 0.005 | 7.47 | 102 | 11.6 | 8.74 | 17.8 | 9.55 | 6.46 | 10.3 | 12.4 | <1 |
| ETHYLBENZENE | 70 | 0.005 | 12.2 | 348 | 39.8 | 32.4 | 50.4 | 22.1 | 21.6 | 24 | 23.6 | <1 |
| METHYL TERT-BUTYL ETHER | 2 | 0.66 | <0.370 | <1.54 | <1.51 | <1.49 | <0.613 | <0.747 | <0.752 | <0.688 | <0.337 | <1 |
| NAPHTHALENE | 25 | 0.66 | 5.13 | 58 | 13 | 10.9 | 20.2 | 8.33 | 7.94 | 8.56 | 8.13 | <1 |
| TOLUENE | 100 | 0.005 | 1.55 | 1040 | 151 | 152 | 161 | 42.6 | 20.2 | 61.3 | 26.3 | <1 |
| 1,2,4-TRIMETHYLBENZENE | 20 | 0.005 | 40.6 | 826 | 82.9 | 64.5 | 131 | 55.4 | 54.2 | 55.3 | 86.9 | <1 |
| 1,3,5-TRIMETHYLBENZENE | 6.2 | NPQL | 11.3 | 234 | 28.3 | 23.8 | 36.1 | 16 | 12 | 15.8 | 26.2 | <1 |
| XYLENES (totals) | 1,000 | 0.005 | 54.7 | 1750 | 202 | 164 | 276 | 112 | 108 | 127 | 131 | <2 |

Concentrations in milligrams per kilogram (mg/Kg).

Trip Blank reported in micrograms per liter (µ/L).

NRMSC: Non-Residential Medium Specific Concentration SHS, Soil to Groundwater Numeric Value.

Used Aquifer, TDS less than or equal to 2,500 mg/L.

PQL: Practical Quantitation Limits.

NPQL: No Practical Quantitation Limits.

TABLE 4
SOIL GAS SAMPLE RESULTS
FORMER ROSEMERGY'S CONVENIENCE STORE
HAWLEY, PA
11-17788-02

| PARAMETER | RMSC _{SG} | NRMSC _{SG} | RL | | SV-1 | SV-2 | SV-3 (SV-1 dup) | VP-1 | VP-2 | VP-3 (VP-1 dup) |
|---------------------------|--------------------|---------------------|------|------|----------|----------|--------------------|----------|----------|--------------------|
| | | | | Date | 2/4/14 | 2/4/14 | 2/4/14 | 3/7/14 | 3/7/14 | 3/7/14 |
| BENZENE | 0.27 | 1.1 | 0.64 | | 0.00042 | 0.00035 | 0.00038 | <0.00032 | 0.0012 | <0.0016 |
| CUMENE (Isopropylbenzene) | 54 | 110 | 2 | | <0.0018 | <0.0018 | <0.0018 | 0.003 | <0.0018 | <0.0092 |
| ETHYLBENZENE | 1.9 | 7.3 | 0.87 | | <0.00043 | <0.00043 | <0.00043 | <0.00043 | <0.00043 | <0.0022 |
| METHYL TERT-BUTYL ETHER | 8.1 | 31 | 3.6 | | <0.00036 | <0.00036 | <0.00036 | <0.00036 | <0.00036 | <0.0018 |
| NAPHTHALENE | 0.42 | 0.88 | 10 | | <0.00052 | <0.00052 | <0.00052 | 0.004 | <0.00052 | <0.0026 |
| TOLUENE | 56 | 120 | 1.1 | | NA | NA | NA | 0.15 | 0.37 | 1.2 |
| 1,2,4-TRIMETHYLBENZENE | 0.83 | 1.7 | 2 | | <0.00049 | 0.00065 | <0.00049 | <0.00049 | <0.00049 | <0.0025 |
| 1,3,5-TRIMETHYLBENZENE | 0.83 | 1.7 | 2 | | <0.00049 | <0.00049 | <0.00049 | <0.00049 | <0.00049 | <0.0025 |
| m & p-XYLENE | 14 | 30 | 2.2 | | 0.0011 | 0.0013 | 0.0012 | 0.0048 | 0.0047 | 0.022 |
| o-XYLENE | 14 | 30 | 2.2 | | 0.00047 | 0.0006 | 0.00053 | 0.0015 | 0.0015 | 0.0071 |

Compounds identified at concentrations greater than quantitation limit.

NA: Not Analyzed.

Concentrations reported in milligrams per cubic meter (mg/m³)

RMSC_{SG}: Residential Medium Specific Concentration.

NRMSC_{SG}: Non-Residential Medium Specific Concentration.

RL: Reporting Limit.

NPL: No published Act II standard value.

**TABLE 5
INDOOR AIR ASSESSMENT SAMPLE RESULTS
FORMER ROSEMERGY'S CONVENIENCE STORE
HAWLEY, PA
11-17788-02**

| PARAMETER | RMSC _{IA} | NRMSC _{IA} | RL | IA-1 | | IA-2 | |
|---------------------------|--------------------|---------------------|---------|----------|-------------|----------|-------------|
| | | | | 6/18/14 | Winter 2015 | 6/18/14 | Winter 2015 |
| BENZENE | 0.0027 | 0.01 | 0.00011 | 0.0011 | | 0.00088 | |
| CUMENE (Isopropylbenzene) | 0.540 | 1.1 | 0.00015 | <0.00065 | | <0.00065 | |
| ETHYLBENZENE | 0.019 | 0.073 | 0.012 | 0.0024 | | 0.00051 | |
| METHYL TERT-BUTYL ETHER | 0.0810 | 0.31 | 0.00013 | 0.007 | | <0.0013 | |
| NAPHTHALENE | 0.0042 | 0.0088 | 0.00018 | <0.00018 | | <0.00018 | |
| TOLUENE | 0.56 | 1.2 | 0.0038 | 0.017 | | 0.0036 | |
| 1,2,4-TRIMETHYLBENZENE | 0.0083 | 0.017 | 0.0049 | 0.0015 | | 0.00042 | |
| 1,3,5-TRIMETHYLBENZENE | 0.0083 | 0.017 | 0.00017 | 0.0005 | | <0.00017 | |
| m & p-XYLENE | 0.14 | 0.3 | 0.0087 | 0.008 | | 0.0018 | |
| o-XYLENE | 0.14 | 0.3 | 0.0043 | 0.0022 | | 0.00054 | |

Concentrations reported in milligrams per cubic meter (mg/m³).

RMSC_{IA}: Residential Medium Specific Concentration for Indoor Air.

NRMSC_{IA}: Non-Residential Medium Specific Concentration for Indoor Air.

RL: Reporting Limit.

IA-1 Collected inside residence

IA-2 Collected outside residence (ambient air)

TABLE 6
ON-LOT SUPPLY WELL ANALYTICAL DATA
FORMER ROSEMERGY'S STORE/GARAGE
1623 ROUTE 590
HAWLEY, PA
11-17788-01

| Sample ID (Depth) | MCL | SW-8 | SW-8 | SW-12 | SW-12 |
|-----------------------------------|--------|----------|--------|----------|--------|
| Sampling Date | | 12/11/13 | 2/4/14 | 12/11/13 | 2/4/14 |
| Matrix | | Water | Water | Water | Water |
| Units | | (ug/L) | (ug/L) | (ug/L) | (ug/L) |
| VOLATILE ORGANIC COMPOUNDS | | | | | |
| 1,3,5-Trimethylbenzene | NS | <1 | <1 | <1 | <1 |
| 1,2,4-Trimethylbenzene | NS | <1 | <1 | <1 | <1 |
| Benzene | 5 | <1 | <1 | <1 | <1 |
| Toluene | 1,000 | <1 | <1 | <1 | <1 |
| Ethylbenzene | 700 | <1 | <1 | <1 | <1 |
| Xylenes (total) | 10,000 | <2 | <2 | <2 | <2 |
| Isopropylbenzene | NS | <1 | <1 | <1 | <1 |
| Methyl tert-butyl ether | NS | <1 | <1 | <1 | <1 |
| Naphthalene | NS | <1 | <1 | <1 | <1 |

USEPA MCL - Published EPA Drinking Water Standard

NS - No published federal drinking water standard.

SW-8 Rosemergy residence water sample

SW-12 Woodloch property water sample



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State Certifications: MD 275, WV 364

Converse

2738 West College Avenue

State College PA, 16801

Project Manager: David Swetland

Project: ROSEMERGY'S

Project Number: 11-17788-02

Collector: CLIENT

Number of Containers: 33

Reported:

09/08/15 08:42

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Sample Type | Date Sampled | Date Received |
|------------|---------------|--------|-------------|----------------|----------------|
| MW-1R | 5H28033-01 | Water | Grab | 08/26/15 11:29 | 08/28/15 13:55 |
| MW-2 | 5H28033-02 | Water | Grab | 08/26/15 10:32 | 08/28/15 13:55 |
| MW-3 | 5H28033-03 | Water | Grab | 08/26/15 16:09 | 08/28/15 13:55 |
| MW-4 | 5H28033-04 | Water | Grab | 08/26/15 15:41 | 08/28/15 13:55 |
| MW-5 | 5H28033-05 | Water | Grab | 08/26/15 10:57 | 08/28/15 13:55 |
| MW-7 | 5H28033-06 | Water | Grab | 08/26/15 12:03 | 08/28/15 13:55 |
| MW-8 | 5H28033-07 | Water | Grab | 08/26/15 13:51 | 08/28/15 13:55 |
| MW-9 | 5H28033-08 | Water | Grab | 08/26/15 14:23 | 08/28/15 13:55 |
| MW-10 | 5H28033-09 | Water | Grab | 08/27/15 09:20 | 08/28/15 13:55 |
| MW-11 | 5H28033-10 | Water | Grab | 08/27/15 08:47 | 08/28/15 13:55 |
| MW-12 | 5H28033-11 | Water | Grab | 08/26/15 12:58 | 08/28/15 13:55 |
| MW-14 | 5H28033-12 | Water | Grab | 08/26/15 13:01 | 08/28/15 13:55 |
| MW-15 | 5H28033-13 | Water | Grab | 08/26/15 12:32 | 08/28/15 13:55 |
| MW-16 | 5H28033-14 | Water | Grab | 08/26/15 15:07 | 08/28/15 13:55 |
| MW-7M | 5H28033-15 | Water | Grab | 08/26/15 12:03 | 08/28/15 13:55 |
| TRIP BLANK | 5H28033-16 | Water | Trip Blank | 08/26/15 00:00 | 08/28/15 13:55 |

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Converse

2738 West College Avenue

State College PA, 16801

Project Manager: David Swetland

Project: ROSEMERGY'S

Project Number: 11-17788-02

Collector: CLIENT

Number of Containers: 33

Reported:

09/08/15 08:42

Client Sample ID: MW-1R

Date/Time Sampled: 08/26/15 11:29

Laboratory Sample ID: 5H28033-01 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 300 | | 50.0 | ug/l | 09/01/15 17:19 | EPA 8260B | wlm | |
| 1,2,4-Trimethylbenzene | 1150 | | 50.0 | ug/l | 09/01/15 17:19 | EPA 8260B | wlm | |
| Benzene | 6250 | | 100 | ug/l | 09/03/15 01:21 | EPA 8260B | wlm | |
| Toluene | 6030 | | 100 | ug/l | 09/03/15 01:21 | EPA 8260B | wlm | |
| Ethylbenzene | 1700 | | 50.0 | ug/l | 09/01/15 17:19 | EPA 8260B | wlm | |
| Xylenes (total) | 8930 | | 100 | ug/l | 09/01/15 17:19 | EPA 8260B | wlm | |
| Isopropylbenzene | 175 | | 50.0 | ug/l | 09/01/15 17:19 | EPA 8260B | wlm | |
| Methyl tert-butyl ether | <50.0 | | 50.0 | ug/l | 09/01/15 17:19 | EPA 8260B | wlm | |
| Naphthalene | 252 | | 50.0 | ug/l | 09/01/15 17:19 | EPA 8260B | wlm | |
| Surrogate: 4-Bromofluorobenzene | 96.1 % | | 70-130 | | 09/01/15 17:19 | EPA 8260B | wlm | |
| Surrogate: 1,2-Dichloroethane-d4 | 93.5 % | | 70-130 | | 09/01/15 17:19 | EPA 8260B | wlm | |
| Surrogate: Fluorobenzene | 100 % | | 70-130 | | 09/01/15 17:19 | EPA 8260B | wlm | |

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Converse

Project: ROSEMERGY'S

2738 West College Avenue

Project Number: 11-17788-02

Reported:

State College PA, 16801

Collector: CLIENT

09/08/15 08:42

Project Manager: David Swetland

Number of Containers: 33

Client Sample ID: MW-2

Date/Time Sampled: 08/26/15 10:32

Laboratory Sample ID: 5H28033-02 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 49.5 | | 5.00 | ug/l | 09/01/15 15:26 | EPA 8260B | wlm | |
| 1,2,4-Trimethylbenzene | 244 | | 5.00 | ug/l | 09/01/15 15:26 | EPA 8260B | wlm | |
| Benzene | 310 | | 5.00 | ug/l | 09/01/15 15:26 | EPA 8260B | wlm | |
| Toluene | 1130 | | 25.0 | ug/l | 09/02/15 23:29 | EPA 8260B | wlm | |
| Ethylbenzene | 337 | | 5.00 | ug/l | 09/01/15 15:26 | EPA 8260B | wlm | |
| Xylenes (total) | 868 | | 10.0 | ug/l | 09/01/15 15:26 | EPA 8260B | wlm | |
| Isopropylbenzene | 59.4 | | 5.00 | ug/l | 09/01/15 15:26 | EPA 8260B | wlm | |
| Methyl tert-butyl ether | <5.00 | | 5.00 | ug/l | 09/01/15 15:26 | EPA 8260B | wlm | |
| Naphthalene | 46.2 | | 5.00 | ug/l | 09/01/15 15:26 | EPA 8260B | wlm | |
| Surrogate: 4-Bromofluorobenzene | 97.5 % | | 70-130 | | 09/01/15 15:26 | EPA 8260B | wlm | |
| Surrogate: 1,2-Dichloroethane-d4 | 94.0 % | | 70-130 | | 09/01/15 15:26 | EPA 8260B | wlm | |
| Surrogate: Fluorobenzene | 99.1 % | | 70-130 | | 09/01/15 15:26 | EPA 8260B | wlm | |

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2738 West College Avenue

State College PA, 16801

Project Manager: David Swetland

Project: ROSEMERGY'S

Project Number: 11-17788-02

Collector: CLIENT

Number of Containers: 33

Reported:

09/08/15 08:42

Client Sample ID: MW-3

Date/Time Sampled: 08/26/15 16:09

Laboratory Sample ID: 5H28033-03 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 3.43 | | 1.00 | ug/l | 08/28/15 18:19 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 12.6 | | 1.00 | ug/l | 08/28/15 18:19 | EPA 8260B | mtc | |
| Benzene | 207 | | 10.0 | ug/l | 09/01/15 11:33 | EPA 8260B | mtc | |
| Toluene | 12.4 | | 1.00 | ug/l | 08/28/15 18:19 | EPA 8260B | mtc | |
| Ethylbenzene | 15.1 | | 1.00 | ug/l | 08/28/15 18:19 | EPA 8260B | mtc | |
| Xylenes (total) | 38.5 | | 2.00 | ug/l | 08/28/15 18:19 | EPA 8260B | mtc | |
| Isopropylbenzene | 34.8 | | 1.00 | ug/l | 08/28/15 18:19 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | 636 | | 10.0 | ug/l | 09/01/15 11:33 | EPA 8260B | mtc | |
| Naphthalene | 4.74 | | 1.00 | ug/l | 08/28/15 18:19 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 97.1 % | | 70-130 | | 08/28/15 18:19 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 93.4 % | | 70-130 | | 08/28/15 18:19 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 85.2 % | | 70-130 | | 08/28/15 18:19 | EPA 8260B | mtc | |

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Converse

2738 West College Avenue

State College PA, 16801

Project Manager: David Swetland

Project: ROSEMERGY'S

Project Number: 11-17788-02

Collector: CLIENT

Number of Containers: 33

Reported:

09/08/15 08:42

Client Sample ID: MW-4

Date/Time Sampled: 08/26/15 15:41

Laboratory Sample ID: 5H28033-04 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 131 | | 10.0 | ug/l | 09/01/15 12:11 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 473 | | 10.0 | ug/l | 09/01/15 12:11 | EPA 8260B | mtc | |
| Benzene | 74.7 | | 1.00 | ug/l | 08/28/15 18:45 | EPA 8260B | mtc | |
| Toluene | 304 | | 10.0 | ug/l | 09/01/15 12:11 | EPA 8260B | mtc | |
| Ethylbenzene | 390 | | 10.0 | ug/l | 09/01/15 12:11 | EPA 8260B | mtc | |
| Xylenes (total) | 1650 | | 20.0 | ug/l | 09/01/15 12:11 | EPA 8260B | mtc | |
| Isopropylbenzene | 88.4 | | 1.00 | ug/l | 08/28/15 18:45 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 08/28/15 18:45 | EPA 8260B | mtc | |
| Naphthalene | 94.4 | | 1.00 | ug/l | 08/28/15 18:45 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 97.0 % | | 70-130 | | 08/28/15 18:45 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 87.8 % | | 70-130 | | 08/28/15 18:45 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 84.9 % | | 70-130 | | 08/28/15 18:45 | EPA 8260B | mtc | |

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Converse

2738 West College Avenue

State College PA, 16801

Project Manager: David Swetland

Project: ROSEMERGY'S

Project Number: 11-17788-02

Collector: CLIENT

Number of Containers: 33

Reported:

09/08/15 08:42

Client Sample ID: MW-5

Date/Time Sampled: 08/26/15 10:57

Laboratory Sample ID: 5H28033-05 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 430 | | 50.0 | ug/l | 09/01/15 17:47 | EPA 8260B | wlm | |
| 1,2,4-Trimethylbenzene | 1670 | | 50.0 | ug/l | 09/01/15 17:47 | EPA 8260B | wlm | |
| Benzene | 6210 | | 250 | ug/l | 09/03/15 01:49 | EPA 8260B | wlm | |
| Toluene | 17500 | | 250 | ug/l | 09/03/15 01:49 | EPA 8260B | wlm | |
| Ethylbenzene | 3110 | | 50.0 | ug/l | 09/01/15 17:47 | EPA 8260B | wlm | |
| Xylenes (total) | 14100 | | 100 | ug/l | 09/01/15 17:47 | EPA 8260B | wlm | |
| Isopropylbenzene | 186 | | 50.0 | ug/l | 09/01/15 17:47 | EPA 8260B | wlm | |
| Methyl tert-butyl ether | <50.0 | | 50.0 | ug/l | 09/01/15 17:47 | EPA 8260B | wlm | |
| Naphthalene | 316 | | 50.0 | ug/l | 09/01/15 17:47 | EPA 8260B | wlm | |
| Surrogate: 4-Bromofluorobenzene | 95.8 % | | 70-130 | | 09/01/15 17:47 | EPA 8260B | wlm | |
| Surrogate: 1,2-Dichloroethane-d4 | 92.4 % | | 70-130 | | 09/01/15 17:47 | EPA 8260B | wlm | |
| Surrogate: Fluorobenzene | 103 % | | 70-130 | | 09/01/15 17:47 | EPA 8260B | wlm | |

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PaDEP: PA 41-04684



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Converse

2738 West College Avenue

State College PA, 16801

Project Manager: David Swetland

Project: ROSEMERGY'S

Project Number: 11-17788-02

Collector: CLIENT

Number of Containers: 33

Reported:

09/08/15 08:42

Client Sample ID: MW-7

Date/Time Sampled: 08/26/15 12:03

Laboratory Sample ID: 5H28033-06 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|---|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 91.5 | | 10.0 | ug/l | 09/01/15 15:54 | EPA 8260B | wlm | |
| 1,2,4-Trimethylbenzene | 238 | | 10.0 | ug/l | 09/01/15 15:54 | EPA 8260B | wlm | |
| Benzene | 4780 | | 50.0 | ug/l | 09/02/15 23:57 | EPA 8260B | wlm | |
| Toluene | 279 | | 10.0 | ug/l | 09/01/15 15:54 | EPA 8260B | wlm | |
| Ethylbenzene | 436 | | 10.0 | ug/l | 09/01/15 15:54 | EPA 8260B | wlm | |
| Xylenes (total) | 876 | | 20.0 | ug/l | 09/01/15 15:54 | EPA 8260B | wlm | |
| Isopropylbenzene | 85.2 | | 10.0 | ug/l | 09/01/15 15:54 | EPA 8260B | wlm | |
| Methyl tert-butyl ether | 75.0 | | 10.0 | ug/l | 09/01/15 15:54 | EPA 8260B | wlm | |
| Naphthalene | 134 | | 10.0 | ug/l | 09/01/15 15:54 | EPA 8260B | wlm | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | 96.3 % | | 70-130 | | 09/01/15 15:54 | EPA 8260B | wlm | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 96.2 % | | 70-130 | | 09/01/15 15:54 | EPA 8260B | wlm | |
| <i>Surrogate: Fluorobenzene</i> | 104 % | | 70-130 | | 09/01/15 15:54 | EPA 8260B | wlm | |

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Converse

2738 West College Avenue

State College PA, 16801

Project Manager: David Swetland

Project: ROSEMERGY'S

Project Number: 11-17788-02

Collector: CLIENT

Number of Containers: 33

Reported:

09/08/15 08:42

Client Sample ID: MW-8

Date/Time Sampled: 08/26/15 13:51

Laboratory Sample ID: 5H28033-07 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 2.22 | | 1.00 | ug/l | 08/31/15 22:08 | EPA 8260B | wlm | |
| 1,2,4-Trimethylbenzene | 7.51 | | 1.00 | ug/l | 08/31/15 22:08 | EPA 8260B | wlm | |
| Benzene | 10.1 | | 1.00 | ug/l | 08/31/15 22:08 | EPA 8260B | wlm | |
| Toluene | 22.1 | | 1.00 | ug/l | 08/31/15 22:08 | EPA 8260B | wlm | |
| Ethylbenzene | 6.90 | | 1.00 | ug/l | 08/31/15 22:08 | EPA 8260B | wlm | |
| Xylenes (total) | 34.3 | | 2.00 | ug/l | 08/31/15 22:08 | EPA 8260B | wlm | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 08/31/15 22:08 | EPA 8260B | wlm | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 08/31/15 22:08 | EPA 8260B | wlm | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 08/31/15 22:08 | EPA 8260B | wlm | |
| Surrogate: 4-Bromofluorobenzene | 95.9 % | | 70-130 | | 08/31/15 22:08 | EPA 8260B | wlm | |
| Surrogate: 1,2-Dichloroethane-d4 | 98.8 % | | 70-130 | | 08/31/15 22:08 | EPA 8260B | wlm | |
| Surrogate: Fluorobenzene | 101 % | | 70-130 | | 08/31/15 22:08 | EPA 8260B | wlm | |

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Converse

2738 West College Avenue

State College PA, 16801

Project Manager: David Swetland

Project: ROSEMERGY'S

Project Number: 11-17788-02

Collector: CLIENT

Number of Containers: 33

Reported:

09/08/15 08:42

Client Sample ID: MW-9

Date/Time Sampled: 08/26/15 14:23

Laboratory Sample ID: 5H28033-08 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 23.9 | | 10.0 | ug/l | 09/01/15 16:23 | EPA 8260B | wlm | |
| 1,2,4-Trimethylbenzene | 24.2 | | 10.0 | ug/l | 09/01/15 16:23 | EPA 8260B | wlm | |
| Benzene | 1590 | | 50.0 | ug/l | 09/03/15 00:25 | EPA 8260B | wlm | |
| Toluene | 113 | | 10.0 | ug/l | 09/01/15 16:23 | EPA 8260B | wlm | |
| Ethylbenzene | 175 | | 10.0 | ug/l | 09/01/15 16:23 | EPA 8260B | wlm | |
| Xylenes (total) | 153 | | 20.0 | ug/l | 09/01/15 16:23 | EPA 8260B | wlm | |
| Isopropylbenzene | 77.3 | | 10.0 | ug/l | 09/01/15 16:23 | EPA 8260B | wlm | |
| Methyl tert-butyl ether | <10.0 | | 10.0 | ug/l | 09/01/15 16:23 | EPA 8260B | wlm | |
| Naphthalene | 36.2 | | 10.0 | ug/l | 09/01/15 16:23 | EPA 8260B | wlm | |
| Surrogate: 4-Bromofluorobenzene | 94.9 % | | 70-130 | | 09/01/15 16:23 | EPA 8260B | wlm | |
| Surrogate: 1,2-Dichloroethane-d4 | 93.6 % | | 70-130 | | 09/01/15 16:23 | EPA 8260B | wlm | |
| Surrogate: Fluorobenzene | 101 % | | 70-130 | | 09/01/15 16:23 | EPA 8260B | wlm | |

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: David Swetland

Project: ROSEMERGY'S
Project Number: 11-17788-02
Collector: CLIENT
Number of Containers: 33
Reported:
09/08/15 08:42

Client Sample ID: MW-10

Date/Time Sampled: 08/27/15 09:20

Laboratory Sample ID: 5H28033-09 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 1.40 | | 1.00 | ug/l | 08/31/15 21:40 | EPA 8260B | wlm | |
| 1,2,4-Trimethylbenzene | 4.51 | | 1.00 | ug/l | 08/31/15 21:40 | EPA 8260B | wlm | |
| Benzene | 26.9 | | 1.00 | ug/l | 08/31/15 21:40 | EPA 8260B | wlm | |
| Toluene | 5.72 | | 1.00 | ug/l | 08/31/15 21:40 | EPA 8260B | wlm | |
| Ethylbenzene | 3.40 | | 1.00 | ug/l | 08/31/15 21:40 | EPA 8260B | wlm | |
| Xylenes (total) | 15.4 | | 2.00 | ug/l | 08/31/15 21:40 | EPA 8260B | wlm | |
| Isopropylbenzene | 3.50 | | 1.00 | ug/l | 08/31/15 21:40 | EPA 8260B | wlm | |
| Methyl tert-butyl ether | 106 | | 1.00 | ug/l | 08/31/15 21:40 | EPA 8260B | wlm | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 08/31/15 21:40 | EPA 8260B | wlm | |
| Surrogate: 4-Bromofluorobenzene | 95.2 % | | 70-130 | | 08/31/15 21:40 | EPA 8260B | wlm | |
| Surrogate: 1,2-Dichloroethane-d4 | 96.4 % | | 70-130 | | 08/31/15 21:40 | EPA 8260B | wlm | |
| Surrogate: Fluorobenzene | 99.3 % | | 70-130 | | 08/31/15 21:40 | EPA 8260B | wlm | |

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Converse

2738 West College Avenue

State College PA, 16801

Project Manager: David Swetland

Project: ROSEMERGY'S

Project Number: 11-17788-02

Collector: CLIENT

Number of Containers: 33

Reported:

09/08/15 08:42

Client Sample ID: MW-11

Date/Time Sampled: 08/27/15 08:47

Laboratory Sample ID: 5H28033-10 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 1.84 | | 1.00 | ug/l | 08/28/15 20:02 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 5.99 | | 1.00 | ug/l | 08/28/15 20:02 | EPA 8260B | mtc | |
| Benzene | 3.83 | | 1.00 | ug/l | 08/28/15 20:02 | EPA 8260B | mtc | |
| Toluene | 6.74 | | 1.00 | ug/l | 08/28/15 20:02 | EPA 8260B | mtc | |
| Ethylbenzene | 4.28 | | 1.00 | ug/l | 08/28/15 20:02 | EPA 8260B | mtc | |
| Xylenes (total) | 18.9 | | 2.00 | ug/l | 08/28/15 20:02 | EPA 8260B | mtc | |
| Isopropylbenzene | 1.26 | | 1.00 | ug/l | 08/28/15 20:02 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 08/28/15 20:02 | EPA 8260B | mtc | |
| Naphthalene | 1.45 | | 1.00 | ug/l | 08/28/15 20:02 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 95.7 % | | 70-130 | | 08/28/15 20:02 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 88.4 % | | 70-130 | | 08/28/15 20:02 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 87.1 % | | 70-130 | | 08/28/15 20:02 | EPA 8260B | mtc | |

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: David Swetland

Project: ROSEMERGY'S
Project Number: 11-17788-02
Collector: CLIENT
Number of Containers: 33
Reported:
09/08/15 08:42

Client Sample ID: MW-12

Date/Time Sampled: 08/26/15 12:58

Laboratory Sample ID: 5H28033-11 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 4.46 | | 1.00 | ug/l | 08/28/15 20:28 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 15.7 | | 1.00 | ug/l | 08/28/15 20:28 | EPA 8260B | mtc | |
| Benzene | 21.6 | | 1.00 | ug/l | 08/28/15 20:28 | EPA 8260B | mtc | |
| Toluene | 42.8 | | 1.00 | ug/l | 08/28/15 20:28 | EPA 8260B | mtc | |
| Ethylbenzene | 14.5 | | 1.00 | ug/l | 08/28/15 20:28 | EPA 8260B | mtc | |
| Xylenes (total) | 66.5 | | 2.00 | ug/l | 08/28/15 20:28 | EPA 8260B | mtc | |
| Isopropylbenzene | 2.18 | | 1.00 | ug/l | 08/28/15 20:28 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 08/28/15 20:28 | EPA 8260B | mtc | |
| Naphthalene | 4.04 | | 1.00 | ug/l | 08/28/15 20:28 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 95.4 % | | 70-130 | | 08/28/15 20:28 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 86.6 % | | 70-130 | | 08/28/15 20:28 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 86.6 % | | 70-130 | | 08/28/15 20:28 | EPA 8260B | mtc | |

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2738 West College Avenue

State College PA, 16801

Project Manager: David Swetland

Project: ROSEMERGY'S

Project Number: 11-17788-02

Collector: CLIENT

Number of Containers: 33

Reported:

09/08/15 08:42

Client Sample ID: MW-14

Date/Time Sampled: 08/26/15 13:01

Laboratory Sample ID: 5H28033-12 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 2.93 | | 1.00 | ug/l | 08/28/15 20:53 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 9.09 | | 1.00 | ug/l | 08/28/15 20:53 | EPA 8260B | mtc | |
| Benzene | 17.4 | | 1.00 | ug/l | 08/28/15 20:53 | EPA 8260B | mtc | |
| Toluene | 35.9 | | 1.00 | ug/l | 08/28/15 20:53 | EPA 8260B | mtc | |
| Ethylbenzene | 11.2 | | 1.00 | ug/l | 08/28/15 20:53 | EPA 8260B | mtc | |
| Xylenes (total) | 50.6 | | 2.00 | ug/l | 08/28/15 20:53 | EPA 8260B | mtc | |
| Isopropylbenzene | 1.56 | | 1.00 | ug/l | 08/28/15 20:53 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 08/28/15 20:53 | EPA 8260B | mtc | |
| Naphthalene | 2.74 | | 1.00 | ug/l | 08/28/15 20:53 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 95.0 % | | 70-130 | | 08/28/15 20:53 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 87.0 % | | 70-130 | | 08/28/15 20:53 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 87.0 % | | 70-130 | | 08/28/15 20:53 | EPA 8260B | mtc | |

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Converse

2738 West College Avenue

State College PA, 16801

Project Manager: David Swetland

Project: ROSEMERGY'S

Project Number: 11-17788-02

Collector: CLIENT

Number of Containers: 33

Reported:

09/08/15 08:42

Client Sample ID: MW-15

Date/Time Sampled: 08/26/15 12:32

Laboratory Sample ID: 5H28033-13 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 7.29 | | 1.00 | ug/l | 08/28/15 21:19 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 25.3 | | 1.00 | ug/l | 08/28/15 21:19 | EPA 8260B | mtc | |
| Benzene | 38.3 | | 1.00 | ug/l | 08/28/15 21:19 | EPA 8260B | mtc | |
| Toluene | 62.4 | | 1.00 | ug/l | 08/28/15 21:19 | EPA 8260B | mtc | |
| Ethylbenzene | 23.4 | | 1.00 | ug/l | 08/28/15 21:19 | EPA 8260B | mtc | |
| Xylenes (total) | 105 | | 2.00 | ug/l | 08/28/15 21:19 | EPA 8260B | mtc | |
| Isopropylbenzene | 3.86 | | 1.00 | ug/l | 08/28/15 21:19 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 08/28/15 21:19 | EPA 8260B | mtc | |
| Naphthalene | 7.31 | | 1.00 | ug/l | 08/28/15 21:19 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 96.8 % | | 70-130 | | 08/28/15 21:19 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 88.3 % | | 70-130 | | 08/28/15 21:19 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 86.5 % | | 70-130 | | 08/28/15 21:19 | EPA 8260B | mtc | |

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2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306
NELAP: PA 07-062, VA 460212

89 Kristi Road
Pennsdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Converse

2738 West College Avenue

State College PA, 16801

Project Manager: David Swetland

Project: ROSEMERGY'S

Project Number: 11-17788-02

Collector: CLIENT

Number of Containers: 33

Reported:

09/08/15 08:42

Client Sample ID: MW-16

Date/Time Sampled: 08/26/15 15:07

Laboratory Sample ID: 5H28033-14 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 1.67 | | 1.00 | ug/l | 08/28/15 21:45 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 5.27 | | 1.00 | ug/l | 08/28/15 21:45 | EPA 8260B | mtc | |
| Benzene | 7.87 | | 1.00 | ug/l | 08/28/15 21:45 | EPA 8260B | mtc | |
| Toluene | 11.6 | | 1.00 | ug/l | 08/28/15 21:45 | EPA 8260B | mtc | |
| Ethylbenzene | 5.36 | | 1.00 | ug/l | 08/28/15 21:45 | EPA 8260B | mtc | |
| Xylenes (total) | 20.7 | | 2.00 | ug/l | 08/28/15 21:45 | EPA 8260B | mtc | |
| Isopropylbenzene | 1.41 | | 1.00 | ug/l | 08/28/15 21:45 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | 12.2 | | 1.00 | ug/l | 08/28/15 21:45 | EPA 8260B | mtc | |
| Naphthalene | 1.87 | | 1.00 | ug/l | 08/28/15 21:45 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 96.1 % | | 70-130 | | 08/28/15 21:45 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 86.7 % | | 70-130 | | 08/28/15 21:45 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 86.0 % | | 70-130 | | 08/28/15 21:45 | EPA 8260B | mtc | |

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Converse
2738 West College Avenue
State College PA, 16801
Project Manager: David Swetland

Project: ROSEMERGY'S
Project Number: 11-17788-02
Collector: CLIENT
Number of Containers: 33

Reported:
09/08/15 08:42

Client Sample ID: MW-7M

Date/Time Sampled: 08/26/15 12:03

Laboratory Sample ID: 5H28033-15 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|---|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 85.8 | | 10.0 | ug/l | 09/01/15 16:51 | EPA 8260B | wlm | |
| 1,2,4-Trimethylbenzene | 229 | | 10.0 | ug/l | 09/01/15 16:51 | EPA 8260B | wlm | |
| Benzene | 4540 | | 50.0 | ug/l | 09/03/15 00:53 | EPA 8260B | wlm | |
| Toluene | 275 | | 10.0 | ug/l | 09/01/15 16:51 | EPA 8260B | wlm | |
| Ethylbenzene | 438 | | 10.0 | ug/l | 09/01/15 16:51 | EPA 8260B | wlm | |
| Xylenes (total) | 849 | | 20.0 | ug/l | 09/01/15 16:51 | EPA 8260B | wlm | |
| Isopropylbenzene | 90.5 | | 10.0 | ug/l | 09/01/15 16:51 | EPA 8260B | wlm | |
| Methyl tert-butyl ether | 73.1 | | 10.0 | ug/l | 09/01/15 16:51 | EPA 8260B | wlm | |
| Naphthalene | 127 | | 10.0 | ug/l | 09/01/15 16:51 | EPA 8260B | wlm | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | 92.1 % | | 70-130 | | 09/01/15 16:51 | EPA 8260B | wlm | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 92.7 % | | 70-130 | | 09/01/15 16:51 | EPA 8260B | wlm | |
| <i>Surrogate: Fluorobenzene</i> | 104 % | | 70-130 | | 09/01/15 16:51 | EPA 8260B | wlm | |

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Pennssdale, PA 17756
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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Converse

2738 West College Avenue

State College PA, 16801

Project Manager: David Swetland

Project: ROSEMERGY'S

Project Number: 11-17788-02

Collector: CLIENT

Number of Containers: 33

Reported:

09/08/15 08:42

Client Sample ID: TRIP BLANK

Date/Time Sampled: 08/26/15 00:00

Laboratory Sample ID: 5H28033-16 (Water/Trip Blank)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 08/28/15 22:11 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 08/28/15 22:11 | EPA 8260B | mtc | |
| Benzene | <1.00 | | 1.00 | ug/l | 08/28/15 22:11 | EPA 8260B | mtc | |
| Toluene | <1.00 | | 1.00 | ug/l | 08/28/15 22:11 | EPA 8260B | mtc | |
| Ethylbenzene | <1.00 | | 1.00 | ug/l | 08/28/15 22:11 | EPA 8260B | mtc | |
| Xylenes (total) | <2.00 | | 2.00 | ug/l | 08/28/15 22:11 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 08/28/15 22:11 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 08/28/15 22:11 | EPA 8260B | mtc | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 08/28/15 22:11 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 94.4 % | | 70-130 | | 08/28/15 22:11 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 88.6 % | | 70-130 | | 08/28/15 22:11 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 87.3 % | | 70-130 | | 08/28/15 22:11 | EPA 8260B | mtc | |

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State Certifications: MD 275, WV 364

| | | |
|---------------------------------|-----------------------------|------------------|
| Converse | Project: ROSEMERGY'S | |
| 2738 West College Avenue | Project Number: 11-17788-02 | Reported: |
| State College PA, 16801 | Collector: CLIENT | 09/08/15 08:42 |
| Project Manager: David Swetland | Number of Containers: 33 | |

Definitions

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

- * P indicates analysis performed by Fairway Laboratories, Inc. at the Pennsdale location. This location is PaDEP Chapter 252 certified.
- < Represents "less than" - indicates that the result was less than the reporting limit.
- MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values.
- RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.
- [CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.



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| | | |
|---------------------------------|-----------------------------|------------------|
| Converse | Project: ROSEMERGY'S | |
| 2738 West College Avenue | Project Number: 11-17788-02 | Reported: |
| State College PA, 16801 | Collector: CLIENT | 09/08/15 08:42 |
| Project Manager: David Swetland | Number of Containers: 33 | |

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

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SAMPLING, CHAIN OF CUSTODY AND ANALYSES RECORD FOR SOIL, GROUNDWATER AND AIR MONITORING

Page 1/2

5H28033

#1

PA 1 of 3

SAMPLING PLACE Rosebury

OWNER W 200 Loc

ADDRESS Hawley, PA

PROJECT NAME Rosebury

CC FIELD REP JOI

DATE 6/26 & 6/27/15

WEATHER M. Sunny 70s

PROJECT NO. 11-17786-62

ATTENTION DWS or OBC



FIRM RESPONSIBLE FOR SAMPLING
Converse Consultants
2738 West College Avenue
State College, Pennsylvania 16801
814-234-3223
Fax 814-234-3255

| STATION NO. OR SAMPLE IDENT. | TIME | DEPTH TO WATER (FEET) DATUM | PURGING METHOD | SAMPLE DEPTH (FT.) INTERVAL | AMOUNT PURGED (GALS) | SAMPLING METHOD | CONTAINER DESCRIPTION | | | | | | | | | | pH | SPECIFIC CONDUCTANCE (µ mhos/cm.) | TEMP. °C | ANALYSIS REQUEST / COMMENTS |
|------------------------------------|-------|-----------------------------------|-------------------|-----------------------------------|-------------------------|--------------------|--------------------------|---|---|---|---|---|---|---|---|----|-----|---|----------|--|
| | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | | |
| MW-1R | 11:29 | 7.52 | Pump | | 3.5 | Pump | 40 mL HCl | | | | | | | | | | 4.5 | 3600 | 21.6 | (2008 PHDEP Unlabeled Gas) (Shot List Target Compounds) |
| MW-2 | 10:32 | 4.50 | | | 4.75 | | | | | | | | | | | | 6.6 | 1303 | 20.4 | |
| MW-3 | 4:09 | 3.69 | | | 5.1 | | | | | | | | | | | | 5.6 | 3050 | 19.2 | |
| MW-4 | 3:41 | 3.71 | | | 5.3 | | | | | | | | | | | | 6.7 | 790 | 20.9 | |
| MW-5 | 10:57 | 4.50 | | | 4.9 | | | | | | | | | | | | 6.7 | 1524 | 23.1 | |
| MW-7 | 12:03 | 9.27 | | | 2.75 | | | | | | | | | | | | 5.8 | 999 | 16.2 | |
| MW-8 | 1:51 | 3.22 | | | 5.5 | | | | | | | | | | | | 6.6 | 1443 | 16.5 | |
| MW-9 | 2:23 | 1.23 | | | 6.5 | | | | | | | | | | | | 6.3 | 1545 | 15.9 | |
| MW-10 | 9:20 | 3.46 | | | 5.2 | | | | | | | | | | | | 6.1 | 1041 | 17.5 | |
| MW-11 | 8:47 | 4.44 | | | 5.0 | | | | | | | | | | | | 5.8 | 500 | 17.4 | |
| MW-12 | 12:58 | 9.39 | | | 4.6 | | | | | | | | | | | | 6.1 | 866 | 18.7 | |
| MW-14 | 1:01 | 14.80 | | | 1.9 | | | | | | | | | | | | 4.5 | 1508 | 14.1 | |
| MW-15 | 12:32 | 9.88 | | | 2.4 | | | | | | | | | | | | 5.5 | 1270 | 17.4 | |

RELINQUISHED BY (SIGNATURE) [Signature]

DATE

TIME

RECEIVED BY (SIGNATURE) [Signature]

RECEIVING LABORATORY ADDRESS 1150

RELINQUISHED BY (SIGNATURE) [Signature]

DATE

TIME

RECEIVED BY (SIGNATURE) [Signature]

DATE RECEIVED 8-28-15

RELINQUISHED BY (SIGNATURE) [Signature]

DATE

TIME

RECEIVED BY (SIGNATURE) [Signature]

ALL SAMPLES REC'D. INTACT ☐ YES ☐ NO

LIST SAMPLES MISSING/DAMAGED

ACCEPTED BY

TIME

2 of 3

Fax 814-234-3255

CC FIELD REP. _____
DATE _____
WEATHER _____
PROJECT NO. _____
ATTENTION _____

See Page 1

[illegible]

RECEIVING LABORATORY _____
 ADDRESS _____
 1150

DATE RECEIVED 8-28-75 1330 TIME _____

ALL SAMPLES REC'D. INTACT ☐ YES ☐ NO
LIST SAMPLES MISSING/DAMAGED _____
ACCEPTED BY _____

Chain of Custody Receiving Document

Page 3 of 3

Receiver: JSDate/Time of this check: 8/28/15 1355Client: LawrenceLab # 5H28033Received on ICE? 4 ☐ * Sample Temperature when delivered to the Lab: 62 Acceptable? 4 ☐ * or In cool down process? ☐ *Custody Seals? 4 Intact? 4COC/Labels on bottles agree? 4 ☐ * Correct containers for all the analysis requested? 4 ☐ * Matrix: water

| COC # | Number and Type of BOTTLES | | | | | | | | | | Comments |
|-------|----------------------------|------------|-----------|-------------|-----------------|-----------|--------------------|----------------------------|---------------------------------------|-------|----------|
| | Poly Non-Pres. | Poly H2SO4 | Poly HNO3 | Amber H2SO4 | Amber Non-Pres. | Poly NaOH | VOCS (Head space?) | Other | Properly Preserved | Bacti | |
| 1 | | | | | | | 2 HCl | <input type="checkbox"/> * | <input checked="" type="checkbox"/> * | | |
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- * DEVIATION PRESENT:
- ☒ No Ice ()
- ☒ Not at Proper Temperature ()
- ☒ Wrong Container ()
- ☒ Missing Information: ()

CLIENT CALLED:

YES ()

By Whom: _____

Date: _____

CLIENT RESPONSE:

Proceed with analysis; quality data ()

Will Resample ()

Provided Information ()

No Response; Proceed and qualified ()

Client Contact: _____ Date: _____

* Comments: _____



2019 Ninth Avenue
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89 Kristi Road
Pennssdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



www.fairwaylaboratories.com

State Certifications: MD 275, WV 364

Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-02
Collector: CLIENT
Number of Containers: 20

Reported:
12/02/15 09:28

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Sample Type | Date Sampled | Date Received |
|------------|---------------|--------|-------------|----------------|----------------|
| MW-3 | 5K17095-01 | Water | Grab | 11/13/15 13:53 | 11/17/15 15:20 |
| MW-4 | 5K17095-02 | Water | Grab | 11/13/15 14:34 | 11/17/15 15:20 |
| MW-9 | 5K17095-03 | Water | Grab | 11/13/15 15:27 | 11/17/15 15:20 |
| MW-17 | 5K17095-04 | Water | Grab | 11/12/15 11:17 | 11/17/15 15:20 |
| MW-18 | 5K17095-05 | Water | Grab | 11/12/15 11:50 | 11/17/15 15:20 |
| MW-19 | 5K17095-06 | Water | Grab | 11/12/15 09:48 | 11/17/15 15:20 |
| MW-20 | 5K17095-07 | Water | Grab | 11/12/15 13:05 | 11/17/15 15:20 |
| MW-21 | 5K17095-08 | Water | Grab | 11/12/15 17:35 | 11/17/15 15:20 |
| MW-22 | 5K17095-09 | Water | Grab | 11/12/15 16:35 | 11/17/15 15:20 |
| TRIP BLANK | 5K17095-10 | Water | Trip Blank | 11/13/15 00:00 | 11/17/15 15:20 |

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-02
Collector: CLIENT
Number of Containers: 20
Reported:
12/02/15 09:28

Client Sample ID: MW-3

Date/Time Sampled: 11/13/15 13:53

Laboratory Sample ID: 5K17095-01 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|---|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 1.46 | | 1.00 | ug/l | 11/18/15 23:58 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 6.07 | | 1.00 | ug/l | 11/18/15 23:58 | EPA 8260B | mtc | |
| Benzene | 82.4 | | 1.00 | ug/l | 11/18/15 23:58 | EPA 8260B | mtc | |
| Toluene | 12.7 | | 1.00 | ug/l | 11/18/15 23:58 | EPA 8260B | mtc | |
| Ethylbenzene | 20.0 | | 1.00 | ug/l | 11/18/15 23:58 | EPA 8260B | mtc | |
| Xylenes (total) | 28.0 | | 2.00 | ug/l | 11/18/15 23:58 | EPA 8260B | mtc | |
| Isopropylbenzene | 11.2 | | 1.00 | ug/l | 11/18/15 23:58 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | 419 | | 10.0 | ug/l | 11/19/15 17:47 | EPA 8260B | mtc | |
| Naphthalene | 1.63 | | 1.00 | ug/l | 11/18/15 23:58 | EPA 8260B | mtc | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | 99.3 % | | 70-130 | | 11/18/15 23:58 | EPA 8260B | mtc | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 95.3 % | | 70-130 | | 11/18/15 23:58 | EPA 8260B | mtc | |
| <i>Surrogate: Fluorobenzene</i> | 99.3 % | | 70-130 | | 11/18/15 23:58 | EPA 8260B | mtc | |

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State Certifications: MD 275, WV 364

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-02
Collector: CLIENT
Number of Containers: 20
Reported:
12/02/15 09:28

Client Sample ID: MW-4

Date/Time Sampled: 11/13/15 14:34

Laboratory Sample ID: 5K17095-02 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 8.15 | | 1.00 | ug/l | 11/19/15 00:37 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 20.1 | | 1.00 | ug/l | 11/19/15 00:37 | EPA 8260B | mtc | |
| Benzene | 7.29 | | 1.00 | ug/l | 11/19/15 00:37 | EPA 8260B | mtc | |
| Toluene | 14.9 | | 1.00 | ug/l | 11/19/15 00:37 | EPA 8260B | mtc | |
| Ethylbenzene | 8.42 | | 1.00 | ug/l | 11/19/15 00:37 | EPA 8260B | mtc | |
| Xylenes (total) | 41.1 | | 2.00 | ug/l | 11/19/15 00:37 | EPA 8260B | mtc | |
| Isopropylbenzene | 2.35 | | 1.00 | ug/l | 11/19/15 00:37 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 11/19/15 00:37 | EPA 8260B | mtc | |
| Naphthalene | 1.89 | | 1.00 | ug/l | 11/19/15 00:37 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 99.8 % | | 70-130 | | 11/19/15 00:37 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 93.2 % | | 70-130 | | 11/19/15 00:37 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 98.1 % | | 70-130 | | 11/19/15 00:37 | EPA 8260B | mtc | |

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-02
Collector: CLIENT
Number of Containers: 20
Reported:
12/02/15 09:28

Client Sample ID: MW-9

Date/Time Sampled: 11/13/15 15:27

Laboratory Sample ID: 5K17095-03 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|-------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 14.6 | | 10.0 | ug/l | 11/23/15 16:35 | EPA 8260B | wlm | |
| 1,2,4-Trimethylbenzene | 12.0 | | 10.0 | ug/l | 11/23/15 16:35 | EPA 8260B | wlm | |
| Benzene | 1210 | | 50.0 | ug/l | 11/25/15 05:19 | EPA 8260B | wlm | |
| Toluene | 112 | | 10.0 | ug/l | 11/23/15 16:35 | EPA 8260B | wlm | |
| Ethylbenzene | 251 | | 10.0 | ug/l | 11/23/15 16:35 | EPA 8260B | wlm | |
| Xylenes (total) | 73.0 | | 20.0 | ug/l | 11/23/15 16:35 | EPA 8260B | wlm | |
| Isopropylbenzene | 92.5 | | 10.0 | ug/l | 11/23/15 16:35 | EPA 8260B | wlm | |
| Methyl tert-butyl ether | <10.0 | | 10.0 | ug/l | 11/23/15 16:35 | EPA 8260B | wlm | |
| Naphthalene | 61.0 | | 10.0 | ug/l | 11/23/15 16:35 | EPA 8260B | wlm | |
| Surrogate: 4-Bromofluorobenzene | 100 % | | 70-130 | | 11/23/15 16:35 | EPA 8260B | wlm | |
| Surrogate: 1,2-Dichloroethane-d4 | 104 % | | 70-130 | | 11/23/15 16:35 | EPA 8260B | wlm | |
| Surrogate: Fluorobenzene | 103 % | | 70-130 | | 11/23/15 16:35 | EPA 8260B | wlm | |

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-02
Collector: CLIENT
Number of Containers: 20
Reported:
12/02/15 09:28

Client Sample ID: MW-17

Date/Time Sampled: 11/12/15 11:17

Laboratory Sample ID: 5K17095-04 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 01:16 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 01:16 | EPA 8260B | mtc | |
| Benzene | <1.00 | | 1.00 | ug/l | 11/19/15 01:16 | EPA 8260B | mtc | |
| Toluene | <1.00 | | 1.00 | ug/l | 11/19/15 01:16 | EPA 8260B | mtc | |
| Ethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 01:16 | EPA 8260B | mtc | |
| Xylenes (total) | <2.00 | | 2.00 | ug/l | 11/19/15 01:16 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 01:16 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 11/19/15 01:16 | EPA 8260B | mtc | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 11/19/15 01:16 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 99.3 % | | 70-130 | | 11/19/15 01:16 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 93.9 % | | 70-130 | | 11/19/15 01:16 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 98.9 % | | 70-130 | | 11/19/15 01:16 | EPA 8260B | mtc | |

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-02
Collector: CLIENT
Number of Containers: 20
Reported:
12/02/15 09:28

Client Sample ID: MW-18

Date/Time Sampled: 11/12/15 11:50

Laboratory Sample ID: 5K17095-05 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 01:54 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 01:54 | EPA 8260B | mtc | |
| Benzene | <1.00 | | 1.00 | ug/l | 11/19/15 01:54 | EPA 8260B | mtc | |
| Toluene | <1.00 | | 1.00 | ug/l | 11/19/15 01:54 | EPA 8260B | mtc | |
| Ethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 01:54 | EPA 8260B | mtc | |
| Xylenes (total) | <2.00 | | 2.00 | ug/l | 11/19/15 01:54 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 01:54 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 11/19/15 01:54 | EPA 8260B | mtc | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 11/19/15 01:54 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 99.1 % | | 70-130 | | 11/19/15 01:54 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 94.5 % | | 70-130 | | 11/19/15 01:54 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 98.8 % | | 70-130 | | 11/19/15 01:54 | EPA 8260B | mtc | |

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PaDEP: PA 41-04684



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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-02
Collector: CLIENT
Number of Containers: 20
Reported:
12/02/15 09:28

Client Sample ID: MW-19

Date/Time Sampled: 11/12/15 09:48

Laboratory Sample ID: 5K17095-06 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 03:10 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 03:10 | EPA 8260B | mtc | |
| Benzene | <1.00 | | 1.00 | ug/l | 11/19/15 03:10 | EPA 8260B | mtc | |
| Toluene | <1.00 | | 1.00 | ug/l | 11/19/15 03:10 | EPA 8260B | mtc | |
| Ethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 03:10 | EPA 8260B | mtc | |
| Xylenes (total) | <2.00 | | 2.00 | ug/l | 11/19/15 03:10 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 03:10 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 11/19/15 03:10 | EPA 8260B | mtc | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 11/19/15 03:10 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 99.3 % | | 70-130 | | 11/19/15 03:10 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 96.4 % | | 70-130 | | 11/19/15 03:10 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 99.2 % | | 70-130 | | 11/19/15 03:10 | EPA 8260B | mtc | |

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-02
Collector: CLIENT
Number of Containers: 20
Reported:
12/02/15 09:28

Client Sample ID: MW-20

Date/Time Sampled: 11/12/15 13:05

Laboratory Sample ID: 5K17095-07 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 00:18 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 00:18 | EPA 8260B | mtc | |
| Benzene | <1.00 | | 1.00 | ug/l | 11/19/15 00:18 | EPA 8260B | mtc | |
| Toluene | <1.00 | | 1.00 | ug/l | 11/19/15 00:18 | EPA 8260B | mtc | |
| Ethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 00:18 | EPA 8260B | mtc | |
| Xylenes (total) | <2.00 | | 2.00 | ug/l | 11/19/15 00:18 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 00:18 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 11/19/15 00:18 | EPA 8260B | mtc | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 11/19/15 00:18 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 98.7 % | | 70-130 | | 11/19/15 00:18 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 95.1 % | | 70-130 | | 11/19/15 00:18 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 99.0 % | | 70-130 | | 11/19/15 00:18 | EPA 8260B | mtc | |

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-02
Collector: CLIENT
Number of Containers: 20
Reported:
12/02/15 09:28

Client Sample ID: MW-21

Date/Time Sampled: 11/12/15 17:35

Laboratory Sample ID: 5K17095-08 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 00:56 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 00:56 | EPA 8260B | mtc | |
| Benzene | <1.00 | | 1.00 | ug/l | 11/19/15 00:56 | EPA 8260B | mtc | |
| Toluene | <1.00 | | 1.00 | ug/l | 11/19/15 00:56 | EPA 8260B | mtc | |
| Ethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 00:56 | EPA 8260B | mtc | |
| Xylenes (total) | <2.00 | | 2.00 | ug/l | 11/19/15 00:56 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 00:56 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 11/19/15 00:56 | EPA 8260B | mtc | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 11/19/15 00:56 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 98.7 % | | 70-130 | | 11/19/15 00:56 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 95.3 % | | 70-130 | | 11/19/15 00:56 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 99.0 % | | 70-130 | | 11/19/15 00:56 | EPA 8260B | mtc | |

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2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306
NELAP: PA 07-062, VA 460212

89 Kristi Road
Pennssdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-02
Collector: CLIENT
Number of Containers: 20
Reported:
12/02/15 09:28

Client Sample ID: MW-22

Date/Time Sampled: 11/12/15 16:35

Laboratory Sample ID: 5K17095-09 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 02:13 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 02:13 | EPA 8260B | mtc | |
| Benzene | <1.00 | | 1.00 | ug/l | 11/19/15 02:13 | EPA 8260B | mtc | |
| Toluene | <1.00 | | 1.00 | ug/l | 11/19/15 02:13 | EPA 8260B | mtc | |
| Ethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 02:13 | EPA 8260B | mtc | |
| Xylenes (total) | <2.00 | | 2.00 | ug/l | 11/19/15 02:13 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 02:13 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 11/19/15 02:13 | EPA 8260B | mtc | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 11/19/15 02:13 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 98.7 % | | 70-130 | | 11/19/15 02:13 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 96.5 % | | 70-130 | | 11/19/15 02:13 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 99.3 % | | 70-130 | | 11/19/15 02:13 | EPA 8260B | mtc | |

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89 Kristi Road
Pennsdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-02
Collector: CLIENT
Number of Containers: 20
Reported:
12/02/15 09:28

Client Sample ID: TRIP BLANK

Date/Time Sampled: 11/13/15 00:00

Laboratory Sample ID: 5K17095-10 (Water/Trip Blank)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 01:35 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 01:35 | EPA 8260B | mtc | |
| Benzene | <1.00 | | 1.00 | ug/l | 11/19/15 01:35 | EPA 8260B | mtc | |
| Toluene | <1.00 | | 1.00 | ug/l | 11/19/15 01:35 | EPA 8260B | mtc | |
| Ethylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 01:35 | EPA 8260B | mtc | |
| Xylenes (total) | <2.00 | | 2.00 | ug/l | 11/19/15 01:35 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 11/19/15 01:35 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 11/19/15 01:35 | EPA 8260B | mtc | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 11/19/15 01:35 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 97.5 % | | 70-130 | | 11/19/15 01:35 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 95.1 % | | 70-130 | | 11/19/15 01:35 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 98.4 % | | 70-130 | | 11/19/15 01:35 | EPA 8260B | mtc | |

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State Certifications: MD 275, WV 364

| | | |
|-----------------------------|-----------------------------|------------------|
| Converse | Project: ROSEMERGY'S | |
| 2738 West College Avenue | Project Number: 11-17788-02 | Reported: |
| State College PA, 16801 | Collector: CLIENT | 12/02/15 09:28 |
| Project Manager: Orion Cook | Number of Containers: 20 | |

Definitions

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

- * P indicates analysis performed by Fairway Laboratories, Inc. at the Pennsdale location. This location is PaDEP Chapter 252 certified.
- < Represents "less than" - indicates that the result was less than the reporting limit.
- MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values.
- RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.
- [CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.



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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-02
Collector: CLIENT
Number of Containers: 20

Reported:
12/02/15 09:28

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

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SAMPLING CHAIN OF CUSTODY AND ANALYSES RECORD FOR SOIL, GROUNDWATER AND AIR MONITORING

PA

FIRM RESPONSIBLE FOR SAMPLING

Converse Consultants

2738 West College Avenue
State College, Pennsylvania 16801
814-234-3223
Fax 814-234-3255



SAMPLING PLACE Rosemerys
OWNER Woodluch
ADDRESS Howley, PA

PROJECT NAME Rosemerys

CC FIELD REP. Staff Kent
DATE 11/12 + 11/13/15
WEATHER Rain + P. Cloudy windy ~50°
PROJECT NO. 11-177 88-02
ATTENTION DMS

5619095

182

#1

| STATION NO. OR SAMPLE IDENT. | TIME | DEPTH TO WATER (FEET) DATUM | PURGING METHOD | SAMPLE DEPTH (FT.) INTERVAL | AMOUNT PURGED (GALS) | SAMPLING METHOD | CONTAINER DESCRIPTION | | pH | SPECIFIC CONDUCTANCE (μ mhos/cm.) | TEMP. °C | ANALYSIS REQUEST / COMMENTS |
|------------------------------------|------|-----------------------------------|-------------------|-----------------------------------|-------------------------|--------------------|--------------------------|--|-----|---|----------|-----------------------------------|
| | | | | | | | | | | | | |
| MV-3 | 1353 | 2.13 | Peristaltic Pump | | 6.0 | Peristaltic Pump | 40ml VOA HCL | | 5.9 | 2570 | 12.9 | 2008 PA DEP Unloaded Gas |
| MV-4 | 1434 | 1.53 | | | 6.5 | | | | 7.3 | 440 | 11.6 | Short 1st Target Unloaded |
| MV-9 | 1527 | 0.08 | | | 7.0 | | | | 6.4 | 1648 | 11.7 | |
| MV-17 | 1117 | 8.34 | | | 3.5 | | | | 4.8 | 2130 | 13.3 | |
| MV-18 | 1150 | 12.99 | | | 1.5 | | | | 5.9 | 219 | 13.3 | |
| MV-19 | 0948 | 13.32 | | | 1.9 | | | | 6.0 | 1198 | 12.2 | |
| MV-20 | 1305 | 1.01 | | | 7.0 | | | | 6.8 | 799 | 11.9 | |
| MV-21 | 1735 | 1.04 | | | 6.2 | | | | 5.4 | 922 | 12.8 | |
| MV-22 | 1635 | 0.25 | | | 7.0 | | | | 5.6 | 691 | 11.9 | |
| TB | N/A | | | | | | | | | | | |

RECEIVING LABORATORY
ADDRESS

DATE RECEIVED

ALL SAMPLES REC'D. INTACT ☐ YES ☐ NO

LIST SAMPLES MISSING/DAMAGED

ACCEPTED BY

TIME

RELINQUISHED BY (SIGNATURE)

DATE

TIME

RECEIVED BY (SIGNATURE)

RECEIVING LABORATORY

RELINQUISHED BY (SIGNATURE)
Kumbaly W Kent

DATE
11/17/15

TIME
10:40

RECEIVED BY (SIGNATURE)
Kumbaly W Kent

RECEIVING LABORATORY

DATE RECEIVED

TIME

RELINQUISHED BY (SIGNATURE)

DATE
11/17/15

TIME
15:20

RECEIVED BY (SIGNATURE)
Kumbaly W Kent

RECEIVING LABORATORY

DATE RECEIVED

TIME

Chain of Custody Receiving Document

Receiver: MC

Page 2 of 2

Date/Time of this check: 11/17/15 1535 Client: Converse Lab # 5417095Received on ICE? Y ☐ * Sample Temperature when delivered to the Lab: 5.8 Acceptable? Y ☐ * or In cool down process? ☐ *Custody Seals? Y Intact? YCOC/Labels on bottles agree? Y ☐ * Correct containers for all the analysis requested? Y ☐ * Matrix: Water

| COC # | Number and Type of BOTTLES | | | | | | | | | | Comments |
|-------|----------------------------|------------|-----------|-------------|-----------------|-----------|--------------------|----------------------------|----------------------------|-------|----------|
| | Poly Non-Pres. | Poly H2SO4 | Poly HNO3 | Amber H2SO4 | Amber Non-Pres. | Poly NaOH | VOCS (Head space?) | Other | Properly Preserved | Bacti | |
| 1 | | | | | | | 24C1 | <input type="checkbox"/> * | <input type="checkbox"/> * | | |
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* DEVIATION PRESENT:

- ☐ No Ice ()
☐ Not at Proper Temperature ()
☐ Wrong Container ()
☐ Missing Information: ()

CLIENT CALLED:

YES ()

By Whom:

Date:

CLIENT RESPONSE:

- ☐ Proceed with analysis; quality data ()
☐ Will Resample ()
☐ Provided Information ()
☐ No Response; Proceed and qualified ()

Client Contact: Date:

* Comments:



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PaDEP: PA 41-04684



www.fairwaylaboratories.com

State Certifications: MD 275, WV 364

Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Sample Type | Date Sampled | Date Received |
|-----------|---------------|--------|-------------|----------------|----------------|
| MW-1R | 5L11073-01 | Water | Grab | 12/09/15 12:20 | 12/11/15 14:45 |
| MW-2 | 5L11073-02 | Water | Grab | 12/09/15 11:05 | 12/11/15 14:45 |
| MW-3 | 5L11073-03 | Water | Grab | 12/09/15 11:30 | 12/11/15 14:45 |
| MW-4 | 5L11073-04 | Water | Grab | 12/10/15 11:55 | 12/11/15 14:45 |
| MW-5 | 5L11073-05 | Water | Grab | 12/09/15 11:55 | 12/11/15 14:45 |
| MW-7 | 5L11073-06 | Water | Grab | 12/09/15 12:45 | 12/11/15 14:45 |
| MW-8 | 5L11073-07 | Water | Grab | 12/09/15 16:05 | 12/11/15 14:45 |
| MW-9 | 5L11073-08 | Water | Grab | 12/09/15 16:30 | 12/11/15 14:45 |
| MW-10 | 5L11073-09 | Water | Grab | 12/10/15 11:30 | 12/11/15 14:45 |
| MW-11 | 5L11073-10 | Water | Grab | 12/10/15 11:05 | 12/11/15 14:45 |
| MW-12 | 5L11073-11 | Water | Grab | 12/09/15 14:00 | 12/11/15 14:45 |
| MW-13 | 5L11073-12 | Water | Grab | 12/09/15 15:40 | 12/11/15 14:45 |
| MW-14 | 5L11073-13 | Water | Grab | 12/09/15 14:50 | 12/11/15 14:45 |
| MW-15 | 5L11073-14 | Water | Grab | 12/09/15 13:10 | 12/11/15 14:45 |
| MW-16 | 5L11073-15 | Water | Grab | 12/10/15 10:15 | 12/11/15 14:45 |
| MW-17 | 5L11073-16 | Water | Grab | 12/09/15 13:35 | 12/11/15 14:45 |
| MW-18 | 5L11073-17 | Water | Grab | 12/09/15 14:25 | 12/11/15 14:45 |
| MW-19 | 5L11073-18 | Water | Grab | 12/09/15 15:15 | 12/11/15 14:45 |

Fairway Laboratories, Inc.

Reviewed and Submitted by:

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Michael P. Tyler
Laboratory Director



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State Certifications: MD 275, WV 364

Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Sample Type | Date Sampled | Date Received |
|-----------|---------------|--------|-------------|----------------|----------------|
| MW-20 | 5L11073-19 | Water | Grab | 12/10/15 10:40 | 12/11/15 14:45 |
| MW-21 | 5L11073-20 | Water | Grab | 12/10/15 09:25 | 12/11/15 14:45 |
| MW-22 | 5L11073-21 | Water | Grab | 12/10/15 09:50 | 12/11/15 14:45 |
| MW-1M | 5L11073-22 | Water | Grab | 12/09/15 12:20 | 12/11/15 14:45 |
| TB | 5L11073-23 | Water | Trip Blank | 12/10/15 00:00 | 12/11/15 14:45 |



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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-1R

Date/Time Sampled: 12/09/15 12:20

Laboratory Sample ID: 5L11073-01 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 270 | | 50.0 | ug/l | 12/15/15 23:13 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 1060 | | 50.0 | ug/l | 12/15/15 23:13 | EPA 8260B | mtc | |
| Benzene | 3480 | | 50.0 | ug/l | 12/15/15 23:13 | EPA 8260B | mtc | |
| Toluene | 6820 | | 100 | ug/l | 12/17/15 18:14 | EPA 8260B | mtc | |
| Ethylbenzene | 1180 | | 50.0 | ug/l | 12/15/15 23:13 | EPA 8260B | mtc | |
| Xylenes (total) | 7380 | | 100 | ug/l | 12/15/15 23:13 | EPA 8260B | mtc | |
| Isopropylbenzene | 118 | | 50.0 | ug/l | 12/15/15 23:13 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <50.0 | | 50.0 | ug/l | 12/15/15 23:13 | EPA 8260B | mtc | |
| Naphthalene | 322 | | 50.0 | ug/l | 12/15/15 23:13 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 96.1 % | | 70-130 | | 12/15/15 23:13 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 84.8 % | | 70-130 | | 12/15/15 23:13 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 88.0 % | | 70-130 | | 12/15/15 23:13 | EPA 8260B | mtc | |

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45

Reported:
12/18/15 12:40

Client Sample ID: MW-2

Date/Time Sampled: 12/09/15 11:05

Laboratory Sample ID: 5L11073-02 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 15.0 | | 5.00 | ug/l | 12/15/15 20:59 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 116 | | 5.00 | ug/l | 12/15/15 20:59 | EPA 8260B | mtc | |
| Benzene | 78.0 | | 5.00 | ug/l | 12/15/15 20:59 | EPA 8260B | mtc | |
| Toluene | 127 | | 5.00 | ug/l | 12/15/15 20:59 | EPA 8260B | mtc | |
| Ethylbenzene | 107 | | 5.00 | ug/l | 12/15/15 20:59 | EPA 8260B | mtc | |
| Xylenes (total) | 120 | | 10.0 | ug/l | 12/15/15 20:59 | EPA 8260B | mtc | |
| Isopropylbenzene | 32.6 | | 5.00 | ug/l | 12/15/15 20:59 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <5.00 | | 5.00 | ug/l | 12/15/15 20:59 | EPA 8260B | mtc | |
| Naphthalene | 37.3 | | 5.00 | ug/l | 12/15/15 20:59 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 96.7 % | | 70-130 | | 12/15/15 20:59 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 84.7 % | | 70-130 | | 12/15/15 20:59 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 86.3 % | | 70-130 | | 12/15/15 20:59 | EPA 8260B | mtc | |

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Converse
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Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-3

Date/Time Sampled: 12/09/15 11:30

Laboratory Sample ID: 5L11073-03 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 12/17/15 18:33 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 1.75 | | 1.00 | ug/l | 12/17/15 18:33 | EPA 8260B | mtc | |
| Benzene | <1.00 | | 1.00 | ug/l | 12/17/15 18:33 | EPA 8260B | mtc | |
| Toluene | <1.00 | | 1.00 | ug/l | 12/17/15 18:33 | EPA 8260B | mtc | |
| Ethylbenzene | 1.11 | | 1.00 | ug/l | 12/17/15 18:33 | EPA 8260B | mtc | |
| Xylenes (total) | <2.00 | | 2.00 | ug/l | 12/17/15 18:33 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 12/17/15 18:33 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 12/17/15 18:33 | EPA 8260B | mtc | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 12/17/15 18:33 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 99.5 % | | 70-130 | | 12/17/15 18:33 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 95.6 % | | 70-130 | | 12/17/15 18:33 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 92.4 % | | 70-130 | | 12/17/15 18:33 | EPA 8260B | mtc | |

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Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-4

Date/Time Sampled: 12/10/15 11:55

Laboratory Sample ID: 5L11073-04 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 54.6 | | 5.00 | ug/l | 12/15/15 22:15 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 175 | | 5.00 | ug/l | 12/15/15 22:15 | EPA 8260B | mtc | |
| Benzene | 35.6 | | 5.00 | ug/l | 12/15/15 22:15 | EPA 8260B | mtc | |
| Toluene | 148 | | 5.00 | ug/l | 12/15/15 22:15 | EPA 8260B | mtc | |
| Ethylbenzene | 139 | | 5.00 | ug/l | 12/15/15 22:15 | EPA 8260B | mtc | |
| Xylenes (total) | 623 | | 10.0 | ug/l | 12/15/15 22:15 | EPA 8260B | mtc | |
| Isopropylbenzene | 22.0 | | 5.00 | ug/l | 12/15/15 22:15 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <5.00 | | 5.00 | ug/l | 12/15/15 22:15 | EPA 8260B | mtc | |
| Naphthalene | 17.7 | | 5.00 | ug/l | 12/15/15 22:15 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 97.7 % | | 70-130 | | 12/15/15 22:15 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 83.1 % | | 70-130 | | 12/15/15 22:15 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 86.4 % | | 70-130 | | 12/15/15 22:15 | EPA 8260B | mtc | |

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Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-5

Date/Time Sampled: 12/09/15 11:55

Laboratory Sample ID: 5L11073-05 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 434 | | 50.0 | ug/l | 12/15/15 23:51 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 1700 | | 50.0 | ug/l | 12/15/15 23:51 | EPA 8260B | mtc | |
| Benzene | 4690 | | 50.0 | ug/l | 12/15/15 23:51 | EPA 8260B | mtc | |
| Toluene | 18200 | | 500 | ug/l | 12/17/15 18:52 | EPA 8260B | mtc | |
| Ethylbenzene | 2500 | | 50.0 | ug/l | 12/15/15 23:51 | EPA 8260B | mtc | |
| Xylenes (total) | 12200 | | 100 | ug/l | 12/15/15 23:51 | EPA 8260B | mtc | |
| Isopropylbenzene | 170 | | 50.0 | ug/l | 12/15/15 23:51 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <50.0 | | 50.0 | ug/l | 12/15/15 23:51 | EPA 8260B | mtc | |
| Naphthalene | 443 | | 50.0 | ug/l | 12/15/15 23:51 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 96.3 % | | 70-130 | | 12/15/15 23:51 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 84.1 % | | 70-130 | | 12/15/15 23:51 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 87.2 % | | 70-130 | | 12/15/15 23:51 | EPA 8260B | mtc | |

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Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-7

Date/Time Sampled: 12/09/15 12:45

Laboratory Sample ID: 5L11073-06 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 18.1 | | 10.0 | ug/l | 12/15/15 21:56 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 47.5 | | 10.0 | ug/l | 12/15/15 21:56 | EPA 8260B | mtc | |
| Benzene | 917 | | 10.0 | ug/l | 12/15/15 21:56 | EPA 8260B | mtc | |
| Toluene | 157 | | 10.0 | ug/l | 12/15/15 21:56 | EPA 8260B | mtc | |
| Ethylbenzene | 96.6 | | 10.0 | ug/l | 12/15/15 21:56 | EPA 8260B | mtc | |
| Xylenes (total) | 222 | | 20.0 | ug/l | 12/15/15 21:56 | EPA 8260B | mtc | |
| Isopropylbenzene | 23.0 | | 10.0 | ug/l | 12/15/15 21:56 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | 15.5 | | 10.0 | ug/l | 12/15/15 21:56 | EPA 8260B | mtc | |
| Naphthalene | 33.2 | | 10.0 | ug/l | 12/15/15 21:56 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 96.3 % | | 70-130 | | 12/15/15 21:56 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 85.9 % | | 70-130 | | 12/15/15 21:56 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 87.4 % | | 70-130 | | 12/15/15 21:56 | EPA 8260B | mtc | |

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Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-8

Date/Time Sampled: 12/09/15 16:05

Laboratory Sample ID: 5L11073-07 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 12/15/15 06:52 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 2.69 | | 1.00 | ug/l | 12/15/15 06:52 | EPA 8260B | mtc | |
| Benzene | 1.55 | | 1.00 | ug/l | 12/15/15 06:52 | EPA 8260B | mtc | |
| Toluene | 8.10 | | 1.00 | ug/l | 12/15/15 06:52 | EPA 8260B | mtc | |
| Ethylbenzene | 2.05 | | 1.00 | ug/l | 12/15/15 06:52 | EPA 8260B | mtc | |
| Xylenes (total) | 11.3 | | 2.00 | ug/l | 12/15/15 06:52 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 12/15/15 06:52 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 12/15/15 06:52 | EPA 8260B | mtc | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 12/15/15 06:52 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 96.8 % | | 70-130 | | 12/15/15 06:52 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 83.0 % | | 70-130 | | 12/15/15 06:52 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 86.3 % | | 70-130 | | 12/15/15 06:52 | EPA 8260B | mtc | |

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Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-9

Date/Time Sampled: 12/09/15 16:30

Laboratory Sample ID: 5L11073-08 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 15.1 | | 10.0 | ug/l | 12/15/15 22:34 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 17.1 | | 10.0 | ug/l | 12/15/15 22:34 | EPA 8260B | mtc | |
| Benzene | 1510 | | 50.0 | ug/l | 12/17/15 17:36 | EPA 8260B | mtc | |
| Toluene | 116 | | 10.0 | ug/l | 12/15/15 22:34 | EPA 8260B | mtc | |
| Ethylbenzene | 265 | | 10.0 | ug/l | 12/15/15 22:34 | EPA 8260B | mtc | |
| Xylenes (total) | 98.6 | | 20.0 | ug/l | 12/15/15 22:34 | EPA 8260B | mtc | |
| Isopropylbenzene | 97.1 | | 10.0 | ug/l | 12/15/15 22:34 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <10.0 | | 10.0 | ug/l | 12/15/15 22:34 | EPA 8260B | mtc | |
| Naphthalene | 84.1 | | 10.0 | ug/l | 12/15/15 22:34 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 96.0 % | | 70-130 | | 12/15/15 22:34 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 85.2 % | | 70-130 | | 12/15/15 22:34 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 86.3 % | | 70-130 | | 12/15/15 22:34 | EPA 8260B | mtc | |

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Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-10

Date/Time Sampled: 12/10/15 11:30

Laboratory Sample ID: 5L11073-09 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | |
|----------------------------------|--------|--------|------|----------------|-----------|-----|
| 1,3,5-Trimethylbenzene | <1.00 | 1.00 | ug/l | 12/15/15 07:30 | EPA 8260B | mtc |
| 1,2,4-Trimethylbenzene | <1.00 | 1.00 | ug/l | 12/15/15 07:30 | EPA 8260B | mtc |
| Benzene | 33.1 | 1.00 | ug/l | 12/15/15 07:30 | EPA 8260B | mtc |
| Toluene | <1.00 | 1.00 | ug/l | 12/15/15 07:30 | EPA 8260B | mtc |
| Ethylbenzene | <1.00 | 1.00 | ug/l | 12/15/15 07:30 | EPA 8260B | mtc |
| Xylenes (total) | <2.00 | 2.00 | ug/l | 12/15/15 07:30 | EPA 8260B | mtc |
| Isopropylbenzene | 4.85 | 1.00 | ug/l | 12/15/15 07:30 | EPA 8260B | mtc |
| Methyl tert-butyl ether | 106 | 5.00 | ug/l | 12/15/15 20:22 | EPA 8260B | mtc |
| Naphthalene | <1.00 | 1.00 | ug/l | 12/15/15 07:30 | EPA 8260B | mtc |
| Surrogate: 4-Bromofluorobenzene | 96.2 % | 70-130 | | 12/15/15 07:30 | EPA 8260B | mtc |
| Surrogate: 1,2-Dichloroethane-d4 | 83.3 % | 70-130 | | 12/15/15 07:30 | EPA 8260B | mtc |
| Surrogate: Fluorobenzene | 86.3 % | 70-130 | | 12/15/15 07:30 | EPA 8260B | mtc |

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(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-11

Date/Time Sampled: 12/10/15 11:05

Laboratory Sample ID: 5L11073-10 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 12/15/15 08:07 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 12/15/15 08:07 | EPA 8260B | mtc | |
| Benzene | <1.00 | | 1.00 | ug/l | 12/15/15 08:07 | EPA 8260B | mtc | |
| Toluene | <1.00 | | 1.00 | ug/l | 12/15/15 08:07 | EPA 8260B | mtc | |
| Ethylbenzene | <1.00 | | 1.00 | ug/l | 12/15/15 08:07 | EPA 8260B | mtc | |
| Xylenes (total) | <2.00 | | 2.00 | ug/l | 12/15/15 08:07 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 12/15/15 08:07 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 12/15/15 08:07 | EPA 8260B | mtc | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 12/15/15 08:07 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 96.7 % | | 70-130 | | 12/15/15 08:07 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 84.2 % | | 70-130 | | 12/15/15 08:07 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 86.3 % | | 70-130 | | 12/15/15 08:07 | EPA 8260B | mtc | |

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-12

Date/Time Sampled: 12/09/15 14:00

Laboratory Sample ID: 5L11073-11 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 2.46 | | 1.00 | ug/l | 12/15/15 08:45 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 9.25 | | 1.00 | ug/l | 12/15/15 08:45 | EPA 8260B | mtc | |
| Benzene | 10.2 | | 1.00 | ug/l | 12/15/15 08:45 | EPA 8260B | mtc | |
| Toluene | 36.4 | | 1.00 | ug/l | 12/15/15 08:45 | EPA 8260B | mtc | |
| Ethylbenzene | 7.26 | | 1.00 | ug/l | 12/15/15 08:45 | EPA 8260B | mtc | |
| Xylenes (total) | 40.8 | | 2.00 | ug/l | 12/15/15 08:45 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 12/15/15 08:45 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 12/15/15 08:45 | EPA 8260B | mtc | |
| Naphthalene | 1.66 | | 1.00 | ug/l | 12/15/15 08:45 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 96.5 % | | 70-130 | | 12/15/15 08:45 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 83.4 % | | 70-130 | | 12/15/15 08:45 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 86.0 % | | 70-130 | | 12/15/15 08:45 | EPA 8260B | mtc | |

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-13

Date/Time Sampled: 12/09/15 15:40

Laboratory Sample ID: 5L11073-12 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 4.34 | | 1.00 | ug/l | 12/15/15 09:23 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 16.8 | | 1.00 | ug/l | 12/15/15 09:23 | EPA 8260B | mtc | |
| Benzene | 15.7 | | 1.00 | ug/l | 12/15/15 09:23 | EPA 8260B | mtc | |
| Toluene | 91.0 | | 1.00 | ug/l | 12/15/15 09:23 | EPA 8260B | mtc | |
| Ethylbenzene | 18.0 | | 1.00 | ug/l | 12/15/15 09:23 | EPA 8260B | mtc | |
| Xylenes (total) | 98.3 | | 2.00 | ug/l | 12/15/15 09:23 | EPA 8260B | mtc | |
| Isopropylbenzene | 1.68 | | 1.00 | ug/l | 12/15/15 09:23 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 12/15/15 09:23 | EPA 8260B | mtc | |
| Naphthalene | 3.68 | | 1.00 | ug/l | 12/15/15 09:23 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 97.3 % | | 70-130 | | 12/15/15 09:23 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 84.4 % | | 70-130 | | 12/15/15 09:23 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 86.5 % | | 70-130 | | 12/15/15 09:23 | EPA 8260B | mtc | |

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-14

Date/Time Sampled: 12/09/15 14:50

Laboratory Sample ID: 5L11073-13 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 1.78 | | 1.00 | ug/l | 12/15/15 10:01 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 6.55 | | 1.00 | ug/l | 12/15/15 10:01 | EPA 8260B | mtc | |
| Benzene | 5.21 | | 1.00 | ug/l | 12/15/15 10:01 | EPA 8260B | mtc | |
| Toluene | 23.0 | | 1.00 | ug/l | 12/15/15 10:01 | EPA 8260B | mtc | |
| Ethylbenzene | 5.14 | | 1.00 | ug/l | 12/15/15 10:01 | EPA 8260B | mtc | |
| Xylenes (total) | 28.6 | | 2.00 | ug/l | 12/15/15 10:01 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 12/15/15 10:01 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 12/15/15 10:01 | EPA 8260B | mtc | |
| Naphthalene | 1.24 | | 1.00 | ug/l | 12/15/15 10:01 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 96.9 % | | 70-130 | | 12/15/15 10:01 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 85.1 % | | 70-130 | | 12/15/15 10:01 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 86.1 % | | 70-130 | | 12/15/15 10:01 | EPA 8260B | mtc | |

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PaDEP: PA 41-04684



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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-15

Date/Time Sampled: 12/09/15 13:10

Laboratory Sample ID: 5L11073-14 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 5.37 | | 1.00 | ug/l | 12/15/15 10:39 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 20.2 | | 1.00 | ug/l | 12/15/15 10:39 | EPA 8260B | mtc | |
| Benzene | 22.8 | | 1.00 | ug/l | 12/15/15 10:39 | EPA 8260B | mtc | |
| Toluene | 70.2 | | 1.00 | ug/l | 12/15/15 10:39 | EPA 8260B | mtc | |
| Ethylbenzene | 15.2 | | 1.00 | ug/l | 12/15/15 10:39 | EPA 8260B | mtc | |
| Xylenes (total) | 87.9 | | 2.00 | ug/l | 12/15/15 10:39 | EPA 8260B | mtc | |
| Isopropylbenzene | 1.92 | | 1.00 | ug/l | 12/15/15 10:39 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 12/15/15 10:39 | EPA 8260B | mtc | |
| Naphthalene | 3.98 | | 1.00 | ug/l | 12/15/15 10:39 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 98.0 % | | 70-130 | | 12/15/15 10:39 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 84.7 % | | 70-130 | | 12/15/15 10:39 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 86.5 % | | 70-130 | | 12/15/15 10:39 | EPA 8260B | mtc | |

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PaDEP: PA 41-04684



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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-16

Date/Time Sampled: 12/10/15 10:15

Laboratory Sample ID: 5L11073-15 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 12/15/15 11:17 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 12/15/15 11:17 | EPA 8260B | mtc | |
| Benzene | <1.00 | | 1.00 | ug/l | 12/15/15 11:17 | EPA 8260B | mtc | |
| Toluene | <1.00 | | 1.00 | ug/l | 12/15/15 11:17 | EPA 8260B | mtc | |
| Ethylbenzene | <1.00 | | 1.00 | ug/l | 12/15/15 11:17 | EPA 8260B | mtc | |
| Xylenes (total) | <2.00 | | 2.00 | ug/l | 12/15/15 11:17 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 12/15/15 11:17 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | 6.72 | | 1.00 | ug/l | 12/15/15 11:17 | EPA 8260B | mtc | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 12/15/15 11:17 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 95.9 % | | 70-130 | | 12/15/15 11:17 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 83.4 % | | 70-130 | | 12/15/15 11:17 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 85.8 % | | 70-130 | | 12/15/15 11:17 | EPA 8260B | mtc | |

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PaDEP: PA 41-04684



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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-17

Date/Time Sampled: 12/09/15 13:35

Laboratory Sample ID: 5L11073-16 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 3.57 | | 1.00 | ug/l | 12/15/15 01:09 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 12.8 | | 1.00 | ug/l | 12/15/15 01:09 | EPA 8260B | mtc | |
| Benzene | 14.5 | | 1.00 | ug/l | 12/15/15 01:09 | EPA 8260B | mtc | |
| Toluene | 46.8 | | 1.00 | ug/l | 12/15/15 01:09 | EPA 8260B | mtc | |
| Ethylbenzene | 9.92 | | 1.00 | ug/l | 12/15/15 01:09 | EPA 8260B | mtc | |
| Xylenes (total) | 56.3 | | 2.00 | ug/l | 12/15/15 01:09 | EPA 8260B | mtc | |
| Isopropylbenzene | 1.22 | | 1.00 | ug/l | 12/15/15 01:09 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 12/15/15 01:09 | EPA 8260B | mtc | |
| Naphthalene | 2.24 | | 1.00 | ug/l | 12/15/15 01:09 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 96.9 % | | 70-130 | | 12/15/15 01:09 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 82.9 % | | 70-130 | | 12/15/15 01:09 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 86.2 % | | 70-130 | | 12/15/15 01:09 | EPA 8260B | mtc | |

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-18

Date/Time Sampled: 12/09/15 14:25

Laboratory Sample ID: 5L11073-17 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|
| 1,3,5-Trimethylbenzene | 2.29 | | 1.00 | ug/l | 12/14/15 18:29 | EPA 8260B | mtc |
| 1,2,4-Trimethylbenzene | 8.47 | | 1.00 | ug/l | 12/14/15 18:29 | EPA 8260B | mtc |
| Benzene | 7.27 | | 1.00 | ug/l | 12/14/15 18:29 | EPA 8260B | mtc |
| Toluene | 29.5 | | 1.00 | ug/l | 12/14/15 18:29 | EPA 8260B | mtc |
| Ethylbenzene | 6.63 | | 1.00 | ug/l | 12/14/15 18:29 | EPA 8260B | mtc |
| Xylenes (total) | 37.3 | | 2.00 | ug/l | 12/14/15 18:29 | EPA 8260B | mtc |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 18:29 | EPA 8260B | mtc |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 12/14/15 18:29 | EPA 8260B | mtc |
| Naphthalene | 1.58 | | 1.00 | ug/l | 12/14/15 18:29 | EPA 8260B | mtc |
| Surrogate: 4-Bromofluorobenzene | 95.8 % | | 70-130 | | 12/14/15 18:29 | EPA 8260B | mtc |
| Surrogate: 1,2-Dichloroethane-d4 | 86.7 % | | 70-130 | | 12/14/15 18:29 | EPA 8260B | mtc |
| Surrogate: Fluorobenzene | 84.9 % | | 70-130 | | 12/14/15 18:29 | EPA 8260B | mtc |

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-19

Date/Time Sampled: 12/09/15 15:15

Laboratory Sample ID: 5L11073-18 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <2.00 | | 2.00 | ug/l | 12/17/15 20:07 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 3.64 | | 2.00 | ug/l | 12/17/15 20:07 | EPA 8260B | mtc | |
| Benzene | 2.96 | | 2.00 | ug/l | 12/17/15 20:07 | EPA 8260B | mtc | |
| Toluene | 12.1 | | 2.00 | ug/l | 12/17/15 20:07 | EPA 8260B | mtc | |
| Ethylbenzene | 2.82 | | 2.00 | ug/l | 12/17/15 20:07 | EPA 8260B | mtc | |
| Xylenes (total) | 15.9 | | 4.00 | ug/l | 12/17/15 20:07 | EPA 8260B | mtc | |
| Isopropylbenzene | <2.00 | | 2.00 | ug/l | 12/17/15 20:07 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <2.00 | | 2.00 | ug/l | 12/17/15 20:07 | EPA 8260B | mtc | |
| Naphthalene | <2.00 | | 2.00 | ug/l | 12/17/15 20:07 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 98.4 % | | 70-130 | | 12/17/15 20:07 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 95.6 % | | 70-130 | | 12/17/15 20:07 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 93.1 % | | 70-130 | | 12/17/15 20:07 | EPA 8260B | mtc | |

Fairway Laboratories, Inc.

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2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306
NELAP: PA 07-062, VA 460212

89 Kristi Road
Pennssdale, PA 17756
(570) 494-6380
PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-20

Date/Time Sampled: 12/10/15 10:40

Laboratory Sample ID: 5L11073-19 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 19:45 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 19:45 | EPA 8260B | mtc | |
| Benzene | <1.00 | | 1.00 | ug/l | 12/14/15 19:45 | EPA 8260B | mtc | |
| Toluene | <1.00 | | 1.00 | ug/l | 12/14/15 19:45 | EPA 8260B | mtc | |
| Ethylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 19:45 | EPA 8260B | mtc | |
| Xylenes (total) | <2.00 | | 2.00 | ug/l | 12/14/15 19:45 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 19:45 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 12/14/15 19:45 | EPA 8260B | mtc | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 12/14/15 19:45 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 97.2 % | | 70-130 | | 12/14/15 19:45 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 84.9 % | | 70-130 | | 12/14/15 19:45 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 85.9 % | | 70-130 | | 12/14/15 19:45 | EPA 8260B | mtc | |

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-21

Date/Time Sampled: 12/10/15 09:25

Laboratory Sample ID: 5L11073-20 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 20:23 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 20:23 | EPA 8260B | mtc | |
| Benzene | <1.00 | | 1.00 | ug/l | 12/14/15 20:23 | EPA 8260B | mtc | |
| Toluene | <1.00 | | 1.00 | ug/l | 12/14/15 20:23 | EPA 8260B | mtc | |
| Ethylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 20:23 | EPA 8260B | mtc | |
| Xylenes (total) | <2.00 | | 2.00 | ug/l | 12/14/15 20:23 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 20:23 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 12/14/15 20:23 | EPA 8260B | mtc | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 12/14/15 20:23 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 96.1 % | | 70-130 | | 12/14/15 20:23 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 84.5 % | | 70-130 | | 12/14/15 20:23 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 86.9 % | | 70-130 | | 12/14/15 20:23 | EPA 8260B | mtc | |

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-22

Date/Time Sampled: 12/10/15 09:50

Laboratory Sample ID: 5L11073-21 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 21:01 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 21:01 | EPA 8260B | mtc | |
| Benzene | <1.00 | | 1.00 | ug/l | 12/14/15 21:01 | EPA 8260B | mtc | |
| Toluene | <1.00 | | 1.00 | ug/l | 12/14/15 21:01 | EPA 8260B | mtc | |
| Ethylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 21:01 | EPA 8260B | mtc | |
| Xylenes (total) | <2.00 | | 2.00 | ug/l | 12/14/15 21:01 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 21:01 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 12/14/15 21:01 | EPA 8260B | mtc | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 12/14/15 21:01 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 94.1 % | | 70-130 | | 12/14/15 21:01 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 83.1 % | | 70-130 | | 12/14/15 21:01 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 86.3 % | | 70-130 | | 12/14/15 21:01 | EPA 8260B | mtc | |

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: MW-1M

Date/Time Sampled: 12/09/15 12:20

Laboratory Sample ID: 5L11073-22 (Water/Grab)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|
|---------|--------|-----|----|-------|-------------------------|--------|--------------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | 297 | | 5.00 | ug/l | 12/15/15 22:53 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | 1090 | | 100 | ug/l | 12/17/15 17:17 | EPA 8260B | mtc | |
| Benzene | 4130 | | 100 | ug/l | 12/17/15 17:17 | EPA 8260B | mtc | |
| Toluene | 6910 | | 100 | ug/l | 12/17/15 17:17 | EPA 8260B | mtc | |
| Ethylbenzene | 1310 | | 100 | ug/l | 12/17/15 17:17 | EPA 8260B | mtc | |
| Xylenes (total) | 8110 | | 200 | ug/l | 12/17/15 17:17 | EPA 8260B | mtc | |
| Isopropylbenzene | 138 | | 5.00 | ug/l | 12/15/15 22:53 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | 5.80 | | 5.00 | ug/l | 12/15/15 22:53 | EPA 8260B | mtc | |
| Naphthalene | 313 | | 5.00 | ug/l | 12/15/15 22:53 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 98.5 % | | 70-130 | | 12/15/15 22:53 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 81.9 % | | 70-130 | | 12/15/15 22:53 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 87.0 % | | 70-130 | | 12/15/15 22:53 | EPA 8260B | mtc | |

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PaDEP: PA 41-04684



State Certifications: MD 275, WV 364

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Converse
2738 West College Avenue
State College PA, 16801
Project Manager: Orion Cook

Project: ROSEMERGY'S
Project Number: 11-17788-03
Collector: CLIENT
Number of Containers: 45
Reported:
12/18/15 12:40

Client Sample ID: TB

Date/Time Sampled: 12/10/15 00:00

Laboratory Sample ID: 5L11073-23 (Water/Trip Blank)

| Analyte | Result | MDL | RL | Units | Date / Time Analyzed | Method | * Analyst | Note |
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|
|---------|--------|-----|----|-------|----------------------|--------|-----------|------|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | |
|----------------------------------|--------|--|--------|------|----------------|-----------|-----|--|
| 1,3,5-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 21:39 | EPA 8260B | mtc | |
| 1,2,4-Trimethylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 21:39 | EPA 8260B | mtc | |
| Benzene | <1.00 | | 1.00 | ug/l | 12/14/15 21:39 | EPA 8260B | mtc | |
| Toluene | <1.00 | | 1.00 | ug/l | 12/14/15 21:39 | EPA 8260B | mtc | |
| Ethylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 21:39 | EPA 8260B | mtc | |
| Xylenes (total) | <2.00 | | 2.00 | ug/l | 12/14/15 21:39 | EPA 8260B | mtc | |
| Isopropylbenzene | <1.00 | | 1.00 | ug/l | 12/14/15 21:39 | EPA 8260B | mtc | |
| Methyl tert-butyl ether | <1.00 | | 1.00 | ug/l | 12/14/15 21:39 | EPA 8260B | mtc | |
| Naphthalene | <1.00 | | 1.00 | ug/l | 12/14/15 21:39 | EPA 8260B | mtc | |
| Surrogate: 4-Bromofluorobenzene | 95.4 % | | 70-130 | | 12/14/15 21:39 | EPA 8260B | mtc | |
| Surrogate: 1,2-Dichloroethane-d4 | 82.9 % | | 70-130 | | 12/14/15 21:39 | EPA 8260B | mtc | |
| Surrogate: Fluorobenzene | 85.8 % | | 70-130 | | 12/14/15 21:39 | EPA 8260B | mtc | |

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| | | |
|-----------------------------|-----------------------------|------------------|
| Converse | Project: ROSEMERGY'S | |
| 2738 West College Avenue | Project Number: 11-17788-03 | Reported: |
| State College PA, 16801 | Collector: CLIENT | 12/18/15 12:40 |
| Project Manager: Orion Cook | Number of Containers: 45 | |

Definitions

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

- * P indicates analysis performed by Fairway Laboratories, Inc. at the Pennsdale location. This location is PaDEP Chapter 252 certified.
- < Represents "less than" - indicates that the result was less than the reporting limit.
- MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values.
- RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.
- [CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.



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| | | |
|-----------------------------|-----------------------------|------------------|
| Converse | Project: ROSEMERGY'S | |
| 2738 West College Avenue | Project Number: 11-17788-03 | Reported: |
| State College PA, 16801 | Collector: CLIENT | 12/18/15 12:40 |
| Project Manager: Orion Cook | Number of Containers: 45 | |

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

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SAMPLING, CHAIN OF CUSTODY AND ANALYSES RECORD FOR SOIL, GROUNDWATER AND AIR MONITORING

PA

SAMPLING PLACE Rosebury CC FIELD REP. 107 FIRM RESPONSIBLE FOR SAMPLING
OWNER Woodlawn DATE 12/9 & 12/10/15 **Converse Consultants**
ADDRESS Rte 590, Hawley, PA WEATHER P. Sunny 32s-40s / Sunny, 50s 2738 West College Avenue
PROJECT NO. 11-17188-03 PROJECT NO. 11-17188-03 State College, Pennsylvania 16801
ATTENTION DWS or OBC 814-234-3223
PROJECT NAME Rosebury Fax 814-234-3255

52-11073 #1

| STATION NO. OR SAMPLE IDENT. | TIME | DEPTH TO WATER (FEET) DATUM | PURGING METHOD | SAMPLE DEPTH (FT.) INTERVAL | AMOUNT PURGED (GALS) | SAMPLING METHOD | CONTAINER DESCRIPTION | | PH | SPECIFIC CONDUCTANCE (μ mhos/cm.) | TEMP. °C | ANALYSIS REQUEST / COMMENTS |
|------------------------------------|-------|-----------------------------------|-------------------|-----------------------------------|-------------------------|--------------------|--------------------------|--|-----|--|----------|-----------------------------------|
| | | | | | | | | | | | | |
| 1 MW-1R | 12:20 | 6.21 | Pump | | 4.1 | Pump | 40 mL HCl | | 4.8 | 3370 | 14.9 | (PADEP 2008 Unlabeled Gas Short) |
| 2 MW-2 | 11:05 | 3.65 | | | 5.1 | | | | 6.7 | 1519 | 13.0 | List Target Compounds |
| 3 MW-3 | 11:30 | 2.67 | | | 5.6 | | | | 8.0 | 253 | 9.7 | |
| 2/104 MW-4 | 11:55 | 3.40 | | | 5.4 | | | | 7.2 | 589 | 11.1 | |
| 5 MW-5 | 11:55 | 3.92 | | | 5.2 | | | | 6.9 | 1766 | 11.3 | |
| 6 MW-7 | 12:15 | 7.82 | | | 3.5 | | | | 6.1 | 720 | 14.6 | |
| 7 MW-8 | 4:05 | 2.46 | | | 5.9 | | | | 6.8 | 928 | 10.9 | |
| 8 MW-9 | 4:30 | 0.50 | | | 6.8 | | | | 6.7 | 1784 | 10.7 | |
| 12/10 MW-10 | 11:30 | 2.83 | | | 5.9 | | | | 5.7 | 1162 | 11.1 | |
| 12/10 MW-11 | 11:05 | 2.62 | | | 5.0 | | | | 6.0 | 578 | 11.5 | |
| 11 MW-12 | 2:00 | 4.23 | | | 5.0 | | | | 6.3 | 531 | 12.1 | |
| 12 MW-13 | 3:40 | 12.72 | | | 1.0 | | | | 6.2 | 360 | 11.9 | |
| 13 MW-14 | 2:50 | 13.30 | | | 2.6 | | | | 4.9 | 401 | 13.8 | |

| | | | | |
|-----------------------------|----------|-------|-------------------------|--|
| RELINQUISHED BY (SIGNATURE) | DATE | TIME | RECEIVED BY (SIGNATURE) | RECEIVING LABORATORY |
| <u>[Signature]</u> | 12/11/15 | 10:58 | <u>[Signature]</u> | ADDRESS |
| RELINQUISHED BY (SIGNATURE) | DATE | TIME | RECEIVED BY (SIGNATURE) | |
| <u>[Signature]</u> | 12/11 | 1350 | <u>[Signature]</u> | DATE RECEIVED |
| RELINQUISHED BY (SIGNATURE) | DATE | TIME | RECEIVED BY (SIGNATURE) | TIME |
| <u>[Signature]</u> | 12/11/15 | 1445 | <u>[Signature]</u> | ALL SAMPLES REC'D. INTACT <input type="checkbox"/> YES <input type="checkbox"/> NO |
| | | | | LIST SAMPLES MISSING/DAMAGED |
| | | | | ACCEPTED BY |

SAMPLING, CHAIN OF CUSTODY AND ANALYSES RECORD FOR SOIL, GROUNDWATER AND AIR MONITORING

SAMPLING PLACE Rossmore

OWNER See Page 1

ADDRESS See Page 1

PROJECT NAME SZ11073#2

CC FIELD REP. See Page 1

DATE See Page 1

WEATHER See Page 1

PROJECT NO. See Page 1

ATTENTION See Page 1

FIRM RESPONSIBLE FOR SAMPLING

Converse Consultants

2738 West College Avenue
State College, Pennsylvania 16801

814-234-3223
Fax 814-234-3255



| STATION NO. OR SAMPLE IDENT. | TIME | DEPTH TO WATER (FEET) DATUM | PURGING METHOD | SAMPLE DEPTH (FT.) INTERVAL | AMOUNT PURGED (GALS) | SAMPLING METHOD | CONTAINER DESCRIPTION | | | | PH | SPECIFIC CONDUCTANCE (μ mhos/cm.) | TEMP. °C | ANALYSIS REQUEST / COMMENTS |
|------------------------------------|-------|-----------------------------------|-------------------|-----------------------------------|-------------------------|--------------------|--------------------------|--|--|--|-----|--|----------|-----------------------------------|
| | | | | | | | | | | | | | | |
| 14 MW-15 | 1:10 | 8.61 | Pump | | 3.0 | Pump | 40 mL HCl | | | | 5.2 | 2080 | 13.6 | (PADEP 2008 Unleaded Gas Short) |
| 15 MW-16 | 10:15 | 0.74 | | | 6.7 | | | | | | 5.6 | 1382 | 10.4 | (List Target Compounds) |
| 16 MW-17 | 1:35 | 5.72 | | | 4.4 | | | | | | 4.9 | 1428 | 12.0 | |
| 17 MW-18 | 2:25 | 11.09 | | | 3.3 | | | | | | 5.8 | 397 | 12.6 | |
| 18 MW-19 | 3:15 | 12.22 | | | 2.3 | | | | | | 5.4 | 1035 | 12.8 | |
| 19 MW-20 | 10:40 | 1.42 | | | 6.3 | | | | | | 7.1 | 427 | 10.6 | |
| 20 MW-21 | 9:25 | 1.59 | | | 5.6 | | | | | | 5.8 | 778 | 9.5 | |
| 21 MW-22 | 9:50 | 0.79 | | | 6.8 | | | | | | 5.4 | 656 | 9.9 | |
| 22 MW-1M | 12:20 | 6.21 | | | 4.1 | | | | | | 4.8 | 3370 | 14.9 | |
| 23 TB | | | | | | | | | | | | | | |

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|---|------------------|---------------|---|---------------------------|---------------|
| RELINQUISHED BY (SIGNATURE) <u>[Signature]</u> | DATE 12/11/15 | TIME 10:50 | RECEIVED BY (SIGNATURE) <u>[Signature]</u> | DATE RECEIVED 12/11/15 | TIME 10:50 |
| RELINQUISHED BY (SIGNATURE) <u>[Signature]</u> | DATE 12/11 | TIME 1350 | RECEIVED BY (SIGNATURE) <u>[Signature]</u> | DATE RECEIVED 12/11/15 | TIME 1350 |
| RELINQUISHED BY (SIGNATURE) <u>[Signature]</u> | DATE 12/11/15 | TIME 1445 | RECEIVED BY (SIGNATURE) <u>[Signature]</u> | DATE RECEIVED 12/11/15 | TIME 1445 |

RECEIVING LABORATORY ADDRESS _____
DATE RECEIVED _____ TIME _____
ALL SAMPLES REC'D. INTACT ☐ YES ☐ NO
LIST SAMPLES MISSING/DAMAGED _____
ACCEPTED BY _____

Chain of Custody Receiving Document

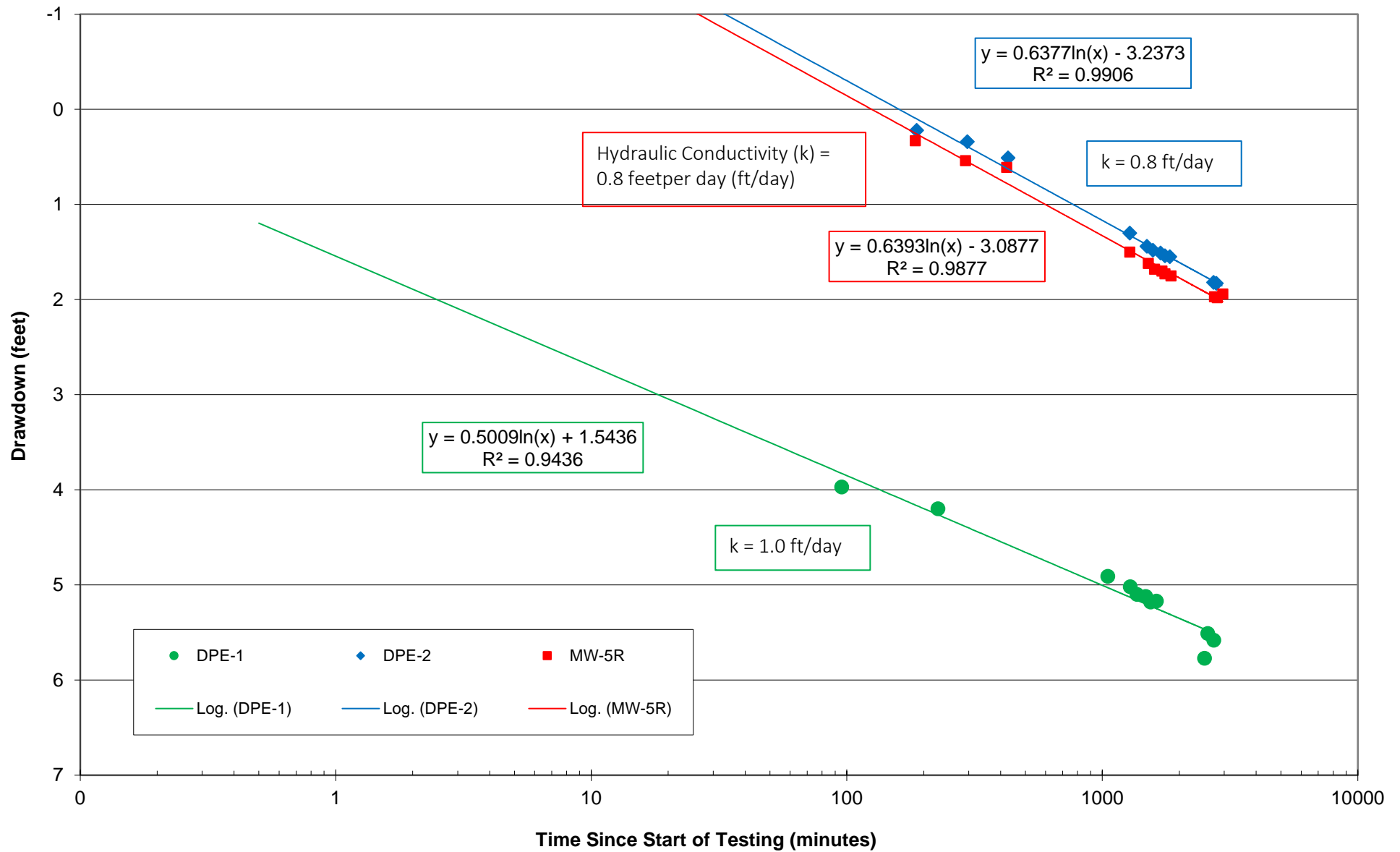
Receiver: B. BarabesPage 3 of 3Date/Time of this check: 12:11:15 Client: CONVERSE CORP. Lab # 5711073 # 3Received on ICE? ☒ * Sample Temperature when delivered to the Lab: 0.3 Acceptable? ☒ * or In cool down process? ☐ *
Custody Seals? ☒ Intact? ☒ * (Not applicable for WV compliance)*COC/Labels on bottles agree? ☒ * Correct containers for all the analysis requested? ☒ * Matrix: water

| COC # | Number and Type of BOTTLES | | | | | | | | | Comments |
|-------|----------------------------|------------|-----------|-------------|-----------------|-----------|--------------------|-------|----------------------------|----------|
| | Poly Non-Pres. | Poly H2SO4 | Poly HNO3 | Amber H2SO4 | Amber Non-Pres. | Poly NaOH | VOCS (Head space?) | Other | Properly Preserved | |
| | | | | | | | | | <input type="checkbox"/> * | |
| 1 | | | | | | | 2-HCl | | | |
| ↓ | | | | | | | | | NA | |
| ↓ | | | | | | | | | | |
| 22 | | | | | | | | | | |
| 23 | | | | | | | | 1-TB | | |
| | | | | | | | | | | |
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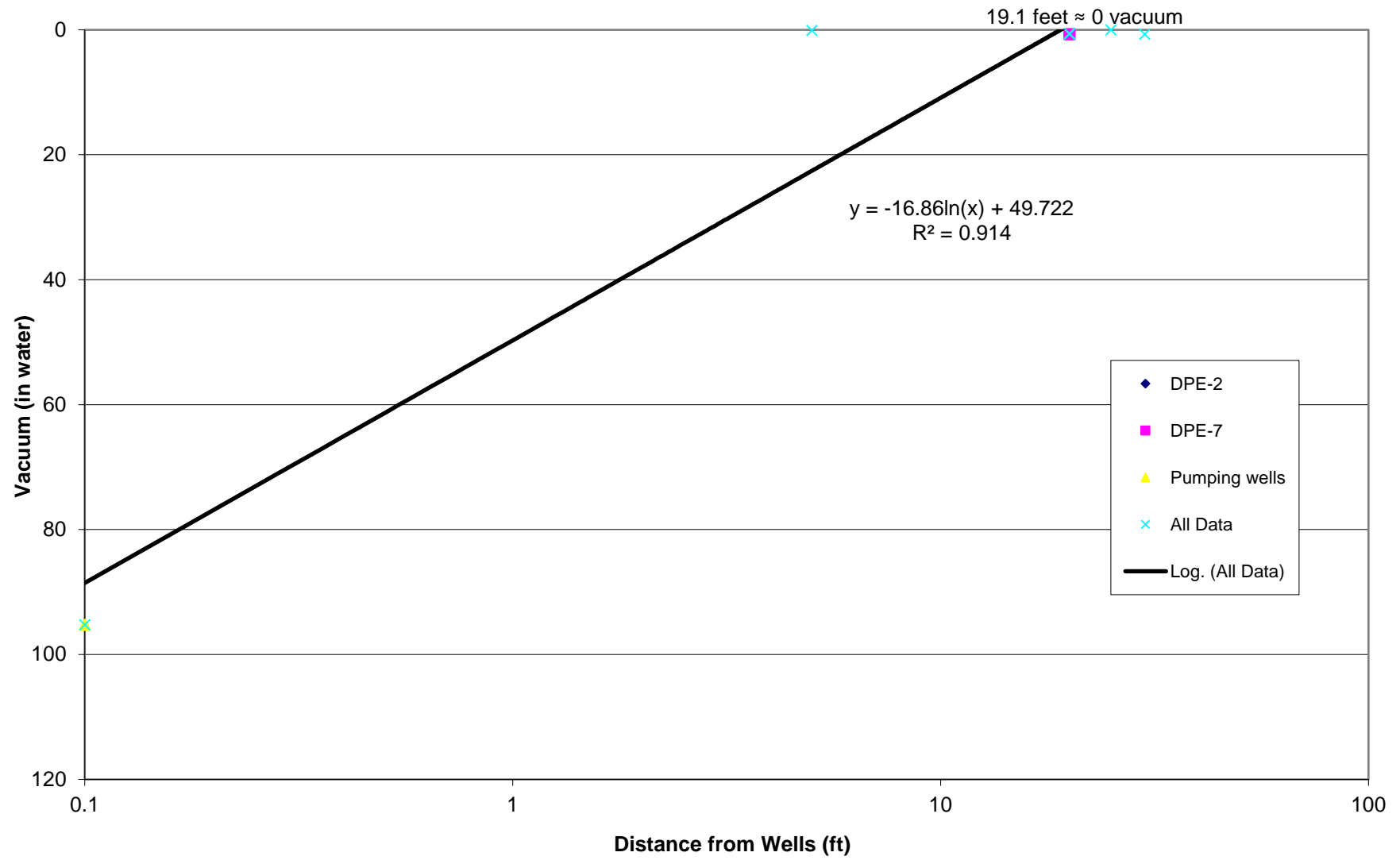
| | | |
|--|---|--|
| * DEVIATION PRESENT: <input checked="" type="checkbox"/> No Ice () <input type="checkbox"/> Not at Proper Temperature () <input type="checkbox"/> Wrong Container () <input type="checkbox"/> Missing Information: () | CLIENT CALLED: YES () By Whom: _____ Date: _____ | CLIENT RESPONSE: Proceed with analysis; qualify data () Will Resample () Provided Information () No Response; Proceed and qualified () Client Contact: _____ Date: _____ |
|--|---|--|

* Comments: _____

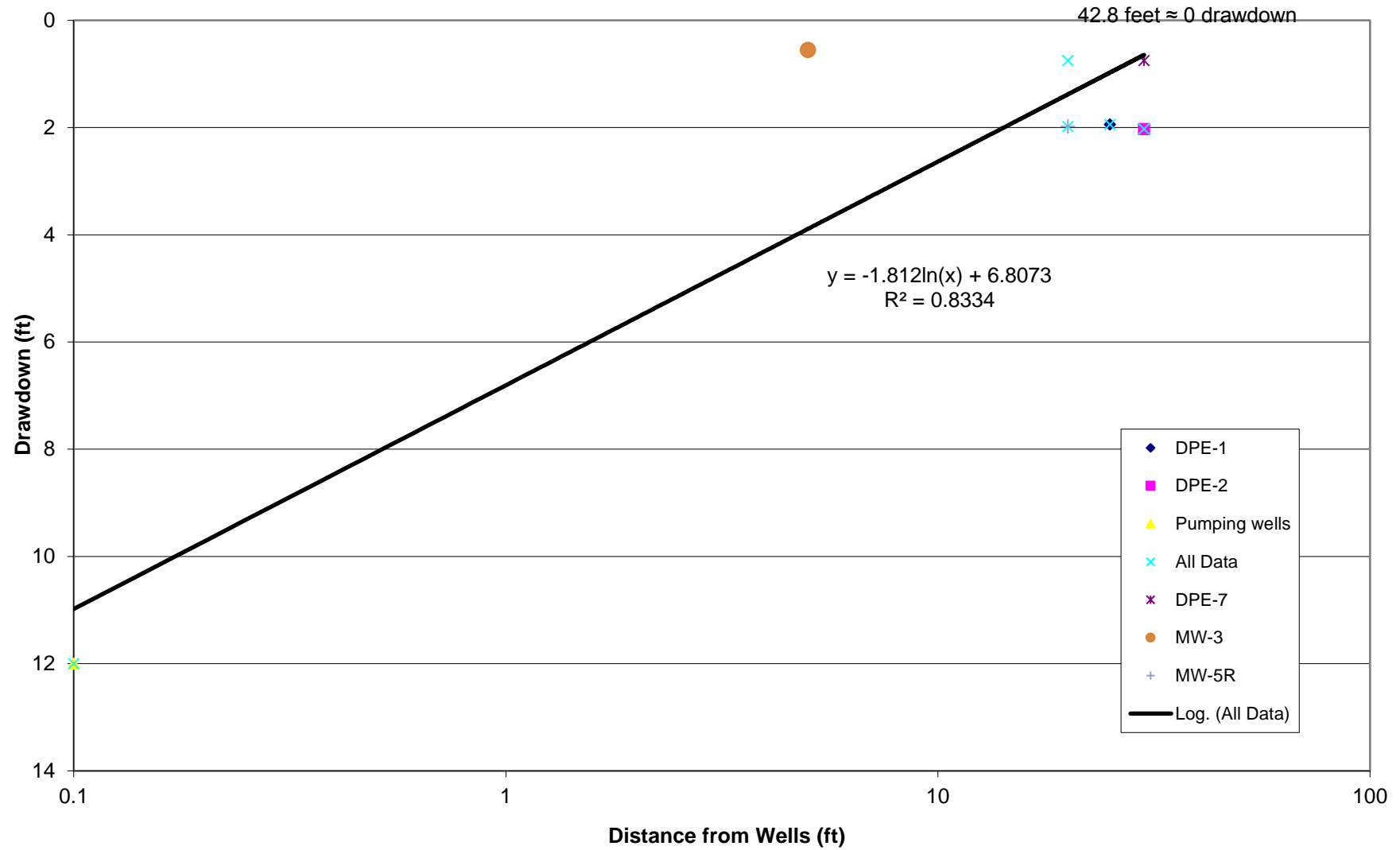
Drawdown Graph for DPE-1, DPE-2, and MW-5R Testing DPE-3, DPE-4, and MW-4



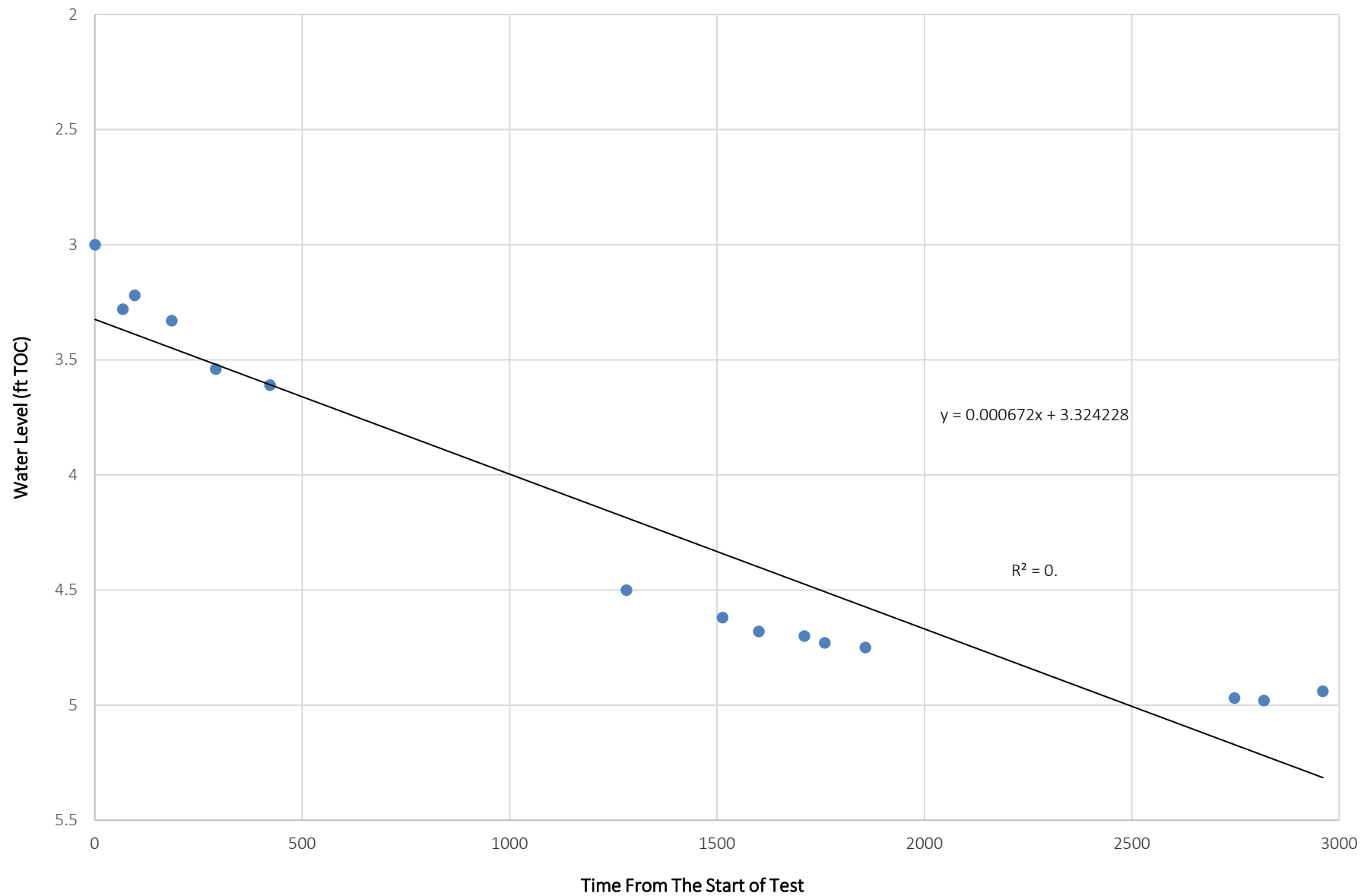
Air Distance Vacuum Graph DPE-3, DPE-4, and MW-4



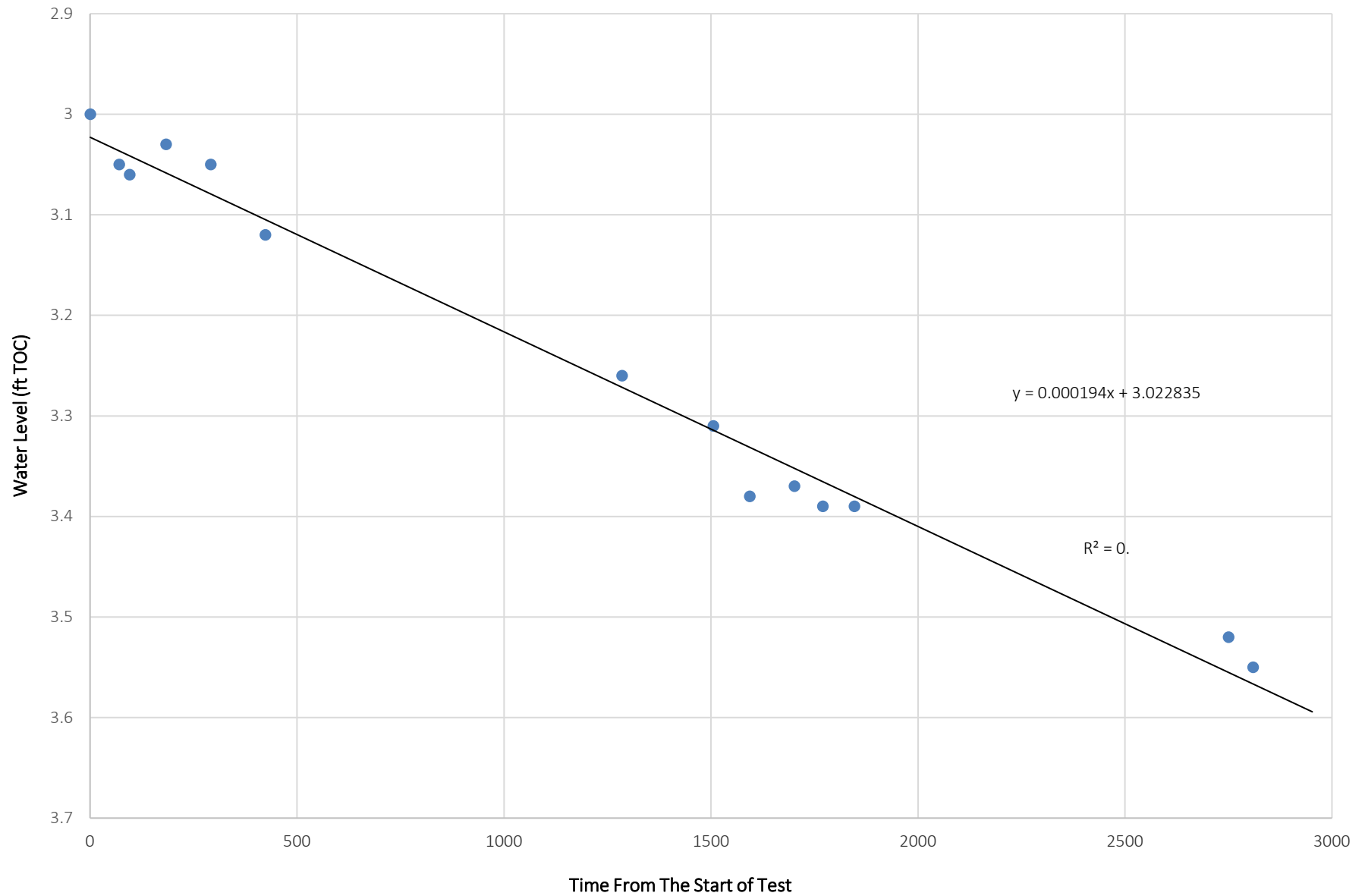
DPE-3, DPE-4, and MW-4



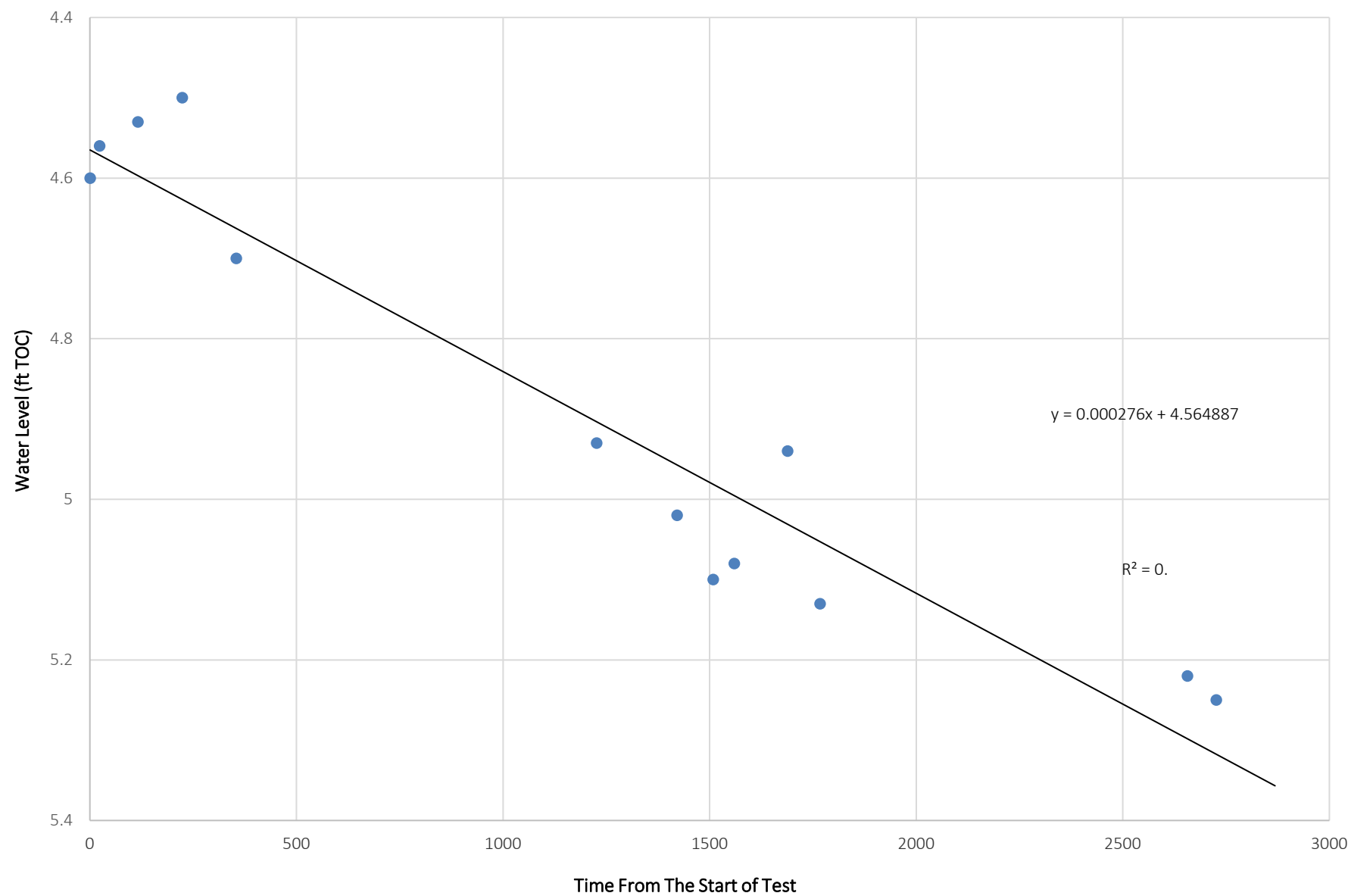
MW-5R Drawdown Testing DPE-3, DPE-4, & MW-4



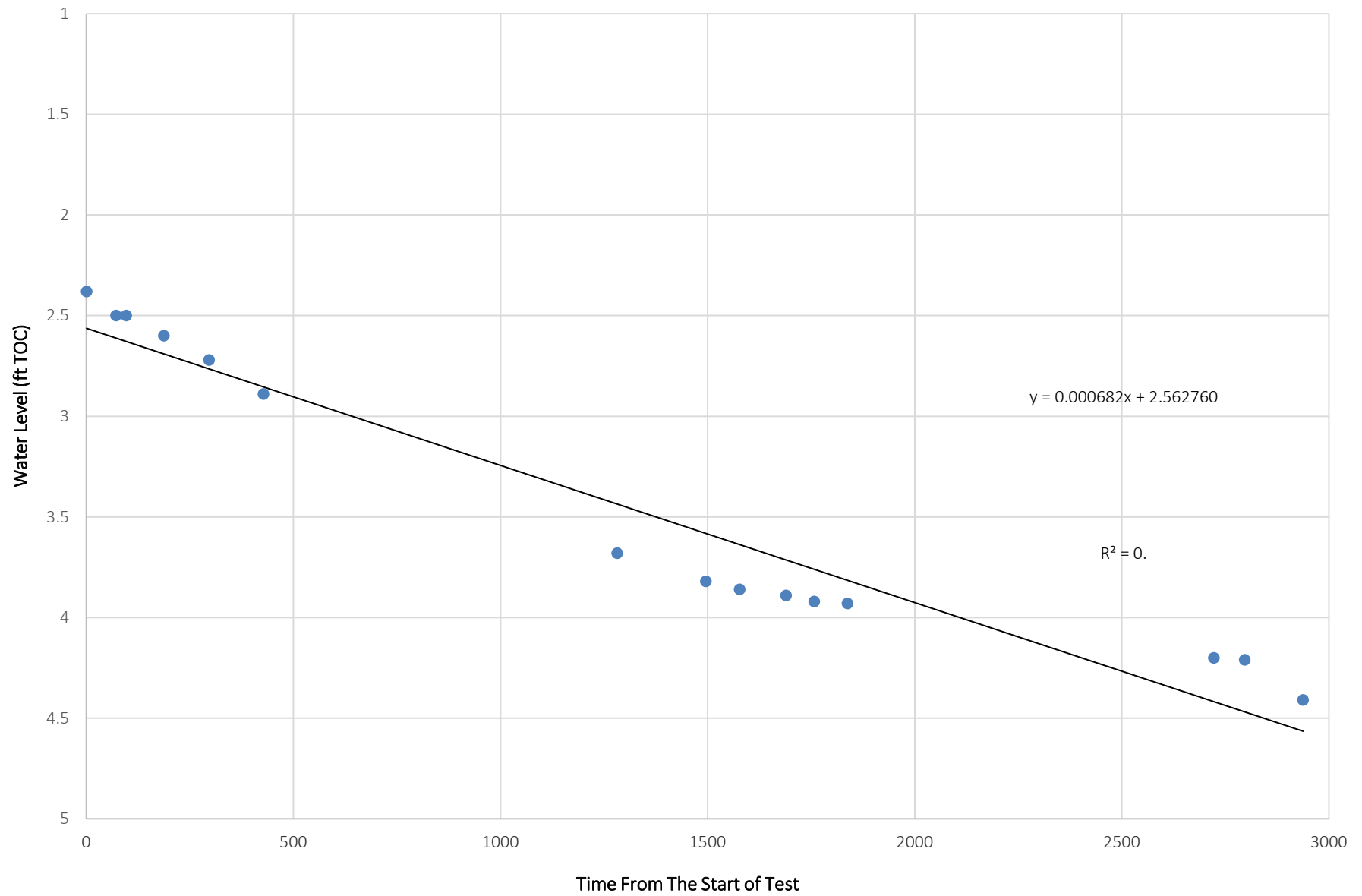
MW-3 Drawdown Testing DPE-3, DPE-4, & MW-4



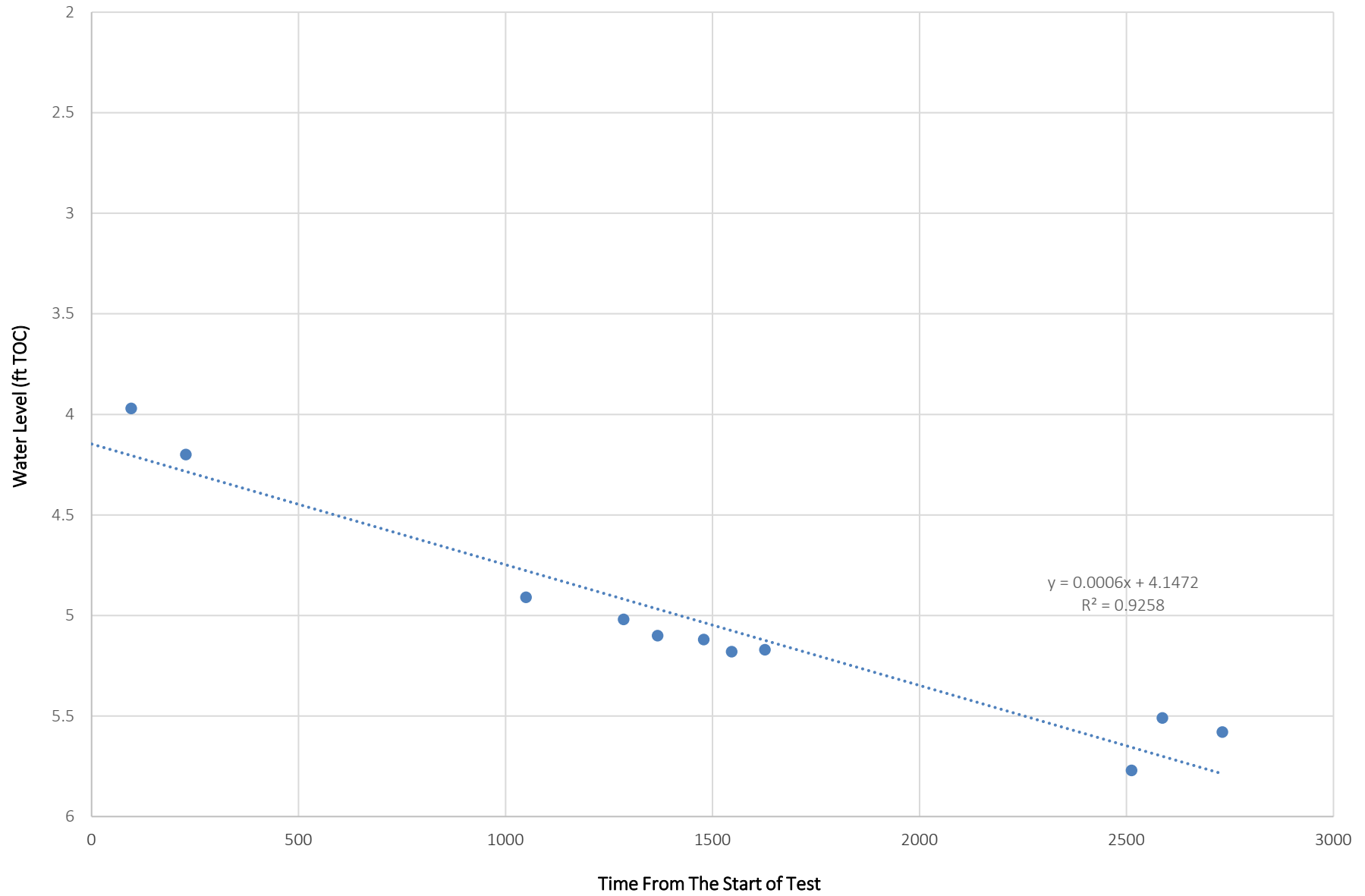
DPE-7 Drawdown Testing DPE-3, DPE-4, & MW-4



DPE-2 Drawdown Testing DPE-3, DPE-4, & MW-4



DPE-1 Drawdown Testing DPE-3, DPE-4, & MW-4



CLIENT Woodloch

PROJECT NAME Rosemergy

PROJECT NUMBER 11-17788-03

PROJECT LOCATION The Market at Woodloch

DATE STARTED 10/29/15 **COMPLETED** 10/29/15

GROUND ELEVATION _____ **HOLE SIZE** 8 inches

DRILLING CONTRACTOR Odyssey Environmental

GROUND WATER LEVELS:

DRILLING METHOD Hollow Stem Auger


AT TIME OF DRILLING ----

LOGGED BY SK, JG CHECKED BY OBC

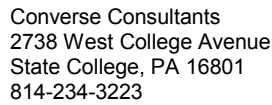
AT END OF DRILLING ---

NOTES

44hrs AFTER DRILLING 6.12 ft

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | ENVIRONMENTAL DATA | WELL DIAGRAM |
|---------------|-----------------------|------------|----------|----------------|--|-----------------------|-------------------|
| 0 | | | | | | | |
| | | | ML | 0.5 | (ML) SILT w/some sandstone cobbles, dark brown (MH) CLAYEY SILT, brown and gray mottled | | Concrete Seal |
| | 17.1 | 100 | MH | 3.0 | | PID = 0 | Bentonite Seal |
| 5 | | | ML | | (ML) SILT, reddish-brown | | |
| | | | | |  | | |
| | 17.2 | 100 | | 7.0 | (SW) GRAVELLY SAND, fine, w/cobbles, wet to moist | PID = 0 | |
| 10 | | | SW | | | PID = 0 | Screened Interval |
| | 17.3 | 100 | | | | | |
| 15 | | | | 15.0 | | | |

Bottom of borehole at 15.0 feet.



PAGE 1 OF 1

| | |
|--|--|
| CLIENT <u>Woodloch</u> | PROJECT NAME <u>Rosemergy</u> |
| PROJECT NUMBER <u>11-17788-03</u> | PROJECT LOCATION <u>The Market at Woodloch</u> |
| DATE STARTED <u>10/28/15</u> COMPLETED <u>10/28/15</u> | GROUND ELEVATION _____ HOLE SIZE <u>8 inches</u> |
| DRILLING CONTRACTOR <u>Odyssey Environmental</u> | GROUND WATER LEVELS: |
| DRILLING METHOD <u>Hollow Stem Auger</u> | AT TIME OF DRILLING <u>---</u> |
| LOGGED BY <u>SK, JG</u> CHECKED BY <u>OBC</u> | AT END OF DRILLING <u>---</u> |
| NOTES _____ | ▽ 65hrs AFTER DRILLING <u>13.13 ft</u> |

[illegible]

Refusal at 18.0 feet.
Bottom of borehole at 18.0 feet.



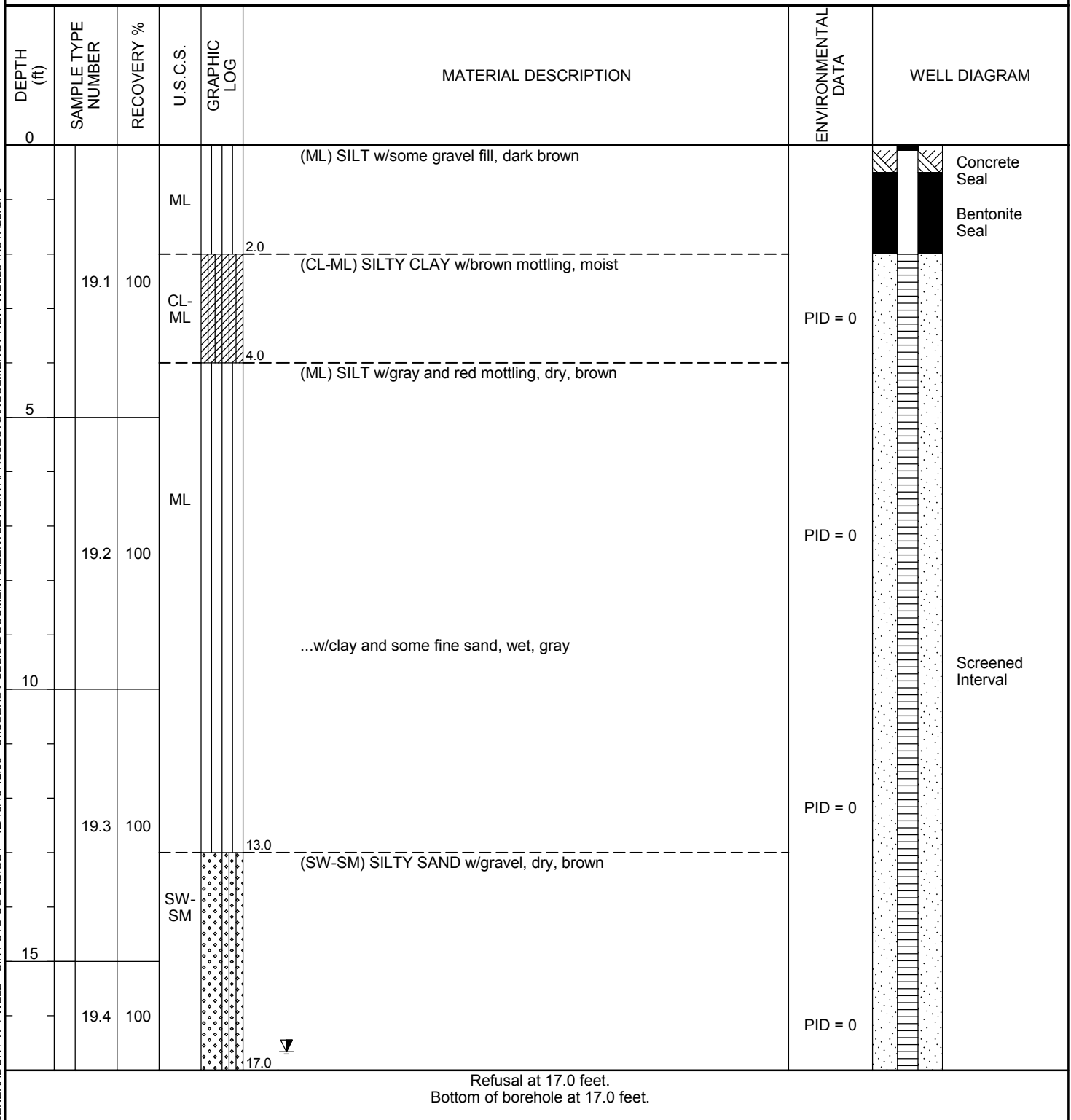
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814-234-3223

WELL NUMBER MW-19

PAGE 1 OF 1

| | | | |
|---------------------|-----------------------|----------------------|------------------------|
| CLIENT | Woodloch | PROJECT NAME | Rosemergy |
| PROJECT NUMBER | 11-17788-03 | PROJECT LOCATION | The Market at Woodloch |
| DATE STARTED | 10/28/15 | COMPLETED | 10/28/15 |
| DRILLING CONTRACTOR | Odyssey Environmental | GROUND ELEVATION | |
| DRILLING METHOD | Hollow Stem Auger | HOLE SIZE | 8 inches |
| LOGGED BY | SK, JG | CHECKED BY | OBC |
| NOTES | | | |
| | | GROUND WATER LEVELS: | |
| | | AT TIME OF DRILLING | --- |
| | | AT END OF DRILLING | --- |
| | | 66hrs AFTER DRILLING | 16.66 ft |

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 12/18/15 12:03 - C:\USERS\PUBLIC\DOCUMENTS\BENTLEY\GINT\PROJECTS\ROSEMERGY NEW WELLS INSTALL.GPJ



CLIENT Woodloch

PROJECT NAME Rosemergy

PROJECT NUMBER 11-17788-03

PROJECT LOCATION The Market at Woodloch

DATE STARTED 10/29/15 **COMPLETED** 10/29/15

GROUND ELEVATION _____ **HOLE SIZE** 8 inches

DRILLING CONTRACTOR Odyssey Environmental

GROUND WATER LEVELS:

DRILLING METHOD Hollow Stem Auger

AT TIME OF DRILLING ---

LOGGED BY SK, JG **CHECKED BY** OBC

AT END OF DRILLING ---

NOTES

▽ 40hrs AFTER DRILLING 1.34 ft

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | ENVIRONMENTAL DATA | WELL DIAGRAM |
|---------------|-----------------------|------------|----------|----------------|---|-----------------------|--------------|
| 0 | | | | | | | |
| | 20.1 | 100 | GW | | (GW) SANDY GRAVEL w/silt, fine, dry, brown ▽ | | |
| 5 | | | | | | | |
| | 20.2 | 100 | SW-SM | | (SW-SM) SILTY SAND, fine, dry, brown ...wet | | |
| 10 | | | | | | | |
| | 20.3 | 100 | GW | | (GW) SANDY GRAVEL, fine, wet, brown | | |
| | | | SW-SM | | (SW-SM) SILTY SAND w/some pockets of gravel and clay, fine, wet, brown with some green and red mottling | | |
| 15 | | | | | | | |

Bottom of borehole at 15.0 feet.



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WELL NUMBER MW-21

PAGE 1 OF 1

| | | | |
|---------------------|-----------------------|----------------------|------------------------|
| CLIENT | Woodloch | PROJECT NAME | Rosemergy |
| PROJECT NUMBER | 11-17788-03 | PROJECT LOCATION | The Market at Woodloch |
| DATE STARTED | 10/29/15 | COMPLETED | 10/29/15 |
| DRILLING CONTRACTOR | Odyssey Environmental | GROUND ELEVATION | |
| DRILLING METHOD | Hollow Stem Auger | HOLE SIZE | 8 inches |
| LOGGED BY | SK, JG | CHECKED BY | OBC |
| NOTES | | | |
| | | GROUND WATER LEVELS: | |
| | | AT TIME OF DRILLING | --- |
| | | AT END OF DRILLING | --- |
| | | 42hrs AFTER DRILLING | 1.20 ft |

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 12/18/15 12:03 - C:\USERS\PUBLIC\DOCUMENTS\BENTLEY\GINT\PROJECTS\ROSEMERGY NEW WELLS INSTALL.GPJ

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | ENVIRONMENTAL DATA | WELL DIAGRAM |
|---------------|-----------------------|------------|----------|----------------|---|-----------------------|--------------|
| 0 | | | | | | | |
| | 21.1 | 100 | GW | | (GW) SANDY GRAVEL w/silt, fine, dry, brown ▼ | PID = 0 | |
| 5 | 21.2 | 100 | SW-SM | | (SW-SM) SILTY SAND, fine, dry, brown | PID = 0 | |
| 10 | 21.3 | 100 | GW | | (GW) SANDY GRAVEL, fine, wet, brown ...w/more silt | PID = 0 | |
| 15 | | | | | Bottom of borehole at 15.0 feet. | | |



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WELL NUMBER MW-22

PAGE 1 OF 1

| | |
|--|--|
| CLIENT <u>Woodloch</u> | PROJECT NAME <u>Rosemergy</u> |
| PROJECT NUMBER <u>11-17788-03</u> | PROJECT LOCATION <u>The Market at Woodloch</u> |
| DATE STARTED <u>10/29/15</u> COMPLETED <u>10/29/15</u> | GROUND ELEVATION _____ HOLE SIZE <u>8 inches</u> |
| DRILLING CONTRACTOR <u>Odyssey Environmental</u> | GROUND WATER LEVELS: |
| DRILLING METHOD <u>Hollow Stem Auger</u> | AT TIME OF DRILLING <u>---</u> |
| LOGGED BY <u>SK, JG</u> CHECKED BY <u>OBC</u> | AT END OF DRILLING <u>---</u> |
| NOTES _____ | 44hrs AFTER DRILLING <u>0.67 ft</u> |

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 12/18/15 12:03 - C:\USERS\PUBLIC\DOCUMENTS\BENTLEY\GINT\PROJECTS\ROSEMERGY NEW WELLS INSTALL.GPJ

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | ENVIRONMENTAL DATA | WELL DIAGRAM |
|---------------|-----------------------|------------|----------|----------------|---|-----------------------|--------------|
| 0 | | | | | | | |
| | 22.1 | 100 | GW | | (GW) SANDY GRAVEL w/silt, fine, dry, brown ▼ | PID = 0 | |
| 5 | | | | | | | |
| | 22.2 | 100 | SW-SM | | (SW-SM) SILTY SAND, fine, dry, brown | PID = 0 | |
| 10 | | | | | | | |
| | 22.3 | 100 | GW | | (GW) SANDY GRAVEL, fine, wet, brown | PID = 0 | |
| | | | SW-SM | | (SW-SM) SILTY SAND w/gravel (more with depth) | PID = 0 | |
| 15 | | | | | | | |

Bottom of borehole at 15.0 feet.

Soil Gas Data Unit Conversion

The analytical method measures constituent concentrations in ppbv or parts per million per volume (ppmv). Concentrations in mg/m^3 are calculated using the following formula:

$$1 \text{ ppmv} = (\text{MW}/\text{ATCF}) (\text{mg}/\text{m}^3)$$

where:

MW = molecular weight of the compound

ATCF = appropriate temperature conversion factor (ATCF).

The ATCF is temperature dependent, and calculated using the ideal gas law:

$$\text{ATCF} = ^\circ\text{K} \times 0.0821$$

where:

$$^\circ\text{C} = (5/9)(^\circ\text{F}-32)$$

$$^\circ\text{K} = ^\circ\text{C} + 273$$

An example calculation for a hypothetical sample is presented below. Benzene was reported at concentrations of 2.5 ppbv and $8 \mu\text{g}/\text{m}^3$ ($0.008 \text{ mg}/\text{m}^3$).

If:

Benzene = 2.5 ppbv (0.0025 ppmv)

Benzene MW = 78.11 grams per mole

Laboratory assumed sample temperature = 20°C

then:

$$^\circ\text{K} = 20^\circ\text{C} + 273 = 293^\circ\text{K}$$

$$\text{ATCF} = 293^\circ\text{K} \times 0.0821 = 24.06$$

$$0.0025 \text{ ppmv} = 0.0025 (78.11/24.06) \text{ mg}/\text{m}^3 = 0.00811 \text{ mg}/\text{m}^3.$$

However, the laboratory assumed temperature is generally not the temperature at the time or location of sample collection. The sampling temperature is assumed to be 11.1°C , the average soil temperature used by PADEP as an input parameter for the Johnson and Ettinger Model (PADEP, 2004: Table 8). Using the average assumed temperature, the benzene concentration in mg/m^3 is:

$$^{\circ}\text{K} = 11.10^{\circ}\text{C} + 273 = 284.1^{\circ}\text{K}$$

$$\text{ATCF} = 284.1^{\circ}\text{K} \times 0.0821 = 23.32$$

$$0.0025 \text{ ppmv} = 0.0025 (78.11/23.32) \text{ mg/m}^3 = 0.00837 \text{ mg/m}^3.$$

The calculated concentration in mg/m^3 using the assumed average soil temperature is greater than the calculated concentration using the laboratory assumed sample temperature. The calculations demonstrate an inverse relationship between temperature and calculated concentrations. However, the temperature corrected result is only 3 percent different than the reported concentration.

No reported concentration was within 3 percent of the RMSC_{SG} .